



# The Raven

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VSO Annual Meeting - Blacksburg - May 2 & 3

## VIRGINIA CHRISTMAS BIRD COUNTS, 1957-1958

Readers will note an unusually large number of rare or accidental birds printed in the following Christmas counts. Most of these have been accompanied, when submitted to the editors, by more or less detailed notes explaining the occurrence of these birds, a practice appreciated by the editors. It is important to remember, however, that a Christmas count is essentially a study of the relative abundances of birds in a given locality, and it is thus no place for detailed accounts of rare birds.

Publication of an unusual record in a Christmas count does not mean that the record is "accepted" by any high-ranking committee, and any such record would automatically be rejected by a future compiler unless there was supporting evidence, such as a specimen or a more detailed note in The Raven. Unfortunately, in the past many observers have considered their responsibility ended when their record appeared in a Christmas count, and thus many probably valid records have had to be rejected for lack of any substantiation.

Chincoteague National Wildlife Refuge, Va. (same area as last 3 years; open farmland 5%, pine and mixed woodlands 25%, low pine and myrtle 15%, fresh-water marshes and impoundments 15%, salt marshes 10%, sheltered bays 15%, dunes 3%, mud and sand flats 7%, ocean beach 5%). - Dec. 27; 5:30 a.m. to 6:30 p.m. Clear; temp. 40° to 52°; wind WNW, 2-10 m.p.h.; ground bare, water open. Eight observers in 4 to 6 parties. Total party-hours, 47 (40 on foot, 3 by car, 4 by motorboat); total party-miles, 106 (33 on foot, 60 by car, 13 by boat). Common Loon, 69; Red-throated Loon, 53; Horned Grebe, 717; Pied-billed Grebe, 7; Gannet, 9; Great Blue Heron, 45; Am. Egret, 2; Green Heron, 1 (J.T.); Black-crowned Night Heron, 10; Whistling Swan, 6; Canada Goose, 232; Am. Brant, 4400; Snow Goose, 40; Mallard, 254; Black Duck, 4500; Gadwall, 550; Am. Widgeon, 2200; Pintail, 1050; Green-winged Teal, 330; Shoveller, 450; Redhead, 2; Ring-necked Duck, 12; Greater Scaup, 2; American Golden-eye, 104; Bufflehead, 99; Old-squaw, 88; White-winged Scoter, 11; Surf Scoter, 404; Am. Scoter, 104; Ruddy Duck, 125; Hooded Merganser, 21; Red-breasted Merganser, 37; Turkey Vulture, 101; Sharp-shinned Hawk, 2; Cooper's Hawk, 1; Red-tailed Hawk, 5; Red-shouldered Hawk, 1; Rough-legged Hawk, 1 (G.P., H.S., C.C.S.); Bald Eagle, 1; Marsh Hawk, 18; Pigeon Hawk, 1 (W.N., J.W.); Sparrow Hawk, 17; Bob-white, 3; Clapper Rail, 14; Virginia Rail, 28 (J.T.); Am. Coot, 4; Killdeer, 13; Black-bellied Plover, 352; Ruddy Turnstone, 5 (P.A.D.); Wilson's Snipe, 16; Greater Yellow-legs, 7; Lesser Yellow-legs, 3; Red-backed Sandpiper, 3308; dowitcher (sp.), 7 (J.T.); Semipalmated Sandpiper, 35; Western Sandpiper, 5; Marbled Godwit, 2 (reported by 2 parties some 6 miles apart - P.A.D., W.N., J.T., J.W.); Sanderling, 380; Great Black-backed Gull, 15; Herring Gull, 675; Ring-billed Gull, 134; Bonaparte's Gull, 13; Royal Tern, 1 (P.A.D.); Mourning Dove, 125; Horned Owl, 4; Short-eared Owl, 2; Belted Kingfisher, 13; Yellow-shafted Flicker, 42; Red-bellied Woodpecker, 3; Hairy Woodpecker, 4; Downy Woodpecker, 19; Horned Lark, 21; Tree Swallow, 124; Blue Jay, 1; Am. Crow, 11,000; Fish Crow, 500; Carolina Chickadee, 13; Tufted Titmouse, 5; Red-breasted Nuthatch, 1; Brown-headed Nuthatch, 32; Brown Creeper, 6; House Wren, 2;

Winter Wren, 2; Carolina Wren, 23; Long-billed Marsh Wren, 17; Short-billed Marsh Wren, 2; Mockingbird, 11; Catbird, 5; Brown Thrasher, 11; Am. Robin, 1; Hermit Thrush, 5; Golden-crowned Kinglet, 26; Ruby-crowned Kinglet, 9; Loggerhead Shrike, 1; Common Starling, 900; Myrtle Warbler, 1176; Palm Warbler, 7; Common Yellowthroat, 1; House Sparrow, 19; Eastern Meadowlark, 184; Red-winged Blackbird, 1704; Boat-tailed Grackle, 83; Brown-headed Cowbird, 32; Cardinal, 89; Am. Goldfinch, 94; Eastern Towhee, 19; Ipswich Sparrow, 1; Savannah Sparrow, 20; Sharp-tailed Sparrow, 1; Am. Tree Sparrow, 15; Chipping Sparrow, 2; Field Sparrow, 56; White-throated Sparrow, 304; Fox Sparrow, 3; Swamp Sparrow, 110; Song Sparrow, 188. Total, 116 species; about 38, 433 individuals. - P.A. DuMont, William Noble, Miss Gertrude Prior, F.R. Scott (compiler), C.C. Steirly, Miss Harriet Sutton, John Terborgh, John Weske.

Chesapeake Bay, Va. (a strip census 15 miles long, taken from the Little Creek-Kiptopeke Beach Ferry just within the mouth of Chesapeake Bay; no closer than 2 miles to land; open water 100%). - Dec. 28; 9:10 to 10:20 a.m. Overcast; temp. 49°; wind SE, 10 m.p.h.; water surface moderate. Two observers together. Total party-hours, 1.17 (by boat); total party-miles, 15 (by boat). Common Loon, 2; Red-throated Loon, 39; Horned Grebe, 2097; Gannet, 85; White-winged Scoter, 3; Surf Scoter, 225; Red-breasted Merganser, 31; Great Black-backed Gull, 9; Herring Gull, 73; Bonaparte's Gull, 1. Total, 10 species; about 2565 individuals. - Miss Gertrude Prior, F.R. Scott (compiler), C.C. Steirly.

Newport News, Va. (7½ mile radius bounded by Chesapeake Bay, Hampton Roads, James River, Grafton; woodland 30%, open fields 30%, fresh-water ponds 10%, waterfront 30%). Dec. 28; 7 a.m. to 4 p.m.; partly cloudy; temp. 40° to 60°; wind SE, 5-15 m.p.h.; ground bare, water open. Twenty-three observers in 7 parties. Total party-hours, 60 (40 on foot, 20 by car), total party-miles 335 (47 on foot, 288 by car). Common Loon, 19; Red-throated Loon, 2; Red-necked Grebe, 1; Horned Grebe, 134; Pied-billed Grebe, 25; Gannet, 50; Double-crested Cormorant, 15; Great Blue Heron, 8; Yellow-crowned Night Heron, 1; Snowy Egret, 1; Canada Goose, 30; Mallard, 36; Black Duck, 27; Gadwall, 2; American Wigeon, 880; Green-winged Teal, 4; Redhead, 3; Ring-necked Duck, 5; Canvasback, 1; Lesser Scaup, 38; American Golden-eye, 64; Bufflehead, 79; Oldsquaw, 4; Surf Scoter, 112; American Scoter, 5; Ruddy Duck, 135; American Merganser, 26; Red-breasted Merganser, 73; Turkey Vulture, 10; Black Vulture, 5; Sharp-shinned Hawk, 2; Red-shouldered Hawk, 1; Bald Eagle, 1; Pigeon Hawk, 1; Sparrow Hawk, 26; Bob-white, 18; Clapper Rail, 4; Sora, 2; American Coot, 1; Killdeer, 47; Black-bellied Plover, 5; Wilson's Snipe, 20; Red-backed Sandpiper, 131; Semipalmated Sandpiper, 2; Sanderling, 35; Great Black-backed Gull, 16; Herring Gull, 1056; Ring-billed Gull, 253; Laughing Gull, 10; Bonaparte's Gull, 34; Forster's Tern, 30; Mourning Dove, 6; Belted Kingfisher, 11; Yellow-shafted Flicker, 22; Pileated Woodpecker, 1; Red-bellied Woodpecker, 12; Red-headed Woodpecker, 1; Yellow-bellied Sapsucker, 2; Hairy Woodpecker, 1; Downy Woodpecker, 16; Tree Swallow, 5; Eastern Phoebe, 1; Blue Jay, 3; American Crow, 122; Fish Crow, 5; Carolina Chickadee, 70; Tufted Titmouse, 40; White-breasted Nuthatch, 5; Brown-headed Nuthatch, 5; Brown Creeper, 7; House Wren, 1; Winter Wren, 1; Carolina Wren, 81; Long-billed Marsh Wren, 1; Short-billed Marsh Wren, 3;

Mockingbird, 126; Brown Thrasher, 7; American Robin, 205; Hermit Thrush, 4; Eastern Bluebird, 92; Golden-crowned Kinglet, 20; Ruby-crowned Kinglet, 3; Cedar Waxwing, 1; Loggerhead Shrike, 1; Common Starling, 1760; Myrtle Warbler, 375; Pine Warbler, 8; House Sparrow, 521; Eastern Meadowlark, 210; Red-winged Blackbird, 366; Baltimore Oriole, 2; Purple Grackle, 25; Brown-headed Cowbird, 8; Cardinal, 77; Pine Siskin, 18; American Goldfinch, 219; Eastern Towhee, 25; Ipswich Sparrow, 1; Savannah Sparrow, 12; Seaside Sparrow, 1; Slate-colored Junco, 421; Field Sparrow, 62; White-throated Sparrow, 309; Fox Sparrow, 50; Swamp Sparrow, 3; Song Sparrow, 100; Snow Bunting, 50; Total, 107 species; 8994 individuals.- Alice Chapin, Margaret Clark, P.H. Clark, Georgianna Cumming, Jimmy Dearing, Jacoba Van Eys, John Grey, C.W. Hacker, M.E. Hathaway, Emmy Lou Machen, S. Mitchell, E.R. Neumann, N. Pope, Mr. and Mrs. C. Saunders, Mike Serig, Doris Smith, W.P. Smith (compiler), Walt Smith, Timmy Sniffen, Mary Alice Talbott, John D. Williams, Jay Williams.

Yellow-crowned Night Heron has been regular in past winters; a single Snowy Egret has wintered on a creek in Hampton for past several winters; but this is the first time on Christmas count; Sora walked out of marsh along dike in plain view; Semipalmated Sandpiper is occasional in winter; Forster's Terns apparently present even in cold winters; Baltimore Oriole wintering near Mariner's Museum since 1953.

Little Creek, Va., ( $7\frac{1}{2}$  mile radius centering  $1\frac{1}{2}$  miles NE of Kempsville, including Lynnhaven Inlet, Little Creek, eastern portion of Norfolk City, Stumpy Lake; open farmland 25%, pine woodland 10%, deciduous woodland 50%, salt marsh, sand beach, bay, rivers 10%, city suburbs 5%). Dec. 26; 5:30 a.m. to 6 p.m. Rainy all morning, clearing in late afternoon, very windy all day; temp.  $61^{\circ}$  to  $50^{\circ}$ ; wind S to W, 10-46 m.p.h.; ground bare and water open, precipitation, .97 inches. Nine observers in 4 parties. Total party-hours,  $43\frac{1}{2}$  (11 on foot,  $32\frac{1}{2}$  by car), total party-miles, 590 (14 on foot, 576 by car). Common Loon, 6; Red-throated Loon, 5; Horned Grebe, 128; Pied-billed Grebe, 28; Gannet, 51; Double-crested Cormorant, 2; Great Blue Heron, 18; American Egret, 1; Black-crowned Night Heron, 1; Canada Goose, 37; Mallard, 32; Black Duck, 79; Pintail, 28; Green-winged Teal, 25; Ring-necked Duck, 16; Canvas-back, 19; Greater Scaup, 1; Lesser Scaup, 75; American Golden-eye, 71; Buffle-head, 22; Old-squaw, 2; Common Eider, 1 (P.S., H.H.); White-winged Scoter, 2; Surf Scoter, 70; Am. Scoter, 8; Ruddy Duck, 20; Hooded Merganser, 8; Am. Merganser, 3; Red-breasted Merganser, 6, 692; Turkey Vulture, 16; Black Vulture, 6; Cooper's Hawk, 1; Red-tailed Hawk, 7; Red-shouldered Hawk, 12; Bald Eagle, 4; Marsh Hawk, 5; Peregrine Falcon, 1; Sparrow Hawk, 43; Bob-white, 33; Clapper Rail, 15; Am. Coot, 9; Killdeer, 362; Black-bellied Plover, 3; Wilson's Snipe, 25; Purple Sandpiper, 3 (P.W.S., H.H.); Red-backed Sandpiper, 19; Sanderling, 68; Great Black-backed Gull, 52; Herring Gull, 1,952; Ring-billed Gull, 6,158; Laughing Gull, 2; Bonaparte's Gull, 41; Forster's Tern, 30; Common Tern, 1 (R.H.P.); Royal Tern, 2 (2 parties); Mourning Dove, 232; Barred Owl, 2; Belted Kingfisher, 10; Yellow-shafted Flicker, 43; Pileated Woodpecker, 6; Red-bellied Woodpecker, 19; Red-headed Woodpecker, 3; Yellow-bellied Sapsucker, 6; Hairy Woodpecker, 5; Downy Woodpecker, 23; Ash-throated Flycatcher, 1 (W.F.R., F.C.R.); Eastern Phoebe, 5; Blue Jay, 9; Am. Crow, 532; Fish Crow, 89; Carolina Chickadee, 49; Tufted Titmouse, 53; White-breasted Nuthatch, 4; Brown-headed Nuthatch, 50; Brown Creeper, 3; House Wren, 4; Winter Wren, 4; Carolina Wren, 56; Mockingbird, 62; Catbird, 1; Brown Thrasher, 6;

Am. Robin, 59; Eastern Bluebird, 73; Golden-crowned Kinglet, 17; Ruby-crowned Kinglet, 12; Water Pipit, 10; Cedar Waxwing, 11; Loggerhead Shrike, 4; Common Starling, 1,712; Myrtle Warbler, 433; Pine Warbler, 11; Palm Warbler, 12; House Sparrow, 265; Eastern Meadowlark, 688; Red-winged Blackbird, 22,707; Purple Grackle, 205; Brown-headed Cowbird, 86; Cardinal, 134; Pine Siskin, 3; Am. Goldfinch, 236; Eastern Towhee, 39; Ipswich Sparrow, 3; Savannah Sparrow, 20; Sharp-tailed Sparrow, 7; Slate-colored Junco, 282; Am. Tree Sparrow, 1; Chipping Sparrow, 15; Field Sparrow, 294; White-throated Sparrow, 340; Fox Sparrow, 14; Lincoln's Sparrow, 1 (R.H.P., M.T.G.); Swamp Sparrow, 63; Song Sparrow, 96; Lapland Longspur, 1 (R.H.P.). Total, 114 species; about 45,448 individuals. - William Efird, M.T. Griffin, Henry Hesperheide, R.H. Peake, Jr., F.C. Richardson, W.F. Rountrey, P.W. Sykes, Jr. (compiler), Edward Webster, Jr., J.R. Withrow.

Norfolk Co., Va. (7½-mile radius centering about 6½ miles NE of Wallaceon, including eastern edge of Dismal Swamp, western part of Northwest River, Great Bridge, Butts Station, Fentress, Deep Creek; open farmland 30%, wooded swampland 24%, mixed woodland 30%, deciduous woodland 5%, marsh 1%, pine woodland 10%). - Jan. 1; 6 a.m. to 5 p.m. Cloudy and rainy; temp. 44° to 47°; wind SW, 0-12 m.p.h.; ground bare and water open. Ten observers in 4 parties. Total party-hours, 32½ (16 on foot, 16½ by car), total party-miles, 266 (14 on foot, 252 by car). Pied-billed Grebe, 2; Great Blue Heron, 1; American Bittern, 1; Canada Goose, 15; Mallard, 5; Black Duck, 345; Wood Duck, 4; Turkey Vulture, 1; Black Vulture, 14; Red-tailed Hawk, 8; Red-shouldered Hawk, 20; Bald Eagle, 2; Marsh Hawk, 2; Pigeon Hawk, 1; Sparrow Hawk, 37; Bob-white, 91; Clapper Rail, 1; Killdeer, 264; Am. Woodcock, 2 (R.H.P.); Wilson's Snipe, 9; Herring Gull, 8; Ring-billed Gull, 246; Mourning Dove, 156; Screech Owl, 1; Barred Owl, 2; Belted Kingfisher, 5; Yellow-shafted Flicker, 108; Pileated Woodpecker, 17; Red-bellied Woodpecker, 30; Yellow-bellied Sapsucker, 7; Hairy Woodpecker, 12; Downy Woodpecker, 90; Eastern Phoebe, 9; Blue Jay, 42; Am. Crow, 979; Fish Crow, 496; Carolina Chickadee, 141; Tufted Titmouse, 110; White-breasted Nuthatch, 2; Brown-headed Nuthatch, 5; Brown Creeper, 8; House Wren, 10; Winter Wren, 6; Carolina Wren, 154; Mockingbird, 74; Catbird, 24; Brown Thrasher, 14; Am. Robin, 6,168; Hermit Thrush, 9; Eastern Bluebird, 79; Golden-crowned Kinglet, 23; Ruby-crowned Kinglet, 18; Water Pipit, 1; Cedar Waxwing, 31; Loggerhead Shrike, 2; Common Starling, 50,000; Myrtle Warbler, 1,175; Pine Warbler, 24; Palm Warbler, 4; Common Yellowthroat, 1; House Sparrow, 121; Eastern Meadowlark, 346; Red-winged Blackbird, 8,000,000; Rusty Blackbird, 182; Purple Grackle, 2,000,000; Brown-headed Cowbird, 100,000; Cardinal, 381; Purple Finch, 23; Pine Siskin, 7; Am. Goldfinch, 1,315; Eastern Towhee, 234; Savannah Sparrow, 110; Slate-colored Junco, 647; Am. Tree Sparrow, 5; Chipping Sparrow, 80; Field Sparrow, 186; White-throated Sparrow, 4,038; Fox Sparrow, 72; Lincoln's Sparrow, 3 (R.H.P.); Swamp Sparrow, 232; Song Sparrow, 298. Total, 81 species; about 10,169,196 individuals. - Dr. & Mrs. W.G. Akers, P.S. Dulaney, Miss Anna Grimm, Miss Gisela Grimm, Henry Hesperheide, R.H. Peake, Jr., W.F. Rountrey, P.W. Sykes, Jr. (compiler), Edward Webster.

Back Bay National Wildlife Refuge, Va. (same area as in previous years, refuge and much of mainland of Princess Anne County; open farmland 20%, pine woodland 10%, deciduous woodland 20%, open beach 5%, marshes and inland bay 45%). - Dec. 23; 5:30 a.m. to 5 p.m. Partly cloudy; temp. 39° to 59°; wind SW, 0-8 m.p.h.; ground bare and water open. Fifteen observers in 7 parties. Total party-hours, 71 (36 on foot, 33 by car, 2 by boat), total party-miles, 384 (46 on foot, 323 by car, 15 by boat). Common Loon, 26; Red-throated Loon, 6; Horned Grebe, 51; Pied-billed Grebe, 6; Brown Pelican, 1 (P.W.S.); Gannet, 8; Great Blue Heron, 8; Am. Egret, 1; Black-crowned Night Heron, 2; Am. Bittern, 4; Whistling Swan, 1,650; Canada Goose, 6,800; Snow Goose, 10,500; Blue Goose, 3; Mallard, 1,500; Black Duck, 2,355; Am. Widgeon, 1,600; Pintail, 810; Green-winged Teal, 60; Blue-winged Teal, 11; Shoveller, 50; Wood Duck, 2; Redhead, 432; Ring-necked Duck, 615; Canvas-back, 130; Lesser Scaup, 460; Am. Golden-eye, 13; Buffle-head, 2; Old-squaw, 1; King Eider, 2 (P.W.S.); White-winged Scoter, 1; Surf Scoter, 28; Am. Scoter, 4; Ruddy Duck, 78; Hooded Merganser, 2; Red-breasted Merganser, 279; Turkey Vulture, 52; Black Vulture, 66; Sharp-shinned Hawk, 1; Cooper's Hawk, 1; Red-tailed Hawk, 6; Red-shouldered Hawk, 7; Broad-winged Hawk, 1 (Mrs. W.G.A., G.G., A.G., M.F.M.); Bald Eagle, 11; Marsh Hawk, 37; Pigeon Hawk, 1; Sparrow Hawk, 73; Bob-white, 22; King Rail, 2; Sora, 2 (W.F.R.); Florida Gallinule, 3 (W.F.R.); Am. Coot, 1,125; Killdeer, 67; Black-bellied Plover, 1; Wilson's Snipe, 6; Greater Yellow-legs, 1; Knot, 8 (P.W.S.); Red-backed Sandpiper, 2; Sanderling, 17; Great Black-backed Gull, 38; Herring Gull, 500; Ring-billed Gull, 500; Royal Tern 5 (P.W.S.); Mourning Dove, 150; Barn Owl, 1; Screech Owl, 3; Horned Owl, 1; Barred Owl, 3; Belted Kingfisher, 3; Yellow-shafted Flicker, 66; Pileated Woodpecker, 6; Red-bellied Woodpecker, 32; Red-headed Woodpecker, 1; Yellow-bellied Sapsucker, 4; Hairy Woodpecker, 14; Downy Woodpecker, 33; Eastern Phoebe, 5; Horned Lark, 12; Tree Swallow, 141; Blue Jay, 1; Am. Crow, 190; Fish Crow, 17; Carolina Chickadee, 121; Tufted Titmouse, 20; White-breasted Nuthatch, 1; Brown-headed Nuthatch, 68; Brown Creeper, 3; House Wren, 11; Winter Wren, 10; Carolina Wren, 130; Long-billed Marsh Wren, 19; Short-billed Marsh Wren, 13; Mockingbird, 69; Catbird, 28; Brown Thrasher, 8; Am. Robin, 166; Hermit Thrush, 4; Olive-backed Thrush, 1 (W.G.A., Mr. and Mrs. S.E.B.); Eastern Bluebird, 41; Golden-crowned Kinglet, 14; Ruby-crowned Kinglet, 13; Water Pipit, 739; Loggerhead Shrike, 3; Common Starling, 471; Myrtle Warbler, 1,234; Pine Warbler, 18; Common Yellowthroat, 16; House Sparrow, 193; Eastern Meadowlark, 762; Red-winged Blackbird, 40,442; Rusty Blackbird, 42; Purple Grackle, 61; Brown-headed Cowbird, 1,411; Cardinal, 232; Purple Finch, 4; Pine Siskin, 4; Am. Goldfinch, 1,067; Eastern Towhee, 77; Ipswich Sparrow, 1; Savannah Sparrow, 254; Slate-colored Junco, 147; Chipping Sparrow, 27; Field Sparrow, 197; White-throated Sparrow, 1,036; Fox Sparrow, 41; Swamp Sparrow, 431; Song Sparrow, 467. Total, 127 species; about 80,856 individuals. - Dr. & Mrs. W.G. Akers, Mr. & Mrs. S.E. Breneiser, William Efird, Miss Anna Grimm, Miss Gisela Grimm, Henry Hesperheide, Mrs. M.F. Morrisette, R.H. Peake, Jr., Dr. Arnold Rawson, W.F. Rountrey, P.W. Sykes, Jr. (compiler), R.L. Waterfield, Edward Webster, Jr.

Nansemond River, Va. (7½-mile radius centering 1½ miles NE of Drivers, including Craney Island disposal area, Nansemond River, Chuckatuck Creek, Chuckatuck, Drivers; open farmland 30%, pine woodland 10%, deciduous woodland 20%, marsh, beach, rivers, bay 40%). - Dec. 30; 7 a.m. to 5 p.m. Partly cloudy; temp. 41° to 48°; wind NE, 5-13 m.p.h.; ground

bare and water open. Eight observers in 4 parties. Total party-hours, 27 (17 on foot, 10 by car), total party-miles, 243 (12 on foot, 231 by car). Common Loon, 4; Red-throated Loon, 2; Horned Grebe, 319; Pied-billed Grebe, 6; Double-crested Cormorant, 3; Great Blue Heron, 10; Canada Goose, 1,031; \* Black Duck, 198; Gadwall, 69; Am. Widgeon, 851; Pintail, 50; Green-winged Teal, 27; Redhead, 20; Ring-necked Duck, 152; Canvas-back, 3,700; Greater Scaup, 607; Lesser Scaup, 263; Am. Golden-eye, 323; Buffle-head, 734; Old-squaw, 3; Surf Scoter, 14; Ruddy Duck, 355; Hooded Merganser, 4; Red-breasted Merganser, 2,500; Turkey Vulture, 112; Black Vulture, 21; Cooper's Hawk, 1; Red-tailed Hawk, 2; Red-shouldered Hawk, 4; Bald Eagle, 2; Marsh Hawk, 2; Sparrow Hawk, 28; Bob-white, 27; Clapper Rail, 4; Am. Coot, 500; Piping Plover, 1 (J.E.A., W.F.R.); Black-bellied Plover, 5; Wilson's Snipe, 4; Spotted Sandpiper, 2 (M.T.G., P.W.S.); Red-backed Sandpiper, 16; Western Sandpiper, 2 (J.E.A., W.F.R.); Sanderling, 79; Great Black-backed Gull, 21. Herring Gull, 6,874; Ring-billed Gull, 2,625; Laughing Gull, 6; Bonaparte's Gull, 280; Forster's Tern, 72; Royal Tern, 1 (P.W.S.); Black Skimmer, 16; (J.E.A., W.F.R.); Mourning Dove, 158; Belted Kingfisher, 9; Yellow-shafted Flicker, 29; Pileated Woodpecker, 2; Red-bellied Woodpecker, 23; Yellow-bellied Sapsucker, 1; Hairy Woodpecker, 4; Downy Woodpecker, 17; Eastern Phoebe, 5; Blue Jay, 34; Am. Crow, 294; Fish Crow, 69; Carolina Chickadee, 17; Tufted Titmouse, 55; White-breasted Nuthatch, 7; Brown Creeper, 4; House Wren, 6; Winter Wren, 2; Carolina Wren, 64; Mockingbird, 60; Catbird, 1; Brown Thrasher, 4; Am. Robin, 121; Hermit Thrush, 1; Eastern Bluebird, 25; Golden-crowned Kinglet, 43; Ruby-crowned Kinglet, 6; Water Pipit, 156; Cedar Waxwing, 4; Loggerhead Shrike, 10; Common Starling, 811; Myrtle Warbler, 260; Pine Warbler, 2; Common Yellowthroat, 1; House Sparrow, 325; Eastern Meadowlark, 314; Red-winged Blackbird, 1,607; Rusty Blackbird, 9; Brown-headed Cowbird, 601; Cardinal, 144; Evening Grosbeak, 5 (P.S.D.); Purple Finch, 30; Pine Siskin, 1; Am. Goldfinch, 531; Eastern Towhee, 60; Savannah Sparrow, 262; Sharp-tailed Sparrow, 1; Slate-colored Junco, 296; Chipping Sparrow, 1; Field Sparrow, 256; White-throated Sparrow, 695; Fox Sparrow, 27; Swamp Sparrow, 51; Song Sparrow, 105; Snow Bunting, 4 (W.F.R.). Total, 107 species; about 28,733 individuals. - J.E. Ames, P.S. Dulaney, Henry Hesperheide, M.T. Griffin, R.H. Peake, Jr., W.F. Rountrey, P.W. Sykes, Jr. (compiler), Edward Webster, Jr.

\* Mallard, 13;

\*\* Killdeer, 138;

Hopewell, Va. (Presquile National Wildlife Refuge and vicinity; same area and habitat percentages as last 3 years). - Dec. 29; 6:45 a.m. to 4:30 p.m. Clear; temp. 33° to 48°; wind WNW, 2-10 m.p.h.; ground bare, water open. Three observers in 3 parties. Total party-hours, 28 (20 on foot, 2 by car, 6 by boat); total party-miles, 97(17 on foot, 70 by car, 10 by boat). Pied-billed Grebe, 1; Great Blue Heron, 29; Canada Goose, 4000; Blue Goose, 10; Mallard, 454; Black Duck, 212; Am. Widgeon, 108; Pintail, 110; Green-winged Teal, 38; Wood Duck, 18; Ring-necked Duck, 4; Lesser Scaup, 2; Ruddy Duck, 94; Am. Merganser, 65; Turkey Vulture, 19; Black Vulture, 13; Red-tailed Hawk, 1; Red-shouldered Hawk, 3; Bald Eagle, 5; Marsh Hawk, 1; Sparrow Hawk, 7; Bob-white, 22; Killdeer, 32; Wilson's Snipe, 8; Herring Gull, 13; Ring-billed Gull, 1000; Mourning Dove, 527; Barred Owl, 1; Belted Kingfisher, 2; Yellow-shafted Flicker, 28; Pileated Woodpecker, 8; Red-bellied Woodpecker, 14; Yellow-bellied Sapsucker, 8; Hairy Woodpecker, 6; Downy Woodpecker, 9; Eastern Phoebe, 6; Horned Lark, 1; Blue Jay, 8; Am. Crow, 173; Carolina Chickadee, 57; Tufted Titmouse, 21; White-breasted Nuthatch, 8; Red-breasted Nuthatch, 6; Brown Creeper, 8; House Wren, 1; Winter Wren, 8; Carolina Wren, 90; Mockingbird, 31; Brown Thrasher, 2; Am. Robin, 77; Hermit Thrush, 6; Eastern Bluebird, 41; Golden-crowned Kinglet, 18;

Ruby-crowned Kinglet, 6; Cedar Waxwing, 22; Loggerhead Shrike, 5; Common Starling, 322; Myrtle Warbler, 61; Pine Warbler, 3; House Sparrow, 110; Eastern Meadowlark, 413; Red-winged Blackbird, 251; Purple Grackle, 1; Brown-headed Cowbird, 1; Cardinal, 120; Evening Grosbeak, 7 (F.R.S., C.E.S.); Purple Finch, 51; Am. Goldfinch, 56; Eastern Towhee, 6; Savannah Sparrow, 6; Slate-colored Junco, 162; Field Sparrow, 93; White-throated Sparrow, 247; Fox Sparrow, 2; Swamp Sparrow, 18; Song Sparrow, 79. Total, 76 species; about 9476 individuals. - F.R. Scott (compiler), C.E. Stevens, J.R. Walther.

Waverly, Va. ( a purely local count of a limited area along Spring Branch, the heart of which has been set up as both a winter bird-population study area and a breeding-bird census area (Bottomland Hardwood forest type); the adjacent area consisted of pine forest, open fields, brushy thickets (cut-over hardwood forest) and a wooded pond; bottomland hardwoods 55%, pine forest 20%, fields 5%, brushy thickets 10%, wooded pond 10%; part of the census includes intensive coverage of the 32-acre population study area as the first of a series of such counts). - Dec. 24; 6:30 a.m. to 2:30 p.m. Clear; temp. 30° to 70°; wind 3 m.p.h. One observer. Total party-hours, 8 (on foot); total party-miles 5.7 (on foot). Pied-billed Grebe, 5; Great Blue Heron, 2; Am. Widgeon, 5; Turkey Vulture, 4; Black Vulture, 1; Red-shouldered Hawk, 2; Bob-white, 12; Ring-billed Gull, 350; Belted Kingfisher, 1; Yellow-shafted Flicker, 12; Pileated Woodpecker, 2; Red-bellied Woodpecker, 13; Yellow-bellied Sapsucker, 1; Hairy Woodpecker, 2; Downy Woodpecker, 15; Eastern Phoebe, 1; Blue Jay, 5; Am. Crow, 79; Carolina Chickadee, 8; Tufted Titmouse, 16; White-breasted Nuthatch, 8; Brown-headed Nuthatch, 2; Winter Wren, 6; Carolina Wren, 16; Mockingbird, 2; Brown Thrasher, 1; Am. Robin, 12; Hermit Thrush, 4; Eastern Bluebird, 8; Ruby-crowned Kinglet, 4; Myrtle Warbler, 13; Eastern Meadowlark, 2; Red-winged Blackbird, 143; Purple Grackle, 1,085; Cardinal, 15; Am. Goldfinch, 5; Eastern Towhee, 11; Savannah Sparrow, 1; Slate-colored Junco, 10; Field Sparrow, 8; White-throated Sparrow, 54; Song Sparrow, 15. Total, 42 species; about 1951 individuals. - C.C. Steirly.

Brooke (triangular area with Brooke, Widewater, and mouth of Potomac Creek at the three apices; tidal water 25%, marsh 14%, swamp 8%, fields 9%, hedgerows 7%, mixed forest edge 15%, deciduous woods 17%, pine woods 4%, slash 1%). - Dec. 22; 6:45 a.m. to 5:45 p.m. Clear, a few wispy clouds; temp. 27° to 50°; wind S, at midday only, 1-8 m.p.h.; ground bare, river and bays ice-free. Ten observers in 7 parties. Total party-hours, 54 (48½ on foot, 5½ by car); total party-miles, 39 (28 on foot, 11 by car). Common Loon, 3; Horned Grebe, 4; Pied-billed Grebe, 2; Great Blue Heron, 20; American Bittern, 1; Whistling Swan, 200; Canada Goose, 360; Mallard, 50; Black Duck, 1000; Gadwall, 12; American Widgeon, 25; Shoveller, 2; Redhead, 6; Ring-necked Duck, 10; Canvasback, 4000; Lesser (?) Scaup, 1400; American Golden-eye, 15; Bufflehead, 30; Ruddy Duck, 14,000; Hooded Merganser, 10; American Merganser, 250; Red-breasted Merganser, 100; Turkey Vulture, 10; Cooper's Hawk, 1; Red-tailed Hawk, 3; Red-shouldered Hawk, 4; Bald Eagle, 8; Marsh Hawk, 5; Pigeon Hawk, 1 (R.B., H.B.); Sparrow Hawk, 2; Bob-white, 16; American Coot, 15; Killdeer, 13; Herring Gull, 50; Ring-billed Gull, 150; Mourning Dove, 22; Belted Kingfisher, 4; Yellow-shafted Flicker, 30; Pileated Woodpecker, 8; Red-bellied Woodpecker, 35; Red-headed Woodpecker, 1; Yellow-bellied Sapsucker, 17; Hairy Woodpecker, 4; Downy Woodpecker, 40; Blue Jay, 150; American Crow, 150; Fish Crow, 1;

Carolina Chickadee, 110; Tufted Titmouse, 55; White-breasted Nuthatch, 14; Red-breasted Nuthatch, 4; Brown Creeper, 6; Winter Wren, 9; Carolina Wren, 70; Mockingbird, 65; American Robin, 30; Hermit Thrush, 16; Eastern Bluebird, 100; Golden-crowned Kinglet, 4; Ruby-crowned Kinglet, 8; Cedar Waxwing, 150; Common Starling, 100; Myrtle Warbler, 130; House Sparrow, 20; Eastern Meadowlark, 15; Red-winged Blackbird, 850; Rusty Blackbird, 10; Purple Grackle, 4; Brown-headed Cowbird, 25; Cardinal, 150; Evening Grosbeak, 35; Purple Finch, 30; Pine Siskin, 5; American Goldfinch, 350; Eastern Towhee, 18; Savannah Sparrow, 8; Slate-colored Junco, 350; American Tree Sparrow, 80; Field Sparrow, 100; White-throated Sparrow, 250; Fox Sparrow, 4; Swamp Sparrow, 16; Song Sparrow, 150. Total, 83 species; about 25,581 individuals. - C.A. Anderson, Roy A. Bailey, A.A. Baker, Henry Bell, III, Andrew Griscom, Luna B. Leopold, Edwin T. McKnight (compiler), Thomas B. Nolan, W.W. Rubey, Robert L. Smith.

(Pigeon Hawk first observed as it lighted in top of tree, showing its blue gray back and banded tail which was spread in lighting. Perched, the long wing tips reached well toward the end of the tail. When it took off, it crossed a field at high speed and dived, unsuccessfully, at some small birds along a hedgerow. In flight, long pointed wings and swift falcon flight were noted. Size was that of Sharp-shinned Hawk. Observers, Roy Bailey and Henry Bell.)

Fort Belvoir (same area as in previous years.) - Dec. 22, 1957.

Clear, few fleeting clouds, ground bare and unfrozen, water ice-free; 37° to 56°; no wind; 6:30 a.m. to 5:00 p.m. Twenty-five observers in 6 parties. Common Loon, 1; Horned Grebe, 2; Great Blue Heron, 12; Canada Goose, 140; Mallard, 16; Black Duck, 156; Redhead, 1; Greater Scaup, 1,170; Lesser Scaup, 1; Bufflehead, 15; Ruddy Duck, 4,546; Common Merganser, 25; Turkey Vulture, 19; Sharp-shinned Hawk, 4; Cooper's Hawk, 1; Red-tailed Hawk, 21; Red-shouldered Hawk, 8; Bald Eagle, 6; Marsh Hawk, 1; Sparrow Hawk, 5; Bobwhite, 70; Killdeer, 129; Herring Gull, 135; Ring-billed Gull, 314; Mourning Dove, 154; Great Horned Owl, 2; Barred Owl, 1; Belted Kingfisher, 9; Yellow-shafted Flicker, 70; Pileated Woodpecker, 4; Red-bellied Woodpecker, 61; Yellow-bellied Sapsucker, 4; Hairy Woodpecker, 7; Downy Woodpecker, 52; Phoebe, 2; Horned Lark, 7 (Prairie); Blue Jay, 105; Common Crow, 647; Fish Crow, 1; Black-capped Chickadee, 27; Carolina Chickadee, 167; Tufted Titmouse, 126; White-breasted Nuthatch, 27; Red-breasted Nuthatch, 23; Brown Creeper, 13; Winter Wren, 5; Carolina Wren, 134; Long-billed Marsh Wren, 1; Mockingbird, 97; Robin, 173; Hermit Thrush, 2; Eastern Bluebird, 129; Golden-crowned Kinglet, 35; Ruby-crowned Kinglet, 7; Cedar Waxwing, 34; Loggerhead Shrike, 1; Starling, 920; Myrtle Warbler, 48; House Sparrow, 155; Eastern Meadowlark, 188; Red-winged Blackbird, 965; Rusty Blackbird, 137; Cardinal, 201; Evening Grosbeak, 41; Purple Finch, 41; Pine Siskin, 20; American Goldfinch, 278; Eastern Towhee, 5; Savannah Sparrow, 3; Slate-colored Junco, 914; Tree Sparrow, 58; Field Sparrow, 123; White-crowned Sparrow, 17 (Gambel's, 2); White-throated Sparrow, 234; Fox Sparrow, 3; Swamp Sparrow, 2; Song Sparrow, 160. Total, 77 species and 1 additional subspecies; about 13,438 individuals. (Seen in the area during the census period: Turkey). The Gambel's Sparrow will be written up later. - J.M. Abbott (compiler); Louise Berry, Dr. and Mrs. E.G. Davis, Charles Dillon, P.A. DuMont, Morgan Gilbert, George Golding, Ed Hayward, Adam Hubbel, Don Lamm, Dr. Gordon Meade, J. Mercereau, Mr. and Mrs. J. Moran, Lois Morgan, Ralph Shrieber, Harriet Sutton, Mr. and Mrs. R.P. Teale, Joe Turner.

Harrisonburg, Va. (Waterman Wood to Tide Spring, a distance of 12 miles; oak-hickory-juniper-pine woodlot 60%, oak-hickory woodlot 10%, a small village bordering College Campus 10%, juniper-pine wasteland 5%, pasture field and fence rows 15%). - Dec. 24; 8:00 a.m. to 2:30 p.m. Damp and cloudy throughout the day with a light sprinkle during noon; temp. 45° to 48°; wind S, veering to NW, 5-15 m.p.h. Three observers working within calling distance of one another. Total party-hours, 19½. Turkey Vulture, 27; Red-tailed Hawk, 1; Sparrow Hawk, 3; Ruffed Grouse, 1; Bob-white, 15; Yellow-shafted Flicker, 3; Pileated Woodpecker, 1; Redbellied Woodpecker, 1; Downy Woodpecker, 6; Blue Jay, 15; Am. Crow, 125; Carolina Chickadee, 39; Tufted Titmouse, 35; White-breasted Nuthatch, 14; Red-breasted Nuthatch, 4; Winter Wren, 1; Carolina Wren, 7; Mockingbird, 28; Am. Robin, 178; Eastern Bluebird, 2; Golden-crowned Kinglet, 2; Cedar Waxwing, 213; Common Starling, 112; Myrtle Warbler, 3; House Sparrow, 123; Eastern Meadowlark, 1; Cardinal, 24; Purple Finch, 1; Am. Goldfinch, 41; Slate-colored Junco, 74. Total, 30 species; 1100 individuals. A small farm pond in oak-hickory woodlot was dry. - Dr. Ralph Hostetter (compiler), Milo Stahl, Daniel B. Suter.

Rockingham County (within 7½ mile radius from Ottobine). - Dec. 27; 8 a.m. to 5 p.m. Weather mostly sunny; 26° at start, 40° at finish. Five observers plus pointer dog, 15 miles on foot and 60 miles in car. Elevation 1160 to 3200 feet; habitats, Silver Lake, lawn and shade trees in town, cottonwood-sycamore river bottoms, open farm land and farm woodlot, mixed Appalachian conifers and hardwoods in mountains. Ground clear.) Pied-billed Grebe, 1; Mallard, 86; Black Duck, 1; Gadwall, 17; Am. Widgeon, 70; Pintail, 3; Ring-necked Duck, 2; Turkey Vulture, 31; Black Vulture, 3; Red-tailed Hawk, 1; Sparrow Hawk, 4; Bob-white, 72 (6 coveys); American Coot, 18; Wilson's Snipe, 1; Mourning Dove, 140; Screech Owl, 2; Belted Kingfisher, 2; Pileated Woodpecker, 2; Red-bellied Woodpecker, 2; Downy Woodpecker, 5; Eastern Phoebe, 2; Horned Lark, 4; Blue Jay, 8; Common Raven, 4; Am. Crow, 31; Fish Crow, 2; Black-capped Chickadee, 39; Tufted Titmouse, 10; White-breasted Nuthatch, 4; Red-breasted Nuthatch, 4; Carolina Wren, 5; Mockingbird, 13; Hermit Thrush, 1; Golden-crowned Kinglet, 1; Water Pipit, 1; Migrant Loggerhead Shrike, 3; Common Starling, 226; House Sparrow, 86; Eastern Meadowlark, 25; Cardinal, 38; Pine Siskin, 33; Am. Goldfinch, 21; Slate-colored Junco, 24; White-crowned Sparrow, 33; White-throated Sparrow, 6; Song Sparrow, 10; Total, 46 species; 1,096 individuals. - Dr. Robert Burns, Max Carpenter, Dr. Hollen Helbert, Dr. Harry Jopson, Leon Powell.

Lexington (same area as in previous counts). - Dec. 24; 7 a.m. to 5 p.m.; clear; streams open; no wind in a.m., little wind in p.m. Eight observers in 3 parties. Pied-billed Grebe, 2; Great Blue Heron, 2; Turkey Vulture, 41; Black Vulture, 19; Red-tailed Hawk, 2; Sparrow Hawk, 2; Bob-white, 8; Killdeer, 12; Common Snipe, 4; Mourning Dove, 25; Screech Owl, 1; (found dead); Belted Kingfisher, 6; Pileated Woodpecker, 10; Yellow-shafted Flicker, 4; Red-bellied Woodpecker, 14; Yellow-bellied Sapsucker, 1; Downy Woodpecker, 14; Eastern Phoebe, 6; Horned Lark, 28; Blue Jay, 140; Common Crow, 411; Carolina Chickadee, 39; Tufted Titmouse, 24; White-breasted Nuthatch, 12; Red-breasted Nuthatch, 1; Brown Creeper, 1; Winter Wren, 1; Carolina Wren, 34; Mockingbird, 38; Robin, 179; Eastern Bluebird, 39; Golden-crowned Kinglet, 4; Cedar Waxwing, 5; Loggerhead Shrike, 6;

Starling; 903; Myrtle Warbler, 8; House Sparrow, 252; Eastern Meadowlark, 44; Cardinal, 92; Purple Finch, 30; American Goldfinch, 57; Slate-colored Junco, 220; Tree Sparrow, 30; Field Sparrow, 6; White-throated Sparrow, 72; White-crowned Sparrow, 22; Song Sparrow, 57. Total, 48 species; 2943 individuals. (Wintering Brown Thrasher seen during the count period.) - Robert P. Carroll, Robert Carroll, Jr., David Foster, J.J. Murray (compiler), Mr. and Mrs. J.J. Murray, Jr., Robert Paxton, Joshua Womeldorf.

Big Flat Mountain (about same area and habitat percentages as last year, mostly in southern Shenandoah National Park). - Dec. 22; 6:45 a.m. to 4:15 p.m. Clear; temp. 28° to 50°; wind W, 0-10 m.p.h. Two observers together. Total hours, 9½ (on foot); total miles, 16 (on foot). Black Duck, 1; Turkey Vulture, 9; Red-tailed Hawk, 2; Ruffed Grouse, 3; Pileated Woodpecker, 2; Downy Woodpecker, 12; Eastern Phoebe, 1; Horned Lark, 8; Blue Jay, 3; Common Raven, 4; Am. Crow, 157; Carolina Chickadee, 37; Tufted Titmouse, 18; White-breasted Nuthatch, 2; Red-breasted Nuthatch, 5; Carolina Wren, 14; Mockingbird, 2; Am. Robin, 85; Eastern Bluebird, 1; Golden-crowned Kinglet, 8; Common Starling, 4; Myrtle Warbler, 1; Cardinal, 13; Evening Grosbeak, 7; Purple Finch, 6; Pine Siskin, 81; Am. Goldfinch, 39; Slate-colored Junco, 94; Am. Tree Sparrow, 9; White-throated Sparrow, 16; Song Sparrow, 2. Total, 31 species; 646 individuals. (A group of 3 unidentified finches seen in flight which may have been Red Crossbills, one of which appeared red and was calling in an unfamiliar note.) - Robert S. Merkel, Charles E. Stevens.

Charlottesville (about same area and habitat percentages as last year). - Dec. 31; 6:45 a.m. to 5:15 p.m. Clear; temp. 28° to 42°; wind W, 0-5 m.p.h. Four observers in 4 parties. Total party-hours, 26 (22 on foot, 4 by car); total party-miles, 77 (28 on foot, 49 by car). Horned Grebe, 1; Pied-billed Grebe, 3; Great Blue Heron, 3; Mallard, 9; Black Duck, 21; Am. Golden-eye, 3; Hooded Merganser, 1; Am. Merganser, 1; Turkey Vulture, 23; Black Vulture, 10; Sharp-shinned Hawk, 1; Cooper's Hawk, 1; Red-tailed Hawk, 2; Red-shouldered Hawk, 3; Marsh Hawk, 1; Sparrow Hawk, 2; Bob-white, 7; Killdeer, 40; Wilson's Snipe, 3; Mourning Dove, 157; Belted Kingfisher, 7; Yellow-shafted Flicker, 20; Pileated Woodpecker, 11; Red-bellied Woodpecker, 20; Red-headed Woodpecker, 2; Yellow-bellied Sapsucker, 1; Hairy Woodpecker, 4; Downy Woodpecker, 32; Eastern Phoebe, 8; Horned Lark, 12; Blue Jay, 162; Am. Crow, 495; Fish Crow, 4; Carolina Chickadee, 119; Tufted Titmouse, 67; White-breasted Nuthatch, 22; Red-breasted Nuthatch, 3; Brown Creeper, 3; Winter Wren, 5; Carolina Wren, 73; Mockingbird, 80; Am. Robin, 915; Hermit Thrush, 4; Eastern Bluebird, 88; Golden-crowned Kinglet, 14; Ruby-crowned Kinglet, 4; Cedar Waxwing, 16; Loggerhead Shrike, 4; Common Starling, 2343; Myrtle Warbler, 43; House Sparrow, 22; Eastern Meadowlark, 48; Cardinal, 210; Evening Grosbeak, 23; Purple Finch, 57; Pine Siskin, 66; Am. Goldfinch, 178; Savannah Sparrow, 3; Slate-colored Junco, 245; Am. Tree Sparrow, 43; Field Sparrow, 79; White-crowned Sparrow, 1; White-throated Sparrow, 182; Swamp Sparrow, 21; Song Sparrow, 117. Total, 65 species; about 6168 individuals. - Mrs. C.O. Gregory, Kenneth Lawless, Robert S. Merkel, Charles E. Stevens.

Warren (same area and habitat percentages as last year). - Dec. 21; 6:50 a.m. to 5:05 p.m. Clear; wind W, 5-25 m.p.h.; temp 32° to 65°. Two observers in 2 parties. Total party-hours, 20 (15 on foot, 5 by car); total

party-miles, 93 (23 on foot, 70 by car). Horned Grebe, 6; Pied-billed Grebe, 3; Mallard, 135; Black Duck, 58; Am. Widgeon, 31; Pintail, 4; Green-winged Teal, 17; Lesser Scaup, 6; Buffle-head, 6; Ruddy Duck, 4; Hooded Merganser, 2; Turkey Vulture, 61; Black Vulture, 15; Sharp-shinned Hawk, 1; Red-tailed Hawk, 2; Sparrow Hawk, 2; Bob-white, 11; Killdeer, 52; Wilson's Snipe, 29; Mourning Dove, 43; Belted Kingfisher, 1; Yellow-shafted Flicker, 8; Pileated Woodpecker, 3; Red-bellied Woodpecker, 13; Red-headed Woodpecker, 2; Yellow-bellied Sapsucker, 1; Hairy Woodpecker, 2; Downy Woodpecker, 17; Eastern Phoebe, 7; Horned Lark, 29; Blue Jay, 40; Am. Crow, 410; Carolina Chickadee, 77; Tufted Titmouse, 18; White-breasted Nuthatch, 8; Red-breasted Nuthatch, 4; Brown Creeper, 1; Winter Wren, 2; Carolina Wren, 64; Mockingbird, 48; Am. Robin, 177; Hermit Thrush, 2; Eastern Bluebird, 82; Golden-crowned Kinglet, 12; Ruby-crowned Kinglet, 6; Water Pipit, 1; Cedar Waxwing, 15; Loggerhead Shrike, 6; Common Starling, 168; Myrtle Warbler, 51; House Sparrow, 47; Eastern Meadowlark, 184; Rusty Blackbird, 1; Brown-headed Cowbird, 40; Cardinal, 65; Purple Finch, 24; Pine Siskin, 2; Am. Goldfinch, 113; Savannah Sparrow, 3; Slate-colored Junco, 225; Am. Tree Sparrow, 1; Field Sparrow, 43; White-crowned Sparrow, 18; White-throated Sparrow, 61; Swamp Sparrow, 11; Song Sparrow, 64. Total, 66 species; about 2665 individuals. - Kenneth Lawless, Charles E. Stevens.

Sweet Briar, Va. (Sweet Briar College property and adjacent area,  $1\frac{1}{2}$  mile radius; open fields 35%, scrub 25%, brushy creek bottoms 25%, mixed woodlands 10%, lake edge 5%). - Jan. 1; 7:45 a.m. to 5:00 p.m. Clear; temp. 30° to 40°; N wind starting about 10:00 a.m. and continuing most of day, 10-15 m.p.h.; ground bare, ponds frozen. Four observers in  $1\frac{1}{2}$  parties. Total party-hours, 11 ( $10\frac{1}{2}$  by foot,  $\frac{1}{2}$  by car); total party-miles, 17 (10 by foot, 7 by car). Turkey Vulture, 5; Black Vulture, 2; Wilson's Snipe, 1; Mourning Dove, 21; Belted Kingfisher, 1; Yellow-shafted Flicker, 1; Pileated Woodpecker, 2; Red-bellied Woodpecker, 2; Yellow-bellied Sapsucker, 4; Downy Woodpecker, 4; Eastern Phoebe, 2; Blue Jay, 5; Am. Crow, 100 (est.); Carolina Chickadee, 12; Tufted Titmouse, 10; White-breasted Nuthatch, 4; Red-breasted Nuthatch, 1; Brown Creeper, 3; Carolina Wren, 9; Mockingbird, 16; Brown Thrasher, 1; Am. Robin, 28; Eastern Bluebird, 13; Golden-crowned Kinglet, 1; Ruby-crowned Kinglet, 2; Water Pipit, 29; Common Starling, 200 (est.); Myrtle Warbler, 5; House Sparrow, 160; Eastern Meadowlark, 1; Cardinal, 49; Purple Finch, 1; Am. Goldfinch, 16; Eastern Towhee, 2; Slate-colored Junco, 43; Field Sparrow, 10; White-crowned Sparrow, 75; White-throated Sparrow, 43; Song Sparrow, 6. Total, 39 species; about 900 individuals. Seen in count area Dec. 29, Great Blue Heron, 1; Sparrow Hawk, 1. The Thrasher recorded on the count has been at a feeding station in the area since last summer. There did not seem to be the numbers of birds usually seen. A rather cold wind no doubt kept many under cover. - Jeanette Boone, Dr. Florence Hague, Rod MacPherson, Gertrude Prior (compiler).

Roanoke, Va. (same territory as in previous years; Murray's Pond, Woodrum Field Airport, Peter's Creek Road, Carvin's Cove Dam; farmland 20%, open fields 40%, deciduous woods and pine woods 20%, creek bottom and pond 20%). - Dec. 29, 7:30 a.m. to 4:00 p.m. Fair; temp. 32° to 46°. Total party-miles, 45 (10 miles on foot, 35 by car). Pied-billed Grebe, 1; Mallard, 2; Black Duck, 2; Buffle-head, 5; Turkey Vulture, 7; Black Vulture, 4; Sparrow Hawk, 1; Am. Coot, 2; Wilson's Snipe, 7; Mourning Dove, 2; Rock Dove, 25; Yellow-shafted Flicker, 1; Downy Woodpecker, 1; Eastern Phoebe, 1;

Horned Lark, 1; Blue Jay, 4; Am. Crow, 60; Carolina Chickadee, 20; Tufted Titmouse, 4; Red-breasted Nuthatch, 3; White-breasted Nuthatch, 2; Winter Wren, 2; Carolina Wren, 3; Mockingbird, 10; Am. Robin, 1; Ruby-crowned Kinglet, 1; Cedar Waxwing, 15; Loggerhead Shrike, 2; Common Starling, 90; Rusty Blackbird, 1; Cardinal, 17; Purple Finch, 4; Pine Siskin, 11; Am. Goldfinch, 25; House Sparrow, 35; Slate-colored Junco, 2; Am. Tree Sparrow, 2; Field Sparrow, 5; White-throated Sparrow, 18; Song Sparrow, 20.  
Total, 40 species; 419 individuals. - A.O. English (compiler), Mrs. Kenneth Graves, Perry Kendig, C.H. Lewis, Mrs. W.J. Nelson.

Blacksburg (same area as last year; pasture and plowed land 20%, town and suburbs 10%, virgin white oak woodlots 20%, mixed pine and oak woods 20%, river and creek bottom 30%). - Dec. 27; 6:30 a.m. to 6:00 p.m. Clear; temp. 28° to 45°; wind W, 20-30 m.p.h. at start, diminishing to light breeze later; ground bare except on mountain tops, water open). Fifteen observers in 8 parties. Total party-hours, 68½ (64½ on foot, 4 by car); total party-miles, 110½ (57½ on foot, 53 by car). Pied-billed Grebe, 3; Mallard, 47; Black Duck, 23; Gadwall, 8; American Widgeon, 111; Pintail, 8; Green-winged Teal, 1; Ring-necked Duck, 2; Canvas-back, 3; Lesser Scaup, 101; American Golden-eye, 4; Buffle-head, 101; Ruddy Duck, 1; Turkey Vulture, 11; Black Vulture, 4; Cooper's Hawk, 2; Red-tailed Hawk, 1; Sparrow Hawk, 5; Bob-white, 51; American Coot, 1; Killdeer, 26; Wilson's Snipe, 5; Mourning Dove, 133; Screech Owl, 1; Barred Owl, 1; Belted Kingfisher, 6; Yellow-shafted Flicker, 15; Pileated Woodpecker, 6; Red-bellied Woodpecker, 9; Red-headed Woodpecker, 11; Yellow-bellied Sapsucker, 2; Hairy Woodpecker, 11; Downy Woodpecker, 29; Eastern Phoebe, 4; Horned Lark, 30; Blue Jay, 352; American Crow, 777; Carolina Chickadee, 149; Tufted Titmouse, 133; White-breasted Nuthatch, 42; Red-breasted Nuthatch, 32; Brown Creeper, 10; Winter Wren, 22; Carolina Wren, 75; Mockingbird, 52; American Robin, 58; Hermit Thrush, 6; Eastern Bluebird, 15; Golden-crowned Kinglet, 39; Ruby-crowned Kinglet, 1; Loggerhead Shrike, 4; Common Starling, 2,793; Myrtle Warbler, 5; Common Yellowthroat, 1 (C.O.H., Jr.); House Sparrow, 294; Eastern Meadowlark, 153; Red-winged Blackbird, 1; Rusty Blackbird, 250; Purple Grackle, 1,506; Brown-headed Cowbird, 310; Cardinal, 268; Purple Finch, 12; Pine Siskin, 10; American Goldfinch, 318; Eastern Towhee, 13; Slate-colored Junco, 194; American Tree Sparrow, 7; Field Sparrow, 93; White-crowned Sparrow, 37; White-throated Sparrow, 85; Fox Sparrow, 3; Swamp Sparrow, 1; Song Sparrow, 215. Total, 73 species; about 9,113 individuals. - J.D. Cooper, A.L. Dean, M.G. Hale, C.O. Handley, Sr., C.O. Handley, Jr., J.S. Lindzey, H.S. Mosby, J.W. Murray, G.M. Shear, Mr. and Mrs. E.A. Smyth, Allan Smyth, R.J. Watson (compiler).

Glade Spring (same area as last year; farmland and pastures 35%, deciduous woods 35%, mixed pine and deciduous woods 14%, river bottoms 14%, marsh and ponds 2%). - Dec. 27; 7:30 a.m. to 5:30 p.m. Clear; temp. 25° to 45°; wind SW, 0-5 m.p.h. Three observers in 1 party. Total party-hours, 10 (6 on foot, 4 by car), total party-miles, 65 (5 on foot, 60 by car). Mallard, 35; Black Duck, 2; Lesser Scaup, 1; Ruddy Duck, 2; Turkey Vulture, 22; Black Vulture, 2; Red-tailed Hawk, 2; Sparrow Hawk, 2; American Coot, 4; Killdeer, 113; Mourning Dove, 58; Belted Kingfisher, 5; Pileated Woodpecker, 2; Red-bellied Woodpecker, 2; Downy Woodpecker, 17; Blue Jay, 36; American Crow, 55; Carolina Chickadee, 12; Tufted Titmouse, 5; White-breasted Nuthatch, 2; Brown Creeper, 1; Winter Wren, 3; Carolina Wren, 2; Mockingbird, 17; American Robin, 21; Eastern Bluebird, 15; Golden-crowned Kinglet, 6; Common Starling, 6000; House

Sparrow, 20; Eastern Meadowlark, 6; Purple Grackle, 400; Cardinal, 20; American Goldfinch, 47; Eastern Towhee, 3; Slate-colored Junco, 22; Field Sparrow, 25; White-crowned Sparrow, 15; White-throated Sparrow, 2; Song Sparrow, 13. Total, 40 species; about 7008 individuals. (Seen in count period: Cooper's Hawk, Brown-headed Cowbird.) - Mrs. Carleton Abbott, P.S. Dulaney (compiler), Walter Lamie.

Mt. Rogers (Elk Garden Gap to summit of Mt. Rogers and western slopes of Pine Mountain; elevation range 4500 to 5719 ft. (highest point in Virginia); deciduous woodland 40%, grassy fields 40%, spruce-fir forest 20%). - Dec. 23; 8:00 a.m. to 5:00 p.m. Clear; temp. 25° to 55°; wind NE, 5-15 m.p.h.; no snow on ground. One observer. Total party-hours, 9 (all on foot); total party-miles, 10 (all on foot). Ruffed Grouse, 3; Downy Woodpecker, 5; Blue Jay, 3; American Crow, 3; Carolina Chickadee, 5; Tufted Titmouse, 3; White-breasted Nuthatch, 2; Red-breasted Nuthatch, 20; American Robin, 3; Eastern Bluebird, 1; Common Starling, 23; Evening Grosbeak, 25; American Goldfinch, 1; Slate-colored Junco, 8; Song Sparrow, 1. Total, 15 species; 106 individuals. - Paul S. Dulaney.

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#### GOLDEN PLOVER AND LONG-BILLED DOWITCHER AT CURLES NECK

By F. R. Scott

Curles Neck Farm, a 5000-acre dairy farm, is on a sharp 180-degree bend of the James River in southeastern Henrico County, Virginia, just north of Hopewell. On a routine early morning field trip here on October 5, 1957, I stopped at a large plowed field to check over a flock of about 50 Killdeer, Charadrius vociferus Linnaeus. Off to one side I noticed a smaller flock of brownish birds which turned out to be 31 Golden Plovers, Pluvialis dominica (Muller). When these birds were flushed, they showed no conspicuous pattern of any sort, and I particularly noted the dark tail and the absence of any black axillar patches under the wings. The characteristic rolling, somewhat harsh whistling call was given frequently in flight, and when alighting the birds had an unusual habit of holding their wings overhead for a second or two.

Although the Golden Plover has been recorded rarely in a number of localities in Virginia, this appears to be the largest number reported at any one time. It is the first record for this species in the Richmond area.

On November 3, 1957, while passing the same field, now green with a short growth of winter rye, I saw a large snipe-like bird beside a rain pool at the edge of the road. Without getting out of the car I watched the bird for some time from a distance of 50 feet and readily identified it as a dowitcher. Since neither species of dowitcher had been previously recorded from the Richmond area, and since the late date made the occurrence of the Short-billed Dowitcher, Limnodromus griseus (Gmelin), highly unlikely, I made a special effort to be certain of the species. The bill appeared extremely long relative to the bird's over-all size, even for a dowitcher,

and I estimated it to be a minimum of 2.5 inches and closer to 3 inches long (63-76 mm.). Notes taken on the bird's plumage unfortunately proved useless as an identifying aid. When flushed the bird uttered one short thin note which was not repeated.

Based on the above observations, I feel certain the bird was a Long-billed Dowitcher, Limnodromus scolopaceus (Say). Specimens of Long-billed and Short-billed Dowitchers are almost 100% separable, but it is probable that only a small number of extreme Long-bills can be separated from the other species in the field. Nevertheless, I believe that the relative bill length and note, together with the date of observation, were a satisfactory diagnosis in this case.

J. J. Murray (Auk, 50: 195, 1933; and A Check-list of the Birds of Virginia, 1952: p. 53) lists 2 specimens of scolopaceus in the U.S. National Museum taken by Ridgway and Marshall at Bone Island on July 14, 1880. Unfortunately, these specimens have proved to be representatives of the inland race of the Short-billed Dowitcher, Limnodromus griseus hendersoni Rowan. Dr. Herbert Friedmann, Curator, Division of Birds at the U.S. National Museum, informs me (personal communication, January 23, 1958) that John W. Aldrich reidentified these birds as hendersoni in 1946. F. A. Pitelka examined one of these and agreed with Aldrich (Geographic Variation and the Species Problem in the Shorebird Genus Limnodromus, 1950: p. 74). Thus it now appears that there are no specimens of the Long-billed Dowitcher from Virginia, and the species is such a difficult one to identify that it probably should be relegated to the hypothetical list.

There is one other sight record of the Long-billed Dowitcher from Virginia, 3 birds reported from the Chincoteague Causeway on December 29, 1955, by Philip A. and Paul G. DuMont. There are a number of other recent winter records of dowitchers from the Chincoteague area, however, and these are thought to be all or mostly Long-bills, but none of the observers has felt sure enough to commit himself.

-- 115 Kennondale Lane  
Richmond 26, Virginia

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#### STILT SANDPIPER AT BLACKSBURG, VIRGINIA

By John W. Murray

In late September, 1957, heavy rains fell and temporary ponds resulted in low areas near Blacksburg. About a dozen Lesser Yellowlegs appeared at one of these ponds about September 22 and remained in the vicinity for about two weeks. On October 5, a single Stilt Sandpiper was noticed among a small group of the Lesser Yellowlegs. It remained at the pond after the Yellowlegs departed. As this species had not been reported previously in Montgomery County and had never been seen before by the author, it was studied with care on three different days. When seen with the Lesser Yellowlegs, it was definitely smaller appearing to be about the size of the

Solitary Sandpiper which was also present. Its legs appeared greenish yellow in contrast to the bright yellow of the Yellowlegs. Its eye stripe was much more pronounced than that of the Yellowlegs. Its primaries appeared edged with white rather than speckled as in the Yellowlegs. In flight, it resembled the Yellowlegs in showing no wing stripe and having a clear white rump and feet protruding behind the darker tail. Its underparts were white with faint streaking on the breast. Of the other shore birds with a white rump, the White-rumped Sandpiper has shorter dark legs and is smaller, the Dowitcher has a longer bill and a white lower back, the Wilson's Phalarope has a thinner bill and a very white breast devoid of streaks, and the Curlew Sandpiper has white wing stripes and its bill is curved downward over the whole length whereas in this species the curve is less and near the end.

Photographs of the bird were obtained on Anscochrome film with a 14 inch telephoto lens. It was last seen on October 13 by R.V. Dietrich and G.M. Shear.

-- Rt. 1, Box 3  
Blacksburg, Virginia

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#### GOLDEN PLOVER IN SURRY COUNTY

By C. C. Steirly

Climaxing a pleasant autumn day of bird study at Hog Island State Waterfowl Refuge in northeast Surry County was the observation of an American Golden Plover (Pluvialis dominica). This was on October 12, 1957 in a large bare field. The bird was closely associated with two Black-bellied Plovers, which furnished an excellent comparison. It was quite tame and permitted a rather close approach.

Later, on October 20, 1957, the writer, in company with two other enthusiasts, observed what must have been the same bird in an adjacent slightly weedy field. On this occasion the bird was associated with six Killdeer. Again, on November 9, 1957, the bird was observed in the same field in association with six Black-bellied Plover and 20 Killdeer.

The Golden Plover migrates northward in spring along the Mississippi Valley, ranging at that season as far east as Ohio and Kentucky. In the fall migration, it normally travels south over the Atlantic Ocean from Nova Scotia to South America.

-- Waverly, Virginia

## BACK BAY WINTER FIELD TRIP

By Robert O. Paxton

The annual winter field trip to Back Bay National Wildlife Refuge, in Princess Anne County, took place on Saturday, 7 December, 1957. Although a majority of some three dozen participants came from the Norfolk area, V.S.O. members travelled from as far away as Charlottesville and Washington to see the area's wintering waterfowl and the concentration of Greater Snow Geese. A total of sixty-nine species was recorded during the day.

Saturday dawned gray and forbidding, but without the raw wind which can make the exposed beach at Back Bay one of the coldest spots in the state. The threatened rain never materialized, and later in the morning the gray skies proved to be a dramatic backdrop for milling flocks of snow geese.

Warden C.S. Yelverton and his assistant, Romie Waterfield, met the party at Sandbridge at 7:00 a.m. Already gannets fishing offshore were providing the first excitement of the day, and a lone sanderling was feeding nearby on the beach. Tree swallows, quartering up and down over the sand, added an incongruous touch to the winter shore. During the truck ride down the beach to the Wash Flats, scattered sea birds -- loons, horned grebes, scoters, and red-breasted mergansers -- swam and dove beyond the surf. A single black-bellied plover was flushed on the beach. Two resting flocks of gulls, each about two hundred strong, contained ring-bills and herrings in a ratio of approximately five to three. Occasional laughing gulls and Forster's terns and one Caspian tern flew along the beach. Great black-backed gulls were unusually numerous with a dozen birds mingled among the herrings and ring-bills. Each year the Wash Flats produce what must be the great sight of many a bird student's career -- Back Bay's great flock of greater snow geese. By early December the population had reached about five thousand birds, divided into two independent flocks. The geese were wary, and when our group appeared over the dunes they beat their way into the air with a great sound of wings and voices, settling back into the marsh, their pattern of white and black wings against the gray sky was an unforgettable sight.

This trip was somewhat disappointing from the waterfowl standpoint. In spite of one early freeze, most ducks had not yet moved from the Susquehanna Flats and other preferred feeding grounds farther north. Only a few hundred mallards, blacks, and pintails were feeding in the Wash Flats, along with six shovellers. In the bay itself, a small raft of coots, some baldpates, one canvasback, one poorly-marked ring-necked duck, and a flight of about thirty redheads completed the duck picture. Two hundred whistling swans flying over Long Island in the late afternoon helped make up for the general scarcity of waterfowl.

One of the challenges in a trip to Back Bay is the search for the irregular land birds which find winter cover in this great expanse of water and marsh. In the brackish marsh between the Wash Flats and refuge headquarters there were sharp-tailed, swamp, and song sparrows, and both long- and short-billed marsh wrens. A single boat-tailed grackle shared the telephone line with a sparrow hawk. In the dunes at refuge headquarters the group turned up a single Ipswich sparrow and one snow bunting. Long Island,

where woods and marsh meet, always presents an interesting juxtaposition of water and land; this year an orange-crowned warbler skulked in a tangle at the edge of a field where Canada geese were feeding. The thickets on the island provided shelter for both kinds of kinglets, titmice, towhees, and catbirds.

Perhaps the outstanding find of the day turned up, as a fitting climax, on the trip back up the beach. Three knots in winter plumage flushed ahead of the trucks and then circled out to pass behind us, showing everyone their stocky shape and short bills. Although knots occur in winter as far north as Massachusetts, this is one of the few winter records for Virginia.

The success of this trip, which has become an eagerly awaited event for many V.S.O. members, was due largely to the exertions of trip-master, C.C. Steirly, to Warden C.S. Yelverton, who gave up an entire day to guide the group, and to his assistant, Romie Waterfield, who brought his own truck to help solve the considerable logistics problem presented by the size of the group.

The following species were recorded during the day:

Common loon; red-throated loon; horned grebe; pied-billed grebe; gannet; double-crested cormorant; great blue heron; common egret; whistling swan; Canada goose; snow goose; blue goose; mallard; black duck; pintail; green-winged teal; American widgeon; shoveler; redhead; ring-necked duck; canvasback; lesser scaup; bufflehead; white-winged scoter; American scoter; red-breasted merganser; turkey vulture; marsh hawk; sparrow hawk; coot; black-bellied plover; common snipe; knot; dunlin; sanderling; great black-backed gull; herring gull; ring-billed gull; laughing gull; Forster's tern; Caspian tern; yellow-shafted flicker; tree swallow; crow; tufted titmouse; Carolina wren; long-billed marsh wren; short-billed marsh wren; mockingbird; catbird; golden-crowned kinglet; ruby-crowned kinglet; starling; orange-crowned warbler; myrtle warbler; English sparrow; meadowlark; redwinged blackbird; boat-tailed grackle; cardinal, rufous-sided towhee; Ipswich sparrow; Savannah sparrow; sharp-tailed sparrow; field sparrow; white-throated sparrow; swamp sparrow; song sparrow; and snow bunting.

— 1817 37th Street, N.W.  
Washington, D.C.

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#### LAST CHANCE TO SAVE VIRGINIA'S STATE PARKS

By R. J. Watson

Members of the VSO who attended the recent Back Bay foray had an opportunity to learn the details of a plan recently suggested to settle the status of Virginia's state parks, now resting in a kind of limbo as a result of litigation. This plan was presented to the Board of Conservation and Development by the State Parks Study Committee, a group appointed for the purpose of drawing up recommendations on this subject.

In its report to the Board, this committee submitted a plan whereby these parks may be retained and reopened for public use. Briefly, the proposals are as follows: (1) That the State of Virginia reaffirm its intention to retain existing parks, and to add new ones as necessary; (2) that these parks be valued as much for their scientific and esthetic value as for their recreational possibilities; (3) that the "developed areas," containing commercial facilities, be gradually de-emphasized, and that attention be diverted to the undeveloped or wilderness areas in each park, for uses such as camping, hunting, fishing, nature study, and the like; and (4) that the Department of Conservation and Development initiate a ten-year effort to educate the public in the use of the undeveloped areas.

The value of this plan is at once obvious. It is probably the last chance to salvage our state park system. If it is defeated, pressure will soon become irresistible for the opening of the parks to commercial exploitation. At the suggestion of VSO members present at the foray, I have already written a letter to the Director, Department of Conservation and Development (Mr. Raymond V. Long), in Richmond, urging that the plan be put into effect.

I believe it would help if as many individual members as possible were to express their opinions in similar fashion. We must rally public opinion to support this plan if we are to save our parks. You may do this either by writing Mr. Long, or by contacting your local state delegate or senator (or both). In either case, be sure to urge, in the strongest possible terms, that the plan proposed by the State Parks Study Committee be supported and implemented.

-- 912 N. Wayne Street  
Arlington 1, Virginia

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#### NOTES

Annual Meeting. The 1958 Annual Meeting of the VSO will be held at Blacksburg, Virginia, on Friday and Saturday, May 2 and 3. R.J. Watson, 912 N. Wayne Street, Arlington 1, Virginia, will have charge of the program. He would like to hear from any member who will present a paper.

Speaker's Bureau. The Education Committee of the VSO is anxious to aid the teachers of the State by setting up a Speaker's Bureau of our members who are willing to volunteer for this job. In volunteering members would signify their willingness to appear in classrooms or on assembly programs to tell the students about bird life. The teachers of the Science Section of the Virginia Education Association who attended their section meeting in Richmond were anxious to have such a service available to them.

If you would be willing to render such a service to the pupils and teachers of your community or other communities, will you please notify Mrs. Luther Machen, 322 Marshall Street, Hampton, Virginia, by dropping her a card with your name and address. We would like to activate this Speaker's Bureau before the beginning of the spring migration.

Report on Evening Grosbeaks. Robert O. Paxton, 1817 37th Street, N.W., Washington, D.C., has agreed to write a report on the 1957-1958 Evening Grosbeak migration. Any of the members who have any observations on these birds are requested to write him, giving places, dates, and numbers.

Pine Grosbeak in Rockingham County. Dr. Harry G.M. Jopson, Bridgewater College, Bridgewater, Virginia, reports seeing a single Pine Grosbeak on top of the Shenandoah Mountain, at the head of Mines Run, in Rockingham County, at an elevation of 3800 feet, on December 7, 1957.

Use the New Names. From now on all writers for The Raven are asked to follow the terminology of the new American Ornithologists' Union 'Check-List.' In that 'Check-List' no common names are used for subspecies. A good many changes have been made in both the common and Latin names of species. This 'Check-List' will be standard usage for many years to come. Consult the 'Check-List' when you are preparing a paper. If you do not have access to the A.O.U. 'Check-List,' the Editor will correct your paper so far as possible. No attempt has been made to do this for the Christmas Counts in the present issue.

Next Issue. We need material for the next issue of The Raven.

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#### TREASURER'S ANNUAL REPORT

|  |    |               |
|--|----|---------------|
| On hand in Bank of Waverly - January 1, 1957 . . . . . | \$ | 515.62        |
| Receipts from dues and donations . . . . .             |    | <u>904.00</u> |
|  | \$ | 1,419.62      |

#### Expenditures:

|  |    |                    |
|--|----|--------------------|
| Raven production . . . . .                                     | \$ | 312.74             |
| Secretarial expenses . . . . .                                 |    | 3.50               |
| Virginia Wildlife Federation dues . . . . .                    |    | 75.00              |
| National Audubon Society dues . . . . .                        |    | 10.00              |
| Annual meeting expenses . . . . .                              |    | 82.91              |
| Postage (treasurer) . . . . .                                  |    | 30.00              |
| Treasury expenses . . . . .                                    |    | 10.00              |
| Stationery printing . . . . .                                  |    | 21.00              |
| National Audubon Society (hawk leaflets). . . . .              |    | 9.00               |
| Transferred to Publication Fund . . . . .                      |    | <u>206.82</u>      |
|  | \$ | 760.97             |
|  |    | <u>\$ 1,419.62</u> |
| Balance on hand in Bank of Waverly - January 1, 1958 . . . . . | \$ | <u>760.97</u>      |
|  |    | 658.65             |

The above includes the Trip Fund which as of January 1, 1958 amounted to \$135.10. This leaves a net operating fund of \$523.55.

The Publication Fund is carried in a separate savings account. As of January 1, 1958, this fund amounted to \$502.00.

Submitted by

C.C. Steirly, Treasurer, VSO  
Waverly, Virginia



# The Raven

BULLETIN OF THE VIRGINIA SOCIETY OF ORNITHOLOGY

J. J. MURRAY, EDITOR  
LEXINGTON, VA.

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VSO Annual Meeting - Blacksburg, Virginia - May 2 & 3

## THE BALD EAGLE NEST SURVEY IN VIRGINIA

By F. R. Scott

Early in 1956 the VSO Executive Committee approved the start of a continuing Bald Eagle nest survey in Virginia to be handled by the Research Committee. At about the same time the Audubon Society of the District of Columbia formed a group for a similar purpose, the Bald Eagle Survey Committee, to cover all of the middle Atlantic coastal region. Jackson M. Abbott was appointed chairman of this committee. It was agreed that the two organizations would exchange information fully, with the VSO Research Committee acting as the clearing house for all survey information in Virginia away from the Washington area.

The purposes of the survey have been outlined by Abbott in a preliminary report already (Raven, 28: 18-19, 1957; Atlantic Naturalist, 12: 118-119, 1957). Briefly, it is planned to locate as many Bald Eagle nests as possible and to keep them under observation annually to determine whether or not each nest is used each year and the success or failure of each nesting attempt. From this information we hope to ascertain whether or not the Bald Eagle population is actually decreasing, as some now believe, and if so, the causes and possibly some way to halt the decline.

Every observer who can is asked to obtain and report as much of the following information as possible on each nest:

(1) Give the exact location of any nest, whether active or not. It would be very helpful to mark the location on a map and send it in. Extreme care, of course, should be taken not to confuse Bald Eagle nests with those of Ospreys. Send in nest locations even when no other information is available.

(2) Give the history of the nest, insofar as the information is available from your own records or from residents nearby. Make this as complete as possible, including years the nest was known to be either active or inactive. For a newly found nest, try to find out the following for each year:

- (a) Active or inactive?
- (b) If active, dates of building activity and incubation (but only without disturbing the adult birds unduly).
- (c) Dates and number of young in the nest.
- (d) Number of young that leave nest and date.
- (e) Causes of failure, if any.

(3) Give a complete physical description of the nest, including size and height of nest above ground and kind of tree in which built. Is tree alive or dead?

Note that the most important information wanted for each nest, aside from its exact location, is its success or failure in producing young that leave the nest. It is realized, of course, that ascertaining this fact is frequently impossible for the average observer, but this should be the ultimate goal. And above all, at least give a report on the use of each nest for each year, either active, inactive, or unknown. This is especially important since some pairs may alternate annually between two or more nests in the same general area. It would be helpful to the author if information on each nest were submitted on separate pages.

Thus far, only a few observers have submitted nest reports for the state, and many of these reports did not even say whether or not the nests were active in 1956 or 57. Thus it is impossible to give any more than a rough estimate of the number of active nests found in either year. The reports received to date are summarized below. Only definite nest reports have been used,

Northern Virginia (Fairfax, Prince William, and Stafford Counties). A number of nests have been reported, at least one going back to 1945, but observations were so limited that none were known to have brought a brood off the nest successfully. Of those reported, one was definitely active in 1956 and 3 in 1957. All of these nests were reported by J. M. Abbott.

Lower Peninsula (Cities of Hampton, Newport News, Warwick, and adjacent counties). Three current nests have been reported. One nest (Mariner's Museum) was begun but deserted in both 1955 and 56 and was unoccupied in 1957. Another nest at Hampton (Mrs. James B. Blodgett) successfully produced 2 young in 1955 and 56 (no report in 1957). The third nest, also in Hampton (Mrs. J. D. Bird), produced 2 young in 1957, with the previous 2 years being unsuccessful because of the destruction of the nest trees. Reports on these nests all came through Mrs. Luther Machen.

Southside Virginia (area west of Hampton Roads and south of James River). Three current nests have been reported from Surry and Prince George Counties by C. C. Steirly. One near Bacon's Castle, Surry County, was known to be active in 1956, but there was no 1957 report. An old nest at Hog Island, Surry County, was active for at least several years before it blew over in Hurricane Hazel in 1955.

Cape Henry Region (Norfolk City and Norfolk, Princess Anne, and Nansemond Counties). At least 11 current nests have been reported, with most of these being active in 1956 and 57. However, information on most of these have been available thus far only in outline form. The only report of young produced was from one nest in Seashore State Park, which produced 2 in 1957. W. F. Rountrey submitted a general over-all outline of the nests in the area, while W. W. McNeil sent in a detailed report on 5 nests, with a map, in Seashore State Park.

Two other areas have been searched with negative results, the Richmond area and Virginia's Eastern Shore. In central Virginia the westernmost nest reported is at Brandon, Prince George County (C. C. Steirly), although adult birds are commonly seen in the nesting season as far west as Hopewell and Chesterfield County. Oddly enough, there are few if any records of Bald Eagles from Virginia's Eastern Shore during the nesting season, but at least one active nest is known to be a short distance north of the state line near Berlin, Maryland.

There seems to be no information, positive or negative, on either nests or birds in a large part of Tidewater Virginia. This includes the following rivers: Chickahominy, Mattaponi, Pamunkey, York, Poquoson, Piankatank, Rappahannock, Corrotoman, Wicomico, and the Potomac east of Stafford County. And of course only a very small part of the Chesapeake Bay and James River shorelines have been covered.

Thus far the data received do not warrant trying to calculate the percentage of active nests that produced or failed. However, field observations are increasing, and there are hopes that 1958 reports will be more complete than ones already received. An intensive survey of this kind would make an ideal project for a local bird group, with cooperating individuals being assigned to known nests to obtain the required information. The Cape Henry Bird Club is already doing this, and other groups in Hampton, Williamsburg, and Arlington might follow suit.

The Research Committee hopes to continue to publish a general survey report of this type every one or two years, but the Committee also hopes that individuals or local groups will feel free to publish their own observations in more detail when warranted.

— Richmond, Virginia

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#### WILLIAM RUFUS AND LADY JANE GREY

By Mrs. Keith B. Wiley

We never knew whether William Rufus was really Wilhelmina and Lady Jane Grey was equally inappropriately named, for Richard Pough's Audubon Bird Guide (to) Eastern Land Birds informed us that the difference in color of rufous and gray screech owls "bears no relation to age or sex, and an individual never changes." Both owls consistently behaved with male boldness during their entire residence in our yard.

I first saw William early one afternoon. I had gone out on the front porch of our farm home in Albemarle County, Virginia, soon after lunch and settled down with a book. It was May 15th and a warm, sunny day. Shortly after two o'clock I heard a pair of mocking birds scolding and flying across the end of the porch into the twin red cedars which grow side by side close by the house. I knew those mocking birds. They, or their progeny, have nested in the yard about the house every year for the last six. The nest was probably nearer to the porch than usual this year and they were mad at my sitting there so close by it. I read on. But soon the screams made that impossible. I looked up. There on a branch of the red cedar nearest the porch and not more than six feet from me sat a red-brown screech owl with his head turned toward me and his deep-yellow eyes unblinking.

It was his presence, not mine, that was driving the mocking birds into their frenzy. As I watched, one of them flew past him screaming furiously. William turned his head and shifted his claws slightly on the branch. The

other mocker dived noisily at him. I held my breath expecting him to fly off, but he made no further move. I had seen a wild owl only once before in daylight and that briefly several years ago sitting in a hole in a locust tree on a cloudy day. I still remembered my disappointment when that owl retreated out of sight as soon as it became aware of me. Therefore I could hardly believe my luck now with William Rufus. For twenty minutes he continued to sit on his branch, the mocking birds to dive him, and I to watch. I noticed that for all their noise and rush of flight toward him, the mocking birds never touched him as I have often seen them bump our cat smartly on the head when she passes too near their nest. William did not seem greatly disturbed by all their excitement or the bright sunlight. He blinked his eyes only occasionally and did not always bother to turn his head when a gray scream flew past him,

Finally, tired of the sport, the mocking birds left. Suddenly it was very quiet in our yard. The red owl spread his wings and silently flew up into the silver maple which grows at the yard fence perhaps twenty feet from the porch. There he alighted in the fork of a small branch near the top of the tree. In a moment I heard a low clucking sound, something like the call a hen gives to her chicks; and suddenly a gray screech owl appeared in the second red cedar from the porch. Where she came from I did not know, but abruptly she was there.

She appeared to be the same size as William, but gray where he was rufous. Her eyes were fully as disturbingly large and fiercely yellow as his. She settled herself on a branch about halfway up the tree with her back against the trunk. The afternoon moved on.

From time to time William uttered his low clucking cry, but Lady Jane remained silent. Both owls were facing in my direction, and, as I found out later, in the direction of their nesting hole in the hollow paulownia just beside the house. At five o'clock I had to leave my post to start supper but Sarah, who is twelve years old, took my place. When it was time for her to help with supper, Victoria, who is nine, took over the watch on the porch. The owls were still there when twilight came. We couldn't believe our good fortune. Perhaps they were going to stay!

The next day was cloudy with occasional light showers. When I went out on the porch at 7 a.m. I found William on his same perch in the silver maple and Lady Jane in the red cedar. Soon after I appeared William gave a low cry but this time it was different than it had been, less reminiscent of a hen. It was, in fact, a typical screech owl wail but so faint that I could almost persuade myself that I had only imagined it. I waited, and it came again. Watching William through the field glasses, I saw that it was made with the beak closed in the same way that the mocking bird sings its "whisper song."

Farm work, school, and household chores had to go on so we had only fleeting minutes during the day to watch the owls. We decided to keep notes, each of us writing down the time and position of the owls whenever we had a moment during the day to observe them. None of us looked into the south yard during that whole day without finding each owl on its same perch. We heard William's low shivering wail again and again, but never a sound from Lady Jane. At 5 p.m. she had disappeared. William was still in the silver maple when twilight came.

During that night Sarah, whose bedroom windows open onto the south yard, heard shivering wails from both the red cedar and silver maple trees. These wails were louder than the one William had uttered during the day but by no means as loud as the usual screech owl cry we hear in August.

The following morning was cold and rainy. At 7 a.m. the red owl was on his usual perch in the silver maple, but Lady Jane was nowhere in sight. When I returned from a trip to town William had also disappeared.

For the next three days none of us had even the briefest glimpse of either owl. But we all heard at irregular intervals the low, shivering wail coming (we thought) from the direction of the silver maple. William's usual perch there remained untenanted and, although we searched the silver maple carefully with field glasses at moments when we were actually hearing the wail, we could not find its utterer. We were very poor detectives because we failed completely at this time to realize that the owls' nest was in the paulownia tree between the house and the silver maple and that the sound that came so clearly from that direction could have come from either tree.

At lunchtime on May 22nd, we saw Lady Jane on William's perch in the silver maple. A moment after we appeared she gave the low, shivering cry that the red owl had given when he was on that perch. It was the first sound we had heard from the gray owl in the daytime. And for the first time the thought occurred to us that this low-pitched cry might be a warning to young birds in a nest nearby.

The next day we saw no sign of our nearest neighbors until 11 a.m. when we both heard and saw William in the silver maple where he remained all day. In the early afternoon Lady Jane appeared in the red cedar where she remained silent until dusk.

At twilight I searched the red cedar and silver maple but could find no trace of either owl. I returned to my desk which is directly beside a window opening onto the south yard. It was now dark, but I delayed in turning on my desk light. Suddenly I heard two simultaneous low tremolos from immediately outside the window. Unmistakably from the paulownia!

Both owls kept appearing and disappearing all the next day. William uttered the low wail at intervals. Several times during the afternoon they were both perched in the silver maple at the same time with Lady Jane in their usual place and William about two branches away. Careful examination, through the field glasses, of them both seen thus close together showed that the gray owl was slightly larger than the red one, an indication that Lady Jane was indeed a female.

At 6:30 p.m. sitting at my desk, I heard a rolling purr come from the paulownia. An hour later when it was nearly dark, William flew silently to the first big elbow of the paulownia trunk where there is a small hole into which he disappeared. Again there came the rolling, cat-like purr -- and I was sure of the nest of owlets.

The next morning Lady Jane was on the red owl's accustomed perch in the silver maple, which perch we now observed was about 20 feet from the ground and directly opposite the hole in the paulownia.

At 7:30 p.m., posted at the window by my desk, I heard cluckings and purrings from the paulownia. I watched the tree in the gathering darkness. First the red owl flashed upward from the grass to the nesting hole, and almost immediately flashed back. This occurred twice within a few minutes. Then we saw William hawking just above the grass of the lawn. Suddenly Lady Jane flew out of the nesting hole and disappeared in the shadow of the red cedars. In a moment she flashed back to the nesting hole, paused, and disappeared in silent flight again. The rolling purr from the nest continued off and on for some time. Whenever the adult owls flew to the hole there was the increased volume of noise that is always heard when young birds are fed.

Just before full dark, both big owls flew to the hole at the same time; one immediately flew back to the nearest red cedar limb. A few seconds later, the other big owl flew to the same red cedar limb. Presently there came the muted, ghostly wail while the rolling purr continued in the nesting hole. At 8:30 p.m., well after dark, there was increased volume in the nestlings' clamor, and then a cat-like cry in the bushes beneath the paulownia followed by complete silence. Inside the house we conferred in whispers. What had happened? Had one of the owlets fallen from the nesting hole? If so, could we find it and put it safely back in the nest in the darkness? Even as we wondered, the rolling purr began again, and we were reassured.

At lunchtime the next day we caught a glimpse of the gray head of a fluffy young owl looking out of the hole in the paulownia. It disappeared almost immediately.

It was on the following day that the drama of the owlet was enacted. I had gone out on the porch at 11:25 a.m. hoping to see one of the young owls. I was not disappointed for there poking well out of the hole was a frivolously fluffy gray head. It stared at me with great innocent eyes, leaning far around the edge of the hole. Suddenly without warning he (we assumed masculinity because of his adventurousness) fell forward. There was a frantic flapping of surprisingly big wings, and he caught himself by his claws on a thin branch growing out from the tree beside the hole. There he hung upside down with spread wings beating wildly. I was amazed at how large he was -- almost the size of the adult owls -- but it was obvious that he could not fly. With flapping wings and inching claws he worked himself along that small, weak branch and then -- appallingly -- off it onto a leaf! With fascinated horror I watched the inevitable; yet as he fell the outstretched wings broke the force of his fall, and, in a moment, he stood upright on the ground facing me.

How could we effect a rescue? I looked up and saw Lady Jane staring at me from the silver maple and William uncomfortably close by in the red cedar. I fancied -- or was it fancy? -- they leaned forward, and in their great yellow eyes I saw the menace of tearing claws and beaks. I called to Sarah and Victoria to ring the farm bell for Father.

But before he came with the ladder, the owlet had begun inching his way up the trunk of the paulownia toward the nesting hole. He kept his head turned toward us as he went. His parents did not move. Thinking if we removed ourselves from the scene, they might be able to help him in some way, we went in the house and took up our post at my desk. Our view of him through the window from there was excellent as he was but eight feet from us. We watched his slow, frightened, but determined progress up the tree. He was

covered with the now-familiar gray down except for his wing tips which were sprouting red-brown feathers. We supposed he would be able to fly only when his wings were completely feathered, and then would be a red owl like William Rufus.

Fifteen minutes after he fell to the ground he had climbed back, alone and unaided, to the first big branch which was about 20 feet from the ground and on the opposite side of the tree from the nesting hole. An hour later he was still there with William standing guard only two branchlets away and Lady Jane watching from the silver maple. At four o'clock when Sarah and Victoria came home from school they called softly to me from the yard to come quickly and see a second fluffy gray head poking out of the hole in the paulownia.

The next afternoon there was a violent thunderstorm. Just before it broke over us, Sarah saw one of the nestlings in the hole. We had seen both William and Lady Jane at intervals during the day but never at the same time. Now only the big gray owl was visible; and she was in the silver maple. As the thunder rumbled nearer, we heard her calling her muted wail more frequently than we had ever heard it, as if she were reassuring her nestlings.

After the storm there was silence in the south yard. Then a hen-like clucking came from the nesting hole. And last the wail, very, very low.

The morning of May 30th was cool and sunny. Lady Jane spent the whole morning in the silver maple watching the nesting hole. At 1 p.m. I went out on the porch and established myself with my mending. I sat facing the paulownia tree and Lady Jane on her perch. Apparently this open watching was a mistake, because when I looked up the big gray owl had disappeared. From time to time I heard the low wail, but I could not tell from where it came until I accidentally caught a glimpse of William in the holly tree which grows by the yard gate between the second red cedar and the silver maple. He was perched on a branch where it joined the trunk about 20 feet from the ground and facing the nesting hole in the paulownia. At 6 p.m. Sarah located one of the owlets in the holly tree on a level with William but on the opposite side of the trunk. They both remained there as long as it was light enough for us to see them. They did not appear to be the least disturbed by our going in and out of the gate directly below them, although they both turned their heads to watch us pass.

The next morning we searched the holly tree carefully, but could find neither of them. Lady Jane again spent the day in the silver maple watching the nesting hole and occasionally emitting the low, jaunting wail. We wondered if William had taken charge of the owlet that fell from the nest on May 28th while Lady Jane kept the young owl, or owls, still in the hole under her tutelage. At 4:45 p.m. William joined Lady Jane in the silver maple. But there was no visible sign of the young owls.

At 7:15 a.m. the big gray owl was again at the post in the silver maple. At 9:30 when I came back from getting the mail there was William in the holly tree, but no young owl with him. And William himself had not been there when I passed beneath the old tree at 9 o'clock to go on my errand. He uttered low cries at intervals throughout the day. The nesting hole was silent, and when I examined it as best I could from the ground I could find no trace of the young birds. Yet all that day the adult owls watched the

nesting hole. At 5:30 p.m. we saw William and Lady Jane still on these same perches. We did not then know that we saw them for the last time.

The next day the trees in the south yard were deserted, and the stillness was unbroken by the low, plaintive shiver we knew so well. For days after we watched and listened, but at last we had to accept the fact that our nearest neighbors had indeed gone.

It is now August 17th. Last night I finished writing this account. At 2 a.m. Sarah was awakened by a screech own shivering its sweet tremolo outside her bedroom windows. Of course, there is no way of knowing that it was one of William's family, but surely there is no harm in our thinking that it was -- no harm, and a warm feeling of home and completeness with nature.

-- Wakefield Forest  
Earlsville, Virginia

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#### RARE FLYCATCHERS IN VIRGINIA

By F. C. Richardson

For several years our President, Mr. W.F. Rountrey, and I have covered a good portion of the network of roads of inland Princess Anne County on the Christmas Count. It has been our good fortune to add to the Count two western flycatchers that Peterson classes as "Accidentals."

December 31, 1956, while driving along a country road between Kempsville and Princess Anne, we saw a bird that we were about to record as one more Shrike perched on a fence post a hundred yards away. Just then the bird darted down for an insect and returned to its perch in true flycatcher style. Binoculars disclosed rust brown under parts. A hurried look at Peterson, the only book we had with us, was not conclusive. The nearest picture we could find was a female Vermillion Flycatcher. Whatever it was, we decided it should be collected. Since Rountrey has a collector's permit, we made a mad dash to his home, ten miles distant, for his small caliber shotgun and ammunition. He hurriedly snatched his gun and a handful of shells and we were on our way. When we arrived our fondest hopes were realized. There was our bird on his post awaiting his fate. Taking careful aim, Rountrey fired, and to our dismay our intended specimen nonchalantly flew to a distant perch. After two more equally unfortunate shots we completely lost sight of our rara avis and sadly returned to the car. No reflection on the marksmanship of my companion is intended. In his excitement he had picked up shells loaded with coarse shot, and with a small .410 bore gun chances of hitting so small a target are slight. The next day, with proper ammunition, he collected the bird which we had already identified as a Say's Phoebe, Sayornis Saya Saya (Bonaparte). The specimen was sent to Washington and our identification was confirmed, with the subspecies also determined.

During the Little Creek Christmas Count, December 26, 1957, we had halted our car in front of the O.H. Buyrn estate on the old road to Princess Anne. We were admiring the fine old trees and shrubbery in the spacious yard when we spied what we thought was a Crested Flycatcher. The shape and general appearance was the same but the bird was much paler with a white throat and whitish breast. Identification as an Ash-Throated Flycatcher, Myiarchus cinerascens (Lawrence), was easy with the aid of a good picture in the Audubon Bird Guide and Peterson's description in the Western Accidentals. Incidentally, Mr. Buyrn afterwards told Rountrey that he had been watching the birds and he thought two or three of this species had been around his yard for several days.

We wonder why these western birds wander so far away from their regular habitat. Does the remarkable built-in compass that guides the birds go awry; or do they just want to see the country?

-- 117 - 69th Street  
Virginia Beach, Virginia

(This is a new bird for the Virginia hypothetical list. A bird of this species was collected at Monkton, Maryland, last November. Editor)

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#### OPERATION RECOVERY IN VIRGINIA, 1957

By F. R. Scott

Operation Recovery is a cooperative program to band birds in large numbers, especially small land birds, during a specified period of the fall migration along the coast. The program, coordinated by James Baird, of Middletown, Rhode Island, and the Fish and Wildlife Service through its Bird Banding Office at Patuxent Research Refuge, had as its first object the banding of enough birds so that some recoveries could be obtained farther down the coast, thus revealing information about the distance a bird flies in a single migratory hop, the time it takes a bird to migrate a certain distance, and under what circumstances many birds leave the coast and migrate inland.

Since the hope of enough recoveries to be of use is a slim one, cooperators are also expected to gather enough additional information to make their results useful for general studies of migration. This information includes (1) complete daily weather conditions, especially those coincident with migratory flights of birds, (2) observations on diurnal or nocturnal migration, and (3) the species composition of the various flights, based on visual observations as well as banding records. Additionally, cooperators are expected to make use of their time in carrying out any personal or local research projects they may have that fit in to the over-all Operation Recovery scheme. For example, a number of participants this year weighed and made wing measurements of all or most individuals of certain species, thus yielding a mass of quantitative data ideal for statistical analysis.

The most efficient way to capture large numbers of small migrating land birds harmlessly appears to be by using Japanese "mist" nets of trammel type, which are usually from 30 to 36 feet long and about 6 feet high when set up. They are normally placed in a position to intersect travel lanes of birds, particularly through brushy areas. Their use has recently been described in some detail by Seth H. Low (Bird-Banding, 28: 115-128, 1957).

At least 9 localities from Maine to Virginia were covered in Operation Recovery during 1957, the third and best year of the program to date. Island Beach, New Jersey, had the most spectacular results. Up to 13 banders ran a series of banding stations here from September 6 through 22 and banded 2,787 birds of 91 species, all small land birds except for 1 Pigeon Hawk and 1 Sora. Up to 60 nets were operated at one time. The most frequently captured species, with the number of individuals banded, were Catbird, 819; American Redstart, 267; Yellowthroat, 159; Rufous-sided Towhee, 126; and Red-eyed Vireo, 105. Interesting rare birds, or scarce birds in unusual numbers, included Empidonax flycatchers, 82; Veery, 37; Philadelphia Vireo, 11; Nashville Warbler, 5; and Dickcissel, 1. Complete summaries of all participating localities will be mimeographed and distributed by the Bird Banding Office to cooperators and may be available to other interested parties.

Two cooperating stations were operated in Virginia. F.R. Scott and C.C. Steirly, with part-time help from J.M. Valentine and R.J. Watson, ran one on Chincoteague National Wildlife Refuge from September 16 to 21, and Mrs. Stanley S. Dickerson ran another at Kiptopeke Point from September 24 to 29. The Chincoteague group had a most unsuccessful week, with strong southerly and northeasterly winds completely inhibiting either migration itself or any buildup of concentrations of migrants. From 8 to 12 nets were operated each day. Only 65 individuals of 17 species were banded as follows:

|                      |    |                         |   |
|----------------------|----|-------------------------|---|
| Pine Warbler         | 12 | Black-and-white Warbler | 2 |
| Rufous-sided Towhee  | 12 | Ovenbird                | 2 |
| Northern Waterthrush | 8  | Black-billed Cuckoo     | 1 |
| American Redstart    | 6  | Brown Thrasher          | 1 |
| Catbird              | 5  | White-eyed Vireo        | 1 |
| Carolina Wren        | 4  | Cape May Warbler        | 1 |
| Cardinal             | 4  | Yellowthroat            | 1 |
| Swainson's Thrush    | 2  | Wilson's Warbler        | 1 |
| Red-eyed Vireo       | 2  |                         |   |

The Wilson's Warbler, the only unusual bird in the list, was caught on September 18.

Mrs. Dickerson had considerably better luck at Kiptopeke, running up to 14 nets and banding 156 birds of 26 species, as follows:

|                             |    |                           |   |
|-----------------------------|----|---------------------------|---|
| Swainson's Thrush           | 59 | Green Heron               | 1 |
| Gray-cheeked Thrush         | 41 | Sharp-shinned Hawk        | 1 |
| American Redstart           | 9  | Yellow-bellied Sapsucker  | 1 |
| Carolina Chickadee          | 8  | Eastern Phoebe            | 1 |
| Yellow-shafted Flicker      | 5  | Yellow-bellied Flycatcher | 1 |
| Black-throated Blue Warbler | 5  | Wood Thrush               | 1 |
| Catbird                     | 3  | Cape May Warbler          | 1 |
| Palm Warbler                | 3  | Bay-breasted Warbler      | 1 |

|                  |   |                        |   |
|------------------|---|------------------------|---|
| Cooper's Hawk    | 2 | Blackpoll Warbler      | 1 |
| Whip-poor-will   | 2 | Ovenbird               | 1 |
| Brown Thrasher   | 2 | Northern Waterthrush   | 1 |
| Veery            | 2 | Yellowthroat           | 1 |
| Magnolia Warbler | 2 | White-throated Sparrow | 1 |

The Yellow-bellied Flycatcher, banded on September 25, was by far the rarest bird on the list, there being apparently few other fall records for the Virginia coast. The large numbers of Swainson's and particularly Gray-cheeked Thrushes were interesting but were not considered unusual for Kiptopeke, a locality well known for its concentrations of fall migrants.

It is not easy to measure the efficiency of an Operation Recovery station, but by using the total number of net-hours of operation between sunrise and sunset, some quantitative comparisons can be made between stations. One useful method is to compute the net-hours per individual bird banded. This is more a measure of one's luck than efficiency, for there is no accurate way to estimate what percentage of the total number of birds in the vicinity has been caught. This index number will vary not only with the total number of birds in the area but also with the type of habitat, the local topography, and one's ability in placing the nets to catch the maximum number of birds. Computing net-hours per bird banded yields the following index numbers:

|              |       |              |      |
|--------------|-------|--------------|------|
| Chincoteague | 12.77 | Island Beach | 3.04 |
| Kiptopeke    | 4.31  |              |      |

In this case, of course, the lower the number, the better one's success.

The lack of success in banding large numbers of birds at Chincoteague does not mean that the week's project itself was considered unsuccessful, for negative results in a program like this can be as significant as positive results. In addition, less time spent at banding meant more time available for visual field work. Continuation of this project is anticipated for 1958, either at the 1957 stations or elsewhere, and anyone interested in joining is urged to contact F.R. Scott.

--- Richmond, Virginia

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#### A WINTER BIRD-POPULATION STUDY IN A BOTTOMLAND HARDWOOD FOREST

By C. C. Steirly

A Winter Bird-Population Study was made of a 32.58 acre sample section of a bottomland and hardwood forest during the winter of 1957-58. The area studied extended on both sides of Spring Branch, a tributary to the Blackwater River, for a distance of 44 chains or a little more than half a mile. It is one mile north of Waverly in Sussex County.

Dominant vegetation included River Branch Birch (*Betula nigra*), Sycamore (*Platanus occidentalis*), Red Maple (*Acer rubrum*), American Elm (*Ulmus americana*), Baldcypress (*Toxodium distichum*), Sweet Gum (*Liquidambar styraciflua*), White Ash (*Fraxinus americana*), Willow oak (*Quercus phellos*) and Loblolly Pine (*Pinus taeda*). The shrub layer included Dogwood (*Cornus florida*), Spicebush (*Bezoia aestivale*), Elder (*Sambucus racemosa*) and sapling growth of the above mentioned hardwoods. Much of the area was covered with dense tangles of Blackberry (*Rubus argutus*), Honeysuckle (*Lonicera tartarica*) and Smilax species.

Four trips were made through the area on December 22, 1957, Jan. 4, 1958, Jan. 20, 1958 and Jan. 26, 1958. Temperature ranges for the four dates were 30-47, 20-28, 22-50, and 38-48 degrees F. respectively.

Results of Study:

|                          | <u>Number of birds</u><br><u>per average trip</u> | <u>Density</u><br><u>per 100A.*</u> |
|--------------------------|---|-------------------------------------|
| Common Grackle           | 30.5  | 93                                  |
| Robin                    | 22.0  | 67                                  |
| White-throated Sparrow   | 12.5  | 38                                  |
| Tufted Titmouse          | 10.2  | 31                                  |
| Carolina Wren            | 7.7   | 24                                  |
| Carolina Chickadee       | 7.5   | 23                                  |
| Myrtle Warbler           | 7.2   | 22                                  |
| Downy Woodpecker         | 6.7   | 20                                  |
| Common Crow              | 6.7   | 20                                  |
| Red-bellied Woodpecker   | 6.0   | 18                                  |
| Winter Wren              | 6.0   | 18                                  |
| Cardinal                 | 5.7   | 17                                  |
| Ruby-crowned Kinglet     | 5.0   | 15                                  |
| American Goldfinch       | 4.5   | 13                                  |
| White-breasted Nuthatch  | 3.7   | 11                                  |
| Hermit Thrush            | 3.2   | 9                                   |
| Blue Jay                 | 2.2   | 7                                   |
| Rufous-sided Towhee      | 2.2   | 7                                   |
| Yellow-bellied Sapsucker | 2.0   | 6                                   |
| Yellow-shafted Flicker   | 1.5   | 4.5                                 |
| Pileated Woodpecker      | 1.2   | 4                                   |
| Red-shouldered Hawk      | 1.0   | 3                                   |
| Hairy Woodpecker         | 1.0   | 3                                   |
| Eastern Bluebird         | 1.0   | 3                                   |
| Song Sparrow             | .7  | 2                                   |
| Brown Thrasher           | .7  | 2                                   |
| Turkey Vulture           | .5  | 1                                   |
| Slate-colored Junco      | .5  | 1                                   |
| Black Vulture            | +   |                                     |
| Great Blue Heron         | +   |                                     |
| Kingfisher               | +   |                                     |
| Phoebe                   | +   |                                     |

\*Determined by the expression:

$$\frac{n \times 100}{A}$$

(where n is number of birds and A is area of study unit)

--- Waverly, Virginia

## "ANTING" OF STARLINGS AND A BLUE JAY

By A. O. English

The peculiar behavior of birds known as "anting" has been observed and reported by a number of persons. Several theories have been advanced as to the reason for birds "anting" including the following: (1) birds place ants in their feathers as a parasite repellent; (2) the formic acid from the ants soothed irritation from the parasites; and (3) birds seem to enjoy the excitement in the performance.

On three separate occasions here in my yard I have observed birds in the act of "anting". On March 13, 1955, a starling attracted my attention when it tumbled over on its side. At first I thought the bird had been injured, but when I perceived it was gathering something from the ground and placing it on the body, I realized the bird was "anting". As this was my first observation, I collected several of the ants, which were identified by Dr. M.R. Smith, Entomology Research Branch, United States Department of Agriculture. He identified them as the silky ant, Formica fusca, va. subsericea (Say).

On June 5, 1957, a Blue Jay was so busily "anting" that it permitted me to approach within about twenty feet. The bird was standing almost directly over the entrance to a rather large ant colony, facing away from me. I had been watching the bird at least two minutes when I began to count the movement of seizing the ant and placing it on the body. The act was performed 81 times, after which the bird flew to a nearby tree, ruffled its feathers a couple of times, and moved away. The following day, June 6, I observed a Starling "anting" in the same area. After a few moments it was joined by two other Starlings. The birds appeared to be chasing the ants about madly and at the same time made a cackling noise. One bird ran a short distance to the base of a nearby tree, reached up and seized an ant, then quickly joined the other birds. The species of ant was the same in the three observations.

In the accounts I have read concerning the "anting" of birds, no one has yet discovered the real reason for this strange behavior.

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## MUTE SWAN IN NORTHERN VIRGINIA

By Jackson M. Abbott

The Mute Swan, Cygnus olor (Gmelin), can now be added to the list of Virginia birds. On 25 November 1957 I saw a single adult Mute Swan feeding in shallow water at the edge of the marsh at the head of Accotink Bay, Fort Belvoir, Fairfax County, Virginia. I watched the bird through 20x scope at a distance of about half a mile for nearly 30 minutes. The curved neck and orange bill with black tip and black knob were plainly visible in the scope.

The bird was not there on the 24th or 26th of November, so must have stopped just for a day on its wanderings.

Two days before, on the 16th of November, several members of the District of Columbia Audubon Society reported seeing a Mute Swan at the Roaches Run Wildfowl Sanctuary in Arlington. The bird flew in and landed on the water while they were there. It was also seen on the 23rd of November by Wilmer Hall of Washington, so it was apparently there for a week. This was probably the same bird which I saw on 25 November. This is apparently the first Virginia record for the species.

Among those who saw the bird on 16 November at Roaches Run were Mr. and Mrs. Ray P. Teele, Mr. and Mrs. C.O. Skinner, J.D. Hair, H.G. Normant, and J.A. Middleton.

— 814 - 13th Street  
New Alexandria, Virginia

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## THE BIRDS OF ROCKBRIDGE COUNTY, VIRGINIA

A Review

By F. R. Scott

"The Birds of Rockbridge County, Virginia," by Joseph James Murray, Virginia Avifauna Number 1, December 1957, published by the Virginia Society of Ornithology. Copies are obtainable at 50¢ each postpaid from F.R. Scott, 115 Kennondale Lane, Richmond 26, Virginia.

When it was revealed last fall that Dr. Murray intended to publish in The Raven a revision of his annotated list of Rockbridge County birds that had originally come out in 1944, the VSO Executive Committee approved a proposal to publish it instead as a separate booklet. The general feeling was that this would not only add to the prestige of both Dr. Murray and the Society, but it would also make the paper easier for people to use. This attractive 6-by-9-inch 59-page paper-bound booklet is the result.

This paper summarizes 30 years of active field work in Rockbridge County and covers 243 species and 21 additional subspecies that have been satisfactorily recorded from the county; two additional hypothetical species are added. Happily, the booklet follows the Fifth Edition of The A.O.U. Check-list of North American Birds in both Latin and English nomenclature. A map inside the front cover will be most useful to those who expect to use the booklet in the area covered.

The first 4½ pages give an introduction to the booklet as well as a brief physical and ecological description of the county. The remainder consists of the annotated list, which is principally a description of the seasonal distribution and abundance of each species. In addition, remarks on life history (especially nesting data), ecology, and taxonomy are included wherever the author feels they are warranted.

It seems impossible that, within the space to which he restricted himself, Dr. Murray or anyone else could have done a better job. As Prof. Ruskin Freer stated, writing in the February 16 Lynchburg News, this booklet "will almost certainly be a classic in local avifaunal publications." In a review prepared for The Kentucky Warbler, Gordon Wilson wrote: "This study is especially valuable to those of us who have tried to establish a list of birds for a given area. It is a credit to the Virginia Society of Ornithology that it chose this study for its first volume of Virginia Avifauna. We older observers can truly say of this study: 'We wish that we had done it ourselves.'"

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#### NEWS OF THE LOCAL CHAPTERS

##### Northern Virginia Chapter

The Northern Virginia Chapter observed the fall 1957 season with a program of activities which combined both field trips and indoor meetings. The season got underway with a field trip to the Hunting Creek marsh, in Alexandria, led by Jackson M. Abbott. A short meeting after the trip at the Abbott home gave members an opportunity to admire some of Mr. Abbott's bird paintings.

Dr. Alexander Wetmore described his recent trip to Africa at a meeting of the chapter held on September 29. Dr. and Mrs. Wetmore were hosts for this meeting at their beautiful home in suburban Maryland. On October 12, Dr. and Mrs. Malcolm Davis entertained the chapter on a combined field trip and meeting at their place near Herndon, Virginia. Dr. Davis is curator of birds at the Washington Zoological Park.

Miss Helen Goldstick and Mrs. R.E. Furcolow led the chapter on a field trip on October 27 to the Allie Freed Memorial Park, in south Arlington. The chapter closed its activities for the year with a meeting held on November 21 at the residence of Mr. and Mrs. James Eike. At this meeting, Mr. B.B. Warfield, of the U.S. Information Agency, told of his recent ornithological adventures in Colorado, and Mr. Scott Seegers, of McLean, Virginia, described his efforts to prevent the destruction of natural areas by highways in the Northern Virginia region. A nest of the Red-cockaded Woodpecker, loaned to Mr. Eike by C.C. Steirly, was shown at this meeting and aroused much interest.

James W. Eike continues to serve as Chairman of the group, and R.J. Watson as Secretary-Treasurer.

-- R.J. Watson

##### New Chapters Approved

At the meeting of the VSO Executive Committee at Richmond on October 19, 1957, applications for chapter affiliation from two organizations were approved, the Roanoke Valley Bird Club of Roanoke and the Turkey Sag Bird Club of Charlottesville. These bring to six the number of chapters, the others

being the Cape Henry Bird Club, Hampton Roads Bird Club, Northern Virginia Chapter, and Richmond Natural History Society.

Chapter News Wanted

VSO chapters are entitled to have a reasonable amount of news printed in The Raven, but none of the chapters have taken advantage of this without a great deal of prodding. News of general interest will be published in this column in The Raven, while announcements of future chapter activities will be printed either here or in the Newsletter, whichever will result in the earliest publication.

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Copy for The Raven (except Field Trip and Local Club News) should be sent to J.J. Murray, 109 E. Broadway, Louisville 2, Kentucky.

Field Trip Reports and Local Club News should be sent to F.R. Scott, 115 Kennondale Lane, Richmond 26, Virginia.

Requests for change of address or for back copies of The Raven should go to Miss Gertrude Prior, Sweet Briar, Virginia.

All letters relating to dues and membership should be addressed to C.C. Steirly, Treasurer, Waverly, Virginia.



# The Raven

BULLETIN OF THE VIRGINIA SOCIETY OF ORNITHOLOGY

J. J. MURRAY, EDITOR  
LEXINGTON, VA.

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THE 1958 ANNUAL MEETING OF THE VSO  
Blacksburg, Virginia  
May 2-3, 1958

By Robert J. Watson, Secretary

The 1958 Annual Meeting of the Virginia Society of Ornithology, held at Blacksburg, Virginia, opened at 10:30 a.m. on Friday, May 2, in the Agricultural Auditorium of Virginia Polytechnic Institute. President Rountrey opened the business session by asking the Secretary, Mr. R.J. Watson, to read the minutes of the last Executive Committee meeting (held on March 22). He then called on Mr. James W. Eike to read the report of the Treasurer, Mr. C.C. Steirly, who was absent. The report showed a balance on hand of \$1,045.15 as of April 25, which includes \$135.10 in the special Trip Fund; in addition, the Publication Fund (a separate account) contains \$232.16.

Mr. Rountrey summarized a report from Mrs. L.W. Machen, of the Education Committee. She has set up a speakers' bureau, and has a collection of slides showing pictures of hawks, suitable for use with lectures.

Mr. Eike, the chairman of the Committee on Local Chapters, described a letter which he recently received from Mrs. James Wiltshire, of Lynchburg, stating that a chapter had been formed there and that approval for its affiliation would be sought during the Blacksburg meeting. Mr. Rountrey suggested that the matter be acted on at once, since enough members of the Executive Committee, which must approve all new chapters, were present to constitute a quorum. As no members from Lynchburg were then present, Mr. Eike formally submitted the application for the affiliation of their chapter. It was unanimously approved.

Mr. Rountrey reported that the hawk protection law sponsored by the VSO was recently passed by the state legislature and will go into effect in June. Mr. F.R. Scott described the eagle nest survey being carried out by the Research Committee, of which he is chairman.

Miss Evelyn Watkins, chairman of the Membership Committee, asked for suggestions on the subject of VSO membership. Mr. Eike mentioned a draft leaflet describing the VSO, designed for distribution to prospective VSO members, which Mr. Watson had prepared at the direction of the Executive Committee. He moved that this draft, which Mr. Watson had submitted to members of the Committee for comment, be approved for reproduction and distribution. The motion was carried.

Mrs. Margaret Coleman, of the Publicity Committee, explained that her committee has been very active in supporting and publicizing the hawk protection law. Mr. A.L. Dean, of Blacksburg, reported on his work with school children, which has been discontinued since he retired. Mr. Rountrey suggested that Mr. Dean write up any ideas which he might have and send them to the Publicity Committee.

At Mr. Rountrey's request, Mr. Watson read a letter from Dr. J.J. Murray, who is spending a year in Louisville, Kentucky. Dr. Murray expressed great regret at missing the meeting, the first he has failed to attend.

Mr. Rountrey then reported that Mr. Steirly's Trip Committee had drafted plans for a foray at Skyland on June 20-22 and for another to Wachapreague on August 22-24. A second Skyland trip is under consideration for October, while the Back Bay trip has been tentatively scheduled for the first week in December.

The afternoon session began at 1:30 p.m. in the Agricultural Auditorium. Mr. Rountrey asked Mr. Watson to preside. Mr. Watson introduced Dr. L.B. Dietrich, of V.P.I., who welcomed the Society on behalf of Dr. Walter Newman, president of the college.

The first paper of the afternoon was "Ornithological Work in Montgomery County," given by Mr. Watson. This was a summary of ornithology in the Blacksburg region, beginning in 1891 with the work of Dr. E.A. Smyth. Dr. John W. Murray, of Blacksburg, followed this with a description of "Some Recent Additions to the Montgomery County List." Among the species added since 1943, according to Dr. Murray, have been the European Widgeon, the White-winged Scoter, the Willet, and the Royal and Caspian Terns.

Dr. Charles O. Handley, Jr., of Falls Church, who is engaged in bringing Dr. Smyth's work up to date, spoke on "A New List of Montgomery County Birds." Local lists, he pointed out, serve as a stimulus for further observation, as a basis for more inclusive studies, as a means for comparing distributions in various localities, and as a source for indicating changing trends in bird population. He called attention to a number of changes in bird life in Montgomery County since Dr. Smyth's day. Mr. A.O. English, of Roanoke, offered some "Remarks on the Birds of Roanoke County," based on his observations starting in 1934. His present list includes 206 species (exclusive of subspecies) for the county. He expressed hope that the new Roanoke VSO chapter would stimulate further studies.

In the absence of Mr. P.L. Dulaney, of Portsmouth, who had been scheduled to appear on the program, a short business meeting was held before the refreshment break. Mr. R.O. Paxton, of Lexington, asked members to send him information about this year's Evening Grosbeak invasion. Mrs. Coleman displayed a proposed VSO arm patch, bearing a Raven design, which the Executive Committee had tentatively approved for sale to members who might wish to wear it on their field clothes. The design was approved by the Society.

After a period of refreshments served by wives of Blacksburg VSO members, Dr. Henry S. Mosby discussed "The Wild Turkey in Southwestern Virginia." This species disappeared from here a generation or so ago, but there are about 1,300 square miles in Southwest Virginia which appear to be suitable Turkey habitat. Numerous unsuccessful efforts have been made to establish the Turkey here. A new method - live trapping and transplanting from other parts of the state - is now being tried, according to the speaker, and shows some promise. In commenting on Dr. Mosby's talk, Mr. C.O. Handley, Sr., of the West Virginia Game Commission, remarked that this method has been spectacularly successful in West Virginia.

Mr. J.V. Gwynn, of Charlottesville, described "A Program of Management for Virginia's Deer and Elk." The overall goal of this program, which is being undertaken by the Virginia Commission of Game and Inland Fisheries, is to make possible the maximum volume of hunting. This objective is being sought through research into deer population and reproduction rates, through adjustment of the kill to the capacity of the range,

and through education of the public to the need for certain indispensable measures, such as the killing of does.

Dr. James S. Lindzey spoke on "The Virginia Cooperative Wildlife Research Unit in the Virginia Conservation Scheme." This unit was established in 1935 with the joint support of V.P.I., of the Virginia Commission of Game and Inland Fisheries, of the Federal Fish and Wildlife Service, and of the privately financed Wildlife Management Institute. Dr. Lindzey mentioned some research studies undertaken by the unit, of which he recently resigned as head. He then described a nationwide study being conducted by the Fish and Wildlife Service to appraise the damage done by vast flocks of blackbirds in many areas of the country, notably in Eastern Virginia, and to find ways of preventing the damage.

Mrs. C.L. Burgess, of Lynchburg, a member of the VSO Conservation Committee, summarized a letter which she had received from the chairman of this committee, Mr. Steirly, urging the need for educating the public in conservation. She submitted a report describing her work to mobilize support for the hawk law, which was read by Mr. Watson. The session closed with the showing of a motion picture produced by the Virginia Commission of Game and Inland Fisheries, entitled "Wings over Salt Marshes," which depicted waterfowl on Virginia's Eastern Shore.

The banquet was held at 7:00 p.m. in the Blacksburg Masonic Hall. After the banquet, Dr. D.R. Hostetter, chairman of the Nominating Committee, submitted the following nominees:

President - W. F. Rountrey  
Vice President - P. S. Dulaney  
Secretary - R. J. Watson  
Treasurer - C. C. Steirly  
Executive Committee (for a three-year term) -  
Max Carpenter, Mrs. Colgate W. Darden, and Dr. John Grey.

All were elected.

Dr. Lindzey introduced the featured speaker, Dr. Maurice Brooks, of the University of West Virginia. Dr. Brooks' subject was the mountain area of Virginia, especially the extreme southwest, and its many fascinating natural features. In a careful survey of The Raven, Dr. Brooks had found only two references to an area embracing seven counties (Lee, Scott, Russell, Dickinson, Buchanan, Tazewell, and Wise), which is larger than some states of the Union. The unique features of this area, and of the Southern Appalachians in general, result from its geological history. Among aspects of the ornithology of Southwest Virginia which deserve further study, the speaker mentioned the following: Migratory movements across the mountains (southeast from the Canadian prairies or northeast from the Gulf); hawk migration routes in areas where the mountain ridges do not follow a straight line; possible nesting sites of the Golden Eagle; and details of the distribution of the Yellow-throated and Swainson's Warblers. He urged VSO members to study the birds of the mountains and to publish their results.

The annual field trip began at 7:30 a.m. on Saturday, May 3, from the V.P.I. Campus. It included Mountain Lake, the valley of Big Stony Creek, and part of New River Valley, with a return to the Campus for lunch at the picnic area near the college ponds. The meeting adjourned about 1:00 p.m.,

--- 906 N. Wayne, Apt. 101  
Arlington 1, Virginia

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THE 1958 VSO ANNUAL MEETING FIELD TRIP  
Salt Pond Mountain & Big Stony Creek

By John W. Murray

After a rainy Friday for the Annual Meeting, about forty-five members of the VSO piled into eleven cars and left the VPI campus at 7 a.m. heading for Mountain Lake. Salt Pond Mountain, which culminates in Bald Knob at 4,363 feet, is an island of the Alleghenian Zone in a sea of the Carolinian. There grow the yellow clintonia and the bunchberry and there nest the Canada Warbler and the Rose-breasted Grosbeak. Mountain Lake lies just below Bald Knob at an elevation of 3,874 feet. It is one of two natural lakes in the state of Virginia and is believed to have resulted from the collapse of an extensive cave system. It is ringed with rhododendron and mountain ash backed by tall hemlocks and birches.

When the foray party reached Mountain Lake, they saw very few birds although many were heard, as the mountain top was in a cloud and the visibility was very low. The song of the Carolina Junco was very much in evidence. We walked down to the shore of the lake and verified the suspicion that the water was cold.

The next stop was at the Biological Station of the University of Virginia a short distance beyond the lake. Here the bird observation began to pick up and we were greeted by the persistent call of the Least Flycatcher. Chestnut-sided Warblers and Rose-breasted Grosbeaks were common here and the song of the White-throated Sparrow and the croak of the Raven were heard. A Canada Warbler was found over a nearby stream.

We then followed the road northward along Salt Pond Mountain and down the north side to the Big Stony Creek, stopping now and then to look and listen. At one stop, the woods above the road was carpeted with Dutchman's Breeches in bloom. At the next stop, a lone arbutus plant was found in bloom, a Redstart sang and a Broad-winged Hawk sailed overhead. At a campground near Big Stony Creek, a Golden-winged Warbler and a pair of Blackburnian Warblers were found.

While driving south down the Big Stony, someone in the lead car spied a large snapping turtle near the edge of the road which was bordered by a swamp. They stopped to catch it by the tail. This resulted in the biggest surprise of the trip for an American Bittern flushed from the swamp and flew to a limb of a pine tree and posed with its neck stretched upward for all to see.

The party then returned to the VPI duck pond for a picnic lunch. The ducks were very cooperative for, although many had left for their summer homes, several Shovellers, Lesser Scaup, and Gadwall and a Baldpate and a female Red-breasted Merganser stayed over to be seen by the VSO or vice versa. The Shovellers departed that night. In view of the heavy rains that preceded and followed the field trip, it was agreed that the weather bureau had given the VSO its fullest cooperation. Including the observations of a splinter group including C.O. Handley and C.O. Handley, Jr., on the VPI farm, the total count for the day was one hundred and thirteen species.

The complete list follows: Green Heron; American Bittern; Mallard; Black Duck; Gadwall; Baldpate; Blue-winged Teal; Shoveller; Lesser Scaup Duck; Red-breasted Merganser; Turkey Vulture; Red-shouldered Hawk; Broad-winged Hawk; Sparrow Hawk; Bob-white; Sora; Killdeer; Wilson's Snipe; Spotted Sandpiper; Solitary Sandpiper; Greater Yellow-legs; Lesser Yellow-legs; Mourning Dove; Black-billed Cuckoo; Chimney Swift; Ruby-throated Hummingbird; Belted Kingfisher; Flicker; Pileated Woodpecker; Red-bellied Woodpecker; Red-headed Woodpecker; Yellow-bellied Sapsucker; Hairy Woodpecker; Downy Woodpecker; Eastern Kingbird; Crested Flycatcher; Phoebe; Acadian Flycatcher; Least Flycatcher; Wood Pewee; Horned Lark; Tree Swallow; Rough-winged Swallow; Barn Swallow; Cliff Swallow; Blue Jay; Raven; Crow; Carolina Chickadee; Tufted Titmouse; White-breasted Nuthatch; House Wren; Carolina Wren; Mockingbird; Catbird; Brown Thrasher; Robin; Wood Thrush; Olive-backed Thrush; Veery; Bluebird; Blue-gray Gnatcatcher; Ruby-crowned Kinglet; Cedar Waxwing; Starling; Yellow-throated Vireo; Blue-headed Vireo; Red-eyed Vireo; Black and White Warbler; Worm-eating Warbler; Golden-winged Warbler; Parula Warbler; Yellow Warbler; Magnolia Warbler; Black-throated Blue Warbler; Myrtle Warbler; Black-throated Green Warbler; Cerulean Warbler; Blackburnian Warbler; Chestnut-sided Warbler; Prairie Warbler; Oven-bird; Northern Water-Thrush; Louisiana Water-Thrush; Yellow-throat; Yellow-breasted Chat; Hooded Warbler; Canada Warbler; Redstart; English Sparrow; Bobolink; Meadowlark; Red-wing; Orchard Oriole; Baltimore Oriole; Purple Grackle; Cowbird; Scarlet Tanager; Cardinal; Rose-breasted Grosbeak; Indigo Bunting; Purple Finch; Goldfinch; Towhee; Savannah Sparrow; Grasshopper Sparrow; Slate-colored Junco; Chipping Sparrow; Field Sparrow; White-crowned Sparrow; White-throated Sparrow; Swamp Sparrow; Song Sparrow.

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#### VIRGINIA'S CONTRIBUTION TO THE PROTECTION OF HAWKS AND OWLS

By Mrs. C. Dodson Morrisette

In 1953, Dr. D. Ralph Hostetter, President of the VSO, appointed a conservation committee under the chairmanship of W.F. Rountrey for the purpose of obtaining state legislation to protect hawks and owls. The efforts of the first year were unsatisfactory and the 1954 General Assembly met before definite plans could be worked out.

All efforts were then geared toward the 1956 Assembly and to win support of other interested groups. The Virginia Wildlife Federation, a group of sportsmen, were appealed to. The merits of such legislation had to be

presented to them twice before they were persuaded to work for it. This was in October before the Assembly met in January. The Commission of Game and Inland Fisheries also gave its support to the proposal.

In January, 1956, Delegate Cross from Norfolk County consented to sponsor the bill through the House, where everything went well. However, it was killed by a tie vote in the Senate Committee.

After the failure, Rountrey proceeded to gather other supporters. Through the efforts of Mrs. C.L. Burgess, the State Federation of Garden Clubs agreed to work for the bill. Personal appearances before civil organizations and into the schools resulted in actual support each time. Through its membership, the VSO also approached practically every member of the General Assembly. Again the bill had the support of the Virginia Wildlife Federation; and local bird clubs throughout the state added their strength.

When the General Assembly convened in January, 1958, plans had been well laid. Delegate Tom Frost, whose wife is a member of the VSO, persuaded Representative Baldwin Locher, Chairman of the House Committee on Game and Inland Fisheries, to sponsor the bill, making the patrons, Messrs. Locher and Frost. At every committee hearing an excellent delegation, composed largely of Garden Club and VSO members, appeared in behalf of the legislation. C.C. Steirly and Rountrey were the principal speakers. Though there were some proposed changes and alterations, none of these materialized, and the bill was finally passed. It is the original bill that Rountrey drew up in 1956 and to which the Virginia Wildlife made some slight changes. This bill will not only protect hawks and owls, but for the first time eagles will be protected by State law.

A filing cabinet in Rountrey's home packed with papers and letters can attest to a portion of the time and effort that went into the successful passage of this much needed piece of conservation legislation. A complete educational program was necessary to get it over and further planning is required to educate the public regarding the usefulness of these birds and acquaint them with the various species. The Bill was passed as follows:

Be it enacted by the General Assembly of Virginia:

That \*\* 29-132, as amended, and 29-133 be amended and reenacted as follows:

\*29-132. For the purpose of the hunting and trapping laws of this State, big game shall include bear, deer and elk and small game shall include all other game birds and game animals.

Wild birds and wild animals shall be classed as follows:

(a) Nonmigratory game birds. - Grouse, ringnecked and other introduced species of pheasant, bobwhite, quail and turkey.

(b) Migratory game birds. - Doves, ducks, brant, geese, swan, coot, gallinules, sora, other rails, including Virginia, King and Clapper rails, plovers, snipe, woodcock and yellowlegs.

(c) Game animals. - Bear, deer, elk, fox, rabbit and squirrel.

(d) Furbearing animals. - Beaver, mink, muskrat, opossum, otter, and raccoon.

(e) Predatory or undesirable species of birds and animals. - Blackbird, buzzard, crow, English sparrow, hawk, jaybird, owl and starling, weasel, wildcat, skunk and all other furbearing animals, provided, however, that hawks and owls shall be so classed only when a landowner or his agent considers it necessary to kill these species to protect from destruction his poultry or the game birds on his property, or when the board of supervisors of a county considers it necessary to permit the killing of these species to protect poultry or game birds in such county.

\*29-133. There shall be a continuous open season for killing predatory or undesirable species of wild birds and wild animals as defined in \*29-132.

This bill was signed by the Governor, March 4, 1958 and becomes effective on June 27, 1958.

-- Severn Point  
Norfolk 5, Virginia

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#### NOTES ON THE NESTING OF THE HUMMINGBIRD

By Mrs. C. L. Burgess

These notes were made on May 18th and May 25th, 1943, at our summer cabin located on Rocky Row Run near Snowden, Virginia, at an old slate quarrying site.

We had dammed our creek to make a swimming pool, and sitting on opposite ends of the dam on the afternoon of May 18th, my daughter-in-law and I noticed a Ruby-throated Hummingbird fly to a tall, dead or leafless cherry tree several times. The tree was approximately forty feet high. At intervals of ten and twelve minutes, the hummingbird would fly to the top of this tree, rest ten minutes, and then fly off again. This happened three times, and we were able to sight the course of her flight. She was flying in the direction of a nearby deep water hole of the old slate quarry, which we called Blue Hole. The previous year, we had found a hummingbird's nest, my husband having located it in a tall sycamore near the edge of the pool. We hastened to this sycamore, and had but a few minutes to wait when we detected the bird's approach by the whirr of her wings. We saw her resting several times on the bough of the sycamore. By this time it was late afternoon, and we had to leave.

We returned to the sycamore by the quarry water hole the 25th of May, and located the nest within two feet of where we had seen the hummingbird resting previously. I lay on my back with my binoculars trained on nest and bird, and relayed the notes to my daughter-in-law, who kept time and took

notes in shorthand.

12:05 P.M., bird on nest, remained on nest till 12:08 P.M.

12:30 P.M., seemed to be settling down in nest, left at 12:33 P.M. Came back and flew around and over nest, but not on nest, left 12:37 P.M.

12:38 P.M. Came back, seemed to be shaping nest, working body and continuing to move muscles.

12:41 P.M. Left nest and rested on limb.

12:42 P.M. Back on nest, and off in few seconds.

12:43 P.M. Left, and came back, continued to fly around nest.

12:45 P.M. Left nest, flew away.

12:48 P.M. Came back and rested on limb  $1\frac{1}{2}$  minutes, then onto nest using muscular movement, **faced north at times**, other times south, the way the limb grew.

12:54 P.M. Left nest, went away, came back, flew on nest, then off and around nest, rested on limb.

12:59 P.M. Left.

1:00 P.M. Came back, flew around nest and on nest using same muscular movement and bobbing head, then off nest again.

1:02 P.M. Came back, flew on nest using same movements, then off and around over nest and rested on limb.

1:04 P.M. Left.

1:04 $\frac{1}{4}$  P.M. Came back and flew around and on nest, faced south, way limb grew, twisted around in nest shaping it.

1:05 P.M. Left nest, flew around nest, rested on limb. Flew back on nest for few seconds, then flew off.

1:07 P.M. Flew back on nest, facing south, used same movements about neck and turning half way around and going down in nest still moving body.

1:10 P.M. Off nest, onto limb, rested, flew around nest.

1:10 $\frac{1}{2}$  P.M. Back on nest, seemed to be patting down with feet.

1:11 P.M. Off nest again, continued to fly around nest, rested.

1:13 P.M. Left and came back on limb.

1:45 P.M. Flying around nest and away again.

1:46 P.M. We left and came back again at 5:00 P.M.

5:15 P.M. Heard her, but did not see her. She returned three times to tree but not to nest.

5:34 P.M. Went to nest, but only stayed a few seconds.

5:35 P.M. Returned to nest.

5:38 P.M. Left.

At no time was the male hummingbird seen.

May 26, 1943 - We returned, found empty 22 shells near base of the sycamore tree and the nest scattered, only a few pieces left on limb of tree. Thus ended our try on Life of the hummingbird.

-- Lynchburg, Virginia

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#### CLIFF DWELLERS

By David Mumaw

For a long time I have wanted to see a Duck Hawk. But I hardly expected that I would be the one to find a Duck Hawk eyrie on some cliffs high in a Virginia mountain.

Early in April, 1957, two other boys and I set out to climb a rocky mountain peak in search of Duck Hawks. We drove off the main highway and followed a dirt road up a valley between two mountain ranges. We stopped and parked the car when we thought we were as close to the peak as we could get. We took our lunch, and our ropes which we might need to climb down over the cliffs, and started up.

It took us about forty-five minutes to climb up to the base of the cliffs which must have ranged from one hundred to five hundred feet in height. We were so hungry when we reached the cliffs that we immediately sat down to eat our lunch. During the course of the lunch we were watching the vultures soaring about when all of a sudden we heard a "swoosh" of feathers above our heads. We looked up just in time to see a vulture dodge the terrific dive of a large hawk. Could this possibly be the Duck Hawk for which we were hunting? Needless to say we hurriedly finished eating our lunch. We walked out along the cliff to a clearing, and sure enough, there was the Duck Hawk soaring above us. We easily identified it by its long tail and long pointed wings. How we hoped the nest would be close by! At once we started to climb to the top of the cliff. Along the top of the mountain we could walk easier, and we had a better view of our surroundings. The commotion of our search chased the falcon from her nest. Taking special note of the place where she was flushed from the cliff I started down over the rocks. One of the boys stayed at the top of the cliff, and the other thought he could find it quicker from the bottom, while I thought I could find it quicker by just climbing down to

where I saw the bird fly out. Climbing down to a wide ledge I started crawling along. There were several "scrapes" on this ledge but no eggs. I eased across a cut in the cliff and started searching another ledge. I saw some white droppings below me and when I looked under the overhanging rock ledge above it I saw a "scrape" with one reddish brown egg in it. I had found a Duck Hawk eyrie! I whistled for the other boys who soon joined me and took a peep at the nest.

We walked back to where we had eaten our lunch, with triumph in our steps -- we had found the rare Duck Hawk eyrie!

In June, right after school was out for the summer, we were climbing the mountain again. This time we were hoping to find a nest full of young hawks. But disaster had struck the hawks in some way. There were no Duck Hawks there to greet us, just an empty nest, and no signs of there having been hawks in it. As we sat on some out-cropping ledges watching the vultures winging up and down the valley, we tried to think what might have happened to our hawks.

While we were sitting there we saw a Black Vulture, flying rather low, come up the valley and dart in among the trees. The second time we saw her do this we thought she might have a nest down there. Being directed by a person on the cliff I started down toward the place where we saw the vulture fly into the trees. When I got to the approximate position, I hunted around in vain to find the nest. In a very short while the other boys were there also. We spread out over a larger territory and soon one of the boys called that he had found the nest. We found him beside a large boulder that was propped up by smaller rocks, providing a shelter, where we found two downy vultures. One of the boys crawled back under the smelly rock and brought out one of the unsociable babies. Its down was grey instead of white like that of the young Turkey Vulture. We returned home knowing that it wasn't every day that a bird watcher finds a Black Vulture nest.

This April the cliff climbing "bug" bit us again, and we found ourselves climbing around over the same cliffs in search of a Duck Hawk eyrie. As we watched a Red-tailed Hawk soaring lazily below us, above our heads a Raven croaked. We hadn't seen a sign of any Duck Hawk and since we had had occasional glimpses of Ravens here before we wondered if we could find the nest of these crafty birds. As we walked along the side of the mountain the Raven kept circling overhead, occasionally folding up his wings, in a rolling dive, giving his throaty croak. It seemed that the farther north we walked along the mountain the less attention the Raven gave us. So climbing to the top of the mountain we watched the Raven.

As I sat looking down into the mountain valley below, I saw the Ravens (there were two flying around now) cruising along the mountain toward us. One Raven disappeared under the cliff, but soon flew out from it and after watching it do this several times we decided the nest must in that vicinity. After it flew into the cliff once more I started down toward the place where I had last seen it. As I continued the Raven flew out from the cliff about twenty feet below me. One of the other boys was soon there, and while I got my position marked, he looked down over the ledge and said he saw a lot of sticks at the bottom of the cliff. Below us stretched about fifty feet of the hardest climbing of the whole mountain. There was no way to descend the cliff at that place except by the use of ropes. Since we had left our ropes with our lunches, far behind us, we had to find a roundabout

way down to the bottom of the wall. Returning to the site, we looked up and there was a large stick nest, not unlike a crow's nest, built on a high ledge. By this time the Ravens were raising quite a fuss overhead.

I wasn't sure whether it would be possible to climb up to the nest without ropes or not, but I climbed up the cliff until I got right below the ledge on which the nest was built. I hung on there for several minutes to rest, and was about ready to give up and come down when I heard a little squeak from the nest. When I heard that squeak I was determined to have a look into that nest. I reached back on the ledge as far as I could and found a small crack in the rocks, just large enough for my fingers to slip into. I pulled myself up onto the ledge and squirmed forward to look into the nest. There lay four pink, nearly naked nestlings.

Again we felt that we had accomplished something that we could be proud of.

We are still hunting for another Duck Hawk eyrie and until we find one we may be led to more and varied birds and their nests.

-- Harrisonburg, Virginia

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THE EVENING GROSBEAK IN VIRGINIA  
1957-1958

By Robert O. Paxton

At irregular intervals, and for reasons not yet adequately explained, large numbers of Evening Grosbeaks wander in winter far to the east and south of their usual range. These population irruptions have become more frequent in recent years. The bird was first recorded in Virginia in 1940, and during the winter of 1945-46, the first significant movement of this species into Virginia took place. Since 1950, at least a few birds have been recorded almost every winter, with a spectacular and extensive population irruption taking place during the winter of 1952-53.

A third large movement of the species took place during the past winter. In Virginia, Evening Grosbeaks were more numerous and more widespread than in 1945-46, but less abundant than in 1952-53.

Not only have the winter wanderings of Evening Grosbeaks become more extensive and more frequent; the bird's breeding range has also undergone a significant move eastward to include New York, Vermont and Massachusetts. The fact that this species now nests in New England suggests that Virginia bird students can now count on seeing occasional small groups, even between irruption winters.

During this past winter, Evening Grosbeaks were scattered generally and broadly over the state. The first birds were recorded early in October (12 October at Charlottesville, 15 October at Richmond), and the latest birds were seen on 14 May in Arlington. The southeastern limit of their movements in Virginia appears to have been Nansemond County. West of that point, they were found in numerous localities in tidewater, piedmont, and mountain areas. No one region or habitat could claim a spectacular concentration, and only the Eastern Shore, among the major subdivisions of the state, had no reports of Evening Grosbeaks. Housewives watched them on feeding trays, hunters found them in their favorite "grouse hollows" deep in the Alleghanies, and Paul S. Dulaney found a flock at 5200 feet on Mount Rogers. The distribution of bird watchers seems to have been the chief limiting factor in the spread of grosbeak reports throughout Virginia.

Observers who remembered the more spectacular invasion of 1952-53 noticed that the birds were more scattered and less gregarious this winter, roaming freely in small groups. At least one factor in this behavior was a plentiful supply of natural food; the birds displayed a particular fondness for fallen dogwood seeds.

Later in the season, the birds began gathering at feeding trays. From the first of February on, they were more apparent in residential neighborhoods. As in previous years, having discovered a feeding tray, they concentrated around it, setting up habitual schedules and routes from one area to another. As before, sunflower seeds attracted them most. Mrs. Norman Scott at Clifton Forge, who described Evening Grosbeaks as "greedy, ill-mannered birds," reported that they ate ten pounds of seed per day at her home.

Many observers who had a fairly constant number of Evening Grosbeaks at a feeding tray for a long period believed that the population was static. The evidence of banding, however, shows that Evening Grosbeaks move about widely. Arthur H. Fast had what appeared to be a static group of about 25 at his home in Arlington; he actually banded 112. Few banded birds reappeared in his traps or on his feeding trays, indicating a constant turnover in the population. Mr. Fast recovered one bird on 3 May which had been banded on 24 February by Mrs. Brantley Peacock at Pine Ridge in Fairfax County.

Other banding activities reported this winter were by F. R. Scott, who banded 29 in Richmond, and Mrs. Peacock, who banded 20 at Pine Ridge.

As in previous years, the peak month for Evening Grosbeaks in most localities was April. In marked contrast to the population movements of regularly migrant species, Evening Grosbeaks continued to build up in Virginia until late in the spring. It is only reasonable that if the pressure of an expanded population upon a limited food supply is the chief cause of these irregular movements southward, this type of pressure becomes more compelling as winter wears into spring.

What becomes of these birds, far removed from their breeding grounds and unequipped with the instincts of regular migrants, is an unanswered question. In spite of the many hundreds of Evening Grosbeaks banded in Virginia over the past twelve years, none has been recovered back in Virginia in a subsequent winter. It may be that many of them never reach suitable breeding territory after wandering so far.

Arthur H. Fast reported an apparent courtship display by a male Evening Grosbeak on 19 April. "He threw his head back and his breast almost touched the tray; he spread his wings full length and they vibrated; he moved toward the female and almost touched her. This continued for about fifteen seconds."

Mrs. H.H. Braxton reported one albino bird within the flock at her home in Chase City, "a really strange bird, all white with some gray, but no yellow or black." This bird was seen only one day.

Evening Grosbeaks were reported from the following areas of the state:

#### Tidewater

Nansemond County - 5 on 30 December (Paul S. Dulaney)

Courtland, Southampton County - 30 on 25 March (C.C. Steirly)

Waverly - 1 dead female on 30 January (Mrs. C.C. Steirly)

Williamsburg - occurred at a number of feeding trays from 23 December (Mrs. R.P. Wallace) to 21 March (Paul S. Dulaney), with a peak count of 20 on 25 February.

Lawrenceville, Brunswick County - about 50 on 13 February (C.C. Steirly)

Richmond Area - from 15 October (2, F.R. Scott), to 13 May (Dr. Lewis D. Pilcher at Petersburg). In small groups until February, more common or more in evidence after that. Maximum single count, 45 on 26 April. Reported from numerous places in the city, Petersburg, eastern and western Henrico County, eastern Goochland County, northern and eastern Chesterfield County, and northern Dinwiddie County.

Washington Area - from 12 October to 14 May (A.H. Fast). Reported from Fort Belvoir, "Lebanon," near Lorton (Dr. Paul Bartsch), Springfield (Dr. Dan D. Keeney), Pine Ridge (Mrs. Brantley Peacock), Arlington, and Herndon (Mrs. Louis B. Ely). Arthur H. Fast banded 112 at Arlington, and Mrs. Brantley Peacock banded 20 at Pine Ridge.

#### Southside Virginia

Chase City - from mid-January until 13 April (Mrs. H.H. Braxton). One albino bird.

#### Piedmont

Saxe, Charlotte County - a "large flock" on 26-27 January, which had been reported there since November (Mrs. R. Hugh Rudd).

Hampden-Sydney - 10 on March 29 (F.R. Scott).

Charlottesville - from 12 October (A.B. Davenport) to 1 May, with a maximum single count of 12 on 30 April (Mrs. Montagu McMurdo).

Sweet Briar - from 28 January (8) to 7 May (Miss Gertrude Prior).

#### Mountain - Valley Area

Shenandoah National Park - 7 on 22 December (C.E. Stevens and R.S. Merkel)

Waynesboro - from 18 November (12) through 12 May, with a maximum of about 70 in December (Monroe Couper)

Harrisonburg - 12-15 seen three times in March; 6 at Elkton in late March (Dr. D. Ralph Hostetter).

Lexington - from 20 April (E.G. Webster) to 3 May (R.O. Paxton).

Roanoke - 1 on 21 and 22 February (Mrs. E.C. Moore).

Clifton Forge - from 30 October (6, Mrs. Norman Scott) through 26 March, with an estimated maximum of 175-180 (M.B. Cater).

Hot Springs - through the winter, with a high of 76 on 18 April (T.K. Ellis).

Millboro - "about 100," 1 March to 12 April (Mrs. Grace P. Clarke)

Bath County - 75 to 100 in small groups, scattered through forested hollows in the Alleghanies (M.W. Paxton)

#### Southwest Virginia

Giles County - 42 just across the state line at Linside, West Virginia (M.B. Cater)

Fries, Grayson County - from 21 February (3) to 15 March (18 or 20, Robey Pearman).

Mt. Rogers - about 25 on 23 December, in spruce at 5200' elevation (Paul S. Dulaney).

-- Washington, D.C.

## GREAT BLACK-BACKED GULL IN SURRY COUNTY

By C. C. Steirly

On February 23, 1958 while searching for Bald Eagle nests at the mouth of Lawne's Creek in east Surry County, I emerged from a marsh onto a small stretch of sandy beach in order to observe a flock of Common Mergansers between the shore and a large mass of ice that was floating in with the tide.

While observing the mergansers which eventually approached quite close to my hiding place, where I was eating my lunch, I heard a strange yet familiar croaking sound overhead. Upon looking up I saw a fine specimen of a Black-backed Gull flying rather low above me. I remained motionless and watched it fly low over the mergansers to the ice floe upon which it perched. This made a fitting backdrop to a somewhat northern scene -- ice floes, Common Mergansers and a Great Blue Heron dropped down to the edge of the marsh and several Song Sparrows come forth to feed at the water's edge.

This is the first observation I have ever made of this species in Surry County. Lawne's Creek, a tidal marsh tributary of the James River, forms a portion of the Surry-Isle of Wight boundary.

-- Waverly, Virginia

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## WINTER BIRD POPULATION STUDY

By Robert O. Paxton

Dry lowland deciduous forest. Location: three miles southeast of Herndon, Va., along the Loudon County -- Fairfax County line. Size: 15 acres. Description of area: a rectangular block marked off in the midst of a fairly mature second growth of deciduous timber. No streams or surface water in the tract. The largest trees average about 80' in height and about 18" DBH (Diameter breast high). Dominant trees of the forest crown, in order of decreasing abundance are: white oak (Quercus alba); red oak (Quercus rubra); hickory (Carya sp.); tulip tree (Liriodendron tulipifera). A scattered understory consists mainly of flowering dogwood (Cornus florida), and saplings of the mature trees. Names of plants are taken from Gray's Manual of Botany, eighth edition. Topography: gently rolling hills, in an area roughly evenly divided between farm and forest. Edge: no edge effect. Coverage: Dec. 28, Jan. 1, 5, 26, 27, Feb. 8. Total: six traps, averaging two hours each.

Census: Turkey Vulture, ♀ (1); Red-shouldered Hawk, ♀ (1); Red-bellied Woodpecker, ♀ (2); Hairy Woodpecker, 1 (3); Downy Woodpecker, 1 (7); Crow, ♀ (1); Carolina Chickadee, 3 (20); Tufted Titmouse, ♀ (1); White-breasted Nuthatch, 1 (6); Brown Creeper, ♀ (2); Robin, 4 (23); Bluebird, 1 (3); Golden-crowned Kinglet, 1 (9); Cardinal, 1 (3); Purple Finch, ♀ (2). Total: 13 birds (density 84 birds per 100 acres).

Remarks: Extensive winter feeding at a private home, located in the woods 150 yards from the southeast corner of the tract, profoundly affected the winter bird population. Whereas Chickadees, Brown Creepers, and Golden-crowned Kinglets foraged through the woods as well as on the feeding trays, titmice rarely left the feeding area and are hardly represented in this count. Purple Finches and Cardinals used the area only in passing to and from the feeding area. Most species tended to concentrate in the southeast corner, leaving the areas farthest from the feeding trays drained of most birdlife. This census was a striking example of the effect of feeding upon local variation in winter bird population.

Turkey Vultures, the Red-shouldered Hawk, Crow, Robin, and Bluebird occurred on only one trip. Only the Carolina Chickadee was observed on all six trips. The second most regular bird was the Downy Woodpecker, counted on four trips.

Temperatures were frequently below average during the census period. The heavy snowfalls of February and March occurred after the census had been completed and did not affect this study.

-- Washington, D.C.

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#### SUMMARY OF MEETING OF THE VSO EXECUTIVE COMMITTEE

March 22, 1958

By Robert J. Watson, Secretary

The Executive Committee of the VSO consists of: (1) the officers of the Society (President, Vice-President, Secretary, Treasurer, Editor); (2) nine members-at-large, elected for a term of three years in groups of three at a time, in such a way that the terms of three members expire each year; and (3) one additional member from each local chapter not already represented on the Committee.

The Committee meets twice a year (in spring and autumn), at a date set by the President. It makes decisions on matters within its competence; prepares major issues for submission to the Society as a whole for final decision; supervises the Society's other committees; and makes or approves plans for the annual membership meeting, for field trips, and for other projects. Formal minutes of each meeting are kept by the Secretary, but procedure is quite informal.

At its last meeting, held in Williamsburg on March 22, 1958, the Committee agreed that it would be desirable to have its major decisions and actions reported regularly in The Raven. Such reports will keep members informed of the status of present and proposed activities of the Society, besides providing members with some general idea of what the Committee does and how it operates.

Henceforth, therefore, after each meeting of the Committee, the Secretary will prepare, for publication in The Raven, a brief report of major actions taken. There follows a summary of the actions of the Committee at its March 22 meeting.

1. Heard an interim report by the Treasurer (Mr. Steirly) showing balances on hand as follows (as of March 20, 1958): General Fund, \$925.55; Trip Fund, \$135.10; Publication Fund, \$232.16.

2. Heard a report by the Chairman, Conservation Committee (Mr. Steirly), of the success of the bill sponsored by the Society to protect hawks and owls. This was passed by the State Legislature at its last session, with an amendment which allows a county board of supervisors to remove hawks and owls from the protected list within its county.

3. Agreed that an editorial committee would be appointed, under the chairmanship of the Editor of The Raven, to approve papers submitted for publication the Virginia Avifauna series. Only those papers will be approved which (1) reflect a sufficient number of years of work, and (2) constitute a major contribution to Virginia ornithology. The editorial committee will determine the exact criteria to be applied.

4. Directed the Secretary to write a letter to Dr. J. J. Murray, author of the first paper published in the Virginia Avifauna series (The Birds of Rockbridge County, Virginia), expressing appreciation for this paper.

5. Agreed that The Raven will carry announcements of developments affecting conservation (notably measures under consideration in Congress) in order that members of the Society may take action to lend support to constructive conservation measures.

6. Agreed that a temporary "budget committee" will be appointed to investigate the financial needs of the other committees of the Society.

7. Authorized the Conservation Committee to act for the Society in matters affecting conservation, since these usually require quick action and cannot be referred to the Executive Committee or the Society as a whole. The Conservation Committee will keep the Executive Committee informed of its use of this authority.

8. Heard reports from the Chairman of the 1958 Program Committee (Mr. Watson) concerning the status of plans for the 1958 annual meeting, and from the Chairman, Trip Committee (Mr. Steirly) on proposed 1958 summer forays to the Blue Ridge and the Eastern Shore.

9. Agreed to submit to the Society, at the next annual meeting, the design of a proposed arm patch for the VSO, similar to those adopted by other ornithological societies. If the design is approved, the Committee will purchase these patches for sale to members who desire to wear them.

-- Arlington, Virginia

INSECTICIDES ARE THREAT TO HUMANS  
AND WILDLIFE

The National Audubon Society has urgently recommended that the Department of Agriculture stop all insect control programs in which highly toxic chemicals are broadcast unless incontrovertible evidence becomes available that no serious damage to human and wildlife resources will result. The Society specifically requested the Secretary of Agriculture to stop the proposed control program for the imported fire ant on some 20 million acres in nine southern states. The program is already underway.

At the same time, the Society warned the general public that all use of highly toxic modern insecticides, fungicides and so-called pesticides by governmental agencies, farmers, and other land owners, including gardeners, carries with it a much higher potential of harm to human beings and wildlife than is generally recognized. "Insecticide hazards may well rank in seriousness of adverse effects with the dangers of radioactive fallout," said Mr. John H. Baker, President of the Society. "The use of toxic chemicals for the purpose of protecting agricultural and forest crops has now skyrocketed to the point where cumulative secondary poisoning of human beings and wildlife, which already exists to some extent, may become catastrophic."

Mr. Baker cited tests conducted by the U.S. Fish and Wildlife Service, which reveal that in the second generation of exposure to insecticides in their diet, birds invariably became incapable of reproduction. "When you realize that these poisons may well have similar cumulative effect on the human system, it is unthinkable that widespread programs be undertaken in the absence of proof that there is no risk of such result," said Mr. Baker.

"In any case, the burden of proof should rest on the agency employing the toxic substance, and not on the individual citizen," he said. "This proof should be available for public evaluation long before mass-spraying programs are undertaken. To make such tests concurrently with a chemical spraying operation is obviously highly unsatisfactory, for the damage will have been done by the time the tests are complete."

With specific reference to the fire ant program, the Society stated that the chemicals proposed for use are far too lethal for widespread aerial or ground applications. According to the U.S. Department of Agriculture, dieldrin, one of the most deadly of modern insecticides, is to be applied at the rate of two pounds per acre. In some areas the dosage may reach four pounds to the acre, the Department says.

Tests by the U.S. Fish and Wildlife Service show that one pound of dieldrin has sufficient toxicity to kill approximately four million quail chicks. The California Department of Fish and Game reports that only  $1\frac{1}{2}$  pounds of dieldrin per acre caused the death of pheasants, quail, gophers, snakes, jack rabbits, dogs, chickens, geese and turkeys.

In calling attention to the fact that some, if not most, of the chemicals would be applied by aircraft, the Society stated experience shows that it is impossible to apply chemicals from the air without some multiple doses and complete misses.

## NOTES AND NEWS

J.B. Lewis Mammal Collection.

Markham V. Lewis, of Boonsboro Road, Lynchburg, has presented to Lynchburg College a part of the collection of mammal skins and skulls prepared by his grandfather, the late John B. Lewis. Mr. Lewis was a veteran Virginian naturalist. He was well known as a county agricultural agent in Amelia County. He was at home in all fields of nature. Although he added much to our knowledge of Virginia plants and birds, he was best known as a mammalogist. A new race of the golden mouse, which he discovered, was named for him. One of the early collaborators with the Biological Survey, he sent in migration records for over fifty years. A charter member of the VSO, he was long an active worker in our organization, contributing a major article to The Raven on the birds of Amelia and Brunswick Counties. His son, Merriam G. Lewis, was one of the founders of the VSO.

A Word from the Editor.

The Editor was greatly disappointed at having for the first time to miss an annual meeting of the VSO. Teaching obligations at a considerable distance from Virginia made this unavoidable. He wishes to express his deep appreciation, first to the Executive Committee for a gracious letter about the booklet, "The Birds of Rockbridge County, Virginia," and second to the whole VSO assembled at Blacksburg for a delightful telegram. What a wonderful group with which to work is the VSO! The Editor is planning to spend most of the summer at Nederland, Colorado, northwest of Denver and at the foot of the high Rockies, there to do some preaching and some birding in the high country.

Eastern Shore Summer Trip - August 23-24, 1958.

Information on the Eastern Shore Trip can be obtained by addressing C.C. Steirly, Trip Chairman, Waverly, Virginia.

Accommodations and boat space are available only for those planning to stay both nights. Owing to limitation of accommodations and boat space the trip is open to members only.

Reservations should be made by August 15. Estimated cost: boat transportation, \$3.00; hotel, \$7.00.

Exact details of the trip are still in the planning stage.

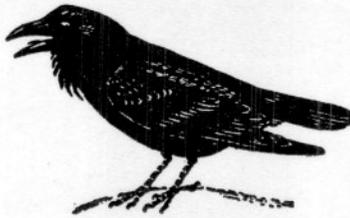
Directions for VSO Correspondence.

Copy for The Raven (except Field Trip and Local Club News) should be sent to J.J. Murray, 109 East Broadway, Louisville 2, Kentucky. Material will be forwarded from there whenever necessary. During the summer, from June 13 to August 16, a quicker response may be had by sending mail to the following address: Presbyterian Church, Nederland, Colorado.

Field Trip Reports and Local Club News should be sent to F.R. Scott, 115 Kennondale Lane, Richmond 26, Virginia.

Requests for change of address or for back copies of The Raven should go to Miss Gertrude Prior, Sweet Briar, Virginia.

All letters relating to dues and membership should be addressed to C.C. Steirly, Waverly, Virginia.



# The Raven

BULLETIN OF THE VIRGINIA SOCIETY OF ORNITHOLOGY

J. J. MURRAY, EDITOR  
LEXINGTON, VA.

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## SPRING MIGRATION BIRD COUNT

Chincoteague National Wildlife Refuge, Va. (Assateague Island south of state line, Chincoteague Island, and causeway; no part of the mainland was covered; insular pine woodland 10%, low pine and myrtle 15%, fresh-water marshes and impoundments 15%, salt marshes 25%, dunes 5%, mud and sand flats 10%, ocean beach 20%). - May 10; 5 a.m. to 6 p.m. Fair in a.m., turning cloudy in p.m.; temp. 52° to 65°; wind NE to E, 5-25 m.p.h. Eleven observers in 2 to 4 parties. Total party-hours, 40 (32 on foot, 7 by car and truck, 1 by motorboat); total party-miles, 86 (12 on foot, 70 by car, 4 by boat). Common Loon, 6; Red-throated Loon, 1; Double-crested Cormorant, 16; Great Blue Heron, 2; Green Heron, 26; Little Blue Heron, 1; Cattle Egret, 8; Common Egret, 24; Snowy Egret, 42; Louisiana Heron, 6; Black-crowned Night Heron, 1; Glossy Ibis, 13; Mallard, 13; Black Duck, 89; Gadwall, 29; Pintail, 1; Green-winged Teal, 26; Blue-winged Teal, 34; American Widgeon, 1; Shoveler, 2; Surf Scoter, 4; Turkey Vulture, 7; Marsh Hawk, 1; Osprey, 6; King Rail, 1; Clapper Rail, 32; Virginia Rail, 2; American Oystercatcher, 2; Semipalmated Plover, 17; Piping Plover, 6; Killdeer, 7; Black-bellied Plover, 119; Ruddy Turnstone, 13; Whimbrel, 169; Spotted Sandpiper, 20; Solitary Sandpiper, 3; Willet, 219; Greater Yellowlegs, 95; Lesser Yellowlegs, 10; Knot, 1; Least Sandpiper, 323; Dunlin, 190; Short-billed Dowitcher, 360; Semipalmated Sandpiper, 131; Sanderling, 3000; Great Black-backed Gull, 3; Herring Gull, 110; Ring-billed Gull, 12; Laughing Gull, 230; Gull-billed Tern, 8; Forster's Tern, 14; Common Tern, 178; Least Tern, 49; Royal Tern, 2; Black Tern, 50; Black Skimmer, 1; Mourning Dove, 3; Black-billed Cuckoo, 1; Screech Owl, 1; Great Horned Owl, 2; Chuckwill's-widow, 1; Chimney Swift, 7; Belted Kingfisher, 1; Yellow-shafted Flicker, 3; Eastern Kingbird, 16; Great Crested Flycatcher, 7; Acadian Flycatcher, 3; Eastern Wood Pewee, 8; Horned Lark, 8; Tree Swallow, 10; Rough-winged Swallow, 8; Barn Swallow, 88; Purple Martin, 1; Blue Jay, 2; Common Crow, 6; Fish Crow, 1; Tufted Titmouse, 2; Red-breasted Nuthatch, 3; House Wren, 6; Carolina Wren, 8; Mockingbird, 1; Catbird, 10; Brown Thrasher, 13; Robin, 1; Hermit Thrush, 1; Blue-gray Gnatcatcher, 2; Starling, 3; White-eyed Vireo, 4; Red-eyed Vireo, 3; Parula Warbler, 3; Yellow Warbler, 11; Myrtle Warbler, 15; Blackburnian Warbler, 1; Blackpoll Warbler, 1; Pine Warbler, 22; Prairie Warbler, 10; Palm Warbler (Yellow), 4; Yellowthroat, 20; Yellow-breasted Chat, 3; House Sparrow, 2; Bobolink, 1; Eastern Meadowlark, 40; Redwinged Blackbird, 55; Baltimore Oriole, 6; Boat-tailed Grackle, 69; Brown-headed Cowbird, 7; Cardinal, 17; Rose-breasted Grosbeak, 2; Blue Grosbeak, 1; Indigo Bunting, 2; Rufous-sided Towhee, 12; Savannah Sparrow, 3; Sharp-tailed Sparrow, 5; Seaside Sparrow, 6; Chipping Sparrow, 1; Field Sparrow, 7; White-throated Sparrow, 3; Song Sparrow, 17. Total, 119 species; about 6316 individuals. The absence or small numbers of many small land birds was typical of the spring migration in this barrier island location and was anticipated. - Dr. and Mrs. Gordon Meade, T.R. Murray, J.W. Nettleton, A.G. Roberts, R.M. Saunders, F.R. Scott (compiler), C.C. Steirly, Mr. and Mrs. Joseph Taylor, J.M. Valentine.

Back Bay National Wildlife Refuge, Va. (same area as Christmas counts in previous years; refuge and much of mainland of Princess Anne County; open farmland 20%, pine woodland 10%, deciduous woodland 20%, open beach 5%, marshes and inland bay 45%). - May 10; 5 a.m. to 5 p.m. Partly cloudy; temp. 60° to 72°; wind SW, 12 m.p.h.; ground on flats at Back Bay covered with water. Thirteen observers in 4 parties. Total party-hours, 39 (21 on foot, 15 by car, 2 by boat, 1 by plane); total party-miles, 360 (40 on foot, 290 by car, 15 by boat, 15 by plane). Common Loon, 3; Red-throated Loon, 1; Gannet, 1; Double-crested Cormorant, 7; Great Blue Heron, 18; Green Heron, 12; Little Blue Heron, 4; Common Egret, 14; Louisiana Heron, 4; Yellow-crowned Night Heron, 1; American Bittern, 1; Least Bittern, 1; Glossy Ibis, 4 (P.W.S., W.F.R.); Canada Goose, 5; Black Duck, 31; American Widgeon, 4; Pintail, 3; Green-winged Teal, 3; Blue-winged Teal, 11; Shoveler, 7; Wood Duck, 5; Turkey Vulture, 9; Black Vulture, 86; Red-shouldered Hawk, 2; Bald Eagle, 3; Marsh Hawk, 3; Osprey, 9; Peregrine Falcon, 2; Sparrow Hawk, 1; Bobwhite, 61; King Rail, 6; Virginia Rail, 1; Sora, 1; Semipalmated Plover, 26; Killdeer, 9; Black-bellied Plover, 10; Ruddy Turnstone, 11; Common Snipe, 3; Whimbrel, 6; Spotted Sandpiper, 49; Solitary Sandpiper, 24; Willet, 30; Greater Yellowlegs, 79; Lesser Yellowlegs, 65; Knot, 1; Pectoral Sandpiper, 3; White-rumped Sandpiper, 2; Least Sandpiper, 122; Dunlin, 1; Short-billed Dowitcher, 78; Stilt Sandpiper, 8; Semipalmated Sandpiper, 50; Western Sandpiper, 13; Sanderling, 52; Great Black-backed Gull, 1; Herring Gull, 455; Ring-billed Gull, 150; Laughing Gull, 91; Common Tern, 1; Least Tern, 19; Royal Tern, 24; Mourning Dove, 60; Yellow-billed Cuckoo, 5; Black-billed Cuckoo, 1; Barred Owl, 2; Chimney Swift, 109; Ruby-throated Hummingbird, 8; Belted Kingfisher, 2; Yellow-shafted Flicker, 24; Pileated Woodpecker, 4; Red-bellied Woodpecker, 16; Red-headed Woodpecker, 12; Hairy Woodpecker, 5; Downy Woodpecker, 2; Eastern Kingbird, 35; Great Crested Flycatcher, 73; Acadian Flycatcher, 13; Eastern Wood Pewee, 26; Horned Lark (Prairie), 3; Tree Swallow, 210; Cliff Swallow, 1 (P.W.S.); Purple Martin, 37; Blue Jay, 3; Common Crow, 74; Fish Crow, 77; Carolina Chickadee, 30; Tufted Titmouse, 31; White-breasted Nuthatch, 1; Brown-headed Nuthatch, 12; House Wren, 1; Carolina Wren, 48; Long-billed Marsh Wren, 125; Short-billed Marsh Wren, 5; Mockingbird, 90; Catbird, 60; Brown Thrasher, 41; Robin, 11; Wood Thrush, 31; Hermit Thrush, 1; Veery, 2; Eastern Bluebird, 24; Blue-gray Gnatcatcher, 35; Starling, 210; White-eyed Vireo, 99; Yellow-throated Vireo, 11; Red-eyed Vireo, 90; Black-and-white Warbler, 8; Prothonotary Warbler, 140; Parula Warbler, 35; Yellow Warbler, 31; Black-throated Blue Warbler, 6; Myrtle Warbler, 30; Blackpoll Warbler, 41; Pine Warbler, 37; Prairie Warbler, 131; Palm Warbler, 1; Ovenbird, 32; Yellowthroat, 200; Yellow-breasted Chat, 24; American Redstart, 4; House Sparrow, 81; Bobolink, 250; Eastern Meadowlark, 98; Redwinged Blackbird, 870; Orchard Oriole, 39; Boat-tailed Grackle, 77; Common Grackle, 361; Brown-headed Cowbird, 107; Summer Tanager, 8; Cardinal, 178; Blue Grosbeak, 4; Indigo Bunting, 129; American Goldfinch, 19; Rufous-sided Towhee, 56; Savannah Sparrow, 46; Henslow's Sparrow, 8; Sharp-tailed Sparrow, 8; Seaside Sparrow, 12; Chipping Sparrow, 55; Field Sparrow, 64; White-throated Sparrow, 12; Swamp Sparrow, 13; Song Sparrow, 49. Total, 143 species; about 6,731 individuals. - Dr. and Mrs. W.G. Akers, Mr. and Mrs. S.E. Breniser, Mrs. Floy Burford (Compiler), Steve Fretwell, Mike Griffin, Miss Gisela Grimm, Henry Hespenshide, Hansel Hughes, Mrs. Mary Frances Morrisette, W.F. Rountrey, Paul Sykes.

Newport News, Va. (7½-mile radius bounded by Chesapeake Bay, Hampton Roads, James River, Grafton; woodland 30%, open fields 30%, fresh-water ponds 10%, waterfront 30%). - May 10; 6 a.m. to 2 p.m. Partly cloudy; temp. 65°; wind E, 0-20 m.p.h. Eight observers in 4 parties.\* total party-miles, 116 (16 on foot, 100 by car). Pied-billed Grebe, 2; Green Heron, 10; Yellow-crowned Night Heron, 11; American Bittern, 1; Mallard, 4; Black Duck, 2; Turkey Vulture, 16; Black Vulture, 4; Osprey, 3; Sparrow Hawk, 1; Bobwhite, 23; King Rail, 2; Clapper Rail, 5; Semipalmated Plover, 23; Killdeer, 23; Black-bellied Plover, 2; Woodcock, 2; Upland Plover, 41 (carefully observed for 15-20 minutes in pasture - G.C., E.L.M.); Spotted Sandpiper, 42; Solitary Sandpiper, 7; Willet, 12; Greater Yellowlegs, 15; Lesser Yellowlegs, 3; Pectoral Sandpiper, 1; Least Sandpiper, 27; Short-billed Dowitcher, 2; Semipalmated Sandpiper, 61; Western Sandpiper, 17; Great Black-backed Gull, 1; Herring Gull, 225; Ring-billed Gull, 318; Laughing Gull, 347; Bonaparte's Gull, 2; Forster's Tern, 1; Least Tern, 2; Royal Tern, 5; Black Skimmer, 1; Mourning Dove, 38; Yellow-billed Cuckoo, 3; Chimney Swift, 12; Ruby-throated Hummingbird, 1; Belted Kingfisher, 4; Yellow-shafted Flicker, 8; Red-bellied Woodpecker, 5; Red-headed Woodpecker, 1; Hairy Woodpecker, 1; Downy Woodpecker, 2; Eastern Kingbird, 71; Great Crested Flycatcher, 10; Eastern Phoebe, 1; Acadian Flycatcher, 6; Least Flycatcher, 3; Eastern Wood Pewee, 6; Tree Swallow, 3; Rough-winged Swallow, 23; Barn Swallow, 256; Purple Martin, 4; Blue Jay, 12; Common Crow, 45; Fish Crow, 26; Carolina Chickadee, 19; Tufted Titmouse, 27; White-breasted Nuthatch, 3; House Wren, 2; Carolina Wren, 28; Long-billed Marsh Wren, 1; Short-billed Marsh Wren, 2; Mockingbird, 118; Catbird, 29; Brown Thrasher, 31; Robin, 87; Wood Thrush, 17; Eastern Bluebird, 7; Blue-gray Gnatcatcher, 13; Cedar Waxwing, 20; Starling, 392; White-eyed Vireo, 4; Yellow-throated Vireo, 1; Red-eyed Vireo, 20; Black-and-white Warbler, 4; Prothonotary Warbler, 3; Parula Warbler, 7; Yellow Warbler, 12; Black-throated Blue Warbler, 2; Myrtle Warbler, 45; Yellow-throated Warbler, 2; Blackpoll Warbler, 39; Pine Warbler, 2; Prairie Warbler, 12; Ovenbird, 6; Louisiana Waterthrush, 2; Yellowthroat, 14; Yellow-breasted Chat, 2; Hooded Warbler, 1; House Sparrow, 159; Bobolink, 1; Eastern Meadowlark, 50; Redwinged Blackbird, 522; Orchard Oriole, 9; Baltimore Oriole, 1; Common Grackle, 184; Brown-headed Cowbird, 98; Summer Tanager, 7; Cardinal, 61; Indigo Bunting, 17; American Goldfinch, 106; Rufous-sided Towhee, 43; Savannah Sparrow, 2; Seaside Sparrow, 1; Chipping Sparrow, 15; Field Sparrow, 12; White-throated Sparrow, 4; Song Sparrow, 39. Total, 113 species; about 4,110 individuals. - Alice Chapin, Georgianna Cumming, C.W. Hacker, M.E. Hathaway, Emmy Lou Machen, S. Mitchell, Doris Smith, W.P. Smith (compiler).

\* Total party-hours, 32 (22 on foot, 10 by car);

Pine Ridge, Va. (area in and about Pine Ridge, Fairfax Co., about 15 miles west of Washington, D.C., including wooded lowlands along Accotink Creek; farmland 40%, woodland 60%). - May 10; 7 a.m. to 7 p.m. Clear; temp. 55° to 75°; no wind most of day. Eighteen observers. Total party-miles, 63. Wood Duck, 2; Turkey Vulture, 5; Red-shouldered Hawk, 2; Broad-winged Hawk, 1; Sparrow Hawk, 1; Bobwhite, 6; Killdeer, 3; Mourning Dove, 10; Yellow-billed Cuckoo, 1; Black-billed Cuckoo, 1; Whip-poor-will, 1; Chimney Swift, 12; Ruby-throated Hummingbird, 1; Yellow-shafted Flicker, 6; Pileated Woodpecker, 1; Red-bellied Woodpecker, 3; Yellow-bellied Sapsucker, 3 (very late, no details - Ed.); Downy Woodpecker, 2; Eastern Kingbird, 20; Great Crested Flycatcher, 3; Eastern Phoebe, 3; Acadian Flycatcher, 6; Eastern Wood Pewee, 2; Rough-winged Swallow, 1; Barn Swallow, 40; Blue Jay, 50; Common Crow, 20; Carolina Chickadee, 20; Tufted Titmouse, 30;

White-breasted Nuthatch, 2; House Wren, 6; Carolina Wren, 5; Mockingbird, 10; Catbird, 30; Brown Thrasher, 10; Robin, 30; Wood Thrush, 25; Hermit Thrush, 2; Swainson's Thrush, 8; Veery, 3; Eastern Bluebird, 2; Blue-gray Gnatcatcher, 2; Starling, 85; White-eyed Vireo, 6; Yellow-throated Vireo, 6; Solitary Vireo, 1; Red-eyed Vireo, 50; Black-and-white Warbler, 4; Worm-eating Warbler, 2; Lawrence's Warbler, 1 (no details - Ed.); Parula Warbler, 12; Yellow Warbler, 6; Magnolia Warbler, 8; Cape May Warbler, 1; Black-throated Blue Warbler, 12; Myrtle Warbler, 15; Black-throated Green Warbler, 6; Blackburnian Warbler, 1; Chestnut-sided Warbler, 12; Bay-breasted Warbler, 2; Blackpoll Warbler, 6; Pine Warbler, 1; Prairie Warbler, 8; Ovenbird, 5; Northern Waterthrush, 2; Louisiana Waterthrush, 6; Kentucky Warbler, 6; Yellowthroat, 30; Yellow-breasted Chat, 4; Hooded Warbler, 4; Wilson's Warbler, 10; Canada Warbler, 8; American Redstart, 40; House Sparrow, 50; Bobolink, 800; Eastern Meadowlark, 6; Redwinged Blackbird, 50; Orchard Oriole, 2; Baltimore Oriole, 6; Common Grackle, 80; Brown-headed Cowbird, 50; Scarlet Tanager, 25; Cardinal, 25; Rose-breasted Grosbeak, 4; Indigo Bunting, 30; Evening Grosbeak, 30; Purple Finch, 6; American Goldfinch, 300; Rufous-sided Towhee, 30; Savannah Sparrow, 20; Grasshopper Sparrow, 6; Vesper Sparrow, 1; Chipping Sparrow, 75; Field Sparrow, 12; White-crowned Sparrow, 4; White-throated Sparrow, 500; Swamp Sparrow, 1; Song Sparrow, 30. Total, 98 species; about 2,894 individuals. - Walter Bernard, Mr. and Mrs. J.W. Eike, Arthur Fast, Helen Goldstick, Miss Hall, Mrs. Mary Kerr, Miss Susan Liscomb, M. Lorimer Moe, Mrs. Mary Pulley, Mrs. W. Rothery, Ian Rule, Mr. and Mrs. Richard Rule (compilers), Mrs. Helen Scott, John Trott, R.J. Watson, Mrs. Louise Wilson.

Warren, Va. (Albemarle Co. - same area as Christmas counts in past with slight change in habitat coverage; open farmland 35%, deciduous woods, 35%, riverbottom 20%, pine woods 5%, ponds 5%). - May 10; 4:45 a.m. to 4:15 p.m. Partly cloudy a.m., rain p.m.; temp. 45° to 65°; wind S, 0-5 m.p.h. Four observers in 2 parties. Total party-hours, 18 (13 on foot, 5 by car); total party-miles, 76 (16 on foot, 60 by car). Green Heron, 4; Green-winged Teal, 2; Blue-winged Teal, 2; American Widgeon, 8; Wood Duck, 6 (including 5 young); Turkey Vulture, 27; Black Vulture, 5; Red-tailed Hawk, 2; Osprey, 2; Sparrow Hawk, 2; Bobwhite, 18; Turkey, 2; Killdeer, 1; Spotted Sandpiper, 18; Solitary Sandpiper, 6; Greater Yellowlegs, 1; Mourning Dove, 48; Yellow-billed Cuckoo, 4; Chimney Swift, 41; Ruby-throated Hummingbird, 1; Belted Kingfisher, 1; Yellow-shafted Flicker, 2; Pileated Woodpecker, 3; Red-bellied Woodpecker, 6; Hairy Woodpecker, 1; Downy Woodpecker, 9; Eastern Kingbird, 31; Great Crested Flycatcher, 16; Eastern Phoebe, 13; Acadian Flycatcher, 11; Eastern Wood Pewee, 20; Horned Lark, 3; Tree Swallow, 3; Bank Swallow, 11; Rough-winged Swallow, 4; Barn Swallow, 18; Cliff Swallow, 2; Blue Jay, 148; Common Crow, 44; Fish Crow, 1; Carolina Chickadee, 26; Tufted Titmouse, 37; White-breasted Nuthatch, 4; House Wren, 6; Carolina Wren, 18; Mockingbird, 35; Catbird, 13; Brown Thrasher, 25; Robin, 53; Wood Thrush, 34; Hermit Thrush, 4; Swainson's Thrush, 29; Gray-checked Thrush, 1; Veery, 4; Eastern Bluebird, 9; Blue-gray Gnatcatcher, 30; Cedar Waxwing, 4; Loggerhead Shrike, 2; Starling, 59; White-eyed Vireo, 7; Yellow-throated Vireo, 14; Solitary Vireo, 2; Red-eyed Vireo, 71; Black-and-white Warbler, 7; Worm-eating Warbler, 1; Tennessee Warbler, 1; Orange-crowned Warbler, 1 (K.L. - first Albemarle Co. record); Parula Warbler, 9; Yellow Warbler, 20; Magnolia Warbler, 3; Cape May Warbler, 18; Black-throated Blue Warbler, 2; Myrtle Warbler, 36; Black-throated Green Warbler, 2; Cerulean Warbler, 2; Blackburnian Warbler, 6; Yellow-throated Warbler, 6; Chestnut-sided Warbler, 12; Bay-breasted Warbler, 19; Blackpoll Warbler, 3;

Pine Warbler, 13; Prairie Warbler, 56; Ovenbird, 30; Louisiana Waterthrush, 6; Yellowthroat, 32; Yellow-breasted Chat, 27; Hooded Warbler, 32; Canada Warbler, 10; American Redstart, 45; House Sparrow, 60; Bobolink, 6; Eastern Meadowlark, 40; Redwinged Blackbird, 55; Orchard Oriole, 14; Baltimore Oriole, 8; Common Grackle, 66; Brown-headed Cowbird, 40; Scarlet Tanager, 28; Summer Tanager, 14; Cardinal, 51; Rose-breasted Grosbeak, 6; Blue Grosbeak, 5; Indigo Bunting, 69; Evening Grosbeak, 2; Purple Finch, 3; American Goldfinch, 134; Rufous-sided Towhee, 29; Savannah Sparrow, 10; Grasshopper Sparrow, 8; Henslow's Sparrow, 1; Chipping Sparrow, 41; Field Sparrow, 40; White-crowned Sparrow, 6; White-throated Sparrow, 47; Song Sparrow, 21. Total, 115 species; about 2,237 individuals. - Kenneth Lawless, Katherine Lewis, A.S. Messenger, Charles E. Stevens (compiler).

Glade Spring, Va. (within a  $7\frac{1}{2}$  mile radius, western edge of town in Washington Co.; deciduous woodland 50%, farmland and pasture 40%, riverbottom 8%, ponds and marsh 2%). - May 11; 5:00 a.m. to 6:00 p.m. Rain in a.m., clearing in p.m.; wind SW, 0-5 m.p.h. One observer. Total hours, 12 (10 on foot, 2 by car); total miles, 42 (7 on foot, 35 by car). Mallard, 4; Blue-winged Teal, 2; Turkey Vulture, 5; Black Vulture, 7; Broad-winged Hawk, 3; Sparrow Hawk, 4; Bobwhite, 4; American Coot, 1; Killdeer, 1; Solitary Sandpiper, 1; Ring-billed Gull, 2; Mourning Dove, 15; Yellow-billed Cuckoo, 1; Chimney Swift, 10; Ruby-throated Hummingbird, 1; Yellow-shafted Flicker, 4; Hairy Woodpecker, 1; Downy Woodpecker, 2; Eastern Kingbird, 3; Great Crested Flycatcher, 10; Eastern Phoebe, 2; Eastern Wood Pewee, 4; Rough-winged Swallow, 5; Barn Swallow, 25; Blue Jay, 14; Common Crow, 20; Carolina Chickadee, 4; Tufted Titmouse, 2; House Wren, 8; Bewick's Wren, 1; Carolina Wren, 1; Mockingbird, 4; Catbird, 14; Brown Thrasher, 10; Robin, 8; Wood Thrush, 4; Eastern Bluebird, 1; Blue-gray Gnatcatcher, 6; Starling, 50; White-eyed Vireo, 4; Red-eyed Vireo, 20; Black-and-white Warbler, 5; Golden-winged Warbler, 1; Yellow Warbler, 15; Magnolia Warbler, 1; Cape May Warbler, 25; Black-throated Blue Warbler, 1; Black-throated Green Warbler, 1; Chestnut-sided Warbler, 20; Blackpoll Warbler, 6; Prairie Warbler, 4; Ovenbird, 1; Kentucky Warbler, 7; Yellowthroat, 10; Yellow-breasted Chat, 16; Hooded Warbler, 6; Canada Warbler, 1; American Redstart, 10; House Sparrow, 25; Eastern Meadowlark, 40; Redwinged Blackbird, 60; Orchard Oriole, 4; Baltimore Oriole, 12; Common Grackle, 100; Brown-headed Cowbird, 2; Scarlet Tanager, 1; Summer Tanager, 1; Cardinal, 12; Rose-breasted Grosbeak, 6; Indigo Bunting, 40; American Goldfinch, 16; Rufous-sided Towhee, 20; Grasshopper Sparrow, 2; Chipping Sparrow, 4; Field Sparrow, 25; White-crowned Sparrow, 16; White-throated Sparrow, 6; Song Sparrow, 20. Total, 78 species; about 831 individuals. (Seen May 12: Lesser Scaup, Yellow-throated Vireo. Note: numbers recorded for species of warblers are not indicative of numbers of total individuals; identification of warblers in tree tops was difficult because of rain.) - Paul S. Dulaney.

EVENING GROSBEAKS IN ARLINGTON  
1958

By Arthur H. Fast

The banding of birds on our home acre in Arlington began with the first invasion in this area of the Evening Grosbeaks in 1945-1946. At that time 51 of them were banded. (See The Raven, Vol. XVIII, p.17). After a 6-year interval, these birds came again to our home acre during the greater 1951-1952 invasion. At that time 315 of them were banded; 5 retrapped and released up to 5 years after being banded by other banders in Massachusetts and Connecticut; and 51 retrapped and released after being banded, in nearby areas, by other banders during the same invasion. (See The Raven, Vol. XXIII, p.62). After another 6-year interval, these birds came for the third time to our home acre during the 1957-1958 invasion. This time they arrived quite late - April 12, 1958. At 9:00 A.M. about 15 of them were first heard and seen high in the trees, scattered in this and neighboring yards. They were restless and called almost incessantly while here on that day; they fed on the cones in the hemlock trees, and on the old seeds and the new buds on the other trees. Later they fed on the natural seeds on the ground - principally under the dogwood trees. One female came to the bird bath. A liberal supply of sunflower seed was scattered on the ground around the birdbath. They left for the day about 1 P.M.

On succeeding mornings the Evening Grosbeaks came progressively earlier and became less restless. They came to feed more and more on the sunflower seed on the ground, and within a few days, on the feeding trays. Potter type traps, having separate cells, each with a treadle and a sliding door, were placed on the ground and on the feeding trays. At first they were wary of the traps, they would reach in for a seed, and trip the trap without being caught. On April 18, the first one, a male, was trapped and banded. Thereafter they became more settled and were trapped rather easily. To and including May 12, a total of 112 of them (43 males and 69 females) were banded. There were 12 repeats. Three birds banded by others were retrapped and released: 1 banded by Mrs. Elizabeth Peacock in February, 1958 in Fairfax County, Virginia; 1 banded by Mrs. Eleanor Dater (date as yet unknown) in Ramsey, New Jersey; and 1 banded by Mrs. Fitzgerald (date unknown) in Amsterdam, New York. Not more than an estimated 25 of these birds were seen or heard at any one time; also very few banded birds were seen on the trays. It would seem that a large number of them circulated around and through this area. None of these birds banded here in previous years has returned here; it should be noted, however, they were trapped and banded here only in 1946, 1952 and 1958.

On the morning of April 19, 1958, a male Evening Grosbeak displayed before a female. He threw his head back, and his breast almost touched the tray; his wings were spread downward and outward and they vibrated; he moved toward the female and almost touched her. This display continued for about 15 seconds. The bills of these Grosbeaks were distinctly green, which has been described as being "similar to that of the skin of a maturing apple just before the sun has tinted it with the first faint blush of ripeness." (See "Evening Grosbeaks Choose their Lipstick Well" by G. Hapgood Parks, Audubon Magazine, March-April, 1948, p.110). In this article Mr. Parks (who is one of the top banders of

Evening Grosbeaks) after referring to the "uniform bone color" of the bill in winter, says that by late March, all the bills were green. He concludes that the color of their bills matches the fresh young leaves. He visualizes the female on her nest in this protective coloring.

After they became established the Evening Grosbeaks on the trays - together with the Purple Finches (430 banded) and Goldfinches (300 banded) - put on quite a display for everyone who came to see them. Mr. Ralph Lawrence and Mr. Donald Sutherland, both nature photographers of Washington, D.C., each spent several hours taking colored movies of these birds. On most days the Evening Grosbeaks followed a predictable pattern: they came shortly after full daylight, with two hour-long periods of peak activity and display, beginning about 8:00 A.M. and 11:30 A.M. Most of them left by 1:00 P.M. A few scattered birds were usually seen and heard briefly during the afternoon - one as late as 5:40 P.M., daylight time. Decreasing activity was noticeable after May 7. The last two birds - one male and one female - were seen briefly several times on May 14.

-- 4924 Rock Spring Road  
Arlington, Virginia

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#### NEWS AND NOTES

Eastern Shore Heronries. Jacob M. Valentine, Jr., sends reports from two heron colonies on the Virginia Eastern Shore. He visited the Mills Island heronry on May 12, and found: Common Egret, 20; Snowy Egret, 300; Little Blue Heron, 15; Louisiana Heron, 20 to 30; Glossy Ibis, 20 to 30. "The numbers are birds, but the nests are in proportion to that. No Cattle Egrets, however, but most records show that the Cattle Egret nests later than the other herons." He visited the Hog Creek heronry (near the south end of Wallops Island) on May 17, and found: Snowy Egrets, 216; Louisiana Herons, 100; Green Heron, 20; no Cattle Egrets. He adds: "I have noted one Cattle Egret on the refuge which has the reddish beak, eyes, and legs that are supposed to represent the short courtship coloration.

Marsh Hawk Nesting on Chincoteague Island. Valentine found the nest of a pair of Marsh Hawks on Wildcat Point, on the north end of Chincoteague Island. "The location is an irregularly flooded salt marsh (mainly Spartina alterniflora) and the nest was on tide deposited grasses. There was one egg on May 21; two birds were seen in the area, but only the female remained near the nest while I was there. The nest was a crudely formed depression in the dried grasses which were lying on the salt marsh cordgrass about six inches above the ground. I do not believe there have been any recent reports of Marsh Hawks nesting on the Eastern Shore."

Late Date for the White-throated Sparrow. In the late afternoon of June 7, 1958, a White-throated Sparrow was observed feeding on our lawn at Sweet Briar. The bird appeared to be an adult male. We watched the bird for almost two hours, and although it looked in good condition, it fed very intently in the grass and under the trees, and was much more quiet than a White-throat usually is. The next day, June 8, the bird was seen several times, always feeding on the ground and taking to a tree or shrub only when closely approached. We did not hear it call or sing at any time. The bird was not seen after June 8, and since we have no spring records of White-throats in the area after early May, we assume this bird was a very late migrant. - Gertrude Prior.

Note from Colorado. As stated in the last issue, I am spending most of the summer at the little town of Nederland, Colorado, a town that has gone through the familiar Colorado mining town sequence: boom, when tungsten mining ran the population up to 3000 and prospectors were wild; bust, when the government no longer put a support under tungsten production, and the population dropped back to its normal 300; and now, what many old mining towns have not found, a quiet healthy life, supported by summer visitors from all over the West. Nederland is 16 miles west of the little university city of Boulder, but much higher, right at the foot of the steep Rockies, at an elevation of 8245 feet. The days are usually warm, but the nights are cold; we had an inch of snow on June 25, and frost on July 6. Birds are not as common anywhere in the West as they are in the East, except in the vast concentrations of breeding water birds in places like the Bear River Marshes in Utah, but they are very interesting to an Easterner. One day when we heard three high country species of thrushes singing (Olive-backed, Wilson's, or Western Veery, and Audubon's Hermit Thrush) we were reminded of Gaudineer Knob in West Virginia. Several times we have been above timber line, up to 12,000 feet, seeing Pipits, Desert Horned Larks, and (around the snow banks) Brown-capped Rosy Finches, but never being lucky enough to find Ptarmigans. On this trip I have had the experience of birding at a temperature of 112 in the shade (if there had been any shade) at Vernon, Texas, and not many days later in snow banks at 12,000 plus feet in Colorado. This is good, but Virginia will look better when I get back there. (I shall be in Lexington from August 22 to September 10.) - J.J. Murray.

Directions for VSO Correspondence. Copy for The Raven (except Field Trip and Local Club News) should be sent to J.J. Murray, 109 East Broadway, Louisville 2, Kentucky. Material will be forwarded from there whenever necessary. To August 10 a quicker response may be had by sending mail to him at Nederland, Colorado. Field Trip reports and Local Club News should be sent to F.R. Scott, 115 Kennondale Lane, Richmond 26, Virginia. Requests for change of address or for back copies of The Raven should go to Miss Gertrude Prior, Sweet Briar, Virginia. All letters relating to dues and membership should be addressed to C.C. Steirly, Waverly, Virginia.



# The Raven

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## THE CATTLE EGRET AT CHINCOTEAGUE, VIRGINIA

By Jacob M. Valentine, Jr.  
Fish and Wildlife Service

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## THE CATTLE EGRET AT CHINCOTEAGUE, VIRGINIA

By Jacob M. Valentine, Jr.  
Fish and Wildlife Service

INTRODUCTION

The discovery of the Cattle Egret (Bubulcus ibis Linnaeus) in the United States has excited the imagination and interest of ornithologists all over the world. It is presumed to be the first bird in recent history to have crossed the Atlantic Ocean unaided by man and to have established itself as a breeding species on the North and South American mainland. Florida is the main breeding and wintering concentration area in the United States, but the Cattle Egret has established other summering and breeding colonies in scattered locations along the Atlantic and Gulf Coasts. It is the purpose of this paper to follow the history of occurrence and the habits of the Cattle Egrets in one of these local expansion nuclei.

I wish to thank the following who have given me assistance:

Philip A. DuMont, Bernard Feinstein, Charles O. Handley, Jr., J.J. Murray, and Frederic R. Scott.

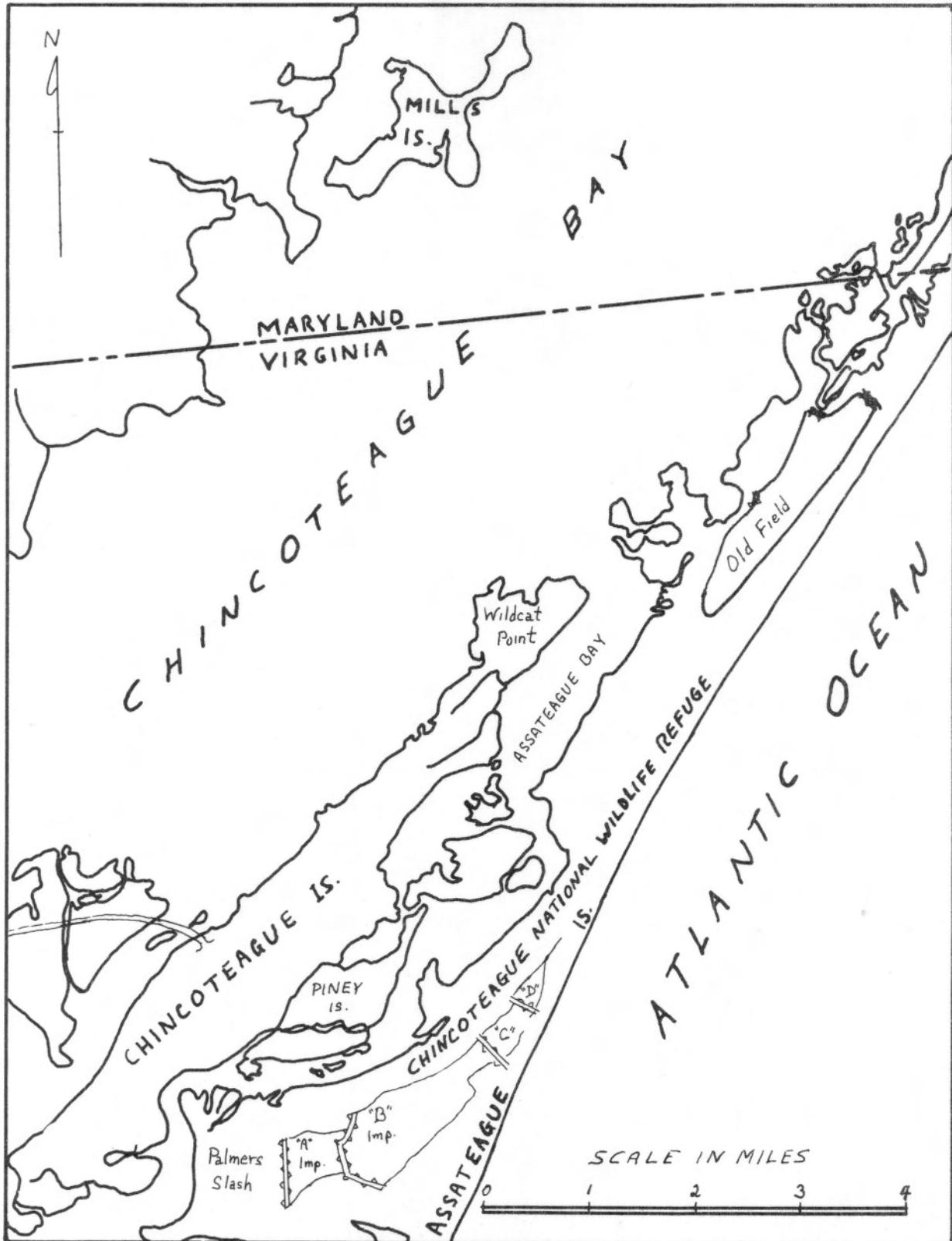
LOCAL HISTORY

The Cattle Egret was first recorded in Virginia on the Chincoteague National Wildlife Refuge. On May 13, 1953, John H. Buckalew sighted two of these birds on Assateague Island. No others were seen during the remainder of that year.

On May 19, 1954, E.O. Mellinger, then Refuge Manager, saw one on Piney Island, on the east side of Chincoteague Island. Frederic R. Scott saw two on May 30 and four on June 11. Mellinger saw seven on August 1; and during the period September 13 to October 2 he saw ten birds, the peak number for the year. The last record for 1954 was of seven birds on October 9. Hurricane Hazel struck on October 15 and may have driven the birds away.

The earliest record for 1955 was June 10, when four were observed on one of the impoundments on the refuge. Other observations of from one to five birds were made on the refuge and on Piney Island during June, July, and August. The peak number for 1955 was seven, seen on September 26. One of these birds had blackish legs, which indicated a bird of the year. This is the first record of an immature bird in the area. The last record for that fall was on November 9, when two were seen sitting in a tree on Piney Island.

In 1956, the first Cattle Egret of the season was seen on March 31 on the refuge. Small numbers (one to four) were regularly seen during April, May, and June, both on the refuge and on Piney Island. Ten were counted with the cattle on July 5. On August 30, fifteen, the peak for 1956, were



counted with a herd of ponies on the refuge. Of these, at least five were immature birds. The last record for 1956 was on October 23, when two were seen on the refuge.

The first spring arrivals in 1957 were two birds seen April 7 on "A" Impoundment on the refuge. Observations of small numbers (one to four) were made during April, May and June. By July 18, the numbers seen had increased to seven, and 12 were counted on August 8. Philip DuMont and other members of the Audubon Society of Washington, D.C., saw 21 with cattle on Piney Island on August 10. On September 17, a flock of 32 was seen with a pony herd on the refuge. Most of these appeared to be immature birds. On September 20, 25 were seen with the ponies. Fifteen were seen with the cattle on the refuge on October 2, eight on October 5, and three on October 10. The last sight record for the year was on November 20, when one was seen with ponies on the refuge.

On April 16, 1958, the first arrival was seen on Piney Island. It remained in the vicinity of a small rainpool during most of the daylight hours from April 16 through April 24. On April 25, one was seen at "A" Impoundment on the refuge. Four were seen on April 30 at "A" Impoundment, and on May 10 eight were counted during the Audubon Society's Regional Bird Count.

On May 27 the first nest of Cattle Egrets was found by the writer on Mills Island, Maryland, about 8 miles north of Piney Island in Chincoteague Bay. This is a well-known heronry. In 1957 Cattle Egrets were suspected to have bred here but no nests or young were found. Subsequently, in 1958, 16 nests were found. The Cattle Egrets continued to feed on Piney Island and on the refuge. From one to ten were seen during May and June. The flocks became larger in July and on July 3, 16 were seen with ponies. Twenty were seen in one flock on July 4. On July 26, the first two immatures were seen in a flock of 18 with the cattle on Piney Island. Thirty-five mixed young and adults were seen in a flock on the refuge on August 1. Two flocks of 37 and 5, totalling 42, were seen on August 9. No doubt the flocks later in the fall will become larger, but for the purpose of this paper, this study terminated about the middle of August.

#### LOCAL RANGE

The natural habitat of the Cattle Egret is varied in its world range. The original home of the egret is, no doubt, on the plains and forest edge in Africa and Asia, where it associates with the large herds of ungulates, both wild and domestic. In Madagascar, Rand (1936) noted the Cattle Egret as being "widespread over the open ground of the whole island, particularly in the vicinity of water . . ." and attributed its spread to forest clearing and the planting of rice fields. In Madagascar, it frequents the swamp rice fields to a greater extent than the grassy country. Haverschmidt (1953) says of the South American egrets, "It is a bird of cultivated open country and not of the mangroves and mudflats along the coast." In British Guiana, it occurs "around the ricefields and ponds along the coast of Demarara" (Sprunt, 1954). Skead (1956), referring to the South African habitat, says, "The author has seen egrets feeding in grass up to their backs,

and conversely, the part of the country where the grass is the shortest, viz., in the Transkeian Native Territories, hardly knows the bird." Records of individual birds have been noted in a variety of situations in the United States, but most of these birds can be considered accidental or migrating. In Florida, which is the population center for the Cattle Egret, it is found on the wet prairies around Lake Okeechobee, and a few associate with cattle on Paynes Prairie, a 13,000 acre prairie and marsh near Gainesville.

The egrets were first discovered on the upper "Levels" on the refuge in 1953 and to date continue to associate with the famed Chincoteague beach pony. Each of the 12 pony herds consists of a stallion and his harem of 6 to 12 mares. Occasionally, single mares or groups roam separately from the main herds. The ponies graze the entire refuge to the Maryland-Virginia line, but most of the Cattle Egrets are found on the series of newly formed impoundments on the southern end of the refuge. The birds usually change their feeding habitats as the summer progresses, apparently according to the rainfall, vegetation growth, and the habits of the ponies and cattle. In the early spring, they are mostly noted in the area known as Palmer's Slash and "A" Impoundment. As spring turns to summer, they seem to prefer the shallow pond edges of "C" and "D" Impoundments which lie immediately behind the ocean sand dunes. Cattle and ponies also use this area to a great extent because of its proximity to the beach, where they go to escape the flies and mosquitoes. It is curious that only a few Cattle Egrets have been found on Assateague Island north of the refuge. This may be because of the lack of fresh water marsh and ponds in this area, especially in the summer. It is interesting to note that Skead attributed some of the spread of the Cattle Egret in South Africa to the establishment of irrigation dams. He says, "Reports from many areas show how birds have taken advantage of such conditions as soon as a dam has first filled." During the spring of 1958, a few egrets were found with some regularity at the "Old Field" Impoundment near the north end of the refuge.

The wetland type of the marsh and impoundment edge is mainly coastal saltmeadow (Type 16 of Shaw and Fredine, 1956). The dominant vegetation is saltmeadow cordgrass (Spartina patens), saltgrass (Distichlis spicata), Carex sp., and three-square (Scirpus americana), edged by myrtle (Myrica cerifera) and loblolly pine (Pinus taeda). On rare occasions the egrets have been seen in the dunes and once on the ocean beach with ponies and cattle.

The egrets are also found on Piney Island, along the east side of Chincoteague Island, where they associate with the cattle owned by Wyle Maddox. These cattle, mongrelized Brahma and Hereford, range on a salt marsh, salt meadow, and scrub loblolly pine pasture. On Piney Island, the egrets rarely follow the cattle into the salt marsh cordgrass (Spartina alterniflora) but remain with the cattle only when they are on the salt meadow or on higher ground. The salt marsh is subject to salt water inundation and maintains virtually no insect or amphibian life.

The Cattle Egrets have also been seen a few times at the southern end of Chincoteague Island, on the pasture known as Beebe's Ranch, and at Wildcat Point Marsh, on the northern end of Chincoteague Island. These latter areas are mixed salt marsh, salt meadow, and sandy upland pasture similar to Piney Island.

DESCRIPTIONField Description

The adult Cattle Egret is a white heron, about the size of the Snowy Egret, with a heavy yellow to orange-red bill, yellow to dull reddish legs, and darker feet. During the spring and summer a buffy wash is found on the crown, back and breast. The winter and immature plumage is similar to the above except that the buff coloration is absent; the legs are dark. The sexes are similar.

Molts and Plumages

Most of the birds which arrive in the spring at Chincoteague are in the breeding plumage, but on April 12, 1957, one of the two egrets I watched had dark legs and no buff color. Subsequently, I saw a single bird in this color phase on several occasions in May. Also, on May 20, 1958, of a flock of five on the refuge, one was noted with very little buff on its head, none on its back or breast, the legs appearing dark. The dates the birds first assume the breeding plumage is not definite, but two Cattle Egrets which I saw on March 13, 1958, near McClellanville, South Carolina, were still in the winter or subadult plumage. Haverschmidt (1953), writing of the egrets in Surinam, says, "As to the time of breeding, birds collected by me in February were approaching breeding condition and in February and March all birds observed were in full breeding plumage." One of the birds he collected on January 11, 1947 (Haverschmidt, 1950) "had enlarged testes, and its plumage showed the beginning of its breeding dress." Friedmann (1930) describes three birds collected on March 17 and 18, 1912, in Ethiopia. One of these, an adult male, was acquiring the breeding plumage coloration on the head and neck, while the other two were in the complete breeding plumage. Riddell (1944) says, "(a) It is probably not until the second spring after the one in which they are hatched that the Buff-backed Herons assume the buff plumes of their summer breeding-plumage. (b) It is possible that some birds which have not attained full summer-plumage pair and nest, but I am of opinion that such birds are the exception, not the rule." He also states, "For some years I have become more and more convinced that Buff-backed Herons do not attain full plumage until their third year (counting the year of their birth as one) and possibly not until the year after." Riddell saw hundreds of Cattle Egrets at close range in "full summer" in the winter or subadult plumage with no buffy coloration, "greenish slate" colored legs, and bills "bright yellow." At the heronry near his home in Andalusian Spain, however, he saw only fledglings with gray beaks or old birds in the breeding plumage; none were in the winter plumage. His descriptions, especially of the leg color, indicate that these "hundreds" are young birds which have left the nest. At Chincoteague young birds which fit his description may be seen at the end of July. Another possibility, purely conjectural, is that these birds he saw may have been migrating or dispersing African birds. It seems doubtful that these egrets should require more than a year to acquire the breeding plumage. It is a rare bird which is not in the breeding plumage at Chincoteague in the spring. No birds in the subadult plumage have been seen in the spring after May 20. There is a period of a full month when all the Cattle Egrets seen are in the breeding plumage. In early July, some of the birds begin to lose the buffy colored feathers. If Riddell's theory is correct, none of the birds of the year return to their birthplace in the Chincoteague area.

The published descriptions of the adult plumage and coloration are varied and sometimes confusing. Riddell (1944) in describing the adult breeding plumage in Spain says, "The irises remain chrome-yellow, but the skin around the eye, the bare patch between the eye and gape, and the back intensify in color, becoming a full orange, richer, more congested, we might say, in some birds than in others. The leg colour at this season also shows considerable variation. In some birds it is brownish orange (burnt sienna), in others a clear deep orange, in others again barely exceeds chrome-yellow." Peterson (1954) says also of Spanish birds, "At the mating season these birds are not snow-white like other egrets; they develop toast colored plumes on backs, breasts, and crowns. Bills are suffused with red, and legs and eyes become a garish puce pink." Skead (1956) writing of South African egrets says, "From September to February - the breeding season - courting birds of both sexes develop reddish bills, reddish irises, reddish eye-rings, and reddish legs, but as soon as egg-laying is complete, the redness is replaced by yellow at these places. The emergence of the red more or less coincides with the browning of the crown, throat, and dorsal feathers. There is some variation." Witherby *et al.* (1939) write, "Legs are stated to be dull yellow outside breeding season, and apparently authoritative descriptions speak of breeding birds (at least in Africa) as having 'yellow' or 'orange-yellow' legs, but in Spanish birds in breeding season legs are dull purplish-red, looking blackish at distance. Bases of bill also becomes reddish in breeding season."

Only rarely have I seen this red coloration in the beak, legs and irises. On May 20, 1958, I saw a bird with the reddish beak, iris, and legs described by Skead. This bird also had an especially well developed crest, breast, and dorsal feathers of a bright buffy hue. On August 8, 1956, an egret with a bright red beak was noted on the refuge. An egret with the basal part of its beak red and reddish appearing irises was seen at the Mills Island heronry on July 11, 1958. It appears, from my observations, that this reddish coloration is an individual color phase, rather than a phenomenon related to the breeding cycle. It is possible that the red blush may appear in birds which are first beginning to moult into the breeding plumage. As stated before, most of the birds arriving at Chincoteague are already in full breeding plumage. As an interesting sidelight, on May 27, 1958, I noted a Snowy Egret at the heronry with reddish coloration at the base of the bill and with red irises. However, under field conditions, with its difficulties of light direction and intensities, color descriptions will vary, but at Chincoteague the bill color is mainly yellow to orange-yellow.

Later in the summer most of the buff-colored plumage is dropped, and the adults revert to the all-white winter plumage, although some buff may persist on the crown. Riddell (1944) says of this, "All these rich hues begin to fade during July; the legs in particular becoming ochreous flecked with green patches. At the autumn moult, the buff of head, throat, and back, generally speaking, disappears, the bird becoming all white except for a tinge of cream on the crown; the legs reverting to greenish slate. I say generally speaking advisedly for I saw on 29 January, 1941, while motoring to Gibraltar, a Buff-backed Heron in the full panoply of buff head, throat, and dorsal plumes. Some birds, therefore, either wear this dress all the year or else assume it extremely early."

About 20 Cattle Egrets which were examined closely on July 4, 1958, were in the complete breeding plumage. However, on July 9, nine of 11 egrets seen were in the breeding plumage, but two were without the buffy color but with yellow legs which indicated that these were adults which had moulted. Of five seen on July 10, three retained the buffy plumage, but two were in the winter phase. Six adults seen at Mills Island on July 11 were in the breeding plumage. Later in the fall, it is difficult to distinguish the adults from the subadults.

The immature plumage and color is similar to the adult, but without the buff coloration and with dark or blackish legs. Peterson et al. (1954) say, "greenish brown," in describing the immature legs. Skead writes, "Although both adults and young at this stage have yellow bills, the adults can be distinguished by their yellow legs (until February and March) and the young by their black legs." February and March are late summer months in the southern hemisphere when the legs of the adult are supposed to turn "pale green." This leg color criterion for distinguishing adults from immatures may not be reliable because no information is available as to when the immature legs turn yellow or when the adult legs are supposed to turn pale green or greenish slate.

Friedman (1930) referring to a number of Cattle Egret specimens examined by him says, "The color of legs and feet is subject to a rather inexplicable type of variation. The majority of individuals have the bare portion of the tibiae and the tarsi yellow and toes darker, sometimes almost blackish. However, the male from Lake Abaya, as recorded above, had the tibiae yellow, the tarsi and toes olive, while a male in full breeding plumage from Victoria Nyanza, Kenya Colony, has the tarsi recorded by the collector (W.R. Zappey) as light yellow. Granvich notes that in an immature female collected by him at Kavirondo Gulf, Victoria Nyanza, the bare parts of the tibiae were saffron yellow, but the tarsi and toes were black. This I find is not characteristic of most immature birds." My observations of the young and adults at the heronry and on the feeding grounds indicate that there is at least a short period during the latter part of July, August, and possibly early September, when the adults can be distinguished from the immatures. My notes for September 26, 1955, indicate that of a group of seven, "one, at least, with blackish legs." On August 30, 1956, at least five of a flock of 15 had dark legs. Of the 32, seen on September 17, 1957, most had dark legs.

#### Nesting Plumage and Color

Riddell (1944) describes the nestling colors and plumages thus: "The nestling's first down is silvery white, sparse, and straight, like hair. It grows on slate-coloured skin, and slate is also the colour of the bare skin between the eye and gape. The beak is of the same slate-colour, sometimes tinged with ochre, its tip being pale horn. The legs are grayish green. The irises are white and only begin to show a tinge of yellow when the bird is full fledged. At this latter stage the plumage is all pure white." My observations show a pattern of change in color as the bird matures. At the time of hatching the skin and soft parts are dark green. Between one and seven days of age, the bill, legs, and feet are yellow. Later, the bill changes to yellow-green, and during the ages of 10 to 15 days the bill is black or greenish-black, but with a yellow tip both on the upper and lower mandibles. The legs and feet are light green. Two birds, about 15 and 17 days old, had dark greenish legs with a yellowish posterior surface. The feet were yellow on the youngest bird, but some of the green extended to the nails of the toes. The feet of the older bird were more green than yellow.

Between the ages of 20 to 30 days the bill is dark green to black, but in some birds yellow is beginning to show. The legs are blackish green; the feet are black on the dorsal surface and yellow on the underside. Most of the birds were leaving the nest after 20 to 25 days, so it was impossible to follow the plumage and color changes accurately. However, on July 11, 1958, I observed six young which ranged between 30 to 41 days of age. All except one had black bills with only the tip a dull yellow. The one exception had a yellow bill suffused or streaked with black. It was only because these birds were banded that I first recognized them as Cattle Egrets. On July 26, 1958, 12 young Cattle Egrets (varying between 33 and 56 days old) were seen at the heronry; most of these had black bills and dark legs, but two were noted with light yellowish bills. Two flying young seen on Piney Island on July 26 also had blackish bills and legs. These were between 50 and 56 days old. Riddell says the September young (in Spain) have "greyish" bills.

The young are hatched sparsely covered with long hairlike down. At about 15 days of age, the sheathed feathers are developing on the back, and the primary and secondary flight quills are forming. At about 30 days of age, the bird is covered with feathers, but the flight feathers are short. It may be difficult for someone unfamiliar with both species to distinguish nestling Snowy Egrets from nestling Cattle Egrets. Both may have black or yellowish beaks, and the leg color is quite similar. Older young of the Snowy Egret begin to show the two-tone color in the legs and feet, i.e., dark legs with yellow feet, while the Cattle Egret has rather uniformly dark legs and feet. One criterion which seems to be valid is the presence of the yellow tip on the bill of the Cattle Egret. In the yellow-billed Snowy Egrets the bill tip is black. Young Little Blue Herons have longer yellowish beaks, but their legs are considerably lighter greenish-yellow and longer than the Cattle Egret. The feathered portion of the chin is more pronounced in the subadult Cattle Egret. All of the young Cattle Egrets seen in late August and September have acquired the yellow bill identical to that of the adult.

One of the young which I watched on July 26, 1956, had a crest of the slightest blush of pink. He kept the crest in a state of semierection in the threatening or courtship position. He had all of the other attributes of the subadult, the black beak and dark legs, and was also banded.

#### Wildness

#### BEHAVIOR

In general, at Chincoteague the Cattle Egrets are more shy than either the Snowy Egret or the Common Egret. This is especially true in the spring. However, Bannerman (1953), in Africa, says, "Of all the heron family this is certainly the tamest, allowing approach to within a few feet." Baker (1929) commenting on the Indian Cattle Egret writes, "They are extraordinarily tame, allowing people to pass within a few feet without moving and then merely flapping lazily away or stalking solemnly away for a few yards . . ." Photographers trying for a picture of the egrets on the refuge are usually frustrated in their efforts, because the bird flushes when one approaches within a couple of hundred feet. The few birds on Piney Island are less shy, especially of automobiles, which drive close to the pasture.

When alarmed, the Cattle Egret raises his head high with his neck straightened. The egret squats slightly to push off with his legs before using his wings in flight.

### Intraspecific and Interspecific Relations

I have rarely seen the Cattle Egrets associating closely with other herons or egrets. A single bird was seen on June 9, 1956, with four Snowy Egrets. On May 20, 1958, I saw two Cattle Egrets and a Snowy Egret preening together on a small knoll in "A" Impoundment. They were within four or five feet of each other. Rice (1956) noted that Cattle Egrets associated with other small herons during the morning and evening flights at Lake Alice, at Gainesville, Florida. Cattle Egrets comingle closely at nesting heronries and roosts with other colonial herons. Quay and Adams (1956) noted dominance over Snowy Egrets and Louisiana Herons of an adult Cattle Egret on its way to its nest and young. Young Common Egrets, Snowy Egrets, Louisiana, and Little Blue Herons were also moved away by bill thrusts as the Cattle Egret made its way to the nest.

Cattle Egrets seen relatively nonaggressive in their relations with other birds of their species. I have noted some evidence of the "peck-order" relationships. On April 27, 1957, two egrets, both in the breeding plumage, were seen feeding at the feet of a cow. One bird, on several occasions, lowered his head and charged the other bird, causing it to run away to the other side of the cow and finally to fly away. On May 12, 1958, two Cattle Egrets were seen preening on a grassy knoll. Another flew in to join them and landed between the two. The newly arrived bird immediately showed his dominance by chasing one of the pair away from his ground perch.

One day, in the early spring of 1958, I saw a Boat-tailed Grackle follow a Cattle Egret as it fed alone near the edge of a pond. Whenever the egret moved away, the grackle flew near to it. The grackle kept its beak slightly open when close to the egret. I have since noted Boat-tails feeding with Snowy Egrets.

### Voice

I have seldom heard the Cattle Egret make a sound outside the heronry. On August 11, 1958, a flock of 14 mixed adults and immatures were heard vocalizing considerably while feeding. There apparently was some conflict between some of the birds. Most of the expressions consisted of subdued "rick-rack" or "quok-quok" and an occasional "buk-buk." Bannerman (1930) noted a "kark" sound which the birds occasionally made when in congregation while resting or preening. He also was able to hear "a creaking 'krok, kurok'" sounded in flight before the egrets alighted to feed. I suspect this is another onomatopoeic form of the "rick-rack" sound.

At the heronry they are quite expressive, especially during the courtship, aggression, and at nest relief. Skead (1956) describes the characteristic call of courtship to be the "thonk." This call is usually accompanied by a bill stab or lunge. I have heard this voice many times when a Cattle Egret threatened another egret while on or near the nest. It was always concomitant with a lunge toward an intruding bird. In my notes, I began describing it as "kung-kung."

The most common voice during nest relief or whenever the adults return to the nest is the one described by Skead as "rick-rack, rick-rack." In my notes, I called it "kark-kark," but Skead's description is more accurate. A "k-r-r-r" is often added to the "rick-rack" sound. The "rick-rack" voice is characteristic of the Cattle Egret and always announced the presence of the egret at its nest or near its young. I have heard it used while the egret carried nest material to its nest.

At the heronry, when the egrets returned to the nest site and found an unfamiliar blind near them, they often used a "buk-buk" sound. The gular sac is puffed and out while this sound is made. This voice is used when the bird is disturbed by an intruder. An uncommon note is the "kaw" which I heard when a bird returned to the nest after chasing a Snowy Egret.

### Flight

In flight the Cattle Egret resembles the Snowy Egret, but the wing beat is slightly faster; Riddell says "roughly five a second." Riddell (1944) says that the "powers of flight are considerable. Many of them must traverse daily 40 miles or more each day from roosting-place to feeding-ground. When on this journey they adopt the wedge-shaped or echelon formation common to many species of far-travelling birds, though their military precision of manoeuvre falls far short of that of geese." He further states that they fly faster than they appear to do and estimates the normal speed to be 25 miles per hour and perhaps more. Rand (1936) states that alarmed Cattle Egrets were often passed by automobiles going at 25 miles per hour. On several occasions, I have seen Cattle Egrets fly high into the air, perhaps several hundred feet, and fly downwind at possibly 45 or 50 miles per hour.

### The Flock

The aggregations of Cattle Egrets at Chincoteague vary between two and 42 (to August 12, 1958). In the spring, the numbers are smallest and the late summer and fall post-breeding flocks largest. Of 104 observations of the Cattle Egret in the months of March through June, during 1953 through 1958, 57 were of single birds; 24 of 2; 12 of 3; 7 of 4; 1 of 5; 2 of 6; and 1 of 10. Of 76 sight records during the months of July through November (to August 1, 1958), 17 were of singles, 13 of 2; 8 of 3; 1 of 4; 2 of 5; 7 of 6; 8 of 7; 2 of 8; 3 of 10; 1 of 11; 2 of 12; 1 of 13 and 14; 2 of 15; 1 of 16; 2 of 18; and 1 each of 21, 25, 32, and 35. The small numbers in the flocks at Chincoteague are perforce dependent on a small population and may not be indicative of a natural behavior pattern. The individual birds often leave and return to feeding areas independently of the whole flock. On the vernal migration, it appears that the birds arrive as singles or in small groups, but the autumnal migrants leave in larger flocks.

### FOOD AND FEEDING HABITS

The food of the egret consists mainly of terrestrial insects, spiders and amphibians. Crickets, centipedes, wasps, flies, spiders and dragonflies are listed as food preferences by Skead (1956) in Africa. Skead also lists lizards, mice, and even a small bird, White-eyes (*Zosterops* sp.) Skead kept captive young birds in a healthy condition by feeding them small squares of beef. Chapin (1956) in the Belgian Congo saw one catch and swallow a seven-inch lizard. The specimen taken at Wayland, Massachusetts, on April 23, 1952, contained a frog and a number of insects in its stomach (Drury et al., 1953). Sprunt (1954) quotes a letter from Mr. Richard Sloss who stated that a bird seen on Long Island, N.Y., about May 16, 1954, fed "mainly on angleworms." I presume these worms were forced above the ground by wet soil conditions.

Priest (1933) in Africa "shot a Cattle Egret containing the remains of seven horny rock lizards and twenty-seven full grown locusts." Priest cites a method of food finding which is used by many primitive peoples but which seems unusual in birds. He says, "Grass fires will also attract them, where they may be seen catching insects in scores, and the birds running

about with outstretched necks, grabbing at anything that takes their fancy, from a locust to a small beetle." In the Andalusian region of Spain where the Cattle Egrets are common, Riddell notes an interesting habit: "at all seasons they dance attendance upon the cattle; and in winter like the Rooks and Gulls of northern lands, they follow the plow."

The propensity in Cattle Egrets to follow grazing animals is well known. Rice (1956) considers them obligate commensals and states that he has "seen hundreds of them around Lake Okeechobee, but has never seen them feeding away from cattle." However, at Chincoteague, they are often seen feeding alone, especially in the early spring. In 1956, 1957, and 1958, the egrets arrived in late March and early April. At this time land insects are scarce on the refuge salt marshes where the ponies prefer to graze. Cattle feeding on Piney Island, where ground cover is rather sparse, would frighten very few insects on which the egrets might feed. These early arriving birds are found singly or in pairs, feeding where the lush cordgrass and myrtle borders the marsh or ponds.

During the early spring of 1958, I observed behavior which indicated that the egret was attracted more to the habitat or feeding area at this time than to the livestock. For nine days, from April 16 through 24, a Cattle Egret remained during most of the daylight hours at a small rainpool on Piney Island. Cattle and ponies grazed in the vicinity during at least part of the day. The egret would often take advantage of the grazing animals, but when the stock moved to higher ground, or to another part of the pasture, the bird did not follow. It was much more successful when it hunted alone in the pool or at its marshy edge. The ponies roam the entire refuge, but it is only in special areas that the egrets are found, either in association with the ponies or alone.

Rand (1936) states that in Madagascar the Cattle Egrets follow the cattle, particularly in the plains, but were often seen in flocks by themselves on the plains or in the dry cornfields. Charles O. Handley, Jr., told me that on the Kalahari Desert in Bechuanaland, Africa, the Cattle Egrets fed alone on insects, probably grasshoppers, which were numerous. The nearest cattle were about 15 miles away.

During late spring, summer, and fall, the symbiotic association with cattle and ponies is rather constant. As the cattle or ponies move along while feeding, one or more egrets walk or run alongside or in front of the forefeet of the grazer. The birds are generally restless and nervous in their behavior, constantly changing positions, flying, and running from one animal to another. The birds look ahead and to the sides of the cow; they may examine the flanks and legs of the stock for flies. The egrets peer at tall weeds and bushes for insects which might be attached to the stems. Their heads, necks, and bodies are perpetually moving while hunting or walking. At times, the egrets make an almost imperceptible motion with the lower neck and body. The head appears to remain still while the rest of the body waves slightly from side to side. The motion may be used to excite the insects to move and thus reveal their presence. They rarely stand poised to stab in the manner of the more aquatic herons. On rare occasions, they may jump into the air, sometimes using their wings, to snap up a flying insect. The eyes of the egrets are so placed to give them a modified frontal binocular vision, which serves them well in their hunting efforts. The egret, in one motion, picks an insect from the grass, and, with a quick backward toss of his head, throws the insect into his gullet to be swallowed.

The egrets, in season, are especially alert to what appear to be the large mourning horseflies (Tabanus atratus) and pick them from the cow's belly and legs with alacrity. The bird reaches in quickly for a fly and then steps back to avoid a leg thrust or a shaking head. Smaller horseflies (Tabanidae) are taken in large numbers. Tabinids were found in six of the seven food boluses regurgitated by young herons at the heronry. Horn flies (Siphona irritans), which in the summer form heavy concentrations on the shoulders and backs of cattle, are rarely taken, despite their abundance,

There is some conjecture whether Cattle Egrets actually do eat ticks. In many places, especially in South Africa, the Cattle Egret is known as the "Tick Bird" because of its reputation as a tick eater. Skead (1956) has seen them take ticks from cattle, probably the blue tick (Boophilus decloratus), when they were bloated with blood. However, he also has seen the egrets completely ignore numerous ticks which were infesting cattle. Chapin (1932) referring to this question says, "Dr. Bequaert, at Nyiengwe and Kasenge, twice examined stomachs of birds accompanying cattle and found therein grasshoppers, ants, and a hemiptera, but no ticks." Of seven stomachs, "largely filled, in six cases, with grasshoppers; but other unidentified insects were numerous. One cricket was noted, and besides some maggot-like larvae, a large number of large carrion flies. Never, however, were there any ticks." Priest (1933) says, "These egrets feed on ticks to a great extent, apparently not on so many of the gorged ticks that might be found on cattle, but those that live in the grass, and which are comparatively small, as we found very great numbers in the stomach contents of a bird that was examined."

At Chincoteague they often desert the cattle and ponies to fly into another part of the marsh or pasture. My observations on July 6, 1956, may be considered typical. At 7:00 a.m. I noted six egrets feeding with grazing cattle. By 9:30 the cattle were all lying down resting and all of the egrets were gone. At 10:30, when the cattle had resumed feeding, seven egrets were seen actively feeding among the cattle.

The egrets do not seem to prefer cattle over ponies but associate with each with about the same frequency. In 1957 and 1958, more were found with the ponies, but this, I believe, was because the cattle pasture was overgrazed and contained fewer insects than the freshwater marshes on the refuge. Habitat seems to be the prime consideration rather than the host. I also believe that the presence of fresh water determines to a great extent where the Cattle Egrets will feed.

The adult ponies and cattle accept the presence of the egrets with equanimity. None of the grazers shy at all when an egret flies in and alights on its back. On September 23, 1957, I saw three out of a flock of thirteen perched on the backs of cattle. The back of the ungulate serves as a resting or observation perch and not as a source of food. Apparently the egrets occasionally ride the backs of stock as a means of transportation. Robert McCoy, of the refuge staff, observed one, apparently asleep, riding on the hip bone of a pony. They often land on the backs of the ponies and cattle when arriving at the herd. Haverschmidt (1953), however, who has seen many Cattle Egrets in South America, emphasized in his article that he had never seen an egret on the backs of stock.

I saw an amusing incident on June 10, 1957, relating to this association with grazing animals. Six egrets were feeding among a herd of ponies. A young colt, full of spirit, lowered its head and charged one of the egrets. The egret flew a short distance away. The colt continued circling the herd, charging and kicking at the egrets. I have seen movies of this same playful activity in young African elephants. I have since seen calves chase the egrets in the same manner.

The Cattle Egrets often wade in shallow ponds and fresh-water marsh, picking at objects in the water or on the floating debris. I would assume that aquatic insects, crustaceans, toads, and frogs are important foods early in the spring. I have never seen them feed on minnows, but Whistler (1949) states that the Indian Cattle Egret feeds on small fish. According to Bates cited in Bannerman (1930), the Cattle Egret is "a common fish-eating river bird" along the Niger River, in Africa. At Chincoteague they rarely feed in the tidal guts and creeks as the Common and Snowy Egrets do. Despite the fact that I have never seen the Cattle Egrets on the salt marsh or along tidal guts, on June 29, 1958, I collected a bolus of regurgitated food from a nestling that consisted almost entirely of the amphipod (Orchestia palustris), one of the "beach fleas" which frequent salt marshes. There were over 108 amphipods measuring 10 to 24 mm long. Apparently this egret had been fishing, though contained with the amphipods were also a few horse-flies, grasshoppers, a cricket, a damsel fly, and a spider.

I have often seen Cattle Egrets catch and eat small frogs and toads. On May 20, 1958, of five feeding with cattle, three caught toads almost simultaneously. Each time a frog or toad is caught, it is shaken or struck on the ground until very limp and motionless; it is then swallowed, usually head first. On one occasion, a frog was caught and carried 20 feet to a small waterhole. There, the bird held the frog by the leg and dipped it up and down numerous times in the water before swallowing it. Immediately after eating the frog, the egret drank several gulps of water and then returned to the ponies and resumed hunting for food. I have on several occasions seen Cattle Egrets carry toads and frogs to waterholes where they dipped the amphibian in the water. Skead (1956) cites instances of young captive birds fiddling idly with sticks. He says, "One would pick up sticks and dip them into a fish pond." Perhaps this dipping action is to cleanse the glandular secretions from the toad's back. In four of seven regurgitated food boluses, a total of 19 frogs, toads, or large fragments of these was found. These measured between 20 mm (small toads) to 90 mm in length.

After periods of intense feeding activity, the egrets may stand hunched up in a resting position for varying lengths of time. On October 5, 1957, I saw a group of eight resting together, all facing a raw northeast wind. Another, in the spring of 1958, stood in this resting position for about an hour. His head, however, moved constantly from side to side, and occasionally up and down, as if anticipating danger.

Seven boluses of regurgitated food were collected at the heronry from nestlings in 1958. Below is a list of the insects, amphibians, and arachnids found:

|   | <u>6/15</u> | <u>6/15</u> | <u>6/29</u> | <u>7/11</u> | <u>7/11</u> | <u>7/16</u> | <u>7/26</u> |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Frog  | 0           | 3           | 0           | 0           | 5           | 0           | 0           |
| Frog Fragments                                    | 0           | 1           | 0           | 0           | 4           | 2           | 0           |
| Toad  | 0           | 0           | 0           | 3           | 0           | 0           | 0           |
| Toad Fragments                                    | 0           | 0           | 0           | 3           | 0           | 0           | 0           |
| Tabinid Fly                                       | 1           | 2           | 4           | 5           | 6           | 20          | 0           |
| Damselfly   | 0           | 1           | 1           | 2           | 0           | 3           | 1           |
| Grasshopper                                       | 5           | 3           | 2           | 1           | 45          | 76          | 43          |
| Cricket   | 0           | 0           | 1           | 0           | 2           | 1           | 8           |
| Unident. Insects                                  | 15          | 5           | 0           | 0           | 0           | (*)         | 0           |
| Unident. Larva                                    | 0           | 0           | 0           | 0           | 1           | 0           | 2           |
| Amphipod ( <u>Orchestia</u><br><u>palustris</u> ) | 0           | 0           | 108         | 0           | 0           | 0           | 0           |
| Spider  | 11          | 6           | 1           | 0           | 0           | 0           | 0           |
| Beetle  | 2           | 2           | 0           | 0           | 0           | 0           | 0           |

Most of the toads and frogs were small though a few measured between 75 and 90 mm in length. All of the damselflies were the narrow-winged variety. Most of the grasshoppers were less than 20 mm in length (174 total). The insect food material collected on July 16, 1958 (\*) was a mass of partially digested insect parts which were unidentifiable.

Riddell (1944) writes that the egrets "readily do without water even in the hottest weather, during the day, a patch of open water at night, alongside which to roost and drink and preen, is for them a sine qua non." In the Chincoteague area, the reverse is true, the birds feed in fresh water marshes and ponds and roost in the trees on an island surrounded by the salt water of Chincoteague Bay. It is true they rarely drink, but for birds which eat insects and other animal matter this is hardly necessary.

#### RANGE EXPANSION

The Cattle Egret has been in South America since about 1930. It was first discovered in British Guiana and has since extended its range to Surinam, Venezuela, and Colombia. The extent of its range to the south is not known (Haverschmidt, 1953). It has been sighted in Cuba and a few other islands in the West Indies. From South America it began its range extension to the north into the United States. Haverschmidt (1950) tells of a large population in Surinam along the Surinam River, frequenting the area during the winter but leaving in the spring, to return in November. It is possible that pioneering birds from this flock established the colonies at Lake Okeechobee, Florida.

On April 23, 1952, the Cattle Egret was first officially recorded in the United States by its presence on a farm in Wayland, Massachusetts (Drury et al., 1953). Later that same year these exotic birds were sighted at Cape May, New Jersey, and at Lake Okeechobee, Florida (Barnes, 1955). Subsequently, the publicity of these discoveries brought forth reports that these birds had been seen as early as 1941 or 1942 near Clewiston, Florida (Sprunt, 1954). Since 1952, Cattle Egrets have been seen in every Atlantic

Coast state from Maine to Florida, and also on the islands of Bermuda and Newfoundland. They have also been seen in Texas and are breeding in Louisiana.

There are few records in Virginia outside of the Chincoteague area. A single bird was seen at Back Bay, on April 29, 1956, by Romie Waterfield, and two were seen near Hampton by Mrs. L.W. Machen on April 14, 1957 (Murray, 1957).

It must be emphasized that most of the sight records along the Atlantic Coast, with a few exceptions, are of small numbers, generally one or two birds. The Okeechobee nucleus is large, but the Gainesville heronry consisted only of about ten birds in 1955 (Rice, 1956). Three nests were found at the latter place in 1954. There are nesting Cattle Egrets at Battery Island, near Southport, North Carolina. Four adults and two nests were found on June 23, 1956 (Quay and Adams, 1956). On May 8, 1957, Funderberg and DePoe (1957) found two nests and four adults on Battery Island. Another small heronry was discovered in 1956 at Sapelo Island, Georgia; a nest and five adults were seen there in 1957 (Teal, 1958). A nest and a pair of adults were found at the heronry at Drum Island in the Charleston, South Carolina harbor on July 4, 1956 (Williams, 1956). Four Cattle Egrets were seen feeding young at their nests on a small island in the St. John's River, near Melbourne, Florida, in April 1955 (Sprunt, 1956).

The growth and development of the Cape May, New Jersey colony parallels that at Chincoteague. On May 25, 1952, two were seen on the McPherson farm. Two were reported at this location the remainder of the summer until August 15. In 1953 and 1954, a peak of six birds were seen at the McPherson farm. On October 1, 1955, a peak of 13 were seen at Rio Grande by Harriet Sutton and Shirley Briggs. In 1956, from two to eight were seen at Rio Grande and at the McPherson farm. Peaks of 25 were seen in early September 1957 at Rio Grande. According to Julian K. Potter (1958), the Cattle Egrets frequent two cattle pastures in Cape May county, the McPherson farm and a cattle farm at Rio Grande. There have been a few other records in New Jersey but these have been considered accidental. The first nest was found in this area in July, 1958 (Potter and Scott, 1958).

Rice (1956) suggests that the Cattle Egrets which colonized Lake Alice at Gainesville, Florida, were adult birds which mingled with other species of herons and accompanied them to the colony. As evidence, he claims that no wandering flocks have been seen and that the dispersal to the north is only in the late summer. Both at Chincoteague and at Cape May flocks of from 15 to 35 have been seen. It is true that these have been seen mainly in the late summer. However, it has been shown that there is a definite spring migration to Chincoteague and to Cape May, and many other sight records in the north are in the spring. Most of the herons are colonial nesters and commingle in the heronries, but as far as migration is concerned, most of the evidence shows that the migrating birds arrive as singles or in pairs. The gradual buildup in spring populations suggests that locally raised birds are returning to the breeding grounds here.

MIGRATION

In Africa, the Cattle Egret appears erratic in its migratory behavior. Chapin (1956) says, "In Lower Egypt and probably on Sao Tome and Mauritius, the species is resident. South African birds move relatively little, for they seem scarcely to reach the equator. These of the Sudan cross the equator and travel some 10 degrees to the south of it." C.J. Skead (1956) describes Cattle Egrets as remaining the year around at King William's Town, South-East Cape. Skead (1952), in noting cross-country movements in South Africa, reported that most wandering occurred in small flocks and singles but some "reports of twenties and thirties." Information as to origins, dates, and plumages were lacking. There was, however, considerable evidence that there was a migration, i.e., birds leaving in the fall and returning in the spring.

Chapin (1932) says of the northern Congo, that the bird was always migrant, and never remained to breed. "On the Ituri and Nepke Rivers, they appear each year in early November, spend about four weeks, and then disappear until April, when they remain even a shorter time, and from early May until the following November none are to be found." November birds "are plainly in immature and winter plumage, with practically no trace of buffy plumes, of those in April about one quarter are adorned with the nuptial plumes, though the sexual organs have scarcely entered the period of activity . . . In the forest of the southern Cameroon, the same migratory habit has been commented upon by Bates, who found Cattle Egrets at the River Ja only in transit, in the months of May and November. He thought there must be a migration of these birds, perhaps only a part of them, from the great plains of the Haussa States in Northern Nigeria, where Hertert found them so plentiful, when the drought sets in there in autumn."

David Bannerman (1953) writing of West and Equatorial African birds, says they follow the cattle which are moved from pasture to pasture, "but north of latitude 10 degrees N. is a fly-free belt where the animals can remain the year round. On the coming of the rains the herds from the south are moved north and with them come the egrets. The advent of dry weather witnesses birds and cattle moving southwards. From May to November whole provinces are deserted, the birds breeding during the rains in the settled colonies. From November onwards the birds are found everywhere, even on the coast." Apparently, they do not enter the northern desert, even though cattle may be present. Chapin (1932), quoting Von Heuglin, reports that in the Sudan between 14 and 18 degrees N. latitude, the egrets nested in May and June, and then during the hot dry winter and spring (January to May) all of the birds were gone. Chapin believed that these were the birds which go south to the Upper Congo.

Migration patterns are difficult to decipher in Africa which is in two hemispheres. Because of this bihemispheric continental condition there is a peculiar cross migration. Non-breeding birds from the northern hemisphere fly south in the northern winter to spend that season in the equatorial provinces. Southern African birds migrate northward and according to Chapin, "stop along the southern margin of the forest belt . . ." He conjectures that the South American Cattle Egrets migrate northward to breed after disappearing from the Surinam during the period of April to November. He says, "All this shows how migration may originate within the tropics as a response to seasonal drought rather than to cold and finally develop into a

long-range movement so timed so as to avoid cold weather and take advantage of a great extension of range during the summer of The Temperate Zone."

Haverschmidt (1953) writing of Surinam in South America states that in the area of the Surinam River the egrets remain from November to April. However, in the Nickerie River area, in the far western part of Surinam, the egrets remain the entire year, and possibly breed in the interior marshes. None had been found breeding anywhere in South America at the time of his writing.

Migratory movements in the United States are not yet clear. In June 1952, only ten birds were seen in the Lake Okeechobee area by Stimpson and no nesting colonies were found that year (Sprunt, 1953). In 1953, the numbers increased; a few nests were found, and considerable movement of birds was noted on the east coast. It is possible that the Florida egrets, and others recorded along the coast, were arriving from South America. This supposition is strengthened by the observation that no Cattle Egrets were recorded in Florida during the winter until 1953-1954 (Peterson, 1954). Since then, however, the population growth in Florida has been rapid, and many if not all of the birds remain overwinter. In November 1953, birds were seen in the Key West area, and flocks of from four to 26 birds were seen near Miami, Florida, for the first time (Sprunt, 1953), which may indicate a return flight to South America. At Gainesville, Florida, about 180 miles from Lake Okeechobee, where a small breeding colony was established in 1954, the egrets leave in the winter and return in the spring.

One of the most interesting aspects of the Cattle Egret in the Chincoteague area is the establishment of a migratory pattern in a very small population segment. Since 1953, these egrets have been arriving in the spring and leaving in the fall. From our arrival dates and records it must be assumed that singletons or small groups make the vernal journey by themselves, or possibly with groups of other herons (see Phenology).

It is interesting to note that most of the occurrence records for the bird show that it has followed the Atlantic coastline. Its spread to Texas and Louisiana, however, indicates that it is now following the Gulf of Mexico; and the inland records, one in Missouri and another in Ontario, indicate that the Mississippi River Valley may become the next migration route.

It is logical to assume that these water masses serve as guides and leads for a pioneering species. Later, as the birds become more familiar with the interior regions, the migration routes will probably become intricate and interlaced.

#### PHENOLOGY

During mild winters, some egrets and herons remain at Chincoteague during the winter. In 1956, when the Snowy Egrets did not, they returned on March 15, and were common by March 20. The Cattle Egret was first seen on that date. In 1957, a few Common Egrets wintered here and migrants began arriving in March. Snowy Egrets arrived on March 14 and a Little Blue Heron was seen on March 30. The Cattle Egret arrived April 4; Louisiana Herons were first seen on April 23.

On a recent trip to Florida, when all cattle herds seen along the route were checked for egrets, two Cattle Egrets were seen several miles south of McClellanville, South Carolina, on U.S. 17, on March 13, 1958. The only other heron seen north of this area was one Snowy Egret on the Santee River on the same date.

During the spring of 1958, the Snowy Egrets arrived at Chincoteague en masse on March 30. One Common Egret and a Green Heron were seen on April 7. Two Louisiana Herons were first seen on April 9 and a Little Blue Heron on April 10. On April 14 and 15 the weather became warmer with strong southerly winds. Several large flocks of Double-crested Cormorants were seen on those two days. On April 16 the first Cattle Egret arrived. A Glossy Ibis was also seen on that day; two others were seen on April 17.

Records here at other places indicate that the Cattle Egret sometimes lingers quite late in the fall. In 1955, the last egret was seen on November 9; in 1957, a bird was seen on November 20. There had been four days of freezing weather that month, and on that day the temperature ranged from 39 to 57 degrees Fahrenheit.

#### REPRODUCTION

##### The Heronry

Mills Island, the site of the heronry, is located in Chincoteague Bay, Worcester County, on the Eastern Shore of Maryland. It is less than a half mile from the mainland and about eight air miles from the refuge headquarters on Piney Island. The heronry is on a wooded knoll about two acres in size on the southwest side of the island. This knoll rises about ten feet above the level of the saltwater bay. The nesting trees are small (10 to 20 feet high) eastern red cedars (Juniperus virginiana) which are surrounded on a lower level by a ring of shrubby bushes and salt marsh.

The heronry has a comfortable aspect compared to many colonies in the area. Most of these are located in small myrtle shrubs and hightide or groundsel bushes. At Mills Island, all of the nests are in the shade of the leafy upper story. This leafy cover provides protection from the hot sun, rain, and wind. The flattened leafy upper branches offer excellent walking and perching surfaces for young and adult birds. Hundreds of herons, egrets, and ibises sit and preen and sun themselves. Under this canopy the trees are devoid of leaves, and only the dead or dying branches remain where the nests are placed.

The Cattle Egret has probably been breeding on the Mills Island since 1955, when the first immature bird was seen on the refuge, but nesting was undiscovered because of the small numbers of birds and the difficulty of finding and identifying the nests. Chandler Robbins (1957) writes referring to the Cattle Egret, "The latter species summered in Maryland for the first time; five were counted at the Mills Island heronry colony on June 1 (Neil Hotchkiss), but no nests or young were recognized." Three or four adults were seen on Mills Island on June 12, 1957, by Chandler Robbins, Allen J. Duvall, and Robert E. Stewart, but they were unable to confirm any nests as belonging to the Cattle Egret (Robbins, 1958).

The following waterbirds nest on the island heronry. The numbers indicated are pairs, estimated from counts during the spring and summer of 1958.

|  |     |
|--|-----|
| Little Blue Heron ( <u>Florida caerulea</u> ) . . . . .              | 30  |
| Cattle Egret ( <u>Bubulcus ibis</u> ) . . . . .                      | 12  |
| Common Egret ( <u>Casmerodius albus</u> ) . . . . .                  | 40  |
| Snowy Egret ( <u>Leucophoyx thula</u> ) . . . . .                    | 200 |
| Louisiana Heron ( <u>Hydranassa tricolor</u> ) . . . . .             | 30  |
| Black-crowned Night Heron ( <u>Nycticorax nycticorax</u> ) . . . . . | 50  |
| Glossy Ibis ( <u>Plegadis falcinellus</u> ) . . . . .                | 25  |

The Cattle Egret colony was discovered by the writer on Mills Island on May 27, 1958. About six adults were seen at the heronry, and by remaining hidden under the cedars, an adult was seen go to its nest and breed young and eggs. Several days later, I returned to the heronry and set up a blind near this Nest #1. Three other nests were found from this location. By moving the blind to two other sites on other days, I eventually was able to find 12 nests. On July 26, Nest #13 was found and on August 14, Nest #14 was found. Both of these latter nests, which were probably renestings, contained four young. Two other nests were found on August 23, one containing four young and the other three young. These young varied in age between 5 and 12 days of age.

One study technique was to set up the blind near several nests and keep the nests and birds under surveillance for three to six hours. Once I remained overnight in the blind. The nest trees and nest sites were numbered and painted to facilitate finding them. Nests were examined as to age, color, and development of the plumage and soft parts; about 32 young were banded, and several were color-marked with dyes. This latter technique was not fully developed but should be emphasized in later studies to determine flight age and movements of the young accurately.

Several other waterbird heronries were visited in 1957 and 1958 to determine if Cattle Egrets nested elsewhere. A heronry of Snowy Egrets and Louisiana Herons was found at Hog Creek, near the south end of Wallops Island, about ten miles from the refuge. Ther heronry at Hog Island, about 35 air miles from Chincoteague, was visited on June 7, 1958, with Frederic R. Scott, Snowy Egrets, Louisiana Herons, Little Blue Herons, Common Egrets, Black-crowned Night Herons, and Glossy Ibises nest here. Several small heronries of Snowy Egrets and Little Blue Herons near South Point, Maryland, were examined on July 5, 1958. No Cattle Egrets were found at any of the heronries visited.

The presence of already established heronries is probably an important factor in the rapid spread of the Cattle Egrets. All of the known Cattle Egret nesting colonies in the United States are within the confines of established egret and heron nesting sites. Rice (1956) ascribes the

colonization by Cattle Egrets at the Lake Alice heronry to the commingling of the small herons on the feeding and roosting grounds and the continued association during migration. He said that all of the herons and ibises arrive at the heronry at the same time in March. This has not been the pattern at Chincoteague, though it is still possible that association with other herons may have influenced the establishment of the Cattle Egret in this area. Any group of egrets or herons congregating en masse is sure to be attractive to other herons. There is some "habitat attraction" at Chincoteague and Mills Island which determines where the Cattle Egrets will feed, roost, and nest. The combination of good feeding areas, cattle and ponies, fresh water, and numerous other egrets and herons all serve to influence the choice of heronries.

Glossy Ibises, in the past few years, have also extended their summer range northward as far as New Jersey, where they are breeding. Louisiana Herons, in the past decade, have become numerous and are common as nesting birds in this area.

Skead (1952) lists three types of breeding sites in South Africa: (1) old established heronries with many years use; (2) those used several years and then deserted; and (3) those with only one year's use. He considered "the traditional adherence of breeding sites not strongly developed or easily disturbed." Roosting grounds also differed in usage: (1) those used year after year and also for nesting; (2) those used for several months, by large flocks of nonbreeders, even during the winter; and (3) coastal roosts occupied for a few nights and then deserted for a time.

#### Breeding Age

The breeding age of the Cattle Egret is not known. Riddell (1944) infers that it is not until after the second spring after it is born that the Cattle Egret assumes the breeding plumage and that it may be later. He also states that some birds may breed while still in the subadult plumage, but he believes "that such birds are the exception, not the rule," (see Molts and Plumages). His evidence, as he admits, is inconclusive. He bases his hypothesis on the presence of large numbers of birds "in the winter plumage . . . in full summer," and asks, "What can these birds be, except immature birds which have not yet attained full plumage?"

Jack Vincent (1947) describing a roost on his farm in Natal, says the roosting birds "have not bred and obviously are not going to breed this season, and I take it that these summer roosts are tenanted largely by yearling birds. It seems conclusive that the species does not breed until at least two years of age . . . whilst the following remarks may suggest an even longer interval before breeding.

"Examining the non-breeding birds at roost . . . (indicates) that here . . . they did not consist only of birds with clear yellow bills and non-breeding dress. They certainly had much rich buff on the chest and back . . . whilst numbers of them had both bill and feet of a reddish burnt-sienna colour, almost a venetian red."

Observations at Chincoteague indicate that the Cattle Egret may breed during its first year. All of the egrets, with few exceptions, are in the breeding plumage in the spring. None have been seen in the all-white plumage in June. It would appear that at least a few birds which were born in this vicinity would return to their birth grounds. The small yearly

increase in spring populations indicate that they do. These spring populations also indicate that most, if not all, of the birds which are feeding at Chincoteague are breeding at Mills Island.

It is only during the latter part of the breeding season that young are seen on the feeding grounds. The first two were seen on July 26, 1958. Adult Cattle Egrets begin losing their buffy coloration in early July. An adult egret, seen near its nest with young on August 14, 1958, had only the slightest amount of buff on its head. Another, on the same date, was seen at the heronry in the complete breeding plumage. It is only through banding and the collecting or finding of these banded birds that this question will be resolved.

#### Courtship

Skead (1956) describes the courtship as occurring on the heronry where the birds go to roost in the evening. Some of the birds arrive at the heronry early in the afternoon. Courtship begins by displays on the branches or on the remains of last year's nest. Feathers are ruffled and the dorsal plumes are raised as one of the egrets defends a part of the branch. Other Cattle Egrets are attracted to this defensive display. The defending egret attacks intruders and drives them away by lunges and beak thrusts. The characteristic voice is the nasal "thunk" which is given with the lunges. Skead considers this call as peculiar to the courtship display. I have also heard it given by an incubating egret as it reached down to threaten another egret which had come too close to its nest.

After a few days of aggressive behavior, the defending bird accepts one of the intruders and the two engage in reciprocal fondling and preening. Skead assumes the defending egret to be the male. The features of the mantle are seized and shaken. The two courting birds may bite each other's beak and crane or cross necks over each other's back to bite or seize the dorsal feathers. This latter behavior I have seen after the birds are incubating eggs or breeding young. Skead has noted that fights may occur during this initial period, but later the aggressive behavior subsides. According to Skead, courtship lasts but a day or two, after which nest building begins.

I was unable to observe the early courtship which antedates nest building. I have seen similar behavior which probably were the actions of mated birds. On May 31, 1958, two Cattle Egrets were seen sitting together on the upper branches of the red cedars. Occasionally they would face each and cross opened beaks and bite each other's beak. Several times one of the pair would fly away and return to face the other; they then would repeat the beak parrying or biting. One of the two threatened a Snowy Egret which came too close with the "kung-kung" voice and a beak stab.

According to Skead, the beaks, irises, eye rings, and legs redden during courtship which "more or less coincides with the browning of the crown, throat, and dorsal feathers." The reddish color is supposed to be replaced by yellow after egg-laying is completed. As I have stated before, the red coloration is rarely seen at Chincoteague and most of the egrets which arrive in the spring are already in the breeding plumage.

It is possible that some of the spring arrivals are already mated. A small percentage appear to remain as pairs while on the feeding grounds.

Often these doubles will fly together and remain closely associated while feeding and preening. Others remain quite aloof and feed independently away from other Cattle Egrets which may be in the area. However, the greater number of singletons seen, especially in the spring and early summer, would suggest that the mating bond is effective only at the heronry. After incubation has begun, the paired birds alternate at the nest and on the feeding grounds.

#### Nest Building

Nest building, according to Skead, takes place at the defended branch. One of the pair collects twigs while the other remains at the nest site. The stick collecting bird gives the nest material to the bird at the site, who places the stick or twig to form the nest. I did not see any of the early stages of nest building but often saw incubating Cattle Egrets reach out to pull at branches or replace twigs after relief or position changes. Snowy Egrets gathered nest material directly below the nests. The ground was littered with small sticks from old nests and dead branches.

Work continues on the nest well into the lives of the nestlings. This may not be true for all birds because some nests remained very flimsy while others were heavy and rather spacious. Certain activities, such as nest building, preening, and shifting of positions while incubating, are often performed simultaneously by several of the birds. Skead noted this also in his study, especially as related to the early nest building. He says, "It is noticed that the birds from the many nests tend to do their collecting of nest material, all at the same time, and such a spell is followed by a long pause in the work with the birds remaining on the nests."

On June 26, 1958, I noted a pair gathering nest material in the trees, either from the branches or from another nest. I assumed they were beginning a nest, but when one of the pair placed a twig on a nest occupied by nestlings about 13 days old, I jumped to the conclusion that this adult was a bit disoriented. However, when his mate also arrived with nest material and placed it on the same nest, I accepted it as normal behavior. This assumption was further strengthened when I noted that another nearby bird was also collecting material and placing it on a nest which contained three young. The nest material, mainly small twigs, was placed on the outer edges of the nest to widen it and also to raise the lip. Both of these nests were being refurbished from material which the adults were removing from abandoned or unoccupied nests. Occasionally, they would pull at dead tree branches and twigs, but in the main they concentrated on the unoccupied nests. Each time the adults would arrive with a twig, the young in the nest would make beak stabs at the adults. The adult would make the familiar "rick-rack" call even when carrying a stick in its beak. One bird at Nest #3C began gathering nest material from a nest about four feet away from its own. From 1:06 p.m. to 1:27, it made ten complete trips for twigs.

Brooke Meanley (1955) writes that Little Blue Herons, Common Egrets, and Anhingas all stole nest material from other newly constructed nests. Bannerman (1930) noted that the stationing of one of the pair at the nest was no idle symbol but very necessary because of the thievery of the egrets. By July 11, 1958, three of the twelve nests under study at Mills Island had been removed, presumably by other herons. Later in August, I noted that I was unable to find other nests which had been vacated.

### The Nest

Twelve nests were examined and measured at Mills Island. The largest was 18 inches in diameter and the smallest 10 inches. The smallest in depth was three inches, and two measured this. The greatest depth measured was nine inches. These measurements are quite arbitrary because some of the long branches may extend several inches beyond the nest proper. Skead recognizes two parts to the nest, the upper composed of small twigs and green matter, and the lower layer of heavier sticks. There was little difference in these component parts at Mills Island, except that the upper layer was formed of small twigs and some dried herbaceous material. No green material, leaves, grasses or feathers, were found in any of the nests. All of the nests were on branches which forked sufficiently to provide a secure foundation, or in the crotch between the branch and the main trunk of the tree. Several were on two or three branches which grew close to each other. All of them were under the green leafy canopy of the red cedars. The nest height varied from five to twelve feet above the ground. There were two instances of two Cattle Egret nests in one tree but the other eight nests were alone except for other egret or heron nests.

### Territory

Skead considers "the circumference of the nest as virtually the extent of the pair's territory." He maintains that the Cattle Egret will tolerate other egrets on the nest branch. My observations showed that the Cattle Egrets will challenge other egrets which come within three or four feet of the nest. At other times, five or six feet may be the limit. One Cattle Egret and a Snowy Egret alternately threatened each other whenever one moved from the nests which were spaced about six feet apart. The threats may come from a nest-sitting bird which reaches out to make a beak thrust, or at times the bird may leave the nest to chase another egret away.

After the breeding season, and also during resting periods, the egrets often sat on favored perches in the tree tops. Cattle Egrets appeared to have a highly developed sense of pugnacity. They usually were able to move all but the Common Egrets from desired positions.

A peculiar extension of territory which I observed in Snowy Egrets, Louisiana Herons, and Black-crowned Night Herons was the defense of "scavenging grounds." Many of these herons have developed the habit of walking under the nests to pick up dropped regurgitated food. Often a Snowy Egret would chase another, sometimes from 20 to more feet, which had entered its domain. Displays, threat posturing, and chases often ensued. I have seen Snowy Egrets fly from the ground to chase another egret from a branch above its ground position. I did not see any Cattle Egrets on the ground at the heronry.

### Egg Laying

From observations and calculated nesting data, the first egg-laying date was determined to be about May 1. The last date of incipient laying was July 18. The peak of laying occurred during the second and third week in May, but several extended into June and July. These latter were possibly renestings, as several of the nests under study were abandoned.

### The Eggs

The eggs of the Cattle Egret are light blue, though some were almost white. Witherby et al. (1939) call it a "skim milk" color. One of the eggs at the heronry was almost black and I assumed it rotten. However, a week later this egg had hatched. I did not determine whether this was an inherent color or merely discoloration from excrement.

Baker (1929) reports that of 80 eggs from India, the average size was 44.1 x 22.6 mm; maxima: 48.5 x 32.0 mm and 45.1 x 35.1 mm; minima: 41.4 x 33.8 and 43.5 x 32.0 mm. Witherby et al. (1939) describe the measurements of the "average of 61 eggs from Spain and Morocco, 45.66 x 34.22 mm; maxima: 49.8 x 35.8 and 49.3 x 36.0 mm; minima: 41.2 x 33.0 and 48.9 x 32.5 mm. Of 29 eggs which I measured at Mills Island, the largest were 49.0 x 33.0 and 45 x 34.5 and the smallest 42.5 x 33.5 and 43.0 x 31.0 mm.

### Clutch Size

Of 12 nests, two contained five eggs, five held four, four held three, and one had two. Four of the nests which contained four eggs lost one egg before all were hatched.

### Incubation

Incubation apparently begins soon after the first egg has been laid. This is evidenced by the varying ages of the young in the nest. The eggs are laid every few days until the clutch is completed. On May 27, 1958, a nest I found had two young and three eggs. On May 29, this same nest had three young and two eggs. There was also several days difference in the age of the first two nestlings. A nest found July 26 contained four young which varied between 10 and 18 days of age. Four young in a nest found on August 14 were aged between five and ten days of age. In another nest, the youngest of four was about five to seven days of age and the oldest 10 to 12 days.

Both the male and female incubate the eggs and breed the young, alternating nest duties during the day. The period of incubation for one of the pair lasts between two and six hours. Apparently, the last relief in the late afternoon remains on the eggs all night while the mate sits nearby until early morning. On one evening, I watched the nest relief come in about 5:00 P.M. and take over the nest duties and feed the young. The nest bird moved off the nest and sat on a nearby branch as if to spend the night there. On June 5, 1958, another bird with young was relieved from the nest at 3:00 P.M. After the pair preened and courted for about ten minutes, the relief moved to the nest and his mate flew off. At 6:53 P.M., the relief returned to the nest. The nest bird rose to meet his mate. They momentarily crossed beaks; the relief moved to the nest and his mate flew off at 5:54 P.M. At 8:10 P.M. (it was almost dark), the mate came in sounding the familiar "rick-rack" call. This time the nest bird remained on the nest and the "relief" sat nearby on the perch branch. At another nest site, I could see a nest bird and another on the perch branch, but by 4:10 A.M. the roosting bird had gone.

While incubating, the egret sits low in the nest, with its neck pulled in close to its body. Sometimes, the neck is laid over the nest, and at other times it is held above the lip of the nest. When breeding young, the bird sits higher with its wings slightly held away from its body and dropped to form a canopy for the young to sit under.

The adults turn the eggs often during the incubation period. The egret rises from the eggs and bends the head around to get the tip of the bill under the egg to turn it. There may be considerable movement and shifting of positions on the nest. At other times, the birds will sit quietly for hours. Shown below are most of the movements recorded at three nests on May 31, 1958, during the period 8:10 to 11:03 a.m.

|           | <u>Nest #5</u>   | <u>Nest #7</u>                                   | <u>Nest #8</u>  |
|-----------|--|--|---|
| 8:10 a.m. | Off nest   | Returned to nest                                 | Off nest  |
| 9:20      | Returned to nest   | Off nest; sitting 3 feet away; fluffing feathers |   |
| 9:53      |  | Returned to nest                                 |   |
| 10:12     | Left nest  |  | Near nest   |
| 10:13     | Returned to nest   |  |   |
| 10:20     |  |  | Returned to nest  |
| 10:30     |  | Changed nest position                            | Off nest; turning eggs; shifted position.                     |
| 10:32     | Change position  |  | Off nest; picking at twigs.                                   |
| 10:35     | Change position; turning eggs; returned to nest                                |  |   |
| 10:37     |  |  | Returned to nest position                                     |
| 10:40     | Off nest; climbing above nest  |  | Off nest; moved to branch; returned to nest                   |
| 10:50     | Flew off but returned to branch near nest; preening and moving about near nest |  | Challenged Snowy Egret; moved off nest; preening              |
| 10:57     |  | Pulling at sticks and branches                   |   |
| 11:01     | Returned to nest; resumed nest position  |  | Returned to nest; moved nest twigs; returned to nest position |
| 11:03     |  | Pulling at nest twigs and nearby tree twigs      |   |

### Incubation Period

Skead (1956) estimates the incubation period to be 26 days, but he considers this estimate to be unreliable. Skead worked at a handicap with the nests under study in eucalyptus trees 50 to 80 feet above ground. My observations indicate the period to be about 26 days or less. On May 30, one of the nests under observation had two eggs. On June 15, there were three eggs and on June 26 there were two young and the third egg was being pipped. Assuming that this third egg was laid a day or two after the others, the incubation period would be about 25 or 26 days. The two young in the nest were two or three days old.

### The Nestlings

Because the young are hatched at spaced intervals of a day or two apart, the eldest young are brooded much of the time for a week or more. Breeding may continue until the young are about 15 to 20 days of age. The adult sits high in the nest when it is brooding young to allow the young room under the wings and body. While the parents are both gone from the nest, the young nestlings often sit facing the center of the nest with their heads tucked under their wings or bodies. The fore part of their bodies touching each other, they form three or four petalled downy rosettes. As the young grow older they sleep less and become quite active. They may sit in the nest or in the branches which surround the nest. When the parents return with food the young hurry to the nest to be fed. At Nest #3C on June 26, 1958, one young about 18 days old moved about two feet from the nest. Soon its nest mate also moved about a foot off the nest. After several minutes, they returned to the nest when the parent came carrying twigs for the nest. After the age of 20 days, the young leave the nest for longer periods, especially when frightened by human intruders. They remain in the vicinity of the nest most of the time and probably roost on or near the nest at night. I saw dye-marked birds near the nest, though in the upper branches, at 46 days of age.

The young were not fed for a few days after they were born, but this was often difficult to observe because one-day-olds might be in the same nest with week-olds which were being fed. On May 31, I observed an adult on Nest #1 regurgitate food to three young. The young ranged in age from two days to a weeks old. Only part of the food was eaten and that by the elder of the brood. The adult later picked up and ate the food which was left uneaten in the nest. It was characteristic of the adults to clean up uneaten food.

Skead remarks that the Cattle Egrets were unsanitary in their habits and that the nest became impregnated by the bird's droppings. This, I found, was not true at Mills Island. The nests were very clean and both young and adults backed to the edge of the nest to defecate.

The adult does not always feed the young when it returns to the nest. On June 4, 1958, at Nest #1 the relief arrived at 3:00 P.M. but did not begin to brood the young until 3:17. While the adult was off the nest, two of the larger nestlings "feed-fought" i.e., each pulled at the other's bill. This lasted a short while, and then the young settled down. When the adult came to the nest, the young pecked at him and again settled down. It was not until 3:54 that the nest adult fed the young. At this time, the adult changed position in the nest and the young began pecking and pulling at the adult's bill. The adult then emptied a large bolus of insect material

which was seized by one of the young. The others then tore the food material apart and swallowed it. The adult picked at the spilled food in the nest as did the young. At 6:53 P.M., the nest relief arrived; and at 6:55, after the nest bird had departed, the relief fed the young.

On June 26, at Nest #3C, the adult which had been disturbed from the nest when I set up my blind at 10:40 a.m. returned at 11:47. The young, about 15 to 18 days old, made beak stabs toward the adult when it first arrived but soon settled down in the nest. It was not until 12:21 a.m., after the stimulus of "feed fighting" and the biting of the adult's beak, that the young were fed.

The manner of feeding usually follows this pattern. The young, one or several, grasp the adult's bill. The adult lowers his head, and with a thrusting or pumping motion the food is regurgitated into the nest. I have never seen any of the material enter the gape of the nestlings, as is characteristic of most herons, pelicans and cormorants. Occasionally one of the young will peck at it as it leaves the adult's bill, and other young will pull at it from their sibling's beak. The food usually fell into the nest where it was picked up by the young.

#### Flight Age

The young become very adept at walking about on the compressed leafy branches of the red cedars. They often spread their wings and run in the manner of a tight-rope walker. At other times, they make short flights to drop from one branch to another. I did not see any of the young Cattle Egrets make sustained flights at the heronry. The first two flying young of the 1958 season were seen on July 26 at Piney Island. The eldest young raised at the heronry at this date would be about 56 days old. A dye-marked bird observed at the heronry on August 14 was capable only of very short flights at a calculated age of 37 days. On August 23, when it would have been 46 days old, it was gone.

#### Nesting Success

Of 12 nests found early in this study, 27 young were raised to be at least 18 days of age. Of these 12 nests, two were abandoned with eggs. Later, in July and August, four other nests were found containing a total of 15 young. Some of these latter nests were possibly re-nesting attempts or, perhaps, even second broods. This makes a total of 42 young Cattle Egrets raised in 14 productive nests, or an average of 3 per nest.

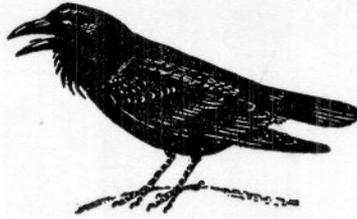
No accounting for mortality after the age of 20 days can be made because the young left the nest whenever I entered the nesting grounds.

This high success ratio and nesting perseverance is, no doubt, a factor in the rapid and successful spread of the Cattle Egret in its world range. On August 23, I found that the only active nests (3) in the heronry belonged to Cattle Egrets.

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# The Raven

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CONSERVATION DEVELOPMENTS IN THE EIGHTY-FIFTH CONGRESS  
1957-1958

By R. J. Watson

The Eighty-fifth Congress adjourned on August 24, 1958. During its two-year session, it was confronted with a number of measures affecting conservation in one way or another. For the most part, it dealt with these matters favorably, though, as always, there were exceptions.

The following summary lists the major conservation developments in Congress during 1957-1958. The information comes principally from the voluminous reports sent out to member organizations by the National Wildlife Federation.

On the favorable side, Congress took the following actions:

(1) The price of the Federal "duck stamp" purchased annually by hunters was raised from \$2 to \$3, and the extra money was earmarked to purchase wetlands to be retained as duck breeding areas. It is not generally known that, despite the existence of huge agricultural surpluses, the Federal government is still draining wetlands to bring them into cultivation, ostensibly for the "benefit" of the farmers. Many of the areas being drained, especially in the north central states, are important nesting grounds for ducks.

(2) The U.S. Fish and Wildlife Service was authorized to initiate research into the effects produced on wildlife by mass spraying of insecticides. This is a practice resorted to more and more by Federal, state, and local agricultural authorities to control insect pests. Assurances by these authorities that spraying has little effect on wildlife (which seem to conflict with the elaborate precautions usually taken to protect domestic animals) have been disputed by wildlife biologists. Careful research by the Fish and Wildlife Service should settle the controversy and, if necessary, provide a factual basis for launching a demand that this practice be limited.

(3) Approval of Congress was established as a criterion for withdrawal of more than 5,000 acres of public lands for use as a military reservation. The purpose of this measure is to prevent raids on wildlife refuges by military authorities. It also requires military personnel to observe state game regulations when hunting on military bases.

(4) A National Outdoor Recreation Resources Review Commission was established, to draft long-range plans for meeting the growing pressure on the nation's remaining outdoor areas.

(5) The Coordination Act of 1946, which governs State-Federal planning in connection with construction of dams, was amended to give state and federal wildlife authorities a stronger voice in the planning process. All too often, dams have been built for flood control, power production, or irrigation with little or no regard to their effects on wildlife or recreational areas.

(6) The Federal highway construction bill was passed with a provision offering a modest financial incentive to states which pass laws regulating billboards on the projected Federal road network.

Actions unfavorable to conservation were mostly sins of omission rather than of commission. Of the measures which Congress failed to act on, the following were the most significant:

(1) A bill to establish a national policy for preserving wilderness areas on public lands, though revised several times to meet various objections, was held up by a Senate committee, which decided to hold field hearings.

(2) A proposal to turn the Chesapeake and Ohio Canal, which parallels the Potomac River on the Maryland side for some distance westward from Washington, into a national park was passed by the Senate but was defeated by delaying tactics in a House committee. Its defeat resulted from a curious situation. The Army Engineers are now considering plans for a large dam on the Potomac to provide a water reservoir for Washington. A by-product of this dam would be electric power, which would be sold at a favored rate to rural electric cooperatives. The lake created by the dam would flood much of the Potomac Valley, including part of the proposed Canal park. The park bill was amended to specify that it would not prejudice later construction of a dam (though the need for the latter is seriously questioned by many). Nevertheless, representatives of rural cooperatives in the Washington area opposed the bill on the grounds that if the park were created, conservationists might later attempt to block construction of the dam to avoid damage to the park. They were careful to give effusive assurances that their opposition sprang entirely from an unselfish concern for Washington's future water supply. Several representatives from Western states, where rural cooperatives are highly influential, played key roles in blocking the measure. There is some evidence that cooperatives in those states brought pressure on their representatives at the behest of the Washington area cooperatives.

The fate of the Canal park proposal brings out clearly the growing complexity of conservation issues, and illustrates the fact that traditional views of conservation are largely obsolete. In the past, those concerned with conservation have liked to think of it as a simple question of the good of the public versus a few vested interests - the permanent preservation of resources for the use of everyone, as compared with their selfish exploitation by a handful of profiteers. This view was largely true when the conservation movement began, some three-quarters of a century ago. The leading issues then were whether forests were to be denuded by short-sighted lumbermen, or whether birds were to be harvested for the benefit of milliners. In some cases, it is still true today, as when a lumber or mining company seeks access to the timber or mineral resources of a national or state park. Moreover, it had two practical advantages. It coincides with a seemingly universal tendency to reduce issues to blacks and whites - the Good People versus the Bad People. And it harmonizes neatly with certain other stereotyped pairs of absolutes which, growing out of our political history, have become part of our folklore, notably the picture of the honest, hard-working farmer versus wealthy, profit-squeezing corporations. Thus the view of conservation as simply The-People-versus-vested-interests enabled conservationists to present issues simply in terms understandable to all,

to emphasize the public benefits of conservation, and to lampoon their opponents through speech, article, and cartoon. Moreover, it aligned the conservation interest with a traditional American tendency toward "sympathy for the underdog."

Were this simple view still valid, the outlook for conservation would be far more hopeful. But what happens when the farmer - that heroic figure of American political tradition - adds his voice to that of the "wealthy few" - the chemical manufacturers who benefit by mass distribution of insecticides, and the factories demanding cheap electric power? Or when The People, whose ownership of their glorious heritage of national parks now seems assured, begin to demand that these parks be turned into commercialized resorts with expensive lodges and honky-tonk joints? In these cases, the difficulties of presenting the conservationist position clearly and effectively become enormously more difficult.

The situation raises political considerations which, it seems to me, cannot be ignored even in a non-political publication like The Raven. Whatever one thinks of the political philosophy which dominated the Federal government between 1932 and 1952, it is beyond dispute that a large number of essential conservation projects were launched during this period. The emphasis on enlarged Federal activity, which is an essential part of this philosophy, has clearly helped to advance the conservation movement. But the same philosophy also embraced a laudable desire to assist farmers, which seems to have committed this country to a permanent program of enormous subsidies to rural groups and individuals. It was probably inevitable that some of the activities undertaken to assist agriculture would sooner or later result in serious damage to wildlife habitat or outdoor recreational areas. These conflicts will have to be reconciled in one way or the other. It is therefore idle for conservationists to expect either political party to become the "party of conservation" (though this is not to deny that there may be a basis for preferring one party, or that one may do more harm to conservation than another).

The conflict between the oversimplified view of conservation and some of the other stereotypes which dominate much current political thinking was amusingly illustrated recently in a column written by one of the most widely read columnists in this country. This writer, a consistent champion of what are generally defined as "liberal" causes, has been an outspoken advocate of subsidies to farmers and agricultural groups, and also has an excellent record for supporting conservation objectives. Not long ago, in commenting on the defeat of the C. and O. Canal park, he devoted an entire column to a suave attack on one of the representatives responsible for its defeat. Yet he carefully avoided mentioning the real basis for the opposition - the hostility of rural cooperatives. Many conservationists throughout the country (and doubtless some in the VSO) must have read the column and concluded that this representative's hostility to the park was nothing but an irrational personal whim.

Clearly, the conclusion to be drawn by those interested in preserving our woods, waters, and wildlife is that they must readjust their thinking - and prepare for battles which will dwarf the previous controversies. In other words, they must adjust to the painful fact that reality is gray, not black and white. It is ironic that in much current discussion,

conservationists are beginning to find themselves cast in the very role which they once devised for their opponents - that of the self-seeking minority thwarting the wishes and welfare of the many. When conservationists oppose bringing duck nesting grounds under cultivation, wholesale distribution of toxic chemicals, or construction of superhighways through parks, it is easy to accuse them of "putting birds ahead of people." They will, of course, reply with the facts which invalidate this absurd charge: that further cultivated land will only cost the taxpayers more money for price supports; that chemical poisons provide only temporary control, because insects soon develop immunity; and that parks, which exist to benefit people, have irreplaceable values which may be destroyed by highways. But in the political arena, facts have tough going in the face of catchy slogans. The inveterate tendency of the man in the street to simplify issues, to think of them in terms of devils versus angels, has sometimes worked to the advantage of conservationists. They must now face the prospect that it may work to their disadvantage.

--- 906 North Wayne Street  
Arlington 1, Virginia

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#### THE 1958 ANNUAL FORAY

By James W. Eike and F. R. Scott

The annual Foray of the Virginia Society of Ornithology was held on June 20, 21 and 22, 1958, with headquarters at Skyland in Shenandoah National Park. The Tripmaster, C.C. Steirly, had as usual reserved a cabin with a large, cheery living room which provided a comfortable meeting place for evening sessions and periods of inclement weather.

The "Hepburn" living room also served as the screening room for a fine color film, "Wood Duck Ways," presented by Max Carpenter of the Virginia Commission of Game and Inland Fisheries. Mr. Carpenter also showed many of the color slides made by A.A. Allen of Cornell. This followed an interesting program given by a Park Naturalist.

Because of the large attendance at the Foray, approximately 40, two parties were formed, one led by Arthur H. Fast and W.G. Akers, the other led by C.C. Steirly. It was felt the smaller groups provided better birding for all, although at the expense of some loss of fellowship. There were some suggestions that it may in the future be necessary to form three or more parties as was done several years ago.

Many of us were not quite sure whether we were birding in the clouds, or if that was a heavy fog that settled in Thursday evening and remained through Friday. Although visibility was held to perhaps fifty feet along the ground, and birds in the tree tops were unlike the proverbial good children - which are seen but not heard - the group which went down Dark Hollow had a memorable experience as Veeries, Black-throated Blue Warblers, and Blackburnian and Canada Warblers sang about us in the mist, and the guttural croaks of a Raven drifted down to us as he circled unseen above.

The low-hanging clouds became so dense that the Friday afternoon trip was omitted, and on Saturday afternoon a sudden downpour prevented late afternoon birding. In each case the wisdom of the Tripmaster's selection of Hepburn Cottage was demonstrated, as everyone assembled around a blazing fire in the huge fireplace or lounged at the large picture windows, watching playful chipmunks or occasional Chestnut-sided Warblers and enjoying the great collection of bird books, pamphlets, and other ornithological publications provided by Messrs. Scott and Steirly. Some of the more fastidious squirmed at the sight of expensive books being scanned while the reader munched some exotic delicacy, expecting at any moment to see cavier or bleu cheese in the middle of a color plate by Fuertes.

A cold front moved in on Saturday night, dropping the temperature to 45° at Skyland and bringing with it the clear, sparkling air so characteristic of the area. This gave the Foray a fine finish. The Veeries, which during the two dark days had been singing more frequently and in greater numbers than on any previous Foray, surprised the group by putting on a similar performance along the Hawksbill trail through midday in brilliant sunlight.

As always, the Foray proved botanically fascinating to the many "flat-landers," and Mrs. W.G. Akers and R.J. Watson were in constant demand to identify plant life. The Mountain Laurel in particular was at the peak of its beauty, with a great display of very deep rose bloom.

Some 65 species of birds were reported in the Skyland to Big Meadows area during the Foray. A larger total could undoubtedly have been obtained if more field work had been done at lower altitudes in the Park. A short annotated list is given below of those observations which merit special comment.

Alexander Wetmore's "The List of Birds of the Shenandoah National Park" (Third Revision, Shenandoah Natural History Association Bulletin No. 1, September 1950; Supplement, 15 August 1952) is, of course, the basic publication on the birds of this area. Other observations of interest are recorded in the various Foray reports, especially the one on the 1954 Foray by P.G. Favour and F.R. Scott (Raven 26: 2-11, 1955). Unfortunately, there seem to have been no breeding-bird censuses made in the Park, and thus there are no quantitative data on which to base any discussions of trends in populations. Very useful censuses could be made by someone spending as little time as a week in the area in mid June.

#### Black Duck. Anas rubripes Brewster

One was flushed from a small pond at the foot on Whiteoak Canyon on June 21 by Roger Rageot and Roy McPherson. Apparently this was just outside the Park boundaries.

#### Osprey. Pandion haliaetus (Linnaeus)

One flew over Skyland in a northerly direction about noon on June 22 (R.J. Watson, J.W. Eike, and others). There do not seem to be any other June records of this bird for the Park.

House Wren. Troglodytes aedon Vieillot

One of the biggest surprises of the Foray was the almost total absence of this species, the only record being a singing bird at Big Meadows on June 22. In previous years this bird was rather plentiful, nesting commonly about the wooden buildings at Skyland and Big Meadows.

Hermit Thrush. Hylocichla guttata (Pallas)

C.C. Steirly and R.J. Watson heard at least two singing birds, one of which was seen by J.W. Eike, between Whiteoak Canyon and Hawksbill Gap on June 21. The altitude here was about 3050 feet. An attempt to locate the birds the following day was hampered by high winds and was unsuccessful. There are no nesting records for this bird in Virginia, the closest breeding station being the Cheat Mountain area of West Virginia, some 70 miles away.

Warbling Vireo. Vireo gilvus (Viellot)

A singing bird was found in some second-growth oak woods near Limberlost (3300 feet) on June 21 by Misses Cleo Allen and Mary Tompkins. There seem to be no previous records for the Park, though it is recorded regularly just outside the Park boundaries.

Blackburnian Warbler. Dendroica fusca (Müller)

This bird probably attracted more interest than any other on the Foray. It proved to be the commonest bird in Limberlost and upper Whiteoak Canyon, occurring in the hardwoods as well as its preferred coniferous habitat. Some 22 singing birds were recorded in this area on June 21 at altitudes between 2500 and 3300 feet.

Brown-headed Cowbird. Molothrus ater. (Boddaert)

Wetmore's "List" gave no summer records of this bird at high altitudes, and the 1954 Foray report listed only one record. It was therefore surprising to find it fairly common both along the ridge at Skyland and Big Meadows and in the hollows. Four was the maximum number seen in any one flock, and it was usually seen singly or in twos.

Several species which might have been expected were not seen at all. These were the Carolina Wren, Eastern Bluebird, Black-throated Green Warbler, and Baltimore Oriole,

Several interesting nests were reported as follows:

Acadian Flycatcher, building in a hemlock 12 feet above the ground just below Limberlost in Whiteoak Canyon, June 21, altitude 3150 feet, found by Misses Elizabeth Thomas and Betsey Stephens,

Scarlet Tanager, incubating 20 feet up in a red oak on Hawksbill Mountain, June 22, found by R.J. Watson and others.

Rufous-sided Towhee, ground nest with 4 young at Skyland, June 21, altitude 3600 feet, found by Max Carpenter and others,

Slate-colored Junco, nest with eggs 7 feet up in a cleft of a rock wall of building at Big Meadows, June 20, altitude 3650 feet, found by F.R. Scott.

## 1958 EASTERN SHORE TRIP

By C. C. Steirly, Tripmaster

The annual Eastern Shore trip was held at Wachapreague on August 23. As has been the custom for the past several years, the trip was based from the Wachapreague Hotel, a charming old place noted for the excellent food and splendid view of the vast marshes and waterways from its spacious verandas.

A group of 23 members assembled at the hotel on the night of August 22 in time for supper. A violent thunderstorm raged over the marsh, each flash of lightning revealing momentarily the wild, wind-swept greenery of the marshes and the lashing rains pelting the open water.

Following an ample breakfast for which the hostelry is famous, the group left the waterfront in three boats (Coast Guard regulations prohibit more than six persons in a boat) for the outer islands. A favorable low tide made the trip through the marshes and mud flats very interesting since this summer trip is primarily a shore and marsh bird observation trip.

A landing was made on Parramore Island, where the group roamed through woods; marshlands and the open sea beach. Shorebirds, terns and herons were observed here, and certain fall migrants including Baltimore Orioles were picked up in the wooded section. At the appointed time the group moved over to Cedar Island for lunch and an afternoon of bird watching, beach combing and swimming.

Cedar Island is a typical island of the Eastern Shore with small sand dunes and unspoiled beach on the seaward side, a salt marsh area dissected by tidal streams on the landward side, and small areas of beach grass and other low vegetation behind the dunes. All parts of the lower end of Cedar Island were covered and an interesting list of shorebirds, marsh birds and terns was built up. Since three telescopes were available every effort was made to permit each person to study each species of bird found. In some cases, for example, it was possible to have several species in a telescope view at one time, thus offering comparisons for the identification of some of the more difficult shorebirds.

The low vegetation yielded the usual Sharp-tailed and Seaside Sparrows -- birds that are always associated with this habitat and which are always added attractions for a typical shorebird trip. Nine Oystercatchers on a small tidal islet made a memorable scene as did a considerable group of shorebirds on an extensive flat area that still retained the rain water from the storm of the night before. Some of the group who ventured northward found several Upland Plovers and a flock of 55 Knots. In the dune grass several interesting fall migrants including the Canada Warbler and Chestnut-sided Warbler were observed at fairly close range.

Although primarily a bird study trip, there were other things of interest to observe. The usual collection of shells, horseshoe crabs, skate eggs, etc. were made. The sea pinks and sea lavender were in full bloom and added to the interest of the visit to this island. More time, on future trips must be allotted to Cedar Island for the fuller enjoyment of all that it has to offer. Shorebirds found here included Oystercatchers, Piping Plovers,

Semipalmated Plovers, Black-bellied Plovers, Ruddy Turnstones, Whimbrel, Spotted Sandpipers, Upland Plovers, Willets, Greater Yellowlegs, Lesser Yellowlegs, Knots, Pectoral Sandpipers, Least Sandpipers, Dunlin, Dowitchers, Semipalmated Sandpipers and Sanderlings. The adjacent marshes yielded Great Blue Herons, Common Egrets, Snowy Egrets, Little Blue Herons, Louisiana Herons, Glossy Ibises, Green Herons, Black Ducks, Clapper Rails, Boat-tailed Grackles, while beaches and marshes offered Great Black-backed Gulls, Herring Gulls, Laughing Gulls, Common Terns, Forster's Terns, Least Terns, Gull-billed Terns, Royal Terns and Black Skimmers.

On the return trip to Wachapreague a stop was made at Club Point where on earlier trips in past years breeding colonies of Laughing Gulls and Green Herons had been observed. This point always contains much of interest and it is regularly visited on VSO trips. High tides prevailed on the return trip but the marshes were not without interest for there were flocks of Whimbrel, Snowies and Louisiana Herons to observe.

On the following morning the group enjoyed the same substantial breakfast and moved up to the Chincoteague Marshes for something of a repetition plus more mosquitoes. The Marsh Hawk and Caspian Tern were added to the total list here, however.

-- Waverly, Virginia

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#### BEWICK'S WREN AGAIN NESTING AT FAIRFAX, VIRGINIA

By Fred M. Packard

Last year I reported the nesting of a Bewick's Wren in the ivy of my mother's home at Lee Forest, Fairfax, Virginia, which was the second nesting record of this species in this vicinity. At least one of the birds remained here through the winter and was the first bird I heard in full song this spring, on February 26. I saw it quite frequently thereafter, and on June 27 it built a nest on a ledge on Mother's porch. The nest was made almost entirely of maple catkins and was very loosely constructed. It fell off the ledge before the eggs were laid, but we put it back and soon four eggs were deposited. They were evenly spotted with light brown speckles on a light gray background. The cup was off center, so much so that two of the nestlings fell out; one was dead, the other was replaced successfully. Unfortunately, on July 11 we found the nest on the porch floor, and the remaining nestlings had died of exposure.

A curious feature of this nesting was that not only was the Bewick's Wren seen on the nest, but a Carolina Wren was also flushed from it on several occasions. The latter was certainly a male, as it was seen singing when it perched nearby. The Bewick's Wren may have been a female, because I have not heard the song since about June 1. This leads to the question whether the Carolina Wren was merely exercising its instinct to sit on a nest, even if of another species, or whether this may have been an unusual instance of hybridization between the two genera. I know of no record of hybrids between

Bewick's and Carolina Wrens in the literature. The destruction of the nest of course prevented definite determination of the true situation.

-- Box 456, Rt. 2  
Fairfax, Virginia

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#### CHESTNUT-COLLARED LONGSPURS IN ROANOKE COUNTY

By A. O. English

On April 13, 1958, twelve members of the Roanoke Valley Bird Club stopped at the local airport (Woodrum Field) to observe Horned Larks, which can usually be found in that area during any season.

Shortly after leaving the cars, two pale grayish-colored birds were observed resting about fifteen inches from the ground in a small bush near the highway. The birds did not appear to be frightened and permitted a fairly close approach before dropping to the ground. They ran quickly and joined six other birds. Prior to flushing the birds, it was noted all were the same color and a close study was made of the birds, especially the color pattern and bill. The white pattern in the tail feathers was better observed when the birds were flushed. They did not fly too far and when found, one bird was observed several minutes at a distance of about twenty feet. Being in an area where the birds were feeding afforded the opportunity of studying this species at some length - while at rest, when feeding, and in flight.

The following day, April 14, 1958, through the courtesy of Dr. J.W. Aldrich and Dr. Charles Handley, Jr., I examined some skins of the Longspurs in the National Museum, and feel certain the birds observed at the airport were female Chestnut-collared Longspurs (Calcarius ornatus). From the material in hand I have been unable to find any record for this bird in the State. The fifth edition of the A.O.U. Checklist indicates this species has been recorded at Ocean City, Maryland.

-- 2803 Rosalind Avenue, S.W.  
Roanoke, Virginia

(There is no previous record for Virginia. This puts a new bird on our Hypothetical List. - Editor)

## AN UNFORGETTABLE EXPERIENCE

By Mrs. Ernest C. Moore

We have never been particularly attentive to the chickadees. However, we keep sunflower seeds the year round, putting them out about twice daily for the cardinals and other seed eating birds. The chickadees come to the feeder frequently, along with the titmice, and nuthatches. The chickadees always seem friendly or pert as the occasion demands. If we are in the way, or a stranger near, they are liable to "buzz" around their head and scold.

Recently a really chummy fellow came. At the time, there was no feed in the feeder. He looked inside, on top, lit on the porch rail and whistled impatiently. Ernest took a handful of sunflower seeds, held them out and said "come on." The trusting mite lit on his hand, looked him over and with great deliberation and care selected a fat seed. He came back again. Ernest wanted me to try, but I thought it would be useless. Anyway, I attempted it. I held the seeds out, and stood so rigid with expectancy that I trembled! Ernest watched the little fellow as he peeled out the seed, and instead of eating it he flew around to different places to hide it for another time. After what seemed to me an interminable time, here came the happy fellow, perched on my hand on those spindly legs and absurdly small feet. He looked me over, tweaked my finger, that by now was popping out with perspiration from excitement, selected a seed and was off!

The chickadee came back again and again, taking special care to select the fattest and best seed, thereby making a fine camera subject for Ernest, who was taking his picture.

Finally, with work to do, I put the seeds in the feeder, and while we were yet on the porch, our chickadee came back lit on the rail, then flew up to the screen, hovering like a humming bird, back and forth, begging our indulgence. How could anyone refuse so wonderful an invitation?

Quickly I gave him a handout, and now he was hiding the seeds as he peeled them. He whistled, and skipped about like a child playing hop-scotch. It was a slow game, but we enjoyed it. We arranged chairs at the correct distance and focused the camera for more pictures. Now chickadee seemed more interested in worms, alighting on the tip ends of twigs, hanging up-side-down, searching the under side of all the leaves, all-the-while keeping up a contented and companionable whistle of conversation. It appeared that our bird was surfeited and might not return, but when Ernest was placing the seeds in the feeder, chickadee came and perched on his shoulder, and begged one last seed from his hand. He did not come back. Finally we gave up and went in, knowing we had experienced an unforgettable incident, the thrill of a lifetime, a wonderful thing that had never happened before, in all the years we have loved and fed our little feathered friends. It may never happen again, that we are able to capture the trust of a seeming stranger.

It was understandable that we coaxed the catbirds, mockingbirds and robins finally to eat from our hands while they sat on the porch rail. We fed them regularly, and often throughout the nesting period and the feeding of those hungry young birds. We both feel that the chickadee alighting on our hand and feeding from it was an unique experience.

--- 1031 Windsor Avenue, S.W.  
Roanoke 15, Virginia

## NEWS OF THE LOCAL CHAPTERS

Lynchburg Bird Club

At a special meeting of the VSO Executive Committee at Blacksburg on May 2, Mr. J.W. Eike presented the application of the Lynchburg Bird Club for affiliation as a VSO chapter. This was unanimously approved, making this Club the seventh local group to be approved for chapter status. The Lynchburg Bird Club was organized on April 30, 1958, when 10 persons met in Riverside Park Bird Sanctuary, in Lynchburg, and elected Dr. James L. Chamberlain as President and Dr. Laura Bliss as Secretary-Treasurer.

Northern Virginia Chapter

As usual during the spring the Northern Virginia Chapter concentrated on outdoor activities. Mr. Arthur Fast, one of Virginia's best known bird banders, gave a program at his home on March 29. He demonstrated his banding traps and spoke of his recent experiences in Panama. Field trips were held on April 12 to Glen Carlyn Park, in Arlington, and April 26 to the home of Mr. and Mrs. William Babcock, near Dranesville. On May 10 about a dozen members participated in the annual spring bird count sponsored by the Audubon Society of the District of Columbia. The chapter closed its 1958 spring program on June 7 with a trip to Plummers Island, in the Potomac, which is maintained as a sanctuary and research center by the Washington Biologists Field Club. Dr. Malcolm Davis was host for the occasion.

A more serious project was a winter bird-population study carried out by Robert O. Paxton on an area laid out by Col. and Mrs. Louis B. Ely around their home near Herndon. It is expected that this project will be continued annually. -- R.J. Watson.

Richmond Natural History Society

At its annual meeting on May 19 the Richmond Natural History Society elected the following new officers for the 1958-59 season:

|                         |                           |
|-------------------------|---------------------------|
| President               | Miss Cleo Allen           |
| Vice President          | E. A. Marks               |
| Treasurer               | Miss Henrietta Weidenfeld |
| Recording Secretary     | Mrs. Barbara Davis        |
| Corresponding Secretary | Mrs. E. A. Marks          |

The following five members-at-large of the Executive Committee were also elected:

|                      |                 |
|----------------------|-----------------|
| John Haw             | Fred Peters     |
| Mrs. Charles W. Kent | Abner Robertson |
| Warren Smith         |                 |

The outstanding activity of the season just past was the sponsorship of three Audubon Screen Tours. These tours will be continued during the coming year, with the following programs scheduled: Howard Cleaves, January 12, "Animals at Night in Color"; Cleveland P. Grant, March 6, "Land of Early Autumn"; Emerson Scott, April 27, "Rocky Mountain Rambles." All programs will be at 8 p.m. at the auditorium of Mary Munford School in Richmond.

### Roanoke Valley Bird Club

Migrants winging their way northward through the Roanoke Valley last spring found many new faces wishing them Godspeed and safe return this fall.

In addition to a schedule of organized field trips during spring migration, members of the Roanoke Valley Bird Club attended the following meetings:

- February 5. Home of Mr. and Mrs. N.R. Lehman.  
Meeting devoted to the hawk and owl bill,  
and official petition prepared in its  
support.
  
- April 8. Home of Mr. and Mrs. A.O. English.  
Discussion of birds of Roanoke County;  
also plans laid for Audubon Screen  
Tours in fall.
  
- September 3. Roanoke World-News Auditorium.  
Max Carpenter showed films, "Wood  
Duck Ways" and "Wings Over Salt  
Marshes." About 75 present,  
including 43 of the 51 members of  
the Club.

In cooperation with the Tri-Beta Society of Roanoke College, the Club is sponsoring a series of Audubon Screen Tours for the fall and winter of 1958-59. These will be held in the Lab Theater of Roanoke College, with the opening program scheduled for October 21, with Allen Cruickshank, ornithologist and nature photographer, showing his own film, "River of the Crying Bird." On December 3 Fran William Hall will present "Puerto Rico, U.S.A.," and on April 18 the lecturer will be Emerson Scott on "Rocky Mountain Rambles."

The Club President, C.H. Lewis, is presenting the program at the Cape Henry Bird Club on October 10, showing his personal collection of bird slides. -- A.O. English.

## NEWS AND NOTES

VSO Arm Emblem. The Virginia Society of Ornithology now has its own arm emblem. Prepared under the direction of Mrs. Hawes Coleman, Jr., it is an attractive and appropriate symbol of the Society. Inside a black border appear in red the words, VIRGINIA SOCIETY OF ORNITHOLOGY, with the organization date, 1929, below. In the center, in black on a white background, is our bird, the Raven. The emblem should add distinction to the field costumes at Skyland or Wachapreague; and, made of durable canvas, it should outlast several field shirts or jackets. Mrs. Coleman has sent out a letter to chapter presidents, stating that the price is one dollar and that the emblem is to be worn on the left sleeve, with the top of the emblem a few inches below the shoulder seam. Orders should be sent directly to Mrs. Hawes Coleman, Jr., 108 Gaymont Road, Richmond 29, Virginia.

Correction. The Mills Island Heronry, referred to on page 65 of the July issue, is not in Virginia but a few miles over the State line in Maryland. This is the place where Valentine has since discovered the Cattle Egret breeding.

Publicity for Hawks and Owls. Mrs. Margaret (Mrs. Hawes) Coleman made a good plea for hawks and owls in 'Voice of the People' in the Richmond Times-Dispatch for Sunday, September 28, 1958; and Mrs. Mary Frances (Mrs. C. Dodson) Morrisette had a long article in The Virginian Pilot and The Portsmouth Star for Sunday, June 1, 1958. The latter article told of the passage of the hawk and owl bill and carried a picture of W.F. Rountrey, posed with two of his friends, a Barn Owl and a Red-tailed Hawk. These articles are samples of the kind of thing needed to make the hawk and owl bill effective. The Editor will be glad to hear of similar newspaper publicity or of talks before schools, garden clubs, and other groups.

Campus Bird Counts. A new kind of one-day bird count, the Campus Bird Count, was instituted last spring. It was initiated by a committee at Sarah Lawrence College, Bronxville, New York. Virginia college people interested should write to the chairman, Kenneth Cooper, Biology Department. According to the plan, which, it is hoped, will be continued in succeeding years, a college group can choose any spring date, the territory of the count to be limited to "the property in any one town owned or leased by the college." In the first count 11 colleges and 6 sanctuaries participated on dates ranging from April 27 to May 27, counts being taken from Maine to Georgia and to California. The University of Georgia, the only Southern institution represented, had the highest count, with 93 birds. Five of the groups also extended the counts to mammals, reptiles, amphibians, or fish. The total count: 201 birds and 20 other vertebrates. While this type of count will have no scientific value, it will be pleasant for those engaged, and should serve to interest new people in bird study.

Virginia Rail Probably Breeding in Botetourt County. Mrs. A.B. Davies, Jr., 741 Clifton Street, Clifton Forge, reports the presence this past summer of a Virginia Rail on an isolated mountain farm on Garden Mountain in Botetourt County, near the Rockbridge County line, at an altitude of about 2700 feet. She writes: "My husband . . . has seen the rail on each of his last three visits - July 16 and 19 and 20. Each time it was at the same spot, near a marshy spring, and because of this and its

behavior, he thinks it has a nest there. It is rather unafraid; he stops his truck, and it stands still and looks at him. But when he gets out, it starts fluttering and flies in a direction away from the swamp, behaving much like a partridge who is nesting." This would seem to indicate breeding.

Black-bellied Plover at Waynesboro. Monroe Couper writes Fred Scott that he saw a Black-bellied Plover at Waynesboro on May 8, 1958, this being the second local record. The bird was in spring plumage, the white area under the tail distinguishing it from the Golden Plover.

Nesting Scarlet Tanager at Vesuvius. Mrs. L.W. Machen, who spent the week of July 15, 1958, at the Nature Camp near Vesuvius, Virginia, writes that the campers were able to watch a female Scarlet Tanager on a nest near the dining room porch. Of this fine camp she says, "My admiration for the job in conservation being done there increases each time I am there." So do all of us feel who have visited the camp.

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## BIRDS OF MARYLAND AND THE DISTRICT OF COLUMBIA

### A Review

By J. J. Murray

Birds of Maryland and the District of Columbia, by Robert E. Stewart and Chandler S. Robbins, U.S. Department of the Interior, Fish and Wildlife Service (North American Fauna No. 62), Washington, 1958, vi and 401 pages, \$1.75. (Can be secured from Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C.; only cash or money order accepted.) In this reviewer's judgment this is one of the best state books to come out in many years. It is quite unpretentious in appearance: the covers are stiff paper; there are no color plates and only one picture; there are none of the descriptions and habit accounts that can be found in any general book on ornithology; but the things a bird student wants to know about this region and cannot find in other books are there, and are provided in admirable fashion.

The greater part of the book (pages 42-374) is taken up with the species accounts. The information is handled in an unusual way. The feature of the book that, so far as I know, is unparalleled in any other state book is the vast number of numerical counts. The chief emphasis in the book is this recognition of the importance of quantitative studies, and this will undoubtedly be its chief value for future workers in the region who want to assess the changing status of any species. There are breeding counts in various parts of the region for every breeding species; there are migration time and winter counts for other species. Another unusual feature of the book is the amount of banding data. Since the inception of the banding program, some 100,000 birds have been banded in Maryland and the District of Columbia. Of these 18,000 have been banded by the authors in Maryland since intensive field work was begun at the Patuxent Research Refuge at Laurel in 1941. Much recovery data, within and without the State, is furnished.

With the changes noted in one of the appendices, the regular list of birds recorded in Maryland and the District stands at 334 species. "Reference to subspecies is purposely omitted in nearly all cases, since most of the information is derived from field observations rather than study of collected specimens." The reviewer thinks that this was a mistake, which is his only negative criticism of the book. While the minimizing of subspecies is a sound procedure, it seems unfortunate in a book of this kind and in a state where so much collecting has been done, not to include, in cases where more than one subspecies has occurred, this subspecific information. This seems particularly true in the case of such birds as the Blue-winged Teal and the Swamp Sparrow, where subspecific Maryland records are very pertinent.

At least 192 of the species breed or have been known to breed in Maryland. The 19 hypothetical species are distributed through the regular list at their proper places.

The book is provided with a map (page 19), showing the biotic areas of the region, not stressing the life zone terminology, but dividing the region according to three of Dr. Lucy Braun's major forest regions: Oak-Pine (the Coastal Plain, in which they further recognize the three sections of Eastern Shore, Western Shore, and Upper Chesapeake); Oak-Chestnut (Piedmont, and Ridge and Valley Provinces); and Mixed Mesophytic (Allegheny Mountains). The county boundaries are indicated. There is a general map (page 38) of the region, naming the localities most frequently referred to in the text. There are also many small maps, showing for species breeding ranges or locations of banding recoveries.

A historical sketch of ornithological work in the region and a discussion of bird life and land use are provided. The geographical distribution of birds, with the characteristics of the various sections of the region are treated in detail. There is a sufficiently detailed bibliography (12 pages); a list of important records since October, 1956, when the work on the body of the book was closed; and a species index.

I would pay high tribute to this book. It is a must not only for Maryland workers but also for every person in Virginia who is seriously interested in bird study.

## THE AUDUBON BOOK OF TRUE NATURE STORIES

A Review

By J. J. Murray

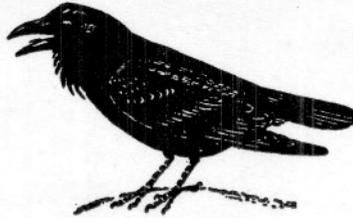
The Audubon Book of True Nature Stories, edited by John K. Terres, Thomas Y. Crowell Company, New York, 1958, 294 pages, \$5.00. Naturalist, writer, widely-known lecturer, worker with children, John Terres is an alert worker for nature education and for conservation. As editor of Audubon Magazine, he holds a key position in these fields.

In this volume the editor has selected 48 of the most representative and popular nature stories that have appeared in Audubon Magazine since 1942. His criteria in choosing these stories evidently are, first, that they be true incidents or observations; second, that they be interesting; and, third, that where possible there be some personal inter-relationship between the writer and the animal described. Obviously the last of these tests cannot apply in Frank Gander's remarkable notes, "Fence Lizards in My Garden;" but, interestingly enough, it does in V.W. Turbiville's story of the wounded Golden Eagle on a Texas ranch.

There is in this book the same variety of material that Audubon Magazine has been seeking since its Bird-Lore days. Almost half of the stories, generally every other one, are about birds. There are almost as many mammal stories, 20 of them, with 3 on reptiles, and 2 on insects. Although they vary to some degree in literary quality and in the amount of factual material, all of the stories are of high quality. The only adverse criticism that seems justified is that there is in some of them a tendency to over-humanize and therefore sentimentalize the animal. But it is to be remembered that the book is meant for popular rather than scientific reading.

The 33 drawings by Walter W. Ferguson make an attractive feature of the book. His mammals seem rather better than his birds; but all the pictures are life-like, most of them in action scenes.

The book will be prized not only by those who through the years have been readers of Audubon Magazine but by all who love the out-of-doors.



# The Raven

BULLETIN OF THE VIRGINIA SOCIETY OF ORNITHOLOGY

J. J. MURRAY, EDITOR  
LEXINGTON, VA.

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## THE CATTLE EGRET IN NORTH CAROLINA

By Thomas L. Quay and John B. Funderburg, Jr.  
North Carolina State College, Raleigh, N.C.

The establishment and spread of the Cattle Egret (Bubulcus ibis (Linnaeus)) in the Western Hemisphere has been well catalogued, in a number of papers published mainly since 1950. Some of the Old World literature was integrated with much of that from the United States in a detailed report by Valentine (1958) on this emigrant species at Chincoteague, Virginia. The present paper will discuss the Cattle Egret populations of North Carolina, as a comparison with those of Virginia.

About twelve pairs of Cattle Egrets nested successfully in 1958 in the heron rookery on Mill's Island, a salt-water site in Chincoteague Bay (Valentine, op. cit.). While Mill's Island is two miles north of the Virginia-Maryland line, both the adult and young egrets apparently fed and otherwise spent most of their non-nesting time four to ten miles to the south in Virginia, on Chincoteague and Assateague islands between Chincoteague Bay and the Atlantic Ocean. These Cattle Egrets fed around the several herds of ponies and cattle on the islands and on the newly formed impoundments at the southern end of the Chincoteague National Wildlife Refuge. Evidence suggests that Cattle Egrets began nesting on Mill's Island as early as 1955, with the colony probably getting larger each year (ibid.).

Cattle Egrets were first discovered nesting in North Carolina in 1956, when two pairs nested in the Battery Island heron rookery at Southport (Quay and Adams, 1956). Two nests were found in the same rookery in 1957 (Funderburg and DePoe, 1957). On May 8, 1958 two nests and four adult Cattle Egrets were again observed at Battery Island; on June 9 the count was still two nests but seven adults. In each of the three years the two nests were well within the rookery, about five feet above the ground in cedar, yaupon, or live oak trees, and surrounded by nests of the Common Egret, Snowy Egret, Louisiana Heron, Little Blue Heron, and Black-crowned Night Heron. In all three years, also, the total population was about 350 pairs of the regular five species, plus the two pairs of Cattle Egrets and fifteen to twenty pairs of nesting Glossy Ibises. None of the three nestling Cattle Egrets banded in 1956 were among the nesting birds in 1957 or 1958.

The Rich's Inlet heron colony is about thirty miles north of Battery Island and similar to the latter in size and composition except for the lack of Black-crowned Night Herons, Cattle Egrets, and Glossy Ibises. Both heronries are in salt-water sites about one mile from the mainland in areas of practically no livestock. Funderburg visited the Rich's Inlet colony in each of the four breeding seasons from 1955 to 1958, but found no Cattle Egrets present.

The Beaufort heron rookery is on the coast also, sixty miles northeast of Rich's Inlet. In 1956 the Beaufort colony was composed of about 180 nests of the regular five species, plus six nests of the Glossy Ibis, but no Cattle Egrets (Davis, 1956). Examination of this colony by Quay for two hours on May 9, 1958 revealed the same numbers and composition as in 1956, and no Cattle Egrets.

Funderburg (1956) covered the eighty-five miles of coastline from New River Inlet to the North Carolina-South Carolina line in a small boat in June and July of 1955. Quay flew over the thirty miles of coastline from Beaufort to Swansboro on May 13, 1958. So far as we know, the three rookeries discussed thus far are the only ones along the coast of southeastern North Carolina.

In the course of field work on the vertebrate animal life of the Cape Hatteras National Seashore Recreational Area in the summer of 1958, we examined all 200 miles of North Carolina's outer banks from Beaufort to the Virginia line. Shackelford, Core, and Portsmouth banks were covered only from the air, but no heron rookeries were seen. Small nesting colonies of Snowy Egrets and Louisiana Herons were found on Beacon and North Rock islands in Ocracoke Inlet. Ocracoke Island had no rookeries. The only heron colony on the fifty miles of Hatteras Island was at the southwest edge of the south pond on the Pea Island National Wildlife Refuge, a fresh-water site. The Pea Island colony had about 300 nests of the five regular species -- Common Egret, Snowy Egret, Louisiana Heron, Little Blue Heron, and Black-crowned Night Heron -- plus about fifteen nests of the Glossy Ibis, but no Cattle Egrets. There were no rookeries on the remaining banks from Bodie Island to Virginia.

Several hundred Common Egrets, Snowy Egrets, and Little Blue Herons were observed feeding in the fresh-water marshes on the east shore of Currituck Sound in the Wash Woods section on July 16, 1958. We were informed that herons nested nearby in 1957 and 1958, on a small island close to Monkey Island in the Sound, which could have been the source of the herons in the marshes. The presence of cattle and horses in this vicinity further suggests a favorable location for Cattle Egrets.

The lower coastal plain of North Carolina has extensive wetlands of many types, but no known heron rookeries except along the coast as described above. In most places throughout this large region, cattle, horses, and pastures are relatively few or lacking. There is no heron colony even at Lake Mattamuskeet, though conditions appear satisfactory; but there is a roost of Common Egrets on the lake from August to April, and sometimes Glossy Ibises in migration (Norwood, 1957; R. Rudolph, personal communication).

The only established multi-specied colony of herons in North Carolina away from the coast, of the kind which appears to be attractive to Cattle Egrets, is on Lennon's Marsh at Lumberton, seventy-five air-miles northwest of Southport. The birds breeding in this colony in 1958 were: Common Egret, 150 pairs; Little Blue Heron, 100 pairs; Great Blue Heron, 12 pairs; Anhinga, 1 pair (10 or more pairs in 1943). Snowy Egrets and Louisiana Herons visit the marsh in August each year. The first Cattle Egrets seen in the Lumberton region were two adults together on October 31, 1958, on Clybornville Farm where they stayed all day around the ponies. Lennon's Marsh is a very likely location for a future population of Cattle Egrets. (James L. Stephens, Jr., personal communication, Nov. 8, 1958.)

The advance of the Cattle Egret as a nesting bird along the Atlantic and Gulf coasts of the United States thus far has been in long steps and small colonies (Valentine, *op. cit.*; Sprunt, 1956, 1957). The first recorded nesting in South Carolina was of one or two pairs on Drum Island in Charleston Harbor in early July, 1956 (Williams, 1956). The Drum Island colony increased

to twelve or fifteen pairs in 1957 (Sprunt, 1957), and to at least twenty pairs in 1958 (Cutts, 1958). Except for the two pairs at Southport in each of the three years 1956-58, the Cattle Egret has completely passed over the wide stretches (350 miles) of coastal North Carolina. The Chincoteague colony is the only one in the Virginia-Maryland region. The northernmost breeding colony is at Cape May, New Jersey, where at least three and probably five pairs nested in 1958 (Julian K. Potter, personal communication, October 28, 1958). The methods by which the Cattle Egret extends and consolidates its breeding range will continue to be of great ornithological interest.

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## THE CERULEAN WARBLER IN SUMMER ON THE VIRGINIA COASTAL PLAIN

By F. R. Scott

On June 12, 1948, C.E. Stevens and the author heard a Cerulean Warbler, Dendroica cerulea (Wilson), singing in the Chickahominy Swamp, southwestern New Kent County, a few feet from the Charles City County line and near Roxbury. The bird was not actually seen, and on later reflection it seemed such an anomaly that the record was not included in the paper, "Birds of the Richmond Area" (Raven, 22: 45-78, 1951). Until the spring of 1958 this remained the only record of this species in the Richmond area.

On May 25, 1958, a persistently singing male Cerulean Warbler was seen on the border of Henrico and Hanover Counties near Ellerson and not more than 2 miles from the Richmond city limits. This site was also in the Chickahominy Swamp and was about 18 miles northwest of the Roxbury station mentioned above. This date is considered too late for a transient. Two more observations were made during June 1958. One was of a singing bird in the New Kent portion of the Chickahominy Swamp near its intersection with Crumps Swamp on June 15, about 2 miles west of the 1948 observation. The second was of a nonsinging but very active and noisy male bird on the edge of a swamp 1 mile east of Hanover Court House on June 29.

The nearest known breeding station of this bird is Albemarle County, Virginia, where C.E. Stevens has found it locally abundant in the small mountains around Charlottesville, about 60 to 75 miles northwest of the observations around Richmond (see Steven's paper elsewhere in this issue of The Raven).

All of the Richmond area observations, except for the Hanover one, were in distinct swamp habitat with standing water under the trees for much of the year. The Roxbury and Crumps Swamp habitats were typical mature cypress and tupelo gum swamps, while the Ellerson location was mainly willow oak, sycamore, and river birch. Principal associating birds in these three locations were Red-eyed Vireos and Prothonotary Warblers.

The Hanover observation was in a very strange area, the border between an overage loblolly pine stand with a heavy, almost mature deciduous understory and a mature swamp forest. The Cerulean Warbler occupied the deciduous understory from about 20 to 50 feet above the ground. This understory consisted mainly of tulip trees, birch, and sweetgum, with a little beech and ironwood. There were no dominant birds in the area, but species observed near the Cerulean included Acadian Flycatcher, Prothonotary, Parula, and Yellow-throated Warblers, and a pair of Scarlet Tanagers.

The preferred habitat of the Cerulean Warbler is given by Pough as "open stands of large trees" (Audubon Bird Guide, 1946: 169). Todd (Birds of Western Pennsylvania, 1940: 520) further defines the habitat for his area as "high, open, oak woods" and "low and damp beech woodland," while Stewart and Robbins (Birds of Maryland and the District of Columbia, 1958: 290) give it as "flood-plain forests, and rich, moist deciduous forests on the upland." C.E. Stevens at Charlottesville finds the bird most common in

mature tulip-hickory-oak woodlands on rich, steep, well-drained mountainsides. Several writers mention swamps as a preferred habitat, but no details are given (Griscom, Warblers of America, 1957: 149; Troutman, Birds of Buckeye Lake, Ohio, 1940: 359). The occurrence of the bird in cypress swamps during the breeding season, however, seems to be unique.

-- Richmond, Virginia.

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### THE CERULEAN WARBLER IN ALBEMARLE COUNTY

By Charles E. Stevens

A dweller of the tallest deciduous forests, this bird should be named locally the "Tulip Poplar Warbler," for I have never found it occurring in summer in this area except in woods predominately or partly composed of that tree.

This warbler can be found in surprising numbers during the breeding season in the small mountains which are staggered across the southern and central part of the county and become a distinct ridge (Southwestern Mountains) which extends northeastward and dies out in Orange County shortly beyond the Albemarle boundary. Lying distinct from and east of the Blue Ridge these little mountains range up to 2430 feet in altitude and are known by various group and single names.

Much of these mountains is covered with stony though rich soil which supports fine stands of mature tulip poplar, oak and hickory. Where this condition occurs the Cerulean is a common to abundant breeder, and where it is optimum this warbler is the commonest species along with the Red-eyed Vireo. Often I have heard four singing birds while listening from one place on a steep mountainside.

#### Habitat

Its habitat is a woodland made up of the following trees roughly in order of their dominance: tulip poplar (Liriodendron tulipifera), hickories (Carva sp.), red oak (Quercus borealis), black oak (Quercus valutina), chestnut oak (Quercus montana), black walnut (Juglans nigra), ash (Fraxinus sp.), with occasional red maple (Acer rubrum), butternut (Juglans cinerea), sweet birch (Betula lenta), and basswood (Tilia sp.). These species can occur in different variations but almost always the tulip poplar is the most common tree. The understory usually consists of dogwood (Cornus florida), redbud (Cercis canadensis), and spice bush (Benzoin aestivale). The ground is often profusely covered with poison oak (Rhus quercifolia) and jewel-weed (Impatiens biflora) as well as I. pallida with considerable wild hydrangea (Hydrangea arborescens) and black snakeroot (Cimicifuga racemosa), some of which grows to over six feet in height. Other ground types, mostly herbaceous, vary considerably in commonness, but most often bloodroot (Sanguinaria canadensis), Jack-in-the-pulpit (Arisaema

triphyllum), and wild ginger (Asarum canadense) are found along with Christmas fern (Polystichum acrostichum), maidenhair fern (Adiantum pedatum), rattlesnake fern (Botrychium virginianum) and others. Large grape vines (Vitis labrusca) are common. Much of this type of habitat is situated on steep mountain sides which are moist but well drained.

Here the buzzy Cerulean song mingles with those of the Red-eyed Vireo, Hooded Warbler, Wood Thrush, Worm-eating Warbler, Scarlet Tanager, Black and White Warbler, Oven-bird, Acadian Flycatcher, and Tufted Titmouse. The Worm-eating, excelled in warbler numbers only by the Cerulean, Hooded, and sometimes Oven-bird, is most common on the steep slopes of this habitat. Here and there where the spice bush abounds and old logging slides have grown up in a profusion of foliage the Kentucky Warbler's ringing song can be heard.

Although much better known as a summer resident in the Blue Ridge, the Black-throated Green Warbler is partial to the Cerulean habitat and has been found at a dozen or so places in these smaller mountains, several times with young. Another breeder in the Blue Ridge which has been found here is the Solitary Vireo at 1400 and 1700 feet on Mill Mountain (May 16 and June 16, 1952).

#### Numbers

My biggest counts have been of 40 Ceruleans, almost all singing males recorded on a nine mile walk over Moses Mountain, Heards Mountain, and Boaz Mountains on June 8, 1958, and 37 birds on a twelve mile hike along Mill Mountain, Castle Rock and Heards Mountain on June 21, 1951. A well planned walk with the object of just counting Ceruleans might turn up 60 birds.

There are plenty of Ceruleans along the Southwest Mountains, which stretch northeast of Charlottesville, but as this ridge flattens out in Orange County the birds are no longer to be found. I have one record of three singing birds on July 2, 1949 in Orange County just west of Gordonsville where a few low hills exist and a record of a singing bird on June 6, 1952 in the last of the hills between Gordonsville and Orange.

Along the southwestern boundary of Albemarle suitable Cerulean habitat, with birds, extends into Nelson County.

There are a few summer records of birds scattered over other parts of the county, but these also indicate the warbler's partiality to big tulip poplar-oak-hickory associations.

Along with some single occurrences at spots on the Rivanna and South Rivanna rivers and Ivy Creek, three singing males were found at 2800 feet on Cedar Mountain in the Blue Ridge on May 29, 1952. There is some suitable habitat in Augusta County at the Skyline Drive ticket office about one mile north of Rockfish Gap where as many as four birds have been heard for the last several years.

### Nesting

The only nest I have ever seen was discovered not as the result of any prodigious search but quite by accident as a parent bird flew into it and fed some small young. It was situated 40 feet up in a tulip poplar, about eight feet from the trunk, and saddled on the fork of a limb overhanging a fire road. This nest was found on June 16, 1952, on Mill Mountain.

It is not hard to find birds being fed out of the nest in late June, and my dates range from the 25th to the 28th. On August 2, 1948 near Miller School a female was seen feeding a young Cowbird out of the nest. Parasitism of this species is evidently unusual or at least seldom observed as Bent (Life Histories of North American Wood Warblers, Bulletin 203, U.S. National Museum, 1953) only mentions ten records of it.

### Song

The song usually heard in this area is a buzzy "bzz bzz bzzz bzzz" with the third and fourth notes longer than the first and second and the last note at a higher pitch. The similarity to one of the Parula songs is evident, with the Ceruleans being a little louder.

### Migration

In spring Ceruleans usually arrive on their breeding grounds about the 25th of April and are common by the last of the month (23 birds on April 29, 1951). My earliest date is of a single bird on April 13, 1948, but it is unusually early. Spring migrants are scarce outside their breeding territories.

By early or mid-July most birds have stopped singing and are on the move southward. R.J. Watson found a singing bird in Charlottesville on July 8, 1952. Other migrants have turned up in town and other places between August 6th and 24th. My latest date is of one bird on September 8. On long walks through their breeding grounds as late as September 10th and 17th I have failed to turn up a bird.

### Status Change

Considerable lumbering of the tulip poplar, caused by the great increase of building around Charlottesville since World War II, has thinned out much of the big timber, but the Ceruleans are remaining though in lessened numbers as long as there are some large trees left.

-- Charlottesville, Virginia

## THE BANK SWALLOW: GROUND FEEDING AND BREEDING NOTES

By F. R. Scott

On August 17, 1958, I saw the largest flock of Bank Swallows, Riparia riparia Linnaeus, I have ever found in the Richmond area. Fully 3500 birds were found at Curles Neck, in southeastern Henrico County, in the area about a number of barns and other farm buildings. Most of these were lined up on electric wires or flying over the nearby pastures, but a good 500 were resting on the ground, eagerly picking up unidentified material. I carefully examined the ground the birds were resting on, which included both a sandy dirt road and a closely cropped area of grass. No evidence of insect concentration could be found. The only obvious foreign material on the ground was organic debris apparently having fallen from wagons hauling corn and hay. Actually, several birds were seen to pick up large pieces of organic matter, but I could not be certain whether or not they actually ate it. The birds were quite tame on the ground and allowed me to approach to within 30 feet of them before flying.

Dayton Stoner (Roosevelt Wild Life Annals, Vol. 4, No. 2, May 1936) mentions that Bank Swallows are known to "light upon the ground and there pick up bits of vegetable material of various sorts, as well as more or less inorganic matter" (page 202), but he gave no details or references. He also mentioned finding sand, small bits of gravel, and vegetable matter in a number of stomachs he examined, but he felt most of this was obtained accidentally in the course of capturing insects.

The Bank Swallow has recently shown a large increase in the Richmond area. In a checklist of the birds of the Richmond area (Raven, 22: 65, 1951) I described it as a transient, with extreme dates of occurrence being April 28 to May 29 and July 21 to October 10. My maximum count of birds was only 202. On July 3, 1953, John L. DeLime and I examined a nesting colony of about 20 burrows in a river bank at Presquile National Wildlife Refuge in Chesterfield County. Adults were feeding a number of young birds at the entrances to the burrows. On May 12, 1957, I found a large nesting colony of about 120 pairs in the bank of a large gravel pit off the James River at Curles Neck. Two burrows were excavated; one had an empty nest apparently still under construction, and the other contained 3 eggs.

These breeding colonies may be the only ones currently known in Virginia. J.J. Murray (A Check-list of the Birds of Virginia, 1952: 72) says this species formerly bred at Blacksburg and Danville. He also states that it is known to breed locally in the Washington, D.C. area. However, neither he nor other publications on the Washington area appear to give any actual nesting data for the Virginia section of this area. As a matter of interest, the Bank Swallow has decreased greatly in the Washington area over the last hundred years, as detailed by W.L. McAtee (Atlantic Naturalist, 7: 77, 1951). R.E. Stewart and C.S. Robbins (Birds of Maryland and the District of Columbia, 1958: 211-212) give the "principle range" of breeding Bank Swallows in their area as the upper Chesapeake Bay shores south to the northern shore of the Potomac River, but they don't even mention the District

of Columbia as part of its breeding range (although a 1916 District egg date is given). It would be a worthwhile project for residents in northern Virginia to place this bird's breeding distribution and abundance on record if, indeed, it actually nests at all in northern Virginia.

-- Richmond, Virginia

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#### DECISIONS OF THE EXECUTIVE COMMITTEE, OCTOBER, 1958

By Robert J. Watson, Secretary

The Executive Committee of the VSO met at Skyland, in the Shenandoah National Park, on October 4, 1958, and took the following action:

1. Heard a report from the Treasurer (Mr. Steirly). As of 1 October, there is \$679.73 in the General Fund, \$170.10 in the Trip Fund, and \$245.83 in the Publication Fund.

2. Directed the Conservation Committee to draft a tentative program aimed at reaching rural youth through 4-H Clubs, Extension Division activities, or other channels. The program will be submitted to the Executive Committee for approval.

3. Voted that on all future VSO forays, non-members will be assessed an extra fee of \$2.00 per person, which will then be applied to a year's membership in the VSO.

(Note: The question has since been raised whether this extra fee may legally be required of members of the local chapters, in view of Bylaw 7, which states that "chapter members shall have the privilege of attending all . . . activities" of the Society. The matter is now under investigation.)

4. Appointed Dr. Murray editor of the Raven for another year.

5. Heard a report by the President, Mr. Rountrey, that the next annual meeting will be held at Williamsburg on February 6-7, 1959.

6. Agreed that the constitution should be amended to provide that the terms of officers will begin on 1 July following their election. The Secretary (Mr. Watson) will draft an amendment which will be printed in the Raven and then submitted to the membership for final decision.

7. Heard an announcement by President Rountrey, that he was appointing a Nominating Committee composed of Miss Prior (Chairman), Mr. Scott and Mrs. Coleman.

## PROPOSED AMENDMENT TO THE CONSTITUTION OF THE VSO

The revised Constitution of the VSO was approved at the 1954 annual meeting. The version printed in the Raven for November-December 1953 was adopted without change.

The election of officers and members of the Executive Committee is governed by Article III. As presently written, this article has two faults:

(1) It does not prescribe the length of terms of the President, Vice-President, Secretary, and Treasurer. The terms of the members-at-large of the Executive Committee is set at three years, and provision is made for the "annual" appointment of the Editor and Publisher of the Raven. However, the present practice of electing the other four officers for one-year terms has no legal basis.

(2) It does not specify the date on which officers shall begin their terms. The present practice has been for new officers to begin their terms immediately after being elected at the annual meeting. As the date of the latter varies from year to year, neither the beginning nor the ending of the terms of office is fixed.

In order to rectify these defects and to make improvements in the wording of Article III, the Executive Committee proposes to amend that Article as follows:

Section 1 shall be changed to read as follows:

"The officers of the Society shall be President, Vice-president, Secretary, Treasurer, and Editor. They shall be elected annually for a term of one year. The duties of the first four shall be those usually pertaining thereto. The Editor shall have general supervision of the editing and publication of THE RAVEN."

A new Section 4 shall be added, reading:

"Officers and members-at-large of the Executive Committee shall begin their terms on 1 July following their election."

The present Section 4 shall be renumbered Section 5, and the present Section 5 shall be numbered Section 6.

The Constitution requires that an amendment be approved by a two-thirds majority of members present, and that copies shall be sent to all voting members one month before a vote is taken. Publication in the Raven satisfies the latter requirement. Members will be asked to vote on the amendment at the next annual meeting.

A FIELD GUIDE TO TREES AND SHRUBS  
A Review

By C. C. Steirly

A Field Guide to Trees and Shrubs, by George A. Petrides, Houghton Mifflin Company, Boston, 1958, 431 pages, \$3.95. This is another worthy addition to the Peterson Field Guides and should be quite useful to naturalists who do not wish to burden themselves physically or financially with the more profound manuals and floras.

There are of course many popular handbooks of trees of the various forest regions on the market, or available from state and provincial forestry departments. This one is of considerably more use because it deals with the shrubs and woody vines in addition to the trees. This writer will not attempt to make any definition of the words tree or shrub. Actually the field ornithologist is just as likely to be as interested in the shrub flora as he is in the trees, for quite frequently in serious ornithological work it is most important to properly identify the shrubs being used as nest sites, food, etc. Of course any serious work regarding habitats, nesting sites, etc., assumes some knowledge of at least the more common trees. Even on a bird listing trip it is important to know the trees, for birds are often pointed out as being in "that red oak or up in the black gum to the left, or in the second crotch of the sycamore, and so on." To properly describe the nest of a woodland or thicket bird necessarily calls for a proper identification of the tree or shrub thus being utilized.

At first glance users of the more technical manuals will be a bit confused for the species are not treated in any semblance of the usual phylogenetic order. Instead the author takes up the various species in very practical groupings such as --- "Broad-leaved plants with opposite compound leaves," "broad-leaved plants with opposite simple leaves" and so on.

The illustrations are gathered together in the same order in the central portion of the book. The drawings are somewhat diagrammatic and in general for each species the leaf, twig and bud are depicted. In Peterson Guide fashion, indicating arrows point to the significant identification features. Where appropriate as a means of identification the fruits are shown.

Brief accounts of each species are given under the headings Recognition and Similar Species. General dates of flowering and fruiting are given and where appropriate there is a statement under Remarks covering uses, timber quality, etc.

A section on tree silhouettes is useful. Leaf types and twig and bud terminology are dealt with diagrammatically and the appendix contains two very useful keys, one to the winter characteristics and one to the trees when in leaf. A glossary of botanical terms and a brief section as plant relationships concludes the book.

The region covered by the book is that section of the continent north of the North Carolina line and west to the prairies. The scientific names used coincide with those used by Fernald in the 8th Edition of

Gray's Manual of Botany (1950).

This reviewer enthusiastically recommends this Field Guide to all who enjoy the out doors. After all most of our field trips are in forested territory.

-- District Forester  
Virginia Division of Forestry  
Waverly, Virginia

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#### NEWS AND NOTES

Article by Arthur H. Fast in British Journal. The Ring, an international ornithological bulletin, edited and published at 1 Altyre Road, Croydon, Surrey, England, by Dr. W. Rydzewski, has an article (Vol. II, No. 16, August, 1958, pp. 53-55) by Arthur H. Fast, "Day to Day Operation of a Banding Station in the U.S.A." The paper describes his methods at his banding station in Arlington, the United States regulations as to banding, the type of traps and the sizes of bands used; gives a summary of banding results; and tells of the way in which the station has been used in teaching conservation. Since March 1, 1946, the author has banded (to June 1, 1958) 15,000 birds of 67 species. The highest numbers as to species are: 3400 White-throated Sparrows, 1925 Slate-colored Juncos, and 1800 Purple Finches. In 1947 he banded more Cedar Waxwings (875) than were banded (366) by all other banders together in the United States and Canada. In 1946, 1952, and 1958 he banded 479 Evening Grosbeaks. The same number of this magazine has a report by Chandler S. Robbins of the banding symposium at the Wilson Ornithological Club meeting at Wheeling on April, 1958.

Northern Phalarope. Mrs. L.W. Machen writes that the little marshes and ponds brought into being by the LaSalle-Tunnell Road in Hampton Roads continue to produce interesting bird records. Mr. and Mrs. W.P. Smith found a Northern Phalarope and a Black Tern there on August 27. As many as 40 Snowy Egrets, and large numbers of American Egrets, Greater and Lesser Yellowlegs, Dowitchers, etc., are found.

Late Scarlet Tanager. Fred Scott banded a very late Scarlet Tanager at his home in Richmond on October 25; and a Wilson's Warbler on September 6 and 7 (same bird).

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