

# The Raven

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The Virginia Society of Ornithology, Inc. exists to encourage the systematic study of birds in Virginia, to stimulate interest in birds, and to assist the conservation of wildlife and other natural resources. All persons interested in those objectives are welcome as members. Present membership includes every level of interest, from professional scientific ornithologists to enthusiastic amateurs.

Activities undertaken by the Society include the following:

1. An annual meeting (usually in the spring), held in a different part of the state each year, featuring talks on ornithological subjects and field trips to nearby areas.

2. Other forays or field trips lasting a day or more and scheduled throughout the year so as to include all seasons and to cover the major physiographic regions of the state.

3. A journal, *The Raven*, published twice yearly, containing articles relevant to Virginia ornithology, as well as news of the activities of the Society and its chapters.

4. A newsletter, published quarterly, containing current news items of interest to members and information about upcoming events and pertinent conservation issues.

5. Study projects (nesting studies, winter bird population surveys, etc.) aimed at making genuine contributions to ornithological knowledge.

In addition, local chapters of the Society, located in some of the larger cities and towns of Virginia, conduct their own programs of meetings, field trips and other projects.

Those wishing to participate in any of the above activities, or to cooperate in advancing the objectives of the Society, are cordially invited to join. Annual dues are \$15.00 for active members, \$25.00 for sustaining members, \$50.00 or more for contributing members, \$400.00 for life members, and \$20.00 for family members (limited to husband, wife and their dependent children).

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# *The Raven*

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## THE 1999 NORTHAMPTON COUNTY FORAY (PART 1)

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Covering 209 square miles, Northampton County lies between latitudes 37°03' and 37°30' N at the southern terminus of the Delmarva Peninsula. Mainland comprises only about one third of the county, over half being tidal creeks and marshes, with barrier islands making up the rest of the area. With fertile sedimentary soils, the mainland has been dominated by agriculture for over one hundred years, with about 60 per cent of this land devoted to agriculture currently. The rest of the uninhabited portion of the county is comprised of forest (under 14,000 ha). Farm fields here are relatively small (less than 50 ha) and typically separated by hedgerows and woodlots. Though fragmentation of forest habitat is severe, there are two long broken corridors of woodland along the Bayside and Seaside, largely (about 90 per cent) dominated by Loblolly Pine (*Pinus taeda*) overstory or pine/oak overstory with a mixed deciduous and evergreen understory (Watts and Mabey 1994). The understory and ground cover is limited by a large population of White-tailed Deer (*Odocoileus virginianus*). Other habitats in the county include bottomland hardwood forest (Seaside) and maritime forest (Bayside). Because construction of new structures for housing and recreation most threatens these forest habitats, the Foray paid particular attention to them. The forests of the county, especially the hardwood forests, are certainly also important for stopover migrants in the autumn and to a lesser extent in the spring (Cameron 1999a, Watts and Mabey 1994). New construction of golf courses, resort and retirement housing tracts, and shopping centers in lower Northampton County has begun in 1998 and will certainly change the area surrounding the town of Cape Charles tremendously in the coming five to ten years.

Like the county's forests and fields, its marshes are not well known ornithologically. Unlike in Accomack County, Bayside marshes are not especially extensive or accessible, and the breeding birds of the western side of the county are little known, particularly in the northernmost portion of the county. The Seaside marshes, though extensive and relatively accessible, did not receive significant coverage during the Foray, owing to breezy and cool conditions in evenings, when boat surveys of several areas would have been possible. Some of the county's marshes are protected as part of the Nature Conservancy's Biosphere Reserve. It is hoped that a survey of the marsh-nesting species, particularly of rails, wrens, and sparrows, will be performed in coming years by the Conservancy, by the Center for Conservation Biology, or another of the several coastal biology groups currently working on the Shore.

Though Northampton County is one of the most intensely researched and birded

counties of the Commonwealth, information on the breeding landbirds on the Delmarva Peninsula in Virginia is scarce. Atlasing work for the unpublished Breeding Birds of Virginia (partially printed in VSO 1989) gives some indication of species detected as potential nesters on the Shore through 1987, and the Foray of 1981 in Accomack County (Kinzie and Scott 1983) provides data from that sister county from two decades ago. These texts offer the only recent comparative material for the 2-6 June Foray of 1999, the VSO's twenty-ninth such Foray, and the present paper makes reference to both. Murray (1952) provides historical perspective for some species in the county, but in general the late nineteenth- and twentieth-century ornithologists who worked on the Eastern Shore confined their research to the barrier islands' colonial nesters and beach nesters or to marsh-nesting species on the mainland. In relevant sections of *The Raven* and *North American Birds* (including *Field Notes* and *American Birds*), references to summer-season birds on the Eastern Shore are almost invariably to shorebirds, waterbirds, or unusual species, very few of which are suspected to be nesting locally. Those journals' relevant records are cited herein.

As in previous Forays, there were several surprising discoveries. Certainly the most unexpected discovery was that of at least one pair of breeding Bobolink (*Dolichonyx oryzivorus*), a species typically confined to high-elevation rural farm valleys in the westernmost parts of the state and scarcely a species expected to nest anywhere on the eastern Coastal Plain. The nearest nesters to the north are in northern New Jersey, and the nearest nesters to the west are in Highland County. Two species that have been found on other recent Forays, Dickcissel (*Spiza americana*) and Mississippi Kite (*Ictinia mississippiensis*), put in appearances on this Foray, the former being confirmed as a nester. This constitutes the first nesting record of the species in the county and a significant eastward expansion of its known breeding range in the state.

As is the case with all Forays, many species begin nesting activities much earlier than the June Foray dates. Observations of nesting activity in the county were compiled by Brinkley, with assistance from local landowners and James Cameron, who conducted a three-month survey (March through May) of migrant birds in the southern portions of the County (Cameron 1999a). These observations are digested in the species accounts where appropriate. On the barrier islands, Bill Williams and others conducted their annual census of colonial and beach-nesting waterbirds during the third week of June, two weeks after the end of the Foray. Because a picture of the nesting avifauna of the county would be incomplete without the barrier islands' birds, an abbreviated account of their work is digested herein (in Appendix 1). Williams et al. will publish a more detailed summary in the present journal. Their survey work confirmed as nesting 30 of the 80 species it found over those four days in Northampton County and found all species anticipated. Very few additional nesting or potentially nesting species have ever been detected on the barrier islands of Northampton County.

Three alien nesting species — European Starling (*Sturnus vulgaris*), House Sparrow (*Passer domesticus*), and House Finch (*Carpodacus mexicanus*) — persist in the county, although numbers of both the sparrow and the finch appear to be lower than in comparable rural areas on the western shores of Chesapeake Bay hold. The status of the county's nesting Wild Turkey (*Meleagris gallopavo*) may be colonizers from reintroduced flocks in Maryland. A very few birds were also stocked by the

Virginia Department of Game and Inland Fisheries (VDGIF). At least three birds were released in Northampton County by VDGIF during 1930-1931, and ten more were released in Accomack County in 1930 and 1948 (Coggin and Peery 1975). Feral forms of Rock Dove (*Columba livia*) and Peregrine Falcon (*Falco peregrinus*) nest in the county, but these introductions are known to be of birds whose genetic compositions are heavily influenced by aviculturalists, though some birds do resemble wild phenotypes.

The species accounts below differ somewhat from those of previously published Forays in that they do not assign estimates of relative abundance ("common," "fairly common," "uncommon") to most species. Instead, observations are either summarized as total individuals observed by all parties on a range of dates (for abundant species) or else all observations are noted individually. Firm nesting information, where available, begins the account for each species that was confirmed as nesting by the Foray or the barrier islands survey. For ease of comparison, the paper maintains the use of North American Breeding Bird Codes (cf. VSO 1989).

The material in this paper was provided by the stalwart volunteers who came over to Northampton County to participate. Thanks to Jamie Cameron, Camille Darby, Brian Taber, John and Thelma Dalmas, Fenton Day, Mike Purdy, and Steve Hairfield for all the hard work. Bill Williams very kindly separated Northampton County data from the barrier islands this year, which was held 20-23 June. Participants in that survey were Bill Williams, Bill Akers, Jerry Via, Ruth and Michael Beck, Sue Rice, and Erika Peterson, with Barry Truitt providing logistical assistance. In the species accounts, observations of birds are attributed to observers by initials.

## APPENDIX 1

### SPECIES RECORDED DURING THE FORAY AND BARRIER ISLANDS SURVEY, JUNE 1999 (PART ONE: LOONS TO FLYCATCHERS)

Common Loon (*Gavia immer*). One basic-plumaged adult, Great Machipongo Channel, 4 June (EB), and one at Hog Island 20-23 June (BW et al.).

Wilson's Storm-Petrel (*Oceanites oceanicus*). One at Smith Island 21 June (BW).

American White Pelican (*Pelecanus erythrorhynchos*). One adult in high alternate plumage (with bill plate) frequented the nesting colony of Brown Pelicans at Fisherman Island NWR throughout the period (JC, BW et al.). This bird has been present in and around this colony for some 10 years and participates in nesting activities to some extent, occupying a nest scrape and consorting with one or more Great Black-backed Gulls, whose eggs it incubated here in 1998 (Cameron 1999b).

Brown Pelican (*Pelecanus occidentalis*). The nesting range of this species in Virginia is confined to the Eastern Shore, and these colonies constitute the northernmost colonies of the species anywhere. The species was first detected nesting in the state only in 1988 (Williams 1989). The colony at the northeastern corner of Fisherman Island NWR numbered about 1822, the largest to date, counted on 20 June (BW et

al.). About one-third of the birds in the colony had large downy young at that time. Thirty-five at Eastern Shore of Virginia NWR 2 June (J&TD) and 15 on 3 June (CD, BT) were seen from the Winslow Bunker and were probably part of the large Fisherman Island colony, as were five in Fisherman Inlet 2 June (FD). Away from the nesting areas, surprisingly few were recorded: just eight between Kiptopeke and Arlington 4 June (MP) and four between Eastville and Cherrystone Campground 3 June (MP).

Double-crested Cormorant (*Phalacrocorax auritus*). Confirmed: Eight active nests were located at Chimney Pole Marsh at Hog Island 23 June (BW, BA, SR, EP). Elsewhere, small numbers of summering birds were detected, but there was no evidence of nesting: three between Kiptopeke and Arlington 4 June (MP), one at Eastern Shore of Virginia NWR 2 June (J&TD), one between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), two at Silver Beach 2 June (FD), and four in the Jamesville area 2 June (MP). The species has been expanding in Virginia through the 1990s (Watts and Bradshaw 1996).

Great Blue Heron (*Ardea herodias*). Confirmed: Fisherman Island NWR held 14 active nests on 20 June (BW et al.). A Great Blue Heron was killed in collision with a powerline while building a nest March 31 on David Griffith's property near Capeville, where a small colony apparently exists in some years. Death by collision with electrical wires is fairly common in this species (cf. Clapp 1996). Elsewhere there were four between Kiptopeke and Arlington 4 June (MP), two at Eastern Shore of Virginia NWR 2 June (J&TD), one at Willis Wharf 2 June (J&TD), one at Custis Tomb 1 and 3 June (J&TD, CD, BT), one between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), three in Exmore (center) area 2 June (J&TD), four at Franktown 2 June (FD), four on mudflats at Oyster 2 June (FD), eight between Eastville and Cherrystone Campground 3 June (MP), and 29 in the Jamesville area 2 June (MP, J&TD).

Great Egret (*Ardea alba*). Confirmed: Numerous nests were documented on the barrier islands 20-23 June, with 75 active nests at Fisherman Island NWR (20 per cent with hatchlings), 42 adults attending nests on Wreck Island, 100 adults with young on Cobb Island, and 54 adults at Chimney Pole Marsh (BW et al.). On the mainland, surveyors found seven between Kiptopeke and Arlington 4 June (MP), ten at Eastern Shore of Virginia NWR 2 June (J&TD) and one there 3 June (CD, BT), three at Mockhorn Island WMA 3 June (BT, CD), four to seven at Willis Wharf 2 June (J&TD, MP, FD), one on Nassawadox Creek (at SR 713), five at Oyster, three at Plantation Creek, all 2 June (FD), six in Great Machipongo Channel 4 June (EB), eight between Eastville and Cherrystone Campground 3 June (MP), six at Oyster 3 June (MP), and five in the Jamesville area 2 June (MP).

Snowy Egret (*Egretta thula*). Confirmed: On the barrier islands, nesting birds were at Fisherman Island NWR (12 adults) 20 June, Wreck Island (21 adults) 21 June, and at Chimney Pole Marsh (28 adults) 23 June. On the mainland, no nests were found, but six birds were observed between Kiptopeke and Arlington 4 June (MP), six at Eastern Shore of Virginia NWR 2 June (J&TD) and two there 3 June (CD, BT), three at Mockhorn Island WMA 3 June (BT, CD), two at Willis Wharf 2 June (J&TD), three

between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), one on Nassawadox Creek (at SR 713), two at Plantation Creek, both 2 June (FD), two between Eastville and Cherrystone Campground 3 June (MP), 12 around Great Machipongo Channel 4 June (EB), three at Willis Wharf 2 June (MP), and four at Custis Tomb 3 June (BT, CD).

Little Blue Heron (*Egretta caerulea*). Confirmed: on the barrier islands, nesting birds were found at Fisherman Island NWR 20 June (33 adults with young), at Wreck Island 21 June (14 adults with young), and on Cobb Island 23 June (50 adults with young). On the mainland, the species was decidedly scarce. One was found between Kiptopeke and Arlington 4 June (MP), one at Eastern Shore of Virginia NWR 2 June (J&TD) and eight there 3 June (CD, BT), and four between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD).

Tricolored Heron (*Egretta tricolor*). Confirmed. In Virginia, this species is restricted to the Eastern Shore as a nester. On the barrier islands, nesting birds were found at Fisherman Island NWR 20 June (15 adults with young), at Wreck Island 21 June (73 with young), on Cobb Island 23 June (90 with young), and at Chimney Pole Marsh 23 June (22 with young). On the mainland, participants found six: one at Mockhorn Island WMA 3 June (BT, CD), four around Great Machipongo Channel 4 June (EB), and one between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD).

Cattle Egret (*Bubulcus ibis*). Confirmed. This species was first documented nesting in Virginia on 13 May 1953 (Murray 1963, Lerner 1979). On the barrier islands, nesting birds in 1999 were found at Fisherman Island NWR 20 June (14 adults with young), at Wreck Island 21 June (seven with young), and on Cobb Island 23 June (16 with young). Away from the colonies, birds were observed solely in fallow fields, cultivated fields, and pastures, usually in association with livestock: 43 between Kiptopeke and Arlington 4 June (MP), five at Custis Tomb 1 June (J&TD), eight there 2 June (FD), and 19 there 3 June (BT, CD), four between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), one at Franktown, four at Wellington Neck (SR 609), and one near Eastern Shore of Virginia NWR 3 June (BT, CD).

Green Heron (*Butorides virescens*). This secretive species was found in small numbers during June. No nesting was confirmed, and only twelve noted on the Foray and the barrier islands survey. Three were noted in the headwater swamp of Church Creek (crossed by SR 619), cited hereafter as the Sandpit, 2 June (FD), in the Jamesville area 2 June (MP), one at Willis Wharf 2 June (MP), one at Eastern Shore of Virginia NWR 3 June (BT, CD), four at Cobb Island 23 June, one at Fisherman Island NWR 20 June, and one at Smith Island 21 June (all BW et al.).

Black-crowned Night-Heron (*Nycticorax nycticorax*). Confirmed. On the barrier islands, nesting birds were found at Fisherman Island NWR 20 June (89 adults with young), at Wreck Island 21 June (82 with young), and on Cobb Island 23 June (80 with young). Also, four adults were found roosting on Ship Shoal Island 21 June (all BW et al.). On the mainland, only four were detected: one between Kiptopeke and Arlington 4 June (MP), one immature at Cherrystone Campground 3 June (MP),

and two at Eastern Shore of Virginia NWR 3 June (BT, CD).

Yellow-crowned Night-Heron (*Nyctanassa violacea*). Confirmed. On the barrier islands, nesting birds were found at Fisherman Island NWR 20 June (one pair with young), at Wreck Island 21 June (one pair with young), and on Cobb Island 23 June (twelve adults with young). Nesting was suspected but not confirmed at Hog Island 21-22 June, where birds were seen entering thickets at dusk and dawn (all BW et al.). None were observed on the mainland.

White Ibis (*Eudocimus albus*). Confirmed. This species was first detected nesting in the county at Fisherman when 2 young were found in the Fisherman Island heronry on 10 July 1977 (Scott 1977, Frohring and Beck 1978) and the number of nesters has increased steadily since then. In 1999, 26 adults were noted attending young at Fisherman Island NWR 20 June (BW et al.). The seven (two adult, five immature) birds studied at Eastern Shore of Virginia NWR 2 June (J&TD) may not have been associated with this colony but may have been local birds.

Glossy Ibis (*Plegadis falcinellus*). Confirmed. In Virginia, this species is known to nest only on the Eastern Shore (cf. Williams 1975). It may be that a colony exists in Back Bay NWR or adjacent False Cape State Park, where they are present through the nesting season. On the barrier islands, nesting birds were found at Fisherman Island NWR 20 June (32 adults with young), at Wreck Island 21 June (32 with young), on Cobb Island 23 June (68 with young), and at Chimney Pole Marsh 23 June (nine pairs with eggs or young). On the mainland, four to six were at Eastern Shore of Virginia NWR 3 June (FD, CD, BT) and one was at Cherrystone Campground 3 June (MP).

Black Vulture (*Coragyps atratus*). This species proved to be rather scarce. Participants noted one between Kiptopeke and Arlington 4 June (MP), two at Mockhorn Island WMA 3 June (BT, CD), one at Willis Wharf 2 June (J&TD, MP), two in the Jamesville area 2 June (J&TD), one in Exmore (center) area 2 June (J&TD), and one near Eastern Shore of Virginia NWR 3 June (BT, CD).

Turkey Vulture (*Cathartes aura*). Much more numerous than the previous species, observers logged fewer than 50 sightings. There were 16 between Kiptopeke and Arlington 4 June (MP), three at Mockhorn Island WMA 3 June (BT, CD), two-three at Willis Wharf 2 June (J&TD, MP), three in the Jamesville area 2 June (J&TD), seven around Franktown 2 June (FD), six in the northeastern corner of the county 4 June (EB), five between Eastville and Cherrystone Campground 3 June (MP), eight in the Jamesville area 2 June (MP), and one near Eastern Shore of Virginia NWR 3 June (BT, CD).

Canada Goose (*Branta canadensis*). Confirmed nesting at Arlington Plantation: 90 adults and two goslings on 3 June (BT, CD), and one pair with three young and a female on nest with eggs 4 June (MP). Also confirmed at Cherrystone Campground and aquaculture facilities: six broods of various ages (three broods with four young, two with five, and one with nine), 3 June (MP). Fifty-two (single flock) were between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), two at

Willis Wharf 2 June (FD), 22 at Custis Tomb, 2 June (FD), 138 between Eastville and Cherrystone Campground 3 June (MP), six in the Jamesville area 2 June (MP), and eight at Eastern Shore of Virginia NWR 3 June (BT, CD).

Wood Duck (*Aix sponsa*). Confirmed: two hens in the Jamesville area 2 June, with nine and 11 young, respectively (MP). There were no other Wood Ducks recorded on the Foray, though many birds were present on the Bayshore woods and ponds south of Kings Creek through late May.

Gadwall (*Anas strepera*). Confirmed: one female on a nest with seven to nine eggs was noted at the head of the Butterfly Trail at Eastern Shore of Virginia NWR in early June (CD), one at Eastern Shore of Virginia NWR 2 June (J&TD), and one pair with 12 downy young there 3 June (FD). Day observed a River Otter (*Lutra canadensis*) eyeing the family group, but it made no outward attempt at predation. Two females were flushed from a marsh bordering Great Machipongo Channel 4 June (EB).

American Black Duck (*Anas rubripes*). One pair at Eastern Shore of Virginia NWR 3 June (FD, CD, BT).

Mallard (*Anas platyrhynchos*). Confirmed at Cherrystone Campground: two broods (one with five young, one with one) 3 June (MP). One was between Kiptopeke and Arlington 4 June (MP), a pair at Eastern Shore of Virginia NWR 2 June (J&TD), one pair at Willis Wharf 2 June (J&TD, FD) and five there later in the day (MP), 13 between Eastville and Cherrystone Campground 3 June (MP), two in the Jamesville area 2 June (MP), and eight near Eastern Shore of Virginia NWR 3 June (BT, CD).

Black Scoter (*Melanitta nigra*). Two females were at Cape Charles Harbor from late May through August (EB, SH), and three females were in a tidal pool at Fisherman Island NWR 20 June (BW et al.). By far the most likely scoter species to oversummer; many are noted annually on the sheltered side of the barrier islands late in the spring through the summer season (e.g., Armistead 1982, 1983)

Red-breasted Merganser (*Mergus serrator*). Ten were counted (one male only) between Kiptopeke and Arlington 4 June (MP), one female was at Plantation Creek 2 June (FD), and another female was at Fisherman Island NWR 20 June (BW et al.). Of all the diving ducks, this is the species most regularly encountered as a lingerer in the summer months (Armistead 1984).

Ruddy Duck (*Oxyura jamaicensis*). One female was at Cherrystone Campground pond 3 June (MP), and three were at Fisherman Island NWR 20 June (BW et al.).

Osprey (*Pandion haliaetus*). Confirmed. The first Osprey arrivals were in late February, and many were sitting on nests, apparently incubating, by 22 March. Nests were productive at Cape Charles Harbor, Kiptopeke State Park, Eastern Shore of Virginia NWR, Fisherman Island NWR (two nests), and channel markers west of Mockhorn Island WMA (Red 256, Green 254, and Red 242; BW et al.). Purdy noted five active nests on the Bay side west of Jamesville 2 June. Birds observed away

from nest sites included three between Kiptopeke and Arlington 4 June (MP), two at Eastern Shore of Virginia NWR 2 June (J&TD), eight in the northeastern corner of the county 4 June (EB), one at Mockhorn Island WMA 3 June (BT, CD), two in the Jamesville area 2 June (J&TD), four between Eastville and Cherrystone Campground 3 June (MP), two at Oyster 3 June (MP), and 19 in the Jamesville area 2 June (MP).

Mississippi Kite (*Ictinia mississippiensis*). One immature was studied along SR 665 3 June (BT, CD). This was probably one of some four individuals, one adult and three first-summer birds, noted 16-30 May in the vicinity of Eastern Shore of Virginia NWR (J. B. Patteson, JC, CD et al.; Iliff 1999a, Cameron 1999a). This species has been presumed a very rare spring transient in late May and is otherwise known from only three records in Northampton County in spring and summer: one at Eastville 7 June 1990 (H. Gabler; Armistead 1990); two subadults and adult at various locales in southern Northampton County 17-20 May 1992 (S. C. Rottenborn, M. Campbell, H. F. Day, J. B. Patteson; Armistead 1992); and two adults at the Eastern Shore of Virginia NWR 21 June 1991 (S. C. Rottenborn; Kain 1993; Armistead 1991). There is also one fall record from the area, of an adult at Kiptopeke State Park 29 September 1998 (JC, EB; Iliff 1999b). More searching in May and June would probably produce more records of this species, which is annual in small numbers at Cape May, New Jersey, in the spring. The best circumstances for searching are probably on the western shore at the southern tip of the county, on a northeast wind that has followed sustained southwesterly winds, as these appear to be the conditions that concentrate birds at Cape May and at Cape Hatteras, North Carolina.

Bald Eagle (*Haliaeetus leucocephalus*). Confirmed: one nest south of Kiptopeke (in the "Parsons Tract," acquired in 1999 by the State Park) produced at least two eaglets in 1999. Two immatures were in the Jamesville area 2 June (MP). The 1981 Accomack Foray documented only one nest (Swansgut Creek, extreme northeastern Accomack) and one immature (Kinzie and Scott 1983).

Northern Harrier (*Circus cyaneus*). One adult female was hunting around the marshes of Great Machipongo Channel 4 June (EB). Two were at Wreck Island 21 June (BA) and one second-year male at Cobb Island the same day (BW, EP). The Virginia Eastern Shore constitutes the southern boundary of the species' breeding range on the Atlantic seaboard.

Red-shouldered Hawk (*Buteo lineatus*). One bird heard calling at the wooded swamp southwest of Wardtown along Nassawadox Creek on SR 606 midway between SR 607 and SR 183 2 June (FD) was the only one detected on the Foray.

Red-tailed Hawk (*Buteo jamaicensis*). Single birds were at Mockhorn Island WMA 3 June (BT, CD), Custis Tomb 1 June (J&TD), in Exmore (center) area 2 June (J&TD), and the Jamesville area 2 June (MP). A single second-year bird in heavy molt was noted on Cobb Island 21 June (BW, EP).

American Kestrel (*Falco sparverius*). A possible nester was noted along SR 634 to Smith's Beach, but no nest was found (MP).

Peregrine Falcon (*Falco peregrinus*). Confirmed: a pair with fledged young was seen 21 June at the Cobb Island hack box (BW, EP), and at Fisherman Island NWR; one female was noted at the hack box 20 June (BW et al.). The provenance of these birds is known to be from reintroduction schemes in the area. Birds used in this program were hatched in captive breeding programs that used falcons of mixed lineages from many areas on the planet. As a result, the nesting birds observed during summer over the Eastern Shore are not only "introduced" in the fullest sense of the term but are also "exotic," inasmuch as their parentage and phenotypes do not match those of the wild Peregrine Falcons that once nested in the western reaches of the state. There is no historical precedent for Peregrines nesting on barrier islands of the mid-Atlantic. Saltmarsh-nesting Peregrines introduced in New Jersey and New York have unfortunately preyed upon endangered and threatened terns and plovers, and their presence and predatory habits on the Eastern Shore should be closely monitored.

Wild Turkey (*Meleagris gallopavo*). This species was heard gobbling frequently in the early spring at Eastern Shore of Virginia NWR (JC), where one was still present 2 June (J&TD). The local residents are likely products of reintroduction schemes on Maryland's or Virginia's Eastern Shore. Their numbers in the county in winter 1999-2000 totaled minimally 68 on the Bay side of Route 13 between Birdsnest and Cheriton (EB, pers. obs.).

Northern Bobwhite (*Colinus virginianus*). Encountered frequently on the Foray: nine were between Kiptopeke and Arlington 4 June (MP), three at Eastern Shore of Virginia NWR 2 June (J&TD) and four there 3 June (FD), one at Mockhorn Island WMA 3 June (BT, CD), three at Custis Tomb 1 June (J&TD), five between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), two in Exmore (center) area 2 June (J&TD), 15 around Franktown area 2 June (FD), seven between Eastville and Cherrystone Campground 3 June (MP), 22 in the Jamesville area 2 June (MP), and one near Eastville 3 June (BT, CD). The species was listed as "abundant" on the mainland and "common" on Assateague and Wallops Islands during the 1981 Accomack Foray, with a count of 75 in southeastern Accomack 6 June 1981 (Kinzie and Scott 1983).

Clapper Rail (*Rallus longirostris*). Confirmed: one nest with three downy young was found 21 June by Williams on Cobb Island. Elsewhere on the barrier islands, 25-30 were heard at Fisherman Island NWR 20 June, one at Ship Shoal Island 21 June, and six to eight were at Hog Island 22-23 June (all BW et al.). On the mainland, one was at Eastern Shore of Virginia NWR 2 June (J&TD), one at Mockhorn Island WMA 3 June (BT, CD), three between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), one at Nassawadox Creek 2 June (FD), one-two at Willis Wharf 2 June (FD, MP), two between Eastville and Cherrystone Campground 3 June (MP), three at Oyster 3 June (MP), 14 in and around Great Machipongo Channel 4 June (EB), and seven in the Jamesville area 2 June (MP). Both historically and currently an abundant species in the saltwater marshes of the Eastern Shore (Bailey 1913, Murray 1952, Meanley 1983, 1984, 1985), Clapper Rail is an important game species for local residents.

Black-bellied Plover (*Pluvialis squatarola*). Singles were at Oyster 2-3 June (J&TD, FD, MP), Willis Wharf 2 June (FD), Cobb Island 21 June (BW et al.), the Great Machipongo Channel 4 June (EB), and Fisherman Island NWR 20 June (BW). The barrier islands held larger concentrations 21 June, with 38 at Wreck, 52 at Ship Shoal, 89 at Myrtle, and 140 at Smith Island. On 23 June, 13 were at Hog Island (MB).

American Golden-Plover (*Pluvialis dominica*). One in basic plumage on Myrtle Island 21 June (MB, RB).

Wilson's Plover (*Charadrius wilsonia*). One pair at Myrtle Island 21 June (MB, RB). This species does sometimes nest in the county, but most of the species' nesting activity in Virginia is in Accomack County, on the barrier islands there (see Williams 1991).

Semipalmated Plover (*Charadrius semipalmatus*). Eleven at Smith Island 21 June (BW, BA, JV) was the largest concentration noted. On the mainland, one was between Kiptopeke and Arlington 4 June (MP), four between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), four around Great Machipongo Channel 4 June (EB), one at Oyster 2 June (FD), three at Plantation Creek 2 June (FD), and seven in the Jamesville area 2 June (MP).

Piping Plover (*Charadrius melodus*). Confirmed: On 21 June three pairs were on Myrtle Island (RB, MB) and two pairs on Smith Island (BA, JV), one of the latter with two small chicks. Several overviews of this species' status in the state have been published (e.g. Williams, et al. 1987, Watts et al. 1996).

Killdeer (*Charadrius vociferus*). Confirmed: a Killdeer was on a nest with four eggs (all laid by 2 April) over Easter Weekend at Eastern Shore of Virginia NWR (JC, CD); also one adult with eggs on a farm along SR 630 near Hungars Creek 3 June (MP). Others were two at Custis Tomb 1 June (J&TD), one in the Jamesville area 2 June (J&TD), two at Willis Wharf 2 June (FD, MP), four between Eastville and Cherrystone Campground 3 June (MP), and three in the Jamesville area 2 June (MP).

American Oystercatcher (*Haematopus palliatus*). Confirmed: a nest with two eggs was found 20 June at Fisherman Island NWR (JV, RB), and another nest with two eggs on Ship Shoal Island 21 June (BW). Adults were found on all barrier islands of the county during 21-23 June: 72 on Hog Island, 12 at Chimney Pole Marsh, 18 on Sandy Island, 17 on Cobb Island, 13 on Little Cobb Island, 41 on Wreck Island, 26 each on both Myrtle and Ship Shoal Islands, 38 at Smith Island, and 17 at Fisherman Island NWR. Very few were noted away from nesting areas: two between Kiptopeke and Arlington 4 June (MP) and two on flats of Plantation Creek 2 June (FD) were probably the same individuals.

Greater Yellowlegs (*Tringa melanoleuca*). Two were near Eastern Shore of Virginia NWR 3 June (BT, CD) and one 21 June on Ship Shoal Island (BW, EP).

Lesser Yellowlegs (*Tringa flavipes*). Four were on Hog Island 23 June (MB).

Willet (*Catoptrophorus semipalmatus*). Confirmed: one nest with four eggs 21 June on Cobb Island (BW). Abundant in the marshes of the barrier islands, few Willets were noted during the Foray from the mainland: five at Mockhorn Island WMA 3 June (BT, CD), 12 at Willis Wharf 2 June (MP, J&TD, FD), 19 around Great Machipongo Channel 4 June (EB), eight between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), one at Oyster 2-3 June (FD, MP), with small numbers at Eastern Shore of Virginia NWR and at Plantation Creek 2 June (FD).

Whimbrel (*Numenius phaeopus*). Two at Willis Wharf 2 June (FD) and one at Smith Island 21 June (JV) were the only ones recorded.

Ruddy Turnstone (*Arenaria interpres*). On the mainland, there were three between Kiptopeke and Arlington 4 June (MP), six at Plantation Creek 2 June (FD), eight there the next day (BT, CD), and three on sandbar in the Bay off Smith's Beach (SR 666) 3 June (MP). On the barrier islands, up to six were at Hog Island, 2 on Wreck, 14 on Ship Shoal, one on Myrtle, and two on Smith Island 21-23 June (BW et al.).

Red Knot (*Calidris canutus*). Two were on mudflats near Great Machipongo Channel 4 June (EB). On 21 June, single birds were on Ship Shoal Island (BW, EP) and Myrtle Island 21 June (BW). Michael Beck found two on Hog Island 23 June.

Sanderling (*Calidris alba*). Between two and 12 at Cape Charles Beach through the week (EB, SH) and three at Plantation Creek 3 June (CD, BT). None were recorded on the barrier islands later in June.

Semipalmated Sandpiper (*Calidris pusilla*). Six were between Kiptopeke and Arlington 4 June (MP), one in the Jamesville area 2 June (MP), and 21 on Smith Island 21 June (BW).

Least Sandpiper (*Calidris minutilla*). One was on Ship Shoal Island 21 June (BW, EP).

Purple Sandpiper (*Calidris maritima*). Two were on the remains of the brick factory off Kings Creek 3 June (EB).

Dunlin (*Calidris alpina*). A single bird was near Great Machipongo Channel 4 June (EB). Four were on Myrtle Island 21 June (RB, MB) and six on Hog Island the next day (MB).

Short-billed Dowitcher (*Limnodromus griseus*). Five were on flats around Great Machipongo Channel 4 June (EB). Substantial numbers were recorded from the barrier islands, with 20 birds at Machipongo Station on Hog Island 23 June (MB et al.). On 21 June, ten were at Ship Shoal, 25 at Myrtle, and 52 at Smith Island (BW et al.).

Laughing Gull (*Larus atricilla*). Confirmed: the colony on the northeastern corner of Fisherman Island NWR held 4100 birds with downy young 20 June (BW et al.). On Mink Island, six pairs were nesting 21 June, and 42 pairs were likewise reneesting on Wreck Island (BA, JV, SR). The species was a near-constant sight in the farms fields and overhead during the Foray, with a total of 1694 observed by five parties over four days, the largest concentration being of 600 in Exmore (center) area 2 June (J&TD). Incidental mortality (ca. 400-500 per year) associated with traffic on the Chesapeake Bay Bridge-Tunnel, mainland U. S. Primary Highway 13, and major rural routes through both counties is high. Road-killed Laughing Gulls are a common sight from late June through September, primarily associated with loafing and feeding areas around agricultural fields and chicken processing plants.

Herring Gull (*Larus argentatus*). Confirmed: active colonies with many adults on eggs or feeding downy chicks were found on the barrier islands, with 899 adults on Fisherman Island NWR, 240 on Cobb Island, 162 on Little Cobb Island, 816 on Wreck Island, 558 at Chimney Pole Marsh, and 308 on Sandy Island 21-23 June (BW et al.). Away from the barrier islands, all parties observed only 392 birds, chiefly in groups of 1-30 birds, the exceptions being 100 between Kiptopeke and Arlington 4 June (MP), 103 at Oyster 3 June (MP), and 50+ at Occohannock Creek 2 June (FD).

Great Black-backed Gull (*Larus marinus*). Confirmed. Less numerous than Herring Gulls, Great Black-backed were found nesting on the same islands as Herring, with 66 adults on Fisherman Island NWR, 14 on Cobb Island, 24 on Little Cobb Island, 108 on Wreck Island, 38 at Chimney Pole Marsh, and 15 on Sandy Island 21-23 June (BW et al.). Mainland censusers found very small numbers: two between Kiptopeke and Arlington 4 June (MP), four at Eastern Shore of Virginia NWR 2 June (J&TD), three at Willis Wharf 2 June (MP, J&TD), three at Oyster 3 June (MP), four in the Jamesville area 2 June (MP), two at Eastern Shore of Virginia NWR 3 June (BT, CD), two at Silver Beach 2 June (FD), five at at Occohannock Creek 2 June (FD), 10 at Oyster 2 June (FD), and two at Silver Beach 2 June (FD).

Gull-billed Tern (*Sterna nilotica*). Confirmed: one colony on Wreck Island had 64 breeding adults 21 June (BA, JV, SR), while another on Ship Shoal Island had 18 adults. None were seen away from the barrier islands in June, though up through 26 May one was seen near Oyster (Cameron 1999a).

Royal Tern (*Sterna maxima*). The colony at Fisherman Island NWR held 3100 adults on 20 June (BW et al.). Other adults were on Wreck Island (one pair, 21 June, BA, JV, SR) and Little Cobb Island (three, 21 June, RB). From the mainland, observers saw one between Kiptopeke and Arlington 4 June (MP), one at Mockhorn Island WMA 3 June (BT, CD), 21 between Eastville and Cherrystone Campground 3 June (MP), one at Oyster 3 June (MP), ten in the Jamesville area 2 June (MP), one at Custis Tomb 3 June (BT, CD), one at Donnings Beach 2 June (FD), and three at Plantation Creek.

Sandwich Tern (*Sterna sandvicensis*). Confirmed. Eleven adults were noted nesting in the large Royal Tern colony on Fisherman Island NWR 20 June (BW et al.), and nesting activities for three pairs had begun as early as 17 May there (Cameron 1999a).

In Virginia, this species is not known as a nester away from the Eastern Shore, which constitutes the northernmost limit of its nesting range in North America (cf. Weske et al. 1977) the species became fairly common off Cape Charles Beach and elsewhere in southern Northampton County, with counts of up to 16 per day (EB, SH).

Common Tern (*Sterna hirundo*). Confirmed: 16 breeding adults were found at Little Cobb Island 21 June (RB), 290 on Wreck Island 21 June (JV, BA, SR), 16 on Ship Shoal Island 21 June (BW, EP), and 39 on Sandy Island 23 June (JV, RB). On the mainland, one in Exmore (center) area 2 June (J&TD) and several feeding just south of Fisherman Island NWR 3 June (FD) were the only ones reported. The Accomack Foray found it "common [...] in some of the bays in the eastern marshes," with a few in the Saxis area (where Forster's are much more numerous) (Kinzie and Scott 1983). Locally found on the mainland in summer, e.g., on the "east-central" mainland of Accomack, where 176 pairs were noted in seaside marshes in 1991 (Armistead 1991).

Forster's Tern (*Sterna forsteri*). Confirmed: 30 nesting birds were on Fisherman Island NWR 20 June (MB), 30 on Godwin Island, and 30 on Mink Island, both 21 June (BW et al.), and 22 on Sandy Island 23 June (JV, RB). This species currently nests in Virginia only on the Eastern Shore. Seven to 11 at Cape Charles Beach and Kings Creek 1-6 June (EB), one between Kiptopeke and Arlington 4 June (MP), two between Eastville and Cherrystone Campground 3 June (MP), two in the Jamesville area 2 June (MP), five at Willis Wharf 2 June (MP), 22 around Great Machipongo Channel 4 June (EB), and 20+ at Oyster 2 June (FD) were the only ones observed during the Foray. The 1981 Accomack Foray found it "common in both the eastern and western marshes" (Kinzie and Scott 1983).

Least Tern (*Sterna antillarum*). Confirmed: four colonies were found 21 June at Cobb Island, with ten birds (BW, EP), Wreck Island, with six (SR, JV, BA), Myrtle Island, with four (RB, MB). Another colony of 22 nesters was found 32 June on Hog Island 23 June (MB). This species is highly sensitive to disturbance. Of 84 nests with eggs found on Assateague in May 1981, for example, only four survived high tides, predators, and heavy rains (Kinzie and Scott 1983). No Least Terns were noted from the mainland in early June, but like Common and Sandwich Tern, Least became a familiar sight in the Bay later in the month.

Black Skimmer (*Rynchops niger*). Confirmed: colonies were found on Little Cobb Island 21 June (84, RB), Wreck Island 21 June (355, BA, SR, JV), Ship Shoal Island 21 June (20, BW, EP), and Sandy Island 23 June (11, RB, JV). One at Oyster 3 June (MP) was the only one observed away from the nesting areas. On the western Shore, the species is distinctly uncommon. The 1981 Accomack Foray found only seven, in southwestern Accomack, on 2 June (Kinzie and Scott 1983). Locally found on the mainland in summer, e.g., 110 pairs in seaside marshes in 1991 (Armistead 1991).

Rock Dove [Feral Pigeon] (*Columba livia*). Confirmed: nests with begging young were noted in mid-May in Cape Charles in two abandoned houses (EB). Some 14 were noted between Kiptopeke and Arlington 4 June (MP) and two at Willis Wharf

2 June (MP) found during the Foray. Relatively few birds in Northampton County resemble the wild phenotype of Rock Dove. Apparently, this pigeon is not known from the barrier islands in either county (Kinzie and Scott 1983), though it was a regular sight at Fisherman Island in the 1970s and early 1980s.

Mourning Dove (*Zenaida macroura*). Confirmed: adult birds in display flight were observed from early March through early May (EB, JC), with several nests on the outskirts of Cape Charles in early May (SH). Typically, observers found small numbers in any given count area: two were between Kiptopeke and Arlington 4 June (MP), six at Eastern Shore of Virginia NWR 2 June (J&TD), two at Willis Wharf 2 June (J&TD), six at Custis Tomb 1 June (J&TD), five between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), three to ten in the Jamesville area 2 June (J&TD, MP), ten in Exmore (center) area 2 June (J&TD), five between Eastville and Cherrystone Campground 3 June (MP), four near Eastville 3 June (BT, CD), and six in the Franktown area 2 June (FD).

Yellow-billed Cuckoo (*Coccyzus americanus*). Eight birds recorded. One near Eastern Shore of Virginia NWR 2-3 June (J&TD, CD, BT), one at Mockhorn Island WMA 3 June (BT, CD), one at Custis Tomb 1 June (J&TD), one between Eastville and Cherrystone Campground 3 June (MP), two in the Jamesville area 2 June (MP), one at the Sandpit 2 June (FD), two together along SR 692 2 June (FD).

Barn Owl (*Tyto alba*). Confirmed: Two nests each with four downy young were at the Machipongo Station, Hog Island (BW et al.). None were found on the mainland.

Eastern Screech-Owl (*Otus asio*). Single red morph at the Sandpit on SR 619 2 June (FD). This bird was flushed and chased by Common Grackles apparently nesting in the area. One responded to an audio lure on SR 606 just south of its intersection with SR 692 2 June (FD). Five birds held territories around the Sustainable Technologies Industrial Park and nearby woodlands on Old Cape Charles Road, at Cape Charles, through the month (SH, EB).

Great Horned Owl (*Bubo virginianus*). In Cheriton, three pairs vied for territory as early as 12 December 1998 (audio recording made, EB). Young are typically fledged and away from nests well in advance of the Foray, and no nests were found in 1999. This species has been known to nest on Northampton's barrier islands. It was noted twice on treeless Wreck Island in summer 1982 and 1983 (Armistead 1983), and in an old World War II submarine watchtower on Smith Island, where 2 young were noted 7 April 1985 (Armistead 1985).

Common Nighthawk (*Chordeiles minor*). One at Kiptopeke 3 June (MP) was the only one detected during the Foray, although as many as three were there on 20 May (Cameron 1999a). In the recent past, nesting has been documented on Ship Shoal Island: two young on 10 July 1973 (Scott and Cutler 1973), nest with one egg 26 June 1975 (Scott 1975), nesting June 1980 (Armistead 1980); Wreck Island: nest with two eggs 20 June 1975 (Scott 1975), nest with one egg, 17 June 1991 (Armistead 1991); Myrtle Island, nesting June 1980 (Armistead 1980). Nesting was suspected

on Cobb, Smith, and Fisherman Island in June 1981 (Armistead 1981) and on Ship Shoal and Myrtle Islands in 1991 (Armistead 1991). Suspected to be in decline, as only found on Wreck Island in 1983 (Armistead 1983) and only on Myrtle Island in 1984 (Armistead 1984). Found only on Ship Shoal and Myrtle Island in 1986 (Armistead 1986), Cedar and Ship Shoal in 1989 (Armistead 1989).

Chuck-will's-widow (*Caprimulgus carolinensis*). Two were calling near Eastern Shore of Virginia NWR 3 June (BT, CD), one at Sustainable Technologies Industrial Park, Cape Charles 4 June (EB, SH), and two at the Machipongo Station, Hog Island 22 June (BW et al.).

Chimney Swift (*Chaetura pelagica*). Thirty-seven recorded: one at Mockhorn Island WMA 3 June (BT, CD), two to 12 at Willis Wharf 2 June (MP, J&TD), two between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), four in the Jamesville area 2 June (J&TD), four in Exmore (center) area 2 June (J&TD), one in the Jamesville area 2 June (MP), two near Eastville 3 June (BT, CD), and ten to 12 in Franktown and Willis Wharf areas 2 June (FD). This species is perhaps more numerous in Accomack County (Kinzie and Scott 1983).

Ruby-throated Hummingbird (*Archilochus colubris*). Seven or eight recorded: one at Mockhorn Island WMA 3 June (BT, CD), one in the Jamesville area 2 June (MP), one, Eastern Shore of Virginia NWR, 3 June (BT, CD), one, Cape Charles, 4 June (EB), and four to five in Franktown and Jamesville areas 2 June (FD). Very uncommon on the barrier islands as a nester: four were on Parramore Island 5 June 1981 (Kinzie and Scott 1983), the highest count for a Virginia barrier island in the nesting season.

Belted Kingfisher (*Ceryle alcyon*). Belted Kingfisher were defending territories on April 3 and 4, the latter on Kings Creek at Cape Charles (SH, EB). No nest holes were located during the Foray, although at least two birds (male and female) were present throughout June. One on the inlet between Smith's Beach and Hungars Beach (SR 666) 3 June (MP) was the only other bird observed in June.

Red-bellied Woodpecker (*Melanerpes carolinus*). About eight recorded: one at Mockhorn Island WMA 3 June (BT, CD), one between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), two in large hardwood stand on SR 634 just east of Eastville, just after the turn onto SR 634 3 June (MP), three to four in the Franktown and Jamesville areas 2 June (FD). A fairly common nester in Accomack County (Kinzie and Scott 1983).

Downy Woodpecker (*Picoides pubescens*). Confirmed: pair feeding young at the Sandpit 2-4 June (FD, NB). Also one pair giving agitated calls in response to audio tape of Eastern Screech-Owl on SR 618, 0.2 km northeast of Johnstown 2 June (FD). Elsewhere three singles were noted: one in Exmore (center) area 2 June (J&TD), one between Eastville and Cherrystone Campground 3 June (MP), and one in the Jamesville area 2 June (MP). A common nester on the mainland of Accomack County (Kinzie and Scott 1983).

Hairy Woodpecker (*Picoides villosus*). Only one pair noted, in the Sandpit 2 June (FD). Nesting could not be confirmed, but the male and female were in "close association." The 1981 Accomack Foray found only six birds (Kinzie and Scott 1983).

Northern (Yellow-shafted) Flicker (*Colaptes auratus*). Confirmed: one carrying nesting material at Mockhorn Island WMA 3 June (BT, CD). Ten others recorded: one between Kiptopeke and Arlington 4 June (MP), one in the Jamesville area 2 June (J&TD), four in the Jamesville area 2 June (MP), four in the Franktown area 2 June (FD). Kinzie and Scott (1983) characterize Northern Flicker as a common nester on the mainland and major barrier islands, with one record of adults tending a nest near Saxis 4 June 1981.

Pileated Woodpecker (*Dryocopus pileatus*). Confirmed: one adult attending a nest hole with young, at Mockhorn Island WMA (at the military listening station, Jones Cove) 3 June (BT, CD) and 5 June (EB). One in the Jamesville area 2 June (MP) and one at the Sandpit 2 June (FD) were the only others noted. The 1981 Accomack Foray found only 6 birds, with no evidence of nesting (Kinzie and Scott 1983).

Eastern Wood-Pewee (*Contopus virens*). Eight were recorded: one at Mockhorn Island WMA 3 June (BT, CD), three between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), one in Exmore (center) area 2 June (J&TD), one between Eastville and Cherrystone Campground 3 June (MP), one in the Jamesville area 2 June (MP), and one on SR 609 on Wellington Neck.

Acadian Flycatcher (*Empidonax virescens*). Five were recorded: one between Kiptopeke and Arlington 4 June (MP), one in the Jamesville area 2 June (J&TD), one between Eastville and Cherrystone Campground 3 June (MP), one calling on SR 622 1.7 km north of the county high school 2 June (FD), and one calling in the SR 606 wooded swamp at the headwaters of Nassawadox Creek 2 June (FD). Listed as a "common" nester on the mainland, perhaps most common in northeastern and northwestern Accomack County (Kinzie and Scott 1983).

Great Crested Flycatcher (*Myiarchus crinitus*). Confirmed: one carrying a snake skin for nesting material at Mockhorn Island WMA 3 June (BT, CD). Ten were recorded elsewhere: two between Kiptopeke and Arlington 4 June (MP), two between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), one in the Jamesville area 2 June (J&TD), one in Exmore (center) area 2 June (J&TD), two between Eastville and Cherrystone Campground 3 June (MP), and two in the Jamesville area 2 June (MP). Characterized as a "common" nester on the mainland and on Assateague and Parramore Islands (Kinzie and Scott 1983).

Eastern Kingbird (*Tyrannus tyrannus*). Confirmed: one pair nested successfully at the corner of Harbor and Mason avenues, Cape Charles (SH). Twenty-five were recorded elsewhere: one between Kiptopeke and Arlington 4 June (MP), one at Eastern Shore of Virginia NWR 2 June (J&TD), two at Mockhorn Island WMA 3 June (BT, CD), five between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), three in the Jamesville area 2 June (J&TD), one in Exmore (center) area 2 June (J&TD), four in the Jamesville area 2 June (MP), one near Eastville 3

June (BT, CD), one at Eastern Shore of Virginia NWR 3 June (BT, CD), two at Custis Tomb 3 June (BT, CD), three in the Franktown area 2 June (FD), and two on Smith Island 2 June (BA, SR, JV).

The 1999 Northampton County Foray report will be concluded in Part 2.

### LITERATURE CITED

ARMISTEAD, H. T. 1980. The nesting season: Middle Atlantic coast region. *American Birds* 34:882-885.

\_\_\_\_\_. 1981. The nesting season: Middle Atlantic coast region. *American Birds* 35:926-929.

\_\_\_\_\_. 1982. The winter season: Middle Atlantic coast region. *American Birds* 36:280-283.

\_\_\_\_\_. 1983. The nesting season: Middle Atlantic coast region. *American Birds* 37:974-977.

\_\_\_\_\_. 1984. The nesting season: Middle Atlantic coast region. *American Birds* 38:1005-1008.

\_\_\_\_\_. 1986. The nesting season: Middle Atlantic coast region. *American Birds* 40:1186-1190.

\_\_\_\_\_. 1989. The nesting season: Middle Atlantic coast region. *American Birds* 43:1299-1303.

\_\_\_\_\_. 1990. The nesting season: Middle Atlantic coast region. *American Birds* 44:1120-1123.

\_\_\_\_\_. 1991. The nesting season: Middle Atlantic coast region. *American Birds* 45:1101-1106.

\_\_\_\_\_. 1992. The spring migration: Middle Atlantic coast region. *American Birds* 46:403-408.

BAILEY, H. H. 1913. *The Birds of Virginia*. Lynchburg.

CAMERON, J. 1999a. The 1999 Spring Migration Monitoring Project. Privately published, Coastal Virginia Wildlife Observatory and Eastern Shore of Virginia National Wildlife Refuge, Franktown.

\_\_\_\_\_. 1999b. Fisherman Island hosts a strange bird...again; white pelican joins more common brethren. *Eastern Shore News* 21 April 1999.

- CLAPP, R. B. 1996. Great Blue Heron electrocution in Loudoun County, Virginia. *Raven* 96:28-31.
- COGGIN, J., AND C. PEERY. 1975. The Wild Turkey in Virginia. Richmond: Virginia Commission of Game and Inland Fisheries. 133 pp.
- FROHRING, P. C., and R. A. BECK. 1978. First breeding record of the White Ibis (*Eudocimus albus*) in Virginia. *American Birds* 32:126-128.
- LIFF, M. J. 1999a. The spring migration: Middle Atlantic coast region. *North American Birds* 53:265-268.
- \_\_\_\_\_. 1999b. The fall migration: Middle Atlantic coast region. *North American Birds* 53:39-43.
- KAIN, T. 1993. 1993 Report of the VSO Records Committee. *Raven* 64:106-108.
- KINZIE, B. L., and F. R. SCOTT. 1983. The Accomack County Breeding-Bird Foray of 1981. *Raven* 54:3-18.
- LARNER, Y., ed. 1979. Virginia's Birdlife: An annotated checklist. First edition. Virginia Society of Ornithology. Virginia Avifauna Number 2.
- MEANLEY, B. 1983. A comparison of nesting Clapper Rail populations at Chincoteague, Virginia between 1950 and 1981-82. *Raven* 54:44-45.
- \_\_\_\_\_. 1984. Notes on Clapper Rail broods at Chincoteague. *Raven* 54:13.
- \_\_\_\_\_. 1985. The Marsh Hen. A Natural History of the Clapper Rail of the Atlantic coast salt marsh. Centreville, Maryland: Tidewater Publishers.
- MURRAY, J. J. 1952. A Check-list of the Birds of Virginia. Virginia Society of Ornithology. Charlottesville.
- \_\_\_\_\_. 1963. Spread of the Cattle Egret in Virginia. *Raven* 34:17-18.
- SCOTT, F. R. 1975. The nesting season: Middle Atlantic coast region. *American Birds* 29:954-957.
- \_\_\_\_\_. 1977. The nesting season: Middle Atlantic coast region. *American Birds* 31: 1120-1124.
- SCOTT, F. R., and D. A. CUTLER. 1973. The nesting season: Middle Atlantic coast region. *American Birds* 27:853-856.
- VIRGINIA SOCIETY OF ORNITHOLOGY. 1989. Virginia's Breeding Birds: An Atlas Workbook. William Byrd. Richmond. 228 pp.

- WATTS, B. D., and S. E. MABEY. 1994. Migratory Landbirds of the Lower Delmarva: Habitat Selection and Geographic Distribution. Center for Conservation Biology. College of William and Mary. Williamsburg, Virginia.
- WATTS, B. D., and D. S. BRADSHAW. 1996. Population expansion by Double-crested Cormorants in Virginia. *Raven* 67:75-78.
- WATTS, B. D., D. S. BRADSHAW, and R. R. CROSS. 1996. Annual plover survey of the Virginia barrier islands: a ten year summary. *Raven* 67:84-89.
- WESKE, J. S., R. B. CLAPP, and J. M. SHEPPARD. 1977. Breeding records of Sandwich and Caspian Terns in Virginia and Maryland. *Raven* 48:59-65.
- WILLIAMS, B. 1975. Growth rate and nesting aspects for the Glossy Ibis in Virginia. *Raven* 46:35-51.
- \_\_\_\_\_. 1989. The first breeding record of the Brown Pelican in Virginia. *Raven* 60:1-3.
- \_\_\_\_\_. 1991. Wilson's Plover: Pp. 502-504 in: *Virginia's Endangered Species* (K. Terwilliger, ed.). Blacksburg. McDonald and Woodward.
- WILLIAMS, J. W., J. W. AKERS, R. A. BECK, K. TERWILLIGER, AND J. W. VIA. 1987. The Piping Plover on the Eastern Shore of Virginia. *Virginia Journal of Science* 38: 337-341.

## VIRGINIA SPECIMEN RECORD OF THE BLACK-BELLIED WHISTLING-DUCK

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On 7 October 1987, while hunting in King William County, Virginia, Mr. Edward Barnett killed a Black-bellied Whistling-Duck (*Dendrocygna autumnalis*) at a beaver pond approximately 3 km NW of King William Courthouse. The bird, an immature male, was accompanied by several Wood Ducks (*Aix sponsa*) when it was first observed. It flew well, although Mr. Barnett immediately noted that it was different from the other birds in the flock. I prepared a study skin (VCU 1802). The specimen shows only a few of the characteristic black belly feathers, but many such feathers are visible on the flanks. Before drying, the bill was pink and the legs were a pale flesh. The bird weighed 711.5 g and the testes were 2 X 1 mm. There was no indication that the bird had been in captivity. The wings, tail, and nails showed no wear. There were no leg bands or bill tabs, and neither wings nor nails had been clipped or marked.

Prior to 1987, the Black-bellied Whistling-Duck had been recorded in Texas, New Mexico, California, Colorado, Kansas, Iowa, Minnesota, Michigan, Louisiana, Tennessee, and Ontario, but there were no published records for Virginia or any of the states adjacent to Virginia, with the exception of Tennessee (AOU 1983, VSO 1987). The regular range of the species includes "central Sonora, southern Arizona, the valley of Mexico, and central and southeastern Texas south through most of Middle America and South America (also Trinidad) west of the Andes to western Ecuador and east of the Andes to eastern Peru, Bolivia, northern Argentina, Paraguay and southern Brazil" (AOU 1983). Subsequently, there have been several records of the species in nearby states. The Maryland/DC Records Committee has accepted three records; the West Virginia Bird Records Committee records committee has accepted two (*fide* C. M. Stinson). Two records of the species in South Carolina have been published (Martin 1984, Harrigal et al. 1995). In Virginia, there have been two sight records by Don Schwab, neither accepted by the Virginia Avian Records Committee (VARCOM; *fide* C. M. Stinson). At least one of the Virginia sightings correlates with a 1994 irruption of the species into the eastern United States (Kaufman 1994).

Because this species previously has been rare outside of its normal range (AOU 1983), records in the eastern United States have often been regarded as escaped

captive birds. However, the most recent edition of the National Geographic Society field guide to the birds of North America (National Geographic Society 1999) notes that there have been recent sightings of Black-bellied Whistling-Ducks in the east, north to Canada, that may include wild birds. The present record was rejected by VARCOM because the specimen was of unknown origin. The bird certainly may have come from captivity. However, when the bird was acquired, I made an effort to locate potential sources, including Busch Gardens in Williamsburg, and King's Dominion near Ashland, Virginia. I was unable to locate anybody having Black-bellied Whistling-Ducks in their collections. It seems unlikely that someone would go to the trouble to induce the species to breed in captivity and then allow an unbanded duckling to escape. On the other hand, it should be noted that escaped Black-bellied Whistling-Ducks have bred in northwestern Tennessee (AOU 1983) and Florida (Farrand 1983). The significance of the present specimen, if any, remains to be determined with the addition of further occurrences of Virginia birds, but it should be noted for the record.

### Acknowledgements

I thank Richard Banks and C. M. Stinson for their comments about the occurrence of Black-bellied Whistling-Ducks and for sharing information about records of the species in the region. C. M. Stinson and Leann Blem critiqued the penultimate version of this note and improved it greatly.

### Literature Cited

- AMERICAN ORNITHOLOGISTS' UNION. 1983. A check-list of North American birds. Sixth Ed., American Ornithologists' Union, Washington, D.C.
- FARRAND, J. JR. 1983. The Audubon Society master guide to birding. A. A. Knopf, New York.
- HARRIGAL, D., P. LAURIE, AND C. FLODY. 1995. Black-bellied Whistling-Ducks observed in Colleton County, South Carolina. *Chat* 59:99-100.
- KAUFMAN, K. 1994. Changing seasons (spring 1994). *Field Notes* 48:264-267.
- MARTIN, E. M. 1984. A 1977 record of a Black-bellied Whistling-Duck from Lee County, S. C., comes to light. *Chat* 48:14.
- NATIONAL GEOGRAPHIC SOCIETY. 1999. Field guide to the birds of North America. Third Ed., Washington, D.C.
- VIRGINIA SOCIETY OF ORNITHOLOGY. 1987. Virginia's birdlife, an annotated checklist. Virginia Avifauna No. 3. Virginia Society of Ornithology.

## FIRST MOUNTAINS AND VALLEYS RECORD OF BROWN PELICAN

WENDY EALDING  
9006 Eider Landing  
Chesterfield, VA 23838

On 5 July 1998, I was visiting the National Park Service Visitor Center at the James River in Amherst County. My husband, John Ealding, accompanied me. The visitor center is located at milepost 63.6 on the Blue Ridge Parkway. The weather was clear and sunny with excellent visibility.

At around 11:20 a.m., we were walking on the footbridge which crosses the James River and provides access to a canal lock exhibit. We observed a large heavily built bird about 0.4 kilometer downstream from the bridge, flying upstream towards us. It had a heavy bill and throat pouch, a pale brown body with white head and neck. The head was held back when flying. Even without binoculars, it was apparent that the bird was a Brown Pelican (*Pelecanus occidentalis*). We did observe the bird through binoculars (Leitz Trinovid 8 X 40, Leica 10 X 42), and confirmed the identification.

The bird crossed the bridge about 12 meters overhead and continued flying upstream about 0.8 kilometer before landing in the river. It floated in the river for a while. It was approached by a small boat, but was not disturbed. After about 5 minutes of continuous observation, it was lost from view.

This record was submitted to the Virginia Avian Records Committee (VARCOM) and has been accepted as the first record for the Mountains and Valleys region.

## 1999 REPORT OF THE VIRGINIA AVIAN RECORDS COMMITTEE

BOB CROSS

*VARCOM Chairman*

*1523 Live Oak Drive*

*Tallahassee, FL 32301*

The Virginia Avian Records Committee (VARCOM) was founded in 1986. VARCOM critically reviews all written reports as well as photographic and audio materials or other evidence submitted as documentation of rare or unusual bird species that have been observed within Virginia's boundaries and coastal waters. The findings of the Committee were first published in *The Raven* in 1988 (Dalmas 1988) and have appeared annually in *The Raven* since then.

VARCOM consists of nine members, seven voting members, a non-voting Secretary/Compiler, and a non-voting Chairman. Voting members are normally appointed to a four-year term, whereas the Chairman and Secretary/Compiler serve one year, renewable appointments. The voting members of VARCOM 1999 and their term dates of expiration are as follows: John Bazuin (1999), Dick Peake (1999), Bill Williams (1999), Dan Cristol (2000), Brian Taber (2001), George "Cricket" Barlow (2001), and Brian Patteson (2001). The Secretary/Compiler is Charlotte Friend.

A total of 60 reports (39 species) were submitted to VARCOM for review between 1 January and 31 December 1999. Of these, 25 reports remain under consideration. The review process was completed for 35 reports; 22 (63%) accepted and 13 (37%) not accepted. Included in the accepted reports were two species previously not verified in Virginia: Short-tailed Shearwater (*Puffinus tenuirostris*) and Yellow-legged Gull (*Larus cachinnans*). These two records will be added to the official Virginia checklist bringing the new total to 431 species.

Prior to 1996, VARCOM categorized all accepted records as either accidental or hypothetical occurrences in Virginia. In 1996, however, members voted to abandon those terms and to classify all accepted records according to four new categories. These categories are listed below for current reference although they were previously published in *The Raven* (Kain 1996) along with other modifications to the VARCOM voting procedure.

Category 1: Any bird that has occurred in Virginia and has been accepted as a wild bird by VARCOM on the basis of a photo, specimen, audio or video recording, or band (in cases where proof of identification is irrefutable).

- Category 2: Sight records without physical evidence, but for which there is written documentation accepted by VARCOM.
- Category 3: Identity established by VARCOM, but whose origin is uncertain.
- Category 4: Any extinct bird that occurred at some time in Virginia and for which there is physical evidence or written evidence.

To be evaluated by VARCOM, documentation should include all pertinent dates, locations and observer names; a detailed description of the morphology and plumage characteristics of the bird; a description of its behavioral traits, vocalizations, and habitat associations; and the viewing conditions of the observation. Methods used for consideration of similar species should be described and a photograph or field sketch of the bird should be included in the submission if possible. Use of the standard Records Committee Report Form, available from the Secretary/Compiler or on the Virginia Society of Ornithology's website, will ensure that the submission conforms to the guidelines required by VARCOM for evaluation. Completed report forms and all supporting materials should be submitted to the Secretary/Compiler.

The Records Committee acknowledges the efforts of all those who submitted details of their observations for review. Their contributions continue to enhance our understanding of bird species occurrence and distribution in Virginia.

The following is a summary of VARCOM actions in 1999.

### ACCEPTED RECORDS

**Western Grebe** (*Aechmophorus occidentalis*), 1 individual, photographed, Lake Thoreau, Reston, Fairfax County, 23-30 May 1998. First Piedmont record since Clark's Grebe was split from Western Grebe, category one [Robert Hilton, Robert Zakon, Valerie Kitchens, Glen Richardson].

**Short-tailed Shearwater** (*Puffinus tenuirostris*), 1 individual, Norfolk Canyon, 18 January 1998. First state and Coastal Plain record, category two [Edward S. Brinkley, Brian Patteson].

**White-faced Storm-Petrel** (*Pelagodroma marina*), James City County near Williamsburg, 6 September 1996, Fourth Coastal Plain record, category two [Bill Williams].

**Brown Pelican** (*Pelecanus occidentalis*), 1 individual, Blue Ridge Parkway bridge over the James River, milepost 63.6, Amherst County, 5 July 1998. First Mountains and Valleys record, category two [Wendy Ealding].

**Ross's Goose** (*Chen rossii*), 1 individual, photographed, Staunton, Augusta County, 25 January to 3 February 1999. Second Mountains and Valleys record, category one [Herbert Allen Lerner III].

**Barnacle Goose** (*Branta leucopsis*), 1 individual, near Lyndhurst, Augusta County, 21 March 1995. Mountains and Valleys record, category three [Herbert Allen Lerner III].

**Barnacle Goose** (*Branta leucopsis*), 1 individual, photographed, Elk Garden, Russell County, 24 February to 1 March 1998. Mountains and Valleys record, cat-

egory three [Tom Hunter, Dave Worley, Robert Rigs].

**Barnacle Goose** (*Branta leucopsis*), 1 individual, Ashburn, Loudoun County, 18 October 1997. Piedmont record, category three [David Abbott].

**Mute Swan** (*Cygnus olor*), 1 individual, Staunton, Augusta County, June-early November 1993. Mountains and Valleys record, category three [Herbert Allen Lerner III].

**Mute Swan** (*Cygnus olor*), 1 individual, Staunton, Augusta County, 17 December 1994-13 January 1995. Mountains and Valleys record, category three [Herbert Allen Lerner III].

**Swallow-tailed Kite** (*Elanoides forficatus*), 1 individual, Huntley Meadows Park, Fairfax County, 18-19 June 1999. Coastal Plain record, category two [Edna Aaron, Eric Hynes, Sherman Suter].

**White-tailed Kite** (*Elanus leucurus*), 1 individual, Cheriton, Northampton County, 26 April 1998. Second Coastal Plain record, category two [Bill Williams].

**Mississippi Kite** (*Ictinia mississippiensis*), 1 individual, Highland County, 23 June 1988. Fifth Mountains and Valleys record, category two [Leonard Teuber].

**Mississippi Kite** (*Ictinia mississippiensis*), 1 individual, Staunton, Augusta County, 13 May 1995. Sixth Mountains and Valleys record, category two [Leonard Teuber].

**Mississippi Kite** (*Ictinia mississippiensis*), as many as 8, state road 716 looking toward Banister River WMA—north unit, Halifax County, 2 June, 6 June, 7 June 1998. Fifth accepted Piedmont record, category two [Jeffrey Blalock].

**Sandhill Crane** (*Grus canadensis*), 13 flying birds, Lucketts, Loudoun County, 14 March 1998. Third accepted Piedmont record, category two [Valerie Kitchens et al.].

**Buff-breasted Sandpiper** (*Tryngites subruficollis*), 1 individual, photographed, Ashburn, Loudoun, 15-17 August 1997. Fourth Piedmont record, category one [David Abbott].

**Yellow-legged Gull** (*Larus cachinnans*), 1 individual, photographed, Back Bay NWR, 28 December 1997. First accepted state and Coastal Plain record, category one [Edward S. Brinkley, Brian Patteson].

**Roseate Tern** (*Sterna dougallii*), 1 individual, Kerr Reservoir, 6 Sept 1996. First accepted Piedmont record, category two [Edward S. Brinkley].

**Arctic Tern** (*Sterna paradisaea*), 1 individual, Greenways, Loudoun County, 21 May 1997. Second accepted Piedmont record, category two [David Abbott].

**Painted Bunting** (*Passerina ciris*), 1 individual, photographed, Charlottesville, 1 Jan - 22 March 1998. Third Piedmont record, category one [Kathi Ann Brown].

**Evening Grosbeak** (*Coccothraustes vespertinus*), 1 individual, Crewe, Nottoway County, summer 1998. First summer state and Piedmont record, category one [Ann Ingram].

#### SUBMISSIONS NOT ACCEPTED

**Herald Petrel** (*Pterodroma arminjoniana*), 1 individual, Greenways Wetlands, Loudoun, 11 September 1996.

**Brown Pelican** (*Pelecanus occidentalis*), Rockfish Gap, 11 September 1993.

**Magnificent Frigatebird** (*Fregata magnificens*), Rockfish Gap, Nelson County, 7 Nov. 1991.

**Ross's Goose** (*Chen rossii*), 1 individual, near Beaverdam Reservoir, Loudoun County, 8-9 Dec 1997.

**Swallow-tailed Kite** (*Elanoides forficatus*), 1 individual, near Bland County, 20 September 1997. Not in Virginia.

**Marbled Godwit** (*Limosa fedoa*), 1 individual, Staunton River State Park, Halifax County, 22 August 1998.

**Black-legged Kittiwake** (*Rissa tridactyla*), 1 individual, Beaverdam Reservoir, 1 April 1996.

**Sabine's Gull** (*Xema sabini*), 1 individual, Dulles Greenways, 13 September 1996.

**White-winged Tern** (*Chlidonias leucopterus*), 1 individual, Greenways Wetlands, Loudoun, 7 September 1996.

**Common Ground-Dove** (*Columbina passerina*), 1 individual, Greenways Wetlands, 6 September 1996.

**Cave Swallow** (*Petrochelidon fulva*), 1 individual, Greenways Wetlands, 21 September 1996.

**MacGillivray's Warbler** (*Oporornis tolmiei*), 1 individual, Wakefield Park, Fairfax County, 19 September 1998.

**Swamp Sparrow** (*Melospiza georgiana*), breeding record, 1 young with adult, Dyke Marsh, Fairfax County, 22 June 1997.

#### SUBMISSIONS UNDER REVIEW

**Western Grebe** (*Aechmophorus occidentalis*), 1 individual, Orange Lake, Orange County, 9 January 1999.

**Anhinga** (*Anhinga anhinga*), 7 individuals, Orange, 26 September 1999.

**White-faced Ibis** (*Plegadis chihi*), 1 individual, photographed, Chincoteague NWR, 2 July 1999.

**Cinnamon Teal** (*Anas cyanoptera*), 1 individual, Hog Island Wildlife Management Area, Surry County, 17 October 1998.

**Cinnamon Teal** (*Anas cyanoptera*), 1 male bird and 1 female bird, Accotink Wildlife Refuge, Fairfax County, 16 September – 12 December 1998.

**Cinnamon Teal** (*Anas cyanoptera*), 1 male bird, Mason Neck NWR, Fairfax County, 15 November 1998.

**White-cheeked Pintail** (*Anas bahamensis*), 1 individual, Ridgeway Park, Hampton, 8 February 1998.

**Surf Scoter** (*Melanitta perspicillata*), Beaverdam, Loudoun County, 8 Nov 1997.

**Mississippi Kite** (*Ictinia mississippiensis*), 1 individual, Rockfish Gap, 17 October 1998.

**Swainson's Hawk** (*Buteo swainsoni*), 1 light morph juvenile, Kiptopeke State Park, 11 September 1998.

**Swainson's Hawk** (*Buteo swainsoni*), 1 dark morph juvenile, Kiptopeke State Park, 13 September 1998.

**Swainson's Hawk** (*Buteo swainsoni*), 1 dark morph juvenile, Kiptopeke State Park, 14 September 1998.

**Swainson's Hawk** (*Buteo swainsoni*), 1 light morph juvenile, Kiptopeke State Park, 14 September 1998.

**Swainson's Hawk** (*Buteo swainsoni*), 1 dark morph juvenile, Kiptopeke State Park, 22 October 1998.

**Swainson's Hawk** (*Buteo swainsoni*), 1 light morph, second year, Kiptopeke State Park, 25 October 1998.

**Swainson's Hawk** (*Buteo swainsoni*), 1 light morph juvenile, trapped and photographed, Kiptopeke State Park, 27 October 1998.

**Swainson's Hawk** (*Buteo swainsoni*), 1 dark morph juvenile, Kiptopeke State Park, 27 October 1998.

**Swainson's Hawk** (*Buteo swainsoni*), 1 dark morph juvenile, photographed, Kiptopeke State Park, 6 November 1998.

**Black Rail** (*Laterallus jamaicensis*), Staunton River State Park, Halifax County, 3 October 1998 and 20 October 1998.

**Bar-tailed Godwit** (*Limosa lapponica*), 1 individual, Chincoteague NWR, 7 Sept 1991. Photograph only, written documentation is accepted. Photograph initially lost in the mail.

**Ivory Gull** (*Pagophila eburnea*), 1 individual, Chesapeake Bay Bridge-Tunnel Islands, 12 September 1998.

**Alder Flycatcher** (*Empidonax alnorum*), Dulles Greenways Wetland, Loudoun County, 7 July 1998.

**Cave Swallow** (*Petrocheidon fulva*), 1 individual, Fishermans Island, 1 November 1998.

**Siberian Blue Robin** (*Luscinia cyane*), 1 individual, photographed, Chincoteague NWR, last week of June 1992.

**European Goldfinch** (*Carduelis carduelis*), 1 adult male, College of William and Mary, Williamsburg, 30 August 1999.

#### LITERATURE CITED

DALMAS, J.H. 1988. 1988 Report of the VSO Records Committee. Raven 59.

KAIN, T. 1996. 1996 Report of the Virginia Avian Records Committee. Raven 67:2.

## CORRECTIONS: RAVEN Vol. 70 No. 1

In *The Raven* 70(1), page 28, Great Blue Herons breeding in Louisa County in 1997 represent the first documented Piedmont breeding record, *not* Mountains & Valleys.

Also, on page 29 of the same issue, the scientific name of Pomarine Jaeger should read *Stercorarius pomarinus*.





## INFORMATION FOR CONTRIBUTORS

*The Raven*, the official journal of the Virginia Society of Ornithology (VSO), functions to publish original contributions and review articles in ornithology not published elsewhere, mostly relating to Virginia birdlife. Manuscripts should be sent to the editor, C. Michael Stinson, Rt. 1, Box 186, Prospect, VA 23960.

Most manuscripts published in *The Raven* concern the distribution, abundance, and migration of birds in Virginia. Manuscripts on other ornithological topics, such as Virginia-based historical reviews, bibliographical reviews, life history notes, and behavioral observations, are also welcomed. In addition, the journal serves to publish the official proceedings of the VSO and other formal items pertaining to all aspects of the Society's activities. *The Raven* may also publish articles pertaining to the activities of the various public and private organizations engaged in biological and conservation work in Virginia. *The Raven* is a peer-reviewed journal; all feature articles and short communications are reviewed before acceptance for publication.

Format of *The Raven* generally follows guidelines set by the Council for Biology Editors as outlined in the CBE Style Manual, 6<sup>th</sup> edition, 1994 (Council of Biology Editors, Inc., 11250 Roger Bacon Dr., Reston, Virginia, 20190). All manuscripts should be typewritten or prepared with a word processor and double-spaced. Tables, table legends, and figure legends must be similarly prepared and should be submitted on separate pages at the end of the manuscript. Currently only black-and-white photographs, graphs, maps, or other illustrations may be used. The original size for these items should not exceed 5 x 7 inches. Authors may submit manuscripts for initial review with accompanying diskette or as paper copies only. Upon acceptance all manuscripts with revisions incorporated should be sent on diskette or as e-mail attachments, preferably in Microsoft Word 97 format. Authors are welcome to consult with the editor on additional matters of format or style. Vernacular and scientific names of birds should be those published in the Seventh Edition of the A.O.U. *Check-list of North American Birds* and subsequent supplements. Linear measurements and weights should be in metric units.

Deadlines for submission of articles are 15 December for the spring issue and 15 July for the fall issue.



# The Raven

JOURNAL OF THE VIRGINIA SOCIETY OF ORNITHOLOGY

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The Virginia Society of Ornithology, Inc. exists to encourage the systematic study of birds in Virginia, to stimulate interest in birds, and to assist the conservation of wildlife and other natural resources. All persons interested in those objectives are welcome as members. Present membership includes every level of interest, from professional scientific ornithologists to enthusiastic amateurs.

Activities undertaken by the Society include the following:

1. An annual meeting (usually in the spring), held in a different part of the state each year, featuring talks on ornithological subjects and field trips to nearby areas.

2. Other forays or field trips lasting a day or more and scheduled throughout the year so as to include all seasons and to cover the major physiographic regions of the state.

3. A journal, *The Raven*, published twice yearly, containing articles relevant to Virginia ornithology, as well as news of the activities of the Society and its chapters.

4. A newsletter, published quarterly, containing current news items of interest to members and information about upcoming events and pertinent conservation issues.

5. Study projects (nesting studies, winter bird population surveys, etc.) aimed at making genuine contributions to ornithological knowledge.

In addition, local chapters of the Society, located in some of the larger cities and towns of Virginia, conduct their own programs of meetings, field trips and other projects.

Those wishing to participate in any of the above activities, or to cooperate in advancing the objectives of the Society, are cordially invited to join. Annual dues are \$15.00 for active members, \$25.00 for sustaining members, \$50.00 or more for contributing members, \$400.00 for life members, and \$20.00 for family members (limited to husband, wife and their dependent children).

Editorial queries and comments may be directed to C. Michael Stinson, 4362 Pin Oak Road, Prospect, VA 23960.

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# *The Raven*

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JOURNAL OF THE VIRGINIA SOCIETY OF ORNITHOLOGY

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Editor  
**C. Michael Stinson**

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## ABUNDANCE OF SHOREBIRDS ALONG THE VIRGINIA BARRIER ISLANDS DURING SPRING MIGRATION

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### INTRODUCTION

Many nearctic shorebirds breed in the northern latitudes of North America and winter in the tropical to subtropical latitudes of Central and South America (Morrison 1984). The movements between breeding and wintering areas may cover thousands of kilometers and are energetically expensive. In order to fuel these flights, many species rely on a series of staging areas where they rebuild fat reserves prior to the next long-distance flight (Myers 1983, Myers et al. 1987). Staging areas must contain unique combinations of needed resources because, for many species, relatively few sites are used (Harrington et al. 1989). Some of these staging sites are known to support high percentages of entire world populations of certain species and have likely played a significant role in the evolution of their migration strategies.

The Atlantic Coast is an important migration route for many shorebirds that winter along the east coast of South America and breed in the arctic. Many of these species apparently do not travel along the entire coastline but stage within mid-Atlantic sites before moving cross-country to northern breeding areas (Gratto-Trever and Dickson 1994). One of the most well-known and significant staging area within the mid-Atlantic region is Delaware Bay (Urner and Storer 1949, Dunne et al. 1982, Clark et al. 1993). Each spring, large numbers of Ruddy Turnstones (*Arenaria interpres*), Sanderlings (*Calidris alba*), Semipalmated Sandpipers (*C. pusilla*), and Red-Knots (*C. canutus*) that utilize open beach habitats stage in Delaware Bay. In recognition of its importance to several shorebird species, Delaware Bay has been designated a Western Hemisphere Shorebird Reserve with hemispheric status (i.e., host to >500,000 shorebirds).

Like Delaware Bay, the barrier islands of the lower Delmarva Peninsula support significant numbers of migrant shorebirds and have been designated as a Western Hemisphere Shorebird Reserve with international status (i.e., host to >100,000 shorebirds). However, the islands have received relatively little attention from the community of shorebird scientists and available estimates of use by migrant shorebirds are relatively poor. Here we present the results of a two-year study undertaken to estimate the numbers of shorebirds that migrate along the Virginia barrier islands in spring. Our objectives were to: 1) estimate the number of shorebirds using the

island chain during the period of spring migration, 2) determine the chronology of migration for the dominant species using the islands, and 3) determine the relative use of islands within the chain.

## METHODS

We determined shorebird abundance on the Virginia barrier islands by using a series of low-altitude aerial surveys from the last week of April to the first week of June 1995-1996. Each survey began on Assateague Island (at the Virginia/Maryland border) and followed the outer beaches south to Fisherman's Island. The surveys included all of the active beaches of the 14 islands (approximately 111 km of open beach).

All surveys were conducted with a Cessna 172, high-wing airplane flying 25-30m above the ground at an airspeed of approximately 140 km/hr. Low altitude flights were used to temporarily flush birds to ease estimation and identification. The plane was flown approximately 10 m offshore to give observers the best view of flushing birds. Six survey flights were flown each year beginning the last week of April and ending the first week of June. Surveys took approximately 1.5 hr to complete. Because our interest was to determine use of the islands during the peak foraging period, surveys were conducted during the falling tide. Surveys began at approximately 1.5 hr before low tide.

Surveys were a collaborative effort between two observers (the same two observers conducted all surveys). The first observer estimated both the size and composition of shorebird flocks while the second observer mapped their locations using topographic maps and aerial photographs. Only "concentration areas" were mapped individually. Concentration areas were defined as containing 20 or more individuals. Each concentration area was mapped and given a numeric code that was cross-referenced with survey data. All survey data was recorded on tape and later transcribed to data sheets and computer files. Data collected included flock size and species composition.

The majority of shorebirds seen were identified to species. However, we were unable to separate Semipalmated Sandpipers from Western Sandpipers and other calidrids of similar size and appearance. These species were grouped as "peeps" even though the vast majority of these moving through this location were Semipalmated Sandpipers (pers. obs.). Dunlin (*C. alpina*) may occasionally have been included in this group when they were mixed in with other species in low numbers.

Gross population estimates were calculated separately for each species and survey. Population estimates were used to examine times of passage for individual species and for migrant shorebirds as a group. Linear densities (birds/km of shoreline) were used to compare shorebird use between islands. Island lengths used to calculate shorebird densities were measured from a complete set of aerial photographs (date 1986, scale 1:12000). Frequency statistics were used to determine if shorebirds were evenly distributed along the island chain. Expected frequencies were calculated based on island lengths.

## RESULTS

More than 100,000 observations of migrant shorebirds on barrier beaches were made during the two-year study period. Observations on beaches were dominated by Red Knots (38.4% of observations), the complex of calidrids referred to as "peeps" (30.1%), Dunlin (15.5%), and Sanderlings (13.9%) (Table 1). Less abundant species including the Whimbrel (*Numenius phaeopus*), Black-bellied Plover (*Pluvialis squatarola*), and Ruddy Turnstone accounted for less than 2% of the observations collectively. Overall shorebird density for the entire island chain averaged across all surveys was 75.8 birds/km.

Overall shorebird use of the barrier islands was higher in 1996 compared to 1995 (Table 1). Peak counts of total shorebirds were nearly twice as high in 1996 compared to 1995. Accumulated counts for individual species with the exception of Sanderlings and Ruddy Turnstones were between 20% and 60% higher in 1996.

Times of passage for migrant shorebirds varied considerably between species (Figure 1). Both the Sanderling and Whimbrel are early migrants, reaching peak numbers on the islands in early May. These species are followed by Dunlin and "peeps" that reach peak numbers in mid-May. Late migrants include the Black-bellied Plover, Red Knot, and Ruddy Turnstone. Peak counts recorded for some species may have been influenced by the survey window used in this study. Inspection of the temporal patterns (Figure 1) suggest that peak numbers of both the Sanderling and the Whimbrel may have occurred prior to the initiation of surveys during one or both years. Likewise, peak numbers of Red Knots and Ruddy Turnstones may have occurred after the survey window during one or both years. Peak densities for all four of these species should be considered conservative. Migrant shorebirds did not use the islands as expected based on their respective lengths ( $\chi^2$  - statistic > 300,  $P < 0.001$  for all species individually,  $\chi^2$  - statistic > 1,000,  $P < 0.001$  for total shorebirds). Metompkin Island supported much higher total shorebird

Species	Peak Count		Total Count	
	1995	1996	1995	1996
Sanderling	3,971	2,559	7,863	6,204
Whimbrel	115	118	200	262
Dunlin	2,135	3,450	6,860	8,818
Peeps	5,674	11,539	13,202	17,199
Black-bellied Plover	163	147	374	450
Red Knot	7,710	8,955	14,808	23,917
Ruddy Turnstone	184	165	429	427
TOTAL BIRDS	11,893	23,170	43,736	57,277

**Table 1.** Summary of survey results on the Virginia Barrier Islands. Peak counts refer to the highest number recorded during a single day for respective years. Total refers to the accumulated number of observations for respective years.

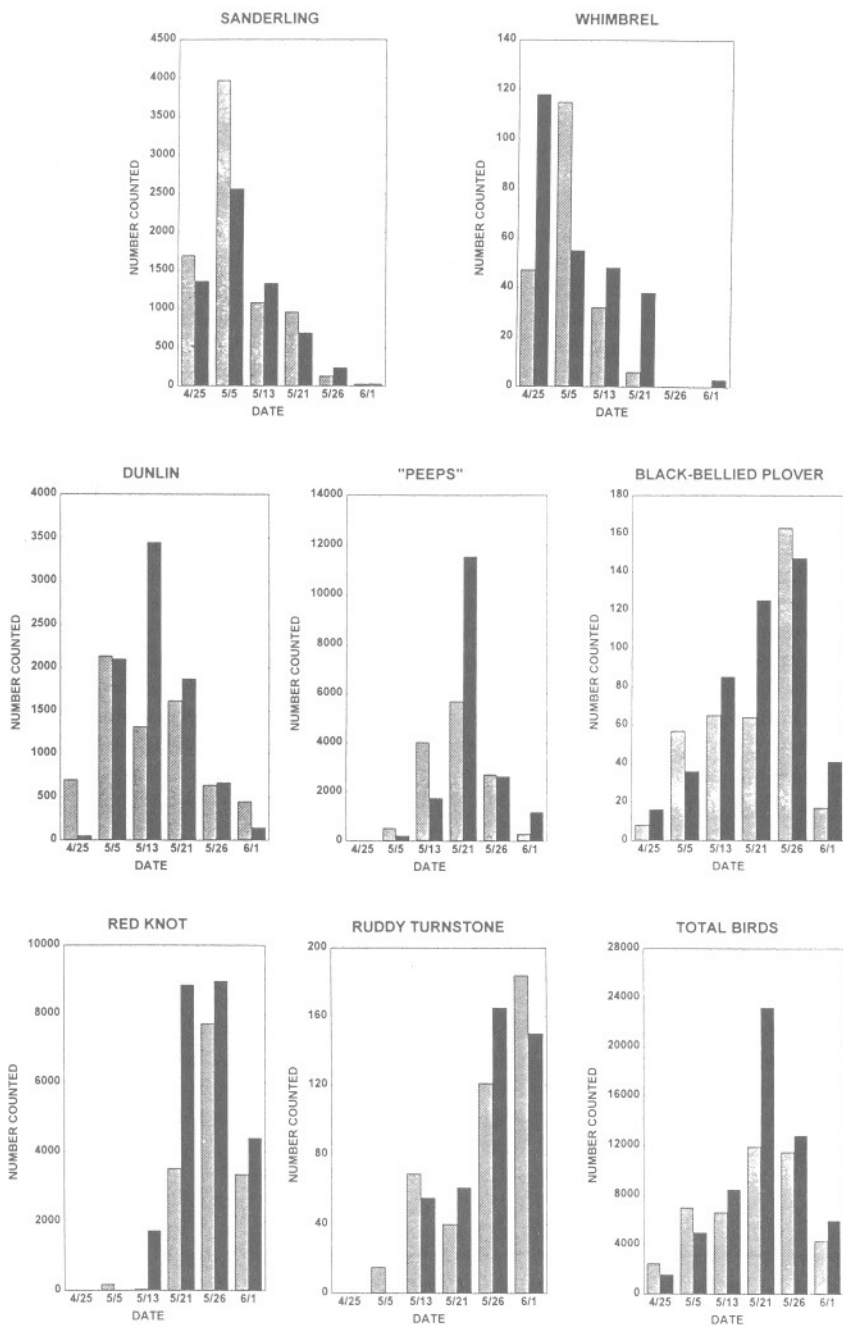


Figure 1.

densities when compared to all other islands surveyed (Table 2). Use of Metompkin was driven by the most abundant species observed including Red Knot, peeps, Sanderling, and Dunlin. Metompkin was followed by Parramore and Cedar Islands. Along the island chain, Fisherman's Island supported the lowest density of shorebirds by more than an order of magnitude. In general, it appears that most of the abundant shorebird species concentrate within the section of the island chain between Assawoman Island and Cobb Island.

## DISCUSSION

Our surveys suggest that the Virginia barrier islands support a significant number of shorebirds during the period of spring migration. In mid-May of 1996, the peak single-day count exceeded 20,000 birds. Without further information on stop-over times and turnover rates, it is not possible to determine exactly how many

ISLAND	PEEP	REKN	SAND	DUNL	RUTU	WHIM	BBPL	TOTAL
Assateague	17.37	4.16	13.94	3.14	0.88	1.43	1.05	41.96
Wallops	16.36	4.02	3.30	1.44	0.50	0.24	0.34	26.04
Assawoman	34.91	21.88	9.11	18.65	0.66	0.12	0.32	85.57
Metompkin	66.01	74.80	19.97	40.72	0.63	0.00	1.01	203.13
Cedar	12.04	55.17	6.92	50.93	0.88	0.20	1.18	127.16
Paramore	46.04	63.10	14.26	16.04	0.57	0.28	0.84	141.07
Hog	23.98	35.50	19.40	7.45	0.05	0.00	0.40	86.77
Cobb	25.15	41.01	13.00	3.91	0.34	0.00	0.14	83.56
Little Cobb	7.17	0.00	2.50	0.42	0.83	0.00	0.08	11.00
Wreck	3.78	2.55	0.00	0.15	1.93	0.35	0.37	9.07
Ship Shoal	6.44	9.48	3.21	6.88	0.81	0.00	0.60	27.42
Myrtle	8.04	20.00	7.75	0.42	0.08	0.00	0.13	36.42
Smith	13.99	31.11	6.34	2.23	0.78	0.00	0.26	54.72
Fisherman's	0.41	0.11	0.14	0.00	0.07	0.00	0.23	0.89

**Table 2.** Density (birds/km of shoreline) of shorebirds within individual barrier islands. Values presented reflect the average density across all surveys (n=12). Alpha codes are as follows: REKN - Red Knot, SAND - Sanderling, DUNL - Dunlin, RUTU - Ruddy Turnstone, WHIM - Whimbrel, BBPL - Black-bellied Plover.

birds these surveys represent. However, peak densities were dramatically higher than along the coastal beaches just south of the Chesapeake Bay (McLean 1993) but considerably lower than those reported from Delaware Bay to the north (Wander and Dunne 1981, Dunne et al. 1982, Clark et al. 1993). For example, Ruddy Turnstones reached a peak density of less than 2 birds /km of shoreline on the Virginia barrier islands compared to an average peak of more than 413 birds/km in Delaware Bay (Clark et al. 1993). Peeps reached a peak density of only 104 birds/km of beach compared to nearly 716 birds/km (Semipalmated Sandpipers only) within Delaware Bay. A similar but less dramatic pattern was observed for both Sanderlings (36 vs 92 birds/km) and Red Knots (81 vs 291 birds/km).

Counts of birds using the barrier islands should be considered minimum estimates. Aerial surveys were deliberately conducted during low tide to determine the distribution of birds during the period of most intense foraging. During this stage of the tide, densities of shorebirds within the adjacent lagoon system were several times higher for most species than those recorded for the barrier islands (Watts and Truitt, unpubl. data). During high-tide periods when lagoonal mudflats are inundated, shorebird numbers on the islands may increase substantially. Such habitat shifts associated with tide cycle have been well documented within numerous stopover locations (e.g. Burger et al. 1977, Connors et al. 1981).

The density of shorebirds was not even along the chain of barrier islands. During both years, birds were focused on the beaches from Assawoman Island south through Cobb Island. Densities were particularly high on Metompkin, Cedar, and Parramore Islands. A number of factors may contribute to observed distribution patterns. For species such as Dunlin, "peeps," and Whimbrel that appear to prefer exposed mudflats for foraging (Watts and Truitt, unpubl. data), proximity to such habitats may influence island use. Similarly, proximity to mainland farm fields may influence distribution of some species that utilize these alternate habitats for foraging or roosting (Rottenborn 1996). For those species such as Sanderling, Red Knots, and Ruddy Turnstones that are most associated with beach habitats, the distribution of preferred prey along the islands may influence distribution patterns. Assawoman, Metompkin, and Cedar Islands, in particular, have extensive areas of peat banks within the intertidal zone where winter storms have moved the islands landward over adjacent salt marshes. Both Red Knots and Ruddy Turnstones concentrate around these intertidal peat banks. Further work is needed to determine just how beach condition and beach context influence shorebird distribution on the Virginia barrier islands.

#### ACKNOWLEDGEMENTS

Funding for aerial surveys was provided by the Virginia Natural Heritage Program, United States Fish and Wildlife Service, The Nature Conservancy, The Center for Conservation Biology at the College of William and Mary, and the Eastern Shore Foundation. We thank Carter Crabbe, Matt Crabbe, and Al McMath for piloting aerial surveys.

## LITERATURE CITED

- BURGER, J., M. A. HOWE, D. C. HAHN, AND J. CHASE. 1977. Effects of tide cycles on habitat selection and habitat partitioning by migrating shorebirds. *Auk* 94:743-758.
- CLARK, K. E., L. J. NILES, AND J. BURGER. 1993. Abundance and distribution of migrant shorebirds in Delaware Bay. *Condor* 95:694-705.
- CONNORS, P. G., J. P. MYERS, AND F. A. PITELKA. 1981. Intertidal movements by Sand-erlings in relation to foraging profitability and the tidal cycle. *Auk* 98:49-64.
- DUNNE, P., D. SIBLEY, C. SUTTON, AND W. WANDER. 1982. Aerial surveys of Delaware Bay: Confirming an enormous spring staging area for shorebirds. *Wader Study Group Bulletin* 35:32-33.
- GRATTO-TREVOR, C. L. AND H. L. DICKSON. 1994. Confirmation of elliptical migration in a population of Semipalmated Sandpipers. *Wilson Bulletin* 106:78-90.
- HARRINGTON, B. A., J. P. MYERS, AND J. S. GREAR. 1989. Coastal refueling sites for global bird migrants. *Proc. Symp. Coastal and Ocean Manage.*, 6th American Society of Civil Engineers. New York.
- MCLEAN, E. F. 1993. Human impacts on wintering and migrating birds along the beaches of the lower Chesapeake Bay. M. A. thesis. College of William and Mary, Williamsburg, VA.
- MORRISON, R. I. G. 1984. Migration systems of some New World shorebirds. In J. Burger and B. L. Olla [eds.], *Behavior of marine animals*. Vol. 6. Shorebirds: migration and foraging behavior. Plenum Press, New York.
- MYERS, J. P. 1983. Conservation of migrating shorebirds: staging areas, geographic bottlenecks, and regional movements. *Am. Birds* 37:23-25.
- MYERS, J. P., R. I. G. MORRISON, P. Z. ANTAS, B. A. HARRINGTON, T. E. LOVEJOY, M. SALLABERRY, S. E. SENNER, AND A. TARAK. 1987. Conservation strategy of migratory species. *Am. Sci.* 75:19-26.
- ROTTENBORN, S. C. 1996. The use of coastal agricultural fields in Virginia as foraging habitat by shorebirds. *Wilson Bulletin* 108:783-796.
- URNER, C. A., AND R. W. STORER. 1949. The distribution and abundance of shorebirds on the north and central New Jersey coast, 1928-1938. *Auk* 66:177-194.
- WANDER, W., AND P. DUNNE. 1981. Species and numbers of shorebirds on the Delaware Bayshore of New Jersey—Spring 1981. *Occas. Paper No. 140*. Records of New Jersey Birds 7(4):59-64.

## FIRST RECORD OF A CINNAMON TEAL (*Anas cyanoptera*) IN VIRGINIA

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On 16 September 1998 I observed a single adult male Cinnamon Teal (*Anas cyanoptera*) on Accotink Bay, Fort Belvoir, Fairfax County, Virginia. I observed the bird feeding, swimming, and flying with a flock of approximately 50 Blue-winged Teal (*Anas discors*) from 1150-1355 hours. The viewing conditions provided favorable lighting for observing the bay on this hot windy day.

When I first observed the Cinnamon Teal, it had a rusty tint and appeared just a little bigger than the Blue-winged Teal it was with. After noticing this difference in appearance, I took a closer look and noticed it had a bright red iris, which suggested that it was not a Blue-winged Teal. As I spent more time (over 15 total hours on subsequent days) observing it, I noticed it had patches of a rusty brick red color on the breast and belly area, which the nearby Blue-winged Teal didn't have. This led me to believe that it was a male Cinnamon Teal in partial eclipse plumage. The tertials were darker on the Cinnamon Teal than any of the Blue-winged Teal. The upper-wing coverts and the speculum of the Cinnamon Teal closely resembled the wings of the Blue-winged Teal, as illustrated in Dunn (1999). I noticed that it had no white in the ventral region. The undertail coverts appeared to be much darker in color than on the Blue-winged Teal. It had a dark crown with no apparent eye-line. The bill (observed directly with a head-on view) was very dark and seemed slightly larger and more spatulate in shape, in close agreement with Dunn (1999). When it stepped up on a log (completely out of the water) it had bright yellow legs, with no leg band present on either leg. The bright yellow legs would indicate an adult bird (Madge and Burn 1988). In flight it was easy to pick out of the flock because of the rusty brick red color in the breast, flank, and belly region.

The Cinnamon Teal could fly well and didn't appear to have had its wings clipped. It took a noticeably longer time to molt from eclipse to full plumage than both the Blue-winged Teal and Green-winged Teal (*Anas crecca*) as illustrated in Stokes (1996). During the next few weeks, the male Cinnamon Teal changed into full adult plumage and was unmistakable.

After the Blue-winged Teal departed the area the Cinnamon Teal associated with newly arrived Green-winged Teal in the shallows, but not in muddy areas. He

did not seem to feed with the Green-winged Teal as he did the Blue-winged Teal. He often fed by himself, especially when he was with the Green-winged Teal. At times he seemed to express aggressive behavior towards the Green-winged Teal and often fought with them. When the ducks were flushed he would always join with the Blue-winged Teal (his first choice) or Green-winged Teal (second choice) and seemed to be in the front quarter of the flock in flight.

The date of my last observation was 12 December 1998 from 1155-1200 hours. Including this date I observed the Cinnamon Teal more than 15 times. Others who observed this bird with me during this time were Dr. Richard Fischer, Stan Gray, Ken Hollinga, Steve Shaffer, Dorothy Keough, and John Pilcicki.

On 29 September 1998 a bird believed to be a female Cinnamon Teal was observed with the male, but this observation was not accepted by the Virginia Society of Ornithology's records committee. The record of the male bird was accepted.

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#### LITERATURE CITED

- DUNN, J. 1999. National Geographic Field Guide to the Birds of North America, Third Edition. The National Geographic Society, Washington, DC.
- STOKES, D.W. AND L.Q. STOKES. 1996. Stokes Field Guide to Birds: Eastern Region. Little, Brown, & Company, Boston.
- MADGE, S. & H. BURN. 1988. Waterfowl: An Identification Guide to the Ducks, Geese and Swans of the World. Houghton Mifflin Company, Boston.

## THE 1998 SURVEY OF COLONIAL AND BEACH-NESTING WATERBIRDS ON THE VIRGINIA BARRIER ISLANDS

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The twenty-fourth consecutive annual survey of the Virginia barrier island's beach-nesting and colonial waterbirds was completed 14-17 June 1998 encompassing all of the Atlantic barrier islands from Assawoman Island on the north through Fishermans Island on the south including lagoonal system islands, Chimney Pole Marsh and Sandy Island. Parramore Island was not surveyed. Survey protocols were those detailed previously (Williams et al 1990).

Colony site locations for mixed species heron, ibis, egret colonies are typically stable from year to year. Thus it was notable that the colony on the east side of Fishermans Island adjacent to U. S. Route 13 was unoccupied. Birds had used the site since 1978. Close observation of passage birds 14 June revealed a new colony site in a 3-4 m high *Myrica* sp. thicket approximately 2 km northeast of the original site. Species composition and numbers of nesting adults were consistent with previous survey results at the former heronry site.

Appendix 1 presents an island-by-island summary of the survey results. Brown Pelican (*Pelecanus occidentalis*) numbers increased 14% from 1646 in 1997 (Williams et al 1998) to 1878 at their single colony site on Fishermans Island. There were an additional 121 non-breeding birds at or near the colony. A single White Pelican (*Pelecanus erythrorhynchos*) was present in the colony 14 June.

In 1995 five Double-crested Cormorant (*Phalacrocorax auritus*) nests were reported from Chincoteague Bay, the first for the Eastern Shore (Watts and Bradshaw 1996). Six to seven nests in the same location were observed by Watts in 1996 (Watts, pers.comm). Our discovery of 6 nests on Chimney Pole Marsh 17 June represented the first for this survey. One nest was empty, appearing to be freshly constructed. Two nests had 3 eggs. One nest had 4 young and 2 nests had 2 young. Two of the 8 chicks were feathered and ambulatory. One chick had a mandible deformity

with the bill significantly decurved to the bird's right. All nests were located on the waterside edge of a sand/cobble berm adjacent to a Herring Gull (*Larus argentatus*) / Great Black-backed Gull (*L. marinus*) colony. None of the nests were in the marsh elder (*Iva frutescens*) used by the gulls.

Eleven heron, egret, and ibis species are routinely encountered during the survey. This year seven of these showed noteworthy declines. Three species, Snowy Egret (*Egretta thula*), Black-crowned Night-Heron (*Nycticorax nycticorax*), and Glossy Ibis (*Plegadis falcinellus*) posted all-time survey low counts. Little Blue Heron (*E. caerulea*) and Tricolored Heron (*E. tricolor*) had second lowest counts. The Cattle Egret (*Bubulcus ibis*) count was the third lowest. Great Blue Herons (*Ardea herodias*) continued a 2-year decline from 38 in 1996 to 10, a 74% drop. In contrast, the White Ibis (*Eudocimus albus*) population continued to grow from 8 in 1994 (Williams et al 1995) to 36, a 450% increase. All of these were found on Fishermans Island.

Wilson's Plover (*Charadrius wilsonia*) numbers remained consistent with surveys from the previous 2 years (Williams et al 1997; 1998). Piping Plovers (*C. melodus*), however, have declined 46% from an all-time survey high of 174 in 1995 (Williams et al 1996) to this year's 94. The American Oystercatcher (*Haematopus palliatus*) count of 535 was the second lowest, surpassed only by a count of 528 in 1975.

Nesting Laughing Gulls (*L. atricilla*) were again found only on Fishermans Island. Their numbers showed an 87% increase from the low of 3566 in 1996 (Williams et al 1997) to 6685 for this year. Herring and Great Black-backed Gull totals remained consistent with previous surveys.

Among the tern species, the Gull-billed (*Sterna nilotica*) continued to show the most alarming trend. Since 1975 this species has declined 98% from 2228 to 51. For the second consecutive year no nesting Caspian Terns (*S. caspia*) were found. Royal Tern (*S. maxima*) totals were consistent with previous surveys. The 54 Sandwich Terns (*S. sandwicensis*), all on Fishermans Island, were a healthy increase from the 3 found in 1997 (Williams et al 1998). Encouraging was the 51% increase of Common Terns (*S. hirundo*) from the low of 598 in 1997 (Williams et al 1998) to 902. Forster's Terns (*S. forsteri*), often difficult to detect in the island marshes, were much in evidence with 118 in 3 colony sites, one each on Metompkin, Wreck, and Fishermans islands respectively. Least Terns (*S. antillarum*) made a significant rebound from the all time low of 115 in 1997 (Williams et al 1998) to 324, a 181% increase. However, Black Skimmers (*Rynchops niger*) continued a 10-year decline during which survey totals have plummeted from 4448 in 1988 (Williams et al 1990) to the all time low of 1402 this year. Consistent throughout this period has been an almost complete absence of nesting success on the islands.

One of the special pleasures of our accommodations at the Machipongo Station on Hog Island is being able to observe the nocturnal habits of a pair of Barn Owls (*Tyto alba*) which habitually nest in an old stove in a burned out storage shack. This year the pair was tending 4 nestlings. A second nest containing 7 young was discovered beneath the station itself in a 55 gallon drum. The 2 nests were no more than 15 meters apart.

Northern Gannets (*Morus bassanus*), all in first winter plumage, were notably evident. Four and 5 were seen off Parramore and Cedar islands respectively 16 June. Three were counted 17 June off Hog Island. A basic plumage Common Loon (*Gavia immer*) was seen at Hog Island 17 June. Duck species of interest included a White-winged Scoter (*Melanitta fusca*) seen by Ruth Beck 16 June in Gargathy Inlet,

a single Ruddy Duck (*Oxyura jamaicensis*) observed by Michael Beck 17 June on Hog Island, and single female Red-breasted Mergansers (*Mergus serrator*) seen on Assawoman Island 16 June and Ship Shoal Island 15 June. For the fourth consecutive year a male Snowy Plover (*Charadrius alexandrinus*) was observed on Cedar Island. The same day, 16 June, a single Whimbrel (*Numenius phaeopus*) was seen on Cedar Island and 4 White-rumped Sandpipers (*Calidris fuscicollis*) and 12 Red Knots (*C. canutus*) were found on Assawoman Island.

### ACKNOWLEDGMENTS

We are always deeply grateful for the support of this effort by the Virginia Coast Reserve, especially Barry Truitt who patiently and expertly gets us to and from our island hopping chores. Richard Ayers was our host supreme at the Machipongo Station. We are also grateful to Susan Rice, Manager of the Eastern Shore of Virginia National Wildlife Refuge for access to Fishermans Island and a ride up the beach when we really need one. Walkley Johnson gave us permission for access to a portion of Fishermans Island. We appreciated the company of Chris Camuto in the field.

### LITERATURE CITED

- WATTS, B. D. and D. S. BRADSHAW. 1996. Population expansion by Double-crested Cormorants in Virginia. *Raven* 67:75-78.
- WILLIAMS, B., R. A. BECK, B. AKERS, and J. W. VIA. 1990. Longitudinal surveys of the beach-nesting and colonial waterbirds of the Virginia barrier islands. *Virginia J. Sci.* 41:380-388.
- WILLIAMS B., B. AKERS, M. BECK, R. B. BECK, and J. VIA. 1995. A summary of the 1994 Beach-nesting and colonial waterbird survey of the Virginia barrier islands. *Raven* 66:40-44.
- WILLIAMS B., B. AKERS, M. BECK, R. BECK and J. VIA. 1996. The 1995 beach-nesting and colonial waterbird survey of the Virginia barrier islands. *Raven* 67:79-83.
- WILLIAMS B., B. AKERS, M. BECK, R. BECK and J. VIA. 1997. A summary of the 1996 beach-nesting and colonial waterbird survey of the Virginia barrier islands. *Raven* 68:105-109.
- WILLIAMS B., B. AKERS, M. BECK, R. BECK and J. VIA. 1998. The 1997 beach-nesting and colonial waterbirds survey of the Virginia barrier islands. *Raven* 69:15-19.

APPENDIX 1

1998 Virginia Barrier Islands Colonial and Beach-nesting Waterbirds Survey - Total Number of Adults, by Island

	Asa	Metom	Cedar	Da Shl	Parr	Sandy	Chm Pole	Hog	Rogue	Cobb	L. Cobb	Wreck	Shp Shl	Gdwn	Mink	Myrtl	Smith	Fishr	TOTAL
Brwn Pel																		1878	1878
D-c Corm							12											10	12
G BI Heron																		10	10
Great Egret							64			6		166						250	486
Snowy Egret							16			4		8						21	91
L BI Heron										4		8						21	33
Tricl Heron										13		58						45	116
Catt Egret												12						47	59
Grn Heron							2												2
B-c N-Her										8		90						66	164
Y-c N-Her																		16	16
White Ibis										14								36	36
Glsy Ibis										2		32						65	111
Nor Har												1							3
Wils Plvr	17	8	16										3						44
Piping Plvr	15	46	24									2				4	3		94
Am Oystrc	22	157	83	9		20	12	32	28	11		32	24			18	32	40	535
Laugh Gull		31																6685	6685
Herr Gull			4			202	614		346	261		1044						860	3362
G B-b Gull						6	82		13	46		120						63	330
G-b Tern		6	19									26							51
Casp Tern																			0
Royal Tern										2								3380	3382
Sand Tern																		54	54
Com Tern		25	307	154		26		48		106		210				26			902
Forst Tern		48										30						40	118
Least Tern		23	135					26				50	10			80			324
Blk Skimr		34	206	496				22		310		332				2			1402

## GOLDEN EAGLES IN LATE WINTER AND SPRING MIGRATION NEAR WILLIAMSBURG

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Golden Eagles (*Aquila chrysaetos*) are rarely reported during their migration in late winter and spring on Virginia's coastal plain, with five previous reports during the past century from February through May, from Virginia Beach, Suffolk and Henrico County (Johnston 1994 and pers. comm.). The species is a regular migrant during that season in the northeast United States, as documented at mountain hawk watch sites (Brandes 1998). Annual hawk watching at two part-time sites in the Williamsburg area has produced seven additional records since 1991, suggesting that the species is a regular but rare migrant through the area in late winter and spring (Taber 1992, Taber 1997).

The first two Williamsburg area observations were of adults I saw on 29 April 1991 and 12 April 1992 from the hawk watch in my yard, just west of the city of Williamsburg. Both birds were headed north less than 100 feet high and appeared around noon Eastern Standard Time (EST), on cloudless days with light southerly winds. The temperatures were 24 and 26 degrees Celsius respectively. The second bird was being harassed by two Red-tailed Hawks (*Buteo jamaicensis*).

The third observation was of an immature bird, seen by Tom Armour and Bill Sheehan (pers. comm.) at about 10 a.m. EST on 29 April 1996 along the north shore of the James River at the present site of the College Creek Hawk Watch, which is three miles southeast of the hawk watch site in my yard. It was seen standing on the beach briefly before it flew away. Winds were light and variable. The temperature was 10 degrees Celsius.

The fourth observation was of an adult I saw at 10 a.m. EST on 26 March 1998 at College Creek Hawk Watch. This bird, less than 50 feet above the ground, began crossing the river northward below a flock of Turkey Vultures (*Cathartes aura*), but it lost altitude quickly and turned back. The weather was cloudless, with light east winds. The temperature was 12 degrees Celsius.

The fifth observation was of an adult I saw heading north, at 11:30 a.m. (EST) on 27 February 1999, a half mile east of the hawk watch site in my yard. It was about 200 feet high and was being harassed by a crow (*Corvus* sp.). The weather was cloudless and calm. The temperature was 10 degrees Celsius.

The sixth and seventh observations were of adults crossing the James River at the College Creek hawk watch site on 1 May and 16 May 2000. They each circled over Hog Island to gain altitude, but were less than 50 feet high when they reached the north shore. Winds were light and southerly, with temperatures of about 20

degrees Celsius. Both birds appeared about 11 a.m. EST.

Data recorded at both hawk watch sites mentioned in this article in 1991, 1992, 1998, and 2000 have been submitted to the Hawk Migration Association of North America for inclusion in their database.

### LITERATURE CITED

- BRANDES, D. 1998. Spring golden eagle passage through the northeast U.S. HMANA Hawk Migration Studies XXIII, No. 2.
- JOHNSTON, D. 1994. The golden eagle in Virginia: an analysis of a century of records. Raven 65(1):19-37.
- TABER, B. 1992. Spring raptor migration at Williamsburg. Raven 63(2):69-72.
- \_\_\_\_\_. 1997. College creek hawk watch. Raven 68(2):110-112.

## THE 1999 NORTHAMPTON COUNTY FORAY (PART 2)

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### APPENDIX 1 (CONTINUED)

SPECIES RECORDED DURING THE FORAY AND BARRIER ISLANDS SURVEY, JUNE 1999  
(PART TWO: VIREOS THROUGH WEAVER FINCHES)

White-eyed Vireo (*Vireo griseus*). Only ten were detected, all on the mainland: three between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), one in the Jamesville area 2 June (J&TD), two in Exmore (center) area 2 June (J&TD), one near the intersection of SR 606 and SR 692, and one at the SR 606 wooded swamp at the headwaters of Nassawadox Creek, near its intersection with SR 610 2 June (FD). Agitated behavior was noted in one pair on SR 611 opposite SR 635 2 June (FD). Day found the species to be "much less common than one would expect given the available habitat." Kinzie and Scott (1983) documented up to 44 per party/day in west-central Accomack in 1981 and found them nesting on the larger barrier islands.

Red-eyed Vireo (*Vireo olivaceus*). About 13 noted: one between Kiptopeke and Arlington 4 June (MP), one between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), two in the Jamesville area 2 June (J&TD), one in Exmore (center) area 2 June (J&TD), one in the Jamesville area 2 June (MP), one near Eastville 3 June (BT, CD), and six to seven in the Jamesville and Franktown areas 2 June (FD). Although "common" on most mainland woodlots in Accomack, the species is apparently rare on the barrier islands in the nesting season, with only one found on the 1981 Accomack Foray, on Assateague (Kinzie and Scott 1983).

Blue Jay (*Cyanocitta cristata*). Confirmed: one nest 15 m high in a Pecan tree (*Carya illinoensis*), Randolph Avenue in Cape Charles, 1 June (EB); additional records were two between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), one in the Jamesville area 2 June (MP), and four in the Franktown area 2 June (FD). The species was judged a "fairly common" nester on mainland and on Assateague Island but found to be somewhat retiring during the nesting season (Kinzie and Scott 1983).

American Crow (*Corvus brachyrhynchos*). Confirmed: Observed carrying nesting material in late March and early April at Eastern Shore of Virginia NWR (JC); six were counted there 3 June (CD, BT). Small numbers were recorded between

Kiptopeke and Arlington 4 June (MP), Eastern Shore of Virginia NWR 2 June (J&TD), Mockhorn Island WMA 3 June (BT, CD), near Eastville 3 June (BT, CD), between Eastville and Cherrystone Campground 3 June (MP), Myrtle Island 21 June (RB, MB), and Fisherman Island NWR 20 June (BW et al.). Larger groups were 17 at Willis Wharf 2 June (J&TD), ten at Custis Tomb 1 June (J&TD), 30 between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), 17-18 in the Jamesville area 2 June (J&TD, MP), ten in Exmore (center) area 2 June (J&TD), and 30+ in Franktown and Jamesville areas 2 June (FD). One mob was seen harassing Red-shouldered Hawk on SR 606 2 June (FD). The 1981 Accomack Foray found up to 125 birds per party/day in southeastern Accomack and ranked the species a "very common" nester (Kinzie and Scott 1983).

Fish Crow (*Corvus ossifragus*). Most numerous in the immediate vicinity of nesting ardeids on the barrier islands, where like gulls they predate chicks of colonial and beach-nesting birds and take eggs as well. As these birds are able to rely (like gulls) on refuse from landfills during the winter, they are a source of concern for vulnerable colonial and beach-nesting birds on the barrier islands. Between 35 and 40 were counted at Cobb Island 23 June and Fisherman Island NWR 20 June (BW et al.), with six at Ship Shoal Island 21 June (BW, EP) and 13 on Hog Island 23 June. On the mainland, counts were lower, with four between Kiptopeke and Arlington 4 June (MP), ten at Eastern Shore of Virginia NWR 2 June (J&TD), one at Mockhorn Island WMA 3 June (BT, CD), three at Willis Wharf 2 June (J&TD, MP), ten between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), one between Eastville and Cherrystone Campground 3 June (MP), and one in the Jamesville area 2 June (MP).

Horned Lark (*Eremophila alpestris*). Prairie Horned Lark (subspecies *praticola*) is at the southern extreme of its nesting range on the Atlantic seaboard in Northampton County and has long been known to nest on the barrier islands. The subspecies of the county's nesters was apparently determined near Cape Charles 30 August 1946 (Chamberlain and Odum 1947). This year, six were found on Myrtle Island 21 June (RB, MB) and one on Hog Island 23 June (MB). On the mainland, two were in Exmore (center) area 2 June (J&TD), and seven birds in display flight in the Franktown area 2 June (FD), with a concentration of four SR 657 (Church's Neck). On these mainland sites, the species certainly nests in suitable farm fields with areas of open, bare ground on the mainland. In the past, Horned Larks were noted as breeding on Metompkin, Cedar, Hog, Fisherman, and Wallops Islands in 1991 (Armistead 1991) and probably breeding Assateague, Wallops, Hog, Metompkin, and Parramore in June 1981 and 1982 (Armistead 1981b, 1982; Kinzie and Scott 1983), on Metompkin, Hog, Myrtle, Cobb's and Cedar in 1984 (Armistead 1984), on Hog Island in 1986 (Armistead 1986), on Hog, Cobb's, and Wallops in 1990 (Armistead 1990).

Purple Martin (*Progne subis*). Confirmed. Pairs returned to local nest houses on 31 March (EB, JC, SH). Confirmed at Cape Charles (eight pairs, Harbor Ave.; SH) and at Oyster (3-4 pairs; J&TD, MP). Three were in the Jamesville area 2 June (MP, FD), three on Smith Island 21 June (BA), and singles on Fisherman Island NWR 20 June and Hog Island 22-23 June (BW et al.). The first spring arrivals often show up at nesting sites as early as 20 March, and records as early as 11 March exist (at Eastville

in 1991). A common nester on the mainland and on Chincoteague and Assateague Islands but apparently not other barrier islands, with adults feeding young in late May and early June (Kinzie and Scott 1983).

Tree Swallow (*Tachycineta bicolor*). Confirmed: Observed carrying nesting material in late March and early April at Eastern Shore of Virginia NWR (JC). Confirmed at Arlington Plantation, where one pair found entering Purple Martin house 4 June (MP), at Eastern Shore of Virginia NWR 2 June (J&TD), with a single bird entering a nest box at the launch site, and at Wilsomia Neck at the end of SR 628 2 June (FD), with two adults feeding four fledged young on telephone wires. Elsewhere, a total of 33 was recorded: one at Mockhorn Island WMA 3 June (BT, CD), two at Custis Tomb 1 June (J&TD), two between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), two in the Jamesville area 2 June (J&TD), one between Eastville and Cherrystone Campground 3 June (MP), 15 at Oyster 3 June (MP), six in the Jamesville area 2 June (MP), two near Eastville 3 June (BT, CD), and two on Hog Island 23 June (MB).

Northern Rough-winged Swallow (*Stelgidopteryx serripennis*). Confirmed: Brinkley observed small groups (up to nine) of male Northern Rough-winged Swallows fanning out their long white undertail coverts while in pursuit of single females throughout April and early May at Cape Charles, much as described by Grinnell and Storer in Edward von Siebhold Dingle's (1942) account in the Bent series. These birds persisted at Cape Charles through the month, where they apparently nested. Nine at Custis Tomb 1 June (J&TD) were the only others documented on the Foray. In Accomack County, this species is an uncommon and very local nester; known only from the Mappsburg area (adults with fledged young 7 June 1981) and north-eastern Accomack (adult entering nesthole 3 June 1981; both in Kinzie and Scott 1983).

Bank Swallow (*Riparia riparia*). Rare during the early part of the nesting season. Two at Mockhorn Island WMA 3 June (BT, CD) were probably migrants. The 1981 Accomack Foray found a single bird near Wachapreague 5 June 1981, also likely a migrant, as no colonies are known on the Shore (Kinzie and Scott 1983). Birds of this species observed in the month of June, e. g. a single bird 18 June 1990 at Cobb Island (Armistead 1990), are probably failed nesters or early migrants.

Barn Swallow (*Hirundo rustica*). Confirmed: Kings Creek through the Foray week (13 pairs feeding young in an abandoned boathouse; EB, SH), Oyster on 2 June (1 pair; J&TD), at Eastern Shore of Virginia NWR 3 June (three pairs at Winslow Bunker; CD, BT), at Machipongo Station, Hog Island 21-23 June (12 nests; BW et al.), and under a dock near Smith's Beach (SR 666) 3 June (MP). Elsewhere, parties found 150 birds, usually in groups of two to ten, exceptions being 34 between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD) and 35 in Exmore (center) area 2 June (J&TD). Characterized as a "common" nester on the mainland and on all barrier islands with suitable structures for nesting (Kinzie and Scott 1983).

Carolina Chickadee (*Poecile carolinensis*). Only 23 birds were detected on the Foray, probably owing to windy conditions. One was between Kiptopeke and Arlington

4 June (MP), three at Mockhorn Island WMA 3 June (BT, CD), five to nine in the Jamesville area 2 June (J&TD, MP), four in Exmore (center) area 2 June (J&TD), and two near Eastern Shore of Virginia NWR 3 June (BT, CD). Two apparent pairs were noted 2 June on SR 692 and on SR 618 north of Johnstontown (FD). Characterized as a common nester on the mainland by Kinzie and Scott (1983), it also nests sparingly on the larger barrier islands of that county (Assateague and Wallops).

Tufted Titmouse (*Baeolophus bicolor*). Much more numerous in Accomack than Northampton County, the Foray found only 17: two between Kiptopeke and Arlington 4 June (MP), two in the Jamesville area 2 June (J&TD), two in Exmore (center) area 2 June (J&TD), one between Eastville and Cherrystone Campground 3 June (MP), five in the Jamesville area 2 June (MP), and five on SR 692 2 June (FD). Generally more numerous in northern than southern Northampton. The Accomack Foray found as many as 18 per party/day in southeastern Accomack (Kinzie and Scott 1983).

Brown-headed Nuthatch (*Sitta pusilla*). One record: two birds in large, well-spaced loblolly pine (*Pinus taeda*) grove at Silver Beach 2 June (FD). A local and uncommon nester in similar tracts elsewhere on the Eastern Shore, this nuthatch is probably a species in decline owing to deforestation and fragmentation of its habitat. Kinzie and Scott (1983) list it as "surprisingly uncommon on the mainland, where only 5 birds reported by three parties." Also nests on Assateague Island, where numbers may now be reduced by loss of habitat to pine bark beetle (*Dendroctonus frontalis*). The Accomack Foray found up to 15 per party/day there on 5 June (Kinzie and Scott 1983). Noted feeding young in the nest at Saxis 17 June 1973 (Scott and Cutler 1973).

Carolina Wren (*Thryothorus ludovicianus*). Small numbers (one or two) were at Eastern Shore of Virginia NWR 2-3 June (J&TD; CD, BT), Custis Tomb 1 June (J&TD), Oyster 3 June (MP), Willis Wharf 2 June (MP), near Eastville 3 June (BT, CD), Fisherman Island NWR 20 June (BW et al.), and Smith Island 21 June (BA). Larger counts were 14 between Kiptopeke and Arlington 4 June (MP), 19 between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), nine in Exmore (center) area 2 June (J&TD), 13 between Eastville and Cherrystone Campground 3 June (MP), nine at Mockhorn Island WMA 3 June (BT, CD), and 16-20+ in Jamesville and Franktown areas 2 June (J&TD, MP, FD).

House Wren (*Troglodytes aedon*). Confirmed: one nesting in nest box on Randolph Avenue, Cape Charles, late May through June (EB). One at Webb's Island 3 June (EB). The scarcity of this species in southern Northampton County is difficult to account for. It sings well into early June, is conspicuous in residential areas, and has certainly been more numerous in past decades here. Only one was found on the barrier islands this year, on Cobb Island 23 June (BW). The Accomack County Foray noted this species to be a common nester on both the mainland and larger barrier islands, including Cedar Island, and up to 30 per day were counted on Parramore Island (Kinzie and Scott 1983).

Marsh Wren (*Cistothorus palustris*). One record: one bird at the eastern terminus of SR 621 (Goshen Dr.), 4 June (EB). Very common in the western marshes of Accomack (up to 47 per party/day) and much less common in the eastern marshes there (few recorded) as noted on the Accomack Foray of 1981. Bailey (1913) noted that Marsh Wrens were more common on the western shores of the Chesapeake Bay than on the Eastern Shore, and Murray (1952) lists the wrens nesting around the Bay as the nominate form rather than *waynei*, which nests north to Back Bay. Presumably, the nominate form is the only one nesting on the seaside of the Eastern Shore as well.

Blue-gray Gnatcatcher (*Polioptila caerulea*). Rather few recorded, probably owing to high winds: two were between Kiptopeke and Arlington 4 June (MP), two in Exmore (center) area 2 June (J&TD) and two agitated pairs responded to audio tape of Eastern Screech-Owl 2 June at the Sandpit, on SR 618, north of Johnsonstown, and SR 622 at Bridgetown (FD). Kinzie and Scott (1983) characterized gnatcatchers as "fairly common nesters," with a peak count per party/day on the Accomack Foray of 10 in northeastern Accomack.

Eastern Bluebird (*Sialia sialis*). Confirmed: one female entering nest box with food at Peacefuls, a private swimming club off of SR 613, south of Jamesville (MP). Two at Custis Tomb 1 June (J&TD), six in the Jamesville area 2 June (J&TD), three in Exmore (center) area 2 June (J&TD), four between Eastville and Cherrystone Campground 3 June (MP), 14 in the Jamesville area 2 June (MP), two near Eastville 3 June (BT, CD), 30+ in Jamesville and Franktown areas 2 June (FD). Kinzie and Scott (1983) listed the species as "surprisingly uncommon," with only seven birds located by all parties and only one confirmed nesting in west-central Accomack. Bluebirds appear to be increasing annually in the Northampton county, and a nest-box program has begun in 2000.

Wood Thrush (*Hylocichla mustelina*). One in the Jamesville area 2 June (J&TD) was the only one detected. Kinzie and Scott (1983) document up to 22 per party day in northeastern Accomack, with the evaluation that Wood Thrushes are a "fairly common nester" in Accomack County mainland hardwoods.

American Robin (*Turdus migratorius*). Confirmed: two fledged young being fed by adults, Cape Charles, 3-6 June (SH). Three between Kiptopeke and Arlington 4 June (MP), one at Eastern Shore of Virginia NWR 2 June (J&TD), three at Willis Wharf 2 June (J&TD), 15 between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), 15 in the Jamesville area 2 June (J&TD), two in Exmore (center) area 2 June (J&TD), 15 between Eastville and Cherrystone Campground 3 June (MP), 25 in the Jamesville area 2 June (MP), one near Eastville 3 June (BT, CD), and 20 in Jamesville and Franktown areas 2 June (FD). In Accomack County, considered a "common" nester on the mainland and a very uncommon nester on large barrier islands (at least Assateague and Parramore; Kinzie and Scott 1983).

Gray Catbird (*Dumetella carolinensis*). One at Mockhorn Island WMA 3 June (BT, CD) and one in the Jamesville area 2 June (MP) were the only ones recorded on the Foray. Though windy conditions must have reduced the potential count, this species may well be in decline in the county. On the barrier islands, two single birds

were noted on Cobb Island 21 June (BW) and one on Smith Island the same day (BA, JV). Kinzie and Scott (1983) labeled it a "common nester" on both the mainland and the barrier islands, the maximum barrier island count being 23 from Parramore Island 5 June 1981.

Northern Mockingbird (*Mimus polyglottos*). A numerous bird on the mainland, with none recorded on the barrier islands. Fourteen were between Kiptopeke and Arlington 4 June (MP), six at Willis Wharf 2 June (J&TD, MP), one at Custis Tomb 1 June (J&TD), 13 between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), 18 in the Jamesville area 2 June (J&TD), 11 in Exmore (center) area 2 June (J&TD), 14 between Eastville and Cherrystone Campground 3 June (MP), 32 in the Jamesville area 2 June (MP), one near Eastville 3 June (BT, CD), 12 in Jamesville and Franktown areas 2 June (FD). Found to be "common" on mainland Accomack, very few mockingbirds were noted on the barrier islands: only one was recorded on the islands (on Assateague) in the 1981 Accomack Foray (Kinzie and Scott 1983). Brown Thrasher (*Toxostoma rufum*). Only three noted: one pair south of Oyster at Seaview 2 June (J&TD) and one between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD). Thrashers are apparently found only on the mainland where sufficient hedgerow habitat exists. Kinzie and Scott (1983) recorded peak counts of only six per party/day in 1981 in Accomack. Regionally, the species has been in decline for at least two decades (Blom et al. 1994).

European Starling (*Sturnus vulgaris*). Confirmed: observed carrying nesting material and building nests in early April at Eastern Shore of Virginia NWR and Cape Charles (JC, EB). Nestlings heard in early May and observed foraging with adults in subsequent weeks (EB). Other records indicate that the species is widespread in the county: 20 between Kiptopeke and Arlington 4 June (MP), three at Mockhorn Island WMA 3 June (BT, CD), 25 at Willis Wharf 2 June (J&TD, MP), 42 between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), 25 in the Jamesville area 2 June (J&TD), 20 in Exmore (center) area 2 June (J&TD), five between Eastville and Cherrystone Campground 3 June (MP), and 18 in the Jamesville area 2 June (MP). Noted to be a very common nester on the mainland and common on largest barrier islands (Chincoteague, Assateague, and Wallops; Kinzie and Scott 1983).

Cedar Waxwing (*Bombycilla cedrorum*). Six birds noted feeding in a fruiting tree at the intersection of SR 657 and SR 619 2 June (FD). Recorded only twice on 1981 Accomack Foray, 5 on Parramore Island 5 June and 1 in west-central Accomack 7 June, with no evidence of nesting (Kinzie and Scott 1983). The only nest record located from the Eastern Shore comes from Chincoteague town, early July 1987 (J&TD; Armistead 1987). Northampton County is sometimes mapped as the southeastern extreme of Cedar Waxwing's nesting range in North America, but the species has recently been detected nesting in the coastal plain and piedmont of North Carolina (Lee and Hendrickson 1998, McNair 1999), where it is still considered a rare as a nester.

Yellow Warbler (*Dendroica petechia*). None noted on the mainland during the Foray, and only one on the barrier islands at Fisherman Island NWR 20 June (BA, BW, JV). This apparent absence, perhaps connected to pressure from Brown-headed

Cowbird brood parasitism, stands in stark contrast to Atlas work in the 1980s, which found the species at least five times on the mainland (VSO 1989). Cameron (1999) found the peak of the species' migration to be in early May, but his March through May survey noted only seven individuals in total.

Yellow-throated Warbler (*Dendroica dominica*). Six were noted: one singing on SR 665 3 June (BT, CD), one on SR 692 2 June (FD), and four singing along SR 622 2 June (FD), all of the latter associated with mature stands of Loblolly Pine not located near watercourses. Cameron (1999) observed two at Kiptopeke State Park (where the species probably nests) as late as 26 May, but they could not be located here during the Foray. The Accomack Foray located a high count of only 6 in 1981; a century earlier, the nominate form was described as "abundant" at Cherrystone, west of Cheriton, by William Palmer in July 1881 (Rives 1890).

Pine Warbler (*Dendroica pinus*). Confirmed: one adult feeding fledged young SR 618 in Franktown 2 June (FD). About 61 tallied elsewhere: three between Kiptopeke and Arlington 4 June (MP), one at Mockhorn Island WMA 3 June (BT, CD), three between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), 12 in the Jamesville area 2 June (J&TD), four in Exmore (center) area 2 June (J&TD), four between Eastville and Cherrystone Campground 3 June (MP), two in the Jamesville area 2 June (MP), 6 at Cheriton 1-6 June (EB), one near Eastville 3 June (BT, CD), and a high count of 25 in Jamesville and Franktown areas 2 June (FD). A "very common" nester in stands of pine on the mainland and the forested barrier islands. Kinzie and Scott (1983) document up to 44 per party/day on the mainland and 28 on Assateague.

Prairie Warbler (*Dendroica discolor*). Twenty-six records: one at Eastern Shore of Virginia NWR 2 June (J&TD), two at Mockhorn Island WMA 3 June (BT, CD), eight between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), two on Fisherman Island NWR 20 June (BW et al.), one on Myrtle Island 21 June (BW et al.), 11 on Smith Island 21 June (BA, JV), and one on SR 669 2 June (FD). On the 1981 Accomack Foray, the high count on the mainland was 23 in east-central Accomack and 25 on Parramore Island (Kinzie and Scott 1983).

Black-and-white Warbler (*Mniotilta varia*). Only two recorded: one in the Jamesville area 2 June (J&TD) and one agitated female found on SR 618 northeast of Johnstontown 2 June (FD). Found to be "common" in Accomack, with an adult feeding young noted 6 June 1981 in southeastern Accomack (Kinzie and Scott 1983).

Prothonotary Warbler (*Protonotaria citrea*). One record: one singing at the Sandpit on SR 618 2 June (FD). This species is characterized as an uncommon, local nester in northern Accomack County, most numerous in swamps along the Maryland border, with single-day counts up to eight in northwestern Accomack in 1981 (Kinzie and Scott 1983).

Ovenbird (*Seiurus aurocapillus*). Eighteen recorded: two between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), four in the Jamesville area 2 June (J&TD), three in Exmore (center) area 2 June (J&TD), three between Eastville and

Cherrystone Campground 3 June (MP), and five in the Jamesville area 2 June (MP), one near Eastville 3 June (BT, CD).

Louisiana Waterthrush (*Seiurus motacilla*). One pair exhibiting agitated behavior was found on the wooded swamp southwest of Wardtown on SR 606, the Nassawadox Creek headwaters 2 June (FD). This species was not detected in the county during the Atlas work (VSO 1989).

Kentucky Warbler (*Oporornis formosus*). Two recorded: one singing on SR 634 opposite the VDOT headquarters 1-6 June (EB), another in Warehouse Creek swamp on SR 609 2 June (FD).

Common Yellowthroat (*Geothlypis trichas*). Confirmed: a female carrying food at Eastern Shore of Virginia NWR 2 June (J&TD); two were noted there the next day (CD, BT). Other records included 11 at Mockhorn Island WMA 3 June (BT, CD), one at Custis Tomb 1 June (J&TD), seven between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), singles in the Jamesville area 2 June (J&TD, MP), three in Exmore (center) area 2 June (J&TD), and one at Oyster 3 June (MP). Day noted over 20 around Jamesville, Wardtown, and Franktown. The species was far more numerous on the barrier islands, with counts of 25 from Fisherman Island NWR 20 June, 14 from Cobb Island, four from Wreck Island, one from Ship Shoal Island, four from Myrtle Island, and 12 from Smith Island (BW et al.). In Accomack, noted to be a "common" nester on the mainland and uncommon to fairly common on most barrier islands, with high counts of 56 per party/day in northwestern Accomack (Kinzie and Scott 1983).

Yellow-breasted Chat (*Icteria virens*). Nine recorded: one between Kiptopeke and Arlington 4 June (MP), two at Mockhorn Island WMA 3 June (BT, CD), three between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), one between Eastville and Cherrystone Campground 3 June (MP), one on Smith Island 21 June (BA, JV), and one on SR 634 opposite VDOT headquarters 6 June (EB). The 1981 Accomack Foray recorded up to 21 per party/day on 7 June in northwestern Accomack, and a few were noted on Assateague, Wallops, and Parramore Islands (Kinzie and Scott 1983).

Summer Tanager (*Piranga rubra*). Nine recorded: two between Kiptopeke and Arlington 4 June (MP), one at Eastern Shore of Virginia NWR 3 June (BT, CD), and six in the Jamesville and Franktown areas 2 June (FD). In Accomack, a widespread nester on the mainland in pine and mixed pine-hardwood stands. The 1981 Accomack Foray recorded up to 11 per party/day in northeastern Accomack (Kinzie and Scott 1983).

Eastern Towhee (*Pipilo erythrophthalmus*). Two on Fisherman Island 20 June (BW) and one on Smith Island 21 June (BA, JV) were the only ones found in June. None were recorded on the mainland, despite apparently good habitat on SR 634, Jones Cove Road, and elsewhere. This stands in contrast to the preliminary results of the Atlas (VSO 1989), which found at least five towhees in Northampton County. Scott and Kinzie (1983) listed the species as a "fairly common nester on mainland and

most barrier islands," with two counts of 18 birds per party/day in that county. An increase in suitable habitat following the decimation of Assateague pinewoods by the Pine Bark Beetle may have led to an increase in the numbers of towhees here, as is the case for Indigo Bunting and probably Prairie Warbler.

Chipping Sparrow (*Spizella passerina*). About 50 recorded: two at Willis Wharf 2 June (J&TD), two at Custis Tomb 1-3 June (J&TD, CD, BT), 12 in the Jamesville area 2 June (J&TD), 12 in Exmore (center) area 2 June (J&TD), three between Eastville and Cherrystone Campground 3 June (MP), and 13 and 20 in overlapping surveys of the Jamesville area 2 June (MP, FD). The Accomack Foray recorded up to 15 per party/day in northeastern Accomack (Kinzie and Scott 1983).

Field Sparrow (*Spizella pusilla*). Twenty-four recorded: three between Kiptopeke and Arlington 4 June (MP), two at Mockhorn Island WMA 3 June (BT, CD), three at Custis Tomb 1 June (J&TD), seven between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), four in Exmore (center) area 2 June (J&TD), and five in the Jamesville area 2 June (MP, FD). Loss of habitat for this species has probably led to a decline, although, like other field nesters, agriculture is primarily responsible for its presence on the Shore as a nester in the first place. The Accomack Foray found it most numerous in the Captain's Cove area of extreme northeastern Accomack, where 23 were counted 4 June 1981, and it apparently nests sparingly on Assateague (Kinzie and Scott 1983).

Vesper Sparrow (*Poocetes gramineus*). One singing bird was located by Day in a fallow field bordering Tankard Nurseries, about 0.6 km northwest of the junction of SR 618 and SR 607, 2 June, relocated here 5 June (EB) but not thereafter. No evidence of breeding was found, and the field was not suitable for nesting in 2000. In the Locustville, Accomack County, area, three singing males were found in June and July 1975 (F. R. Scott, J. A. Bruce; Scott 1975), and at least four singing males were noted on the Accomack Foray between Modest Town and Wachapreague, all in eastern Accomack. The Eastern Shore would appear to represent the southernmost breeding area on the Atlantic Coast.

Grasshopper Sparrow (*Ammodramus savannarum*). Twenty-three recorded: two between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), six in the Jamesville area 2 June (J&TD, MP), seven in Exmore (center) area 2 June (J&TD), one near Eastville 3 June (BT, CD), one to two at Custis Tomb 2-4 June (BT, CD, FD, MP), two on SR 635, four on SR 609 (FD), and two-three at Kiptopeke State Park 1-4 June (EB). Kinzie and Scott (1983) described the species as locally common at Captain's Cove, near Greenbackville, where 38 birds were tallied 4 June 1981; that Foray otherwise found only 5 birds in Accomack.

Saltmarsh Sharp-tailed Sparrow (*Ammodramus caudacutus*). One record: a singing bird in the marsh at the eastern terminus of SR 620 (Locust Lawn Dr.) 4 June (EB), presumably but not certainly of the local nesting form *diversus*. (The possibility of a lingering Nelson's Sharp-tailed Sparrow, *A. nelsoni*, was ruled out.) Locally, the form *diversus* is a fairly common nester in *Spartina alterniflora* marshes on both sides of Accomack, probably most numerous in the marshes of northwestern

Accomack. Nesting probably depends on appropriate conditions in marshes, which vary annually. The 1981 Accomack Foray found only ten at Saxis, six on the Machipongo River, one on Wallops Island, and two in west-central Accomack (Kinzie and Scott 1983). Subsequent field work by the Academy of Natural Sciences and others has found the species to be more widespread around the Saxis Wildlife Management Area than previously thought (L Bevier, pers. comm.). Murray (1952) noted no records of nesting birds south of Wallops Island on the seaside, though Rives (1890) called the species common at Cobb Island. It should be noted here that this and several other marsh-nesting species are difficult to census, as their habitat is difficult of access both from the mainland and by watercraft in many areas.

Seaside Sparrow (*Ammodramus maritimus*). Two mainland records: four singing in the marsh at the eastern terminus of SR 620 (Locust Lawn Dr.) and two singing at the eastern terminus of SR 621 (Goshen Dr.) 4 June (EB). These sites are southeast of Marionville and east of Birdsnest. Otherwise only found in seaside marshes near or bordering the barrier islands, with counts of ten from Cobb Island, 32 from Wreck, 16 from Ship Shoal, one from Myrtle, and five from Smith Island 21 June (BW et al.). Bailey (1876) lists the "Seaside Finch" as "the most abundant land bird on the island," which is still the case there. In general fairly described as "common to very common" in both the eastern and western marshes of the mainland and on marsh islands and marshes on the western side of the barrier islands, and the Accomack Foray noted high counts of up to 76 at Saxis and 24 at Wallops Island (Kinzie and Scott 1983).

Song Sparrow (*Melospiza melodia*). This species was surprisingly scarce on the mainland, with one between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), one at Oyster 3 June (MP), and one at Willis Wharf 2 June (MP). At least 11 were documented in the county during Atlas work (VSO 1989). On the barrier islands, it was recorded from Hog, Cobb, Ship Shoal, Smith, and Fisherman Islands, with a maximum count of five on Cobb Island 21 June (BW et al.). The Accomack Foray found up to 25 per party-day, and the species may be most concentrated in northwestern Accomack (Kinzie and Scott 1983).

Northern Cardinal (*Cardinalis cardinalis*). Fifty-two recorded: eight between Kiptopeke and Arlington 4 June (MP), two at Eastern Shore of Virginia NWR 2 June (J&TD), two at Mockhorn Island WMA 3 June (BT, CD), one at Custis Tomb 1 June (J&TD), six between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), six in the Jamesville area 2 June (J&TD), two in Exmore (center) area 2 June (J&TD), six between Eastville and Cherrystone Campground 3 June (MP), 13 in the Jamesville area 2 June (MP), one at Willis Wharf 2 June (MP), three near Eastville 3 June (BT, CD), and one near Eastern Shore of Virginia NWR 3 June (BT, CD). Only one was on the barrier islands at Fisherman Island NWR 20 June (BW, JV). In Accomack, apparently most numerous in the southeastern part of the county (Kinzie and Scott 1983).

Blue Grosbeak (*Guiraca caerulea*). Thirty-nine recorded: four between Kiptopeke and Arlington 4 June (MP), one at Mockhorn Island WMA 3 June (BT, CD), two at Custis Tomb 1 June (J&TD), four between Capeville and the Eastern Shore of Vir-

ginia NWR 3 June (J&TD), two in Exmore (center) area 2 June (J&TD), two between Eastville and Cherrystone Campground 3 June (MP), one at Oyster 3 June (MP), four in the Jamesville area 2 June (MP), two near Eastville 3 June (BT, CD), and one pair in close association noted on SR 622. Fifteen or so noted in the Jamesville and Franktown areas 2 June (FD). The 1981 Accomack Foray found similar numbers, recording up to 15 per party / day in east-central Accomack (Kinzie and Scott 1983).

Indigo Bunting (*Passerina cyanea*). Thirty-eight recorded: four between Kiptopeke and Arlington 4 June (MP), one at Eastern Shore of Virginia NWR 2 June (J&TD), one at Mockhorn Island WMA 3 June (BT, CD), one at Willis Wharf 2 June (J&TD), one at Custis Tomb 1 June (J&TD), six between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), three in the Jamesville area 2 June (J&TD), three in Exmore (center) area 2 June (J&TD), seven between Eastville and Cherrystone Campground 3 June (MP), one at Oyster 3 June (MP), seven in the Jamesville area 2 June (MP), and three on Fisherman Island NWR 20 June (BW, JV, BA). In Accomack apparently even more numerous, probably most numerous in the southeastern part of the county, where up to 72 per party / day were noted in 1981 on the Foray (Kinzie and Scott 1983). Apparently a very uncommon nester on the barrier islands in the early 1980s, with only two at Assateague noted on the Foray (Kinzie and Scott 1983), but an increase in suitable habitat following the decimation of Assateague pinewoods by the pine bark beetle has led to an increase in the numbers of Indigo Buntings here.

Dickcissel (*Spiza americana*). Confirmed: the colony found and studied at Arlington 26-30 May by Cameron (1999) consisted of five singing males and four females. Of these, three males were noted singing 2 June (FD), four males and two females 3 June (CD, BT), and one male both on 4 June (MP) and 1 June (J&TD). Confirmation of nesting occurred here 11 July, when Taber found one male carrying food. This species has been considered very rare in summer months, with no previous confirmation of nesting anywhere on the Virginia Eastern Shore. Some summer birds may of course represent wanderers or very early migrants, e. g., 1, Eastern Shore of Virginia NWR 28 July 1991 (Armistead 1991).

Bobolink (*Dolichonyx oryzivorus*). Most unexpected was the discovery of at least one pair of nesting Bobolinks at Custis Tomb amidst the Dickcissel colony, on SR 644 about 4.3 km from its intersection with US 13. In late May, two or three birds were observed here by various observers, and most all noted at least one singing male. On 5 July, Brinkley found a male that sang sporadically early in the morning and noted food-carrying (insect prey) by the same male on two occasions, later in the morning noting a female carrying a fecal sac. On 11 July, Taber noted two males and one female there. No nest was found by either observer, and no young birds were ever seen, so it is not clear that any young fledged successfully.

The habitat for the Bobolink and Dickcissel consisted of a much overgrown, weedy field with scattered trees, some of which had clearly been planted during an earlier phase of landscaping in this development (by Parr Properties). The combination of plants found in the field is unique in the county. Among the trees and shrubs are eastern red cedar *Juniperus virginiana*, loblolly pine *Pinus taeda*, bayberry *Myrica pensylvanica*, wax myrtle *M. cerifera*, tulip poplar *Liriodendron tulipifera*, lau-

rel oak *Quercus hemispherica*, red maple *Acer rubrum*, black cherry *Prunus serotina*, black willow *Salix nigra*, *Celtis* sp., at least one flowering dogwood *Cornus florida*, and many large examples of winged sumac, *Rhus copallina*. Flowering plants prominent in the field are rough-leaved goldenrod *Solidago rugosa*, dandelion *Taraxacum* sp., smooth vetch *Vicia dasycarpa*, dog-fennel *Eupatorium capillifolium*, red clover *Trifolium pratense*, daisy fleabane *Erigeron strigosus*, yarrow *Achillea millefolium*, wild carrot *Daucus carota*, Japanese honeysuckle *Lonicera japonica*, blackberry *Rubus cuneifolius*, trailing bush-clover *Lespedeza repens* and *L. procumbens*, and Chinese lespedeza, *L. cuneata*. Many sorts of grasses, vines, and forbs are evident, among them foxtail *Setaria glauca*, ribgrass *Plantago lanceolata*, poison ivy *Toxicodendron radicans*, *Andropogon* sp., *Panicum* sp., and *Sorghum* sp., and around a small pond common reed *Phragmites* sp. and narrow-leaved cattail *Typha angustifolia*. The field in 2000 has grown up considerably and held no Dickcissels or Bobolinks; it is probably unsuitable for either species at present.

The nesting of a species typically limited to upland meadows at higher elevations or latitudes is difficult to explain. Iliff (1999b), writing about the piedmont and coastal plain of Maryland and Virginia in summer 1999, noted widespread, presumably drought-induced displacement of many species associated with habitats farther north (or, if summering in Virginia, at higher elevations), which may account for the presence of nesting Bobolink so far from traditional sites in the region. On the Accomack Foray of 1981, a singing male and a female were noted along SR 647 near Locustville on 6 June 1981, but no evidence of breeding was observed (Kinzie and Scott 1983). Likewise, records from Chincoteague on 4 June and 31 July 1983 (Armistead 1983) do not necessarily refer to nesters.

Red-winged Blackbird (*Agelaius phoeniceus*). On the mainland, 277 were recorded, with high counts of 50 at Eastern Shore of Virginia NWR 2 June, 81 in the Jamesville area 2 June, and 36 in Exmore (center) area 2 June (J&TD). Small numbers were found on the barrier islands on Cobb, Ship Shoal, Myrtle, Smith, and Fisherman Islands, with a maximum count of six on Ship Shoal Island 21 June (BW, EP). Scott and Kinzie (1983) list the species as an "abundant nester in marshes on the mainland and barrier islands."

Eastern Meadowlark (*Sturnella magna*). Confirmed: observed defending territories along Rte 13 and at Arlington as early as 3-4 April. About 75 were recorded: six between Kiptopeke and Arlington 4 June (MP), four at Custis Tomb 1 June (J&TD) and one there 3 June (CD, BT), five between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), ten in the Jamesville area 2 June (J&TD), 18 in Exmore (center) area 2 June (J&TD), nine between Eastville and Cherrystone Campground 3 June (MP), 15 in the Jamesville area 2 June (MP), three near Eastville 3 June (BT, CD), and small numbers on SR 635, 609, and 619, in habitat similar to that for Grasshopper Sparrow, that is, low growth in fallow farm fields and wheat fields. On the barrier islands, a total of 15 were noted between Smith, Hog, Cobb, Wreck, and Myrtle Islands 20-23 June (BW et al.). The Accomack County found the species likewise widespread, with a maximum count for the barrier islands being 24 on Assateague (Kinzie and Scott 1983).

Common Grackle (*Quiscalus quiscula*). Confirmed: observed carrying nesting material in late March and early April at Eastern Shore of Virginia NWR (JC) and feeding young in the Eastville and Cape Charles areas in early May and late May (EB). One colony still attending young in the Sandpit area 2 June (FD). Over 350 individuals tallied, with high counts being 41 between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), 92 in the Jamesville area 2 June (J&TD), and 151 in the Jamesville area 2 June (MP). The Accomack Foray likewise found it to be an "abundant" nester on the mainland and very common nester on the largest barrier islands (Assateague and Chincoteague), much less common on the smaller ones (Parramore and Wallops).

Boat-tailed Grackle (*Quiscalus major*). Ninety-one recorded: ten at Eastern Shore of Virginia NWR 2 June (J&TD), five-eight at Willis Wharf 2 June (J&TD, MP), two between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), one between Eastville and Cherrystone Campground 3 June (MP), one at Oyster 3 June (MP), six in the Jamesville area 2 June (MP), two at Eastern Shore of Virginia NWR 3 June (BT, CD), one at Nassawadox Creek at SR 713 2 June (FD), and five at Plantation Creek 2 June (FD). The Dalmases found the largest group, some 55 in Exmore (center) area 2 June. Williams and party found them common in wax myrtle on the barrier islands, with maximum counts of 35 to 40 on Fisherman Island NWR 20 June, 20 on Cobb and 19 on Smith Island 21 June, and 14 on Wreck Island 21 June. Kinzie and Scott (1983) found the species a "very common nester" on the barrier islands and in the western and eastern marshes of Accomack County.

Brown-headed Cowbird (*Molothrus ater*). Only about 24 recorded on the Foray and barrier islands surveys: three between Kiptopeke and Arlington 4 June (MP), three at Mockhorn Island WMA 3 June (BT, CD), two in Exmore (center) area 2 June (J&TD), six between Eastville and Cherrystone Campground 3 June (MP), one in the Jamesville area 2 June (MP), two on Hog Island 23 June (MB), one near Eastville 3 June (BT, CD), and five or six in the Jamesville and Franktown areas 2 June (FD). This species was characterized by Kinzie and Scott (1983) as a common brood parasite on the mainland and larger barrier islands, chiefly Assateague and Chincoteague.

Orchard Oriole (*Icterus spurius*). Confirmed: One carrying food at Custis Tomb 3 June (CD, BT). Fifty-seven others were recorded on the Foray: nine between Kiptopeke and Arlington 4 June (MP), one at Eastern Shore of Virginia NWR 2 June (J&TD), two at Mockhorn Island WMA 3 June (BT, CD), three at Custis Tomb 1 June (J&TD) and eight there 3 June (CD, BT), four in the Jamesville area 2 June (J&TD), two in Exmore (center) area 2 June (J&TD), five between Eastville and Cherrystone Campground 3 June (MP), 17 in the Jamesville area 2 June (MP), one at Willis Wharf 2 June (MP), one near Eastville 3 June (BT, CD), one at Eastern Shore of Virginia NWR 3 June (BT, CD), and singles on SR 609, 618, and 644 2 June (FD). There are apparently few nesting records from the barrier islands (Kinzie and Scott 1983), although the species has been detected commonly in summer at Assateague in areas of second growth, particularly in recent years (EB).

House Finch (*Carpodacus mexicanus*). Confirmed: one pair nesting on Harbor Avenue, Cape Charles, 1 June (EB). Elsewhere only eight birds noted: three (two fe-

males, one male) in front yard with Blue Spruce on SR 663 3 June (MP), one pair on SR 677, and three birds at Silver Beach, both 2 June (FD). As elsewhere on the Shore and in the region generally, a sharp decline in House Finch populations has been detected, with an epidemic of conjunctivitis assumed to be the cause.

American Goldfinch (*Carduelis tristis*). Only 15 recorded: two at Mockhorn Island WMA 3 June (BT, CD), one between Capeville and the Eastern Shore of Virginia NWR 3 June (J&TD), and at least 12 in the Franktown, Wardtown, and Jamesville areas (FD). Though not detected on Northampton's barrier islands, the species apparently does inhabit the larger barrier islands such as Assateague in summer (Kinzie and Scott 1983).

House Sparrow (*Passer domesticus*). Confirmed: three pairs nesting in Purple Martin house at Oyster 2 June (J&TD) and one in a martin box at Cherrystone Campground 3 June (MP). Other records were of 20 at Willis Wharf 2 June (J&TD), three between Eastville and Cherrystone Campground 3 June (MP), and 14 at Oyster 3 June (MP), where the local House Sparrows spend considerable time inside large chicken-wire crab traps hauled out at the harbor's edge.

## APPENDIX 2

### POSSIBLE AND FORMER BREEDERS NOT FOUND ON THE FORAY

There were several species not recorded during the Foray that have been confirmed nesting in Northampton County in the past two decades.

Pied-billed Grebe (*Podilymbus podiceps*), recorded twice during Atlas work in the 1980s (VSO 1989), was confirmed as a nester at Eastern Shore of Virginia NWR in 1996 and 1997, as well as at the Northampton County landfill in 1996, but water levels at these sites were not conducive to nesting in 1998, 1999, or 2000 (EB). The Eastern Shore of Virginia NWR record included adults consorting with relatively young chicks on the late date of October 6, which extends the known breeding season of the species in the state by one month (Brinkley 1997a, 1997b). The fresh and brackish ponds at Chincoteague may also have had nesting grebes in 1996, as they have in past decades (e.g., Scott 1954, Kain 1987), but this was not confirmed. A dearth of freshwater ponds and marshes in the county accounts for the scarcity of Pied-billed Grebe and several other marsh-nesting species, among them several rails, Least Bittern (*Ixobrychus exilis*), Common Moorhen (*Gallinula chloropus*), and Blue-winged Teal (*Anas discors*). The last Blue-winged Teal of the spring was noted 19 May at the Eastern Shore of Virginia NWR (Cameron 1999). This species has sometimes nested locally as well, when water conditions are favorable (Buckalew, cited in Murray 1952; Mellinger, cited in Murray 1955). Several broods of Blue-winged Teal chicks were found at a large freshwater/brackish pond at the north end of Hog Island in 1991 (S. Rottenborn, pers. comm.).

Virginia Rail (*Rallus limicola*) must surely nest sparingly in Northampton County and was found on at least three occasions during Atlas work in the 1980s in Accomack County, though the 1981 Foray did not find it (Kinzie and Scott 1983). It is probably present in suitable *Spartina alterniflora* and *Juncus* marshes in the county,

the nearest recent records being from Upshur Neck in May 1997, very near the county line (EB, L. Willis, B. Patteson, unpubl.). A single King Rail (*Rallus elegans*) was noted at Oyster as late as 19 May (Cameron 1999); its breeding status in the county is unknown. As with the paucity of freshwater habitat for migrant shorebirds, the scarcity of freshwater habitats for nesting rails, bitterns, ducks, and moorhen on the Eastern Shore might be remedied through wildlife management practices on both existing refuges and on land with property owners interested in conservation measures.

Woodland, riparian, or "edge" species that were noted in very small numbers during Atlas work in the 1980s (VSO 1989) were not detected on the Foray, in some cases possibly owing to high winds during the survey work, especially 2-3 June, when most participants were afield. Most of these species probably require more extensive forest, especially hardwood forest, than Northampton County provides and may be considered very uncommon or occasional members of the county's avifauna. Hooded Warbler (*Wilsonia citrina*) and American Redstart (*Setophaga ruticilla*) were noted twice and once, respectively, during Atlas work, and Scarlet Tanager (*Piranga olivacea*) was recorded once (VSO 1989). The tanager is a very uncommon nester on the mainland in Accomack County. The 1981 Foray recorded only 10 birds, mostly in east-central Accomack (Kinzie and Scott 1983), and Cameron's (1999) spring survey found only three birds 9-12 May. Yellow-throated Vireo (*Vireo flavifrons*) was noted twice during Atlas work in Northampton County, and during the 1981 Accomack Foray, only one bird was located in the northeastern part of the county (Kinzie and Scott 1983). Northern Parula (*Parula americana*) was detected once during Atlas work (VSO 1989) and seven times 7-12 May (Cameron 1999). Eastern Phoebe (*Sayornis phoebe*) may be a rare nester; two were found during Atlas work, but only one was within "safe dates," defined as May 1 through August 31 for this species (VSO 1989). One was located at Saxis 3 June 1981 (Kinzie and Scott 1983). Of historical interest, Howell (1911) noted an Eastern Phoebe nesting on Cobb Island in June 1909, the only barrier island nest record located in the literature to this point.

Baltimore Oriole (*Icterus galbula*) is probably a rare nester in the county; one was found in the northwestern sector during Atlas work, with one pair confirmed nesting in Accomack (VSO 1989). Cameron (1999) found only 14 on the spring survey, none later than 8 May. A single bird was found at Sanford on the Accomack Foray (Kinzie and Scott 1983). Baltimore Oriole was noted as a summer resident in Accomack County in the early and middle twentieth century (Murray 1952); the reasons for its potential decline here are not known. Several other species associated with woodland habitats were actively sought but found neither during Atlas work nor on the Foray here, probably owing to lack of habitat or sufficiently extensive habitat. Worm-eating Warbler (*Helmitheros vermivorus*) was found to be an uncommon, local nester in Accomack County in extensive hardwood stands, especially in northwestern Accomack (Kinzie and Scott 1983), but it has been found in Northampton primarily on migration (the only spring record being one banded at Eastern Shore of Virginia NWR 24 April 1999 [Cameron 1999]). White-breasted Nuthatch (*Sitta carolinensis*) is a very uncommon summer resident in Accomack's mainland hardwood forests (EB, pers. obs.), but there are few data in print to confirm nesting here. These species are most likely to be found in the northernmost part of the county in the future. Brown Creeper (*Certhia americana*) nests in mature

bald cypress (*Taxodium distichum*) forest near northern Accomack County in the Nassawango Creek Preserve, Wicomico County, Maryland, with counts as high as 25 singing birds (Armistead 1981b, 1982). It is not known from Virginia's Eastern Shore, and the lack of appropriate habitat makes range extensions to the south unlikely.

One woodland species with irregular nesting patterns, Red-headed Woodpecker (*Melanerpes erythrocephalus*), was not found but should be sought in future surveys of the area. The woodpecker is hardly documented in the county in spring, one from Fisherman Island NWR 18 May 1977 (Scott 1977) and three from the southern peninsula 27 April to 7 May 1999 (Cameron 1999) being some of few in the literature. On the Eastern Shore it is generally a rare nester, the 1981 Accomack Foray locating only three birds, with no evidence of nesting (Kinzie and Scott 1983). The invasion of Pine Bark Beetles at Chincoteague NWR has produced substantial habitat for this species, now found here in small numbers through the warmer months. A 1970s colony active on the mainland at the NASA facility at Wallops was not occupied in 1981 (Kinzie and Scott 1983). Hooded Mergansers (*Lophodytes cucullatus*) were noted in appropriate nesting habitat north of Machipongo through April but could not be located on the Foray; on rare occasions, they have nested in Accomack County in nest boxes intended for Wood Duck breeding (Reiger 1992).

Nocturnal, crepuscular, and retiring species were certainly undercounted or not detected at all. Whip-poor-will (*Caprimulgus vociferus*) and Barred Owl (*Strix varia*) probably nest in forests in the northwestern part of the county, where they were detected once each during Atlas work (VSO 1989), but this area was not surveyed at night, owing to breezy conditions. American Woodcock (*Scolopax minor*) began displaying on apparent territories as early as 5 January and continued on into late March (EB, JC), but their silence during chick-rearing makes them difficult to detect later in the spring. Seasonally, the latest recent record of a displaying male is from 21 May 2000 at Chincoteague NWR on the Woodland Trail (*vide* refuge personnel). Two very uncommon marsh-nesting species known in the past 20 or so years from northwestern Accomack County, Henslow's Sparrow (*Ammodramus henslowii*) and Sedge Wren (*Cistothorus platensis*), have apparently never been detected as nesters in Northampton County.

Four species known to have nested on Northampton's barrier islands were not detected nesting in 1999, these being Common Moorhen, Black Rail (*Laterallus jamaicensis*), Black-necked Stilt (*Himantopus mexicanus*), and Caspian Tern (*Sterna caspia*). The most recent datum for nesting moorhen in the county is apparently a set of eggs taken by H. B. Bailey on Hog Island, 7 June 1911 (Murray 1952). Birds present at the Northampton County Landfill (near Oyster) 1990-1998 were not noted to have nested, and the species' status in Accomack County is little known.

Black Rail is well-known as a nester in western, especially northwestern Accomack County, but Eastern Shore records away from northwestern Accomack County are few. The species has been known as a nester in Northampton County since 1911, when Harold H. Bailey found the first set of eggs for the state on 16 June at Cobb Island (Murray 1952). In response to Arthur C. Bent, Bailey corrected himself on with regard to page 60 of his book *Birds of Virginia*, noting that the incomplete egg set he reported in his book was from Cobb Island, Northampton County, and not from Wallops Island. He also reports finding a nest with six eggs on Hog Island 16 May 1917, as well as a small colony of 6-7 nests there on 22 May

22 1917, all bordering a small freshwater pond. No other nests were found on either Hog or Cobb Island after a storm washed away the ponds in June of 1917. He found no other nest up until he left VA in 1920 (Bailey 1927). Other than the four records from the Chesapeake Bay Bridge-Tunnel, all clearly migrants, there is a record of a single bird seen at Hog Island 15 June 1989 (L. Nawojchik; Armistead 1989) that might have attempted to breed. What appears to be good habitat for the species exists southeast of Nassawadox at the eastern termini of SRs 617, 620, and 621, but no Black Rails have been heard there in 1999 or 2000.

Caspian Tern was first found nesting on the Eastern Shore in July 1879 at Cobb Island (Henshaw 1879), and its presence as a nester in the county in the late 1800s and early 1900s, until about 1915, is confirmed in many places in the literature (see Weske et al. 1977). Nevertheless, it has always been a marginal nesting species on the Virginia Coast. Like Sandwich Tern, Caspian is very near the limit of its breeding range in North America and as had relatively stable but very small population in Virginia through the last two decades of the century (Watts and Byrd 1998). The species's first modern documented nesting was discovered in 1974 (Weske et al. 1977), and between two and six adult birds have been noted on the barrier islands between 1975 and 1996 (Weske et al. 1977, Williams 1990; Williams et al. 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997), with the mean number of adults recorded 1975-1994 being four (Williams et al. 1998). Its absence on the barrier islands 1997-2000 may be only temporary.

Black-necked Stilt was confirmed for the first time in Accomack County as a nester in 1999, along the causeway to Chincoteague Village (Iliff 1999b), this being only the third Eastern Shore nesting confirmed to date, the others being from Chincoteague in July 1971 (Bystrak 1971) and an egg set taken at Cobb Island in 1885 (Clapp 1997).

Another possible barrier islands nester is Northern Shoveler (*Anas clypeata*), a fairly regular but uncommon lingerer into early June (e. g., Murray 1955, Kinzie and Scott 1983). Possible breeding by this species was indicated 10 July 1991 by the presence of three juveniles on Hog Island (R. Beck, S. C. Rottenborn; Armistead 1991). The nearest confirmed breeding was at Blackwater NWR, Maryland, 12 June 1985 (Armistead 1985).

Several species exist at the very southernmost edge of their coastal nesting range in Northampton County. Cedar Waxwing, Horned Lark, Vesper Sparrow, and Saltmarsh Sharp-tailed Sparrow, all detected on the Foray, rarely nest on the Atlantic coastal plain in or south of Northampton County. Swamp Sparrow (*Melospiza georgiana*) was detected on the 1981 Accomack Foray: 2 singing birds were in northwestern Accomack, east of Saxis, about 2.4 km up Messongo Creek from Tims Point (Kinzie and Scott 1983). These were apparently the first nesting-season Coastal Plain records in the state but were not relocated during Atlas work (VSO 1989). They were almost certainly of the subspecies *nigrescens*, known as "Coastal Plain Swamp Sparrow," which is under consideration for recognition as a separate species. More work in the early evening in appropriate habitat might reveal that its range extends into Northampton County. Black-billed Cuckoo (*Coccyzus erythrophthalmus*), a species with irregular nesting habits, is probably near the southern edge of its range on the Delmarva as well, although no nest has been found on the Virginia Shore. One was found on the 1981 Accomack Foray in west-central Accomack on 7 June (Kinzie and Scott 1983), but this could easily have been a mi-

grant, likewise one at Primary Highway 13, 1.4 km south of SR 604, 21 June 2000 (EB).

In more distant history, at least two species of special concern have been lost from the Eastern Shore. Roseate Tern (*Sterna dougallii*) was documented as a summer resident in Accomack County by Rives (1890), and T. M. Brewer found it in Northampton County nesting on islands near Cape Charles in 1884, when Cape Charles had been incorporated only for a few years. This was presumably Sandy Island (and related sandbars) west of Cherrystone Creek that were later to hold a brick plant and small military outpost (M. Carlson, pers. comm.); the remains of the islands and their structures are typically seen now only on low tides. In spring 1920, B. R. Bales found "small groups of 3-4 pairs in company with Common Terns" on Cobb and Wreck Islands, as well as off Fisherman Island on sand spits known as the Dry Isaacs (Bales 1920). Kain (1987) lists nesting in Virginia through 1927. Sprunt (1940) found it on Cobb Island in June 1940, in numbers unknown, where lingering migrants or prospecting birds may have been presumed nesting.

Loggerhead Shrike (*Lanius ludovicianus*) was formerly a rare nester and visitor. There have been no records on the Eastern Shore of Virginia since 1988 (CBC data for Winter 1988-89), other than a report of three birds from the Eastern Shore of Virginia NWR 11 October 1998 (J. B. Bazuin, Jr.; Iliff 1999a). Bailey (1913) found a few pairs nesting on the Eastern Shore, eggs from 26 April to 6 May, and Murray (1952) referred these to the nominate form. Murray (1952) speculated that the shrikes on the Eastern Shore (apparently those outside the nesting season?) belonged to *migrans*, a taxon not recognized by Pyle (1997) or some others. Palmer (1898) notes specimen records from Smith Island outside the nesting season.

The only Eastern Shore records of Red-cockaded Woodpecker (*Picoides borealis*) are from Chincoteague NWR 10 April 1981 (J. H. Buckalew; Armistead 1981a) and from Cedar Island, a record of 3 birds from 30 December 1923 (L. Griscom, Caps, Crosby; Murray 1952). The species nested formerly in adjacent Dorchester County, Maryland until about 1932 (Scott and Cutler 1974), and in previous centuries it was probably part of the Accomack County avifauna, but there are no data to suggest that it ever nested in Northampton County.

Three alien species introduced in the county in the recent past are no longer extant. Ring-necked Pheasant (*Phasianus colchicus*) has been introduced at various times by hunters, and these have been observed on Hog Island as recently as 8 May and 18 July 1990, on the latter date a hen near Machipongo Station with chick, and 29 May 1991, a pair near Oyster (S. C. Rottenborn, pers. comm.). Apparently, all birds stocked on Hog Island were Ring-necked rather than Green Pheasants (Armistead 1990). Three single birds noted on the 1981 Accomack Foray were not identified as Green or Ring-necked (Kinzie and Scott 1983).

The Green Pheasant (*P. versicolor*), formerly considered a subspecies of Ring-necked Pheasant, was introduced in southern Northampton County in the 1970s (M. A. Byrd, pers. comm.). The species was regularly seen around the property at the end of Jones Cove Road (formerly the "GATR" Tract, now the Mockhorn Island WMA) through 31 May 1992 (S. C. Rottenborn, pers. comm.) and nested here in spring 1993, when Don Schwab (pers. comm.) noted a female on eggs. Apparently, the last record of a Green Pheasant on the Eastern Shore was at Eastern Shore of Virginia NWR in December 1995 (T. M. Gwynn, III, pers. comm.). At present, no birds of these introductions are known to persist on the Eastern Shore.

Monk Parakeet (*Myiopsitta monachus*), which formerly nested in small numbers around Fort Custis (presently the Eastern Shore of Virginia NWR), has not been noted there since the 1981 (EB, pers. obs.) It is unknown how long the species nested at that site or in what numbers. Foray workers checked doves carefully but fruitlessly for the invading Eurasian Collared-Dove (*Streptopelia decaocto*), an alien species that has spread northward and westward following its introduction in the Bahamas in the 1980s and that now nests regularly as far north as southern coastal North Carolina.

In the week prior to the Foray, seven additional species were noted by Cameron (1999) that did not appear during the Foray. These were American Wigeon (*Anas penelope*) through 26 May, Broad-winged Hawk (*Buteo platypterus*) (through 30 May), Merlin (through 27 May), Black-necked Stilt (through 27 May), Solitary Sandpiper (*Tringa solitaria*) (through 26 May), Spotted Sandpiper (*Actitis macularia*, through 30 May), and Caspian Tern (through 30 May). Accomack County has nesting records of Northern Pintail (*Anas acuta*) and Green-winged Teal (*Anas crecca*) (Kain 1987), and there has been a small feral population of Mute Swan (*Cygnus olor*) on Assateague Island, but these species were not observed in June in the county. Broad-winged Hawk was suspected to have nested and raised at least one young bird successfully at Wise Point in 1999 (R. F. Lukei, Jr., pers. comm.). Nesting on the Eastern Shore has apparently not been documented, and summering adults are quite rare in themselves. In nearby Maryland, an adult and an immature were noted 11.2 km south of Salisbury, Maryland, 3 July through 8 August 1981, where nesting was suspected locally (Armistead 1981b), and a pair was seen on the Nassawango Creek Preserve in late May 1984 (Armistead 1984). As an addendum to Part 1 of the Foray, Lukei reports that a pair of Black Vultures (*Coragyps atratus*) did nest here successfully in 1999 and have done so each year here 1995-2000.

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### LITERATURE CITED

- ARMISTEAD, H. T. 1981a. The spring migration: Middle Atlantic coast region. *American Birds* 35: 808-812.
- \_\_\_\_\_. 1981b. The nesting season: Middle Atlantic coast region. *American Birds* 35: 926-929.
- \_\_\_\_\_. 1982. The nesting season: Middle Atlantic coast region. *American Birds* 36: 962-965.

- \_\_\_\_\_. 1983. The nesting season: Middle Atlantic coast region. *American Birds* 37: 974-977.
- \_\_\_\_\_. 1984. The spring migration: Middle Atlantic coast region. *American Birds* 38: 893-896.
- \_\_\_\_\_. 1985. The nesting season: Middle Atlantic coast region. *American Birds* 39:895-898.
- \_\_\_\_\_. 1986. The nesting season: Middle Atlantic coast region. *American Birds* 40:1186-1190.
- \_\_\_\_\_. 1987. The nesting season: Middle Atlantic coast region. *American Birds* 41: 1418-1422.
- \_\_\_\_\_. 1989. The nesting season: Middle Atlantic coast region. *American Birds* 43: 1299-1303.
- \_\_\_\_\_. 1990. The nesting season: Middle Atlantic coast region. *American Birds* 44: 1120-1123.
- \_\_\_\_\_. 1991. The nesting season: Middle Atlantic coast region. *American Birds* 45: 1101-1106.
- BAILEY, H. B. 1876. Notes on birds found breeding on Cobb's Island, Va. between May 25th and May 29th 1875. *Quarterly Bulletin of the Nuttall Ornithological Club* 1: 24-28.
- BAILEY, H. H. 1913. *The Birds of Virginia*. J. P. Bell, Lynchburg.
- \_\_\_\_\_. 1927. General Notes: Data concerning the Breeding Range of Certain Marsh Birds. *Wilson Bulletin* 39:170-177.
- BALES, B. R. 1920. General Notes. *Auk* 37: 579
- BLOM, E., M. O' BRIEN, and E. J. SCARPULLA. 1994. The nesting season: Middle Atlantic coast region. *American Birds* 48: 931-933.
- BRINKLEY, E. S. 1997a. The Changing Seasons: The Fall Migration of 1996. *National Audubon Society Field Notes* 51: 8-15.
- \_\_\_\_\_. 1997b. Virginia Annual Bird Report for 1996. *Virginia Society of Ornithology Newsletter* 43 (3): 5-12.
- BYSTRAK, P. G. 1971. Breeding of the Black-necked Stilt in Virginia. *Raven* 42: 44.

- CAMERON, J. 1999. The 1999 Spring Migration Monitoring Project. Privately published, Coastal Virginia Wildlife Observatory and Eastern Shore of Virginia National Wildlife Refuge, Franktown.
- CHAMBERLAIN, E. B., and H. T. ODUM. 1947. Carolina region. Audubon Field Notes 1: 5-6.
- CLAPP, R. B. 1997. Egg Dates for Virginia Birds. Virginia Avifauna Number 6. Virginia Society of Ornithology, Lynchburg.
- HENSHAW, H. W. 1879. Occurrence of the Caspian Tern (*Sterna caspia*) upon the coast of Virginia. Bulletin of the Nuttall Ornithological Club 4: 243-244.
- HOWELL, A. B. 1911. A Comparative study at Cobb's Island. Auk 28: 449-453.
- LIFF, M. J. 1999a. The fall migration: Middle Atlantic coast region. North American Birds 53: 39-43.
- \_\_\_\_\_. 1999b. The nesting season: Middle Atlantic coast region. North American Birds 53: 371-374.
- KAIN, T., ed. 1987. Virginia's Birdlife: An annotated checklist. Second edition. Virginia Avifauna Number 3. Virginia Society of Ornithology, Lynchburg.
- KINZIE, B. L., and F. R. SCOTT. 1983. The Accomack County Breeding-Bird Foray of 1981. Raven 54: 3-18.
- LEE, D. S., and H. H. HENDRICKSON. 1998. Recent breeding expansion Cedar Waxwing in North Carolina. Chat 62: 141-148.
- McNAIR, D. B. 1999. Recent breeding expansion Cedar Waxwing in south-central North Carolina: Additional information. Chat 63: 45-47.
- MURRAY, J. J. 1952. A Check-list of the Birds of Virginia. Virginia Society of Ornithology, Charlottesville.
- \_\_\_\_\_. 1953. First revision of the Virginia 1952 "Check-list." Raven 24: 34-45.
- \_\_\_\_\_. 1955. Second revision of the Virginia 1952 "Check-list." Raven 26: 75-97.
- PALMER, W. 1898. Our small eastern shrikes. Auk 15: 244-258.
- PEARSON, T. G. 1901. The Birds of Cobb's Island, Virginia. In: Stories of Bird Life. Pp. 60-69. B. F. Johnson, Richmond.
- PLYE, P. 1997. Identification Guide to North American Birds, Part I. Slate Creek Press, Bolinas, CA.

- RIVES, W. C. 1890. A Catalogue of the Birds of the Virginias. Proc. Newport Natural History Society, Document VII. Newport, RI. 100 pp.
- REIGER, G. 1992. Eastern Screech-Owl nesting and feeding in Accomack County. *Raven* 63: 74-75.
- SCOTT, F. R. 1954. The 1953 Summer Season in Virginia. *Raven* 25: 97-98.
- \_\_\_\_\_. 1975. The nesting season: Middle Atlantic coast region. *American Birds* 29: 954-957.
- \_\_\_\_\_. 1977. The spring migration: Middle Atlantic coast region. *American Birds* 31: 984-986.
- SCOTT, F. R., and D. A. CUTLER. 1973. The nesting season: Middle Atlantic coast region. *American Birds* 27: 853-856.
- \_\_\_\_\_. 1974. The spring migration: Middle Atlantic coast region. *American Birds* 28: 784-788.
- SPRUNT, A. 1940. Carolinian observations of the Eastern Shore. *Raven* 11: 54-57.
- VIRGINIA SOCIETY OF ORNITHOLOGY. 1989. Virginia's Breeding Birds: An Atlas Workbook. William Byrd, Richmond. 228 pp.
- VON SIEBOLD DINGLE, E. 1942. Rough-winged Swallow, pp. 424-433, In: Bent, A. C. 1963 (reprint edition). *Life Histories of North American Flycatchers, Larks, Swallows, and their Allies*. Dover, New York.
- WATTS, B. D. and M. A. BYRD. 1998. Status and distribution of colonial waterbirds in coastal Virginia. *Raven* 69: 20-31.
- WESKE, J. S., R. B. CLAPP, and J. M. SHEPPARD. 1977. Breeding records of Sandwich and Caspian Terns in Virginia and Maryland. *Raven* 48: 59-65.
- WILLIAMS, B. 1990. A summary of the 1989 survey of the colonial waterbirds of the Virginia barrier islands. *Raven* 61: 69-72.
- WILLIAMS, B., B. AKERS, M. BECK, R. BECK, and J. VIA. 1995. A summary of the 1994 beach-nesting and colonial waterbird survey of the Virginia barrier islands. *Raven* 66: 40-44.
- WILLIAMS, B., B. AKERS, M. BECK, R. BECK, and J. VIA. 1998. The 1997 colonial and beach-nesting waterbirds survey of the Virginia barrier islands. *Raven* 69: 15-19.
- WILLIAMS, B., B. AKERS, M. BECK, R. BECK, J. VIA, and B. TRUITT. 1996. The 1995 beach-nesting and colonial waterbird survey of the Virginia barrier islands. *Raven* 67: 79-82.

- WILLIAMS, B., B. AKERS, R. BECK, M. BECK, and J. VIA. 1997. A summary of the 1996 beach-nesting and colonial waterbird survey of the Virginia barrier islands. *Raven* 68: 105-109.
- WILLIAMS, B., B. AKERS, R. BECK, and J. VIA. 1993. The 1992 colonial and beach-nesting waterbird survey of the Virginia barrier islands. *Raven* 64: 24-29.
- WILLIAMS, B., B. AKERS, R. BECK, and J. VIA. 1994. A summary of the 1993 beach-nesting and colonial waterbird survey of the Virginia barrier islands. *Raven* 65: 109-113.
- WILLIAMS, B., B. AKERS, R. BECK, J. VIA, and S. ROTTENBORN. 1992. The 1991 barrier islands beach-nesting and colonial waterbird survey. *Raven* 63: 96-101.
- WILLIAMS, B., B. AKERS, R. A. BECK and J. W. VIA. 1991. The 1990 beach-nesting and colonial waterbird survey of the Virginia barrier islands. *Raven* 62: 49-54.
- WILLIAMS, B., R. A. BECK, B. AKERS, and J. W. VIA. 1990. Longitudinal surveys of the beach-nesting and colonial waterbirds of the Virginia barrier islands. *Virginia Journal of Science* 41: 380-388.

## VIRGINIA CHRISTMAS BIRD COUNTS: 1999-2000 SEASON

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Absence of rain and snow during the 1999-2000 Christmas bird counts made this one of the balmiest Virginia count seasons on record. Perhaps the mild conditions contributed to the appearance of some of the astonishing observations made this year.

Forty-five counts were held, one less than last year. The missing count was Giles County. Two hundred twenty-one species were recorded on the 45 counts. Two of those species have never occurred on a Virginia count before. One was the Townsend's Warbler seen by many on the Cape Charles/Kiptopeke count. The other was the Cave Swallow, three of which were recorded by two observers at Newport News. Both records have been reviewed and accepted by the Virginia Avian Records Committee.

The counts on the following pages are arranged geographically. The four Eastern Shore and Chesapeake Bay counts are listed first and the rest are listed generally in an east-to-west and north-to-south configuration. Counts 1 through 16 are on the Coastal Plain, counts 17 through 27 are in the Piedmont, and counts 29 through 45 are in the Mountains and Valleys region of the state. A description of each count circle center, along with the names and addresses of compilers, can be found in the following section titled "Christmas Count Descriptions." In addition, names of observers for the Darlington Heights, Lynchburg, Danville, Peaks of Otter, Roanoke, and Bristol counts are listed because the results of those counts do not appear in the annual Christmas count report of the National Audubon Society.

A change has been implemented in this year's tables. The practice of highlighting numbers that designate unusual sightings or significantly high numbers has been discontinued. Not only is there much disagreement about what should be considered as an unusual occurrence or high count, it can also be difficult to read the numbers that have been highlighted in the tables as they are reproduced.

### Weather and wind codes:

CLD - cloudy  
CLR - clear  
FOG - foggy  
LGR - light rain  
PCD - partly cloudy  
PCR - partly clear  
V - variable

### Water codes:

SPF - still water partly frozen  
MWO - moving water open  
WOP - water open  
MCR - mostly clear

	Red-throated Loon	Pacific Loon	Common Loon	Loon, sp.	Pied-billed Grebe	Horned Grebe	Red-necked Grebe	Eared Grebe	Northern Gannet
1. Chincoteague	8	...	39	3	39	37	1	...	24
2. Wachapreague	110	...	96	...	5	45	...	...	45
3. Cape Charles/Kiptopeke	52	...	96	...	57	25	...	...	402
4. CBBT	158	...	28	...	...	CW	1	...	200
5. Little Creek	83	1	33	...	56	19	...	1	1,200
6. Back Bay	400	...	171	...	18	8	...	...	1,550
7. Nansemond River	...	...	2	...	12	258	...	...	...
8. Dismal Swamp	...	...	...	...	...	...	...	...	...
9. Newport News	24	...	59	...	41	106	...	...	6
10. Mathews County	4	...	77	...	5	24	2	...	1
11. Williamsburg	4	...	...	...	29	34	...	...	...
12. Hopewell	...	...	...	...	15	...	...	...	...
13. Walkerton	...	...	...	...	10	...	...	...	...
14. Washington's Birthplace	5	...	56	...	1	74	...	...	6
15. Brooke	...	...	...	...	25	...	...	...	...
16. Fort Belvoir	...	...	4	...	21	6	...	...	...
17. Central Loudoun	...	...	...	...	4	...	...	...	...
18. The Plains	...	...	...	...	8	9	...	...	...
19. Manassas-Bull Run	...	...	...	...	...	...	...	...	...
20. Chancellorsville	...	...	1	...	17	...	...	...	...
21. Gordonsville	...	...	...	...	4	...	...	...	...
22. Charlottesville	...	...	...	...	10	...	...	...	...
23. Warren	...	...	...	...	10	...	...	...	...
24. Darlington Heights	...	...	...	...	2	...	...	...	...
25. Banister WMA	...	...	...	...	3	...	...	...	...
26. Lynchburg	...	...	...	...	19	...	...	...	...
27. Danville	...	...	...	...	11	1	...	...	...
28. Calmes Neck	...	...	...	...	8	...	...	...	...
29. N. Shenandoah Valley	...	...	2	...	6	2	...	...	...
30. Shenandoah NP-Luray	...	...	...	...	2	...	...	...	...
31. Big Flat Mountain	...	...	...	...	...	...	...	...	...
32. Rockingham County	...	...	...	...	3	...	...	...	...
33. Augusta County	...	...	...	...	...	...	...	...	...
34. Waynesboro	...	...	...	...	1	...	...	...	...
35. Lexington	...	...	...	...	13	...	...	...	...
36. Peaks of Otter	...	...	...	...	2	...	...	...	...
37. Fincastle	...	...	...	...	5	...	...	...	...
38. Roanoke	...	...	...	...	23	...	...	...	...
39. Blacksburg	...	...	...	...	5	2	...	...	...
40. Tazewell	...	...	...	...	1	...	...	...	...
41. Glade Spring	...	...	...	...	1	...	...	...	...
42. Blackford	...	...	...	...	...	...	...	...	...
43. Bristol	...	...	2	...	31	6	...	1	...
44. Breaks Interstate Park	...	...	...	...	...	...	...	...	...
45. Wise County	...	...	...	...	8	...	...	...	...
Total individuals:	848	1	666	3	534	656	4	2	3,434

Brown Pelican	Great Cormorant	Double-crested Cormorant	Anhinga	American Bittern	Great Blue Heron	Great Egret	Snowy Egret	Little Blue Heron	Tricolored Heron	Cattle Egret	Green Heron
...	...	34	...	1	112	54	4	2	12	...	1
...	...	188	...	...	88	...	...	...	17	...	...
14	33	39	...	2	72	4	CW	2	32	...	...
2	22	2	...	...	...	...	...	...	...	...	...
68	1	1,950	...	2	139	87	...	1	1	...	...
20	1	164	1	11	39	...	...	...	...	...	...
23	...	850	...	...	37	5	...	...	...	1	...
...	...	1	...	...	5	...	...	...	...	...	...
51	1	1,421	...	...	110	14	...	...	...	...	...
...	...	77	...	...	75	...	...	...	...	...	...
...	...	860	...	...	70	14	...	...	...	...	...
...	...	2,112	...	...	131	2	...	...	...	...	...
...	...	3	...	...	29	...	...	...	...	...	...
...	...	110	...	...	25	...	...	...	...	...	...
...	...	21	...	...	32	...	...	...	...	...	...
...	...	63	...	...	242	1	...	...	...	...	...
...	...	1	...	...	16	...	...	...	...	...	...
...	...	1	...	...	21	...	...	...	...	...	...
...	...	...	...	...	5	...	...	...	...	...	...
...	...	...	...	...	6	...	...	...	...	...	...
...	...	...	...	...	27	...	...	...	...	...	...
...	...	...	...	...	13	...	...	...	...	...	...
...	...	...	...	...	2	...	...	...	...	...	...
...	...	...	...	...	8	...	...	...	...	...	...
...	...	...	...	...	16	...	...	...	...	...	...
...	...	...	...	...	8	...	...	...	...	...	...
...	...	...	...	...	28	...	...	...	...	...	...
...	...	...	...	...	79	...	...	...	...	...	1
...	...	...	...	...	28	...	...	...	...	...	...
...	...	...	...	...	2	...	...	...	...	...	...
...	...	...	...	...	10	...	...	...	...	...	...
...	...	...	...	...	27	...	...	...	...	...	...
...	...	...	...	...	12	...	...	...	...	...	...
...	...	...	...	...	9	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	3	...	...	...	...	...	...
...	...	...	...	...	21	...	...	...	...	...	...
...	...	...	...	...	15	...	...	...	...	...	...
...	...	...	...	...	2	...	...	...	...	...	...
...	...	...	...	...	17	...	...	...	...	...	...
...	...	...	...	...	9	...	...	...	...	...	...
...	...	1	...	...	17	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
178	58	7,898	1	16	1,624	181	4	5	62	1	2

	Black-crowned Night-Heron	Yellow-crowned Night-Heron	White Ibis	Black Vulture	Turkey Vulture	Snow Goose	Snow Goose (blue form)	Ross's Goose	Canada Goose
1. Chincoteague	2	...	...	81	270	18,000	73	1	2,708
2. Wachapreague	25	1	...	24	189	200	...	...	3,574
3. Cape Charles/Kiptopeke	7	...	73	78	376	497	5	...	2,576
4. CBBT	CW	...	...	...	...	...	...	...	...
5. Little Creek	3	...	...	55	127	2	...	...	271
6. Back Bay	2	...	...	68	154	9,500	63	...	1,140
7. Nansemond River	...	...	...	35	127	...	...	...	1425
8. Dismal Swamp	...	...	...	19	209	200	...	...	8
9. Newport News	7	...	...	...	7	...	...	...	423
10. Mathews County	...	...	...	26	169	...	...	...	783
11. Williamsburg	...	...	...	28	176	...	...	...	1,571
12. Hopewell	...	...	...	200	67	194	1750	...	10,541
13. Walkerton	...	...	...	67	224	...	...	...	944
14. Washington's Birthplace	...	...	...	19	149	CW	...	...	12,304
15. Brooke	...	...	...	61	145	...	...	...	970
16. Fort Belvoir	2	...	...	42	183	4	...	...	10,131
17. Central Loudoun	...	...	...	174	553	...	...	...	4,822
18. The Plains	...	...	...	98	354	...	...	...	4,651
19. Manassas-Bull Run	...	...	...	82	287	4	...	...	3,458
20. Chancellorsville	...	...	...	34	86	...	...	...	559
21. Gordonsville	...	...	...	29	123	...	...	...	992
22. Charlottesville	...	...	...	158	786	...	...	...	1,117
23. Warren	...	...	...	122	213	...	...	...	2,660
24. Darlington Heights	...	...	...	1	65	...	...	...	331
25. Banister WMA	...	...	...	104	83	...	...	...	163
26. Lynchburg	...	...	...	216	334	...	...	...	394
27. Danville	...	...	...	10	63	...	...	...	173
28. Calmes Neck	...	...	...	77	359	1	...	...	6,664
29. N. Shenandoah Valley	...	...	...	111	118	1	...	...	2,394
30. Shenandoah NP-Luray	...	...	...	100	359	...	...	...	626
31. Big Flat Mountain	...	...	...	3	3	...	...	...	...
32. Rockingham County	...	...	...	49	327	1	...	...	301
33. Augusta County	...	...	...	197	662	...	...	...	261
34. Waynesboro	...	...	...	41	152	...	...	...	234
35. Lexington	...	...	...	75	237	...	...	...	77
36. Peaks of Otter	...	...	...	...	18	...	...	...	...
37. Fincastle	...	...	...	70	119	...	...	...	110
38. Roanoke	...	4	...	3	192	...	...	...	186
39. Blacksburg	...	...	...	540	97	...	...	...	572
40. Tazewell	...	...	...	3	...	...	...	...	72
41. Glade Spring	...	...	...	90	157	...	...	...	283
42. Blackford	...	...	...	5	4	...	...	...	10
43. Bristol	...	...	...	11	30	1	...	...	700
44. Breaks Interstate Park	...	...	...	...	...	...	...	...	...
45. Wise County	...	...	...	...	2	...	...	...	...
Total individuals:	48	5	73	3,234	8,355	28,605	1,891	...	81,179

Canada Goose (small form)	Brant	Mute Swan	Tundra Swan	Wood Duck	Gadwall	Eurasian Wigeon	American Wigeon	American Black Duck	black duck/mallard, sp.	Mallard	mallard hybrid
...	1,520	12	360	23	1,264	1	730	2,416	800	1,108	...
...	3,045	...	72	134	22	...	11	631	...	315	...
1	2,027	3	107	12	532	...	445	777	...	326	1
...	2	...	...	...	...	...	...	...	...	...	...
...	129	...	136	25	128	...	394	63	...	456	...
...	...	...	573	20	447	...	117	407	...	520	...
...	1	...	18	6	318	...	167	94	...	132	...
...	...	...	218	52	...	...	...	21	...	15	...
...	75	...	...	...	66	...	430	35	...	1,112	...
...	...	5	354	1	...	...	72	80	...	287	...
...	...	19	55	13	46	...	33	70	...	235	...
...	...	...	48	224	...	...	184	21	...	701	...
...	...	...	1	14	2	...	1	14	...	309	...
...	...	14	3	...	33	...	6	124	...	108	...
...	...	...	137	39	63	...	13	1,205	...	2,429	...
...	...	...	...	...	...	...	...	70	...	653	...
...	...	14	12	6	161	...	107	164	...	299	...
...	...	...	2	6	2	...	...	19	...	441	...
...	...	4	...	...	...	...	...	2	...	97	...
...	...	...	...	9	...	...	...	...	...	...	...
...	...	7	...	3	...	...	...	20	...	82	...
...	...	...	5	...	5	...	...	29	...	327	...
...	...	...	...	2	...	...	...	...	...	18	...
...	...	...	...	...	...	...	...	...	...	25	...
...	...	...	...	2	16	...	4	12	...	259	...
...	...	...	...	3	...	...	...	...	...	153	...
...	...	2	2	1	...	...	7	102	...	768	...
1	...	1	...	30	2	...	23	25	1	652	...
...	...	...	...	...	5	...	6	15	...	242	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	1	5	...	CW	2	...	614	...
...	...	...	...	7	9	...	2	7	...	177	...
...	...	...	...	...	...	...	...	16	...	256	...
...	...	...	...	3	...	...	...	1	...	33	...
...	...	...	...	28	17	...	15	70	...	510	...
...	...	...	...	1	7	...	50	19	...	405	...
...	...	...	...	...	...	...	...	...	...	109	...
...	...	...	...	3	25	...	...	24	...	340	...
...	...	...	...	2	...	...	...	15	...	64	...
...	...	...	...	2	37	...	102	12	...	648	...
...	...	...	...	...	...	...	...	...	...	6	...
...	...	...	...	...	...	...	...	...	...	10	...
2	6,799	84	2,475	497	3,531	1	2,923	6,596	801	15,896	1

	Blue-winged Teal	Northern Shoveler	Northern Pintail	Green-winged Teal	dabbling duck, sp.	Canvasback	Redhead	Ring-necked Duck	Greater Scaup
1. Chincoteague	1	888	3,353	423	...	...	...	14	40
2. Wachapreague	...	3	101	274	...	...	...	59	...
3. Cape Charles/Kiptopeke	...	229	13	285	...	...	...	64	12
4. CBBT	...	...	...	1	...	...	...	...	25
5. Little Creek	...	218	4	322	...	20	1	182	82
6. Back Bay	19	131	338	291	...	6	1	6	1
7. Nansemond River	...	1,365	...	304	...	4,622	...	49	3
8. Dismal Swamp	...	...	...	160	...	...	...	51	...
9. Newport News	2	7	...	7	...	30	305	33	60
10. Mathews County	...	...	...	...	750	...	4	...	...
11. Williamsburg	...	10	...	23	...	3,132	...	822	...
12. Hopewell	6	8	18	127	...	1	...	248	...
13. Walkerton	...	...	1	...	...	...	...	111	...
14. Washington's Birthplace	...	...	1	2	...	60	...	3	450
15. Brooke	...	...	...	1	...	...	...	517	...
16. Fort Belvoir	1	10	40	490	...	156	31	317	63
17. Central Loudoun	...	...	6	4	...	6	...	43	...
18. The Plains	...	15	3	51	...	3	3	946	...
19. Manassas-Bull Run	...	...	...	1	...	...	...	1	...
20. Chancellorsville	...	...	...	...	...	...	...	42	...
21. Gordonsville	...	...	...	...	...	...	...	4	...
22. Charlottesville	...	...	...	...	...	1	...	6	...
23. Warren	...	...	...	29	...	...	...	15	...
24. Darlington Heights	...	...	...	...	...	...	...	7	...
25. Banister WMA	...	...	...	...	...	14	...	...	...
26. Lynchburg	...	...	...	2	...	...	...	121	...
27. Danville	...	...	...	...	...	...	...	...	...
28. Calmes Neck	...	...	...	14	...	...	...	944	...
29. N. Shenandoah Valley	...	...	...	18	...	...	2	16	...
30. Shenandoah NP-Luray	...	...	...	...	...	2	...	6	...
31. Big Flat Mountain	...	...	...	...	...	...	...	...	...
32. Rockingham County	...	7	...	...	...	...	CW	1	...
33. Augusta County	...	CW	1	20	...	...	CW	CW	...
34. Waynesboro	...	...	...	CW	...	...	...	...	...
35. Lexington	...	...	...	1	...	...	1	1	...
36. Peaks of Otter	...	...	...	...	...	...	...	...	...
37. Fincastle	...	...	...	...	...	...	...	...	...
38. Roanoke	...	...	...	32	...	...	...	51	...
39. Blacksburg	...	...	1	8	...	...	...	...	...
40. Tazewell	...	...	...	...	...	...	...	...	...
41. Glade Spring	...	...	...	...	...	...	...	...	...
42. Blackford	...	...	...	4	...	...	...	...	...
43. Bristol	...	...	3	1	...	...	3	81	...
44. Breaks Interstate Park	...	...	...	...	...	...	...	...	...
45. Wise County	...	...	...	...	...	...	...	...	...
Total individuals:	29	2,891	3,883	2,895	750	8,053	351	4,761	736

Lesser Scaup	scaup, sp.	King Eider	Common Eider	Surf Scoter	White-winged Scoter	Black Scoter	scoter, sp.	Long-tailed Duck	Bufflehead	Common Goldeneye	Hooded Merganser
70	...	...	...	59	15	900	395	29	770	10	418
...	...	...	...	194	...	10	825	...	492	3	157
7	4	...	...	300	CW	46	16	32	1,533	14	684
7	132	...	CW	495	7	47	...	26	1	1	...
51	...	...	...	2,830	5	170	...	49	712	...	354
21	...	3	...	302	...	5	93	3	65	3	49
23	...	...	...	70	...	5	...	...	658	14	42
...	2	...	...	...	...	...	...	...	...	...	13
210	...	...	...	66	...	4	...	39	930	10	127
117	23	...	...	471	1	39	19	33	2,352	234	65
...	...	...	...	...	...	...	...	...	166	7	118
4	...	...	...	...	...	...	...	...	38	...	70
...	...	...	...	...	...	...	...	...	9	1	21
6,428	...	...	...	...	...	...	...	11	899	330	7
2	...	...	...	...	...	...	...	...	59	...	12
7,818	13,641	...	...	2	8	...	...	3	441	7	294
22	...	...	...	...	...	...	...	...	11	...	14
...	...	...	...	...	...	...	...	...	228	11	116
7	...	...	...	...	...	...	...	...	...	...	37
...	...	...	...	...	...	...	...	...	81	...	42
...	...	...	...	...	...	...	...	...	3	...	24
...	...	...	...	...	...	...	...	...	...	1	11
...	...	...	...	...	...	...	...	...	...	...	53
15	...	...	...	...	...	...	...	...	...	...	1
...	...	...	...	...	...	...	...	...	34	...	7
...	...	...	...	...	...	...	...	...	6	...	16
...	...	...	...	...	...	...	...	...	...	...	6
...	...	...	...	...	...	...	...	...	...	...	35
4	...	...	...	...	...	...	...	...	9	1	35
2	...	...	...	...	...	...	...	...	CW	...	...
...	...	...	...	...	...	...	...	...	...	...	...
CW	...	...	...	...	...	...	...	...	4	...	1
...	...	...	...	...	...	...	...	...	CW	...	4
...	...	...	...	...	...	...	...	...	1	...	1
...	...	...	...	...	...	...	...	...	...	...	16
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	12
12	...	...	...	...	...	...	...	...	4	...	40
3	...	...	...	...	...	...	...	...	73	2	52
...	...	...	...	...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	215	...	259
...	...	...	...	...	...	...	...	...	5	...	...
...	...	...	...	...	...	...	...	...	...	...	...
14,823	13,821	3	CW	4,789	36	1,226	1,348	225	9,799	649	3,216

	Common Merganser	Red-breasted Merganser	Ruddy Duck	duck, sp.	Osprey	Bald Eagle	Northern Harrier	Sharp-shinned Hawk	Cooper's Hawk
1. Chincoteague	...	352	535	...	...	21	35	11	2
2. Wachapreague	...	336	...	...	...	20	28	11	5
3. Cape Charles/Kiptopeke	...	635	21	75	...	12	64	20	5
4. CBBT	...	415	...	...	...	...	...	...	...
5. Little Creek	...	399	700	...	3	5	5	5	3
6. Back Bay	...	341	122	...	...	...	45	12	4
7. Nansemond River	CW	185	1,756	...	4	9	21	6	4
8. Dismal Swamp	...	...	24	...	...	10	1	5	1
9. Newport News	2	329	2,728	58	3	3	...	6	4
10. Mathews County	5	341	1,879	...	...	14	6	4	7
11. Williamsburg	...	144	3,403	...	...	36	2	3	4
12. Hopewell	19	32	114	48	3	52	14	6	4
13. Walkerton	4	...	16	...	...	7	5	3	1
14. Washington's Birthplace	14	53	1,275	...	...	46	13	1	1
15. Brooke	13	...	186	...	...	10	10	1	4
16. Fort Belvoir	627	70	3,024	...	...	172	6	14	5
17. Central Loudoun	...	...	48	...	...	...	6	9	6
18. The Plains	143	...	362	...	...	10	2	5	5
19. Manassas-Bull Run	6	...	6	...	...	...	1	11	6
20. Chancellorsville	...	...	192	...	...	6	...	2	...
21. Gordonsville	...	...	81	5	...	...	CW	1	3
22. Charlottesville	...	...	...	...	...	...	1	9	6
23. Warren	1	...	3	...	...	3	1	8	...
24. Darlington Heights	...	...	1	...	...	...	6	1	1
25. Banister WMA	...	...	...	...	...	...	2	1	CW
26. Lynchburg	1	...	15	...	...	...	1	8	4
27. Danville	...	...	...	...	...	...	2	2	1
28. Calmes Neck	2	2	25	...	...	6	4	8	7
29. N. Shenandoah Valley	...	...	14	...	...	4	9	13	8
30. Shenandoah NP-Luray	4	...	28	...	...	3	2	6	4
31. Big Flat Mountain	...	...	...	...	...	...	...	...	...
32. Rockingham County	...	...	CW	...	...	...	...	2	9
33. Augusta County	...	...	4	...	...	...	2	4	7
34. Waynesboro	...	...	1	...	...	...	1	9	6
35. Lexington	...	...	1	...	...	...	2	4	1
36. Peaks of Otter	...	...	...	...	...	...	...	5	...
37. Fincastle	...	...	...	...	...	...	1	12	1
38. Roanoke	...	...	...	...	...	1	...	3	3
39. Blacksburg	...	...	...	...	...	2	11	5	...
40. Tazewell	...	...	1	...	...	1	1	1	2
41. Glade Spring	...	...	...	...	...	...	...	4	3
42. Blackford	...	...	...	...	...	...	4	1	4
43. Bristol	...	...	1	...	...	...	...	3	4
44. Breaks Interstate Park	...	...	...	...	...	...	...	1	...
45. Wise County	...	...	...	...	...	...	1	1	2
Total individuals:	841	3,634	16,566	186	13	450	306	253	152

Northern Goshawk	Accipiter, sp.	Red-shouldered Hawk	Broad-winged Hawk	Red-tailed Hawk	Rough-legged Hawk	Buteo, sp.	Golden Eagle	American Kestrel	Merlin	Peregrine Falcon	hawk, sp.
...	...	2	...	28	...	1	1	23	3	1	...
1	...	1	...	63	3	...	...	46	...	2	...
1	...	5	...	46	2	...	...	48	3	5	...
...	...	...	...	...	...	...	...	...	1	CW	...
...	...	4	...	24	...	...	...	23	2	2	...
...	...	8	...	57	...	...	...	48	5	1	...
...	...	1	...	32	...	...	...	13	...	1	...
...	...	7	...	16	...	...	...	6	...	...	...
...	...	1	...	14	...	1	...	14	...	1	...
...	...	6	...	13	...	...	...	8	...	...	...
...	...	6	...	15	...	...	...	...	...	...	...
...	...	13	...	50	...	...	...	20	...	2	...
...	...	16	...	20	...	...	...	12	...	...	...
...	...	6	...	41	...	...	...	7	...	...	...
...	...	15	...	24	...	...	...	4	...	...	...
...	4	61	...	102	...	...	...	9	1	...	...
...	1	20	...	95	...	...	...	15	1	...	2
...	...	18	...	55	...	...	...	21	...	...	...
...	5	32	...	65	...	...	...	11	1	...	...
...	...	8	...	19	...	...	...	5	...	...	...
...	...	4	...	16	...	...	...	8	...	...	...
...	...	16	...	23	...	...	...	9	1	...	...
...	...	4	...	38	...	...	...	13	...	...	...
...	...	2	...	16	...	...	...	20	...	...	...
...	...	2	...	9	...	...	...	4	...	...	...
...	1	...	1	44	...	...	...	6	...	...	...
...	...	17	...	23	...	...	...	6	...	...	...
...	...	10	...	96	3	...	...	33	...	...	...
1	...	11	...	97	1	...	...	32	...	CW	...
...	...	2	...	69	3	...	...	33	...	...	...
...	...	...	...	3	...	...	...	...	...	...	...
...	...	2	...	29	...	...	...	29	...	...	...
...	...	1	...	45	1	...	...	31	...	...	...
...	...	1	...	39	...	...	...	23	...	...	...
...	...	3	...	18	...	...	...	12	...	...	...
...	...	...	...	8	...	...	...	...	...	...	...
...	...	2	...	28	...	...	...	11	...	...	...
...	...	3	...	19	...	...	...	6	...	...	...
...	...	3	...	32	...	1	...	11	...	...	...
...	...	5	...	23	...	...	2	9	...	...	...
...	...	4	...	40	...	...	...	21	...	...	...
1	...	1	...	36	...	...	5	19	...	...	...
...	...	2	...	47	...	...	...	37	...	...	...
...	...	3	...	1	...	...	...	2	...	...	...
...	...	8	...	3	...	...	...	5	...	...	...
5	11	336	1	1,581	14	3	8	711	18	15	2

	Ring-necked Pheasant	Ruffed Grouse	Wild Turkey	Northern Bobwhite	Clapper Rail	King Rail	Virginia Rail	large rail, sp.	Sora
1. Chincoteague	...	...	...	3	1	...	3	1	...
2. Wachapreague	...	...	3	17	4	...	1	...	...
3. Cape Charles/Kiptopeke	...	...	...	39	13	...	4	...	1
4. CBBT	...	...	...	...	...	...	...	...	...
5. Little Creek	...	...	...	9	28	...	...	...	...
6. Back Bay	...	...	...	14	...	12	12	...	5
7. Nansemond River	...	...	...	25	45	...	2	...	2
8. Dismal Swamp	...	...	...	...	...	...	...	...	...
9. Newport News	...	...	...	12	9	...	...	...	...
10. Mathews County	...	...	1	CW	17	...	...	...	...
11. Williamsburg	...	...	...	...	1	...	...	...	...
12. Hopewell	...	...	65	2	...	...	...	...	...
13. Walkerton	...	...	12	5	...	...	...	...	...
14. Washington's Birthplace	...	...	23	12	...	...	...	...	...
15. Brooke	...	...	3	...	...	...	...	...	...
16. Fort Belvoir	...	...	5	20	...	4	...	...	...
17. Central Loudoun	...	...	3	...	...	...	...	...	...
18. The Plains	...	...	CW	8	...	...	...	...	...
19. Manassas-Bull Run	...	...	1	...	...	...	...	...	...
20. Chancellorsville	...	...	2	1	...	...	...	...	...
21. Gordonsville	...	...	11	...	...	...	...	...	...
22. Charlottesville	...	...	1	4	...	...	...	...	...
23. Warren	...	...	19	10	...	...	...	...	...
24. Darlington Heights	...	...	28	16	...	...	...	...	...
25. Banister WMA	...	...	...	...	...	...	...	...	...
26. Lynchburg	...	...	9	28	...	...	...	...	...
27. Danville	...	...	...	...	...	...	...	...	...
28. Calmes Neck	3	1	10	4	...	...	...	...	...
29. N. Shenandoah Valley	...	1	7	...	...	...	...	...	...
30. Shenandoah NP-Luray	...	7	14	...	...	...	...	...	...
31. Big Flat Mountain	...	4	...	...	...	...	...	...	...
32. Rockingham County	...	1	...	...	...	...	...	...	...
33. Augusta County	...	...	...	...	...	...	...	...	...
34. Waynesboro	...	...	1	...	...	...	...	...	...
35. Lexington	...	2	7	CW	...	...	...	...	...
36. Peaks of Otter	...	...	...	...	...	...	...	...	...
37. Fincastle	...	...	8	1	...	...	...	...	...
38. Roanoke	...	2	...	1	...	...	...	...	...
39. Blacksburg	...	1	32	...	...	...	...	...	...
40. Tazewell	...	...	...	...	...	...	...	...	...
41. Glade Spring	...	...	...	...	...	...	...	...	...
42. Blackford	...	2	1	...	...	...	...	...	...
43. Bristol	...	...	...	1	...	...	...	...	...
44. Breaks Interstate Park	...	...	...	...	...	...	...	...	...
45. Wise County	...	1	13	...	...	...	...	...	...
Total individuals:	3	22	279	232	118	16	22	1	8

Common Moorhen	American Coot	Black-bellied Plover	Semipalmated Plover	Piping Plover	Killdeer	American Oystercatcher	American Avocet	Greater Yellowlegs	Lesser Yellowlegs	yellowlegs, sp.	Willet
...	277	41	6	1	297	101	...	141	128	..	61
...	...	152	4	...	13	116	...	88	...	7	19
...	17	586	58	...	72	107	1	169	22	...	134
...	...	...	...	...	1	...	...	...	...	...	...
...	85	6	...	...	55	40	...	4	9	...	...
1	520	3	1	...	271	...	...	...	...	...	1
...	27	...	...	...	46	...	...	...	5	...	...
...	1	...	...	...	31	...	...	...	...	...	...
...	207	10	...	...	66	...	...	24	...	...	...
...	5	2	...	...	42	5	...	12	1	..	...
...	45	...	...	...	91	...	...	...	CW	..	...
...	74	...	...	...	128	...	...	...	...	...	...
...	3	...	...	...	94	...	...	...	...	...	...
...	...	...	...	...	5	...	...	...	...	...	...
...	...	...	...	...	46	...	...	...	...	...	...
...	166	...	...	...	134	...	...	13	...	...	...
...	13	...	...	...	13	...	...	...	...	...	...
...	6	...	...	...	87	...	...	...	...	...	...
...	...	...	...	...	29	...	...	...	...	...	...
...	92	...	...	...	7	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	10	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	53	...	...	...	...	...	...
...	27	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	25	...	...	...	...	...	...
...	30	...	...	...	11	...	...	...	...	..	...
...	17	...	...	...	15	...	...	...	...	...	...
...	13	...	...	...	27	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	10	...	...	...	...	...	...
...	...	...	...	...	26	...	...	...	...	...	...
...	2	...	...	...	1	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	1	...	...	...	...	...	...
...	44	...	...	...	48	...	...	...	...	...	...
...	1	...	...	...	5	...	...	...	...	..	...
...	...	...	...	...	1	...	...	...	...	...	...
...	28	...	...	...	14	...	...	...	...	...	...
...	...	...	...	...	7	...	...	...	...	...	...
...	10	...	...	...	27	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	2	...	...	...	...	...	...
1	1,710	800	69	1	1,811	369	1	451	165	7	215

	Spotted Sandpiper	Whimbrel	Marbled Godwit	Ruddy Turnstone	Red Knot	Sanderling	Western Sandpiper	Least Sandpiper	Purple Sandpiper
1. Chincoteague	1	...	45	4	...	268	33	8	...
2.. Wachapreague	...	...	23	18	4	75	40	...	...
3. Cape Charles/Kiptopeke	...	3	26	84	...	518	370	...	2
4. CBBT	...	...	...	3	...	5	...	...	8
5. Little Creek	...	...	...	30	...	242	1	...	27
6. Back Bay	...	...	...	...	...	59	...	...	...
7. Nansemond River	...	...	...	...	...	99	5	83	...
8. Dismal Swamp	...	...	...	...	...	...	...	...	...
9. Newport News	1	...	...	4	...	172	...	...	...
10. Mathews County	...	...	...	4	...	304	14	...	...
11. Williamsburg	...	...	...	...	...	...	...	...	...
12. Hopewell	...	...	...	...	...	...	...	76	...
13. Walkerton	...	...	...	...	...	...	...	...	...
14. Washington's Birthplace	...	...	...	...	...	...	...	...	...
15. Brooke	...	...	...	...	...	...	...	...	...
16. Fort Belvoir	...	...	...	...	...	...	...	...	...
17. Central Loudoun	...	...	...	...	...	...	...	...	...
18. The Plains	...	...	...	...	...	...	...	...	...
19. Manassas-Bull Run	...	...	...	...	...	...	...	...	...
20. Chancellorsville	...	...	...	...	...	...	...	...	...
21. Gordonsville	...	...	...	...	...	...	...	...	...
22. Charlottesville	...	...	...	...	...	...	...	...	...
23. Warren	...	...	...	...	...	...	...	...	...
24. Darlington Heights	...	...	...	...	...	...	...	...	...
25. Banister WMA	...	...	...	...	...	...	...	...	...
26. Lynchburg	...	...	...	...	...	...	...	...	...
...27. Danville	...	...	...	...	...	...	...	...	...
28. Calmes Neck	...	...	...	...	...	...	...	...	...
29. N. Shenandoah Valley	...	...	...	...	...	...	...	...	...
30. Shenandoah NP-Luray	...	...	...	...	...	...	...	...	...
31. Big Flat Mountain	...	...	...	...	...	...	...	...	...
32. Rockingham County	...	...	...	...	...	...	...	...	...
33. Augusta County	...	...	...	...	...	...	...	...	...
34. Waynesboro	...	...	...	...	...	...	...	...	...
35. Lexington	...	...	...	...	...	...	...	...	...
36. Peaks of Otter	...	...	...	...	...	...	...	...	...
37. Fincastle	...	...	...	...	...	...	...	...	...
38. Roanoke	...	...	...	...	...	...	...	...	...
39. Blacksburg	...	...	...	...	...	...	...	...	...
40. Tazewell	...	...	...	...	...	...	...	...	...
41. Glade Spring	...	...	...	...	...	...	...	...	...
42. Blackford	...	...	...	...	...	...	...	...	...
43. Bristol	...	...	...	...	...	...	...	...	...
44. Breaks Interstate Park	...	...	...	...	...	...	...	...	...
45. Wise County	...	...	...	...	...	...	...	...	...
Total individuals:	2	3	94	147	4	1,742	463	167	37

Dunlin	peep, sp.	Short-billed Dowitcher	dowitcher, sp.	Common Snipe	American Woodcock	Great Skua	Laughing Gull	Little Gull	Black-headed Gull	Bonaparte's Gull	Black-tailed Gull
3,677	...	1	172	4	13	...	1	...	...	41	...
905	220	10	...	...	2	...	...	...	...	445	...
7,512	400	105	...	4	41	...	4	...	...	607	...
...	...	...	...	...	...	...	48	...	...	3,200	1
200	...	...	...	...	...	...	85	1	2	2,425	...
25	...	...	...	66	...	1	4	...	...	19	...
78	...	...	...	6	7	...	28	...	...	...	...
...	...	...	...	...	7	...	150	...	...	...	...
184	...	...	...	1	...	...	611	...	...	42	...
406	...	...	20	...	9	...	1	...	...	101	...
...	...	...	...	...	4	...	286	...	...	95	...
...	...	...	...	21	...	...	3,860	...	...	22	...
...	...	...	...	24	3	...	...	...	...	...	...
...	...	...	...	...	2	...	2	...	...	9	...
...	...	...	...	12	1	...	...	...	...	...	...
...	...	...	...	35	15	...	2	...	...	2	...
...	...	...	...	1	1	...	...	...	...	...	...
...	...	...	...	4	...	...	...	...	...	1	...
...	...	...	...	...	7	...	...	...	...	...	...
...	...	...	...	...	1	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	1	2	...	...	...	...	...	...
...	...	...	...	4	4	...	...	...	...	...	...
...	...	...	...	...	2	...	...	...	...	...	...
...	...	...	...	1	3	...	...	...	...	76	...
...	...	...	...	...	2	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	12	...	...	...	...	...	...	...
...	...	...	...	3	...	...	...	...	...	2	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	1	1	...	...	...	...	...	...
...	...	...	...	5	1	...	...	...	...	...	...
...	...	...	...	3	1	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	2	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	13	...
...	...	...	...	3	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	5	...	...	...	...	...	...	...
...	...	...	...	5	...	...	...	...	...	3	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	3	...	...	...	...	...	...	...
12,987	620	116	192	226	123	1	5,082	1	2	7,103	1

	Ring-billed Gull	Herring Gull	Iceland Gull	Lesser Black-backed Gull	Great Black-backed Gull	Black-legged Kittiwake	gull, sp.	Forster's Tern	Black Skimmer
1. Chincoteague	1,693	607	...	...	242	...	...	225	...
2. Wachapreague	640	502	...	...	53	...	106	...	1
3. Cape Charles/Kiptopeke	7,285	5,493	1	1	1,639	...	100	22	...
4. CBBT	16,000	450	CW	1	85	1	9,000	8	...
5. Little Creek	10,760	1,070	...	4	381	...	...	649	3
6. Back Bay	3,275	340	...	8	99	...	210	94	...
7. Nansemond River	17,161	5,843	...	4	381	...	...	4	...
8. Dismal Swamp	9,368	2,016	...	4	804	...	...	...	...
9. Newport News	4,787	1,298	...	...	1,089	...	3,653	65	...
10. Mathews County	1,656	1,838	...	...	41	...	...	130	...
11. Williamsburg	675	143	...	...	107	...	...	79	...
12. Hopewell	11,048	197	...	...	119	...	...	15	...
13. Walkerton	251	4	...	...	...	...	2	...	...
14. Washington's Birthplace	205	12	...	...	9	...	...	20	...
15. Brooke	2,563	246	...	...	41	...	...	...	...
16. Fort Belvoir	5,109	750	...	CW	201	...	140	...	...
17. Central Loudoun	22	3	...	...	...	...	...	...	...
18. The Plains	216	404	...	3	8	...	...	...	...
19. Manassas-Bull Run	926	11	...	...	...	...	3	...	...
20. Chancellorsville	168	1	...	...	...	...	...	...	...
21. Gordonsville	1	...	...	...	...	...	...	...	...
22. Charlottesville	1	...	...	...	...	...	...	...	...
23. Warren	4	...	...	...	...	...	...	...	...
24. Darlington Heights	8	...	...	...	...	...	...	...	...
25. Banister WMA	159	...	...	...	...	...	...	...	...
26. Lynchburg	19	...	...	...	...	...	...	...	...
27. Danville	...	...	...	...	...	...	...	...	...
28. Calmes Neck	9	...	...	...	...	...	...	...	...
29. N. Shenandoah Valley	69	...	...	...	...	...	...	...	...
30. Shenandoah NP-Luray	...	...	...	...	...	...	...	...	...
31. Big Flat Mountain	...	...	...	...	...	...	...	...	...
32. Rockingham County	CW	...	...	...	...	...	...	...	...
33. Augusta County	1	...	...	...	...	...	...	...	...
34. Waynesboro	...	...	...	...	...	...	...	...	...
35. Lexington	...	...	...	...	...	...	...	...	...
36. Peaks of Otter	...	...	...	...	...	...	...	...	...
37. Fincastle	...	...	...	...	...	...	...	...	...
38. Roanoke	248	...	...	...	...	...	...	...	...
39. Blacksburg	636	...	...	...	...	...	...	...	...
40. Tazewell	...	...	...	...	...	...	...	...	...
41. Glade Spring	...	...	...	...	...	...	...	...	...
42. Blackford	4	...	...	...	...	...	...	...	...
43. Bristol	344	4	...	...	...	...	...	...	...
44. Breaks Interstate Park	...	...	...	...	...	...	...	...	...
45. Wise County	...	...	...	...	...	...	...	...	...
Total individuals:	95,311	21,232	1	25	5,299	1	13,214	1,311	4

	Rock Dove	Mourning Dove	Barn Owl	Eastern Screech-Owl	Great Horned Owl	Barred Owl	Long-eared Owl	Short-eared Owl	large owl, sp.	Northern Saw-whet Owl	owl, sp.	hummingbird, sp.
177	260	...	...	23	20	...	1	5	...	2	...	...
71	849	...	...	16	5	...	...	...	...	...	...	...
78	247	...	...	4	5	...	...	2	...	1	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...
900	484	...	...	25	10	2	1	...	...	...	...	...
27	483	...	...	14	10	3	...	1	...	...	...	...
425	202	1	6	17	4	1	10	...	...	...	...	...
32	75	...	...	23	...	7	...	...	...	...	...	...
1,268	675	...	...	2	9	...	...	1	...	...	...	1
32	237	...	...	10	28	1	...	...	...	...	...	...
55	127	...	...	4	3	1	...	...	...	...	...	...
75	205	3	...	...	14	1	...	2	...	...	...	...
8	204	...	...	5	5	5	...	...	...	...	...	...
18	164	...	...	3	3	1	...	...	...	...	...	...
26	191	...	...	...	1	...	...	...	...	...	...	...
262	984	...	...	19	25	19	...	...	...	...	...	...
240	384	...	...	2	5	2	...	...	1	...	...	...
129	455	...	...	5	1	CW	...	1	...	...	...	...
409	243	...	...	1	2	3	...	1	...	...	...	...
11	73	...	...	3	...	1	...	...	...	...	...	...
57	108	1	...	1	...	...	...	...	...	...	...	...
179	463	...	...	5	5	...	...	...	...	...	...	...
161	216	...	...	6	4	...	...	...	...	...	...	...
122	513	...	...	3	1	1	...	...	...	...	...	...
9	45	...	...	7	13	5	...	...	...	...	...	...
165	242	...	...	9	6	...	...	...	...	...	...	...
128	171	...	...	...	...	...	...	...	...	...	...	...
284	619	...	...	9	4	4	...	...	...	...	...	...
1,518	1,402	...	...	21	1	1	1	...	...	...	...	...
482	1,609	...	...	11	4	2	...	...	...	...	...	...
...	...	...	...	3	...	1	...	...	...	...	...	...
1,003	612	...	...	...	2	1	...	...	...	...	3	...
631	453	...	CW	...	...	...	...	...	...	...	...	...
295	336	...	...	4	2	...	...	...	...	...	...	...
417	176	...	...	13	3	...	...	...	...	...	...	...
...	7	...	...	1	...	1	...	...	...	...	...	...
257	243	...	...	5	1	...	...	...	...	...	...	...
1,042	265	...	...	8	3	...	...	...	...	...	...	...
106	726	...	...	5	4	1	...	...	...	...	...	...
258	157	...	...	2	...	...	...	...	...	...	...	...
185	421	1	10	7	...	...	...	...	...	...	...	...
32	124	...	6	6	...	...	...	...	...	...	...	...
370	489	...	11	8	...	...	...	...	...	1	...	...
...	6	...	...	1	...	...	...	...	...	...	...	...
341	142	...	4	...	2	...	...	...	...	...	...	...
12,285	16,087	6	309	238	69	4	23	1	4	3	1	1

	Belted Kingfisher	Red-headed Woodpecker	Red-bellied Woodpecker	Yellow-bellied Sapsucker	Downy Woodpecker	Hairy Woodpecker	Northern Flicker	Pileated Woodpecker	small woodpecker, sp.
1. Chincoteague	30	...	46	7	50	12	80	8	...
2. Wachapreague	25	...	25	2	19	6	88	3	...
3. Cape Charles/Kiptopeke	34	CW	54	10	50	4	138	4	...
4. CBBT	...	...	...	...	...	...	...	...	...
5. Little Creek	23	1	66	14	53	3	43	29	...
6. Back Bay	17	...	40	5	33	4	108	9	...
7. Nansemond River	19	...	36	4	29	5	30	5	...
8. Dismal Swamp	9	1	88	24	131	24	46	61	...
9. Newport News	49	3	68	15	40	3	111	9	...
10. Mathews County	35	...	73	10	47	2	113	11	...
11. Williamsburg	21	5	62	11	41	7	58	19	...
12. Hopewell	25	11	90	49	55	8	205	29	...
13. Walkerton	19	4	36	15	27	5	81	13	...
14. Washington's Birthplace	16	2	63	27	48	8	65	22	...
15. Brooke	18	...	51	7	37	3	31	9	...
16. Fort Belvoir	59	3	302	38	264	61	243	90	...
17. Central Loudoun	20	...	100	50	132	13	81	24	...
18. The Plains	10	2	105	29	94	16	137	36	...
19. Manassas-Bull Run	20	...	97	17	111	40	133	29	...
20. Chancellorsville	7	...	25	4	24	5	23	17	...
21. Gordonsville	3	...	48	14	24	7	42	20	...
22. Charlottesville	34	1	137	62	107	21	184	90	...
23. Warren	13	1	101	69	56	8	81	49	...
24. Darlington Heights	6	...	23	6	13	3	21	7	...
25. Banister WMA	2	27	22	14	12	4	20	4	...
26. Lynchburg	20	6	69	28	47	5	60	32	...
27. Danville	9	...	10	11	7	3	13	2	...
28. Calmes Neck	41	14	155	58	164	33	112	72	...
29. N. Shenandoah Valley	82	4	135	41	162	24	128	74	...
30. Shenandoah NP-Luray	21	...	42	32	75	7	31	37	...
31. Big Flat Mountain	1	...	23	35	33	9	10	22	...
32. Rockingham County	15	...	38	9	58	6	37	14	...
33. Augusta County	19	1	57	13	46	5	28	16	...
34. Waynesboro	10	1	52	16	36	7	37	34	...
35. Lexington	18	...	28	19	47	8	24	26	...
36. Peaks of Otter	1	...	20	20	26	11	10	22	...
37. Fincastle	7	...	38	33	49	12	60	27	...
38. Roanoke	17	...	32	38	38	8	26	22	...
39. Blacksburg	24	7	82	47	152	24	74	45	9
40. Tazewell	10	...	5	4	10	3	5	5	...
41. Glade Spring	15	...	37	18	30	10	19	12	...
42. Blackford	7	...	9	3	20	2	19	7	...
43. Bristol	10	...	19	12	29	3	13	5	...
44. Breaks Interstate Park	1	...	4	1	3	5	1	11	...
45. Wise County	7	1	6	...	33	5	10	9	...
Total individuals:	849	95	2,619	941	2,562	462	2,879	1,091	9

	Eastern Phoebe	flycatcher, sp.	Loggerhead Shrike	White-eyed Vireo	Blue-headed Vireo	Blue Jay	American Crow	Fish Crow	crow, sp.	Common Raven	Horned Lark	Tree Swallow	Cave Swallow
13	...	...	...	...	95	449	1	179	...	...	...	55	...
11	...	...	...	...	80	531	1	...	...	...	...	...	...
17	...	...	...	2	113	452	53	...	...	...	62	...	...
3	...	...	...	4	137	751	120	...	...	...	...	...	...
14	...	...	...	1	50	263	39	...	...	...	...	...	...
9	...	...	...	...	75	299	95	...	...	...	5	...	...
7	...	...	3	10	19	354	54	...	...	...	...	...	...
...	1	...	...	...	165	746	7	...	...	...	...	...	3
2	...	...	...	...	188	750	1	...	...	...	...	...	...
5	...	...	...	...	60	194	9	...	...	...	...	...	...
21	...	...	...	...	56	336	12	50	...	...	...	...	...
18	...	...	...	...	47	518	...	...	...	...	24	...	...
17	...	...	...	...	78	412	1	...	...	...	18	...	...
5	...	...	...	...	97	574	10	...	...	...	...	...	...
10	...	...	...	...	399	1,267	331	4,961	...	...	...	4	...
1	...	...	...	...	204	1,002	5	208	...	...	1	10	...
4	...	...	...	...	238	894	16	...	...	...	4	60	...
3	...	...	...	...	243	2,460	96	394	...	...	...	...	...
5	...	...	...	...	29	547	...	...	...	...	...	...	...
8	...	1	...	...	77	375	...	...	...	...	1	...	...
6	...	...	...	...	611	1,712	1,327	...	...	...	1	...	...
12	...	...	...	...	246	1,233	1	...	...	...	11	...	...
7	...	3	...	...	115	723	...	...	...	...	2	...	...
1	...	...	...	...	70	161	...	...	...	...	...	...	...
13	...	1	...	...	248	650	14	...	...	...	1	4	...
2	...	...	...	...	104	285	...	...	...	...	...	...	...
6	...	2	...	...	264	1,234	1	...	...	...	9	CW	...
5	...	1	...	...	316	1,743	1	...	...	...	5	150	...
2	...	...	...	...	180	1,887	4	...	...	...	37	...	...
1	...	...	...	...	8	21	...	...	...	...	3	...	...
5	...	2	...	...	109	537	...	...	...	...	10	382	...
...	...	...	...	...	275	844	21	70	...	...	1	5	...
4	...	...	...	...	238	1,045	10	...	...	...	3	50	...
7	...	...	...	...	232	1,859	6	...	...	...	12	...	...
4	...	...	...	...	22	116	...	...	...	...	4	...	...
6	...	1	...	1	281	894	...	...	...	...	6	...	...
4	...	...	...	...	104	680	...	...	...	...	4	...	...
14	...	1	...	...	322	793	...	...	...	...	5	...	...
...	...	...	...	...	107	675	...	...	...	...	2	...	...
5	...	2	...	...	165	884	...	...	...	...	1	...	...
3	...	2	...	...	73	671	...	...	...	...	10	...	...
14	...	...	...	...	160	1,497	...	...	...	...	1	...	...
...	...	...	...	...	12	51	...	...	...	...	1	...	...
1	...	...	...	...	62	505	...	...	...	...	7	2	...
295	1	16	3	18	6,774	33,874	2,236	5,862	140	774	59	3	3

	Carolina Chickadee	Black-capped Chickadee	chickadee, sp.	Tufted Titmouse	Red-breasted Nuthatch	White-breasted Nuthatch	Brown-headed Nuthatch	Brown Creeper	Carolina Wren
1. Chincoteague	149	...	...	47	10	1	19	12	140
2. Wachapreague	164	...	...	21	44	...	5	1	119
3. Cape Charles/Kiptopeke	153	...	...	19	12	1	3	13	235
4. CBBT	...	...	...	...	...	...	...	...	...
5. Little Creek	265	...	...	114	13	16	71	8	149
6. Back Bay	204	...	...	51	6	18	31	4	175
7. Nansemond River	94	...	...	57	10	3	9	8	152
8. Dismal Swamp	305	...	...	107	1	74	5	23	175
9. Newport News	222	...	...	117	6	16	10	10	125
10. Mathews County	272	...	...	128	11	2	61	4	260
11. Williamsburg	151	...	...	90	2	48	19	10	162
12. Hopewell	229	...	...	94	4	33	...	4	155
13. Walkerton	106	...	...	57	4	23	...	4	65
14. Washington's Birthplace	80	...	...	81	13	23	...	6	94
15. Brooke	225	...	...	109	7	55	...	3	79
16. Fort Belvoir	1,425	...	...	784	18	259	...	37	580
17. Central Loudoun	365	...	...	219	5	134	...	13	86
18. The Plains	347	...	...	192	14	123	...	9	139
19. Manassas-Bull Run	421	...	...	331	29	134	...	20	175
20. Chancellorsville	185	...	...	101	12	35	...	18	61
21. Gordonsville	85	...	...	48	2	42	...	3	52
22. Charlottesville	355	...	...	252	21	134	...	6	249
23. Warren	258	...	...	136	25	90	...	3	106
24. Darlington Heights	42	...	...	29	1	13	...	1	24
25. Banister WMA	47	...	...	32	1	22	11	7	22
26. Lynchburg	197	...	...	220	21	86	...	2	129
27. Danville	78	...	...	26	...	18	6	3	29
28. Calmes Neck	574	15	...	386	7	235	...	16	162
29. N. Shenandoah Valley	657	81	...	378	8	174	...	35	132
30. Shenandoah NP-Luray	301	14	...	162	8	124	...	15	101
31. Big Flat Mountain	79	...	...	28	21	29	...	6	15
32. Rockingham County	155	11	...	90	4	56	...	2	47
33. Augusta County	240	8	...	136	8	65	...	1	77
34. Waynesboro	206	CW	...	118	6	59	...	4	72
35. Lexington	117	35	126	143	13	71	...	3	52
36. Peaks of Otter	87	9	...	33	15	43	...	8	39
37. Fincastle	215	33	...	98	20	53	...	2	81
38. Roanoke	302	19	...	164	48	74	...	11	84
39. Blacksburg	384	9	127	233	9	157	...	11	230
40. Tazewell	75	...	...	61	2	36	...	...	25
41. Glade Spring	114	...	...	66	...	40	...	3	90
42. Blackford	32	...	...	19	...	18	...	...	15
43. Bristol	91	2	...	73	3	37	...	3	84
44. Breaks Interstate Park	22	3	...	16	5	19	...	1	10
45. Wise County	127	...	...	107	...	51	...	3	66
Total individuals:	10,202	239	253	5,773	474	2,744	250	356	5,149

House Wren	Winter Wren	Sedge Wren	Marsh Wren	Golden-crowned Kinglet	Ruby-crowned Kinglet	kinglet, sp.	Blue-gray Gnatcatcher	Eastern Bluebird	Hermit Thrush	American Robin	Gray Catbird
8	28	9	6	26	29	...	...	207	59	7,957	27
9	6	5	...	25	9	...	...	237	11	430	5
30	23	13	8	58	59	...	CW	277	48	57	28
...	...	...	...	...	...	...	...	...	...	...	...
...	4	1	4	38	60	...	...	6	6	1,170	5
6	8	37	40	19	37	...	...	75	10	234	12
8	12	...	9	27	42	...	...	77	13	569	15
...	35	...	...	92	94	...	...	44	101	2,368	62
1	6	...	5	6	36	...	...	70	1	69	3
...	6	...	1	15	38	...	...	650	32	418	3
2	11	...	...	47	66	...	...	142	9	159	3
2	18	...	1	31	103	...	1	184	19	171	2
...	9	...	...	28	14	...	...	193	18	381	1
...	9	...	...	56	26	...	...	172	32	245	2
3	1	...	...	9	10	...	...	273	11	22	1
1	34	...	1	56	35	...	...	455	40	310	3
...	6	...	...	7	4	...	...	351	15	234	...
...	2	...	...	6	1	...	...	291	26	418	...
...	13	...	...	32	6	...	...	286	13	777	...
...	...	...	...	25	9	...	...	85	8	52	...
...	1	...	...	13	7	...	...	221	2	259	...
...	20	...	...	33	31	...	...	317	57	506	...
...	4	...	...	50	16	...	...	322	47	289	1
...	1	...	...	10	1	...	...	181	3	295	...
...	3	...	...	15	13	...	...	76	3	766	...
...	7	...	...	11	15	...	...	239	16	46	...
...	...	...	...	2	1	...	...	119	1	189	...
...	10	...	...	1	15	...	...	596	23	481	...
CW	17	...	...	11	6	...	...	546	20	220	...
...	17	...	...	23	12	...	...	358	18	41	...
...	5	...	...	2	4	...	...	24	20	72	...
...	1	...	...	3	...	...	...	208	2	44	...
...	4	...	...	14	5	...	...	322	4	203	...
CW	12	...	...	5	6	...	...	194	6	326	...
...	9	...	...	44	14	...	...	124	20	6,189	...
...	5	...	...	15	2	...	...	14	7	173	...
...	2	...	...	20	14	...	...	277	17	673	...
...	13	...	...	21	10	...	...	155	8	321	...
...	21	...	...	47	10	5	...	211	17	228	2
...	...	...	...	6	...	...	...	66	...	2	...
1	1	...	...	30	4	...	...	108	2	26	...
...	...	...	...	4	...	...	...	71	...	655	...
...	4	...	...	56	5	...	...	135	10	185	...
...	4	...	...	19	...	...	...	7	1	13	...
...	1	...	...	9	...	...	...	35	3	28	...
71	393	65	75	1,067	869	5	1	9,001	779	28,271	175

	Northern Mockingbird	Brown Thrasher	European Starling	American Pipit	Cedar Waxwing	Orange-crowned Warbler	Northern Parula	Yellow Warbler	Cape May Warbler
1. Chincoteague	62	31	2,378	298	41	1	...	...	...
2. Wachapreague	93	1	2,461	...	2	1	...	...	...
3. Cape Charles/Kiptopeke	68	6	2,573	23	122	2	1	...	...
4. CBBT	...	...	...	...	...	...	...	...	...
5. Little Creek	62	9	3,515	...	38	CW	...	1	...
6. Back Bay	46	14	1,750	...	12	11	...	...	...
7. Nansemond River	53	9	855	5	76	4	...	...	...
8. Dismal Swamp	8	7	4,247	...	32	7	1	...	...
9. Newport News	89	24	3,636	...	51	1	...	...	...
10. Mathews County	124	19	835	...	344	1	...	...	...
11. Williamsburg	22	9	554	...	198	1	...	...	...
12. Hopewell	63	3	1,605	181	1,152	...	...	...	...
13. Walkerton	36	6	988	9	172	...	...	...	...
14. Washington's Birthplace	57	5	2,394	70	515	...	...	...	...
15. Brooke	78	1	3,339	10	125	...	...	...	...
16. Fort Belvoir	176	5	2,977	6	535	...	...	...	...
17. Central Loudoun	167	...	7,414	12	11	...	...	...	...
18. The Plains	164	...	7,054	1	245	...	...	...	...
19. Manassas-Bull Run	109	...	3,949	...	376	...	...	...	...
20. Chancellorsville	19	...	1,294	...	51	...	...	...	...
21. Gordonsville	45	...	876	...	350	...	...	...	...
22. Charlottesville	118	2	1,723	...	671	...	...	...	...
23. Warren	109	1	1,746	...	468	...	...	1	...
24. Darlington Heights	27	...	2,845	75	320	...	...	...	...
25. Banister WMA	15	2	405	...	110	...	...	...	...
26. Lynchburg	118	1	1,669	...	226	...	...	...	...
27. Danville	57	1	3,767	...	69	...	...	...	...
28. Calmes Neck	172	...	6,707	3	214	...	...	...	...
29. N. Shenandoah Valley	334	...	17,518	...	172	...	...	...	...
30. Shenandoah NP-Luray	81	...	6,654	...	216	...	...	...	...
31. Big Flat Mountain	1	...	...	...	76	...	...	...	...
32. Rockingham County	71	...	3,104	...	16	...	...	...	...
33. Augusta County	200	...	2,972	...	124	...	...	...	...
34. Waynesboro	104	...	735	...	194	...	...	...	...
35. Lexington	69	...	2,253	...	139	...	...	...	...
36. Peaks of Otter	4	...	51	...	198	...	...	...	...
37. Fincastle	116	...	2,067	...	397	...	...	...	...
38. Roanoke	126	1	3,895	...	186	...	...	...	...
39. Blacksburg	168	1	2,197	...	415	...	...	...	...
40. Tazewell	18	...	1,041	...	38	...	...	...	...
41. Glade Spring	59	...	1,952	...	...	...	...	...	...
42. Blackford	19	...	1,112	...	7	...	...	...	...
43. Bristol	78	...	6,969	...	8	...	...	...	...
44. Breaks Interstate Park	...	...	...	...	...	...	...	...	...
45. Wise County	13	1	250	...	17	...	...	...	...
Total individuals:	3,618	159	126,326	693	8,729	29	2	1	1

Yellow-rumped Warbler	Yellow-rumped Warbler (Audubon's race)	Townsend's Warbler	Pine Warbler	Prairie Warbler	Palm Warbler	Black-and-white Warbler	Ovenbird	Common Yellowthroat	Eastern Towhee	American Tree Sparrow	Chipping Sparrow
3,869	1	...	51	...	30	...	...	2	61	...	144
1,411	...	...	5	...	8	...	...	...	6	...	74
3,841	...	1	20	...	140	...	...	4	57	3	54
...	...	...	...	...	...	...	...	...	...	...	...
1,160	...	...	23	...	13	...	...	...	30	...	22
1,925	...	...	15	...	37	...	...	6	85	1	20
512	...	...	9	...	15	...	...	3	47	1	59
243	...	...	9	...	...	...	2	6	120	...	12
3,190	...	...	7	1	...	1	...	1	36	...	2
1,353	...	...	16	...	1	...	...	...	78	...	23
446	...	...	8	...	1	1	...	...	27	...	2
120	...	...	4	...	2	...	...	...	21	...	54
100	...	...	1	...	...	...	...	...	8	...	...
65	...	...	...	...	...	...	...	...	8	...	11
121	...	...	...	...	...	...	...	1	4	1	9
104	...	...	1	...	...	...	...	1	17	23	1
197	...	...	...	...	...	...	...	...	2	61	...
265	...	...	...	...	...	...	...	...	4	19	...
460	...	...	1	...	...	...	...	...	2	9	1
72	...	...	...	...	...	...	...	...	2	...	...
194	...	...	3	...	...	...	...	...	3	...	2
386	...	...	1	...	...	...	...	...	31	2	5
566	...	...	1	...	2	...	...	...	4	1	2
53	...	...	...	...	...	...	...	...	7	...	...
49	...	...	4	...	...	...	...	...	9	...	21
122	...	...	3	...	...	...	...	...	15	...	...
22	...	...	2	...	...	...	...	...	4	...	...
19	...	...	...	...	...	...	...	...	1	20	...
213	...	...	2	...	...	...	...	...	1	8	...
138	...	...	...	...	...	...	...	...	...	2	...
...	...	...	...	...	...	...	...	...	...	...	...
20	...	...	...	...	...	...	...	...	1	...	...
263	...	...	...	...	...	...	...	...	...	2	CW
52	...	...	...	...	...	...	...	...	1	8	1
557	...	...	...	...	...	...	...	...	10	...	...
1	...	...	...	...	...	...	...	...	...	...	...
332	...	...	...	...	...	...	...	...	18	...	1
55	...	...	...	...	2	...	...	...	8	...	...
138	...	...	2	...	...	...	...	...	39	...	2
...	...	...	...	...	...	...	...	...	8	2	...
25	...	...	...	...	...	...	...	...	14	...	2
2	...	...	...	...	...	...	...	...	9	...	...
31	...	...	...	...	...	...	...	...	28	...	...
...	...	...	...	...	...	...	...	...	8	...	...
...	...	...	...	...	...	...	...	...	7	...	3
22,692	1	1	188	1	251	2	2	24	841	163	527

	Field Sparrow	Vesper Sparrow	Savannah Sparrow	Savannah Sparrow (pswich race)	Grasshopper Sparrow	Le Conte's Sparrow	Nelson's Sharp-tailed Sparrow	Saltmarsh Sharp-tailed Sparrow	sharp-tailed sparrow, sp.
1. Chincoteague	114	2	272	...	...	1	5	2	...
2. Wachapreague	16	...	46	15	...	...	...	15	6
3. Cape Charles/Kiptopeke	131	1	324	10	CW	1	4	9	7
4. CBBT	...	...	...	...	...	...	...	...	...
5. Little Creek	16	...	97	...	...	...	...	...	2
6. Back Bay	45	...	265	5	...	7	5	...	...
7. Nansemond River	83	...	267	...	...	...	...	...	2
8. Dismal Swamp	1	...	7	...	...	...	...	...	...
9. Newport News	11	...	17	...	...	...	...	...	...
10. Mathews County	64	...	13	...	...	...	...	...	...
11. Williamsburg	35	...	39	...	...	...	...	...	...
12. Hopewell	89	1	17	...	...	...	...	...	...
13. Walkerton	14	...	21	...	...	...	...	...	...
14. Washington's Birthplace	26	...	4	...	...	...	...	...	...
15. Brooke	34	...	...	...	...	...	...	...	...
16. Fort Belvoir	127	...	2	...	...	...	...	...	...
17. Central Loudoun	82	...	6	...	...	...	...	...	...
18. The Plains	74	...	20	...	...	...	...	...	...
19. Manassas-Bull Run	79	...	2	...	...	...	...	...	...
20. Chancellorsville	13	...	...	...	...	...	...	...	...
21. Gordonsville	51	...	...	...	...	...	...	...	...
22. Charlottesville	190	...	...	...	...	...	...	...	...
23. Warren	163	...	...	...	...	...	...	...	...
24. Darlington Heights	19	...	13	...	...	...	...	...	...
25. Banister WMA	2	...	1	...	...	...	...	...	...
26. Lynchburg	26	...	2	...	...	...	...	...	...
27. Danville	5	...	...	...	...	...	...	...	...
28. Calmes Neck	50	...	19	...	...	...	...	...	...
29. N. Shenandoah Valley	59	...	3	...	...	...	...	...	...
30. Shenandoah NP-Luray	28	...	...	...	...	...	...	...	...
31. Big Flat Mountain	...	...	...	...	...	...	...	...	...
32. Rockingham County	31	...	...	...	...	...	...	...	...
33. Augusta County	9	...	...	...	...	...	...	...	...
34. Waynesboro	18	...	...	...	...	...	...	...	...
35. Lexington	46	...	...	...	...	...	...	...	...
36. Peaks of Otter	1	...	...	...	...	...	...	...	...
37. Fincastle	70	...	...	...	...	...	...	...	...
38. Roanoke	7	1	...	...	...	...	...	...	...
39. Blacksburg	44	...	...	...	...	...	...	...	...
40. Tazewell	7	...	...	...	...	...	...	...	...
41. Glade Spring	9	...	...	...	...	...	...	...	...
42. Blackford	6	...	...	...	...	...	...	...	...
43. Bristol	31	...	...	...	...	...	...	...	...
44. Breaks Interstate Park	...	...	...	...	...	...	...	...	...
45. Wise County	11	...	...	...	...	...	...	...	...
Total individuals:	1,937	5	1,457	30	CW	9	14	26	17

	Seaside Sparrow	Fox Sparrow	Song Sparrow	Lincoln's Sparrow	Swamp Sparrow	White-throated Sparrow	Harris's Sparrow	White-crowned Sparrow	sparrow, sp.	Dark-eyed Junco	Dark-eyed Junco (pink-sided race)	Lapland Longspur
...	32	419	...	...	236	1,250	1	1	...	328	...	...
...	8	132	...	...	4	694	...	1	...	222	...	...
5	122	538	2	...	262	834	...	1	...	121	1	2
2	5	194	...	...	...	232	...	...	...	349	...	...
...	16	249	1	...	205	591	...	2	...	307	...	...
2	5	316	...	...	80	302	...	...	...	243	...	...
...	37	28	1	...	62	427	...	...	...	304	...	...
...	3	121	...	...	12	483	...	...	6	309	...	...
...	20	158	...	...	28	283	...	...	...	738	...	...
...	15	381	...	...	43	709	...	...	...	625	...	...
...	5	364	...	...	19	1,110	...	3	...	918	...	...
...	...	251	...	...	16	496	...	1	...	307	...	...
...	2	178	...	...	14	496	...	3	...	430	...	...
...	1	188	...	...	19	310	...	7	...	635	...	...
...	11	713	...	...	87	1,087	...	2	...	1,326	...	...
...	23	107	...	...	8	587	...	75	...	1,272	...	...
...	3	282	...	...	15	858	...	78	...	1,207	...	...
...	22	237	...	...	...	559	1	4	3	1,988	...	...
...	...	58	...	...	1	78	...	...	...	275	...	...
...	...	84	...	...	20	287	...	21	...	333	...	...
...	11	345	...	...	2	1,673	...	69	...	1,233	...	...
...	8	415	...	...	18	958	...	74	...	705	...	...
...	...	84	...	...	7	267	...	5	...	568	...	...
...	...	37	...	...	16	83	...	9	...	273	...	...
...	2	84	...	...	2	361	...	15	...	388	...	...
...	1	20	...	...	...	140	...	...	...	211	...	...
...	1	257	...	...	6	547	...	134	...	539	...	...
...	16	185	...	...	10	544	...	181	...	1,030	...	...
...	1	105	...	...	1	527	...	166	...	873	...	...
...	...	4	...	...	...	102	...	...	...	142	...	...
...	1	133	...	...	...	203	...	205	...	258	...	...
...	6	105	...	...	4	391	...	200	...	478	...	...
...	10	105	1	...	6	264	...	143	...	346	...	...
...	8	58	...	...	2	334	...	48	...	469	...	...
...	...	19	...	...	...	33	...	...	...	352	...	...
...	8	169	...	...	4	516	...	181	...	364	...	...
...	3	236	...	...	18	226	...	60	...	169	...	...
...	6	385	...	...	4	488	...	135	...	406	...	...
...	1	94	...	...	...	28	...	7	...	32	...	...
...	1	132	...	...	1	105	...	94	...	53	...	...
...	3	83	...	...	...	28	...	26	...	108	...	...
...	12	219	...	...	4	257	...	162	...	165	...	...
...	...	8	...	...	...	14	...	...	...	66	...	...
...	5	78	...	...	1	7	...	...	...	52	...	...
9	434	8,355	5	1,263	19,769	2	2,113	9	21,527	1	2	2

	Snow Bunting	Northern Cardinal	Painted Bunting	Dickcissel	Red-winged Blackbird	Eastern Meadowlark	Rusty Blackbird	Brewer's Blackbird	Common Grackle
1. Chincoteague	...	128	...	...	6,685	208	23	...	12,337
2. Wachapreague	4	117	...	...	590	236	61	...	144
3. Cape Charles/Kiptopeke	...	161	...	5	1,515	246	6	...	896
4. CBBT	...	...	...	...	...	...	...	...	...
5. Little Creek	...	79	CW	...	1,115	2	1	...	64
6. Back Bay	29	117	...	...	8,650	175	51	...	1,200
7. Nansemond River	...	121	...	...	3,142	144	11	...	1,374
8. Dismal Swamp	...	62	...	...	1,221	11	60	1	605
9. Newport News	...	130	...	...	230	29	...	...	446
10. Mathews County	...	168	...	...	492	69	...	...	538
11. Williamsburg	...	181	...	...	712	12	CW	...	9,950
12. Hopewell	...	186	...	...	2,549	98	...	...	97
13. Walkerton	...	124	...	...	594	76	...	...	623
14. Washington's Birthplace	...	136	...	...	1,217	89	...	...	73
15. Brooke	...	171	...	...	145	17	14	...	941
16. Fort Belvoir	...	639	...	...	759	8	9	...	469
17. Central Loudoun	...	301	...	...	62	1	25	...	9
18. The Plains	1	385	...	...	20,015	48	...	...	15,056
19. Manassas-Bull Run	...	425	...	...	66	...	...	...	42
20. Chancellorsville	...	68	...	...	...	13	...	...	...
21. Gordonsville	...	88	...	...	50	46	...	...	2
22. Charlottesville	...	378	...	...	17	2	...	...	7
23. Warren	...	249	...	...	...	48	59	...	1
24. Darlington Heights	...	102	...	...	115	76	...	...	1
25. Banister WMA	...	44	...	...	59	101	30	...	3
26. Lynchburg	...	203	...	...	...	21	...	...	4
27. Danville	...	81	...	...	...	...	...	...	505
28. Calmes Neck	...	522	...	...	39	14	23	...	334
29. N. Shenandoah Valley	...	460	...	...	72	23	7	...	51
30. Shenandoah NP-Luray	...	236	...	...	85	2	6	...	484
31. Big Flat Mountain	...	42	...	...	...	...	...	...	...
32. Rockingham County	...	131	...	...	...	1	...	...	3
33. Augusta County	...	214	...	...	50	22	...	...	4
34. Waynesboro	...	176	...	...	...	3	...	...	...
35. Lexington	...	150	...	...	...	4	...	...	...
36. Peaks of Otter	...	18	...	...	...	...	...	...	...
37. Fincastle	...	152	...	...	...	44	...	...	7
38. Roanoke	...	152	...	...	...	...	...	...	...
39. Blacksburg	...	247	...	...	1	12	...	...	...
40. Tazewell	...	55	...	...	1	...	...	...	...
41. Glade Spring	...	58	...	...	...	23	...	...	...
42. Blackford	...	28	...	...	...	13	...	...	...
43. Bristol	...	164	...	...	8	71	...	...	...
44. Breaks Interstate Park	...	14	...	...	...	...	...	...	...
45. Wise County	...	58	...	...	...	3	...	...	...
Total individuals:	34	7,721	CW	5	50,256	2,011	386	1	46,270

Boat-tailed Grackle	Brown-headed Cowbird	blackbird, sp	Baltimore Oriole	Purple Finch	House Finch	Carpodacus, sp	Red Crossbill	White-winged Crossbill	Common Redpoll	Pine Siskin	American Goldfinch	Evening Grosbeak	House Sparrow
32	1,562	315,000	...	6	133	...	2	...	...	1	245	...	87
402	6	10	...	3	120	...	...	...	...	1	176	...	67
1,444	486	...	...	5	48	...	2	...	37	2	198	...	54
...	...	...	...	...	...	...	...	...	...	...	...	...	...
91	64	...	...	...	97	...	...	...	...	...	123	...	90
402	115	...	...	1	47	...	...	...	...	...	133	...	39
3	79	...	1	1	51	...	2	2	...	2	146	...	32
...	96	...	...	4	21	...	...	...	...	1	150	...	3
86	10	...	...	1	206	...	...	...	...	...	158	...	88
76	9	...	...	...	231	...	...	...	...	1	171	...	75
...	29	...	...	CW	99	...	...	...	...	...	158	...	29
...	52	28	5	10	50	...	...	...	...	...	127	...	18
...	17	15	...	...	9	...	...	...	...	...	103	...	10
...	19	...	...	2	51	...	...	...	...	...	93	...	8
...	145	...	...	2	93	...	...	...	...	...	231	...	103
...	119	30	...	8	366	...	...	...	...	2	646	...	489
...	630	30	...	10	275	...	...	...	1	...	235	...	164
...	3	...	...	48	181	...	...	...	...	...	382	...	68
...	1	12	...	5	196	...	...	...	...	1	203	...	143
...	8	...	...	9	44	...	...	...	...	...	76	2	...
...	20	...	...	154	242	...	...	...	...	30	52	...	19
...	...	...	...	180	406	...	...	...	...	14	561	...	117
...	...	...	...	249	360	...	...	...	...	1	208	...	32
...	2	...	...	21	146	...	...	...	...	15	139	...	27
...	...	...	...	27	66	...	...	...	...	...	53	15	2
...	...	...	...	25	361	...	...	...	...	7	190	...	153
...	1	...	...	14	111	...	...	...	...	6	84	...	9
...	33	...	...	27	164	...	...	...	...	...	310	1	131
...	301	...	1	96	388	...	...	...	...	13	486	...	105
...	18	...	...	7	108	...	...	...	...	9	232	...	88
...	...	...	...	1	...	...	...	...	...	2	25	...	...
...	10	...	...	...	253	...	...	...	...	...	261	...	246
...	2	...	...	4	242	...	...	...	...	2	259	...	251
...	...	...	...	12	113	...	...	...	...	35	239	...	146
...	8	...	...	81	187	...	...	...	...	...	147	...	8
...	...	...	...	30	2	...	7	...	...	...	12	...	...
...	1	...	...	108	218	...	1	...	...	14	272	...	12
...	...	...	...	...	178	...	...	...	...	12	167	...	49
...	...	...	...	12	235	4	...	...	...	1	331	...	277
...	...	...	...	2	29	...	...	...	...	1	49	...	293
...	...	...	...	8	77	...	...	...	...	...	104	8	167
...	...	...	...	...	27	...	...	...	...	...	180	...	2
...	...	...	...	24	259	...	...	...	...	...	217	...	66
...	...	...	...	...	5	...	...	...	...	14	39	...	...
...	...	...	...	5	30	...	...	...	...	...	52	...	145
2,536	3,701	315,125	7	1,202	6,525	4	14	2	38	187	8,423	26	3,912

	Total number of species	Total number of individuals	Dates counts held	Time in the field (a.m. to p.m.)	Skies (a.m.)	Skies (p.m.)
1. Chincoteague	157	402,564	29 Dec	0300-1900	PCD	PCD
2. Wachapreague	127	24,924	18 Dec	0630-1730	PCR	PCR
3. Cape Charles/Kiptopeke	164	55,071	30 Dec	0530-1730	CLR	CLR
4. CBBT	32	30,384	26 Dec	0645-1515	CLR	CLR
5. Little Creek	140	39,873	26 Dec	0530-1730	CLR	CLR
6. Back Bay	139	41,078	29 Dec	0500-1730	CLR	CLR
7. Nansemond River	131	46,990	2 Jan	0001-1730	CLR	CLR
8. Dismal Swamp	94	25,675	3 Dec	0630-1730	CLR	CLR
9. Newport News	124	34,481	18 Dec	0500-1700	PCD	PCD
10. Mathews County	115	22,411	2 Jan	0445-1830	PCR	PCR
11. Williamsburg	99	28,573	19 Dec	0700-1600	CLD	CLD
12. Hopewell	109	43,963	19 Dec	0630-1730	PCD	PCD
13. Walkerton	87	8,177	2 Jan	0515-1730	PCD	PCD
14. Washington's Birthplace	102	31,221	18 Dec	0645-1730	CLR	PCD
15. Brooke	87	14,044	16 Dec	0645-1830	FOG	CLR
16. Fort Belvoir	119	72,722	2 Jan	0645-1630	CLD	CLD
17. Central Loudoun	86	22,326	26 Dec	0400-1845	PCR	PCD
18. The Plains	98	58,936	21 Dec	0500-1745	CLD	CLD
19. Manassas-Bull Run	82	20,912	26 Dec	0500-1730	PCD	PCD
20. Chancellorsville	66	4,929	2 Jan	0530-1630	CLR	CLR
21. Gordonsville	69	5,818	3 Dec	0700-1700	FOG	PCR
22. Charlottesville	79	17,371	19 Dec	0630-1800	CLD	CLD
23. Warren	83	13,667	26 Dec	0630-1715	CLR	CLR
24. Darlington Heights	71	7,647	9 Jan	0700-1730	CLD	LGR
25. Banister WMA	75	3,623	2 Jan	0700-1700	PCD	CLD
26. Lynchburg	81	8,1960	18 Dec	0500-2000	CLR	CLR
27. Danville	59	6,831	18 Dec	0800-1700	MCR	PCD
28. Calmes Neck	92	25,151	2 Jan	0700-1700	CLR	CLR
29. N. Shenandoah Valley	99	34,218	18 Dec	0400-1730	PCD	PCD
30. Shenandoah NP-Luray	81	17,335	19 Dec	0530-1815	FOG	FOG
31. Big Flat Mountain	39	885	29 Dec	0630-1815	CLR	CLR
32. Rockingham County	67	9,375	18 Dec	0700-1630	PCD	PCD
33. Augusta County	73	11,294	18 Dec	0700-1715	PCD	CLR
34. Waynesboro	76	6,640	2 Jan	0715-1715	CLR	PCD
35. Lexington	68	15,189		0530-1800	CLR	CLR
36. Peaks of Otter	44	1,476	21 Dec	0800-1600	CLD	CLD, LGR
37. Fincastle	72	8,921	19 Dec	0600-1700	PCD	PCD
38. Roanoke	76	10,699	18 Dec	0600-1830	CLR	CLR to PCD
39. Blacksburg	84	12,287	18 Dec	0530-1700	CLR	PCR
40. Tazewell	54	3,457	30 Dec	0700-1700	PCR	CLR
41. Glade Spring	65	6,258	2 Jan	0100-1715	CLR	PCD
42. Blackford	60	3,664	2 Jan	0530-1800	CLR	CLR
43. Bristol	80	14,749	26 Dec	0500-1745	CLD	CLD
44. Breaks Interstate Park	38	403	18 Dec	0800-1700	CLR	CLR
45. Wise County	58	2,370	18 Dec	0700-1700	PCD	PCD
Total individuals:	221	1,276,802	...	...	...	...

Water conditions	Wind direction	Wind speed (miles/hour)	Inches of snow on the ground	Temperatures (° Fahrenheit)	Number of field observers	Number of field parties (non-owling)	Number of feeder observers	Hours at feeders	Hours owling	Miles owling
SPF,MWO	NW	5-15	...	23-39	24	10-14	...	...	4.00	7.00
WOP	SE	5	...	50-60	19	11	1	0.50	0.75	0.25
WOP	SW	0-25	...	35-62	46	9-19	...	...	3.00	11.00
WOP	S	18-9	...	19-45	7	1	...	...	...	...
WOP	V	0-15	...	42-60	25	9-12	...	...	6.00	35.00
WOP	V	0-15	...	25-55	21	12-17	...	...	400	16.00
WOP	SW	8-15	...	43-70	14	8	...	...	5.75	34.00
SPO,MWO	SW	0-5	...	54-73	22	10-15	...	...	...	...
WOP	W	0-6	...	44-53	42	13	...	...	4.00	15.75
WOP	SW	1-10	...	43-67	45	12-14	...	...	5.00	19.25
WOP	NE	15-9	...	32-50	26	9	...	...	...	...
SPF,MWO	CALM	...	...	38-55	41	14	...	...	14.25	11.00
WOP	SW	0-15	...	39-69	16	5-6	...	...	2.50	17.00
WOP	V	0-2	...	35-58	20	7-8	...	...	3.25	16.00
WOP	SW	0-15	...	41-54	22	9-11	...	...	...	...
WOP	S	0-20	...	43-67	134	43-45	1	1.50	25.25	67.75
SPF,MWO	V	0-19	...	17-42	47	14-15	...	...	4.25	27.00
WOP	NW	5-20	...	25-43	34	9-12	...	...	4.00	28.00
SPF,MWO	SW	0-10	...	20-41	85	44-22	...	...	6.00	26.50
WOP	S	10-9	...	45-67	14	7	...	...	2.75	15.00
WOP	SW	5	...	57-73	8	5	...	...	0.75	4.00
WOP	NE	0-10	...	38-43	24	19-21	...	...	2.00	11.00
SPF,MWO	SW	4-20	...	18-54	23	13	...	...	1.00	20.00
WOP	W	0-5	...	33-39	17	5	3	4.00	2.00	20.00
WOP	SW	5-15	...	32-64	5	4	...	...	1.50	6.00
WOP	SW	9	...	27-53	38	12	3	12.00	9.00	38.00
WOP	...	...	...	30-40	16	9	1	1.00	...	...
WOP	CALM	...	...	40-66	45	16	1	2.00	3.50	10.00
SPF,MWO	N	0-5	...	31-48	63	22	...	...	9.00	25.00
WOP	V	0-20	...	20-40	26	12-14	...	...	5.00	3.00
WOP	SW	0-20	...	25-40	2	2	...	...	1.50	2.50
WOP	CALM	...	...	38-56	26	6-10	...	...	...	...
SPF,MWO	V	0-3	...	30-64	29	12	2	3.00	2.00	26.00
WOP	SE	0-10	...	34-67	37	11-13	1	8.50	1.50	9.00
SPF,MWO	W	5-20	...	15-40	19	6-12	3	3.00	2.00	8.00
WOP	N	4	...	40-45	17	6	...	...	28.00	41.00
WOP	NE	4	...	38-50	20	14	...	...	...	...
WOP	V	0-3	...	44-55	33	14	7	3.00	3.00	5.00
WOP	CALM	...	...	27-52	44	18-19	5	6.00	6.25	17.00
SPF,MWO	NW	3-5	...	38-64	7	5	1	3.00	...	...
SPF,MWO	V	0-5	...	28-60	8	6	...	...	7.00	20.00
SWO,MPF	CALM	...	...	34-71	9	4	...	...	2.00	25.00
SPF,MWO	S	0-20	...	14-44	17	6	...	...	8.50	92.00
WOP	SW	1-3	...	27-55	7	4	...	...	1.00	0.00
WOP	NW	0-5	...	30-55	9	9	...	...	...	...
...	...	...	...	...	1,253	466-530	29	59.50	191.25	729.00

	Hours on foot	Hours by car	Hours by boat/canoe	Total hours (excluding owling & feeder hours)	Miles on foot	Miles by car	Miles by boat/canoe	Total miles (excluding owling miles)
1. Chincoteague	59.50	35.50	...	95.00	42.50	279.00	...	321.50
2. Wachapreague	45.50	36.75	8.00	90.25	36.50	347.00	14.00	397.50
3. Cape Charles/Kiptopeke	97.00	42.00	4.00	143.00	58.00	331.00	15.00	404.00
4. CBBT	8.00	0.50	...	8.50	1.00	5.00	...	6.00
5. Little Creek	98.00	13.00	...	108.00	48.00	332.00	...	380.00
6. Back Bay	90.00	12.00	3.00	105.00	44.00	354.00	10.00	408.00
7. Nansemond River	41.50	27.75	4.25	73.50	23.00	295.00	41.50	259.50
8. Dismal Swamp	61.50	20.00	...	81.50	117.50	165.50	...	283.00
9. Newport News	76.25	36.50	...	112.75	42.75	388.25	...	431.00
10. Mathews County	66.50	47.75	2.00	116.25	37.75	349.00	2.00	388.75
11. Williamsburg	43.25	37.00	0.50	80.75	24.25	310.50	3.00	337.75
12. Hopewell	75.75	27.50	3.50	106.75	48.25	308.25	12.00	368.50
13. Walkerton	23.00	27.00	6.00	56.00	23.00	261.00	40.00	324.00
14. Washington's Birthplace	19.00	38.00	...	67.00	19.50	360.00	...	379.50
15. Brooke	43.00	48.00	...	91.00	40.00	298.00	...	338.00
16. Fort Belvoir	257.25	33.50	...	290.75	175.00	270.00	...	445.00
17. Central Loudoun	70.00	41.00	...	111.00	58.25	488.50	...	546.75
18. The Plains	30.00	91.50	...	121.50	30.50	421.00	...	451.50
19. Manassas-Bull Run	130.00	...	...	130.00	98.00	...	...	98.00
20. Chancellorsville	23.25	18.75	...	42.00	16.50	234.00	...	250.50
21. Gordonsville	19.00	30.00	...	49.00	17.00	174.00	...	191.00
22. Charlottesville	117.50	19.50	6.00	143.00	111.00	202.00	6.00	319.00
23. Warren	90.00	16.50	...	106.50	85.00	138.00	...	223.00
24. Darlington Heights	9.00	36.00	...	45.00	7.50	301.00	...	308.50
25. Banister WMA	18.00	9.25	...	27.25	13.00	132.00	...	145.00
26. Lynchburg	39.00	37.00	...	76.00	31.00	390.00	...	421.00
27. Danville	24.00	15.00	...	39.00	21.00	115.00	...	136.00
28. Calmes Neck	57.00	75.00	...	132.00	71.00	646.00	...	717.00
29. N. Shenandoah Valley	56.00	117.00	18.00	191.00	72.00	993.00	24.00	1089.00
30. Shenandoah NP-Luray	44.25	68.25	...	112.50	54.50	539.00	...	593.50
31. Big Flat Mountain	20.75	...	...	20.75	31.00	...	...	31.00
32. Rockingham County	16.75	38.75	...	55.50	15.50	395.00	...	410.50
33. Augusta County	26.00	61.75	...	87.75	17.25	473.50	...	490.75
34. Waynesboro	45.00	40.50	...	85.50	34.00	379.00	...	413.00
35. Lexington	42.00	18.00	...	60.00	27.00	154.00	...	181.00
36. Peaks of Otter	20.00	8.00	...	28.00	16.00	25.00	...	41.00
37. Fincastle	29.00	42.00	...	71.00	19.00	302.00	...	321.00
38. Roanoke	32.50	58.50	...	91.00	38.00	286.50	...	324.50
39. Blacksburg	110.00	36.00	...	146.00	93.50	308.50	...	402.00
40. Tazewell	2.00	36.00	...	38.00	9.00	239.00	...	248.00
41. Glade Spring	25.00	30.50	...	55.50	11.50	375.00	...	386.50
42. Elackford	5.00	28.00	...	33.00	9.00	384.00	...	393.00
43. Bristol	25.50	27.00	...	52.50	15.00	393.00	...	408.00
44. Breaks Interstate Park	23.00	5.00	...	28.00	17.00	23.00	...	40.00
45. Wise County	25.00	32.00	...	57.00	14.00	271.00	...	285.00
Total individuals:	2,286.50	1,519.50	55.25	3,861.25	1,834.00	13,435.50	167.50	15,437.00

## CHRISTMAS COUNT DESCRIPTIONS

(Observers are listed for Darlington Heights, Lynchburg, Danville, Peaks of Otter, Roanoke, and Bristol—counts which do not appear in the one-hundredth Christmas bird count book published by The National Audubon Society.

1. CHINCOTEAGUE NATIONAL WILDLIFE REFUGE. 37°58'N 75°22'W  
*Center:* 2 miles north of center of Chincoteague in Accomack County.  
*Compilers:* Richard and Nancy Roberts (7212 Fiddler Bay Lane, Chincoteague, VA 23336; nroberts@shore.intercom.net).
2. WACHAPREAGUE. 37°40'N 75°42'W  
*Center:* Jct. 789 and 715 in Accomack County.  
*Compiler:* Irvin Ailes (6479 Myrtle Lane, Chincoteague, VA 23336-3821; imailles@shore.intercom.net).
3. CAPE CHARLES/KIPTOPEKE. 37°12'N 75°56'W  
*Center:* 1.5 miles southeast of Capeville Post Office in Northampton County.  
*Compiler:* Henry Armistead (523 E. Durham St., Philadelphia, PA 19119; 74077.3175@compuserve.com).
4. CHESAPEAKE BAY BRIDGE-TUNNEL (CBBT). 37°05'N 76°03'W  
*Center:* The northern three islands of the bridge-tunnel complex and adjacent waters out to one mile.  
*Compiler:* Ned Brinkley (9 Randolph Ave., Cape Charles, VA 23310; phoebetria@aol.com).
5. LITTLE CREEK. 36°51'N 76°06'W  
*Center:* 3.8 miles northeast of Kempsville in Virginia Beach.  
*Compiler:* Paul Sykes (1080 Forest Rd., Watkinsville, GA 30677; paul\_sykes@usgs.gov).
6. BACK BAY NATIONAL WILDLIFE REFUGE. 36°39'N 76°00'W  
*Center:* 1.5 miles east of Back Bay NWR.  
*Compiler:* Paul Sykes (1080 Forest Rd., Watkinsville, GA 30677; paul\_sykes@usgs.gov).
7. NANSEMOND RIVER. 36°52'N 76°26'W  
*Center:* Jct. 17 and 626 in Pughsville, Suffolk.  
*Compiler:* Les Willis (P.O. Box 6063, Suffolk, VA 23433; cwillis@infi.net).

## 8. DISMAL SWAMP. 36°40'N 76°29'W

*Center:* Intersections of Middle and Jericho Ditches in Dismal Swamp National Wildlife Refuge.

*Compilers:* Donald Schwab (1411 Planters Dr., Suffolk, VA 23434; vacanebrake@yahoo.com); and Thomas Gwynn III (1640 Morris Ave., Norfolk, VA 23509).

## 9. NEWPORT NEWS. 37°05'N 76°25'W

*Center:* Northern corner of Magruder & Cmdr. Shepard boulevards in Hampton.

*Compiler:* Hayes Williams (P.O. Box 95, White Marsh, VA 23183-0095; joycewms@inna.net).

## 10. MATHEWS COUNTY. 37°25'N 76°18'W

*Center:* 0.5 mile east of Beaverlett Post Office in Mathews County.

*Compiler:* Mary Pulley (HC 75, Box 2750, Hudgins, VA 23076).

## 11. WILLIAMSBURG. 37°17'N 76°42'W

*Center:* Colonial Williamsburg Information Center in Williamsburg.

*Compiler:* Bill Holcombe (4705 Lady Slipper Path, Williamsburg, VA 23188; bowljack@aol.com).

## 12. HOPEWELL. 37°23'N 77°17'W

*Center:* Curles Neck in Henrico County.

*Compiler:* Sherrie Siers (724 Luton Lane, Richmond, VA 23225).

## 13. WALKERTON. 37°46'N 77°02'W

*Center:* 1.5 miles southwest of Walkerton bridge, just west of Whitebank.

*Compiler:* Fred Atwood (Flint Hill School, 10409 Academic Dr., Oakton, VA 22124; fredatwood@yahoo.com).

## 14. WASHINGTON'S BIRTHPLACE. 38°07'N 76°57'W

*Center:* Horners in Westmoreland County.

*Compiler:* William Portlock (23195 Mt. Cloud Rd., Bowling Green, VA 22427; portlock@bealenet.com).

## 15. BROOKE. 38°22'N 77°20'W

*Center:* At Center Road 3 miles east southeast of Brooke in Stafford County.

*Compiler:* David Stewart (10715 Midsummer Dr., Reston, VA 20191; o.b.james@worldnet.att.net).

## 16. FORT BELVOIR. 38°41'N 77°12'W

*Center:* Pohick Episcopal Church, Fort Belvoir, in eastern Fairfax County.

*Compiler:* Kurt Gaskill (4101 Komes Ct., Alexandria, VA 22306; kurtcapt87@aol.com).

17. CENTRAL LOUDOUN. 39°06'N 77°38'W  
*Center:* Near jct. Of 704 and 769 in Loudoun County.  
*Compiler:* Joseph Coleman (19499 Yellow Schoolhouse Road. Round Hill, VA 20141; wcolem@erols.com).
18. THE PLAINS. 38°48'N 77°52'W  
*Center:* 7 miles northwest of Warrenton on the west side of Watery Mountain along Carter Creek in Fauquier County.  
*Compiler:* Todd Day (5118 Beaver Dam Road, Jeffersonton, VA 22724; blkvulture@aol.com)
19. MANASSAS-BULL RUN. 38°50'N 77°26'W  
*Center:* Centreville in western Fairfax County  
*Compiler:* John Dent (6804 Langley Springs Ct., McLean, VA 22101; johndent@erols.com)
20. CHANCELLORSVILLE. 38°16'N 77°40'W  
*Center:* Chancellorsville Battlefield, 10 miles west of Fredericksburg in Spotsylvania County.  
*Compiler:* Joella Killian (Dept. Of Biology, Mary Washington College, Fredericksburg, VA 22401; jkillian@mwc.edu).
21. GORDONSVILLE. 38°09'N 78°12' W  
*Center:* Jct. Of 15 and 33 north of the town of Gordonsville in Orange County.  
*Compiler:* Donald Ober (P.O. Box 6, Orange, VA 22960; ober@ns.gemlink.com).
22. CHARLOTTESVILLE. 38°04'N 78°34'W  
*Center:* Near Ivy in Albemarle County.  
*Compiler:* Charles Stevens (615 Preston Place, Charlottesville, VA 22903).
23. WARREN. 37°51'N 78°33'W  
*Center:* At Keene in Albemarle County.  
*Compiler:* Charles Stevens (615 Preston Place, Charlottesville, VA 22903).
24. DARLINGTON HEIGHTS. 37°12'N 78°37'W  
*Center:* Darlington Heights Post Office in Price Edward County.  
*Compiler:* Carolyn Wells (204 Fayette St., Farmville, VA 23901).  
*Observers:* Vera Copple, John Dalmas, Thelma Dalmas, David Gilbert, Jane Holman, Ann Ingram, Judy McCann, Judy McReynolds, Kathy Menold, Peter Menold, Vermont, Miller, Tom Price, Chris Register, Katie Register, George Shorter, May Shorter, David Spears, Randy Thrasher, Sue Thrasher, and Carolyn Wells.

25. BANISTER RIVER WILDLIFE MANAGEMENT AREAS. 36°43'N 78°48'W  
*Center:* At Banister River Wildlife Management Areas in Halifax County.  
*Compiler:* Jeffrey Blalock (103 Elizabeth Court, South Boston, VA 24592;  
jblalock@dimanusa.com).

26. LYNCHBURG. 37°24'N 79°11'W  
*Center:* Lynchburg College in Lynchburg.  
*Compilers:* John and Thelma Dalmas (1230 Viewmont Dr., Evington, VA  
24550-2006; jtdalmas@juno.com).  
*Observers:* Rexanne Bruno, Ed Calvert, Regina Carson, John Dalmas, Thelma  
Dalmas, Virginia Delaney, Kathie Driscoll, Betty Epperson, Robert Epperson,  
Bob Eubank, Charles Hansrote, Melva Hansrote, Cindy Hurt, Mark Johnson,  
Phyllis Jones, Margaret Kehrer, Victor Kehrer, Dick Miller, RuthAnn Miller,  
Gene Moore, Myriam Moore, John Nowlin, Beth Nyden, Claudia Puckette,  
Dan Puckette, Daniel Puckette, Norma Jean Rist, Laura Rogers, Gene Sattler,  
Macon Smith, Susan Stanton, Ed Theisinger, Randy Thrasher, Sue Thrasher,  
Margaret Wenning, Susan Wingfield, and Jo Wood.

27. DANVILLE. 36°34'N 79°25'W  
*Center:* Ballou Park in Danville.  
*Compiler:* Laura D. Meder (Dept. Of Biology, Averett college, 420 W. Main St.,  
Danville, VA 24541; lmeder@averett.edu).  
*Observers:* Pat Brachman, Barbara Clark, Edward Fisher, Patt Fisher, Mary  
Foster, Steven Friddle, Vickie Fuguay, Ann Garbett, Gary Grant, Andrew  
Hudgins, Laura Meder, Margaret Milam, Sue Urbanik, Margaret Weringo,  
Larry Wilburn, Nultie Wiseman, and Hugh Wyatt.

28. CALMES NECK. 39°07'N 77°54'W  
*Center:* Castlemans Ferry Bridge, State Route 7, and the Shenandoah River in  
Clarke County.  
*Compiler:* Frances Endicott (3385 Calmes Neck Lane, Boyce, VA 22620).

29. NORTHERN SHENANDOAH VALLEY. 39°03'N 78°10'W  
*Center:* Jct. Crooked Run and Rt. 606 in Frederick County.  
*Compilers:* Rob and Ann Simpson (1932 E. Refuge Church Rd., Stephens City, VA  
22655; snphotos@visuallink.com).

30. SHENANDOAH NATIONAL PARK—LURAY. 38°35'N 78°28'W  
*Center:* Hershberger Hill near Stanley in Page County.  
*Compiler:* Mara Meisel (304 Trenton Ave., Shenandoah, VA 22849).

31. BIG FLAT MOUNTAIN. 38°11'N 78°43'W  
*Center:* On Pasture Fence Mountain in Albemarle County.  
*Compiler:* Charles Stevens (615 Preston Pl., Charlottesville, VA 22903).

32. ROCKINGHAM COUNTY. 38°26'N 79°02'W  
*Center:* Ottobine in Rockingham County.  
*Compiler:* Chuck Aukerman (301 West Bank Street, Bridgewater, VA 22812-1005; auker@aol.com).
33. AUGUSTA COUNTY. 38°12'N 78°59'W  
*Center:* Jct. 780 and 781 in Augusta County.  
*Compiler:* John Mehner (1036 Selma Boulevard, Staunton, VA 24401).
34. WAYNESBORO. 37°59'N 78°57'W  
*Center:* Sherando at Jct. 610 and 664 in Augusta County.  
*Compiler:* Crista Cabe (404 DuPont Ave., Staunton, VA 24401; ccabe@mbc.edu).
35. LEXINGTON. 37°51'N 79°29'W  
*Center:* Big Spring Pond in Rockbridge County.  
*Compilers:* Bob Paxton (460 Riverside Dr. #72, New York, NY 10027; rop1@columbia.edu) and George Tolley (492 Greenhouse Rd., Lexington, VA 24450; gtolley@rockbridge.net).
36. PEAKS OF OTTER. 37°27'N 79°36'W  
*Center:* Peaks of Otter Visitor Center in Bedford County.  
*Compiler:* Barry Kinzie (P.O. Box 446, Troutville, VA 24175).  
*Observers:* Ian Keene-Babcock, Mike Donahue, Sarah Donahue, Mark Dugo, Loren Graham, Charles Hansrote, Melva Hansrote, Dare Hicks, Eunice Hudgins, John Hudgins, Bill Hunley, Barry Kinzie, Katrina Knight, Mike Stinson, Kathy Summers, Kent Summers, and Liz Williams.
37. FINCASTLE. 37°31'N 79°52'W  
*Center:* North of Fincastle near Jct. 220 and 679 in Botetourt County.  
*Compiler:* Barry Kinzie (P.O. Box 446, Troutville, VA 24175).
38. ROANOKE. 37°18'N 79°56'W  
*Center:* Oakland Blvd. And Williamson Rd. In Roanoke.  
*Compiler:* Mike Donahue (147 Southampton Dr., Roanoke, VA 24179).  
*Observers:* Mary Lou Agee, Geoff Bader, Mary Lou Banett, Sid Banett, Linda Cory, John Cutler, Rupert Cutler, Marshall Daniels, Mike Donahue, Sarah Donahue, Tad Finnell, Perry Forbes, Loren Graham, Bob Hogan, David Holt, Joyce Holt, Eunice Hudgins, John Hudgins, Bill Hunley, Alice Hylton, Tom Johnson, Ian Keen-Babcock, Tina Kemper, Barry Kinzie, Katrina Knight, Pat Lanery, Mike Purdy, Miriam Rogan, Arthur Rogers, Mike Smith, Kathy Summers, Kent Summers, Liz Williams, Martha Wood, and Holly Woodson.

## 39. BLACKSBURG. 36°43'N 78°48'W

*Center:* Jct. Merrimac Rd. (657) and Prices Fork Rd. (685) in Montgomery County.

*Compilers:* Patricia A. Polentz (915 Coal Hollow Rd., Christiansburg, VA 24073; thomas@usit.net) and Bruce Grimes (2306 Terra Bella St., Blacksburg, VA 24060; bgrimes@bev.net).

## 40. TAZEWEEL. 37°08'N 81°30'W

*Center:* Fourway in Tazewell County.

*Compiler:* Sarah Cromer (P.O. Box 98, North Tazewell, VA 24630).

## 41. GLADE SPRING. 36°47'N 81°47'W

*Center:* Jct. 750 and 609 in Glade Spring.

*Compiler:* Larry McDaniel 17 Crown Circle, Bristol, TN 37620; larrymcdani@aol.com).

## 42. BLACKFORD. 81°55'N 37°00'W

*Center:* Confluence of the Clinch and Little rivers in Russell County.

*Compiler:* Robert Riggs (Rt. 2, Box 27B, Lebanon, VA 24266; sheba@mounet.com).

## 43. BRISTOL. 36°35'N 82°06'W

*Center:* Jct. 647 and 654, east of Bristol TN in Washington County VA.

*Compiler:* Richard Lewis (407 V.I. Ranch Rd., Bristol, TN 37620; mountainbirds@email.com).

*Observers:* Rob Biller, Ron Carrico, Wallace Coffey, Bert Hale, Ken Hale, Loraine Hale, Andy Jones, Richard Knight, Geoff Larsen, Richard Lewis, Amanda Martin, Audrey Mayer, Tony Messina, Bob Quillen, John Shumate, and Dave Worley.

## 44. BREAKS INTERSTATE PARK. 37°15'N 82°13'W

*Center:* 4.5 miles n.e. of Haysi in Buchanan County.

*Compiler:* Terry Owens (PO Box 100, Breaks, VA 24607).

## 45. WISE COUNTY. 36°57'N 82°39' W

*Center:* At Dorchester in Norton City.

*Compiler:* Randy Stanley (2432 Egan Rd., Big Stone Gap, VA 24219; randyst@compunet.net).

IN MEMORIAM:  
RUSKIN SKIDMORE FREER, 1894 - 1984

THELMA H. DALMAS  
1230 Viewmont Drive  
Evington, VA 24550

Ruskin Skidmore Freer died in Lynchburg, Virginia on February 26, 1984 at the age of 89. He was survived by a son, David, a daughter, Jane F. Brinkley, and four grandchildren. He was one of the founders of the Virginia Society of Ornithology and served as the first President, from 1929 through 1935. During the early months of 1929, he corresponded with several individuals across the state discussing the possibility of forming an organization devoted to bird study in the Commonwealth. On November 22, 1929 he sent out a letter to 35 people who had expressed an interest in the idea and called for a meeting on December 7 to be held in Westover Hall on the campus of Lynchburg College. This was the founding meeting of the Virginia Society of Ornithology.

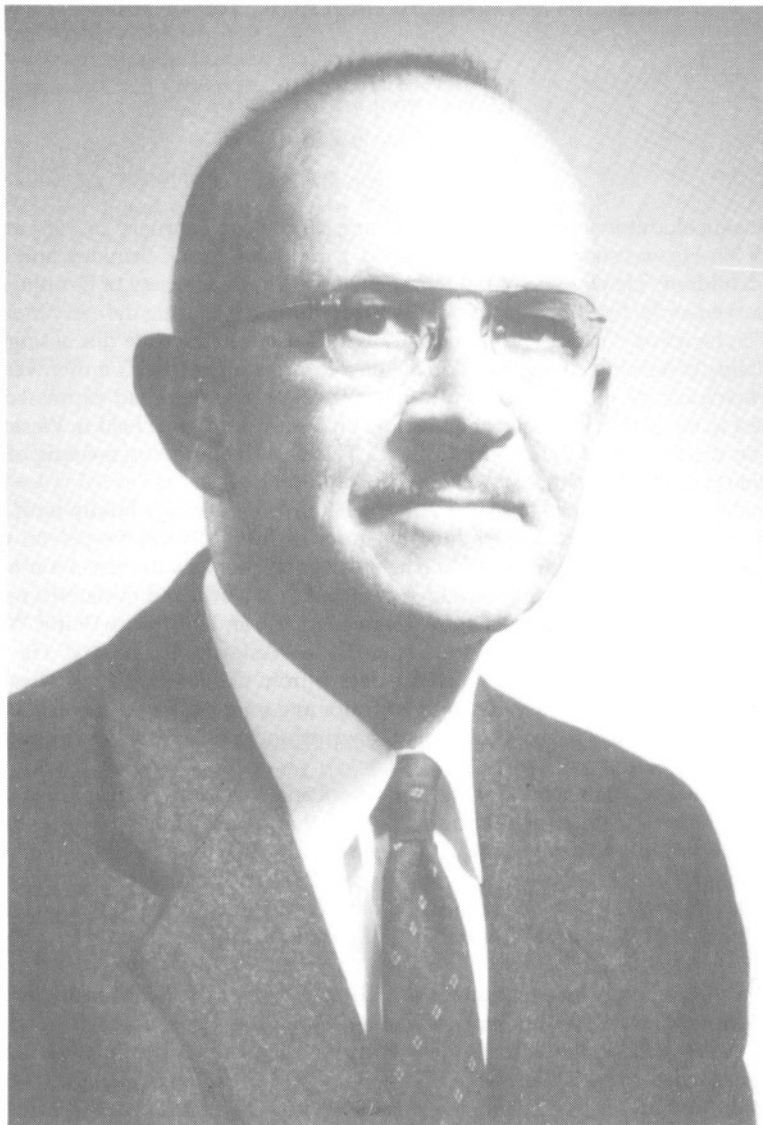
Ruskin Freer was born on April 2, 1894 in Kenyon, Ohio in a family with two brothers and two sisters. He credited his grandmother as being the person who first inspired his interest in birds when he was a young boy. By the time he entered Hiram College he had developed a love of the natural world and declared a major in biology. He received his Bachelor's Degree in 1917, and following World War I, obtained a Master's Degree in 1924 from Ohio Wesleyan University. He was awarded an Honorary Doctor of Science degree from Culver-Stockton College in 1960 for "his outstanding service as an educator and scientist, for his dedication to higher education, and his contributions as a writer and scholar in the fields of ornithology and botany".

His first wife, Ruth, who was his high school and college sweetheart, died only 19 months after their marriage, and shortly after that, in 1924, Ruskin Freer came to Lynchburg College to head the biology department. He began the first Lynchburg Christmas Count in 1927, and remained an active participant on that census well into his eighties. In 1934, he married Dorothy Louise Scoggan, and this wedding was highlighted in Volume V, Number 6, of *The Raven* in June 1934:

"A wedding party of great interest to all members of the VSO family was celebrated on June 23rd at Camp Kewanzee, high up on Apple Orchard Mountain, in the Blue Ridge, when Professor Ruskin S. Freer, President of the VSO, was married to Miss Dorothy L. Scoggan, who has so long published *The Raven* for the Society. The officiating minister was Dr. J. J. Murray, the Editor of *The Raven*. The wedding party rode as far as possible up the mountain,

then hiked the remaining two miles to Camp Kewanzee, the bride being given a horse for the upward trip, but scorning such assistance on the return. The day was perfect...mountain laurel in full bloom and the Veeries sang a wedding chant."

Ruskin Freer was known not only for his contributions to the study of ornithology in Virginia, but also for his interest in both the flora and geology of the Blue



Ruskin S. Freer, 1894-1984

Ridge. He was the author of many articles on bird distribution and behavior published in *The Raven*, served as the editor of *The Virginia Journal of Science*, and President of the Virginia Academy of Science. In 1938 he compiled an annotated checklist of *The Birds of Lynchburg and Vicinity* and issued a revised edition in 1973. In 1958, Ruskin Freer, along with Grace Taylor Wiltshire and several others, was instrumental in founding the Lynchburg Bird Club. He worked for over fifty years documenting the flora of the Central Blue Ridge, with much of his work published in the journal *Castanea*, and is acknowledged by Merritt Fernald in Gray's *Manual of Botany*, Fifth Edition for his assistance in Virginia.

In 1964, Ruskin Freer retired from Lynchburg College after forty years of teaching. He was the first living person to have a building named for him at that institution. On May 12, 1979, the Ruskin Freer Nature Preserve, a part of the Blackwater Creek Natural Area in Lynchburg, was named in his honor. The Lynchburg Bird Club presented a plaque that stands at the entrance of the preserve and is inscribed, "Ruskin S. Freer: As a teacher, writer, naturalist, scientist, and citizen, he has enhanced the quality of our lives." The Gwynn Ramsey-Ruskin Freer Herbarium at Lynchburg College was dedicated on April 17, 1999. The herbarium had been established in 1927 by Freer under whose guidance the collection grew to over 3000 specimens.

I came to know Ruskin Freer in 1970 through a weekly nature column, *The Rambler*, which he wrote for the *Lynchburg News and Advance* from 1926 through 1980. My husband, John, and I had read one of his articles about a plant called Joe-Pye Weed, and the description of the flower so intrigued us that we decided to go out and find it. Since we had neither a field guide nor any idea what the plant actually looked like, this proved to be quite a task. Our enthusiasm was matched only by our ignorance, but it didn't take us very long to realize that if we wanted to know anything about nature, we would have to study.

Every Sunday we would read *The Rambler*, then try to find out more information about that week's topic. We purchased books, made observations, spent many hours in the field, and before long we began to see the world with different eyes. The direction of our lives had been changed. Ruskin Freer had that effect on many people. His profound love of nature was a cornerstone of his life and in his sharing of those values, both through his writing and teaching, he bestowed a wonderful gift to so many.

Toward the end of his life, both hearing and vision began to fail and I took him with me to a banding station in Bedford County. It was a warm autumn morning and I told him about the sounds all around us. Crows were calling, mockingbirds were singing, and turkeys scratched in the dry leaves. We caught a Yellow Warbler and a Carolina Wren in the mist nets. Before releasing them, Dr. Freer held the tiny birds close to his face and was able to see them once more. It was a grand day and he was a grand man...a gentle man, and my friend. He is missed by all who knew him.

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*Editor's note: At a recent meeting of the VSO's board of directors it was pointed out that an obituary for Ruskin Freer had not appeared in The Raven after his death in 1984. Because of his singular role in the organization and early history of our society, the board asked that an obituary of Dr. Freer be prepared for publication, and we present it here.*

**IN MEMORIAM:  
CHARLES O. HANDLEY, JR., 1924-2000**

DAVID W. JOHNSTON  
5219 Concordia Street  
Fairfax, VA 22032

Charles O. Handley, Jr. was born in Texas but spent most of his life in Virginia where he and his father kept bird records for many years, chiefly in the Blacksburg area where his father was a renowned wildlife expert. Charles held degrees from VPI and the University of Michigan. His first position at the Smithsonian Institution was as an assistant curator of birds, then he was a curator of mammals there for 53 years. He traveled widely over the globe on mammal research, from the high arctic to the Kalahari Desert to Brazil, most recently concentrating on Central American bats, often discovering new species. For some 60 years he tromped the forests and recorded bird life near Mountain Lake where the family owned "Skull Lodge" on Little Stony Creek. He was still making bird reports from that region into the 1990s, including reports of rare Peregrine Falcons and Mourning Warblers, incidental to his small mammal research.

His first bird note appeared in 1937 in *The Raven* and the last in 1998, with some 27 articles and notes published in the intervening years, not including those in other bird journals. Although recognized by his peers as a distinguished mammalogist, Charles was a genuine all-round naturalist quite knowledgeable about ferns, flowering plants, forest ecology, wetlands, and, of course, birds.

Charles was a kind, enthusiastic person, generous with his profound knowledge of natural history and mammals to students and professionals alike. He will be missed by friends and colleagues who had the opportunity of associating with such an experienced natural historian.





## INFORMATION FOR CONTRIBUTORS

*The Raven*, the official journal of the Virginia Society of Ornithology (VSO), functions to publish original contributions and review articles in ornithology not published elsewhere, mostly relating to Virginia birdlife. Manuscripts should be sent to the editor, C. Michael Stinson, 4362 Pin Oak Road, Prospect, VA 23960.

Most manuscripts published in *The Raven* concern the distribution, abundance, and migration of birds in Virginia. Manuscripts on other ornithological topics, such as Virginia-based historical reviews, bibliographical reviews, life history notes, and behavioral observations, are also welcomed. In addition, the journal serves to publish the official proceedings of the VSO and other formal items pertaining to all aspects of the Society's activities. *The Raven* may also publish articles pertaining to the activities of the various public and private organizations engaged in biological and conservation work in Virginia. *The Raven* is a peer-reviewed journal; all feature articles and short communications are reviewed before acceptance for publication.

Format of *The Raven* generally follows guidelines set by the Council for Biology Editors as outlined in the CBE Style Manual, 6<sup>th</sup> edition, 1994 (Council of Biology Editors, Inc., 11250 Roger Bacon Dr., Reston, Virginia, 20190). All manuscripts should be typewritten or prepared with a word processor and double-spaced. Tables, table legends, and figure legends must be similarly prepared and should be submitted on separate pages at the end of the manuscript. Currently only black-and-white photographs, graphs, maps, or other illustrations may be used. The original size for these items should not exceed 5 x 7 inches.

Authors may submit manuscripts for initial review with accompanying diskette or as paper copies only. Upon acceptance all manuscripts with revisions incorporated should be sent on diskette or as e-mail attachments, preferably in Microsoft Word 97 format. Authors are welcome to consult with the editor on additional matters of format or style. Vernacular and scientific names of birds should be those published in the Seventh Edition of the A.O.U. *Check-list of North American Birds* and subsequent supplements. Linear measurements and weights should be in metric units.

Deadlines for submission of articles are 15 December for the spring issue and 15 July for the fall issue.

