

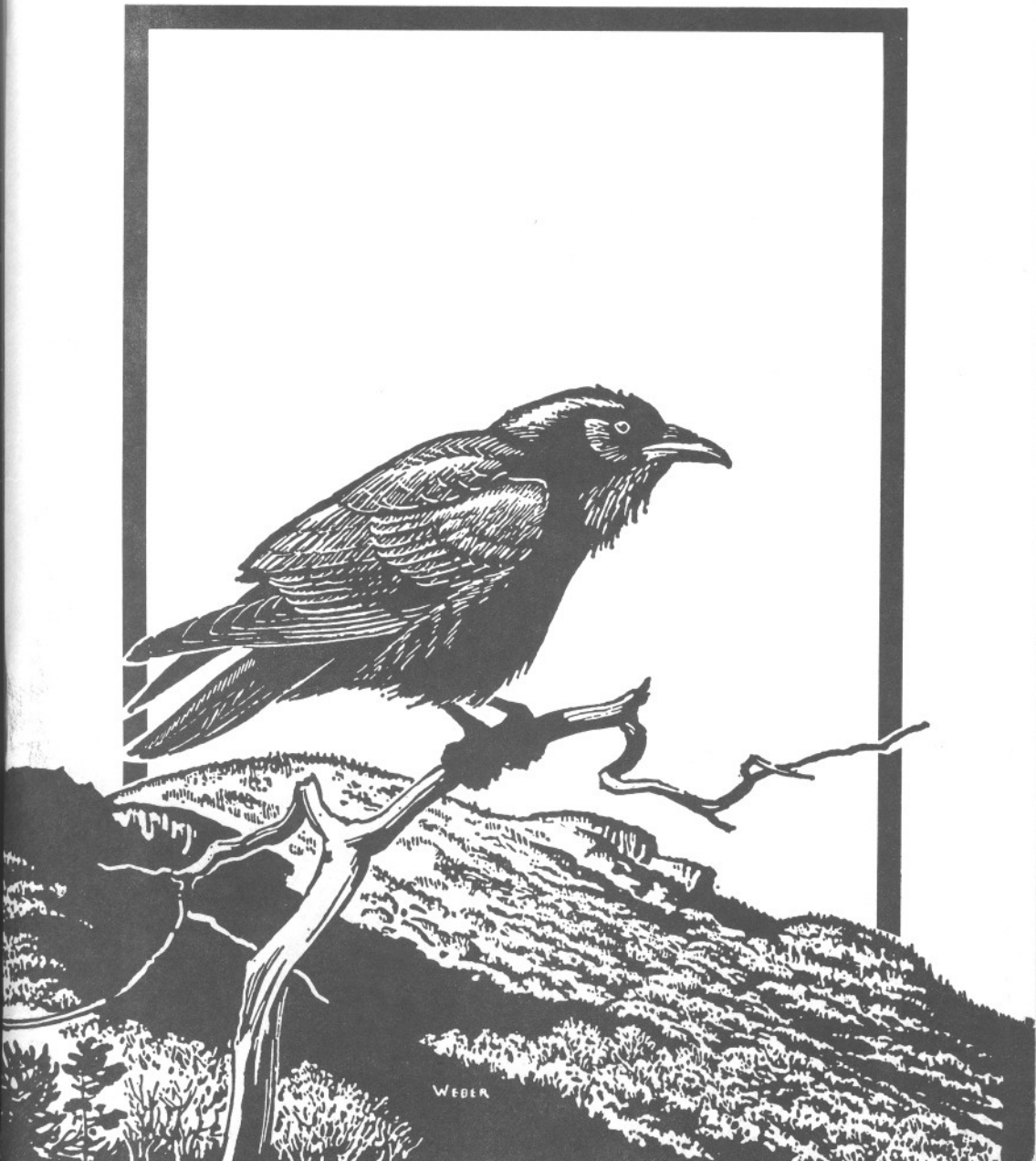
# The Raven

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 yearly, containing articles about 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 \$10.00 for active members, \$15.00 for sustaining members, \$25.00 or more for contributing members, \$250.00 for life members, and \$18.00 for family members (limited to husband, wife and their dependent children).

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# *The Raven*

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JOURNAL OF THE VIRGINIA SOCIETY OF ORNITHOLOGY

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## THE STATUS AND IDENTIFICATION OF WESTERN SANDPIPERS IN VIRGINIA IN SPRING MIGRATION

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In *Virginia's Birdlife* (Kain 1987), the status of Western Sandpipers (*Calidris mauri*) in spring is described as "rare" throughout the state. The species is also regarded as rare in adjacent states.

On the coast of North Carolina, where Westerns winter, they are fairly common from January to mid-April. Numbers drop rapidly from mid-April to about 5 May, after which only a handful are likely to be seen until the beginning of southbound migration in July (John Fussell III and Jeremy Nance, pers. comm.). In Maryland, Westerns are so rare in spring that many active and knowledgeable birders have never seen one in that season (Robert F. Ringler, pers. comm.).

This status is not surprising for the species that is the westernmost breeder of all the shorebird species that winter in the southeast. It nests only in northern and western Alaska and northeastern Siberia (AOU 1983), and there may be little advantage in detouring northeast up the Atlantic coast rather than heading directly northwest. After completing their molt into alternate (breeding) plumage in March and April, almost all the southeastern wintering birds apparently take off overland and reach the breeding grounds in May.

In the course of seven years (1981-87) of weekly spring censuses at Chincoteague National Wildlife Refuge I saw only six Western Sandpipers in May and June: two on 15 May 1985, one on 24 May 1986, one on 7 June 1983, and two on 20 June 1985. All were in full alternate plumage. May and June records kept by Charles R. Vaughan on Wallops Island are similar: from 1970 to 1989 he observed two on 8 May 1976, two on 11 May 1980, and one on 18 May 1987.

On 20 May 1990 a visit to the Refuge that I made with several experienced observers turned up no Western Sandpipers, and we were puzzled by reports that other observers in that same period had seen from 14 to several thousand Westerns there. The report of 14 paralleled our 16 White-rumped Sandpipers (*C. fuscicollis*) in locations where the observers reporting the Westerns had found no White-rumped. The only "peep" species we found present in large numbers was Semipalmated Sandpiper (*C. pusilla*), as is typical for late May. From conversations with several observers of possible Western Sandpipers in May and June, I suspect that White-rumped and Semipalmated Sandpipers are being mistaken for this species.

Since 1983 two standard field guides have been available with reasonably accurate texts and excellent illustrations for alternate-plumaged Western Sandpipers: the National Geographic Society's *Guide to the Birds of North America* (Scott 1983) and the *Master Guide to Birding* (Farrand 1983), the former illustrated with a painting, the latter with a photograph. These books were followed in 1984 by Veit

and Jonsson's definitive paper<sup>1</sup> on the field identification of small sandpipers, with wonderfully informative portraits and descriptions of this species and of Semipalmated Sandpiper in various stages of plumage and molt. A more recent guide (Farrand 1988) has exceptionally good photographs of all three species in alternate plumage, including an extra picture of a White-rumped Sandpiper misidentified as an alternate-plumaged Baird's Sandpiper (*C. bairdii*).

All three books illustrate the essential field marks of Western Sandpipers in this plumage:

1. Lower breast, upper belly, sides, and flanks *coarsely* spotted with arrowhead-shaped marks and short streaks.
2. Conspicuously bright scapulars, each feather with an extensive chestnut base, a large subterminal black spot, and a narrow gray tip that wears off by June, these feathers forming a broad panel of boldly contrasting black-on-red above the dull wing coverts.
3. Sides and back of the black-streaked crown bright chestnut and the ear coverts chestnut, both areas often sparsely streaked darker.

A few birds never leave the Atlantic coast for the breeding grounds. Some of these may be seen in basic (winter) plumage or in partial molt and require the most careful scrutiny if they are to be identified correctly. (There is no readily available evidence that they often wander north of their wintering grounds, however.) In the earliest stage of molt a few of the diagnostic spots appear on the underparts; an excellent photograph of this stage was published by Chandler (1989). Nevertheless, for many of these birds the call note may be the most reliable field mark — one which is sometimes ambiguous and rarely available for analysis.

The most strongly marked individuals among both Semipalmated and White-rumped Sandpipers in alternate plumage may show a chestnut wash on the streaked crown and ear coverts and chestnut-fringed scapulars. Normally these areas appear buff or tawny, especially on Semipalmateds. Unlike Western Sandpipers, they are never so boldly marked with bright chestnut that it is easy to see from a distance even without a spotting scope.

Semipalmated Sandpipers have *finely* streaked and spotted breasts and usually lack any streaking at all on the belly and sides, though some may have an inconspicuous row of thin streaks just below the edge of the folded wing. They never have a heavy scattering of small triangular spots on the underparts.

White-rumped Sandpipers are obviously bigger overall than Semipalmateds or Westerns, with black primary tips that extend 5mm or more beyond the pale-edged tertials, in contrast to the 1-3mm extension on the two smaller species. The bill, often with an orange base to the lower mandible, is slightly drooped at

<sup>1</sup> Still available for \$4.50 from *American Birds*, 950 Third Avenue, New York, NY 10022

the tip, like that of many Westerns, and *never* strikingly long. On birds in alternate plumage the streaks on the breast and sides are neatly arranged in well-defined rows, not almost randomly scattered as on a Western. The upperparts of a bird in fresh plumage are generally warm buff or coppery in tone because of the coloration of the broad edges to the black-centered feathers of the back, scapulars, and tertials. With wear, these feathers look blacker. (The misidentified photo on p. 187 in Farrand 1988 shows fresh plumage and was probably taken in May; the one on p. 184 shows feathering more typical of a June bird.) White-rumped Sandpipers, which are uncommon to fairly common spring migrants in Virginia, can be expected and should be looked for.

The most misleading fieldmark used in separating Semipalmated and Westerns is the length of the bill. Most of the field guides do not discuss in detail (if at all) the range in bill length within a species. In both species male bills average shorter than female bills. Harrington and Morrison (1979) found that the bills (i.e., exposed culmens) of Semipalmated Sandpipers increased in breeding populations from west to east, with Alaska-breeding males averaging 17.3mm and males breeding in Quebec and on Belcher Island averaging 20.0mm; Alaskan females average 18.9mm and Quebec and Belcher Island females 21.5mm).

They also showed that in spring migration only the eastern breeders move up the Atlantic Coast; in fall migration these birds are joined by birds from breeding grounds farther west (resulting in a greater range in bill length and a lower mean). Thus in spring only long-billed Semipalmateds stop on the Virginia coast, though apparently not from the very longest-billed population only. From 1973 to 1982 Vaughn (unpubl. data) banded 235 individuals at Wallops Island, Virginia between 15 May and 5 June. The mean bill length was  $19.93 \pm 1.53$ mm, and ranging from a minimum of 16.0mm to a maximum of 23.5mm. It is noteworthy that *the longest-billed Semipalmateds*, even in this restricted population, *have bills nearly 50 percent longer than the shortest-billed birds*. (Over the same decade Vaughn measured 301 individuals between 10 July and 10 October; the bills on these birds ranged from 16.5 to 23.0mm, with a mean of  $19.31 \pm 1.23$ mm.)

Cartar (1984) measured Western Sandpiper bills on study skins, finding a mean of  $22.6 \pm 1.08$ mm and a range of 20.5-26.5mm for 51 males and a mean of  $25.9 \pm 1.84$ mm and a range of 21.0-29.0mm for 52 females.

The histograms accompanying these analyses indicate that 58 percent of spring Semipalmated Sandpipers in Virginia have bills in the range of 20.0-23.5mm, as do 52 percent of the Western Sandpipers in Cartar's sample. The difference of a millimeter or two is unlikely to be perceptible in the field. Thus, fewer than half the Westerns can be identified with confidence on the basis of bill length alone.

Clearly a small sandpiper with a long bill or streaked sides or chestnut tones in the upperparts is not necessarily a Western Sandpiper and should not be casually identified as such.

In the absence of convincing evidence to the contrary, including size and shape, plumage characters, and, when possible, call note in addition to bill length, there

seems to be no justification for disregarding or challenging the published status in Virginia of Western Sandpipers as rare spring migrants — a species that “cannot be expected with any certainty” (Kain 1987).

#### ACKNOWLEDGMENTS

Charles R. Vaughn generously shared with me his findings on the birds he banded on Wallops Island. Roger S. Clapp made numerous useful suggestions on an early draft of this paper. I am also grateful to John Fussell III and Jeremy Nance for information on Western Sandpiper in North Carolina and to Robert F. Ringler for telling me about their status in Maryland.

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## AMERICAN BITTERNS BREEDING IN NORTHERN VIRGINIA

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For two years in a row (1989 and 1990) American Bitterns (*Botaurus lentiginosus*) have been observed breeding at Huntley Meadows Park in Fairfax County, Virginia.

In 1989, two juveniles, incapable of flight and wearing spiky caps of natal down, were discovered. In 1990, three juvenile American Bitterns were found, with two of them observed as they were being fed by the adult in the nest, and a third discovered after they began to move about. The breeding records in both years were established by volunteer naturalist Ken Howard during many hours of patient observation with a 35-power Celestron C-90 telescope. Many other observers, including the author, shared in Howard's discoveries.

According to the Virginia Society of Ornithology's annotated checklist (Kain 1987), the last previous record of breeding American Bitterns anywhere in the state was established on 28 May 1968, when two juveniles were found in the Back Bay marshes south of Virginia Beach.

The first set of Huntley Meadows juveniles was discovered on 3 July 1989, during a weekly group birdwalk. They were found in a portion of the reed marsh into which a single adult American Bittern had been making regular flights for several weeks, long after the "safe date" of 20 May for possible breeding bitterns had been reached. Because of the bird's repeated trips to a specific area, several observers suspected a nest there, but a search for it by wading systematically through the marsh was not conducted, on the advice of a Smithsonian ornithologist, for fear of leaving a scent trail for predators to follow.

Thus it was especially satisfying when, on 3 July, two young juveniles were found. Besides their downy skullcaps, they had stubby wings and were obviously incapable of flight. Ken Howard observing, through his telescope the juvenile available for longest study, reported that he saw it spread its wings from time to time as it preened and teetered about, and that its flight feathers—primaries and secondaries—clearly had not yet developed. However, both juveniles had already developed suits of contour feathers identifying them as American Bitterns—light buffy breasts with vertical brown stripes and brown upper parts. They lacked the thick black streaks at either side of the throat seen on adult bitterns. (In the 1990 breeding episode, this distinction turned out to be of uncertain value, as will become clear.)

Before the 3 July confirmation of nonflying juveniles, there had been some uncertainty about the significance of a single adult flying to and from a suspected nest area, because the author and other observers were under the impression that male and female American Bitterns cooperate in building the nest and rearing the young, as is true of other herons. But there was no evidence that a pair was involved.

Perusing the literature on American Bitterns, Howard found the probable explanation for this in *The Birder's Handbook* (Erlich et al. 1988). In the writeup of the American Bittern, the handbook lists the abbreviation "polygyn"—for polygynous—with a question mark after it, as one of the behavioral characteristics. The authors are cautiously suggesting that male American Bitterns mate with more than one female. Further, they indicate without using question marks that the female alone builds the nest, incubates the eggs, and feeds the young.

The *Audubon Encyclopedia of North American Birds* (Terres 1987) says that "apparently" the female alone builds the nest and incubates the eggs. It does not discuss whether the male helps feed the young. So it would seem that the solitary behavior of the Huntley Meadows female was entirely consistent with what is known or suspected about the breeding behavior of American Bitterns.

Subsequent sightings of the adult in the week after 3 July supported the belief that this was a single-parent family. Never, in that period of comings and goings by the adult, did we simultaneously see another adult American Bittern. Her behavior had a metronome quality, as observed by volunteer Ed Regan, with up to an hour between visits to the target area. (Because bitterns feed their young by regurgitation, it is not possible to tell if an adult is carrying food for its young.)

Although the female was never seen actually to feed a juvenile, both the adult and the top-knotted young one were seen again in the target area on 5 and 8 July by Ken Howard and park naturalist Marty Smith.

Then on 17 July, two weeks after the confirmation of stub-winged juveniles, two American Bitterns were seen to lift up from the marsh, one behind the other, and fly a short distance. The follower dropped back into the marsh much more quickly than the leader. It seemed likely that we were seeing a recently-fledged juvenile chasing after its source of food, although the sighting was too brief to be sure. In days to follow there were other such sightings, one bird following the other. Ultimately, we became convinced that these abbreviated tandem-style flights indeed could be interpreted as parent-young behavior.

The second breeding episode for American Bitterns at Huntley Meadows began in almost precisely the same way as the first, with a single adult bittern flying repeatedly into a specific area after 20 May had passed and migrating bitterns were gone. It had been a good year for migrants, with much "pumperlunking" of males, with epaulets displayed, in the reed marsh. This time the female was flying into a spot very close to the location of the previous year's activity, so it was tempting to think of her as the same bird, or perhaps as that bird's daughter, as she came and went. Furthermore, she could be seen after alighting, so prospects looked good to actually see her at the nest. (The reed marsh had unaccountably thinned out during the elapsed year.)

On 31 May, Ken Howard saw the female fly in, alight, and in her secretive manner, walk a short distance through the reeds. Then she stopped and lowered her beak. A pair of tiny heads wobbled up to greet her. The nest was found! Although the nest itself was not visible, these little bitterns were much too small to be outside

a nest. Further, they were clothed only in natal down, and looked to be only a few days old at most. The author shared in this observation. It was the beginning of a month-long parade of fascinated observers who were allowed to do the same, watching the growth of what turned out to be three American Bittern nestlings through Howard's telescope.

The feeding process occasionally became violent as the juvenile bitterns fought for the contents of their mother's throat. At one point she struck back at one of the aggressive youngsters with a powerful sideways slap of her beak, said Howard — an obvious disciplinary action.

As the young bitterns approached their mother in size and acquired their contour feathers, Howard began noticing a puzzling similarity in appearance of young and adult. They lacked the prominent black neck streaks, as they were supposed to, but now that he looked closely, so did she. Later, I shared in Ken's observation. Either she lacked the black streaks said to be characteristic of all adult bitterns, or she concealed them all the time we were watching her, throughout the contortions of the feeding process. Only the downy skullcaps distinguished the juveniles.

Nothing in the literature we had read prepared us for the apparent lack of thick black neck streaks in an adult American Bittern. Thinking back, we realized we had not scrutinized the previous year's female closely enough to be sure whether she had them or not. Most of our sightings of her had been when she was flying. Were we now seeing an isolated aberration in the single individual? Or is it possible that young birds retain a throat devoid of black streaks longer than previously reported? Observations by other birders, particularly of spring migrants, would be interesting. Those so inclined should bear in mind this passage from *Life Histories of North American Marsh Birds* (Bent 1963), sourcebook for generations of U.S. bird students:

"...before the end of October the black neck-ruffs have appeared so that the young [American Bittern] assumes, during its first winter, a plumage which is practically adult." Other authorities agree.

Howard reported that the juvenile bitterns left the nest after three weeks instead of two, as reported elsewhere. They could be observed standing in the reeds, still with tufts of natal down, waiting for the female to appear. When she dropped into the reeds, they would run to her to be fed. When she flew out again, they would lift their bills vertically, in bittern fashion, and watch her depart.

On 2 July came the first observation of a juvenile bittern in flight. As the previous year's juvenile had done, it flew a short distance after the departing female and then settled back into the reeds, while she continued on. In flight, the young bird's upperparts were lighter, overall, than the adult's. This difference was not obvious in sitting birds.

The 9th of July provided a very satisfying moment for Howard. As he was watching the female fly back to her young after a foraging expedition, all three

juvenile American Bitterns took to the air to greet her. It was like a graduation ceremony.

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## SAY'S PHOEBE IN NORTHAMPTON COUNTY, VIRGINIA

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On 30 September 1989 at about 3:30 p.m., my wife, Gail, and I, and Bettie Pitney, had just come from birding on the Chesapeake Bay Bridge-Tunnel. While there, we had seen three Clay-colored Sparrows (*Spizella pallida*) at the usual close range provided by the sparse habitat along the island tops. The presence of these sparrows indicated that there had been an influx of birds from the west, probably within the last few days. After passing through the northern toll plaza we stopped at the parking lot just to the east. On the chainlink fence about 75 feet to the east there were several widely spaced birds sitting like flycatchers. The closest bird sallied out to catch an insect. As it landed again on the fence, it actively pumped its tail. We looked—it was an Eastern Phoebe (*Sayornis phoebe*).

Farther down the fence another flycatcher flew up to catch something. It landed and we looked. Its back was toward us, but I could see that it was not quite as dark as the Eastern Phoebe, nor was it wagging its tail in an habitual manner. It was too light for an Eastern Kingbird (*Tyrannus tyrannus*) and it was obviously much too dark for a Western Kingbird (*T. verticalis*). We got out of the car and approached the bird more closely.

I noticed a deep rusty red color on the fluffy parts just above and to either side of the bird's tail. The bird flew up again to feed. It landed almost in the same spot, still with its back to us. As it landed, it pumped its tail slowly a few times. I could still see the rust color. As we approached to within 30 feet of the bird, it flew again to catch another insect. This time it landed head on. The reddish rust color was intense and continuous from the lower breast through the undertail. The bird was a Say's Phoebe (*S. saya*). We knew we had a rare bird for Virginia so we proceeded to take notes, which were subsequently rewritten and submitted to the state records committee.

Notes taken include the following details:

From behind: Head—dark gray, contrasting with a medium gray back that was not as dark as the Eastern Phoebe. Tail—black. Wings—same color as back but with light edgings on the secondaries.

From front: Belly and flanks—grayish orange. Undertail coverts—dull orange buff. Bill—black. Breast—medium gray, similar to back.

The size appeared the same as that of the Eastern Phoebe that was another 50 feet down the fence. When the bird landed, it wagged its tail a couple of very measured times—not nearly as frequently and freely as the Eastern Phoebe.

There are three other sightings of Say's Phoebe in Virginia that have been accepted by the state records committee. Two are recorded in *Virginia's Birdlife*:

an annotated checklist, Virginia Avifauna No. 3, June 1987. The third record is of a bird seen on 17 December 1984 by John P. Alcock on his farm in Fauquier County.

After our sighting, the bird was subsequently seen that afternoon by about twenty other birders. Teta Kain took an identifiable picture of the bird. The photograph, along with many field notes submitted by various people, are on file with the records committee. Although there was an extensive search the next day, the bird was not seen again.

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### VARIED THRUSH VISITS SALEM

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Shortly before noon on 18 November 1989, the senior author arrived with Norwood "Woody" Middleton at his residence to conclude a morning of birding. The driveway circles behind Middleton's house and the backyard has numerous mature oaks, white pines, dogwoods, and various species of shrubbery.

As we slowly drove around to the rear of the house, a small flock of American Robins (*Turdus migratorius*) flushed from the ground about 25 feet ahead and several flew into a nearby bare dogwood (*Cornus*, sp.) tree. Suddenly I noticed that one of the birds in the tree, although of robin size and build, had distinct rich orange-colored patches in its wing. I then quickly observed that it had an orange stripe over the eye, a heavy black band across its rich orange breast (not the dark brick red breast-color of the American Robin), and that the coloring of the back was a bit different from that of the nearby robins. It was a dark blue-gray color.

With my eyes still glued on the bird, I said, "You have a rare bird in your backyard." I then took down my binoculars and showed him where it was perched. I knew that I had seen this species on several occasions in recent years in the coniferous forest of Washington state but the surprise of seeing it here caused the name of the bird momentarily to escape me. Then, both identity and name came to mind with absolute certainty. It was a Varied Thrush (*Ixoreus naevius*).

Middleton and I had excellent looks at this bird in direct sunlight while it was in the dogwood and later when it was perched in a nearby white pine (*Pinus strobus*). Mrs. Middleton was called from the house to observe the bird. By the time she arrived, it had flown from the dogwood and into a white pine about 35 feet away.

Both Middletons had seen Varied Thrushes in the state of Oregon and in Highland County, Virginia.

The thrush finally flew into a Southern magnolia (*Magnolia grandiflora*) and disappeared, as did many of the robins with which it apparently was traveling. A search for it among a half dozen remaining robins by other birders throughout the rest of day was to no avail.

*Editor's note: Documentation submitted by Turner and Middleton to the records committee and was accepted in June 1990 as the third record for the Mountains and Valleys region.*

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### ASH-THROATED FLYCATCHER NEAR WILLIAMSBURG

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I will always hold the Palm Warblers (*Dendroica palmarum*) responsible for the events that transpired the morning of 17 December 1989 at Cheatham Annex in York County. I just don't see that species on our local Christmas Count. So spotting two of them on an anchor fence consorting with two bluebirds was cause to stop and poke around. It was about 10:30 a.m., partly cloudy, with the temperature in the mid-20's and a light wind. There was a two-inch ground cover of ice dusted by light snow, the result of about ten days of bitter cold and intermittent snowfall.

I parked adjacent to the fence and walked across the road to a stand of loblolly pines (*Pinus taeda*) approximately 15-20 feet tall. Beneath the pines was a tangle of bramble, honeysuckle, and dead annual growth. I pished several times and immediately the trees and tangle were alive with birds—Dark-eyed Juncos (*Junco hyemalis*), Yellow-rumped Warblers (*Dendroica coronata*), four Palm Warblers, Carolina Wrens (*Thryothorus ludovicianus*), Tufted Titmice (*Parus bicolor*), Carolina Chickadees (*P. carolinensis*), Ruby-crowned (*Regulus calendula*) and Golden-crowned (*R. satrapa*) kinglets, White-throated Sparrows (*Zonotrichia albicollis*), and Pine Warblers (*Dendroica pinus*). It was one of those bird-laden scenes we all dream about. I noted everything, trying to maintain an accurate tally for my section of the count circle.

At one point a small wren flushed near me. Hoping for a House Wren (*Troglodytes aedon*), I started screech-owl calling but to no avail. The bird could not be found. All around me juncos chirped and clicked, chickadees scolded, yellow-rumps and pines chipped, and kinglets flitted everywhere. Suddenly, some-

thing much larger was sitting on the top branch of a loblolly. It was a female Northern Oriole (*Icterus galbula*)! When it flew, I pursued cautiously, only to be distracted by a small brown bird that flew to a pine limb, three feet above the ground. Had it been spring, summer, or fall I would easily have accepted what I was seeing. My mind and mouth said, "Indigo Bunting" (*Passerina cyanea*), but logic dictated otherwise. I quickly began to get identification details. Without them I couldn't convince myself, much less CBC editors. Then it was gone. I was stunned. All I got was that it was goldfinch-sized, conical gray-brown bill, grayish brown all over, hints of wing bars, whitish on the breast. I knew I didn't have enough.

Naturally, I eased closer to the spot where the bird had been and dug through every imitation-sound bag of tricks I had to lure the bird into view. It never returned, nor anything close to it. It will forever remain an LBJ (little brown job). Standing there confused and frustrated, I was shocked at the sudden appearance of a reddish-brown, yellow-bellied, cardinal-sized bird that fluttered among low pine branches like a large moth. It landed at the base of a pine about 40 feet away, and I determined this was a *Myiarchus* flycatcher. Guessing that it was an Ash-throated flycatcher (*Myiarchus cinerascens*) I kept it in view for at least five minutes at distances as close as 10 feet with 10x binoculars. The following description is based on the notes taken during that time.

The bird's eye, bill and legs were black. The legs were neither short nor long and the bill was noticeably thin. Its breast was grayish white while the belly to the undertail coverts was pale yellow. The tail was rufous above and below and the head was grayish brown and smooth, definitely not crested. The gray-brown extended to below the eye and down the nape of the neck. The bird's primaries were noticeably rufous and the brown wing coverts were clearly edged with tan or tawny. It held the wings somewhat drooped while at rest.

At no time were any vocalizations heard. The flycatcher flew to places on or near trees, paused in flight, then landed. I presumed it was feeding, but could not confirm this.

Almost as suddenly as it appeared the bird flew to the top of a sweetgum tree and then vanished. An exhaustive search of the area failed to relocate this bird or the LBJ, though other members of the flock, including the oriole, were seen.

Brian Taber searched the area the following day with no success. The flycatcher was seen, however, on 19 and 20 December by Taber, Brian Patteson, Fenton Day, Tom Armour, and Bill Sheehan. Brian Patteson took several photographs.

Day commented on the presence of an Eastern Phoebe (*Sayornis phoebe*) (not seen on 17 December), a situation similar to one near Wachapreague, Virginia, in 1987 in which an Eastern Phoebe was seen with an Ash-throated Flycatcher. Taber observed the flycatcher regurgitating a berry, possibly an indication of the bird's food source. The Ash-throated Flycatcher could not be found after 20 December when local temperatures plummeted to single digits.

This sighting provides the seventh record for Virginia and one of two away from the immediate coast (Kain 1987, *Virginia's Birdlife: An Annotated Checklist*).

## VIRGINIA CHRISTMAS BIRD COUNTS — 1989-90 SEASON

TETA KAIN

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Virginia's newest Christmas count is also one of the state's oldest! The Claytor Lake census was organized and conducted in Pulaski County this year by Clyde Kessler over a count circle that includes all of Claytor and Hogan Lakes, the eastern half of Gatewood Reservoir, Roudabush, and parts of Cloyd's Mountain. This area covers the larger part of Pulaski County and coincides with censuses taken in that same area in the early part of the century, making it one of the earliest counts recorded in the state.

Counts were conducted in Pulaski in 1910 and 1911 (Audubon 1911, 1912), and from 1919 through 1923 by O. C. Brewer (Audubon 1920-1924). The area was evidently not censused again until J. H. Flannagan and C. C. Handley, Jr. covered the "south side of the lake, three to five miles above the dam" (Murray 1943) on both 26 December 1942 and 2 January 1943. In 1943 only one count was conducted by C. O. Handley and C. O. Handley, Jr. in the area described as "from a point one mile above the dam to Towes Ferry opposite Newbern." That was the last census taken in the county until now (Murray 1944).

Claytor Lake is a welcome addition to the Virginia line-up because no other counts are held in that vicinity, and because it encompasses important natural features that could yield surprising species. The results of the count were not submitted to *American Birds* this year. Kessler explains that he will conduct the count for a couple years on an informal basis to see if there is enough support to provide adequate and continuous coverage. We shall be watching with interest to see if he is successful, and we encourage birders who would like to participate to contact Kessler.

The other 38 counts throughout the state remained the same as last year. With the exception of Breaks Interstate Park and Kerr Reservoir counts, the roster has remained the same for the past three years. It is hoped that those two missing counts will be reorganized in the near future as they both cover important, and rather neglected, areas of the state.

One hundred ninety-five species, two forms and three races were found on the 39 counts by approximately 676 field observers and 89 feeder watchers. Of the field observers, 98 participated in two counts, 35 in three, seven in four, and two in five counts. The total number of feeder watchers was greatly augmented by Blacksburg where 26 individuals turned in feeding station tallies.

As in previous years, the counts in Table 1 on pp. 16-39 are listed generally from east to west and north to south. Counts 1-11 are located on the Coastal Plain, 12-21 on the Piedmont, and 22-39 in the Mountains and Valleys region of the state.

(Christmas count highlights and explanation of abbreviations on page 40)

TABLE 1. (following 24 pages) The 1989-90 Christmas counts in Virginia. The bold, underlined figures indicate an unusual species or an unusual number of individuals for that particular count. "CW indicates that the species was seen during count week, but not on count day.

	Red-throated Loon	Common Loon	Pied-billed Grebe	Horned Grebe	Red-necked Grebe	Eared Grebe	Northern Gannet	American White Pelican	Brown Pelican
1. Chincoteague	...	52	1	15	...	...	...	...	...
2. Wachapreague	4	30	6	13	1	...	...	...	...
3. Cape Charles	16	82	5	54	...	...	7	...	1
4. Little Creek	7	10	26	45	1	1	12	1	28
5. Back Bay	59	456	...	669	1	...	4	1	6
6. Newport News	7	18	42	8	...	...	...	...	...
7. Mathews	2	43	...	9	...	...	...	...	1
8. Williamsburg	...	1	7	8	...	...	...	...	...
9. Hopewell	...	...	12	...	...	...	...	...	...
10. Brooke	...	...	...	...	...	...	...	...	...
11. Fort Belvoir	...	1	1	4	...	...	...	...	...
12. Manassas-B.R.	...	...	9	...	...	...	...	...	...
13. Nokesville	...	...	CW	...	...	...	...	...	...
14. Lake Anna	...	8	23	16	...	...	...	...	...
15. Gordonsville	...	...	...	...	...	...	...	...	...
16. Charlottesville	...	...	1	...	...	...	...	...	...
17. Warren	...	...	...	...	...	...	...	...	...
18. Banister WMA	...	...	CW	...	...	...	...	...	...
19. Lynchburg	...	...	3	...	...	...	...	...	...
20. Danville	...	...	1	...	...	...	...	...	...
21. Philpott Res.	...	1	3	1	...	...	...	...	...
22. Calmes Neck	...	...	...	1	...	...	...	...	...
23. N. Shen. Valley	...	...	2	2	...	...	...	...	...
24. Shen. NP-Luray	...	...	...	...	...	...	...	...	...
25. Big Flat Mtn.	...	...	...	...	...	...	...	...	...
26. Rockingham Co.	...	...	CW	...	...	...	...	...	...
27. Augusta Co.	...	...	...	...	...	...	...	...	...
28. Waynesboro	...	...	...	...	...	...	...	...	...
29. Lexington	...	...	...	...	...	...	...	...	...
30. Peaks of Otter	...	...	...	...	...	...	...	...	...
31. Clifton Forge	...	...	...	...	...	...	...	...	...
32. Fincastle	...	...	2	...	...	...	...	...	...
33. Roanoke	...	1	3	5	...	...	...	...	...
34. Blacksburg	...	...	18	1	...	...	...	...	...
35. Claytor Lake	...	...	3	1	...	...	...	...	...
36. Tazewell	...	...	...	...	...	...	...	...	...
37. Glade Spring	...	...	2	...	...	...	...	...	...
38. Nickelsville	...	...	...	...	...	...	...	...	...
39. Wise County	...	...	...	...	...	...	...	...	...
<b>Total individuals</b>	<b>95</b>	<b>703</b>	<b>170</b>	<b>852</b>	<b>3</b>	<b>1</b>	<b>23</b>	<b>2</b>	<b>36</b>

	Great Cormorant	Double-crested Cormorant	American Bittern	Great Blue Heron	Great Egret	Snowy Egret	Little Blue Heron	Tricolored Heron	Black-crowned Night-Heron	Yellow-crowned Night-Heron	Tundra Swan	Mute Swan
...	...	...	2	81	2	1	...	...	29	...	200	30
...	...	3	...	45	...	...	...	1	12	...	51	...
1	17	10	77	1	...	...	...	...	6	...	104	...
13	640	...	170	50	...	...	...	...	17	4	...	...
...	346	5	71	19	3	1	2	5	...	...	352	...
...	215	...	63	2	1	...	...	...	6	...	13	...
...	12	...	26	CW	...	...	...	...	...	...	324	...
CW	295	...	146	1	...	...	...	...	...	...	317	2
...	35	...	384	...	...	...	...	...	...	...	...	...
...	1	...	21	...	...	...	...	...	...	...	75	...
...	...	...	...	86	...	...	...	...	2	...	3	...
...	...	...	...	11	...	...	...	...	...	...	...	...
...	...	...	...	4	...	...	...	...	...	...	2	...
...	...	...	...	10	...	...	...	...	...	...	...	...
...	...	...	...	1	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	1	...	...	...	...	...	...	...	...
...	...	...	...	10	...	...	...	...	...	...	...	...
...	...	...	...	3	...	...	...	...	...	...	...	...
...	...	...	...	8	...	...	...	...	...	...	...	...
...	...	...	...	1	...	...	...	...	...	...	...	...
...	...	...	...	11	...	...	...	...	...	...	7	...
...	...	...	...	23	...	...	...	...	...	...	...	...
...	...	...	...	9	...	...	...	...	2	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	14	...	...	...	...	...	...	CW	2
...	...	...	...	5	...	...	...	...	...	...	...	...
...	...	...	...	8	...	...	...	...	...	...	...	...
...	...	...	...	5	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	1	...	...	...	...	...	...	...	...
...	...	...	...	6	...	...	...	...	...	...	1	...
...	...	...	...	6	...	...	...	...	...	...	...	...
...	...	...	...	12	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	5	...	...	...	...	...	...	...	...
...	...	...	...	17	...	...	...	...	...	...	...	...
...	...	...	...	1	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Total individuals</b>	<b>14</b>	<b>1564</b>	<b>17</b>	<b>1342</b>	<b>75</b>	<b>5</b>	<b>1</b>	<b>3</b>	<b>79</b>	<b>4</b>	<b>1450</b>	<b>34</b>

	Snow Goose	Snow Goose (blue form)	Brant	Canada Goose	Canada Goose (small forms)	Wood Duck	Green-winged Teal (American)	American Black Duck	Mallard
1. Chincoteague	19,998	10	3322	1704	...	...	9	1257	531
2. Wachapreague	<u>10,306</u>	75	2446	4054	...	12	108	311	275
3. Cape Charles	<u>3156</u>	3	<u>9124</u>	<u>13,000</u>	1	6	120	<u>4900</u>	2300
4. Little Creek	1	62	1620	91	...	65	90	635	1300
5. Back Bay	18,000	38	<u>506</u>	1700	...	40	2	662	528
6. Newport News	...	...	121	124	...	...	...	98	642
7. Mathews	...	...	180	438	...	...	...	40	303
8. Williamsburg	2	...	...	1828	...	11	35	537	1188
9. Hopewell	215	1050	...	13,270	...	737	26	1006	4482
10. Brooke	...	...	...	450	...	...	...	74	600
11. Fort Belvoir	<u>12</u>	...	...	2769	...	11	70	543	949
12. Manassas-B.R.	1	...	...	559	...	...	...	36	116
13. Nokesville	...	...	...	1158	...	...	CW	18	134
14. Lake Anna	...	...	...	604	...	...	...	CW	219
15. Gordonsville	...	...	...	2157	...	...	...	1	31
16. Charlottesville	...	...	...	812	...	...	...	66	27
17. Warren	...	...	...	90	...	...	...	32	10
18. Banister WMA	...	...	...	25	...	49	...	19	107
19. Lynchburg	...	...	...	40	...	2	...	18	16
20. Danville	...	...	...	<u>172</u>	...	15	...	<u>44</u>	110
21. Philpott Res.	...	...	...	...	...	1	...	<u>9</u>	<u>224</u>
22. Calmes Neck	CW	...	...	7364	...	...	2	624	562
23. N. Shen. Valley	1	...	...	852	...	4	89	73	1434
24. Shen. NP-Luray	...	...	...	19	...	2	3	2	235
25. Big Flat Mtn.	...	...	...	...	...	...	...	...	...
26. Rockingham Co.	...	...	...	15	...	6	...	...	181
27. Augusta Co.	...	...	...	4	...	...	6	2	103
28. Waynesboro	...	...	...	96	...	2	2	13	394
29. Lexington	...	...	...	18	...	...	...	10	5
30. Peaks of Otter	...	...	...	...	...	...	...	...	...
31. Clifton Forge	...	...	...	...	...	...	...	6	6
32. Fincastle	...	...	...	2	...	...	...	...	50
33. Roanoke	...	...	...	...	...	...	6	11	272
34. Blacksburg	...	...	...	<u>179</u>	...	3	...	42	246
35. Claytor Lake	...	...	...	8	...	...	...	155	889
36. Tazewell	...	...	...	6	...	...	...	...	57
37. Glade Spring	...	...	...	<u>238</u>	...	3	2	68	407
38. Nickelsville	...	...	...	...	...	...	...	...	4
39. Wise County	...	...	...	...	...	...	...	...	...
<b>Total individuals</b>	<b>51,692</b>	<b>1238</b>	<b>17,319</b>	<b>53,846</b>	<b>1</b>	<b>969</b>	<b>570</b>	<b>11,312</b>	<b>18,937</b>

Mallard hybrid	Northern Pintail	Blue-winged Teal	Northern Shoveler	Gadwall	Eurasian Wigeon	American Wigeon	Canvasback	Redhead	Ring-necked Duck	Greater Scaup	Lesser Scaup
...	2	...	11	11	...	4	52	...	10	41	26
...	5	...	...	5	...	10	1	...	2	...	10
...	180	1	137	232	1	540	23	9	118	142	1024
...	13	3	34	138	...	375	450	3	71	425	1420
...	65	2	20	4	...	...	13	8	21	150	126
...	3	...	4	40	...	307	188	18	159	...	212
...	1	...	...	...	...	...	336	...	...	11	...
...	1417	...	7	133	...	4	358	5	395	...	106
...	...	...	12	12	...	32	1	...	460	...	11
...	...	...	...	2	...	...	...	...	...	...	...
...	4	...	1	6	...	7	128	1	1	45	1155
...	1	...	...	4	...	...	2	...	20	...	2
...	...	...	...	CW	...	...	...	...	CW	...	CW
...	...	...	...	1	...	...	2	18	14	1	9
...	...	...	4	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	2	...	...	...	...	...	...	...	6	...	...
...	...	...	...	...	...	...	...	...	20	...	...
...	2	...	...	1	...	26	...	...	...	...	...
1	4	...	2	44	...	8	...	1	7	...	...
...	1	...	...	...	...	...	...	...	2	1	1
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	5	17	...	72	...	...	...	...	...
...	...	...	...	...	...	1	...	...	...	...	1
...	...	...	...	...	...	4	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	2	...	...	9	...	1	...	...	1	...	...
...	...	...	...	13	...	2	...	3	12	4	75
...	...	...	...	...	...	...	...	...	...	...	...
...	...	4	...	...	...	...	...	...	...	...	...
...	...	4	...	...	...	4	...	...	5	...	3
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
1	1702	14	237	672	1	1397	1554	66	1322	820	4181



	scaup, sp.	King Eider	Oldsquaw	Black Scoter	Surf Scoter	White-winged Scoter	scoter, sp.	Common Goldeneye	Bufflehead
1. Chincoteague	...	...	747	1665	1490	225	350	166	3671
2. Wachapreague	14	...	87	13	425	6	...	13	500
3. Cape Charles	259	2	171	637	15,678	1077	10,000	426	3914
4. Little Creek	...	1	2	41	207	275	...	28	1020
5. Back Bay	...	...	41	493	570	448	935	49	400
6. Newport News	...	...	180	11	26	15	...	106	394
7. Mathews	5	...	33	20	84	5	...	136	503
8. Williamsburg	...	...	...	...	...	...	...	137	179
9. Hopewell	...	...	...	...	...	...	...	8	59
10. Brooke	...	...	...	...	...	...	...	2	4
11. Fort Belvoir	460	...	2	...	...	1	...	7	49
12. Manassas-B.R.	...	...	...	...	...	...	...	...	...
13. Nokesville	...	...	...	...	...	...	...	...	CW
14. Lake Anna	...	...	8	...	...	...	...	3	75
15. Gordonsville	...	...	...	...	...	...	...	...	...
16. Charlottesville	...	...	...	...	...	...	...	...	...
17. Warren	...	...	...	...	...	...	...	2	...
18. Banister WMA	...	...	...	...	...	...	...	3	11
19. Lynchburg	...	...	...	...	...	...	...	...	...
20. Danville	...	...	...	...	...	...	...	...	...
21. Philpott Res.	...	...	...	...	...	...	...	...	2
22. Calmes Neck	...	...	...	...	...	...	...	1	2
23. N. Shen. Valley	...	...	2	...	...	...	...	CW	8
24. Shen. NP-Luray	...	...	...	...	...	...	...	...	2
25. Big Flat Mtn.	...	...	...	...	...	...	...	...	...
26. Rockingham Co.	...	...	...	...	...	...	...	...	...
27. Augusta Co.	...	...	...	...	...	...	...	...	1
28. Waynesboro	...	...	...	...	...	...	...	...	...
29. Lexington	...	...	...	...	...	...	...	...	...
30. Peaks of Otter	...	...	...	...	...	...	...	...	...
31. Clifton Forge	...	...	...	...	...	...	...	...	...
32. Fincastle	...	...	...	...	...	...	...	...	...
33. Roanoke	...	...	...	...	...	...	...	...	19
34. Blacksburg	...	...	...	...	...	...	...	16	104
35. Claytor Lake	...	...	...	...	...	...	...	...	4
36. Tazewell	...	...	...	...	...	...	...	...	...
37. Glade Spring	...	...	...	...	...	...	...	...	...
38. Nickelsville	...	...	...	...	...	...	...	...	...
39. Wise County	...	...	...	...	...	...	...	...	...
<b>Total individuals</b>	<b>738</b>	<b>3</b>	<b>1273</b>	<b>2880</b>	<b>18,480</b>	<b>2052</b>	<b>11,285</b>	<b>1103</b>	<b>10,921</b>

	Hooded Merganser	Common Merganser	Red-breasted Merganser	merganser, sp.	Ruddy Duck	duck, sp.	Black Vulture	Turkey Vulture	Osprey	Bald Eagle	Northern Harrier	Sharp-shinned Hawk
84	1	137	...	16	...	...	5	56	...	2	25	23
54	1	199	...	3	...	...	58	107	...	6	22	8
213	6	280	...	540	...	...	39	139	...	3	56	40
545	29	208	...	365	...	...	...	...	1	1	9	10
...	80	1270	...	1	...	...	...	8	...	...	45	14
103	1	114	...	1061	...	...	...	11	...	1	12	6
28	1	118	...	...	...	...	1	44	...	CW	9	6
221	31	...	...	2284	...	...	14	73	...	14	8	10
360	244	8	...	5	...	...	2	38	...	31	27	3
...	52	5	...	4	...	...	4	65	...	11	4	3
34	700	29	...	14	...	...	...	13	...	48	2	6
11	...	...	...	16	...	...	1	48	...	...	7	12
CW	CW	...	...	...	...	...	50	184	...	1	33	9
96	19	...	...	...	...	...	32	84	...	2	3	2
...	...	...	...	...	...	...	34	50	...	...	2	2
...	...	...	...	...	...	...	39	60	...	...	1	4
...	...	...	...	...	...	...	...	2	...	...	2	1
45	18	...	...	...	...	...	13	28	...	3	4	CW
4	...	...	...	...	...	...	122	204	...	...	...	8
13	...	...	...	...	75	...	2	52	...	...	1	3
...	...	...	...	...	...	...	34	70	...	...	...	2
4	69	...	...	...	...	...	61	31	...	...	3	5
4	...	...	...	1	...	...	42	95	...	1	12	7
...	...	...	...	...	...	...	6	140	...	...	4	6
...	...	...	...	...	...	...	...	1	...	...	...	...
...	...	...	...	...	...	...	6	54	...	...	...	5
...	...	...	...	...	...	...	15	69	...	...	2	4
...	...	...	...	...	...	...	1	19	...	...	1	6
...	2	...	...	...	...	...	19	25	...	...	1	4
...	...	...	...	...	...	...	...	...	...	...	...	1
...	...	...	...	...	...	...	CW	CW	...	...	1	...
...	...	...	...	...	...	...	30	16	...	...	1	1
36	...	...	...	...	...	...	44	111	...	...	...	1
47	...	...	1	...	...	...	114	16	...	...	3	6
...	...	...	...	...	...	...	42	4	...	...	1	3
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	51	16	...	...	CW	8
...	...	...	...	...	...	...	2	5	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	1	1
<b>1902</b>	<b>1254</b>	<b>2368</b>	<b>1</b>	<b>4310</b>	<b>75</b>	<b>883</b>	<b>1938</b>	<b>1</b>	<b>124</b>	<b>302</b>	<b>230</b>	



	Cooper's Hawk	Northern Goshawk	Accipiter, sp.	Red-shouldered Hawk	Red-tailed Hawk	Rough-legged Hawk	Golden Eagle	American Kestrel
1. Chincoteague	2	...	...	3	28	...	...	27
2. Wachapreague	3	...	...	...	28	1	...	43
3. Cape Charles	7	...	...	7	64	...	1	85
4. Little Creek	1	...	...	10	17	...	...	41
5. Back Bay	3	...	...	12	45	1	...	98
6. Newport News	...	...	...	7	16	...	...	25
7. Mathews	1	...	...	5	5	...	...	12
8. Williamsburg	1	...	...	12	23	...	...	16
9. Hopewell	5	...	...	15	49	...	...	29
10. Brooke	...	...	...	8	8	...	...	4
11. Fort Belvoir	2	...	...	18	29	...	...	5
12. Manassas-B.R.	2	...	...	18	38	6	...	18
13. Nokesville	5	...	...	17	88	CW	...	44
14. Lake Anna	1	...	...	15	16	...	...	6
15. Gordonsville	1	...	...	8	22	...	...	8
16. Charlottesville	...	...	...	2	15	...	...	4
17. Warren	1	...	...	3	11	...	...	8
18. Banister WMA	CW	...	...	3	22	...	...	6
19. Lynchburg	...	...	...	3	28	...	...	6
20. Danville	5	...	...	CW	30	...	...	11
21. Philpott Res.	1	...	...	1	7	...	...	6
22. Calmes Neck	1	...	...	...	35	2	...	38
23. N. Shen. Valley	7	...	...	2	76	2	...	28
24. Shen. NP-Luray	5	...	3	2	66	1	...	14
25. Big Flat Mtn.	...	...	...	...	5	...	...	...
26. Rockingham Co.	...	...	...	1	21	...	...	37
27. Augusta Co.	2	...	...	...	39	3	...	35
28. Waynesboro	3	...	...	2	17	CW	...	33
29. Lexington	2	...	...	2	12	...	...	3
30. Peaks of Otter	...	...	...	...	5	...	...	3
31. Clifton Forge	1	...	...	3	1	...	...	4
32. Fincastle	2	1	...	1	28	...	...	14
33. Roanoke	2	...	...	1	6	...	...	12
34. Blacksburg	5	...	...	...	10	...	...	12
35. Claytor Lake	1	...	...	2	5	1	...	6
36. Tazewell	4	...	...	1	13	...	1	8
37. Glade Spring	4	...	...	...	14	...	...	33
38. Nickelsville	2	...	...	2	5	...	...	7
39. Wise County	1	...	...	2	2	...	...	2
<b>Total individuals</b>	<b>83</b>	<b>1</b>	<b>3</b>	<b>188</b>	<b>949</b>	<b>17</b>	<b>2</b>	<b>791</b>

	Merlin	Peregrine Falcon	Ring-necked Pheasant	Ruffed Grouse	Wild Turkey	Northern Bobwhite	Clapper Rail	King Rail	Virginia Rail	Sora	Common Moorhen	American Coot
...	3	...	...	...	...	38	2	1	...	...	...	2
...	3	...	...	...	...	74	5	...	...	...	...	...
...	2	3	...	...	...	76	45	1	11	1	...	24
...	2	...	...	...	...	10	23	...	...	...	...	314
...	2	...	2	...	...	27	1	30	14	4	1	4
...	1	1	...	...	...	20	1	...	...	...	...	47
...	...	...	...	...	...	33	4	...	...	...	...	...
...	...	...	...	...	...	79	1	...	...	...	...	43
...	...	...	7	...	20	63	...	...	...	...	...	8
...	...	...	...	...	...	51	...	...	...	...	...	...
...	...	...	...	...	...	6	...	2	...	...	...	1
...	1	...	...	...	7	19	...	...	...	...	...	55
...	...	...	...	...	1	9	...	...	...	...	...	...
...	...	...	...	...	...	29	...	...	...	...	...	10
...	...	...	...	...	...	45	...	...	...	...	...	...
...	...	1	...	...	12	6	...	...	...	...	...	...
...	...	...	...	...	3	9	...	...	...	...	...	...
...	...	...	...	...	1	20	...	...	...	...	...	...
...	...	...	...	...	15	35	...	...	...	...	...	4
...	...	...	...	...	11	15	...	...	...	...	...	1
...	...	...	...	1	...	...	...	...	...	...	...	...
...	1	...	3	18	5	52	...	...	...	...	...	1
...	1	...	1	3	38	81	...	...	...	...	...	...
...	...	...	...	11	...	54	...	...	...	...	...	...
...	...	...	...	1	17	...	...	...	...	...	...	...
...	...	...	...	2	...	14	...	...	...	...	...	4
...	...	...	...	...	...	12	...	...	...	...	...	...
...	...	...	...	4	...	39	...	...	...	...	...	1
...	...	...	...	...	1	...	...	...	...	...	...	...
...	...	...	...	6	7	...	...	...	...	...	...	...
...	...	...	...	2	2	...	...	...	...	...	...	...
...	CW	...	...	1	...	71	...	...	...	...	...	...
...	...	...	...	1	8	2	...	...	...	...	...	...
...	...	...	...	...	12	25	...	...	...	...	...	...
...	...	...	...	...	2	20	...	...	...	...	...	25
...	...	...	...	1	9	...	...	...	...	...	...	...
...	...	...	...	1	...	2	...	...	...	...	...	...
...	...	...	...	1	2	14	...	...	...	...	...	...
...	...	...	...	CW	...	...	...	...	...	...	...	...
<b>Total individuals</b>	<b>16</b>	<b>5</b>	<b>13</b>	<b>53</b>	<b>173</b>	<b>1050</b>	<b>82</b>	<b>34</b>	<b>25</b>	<b>5</b>	<b>1</b>	<b>544</b>

	Black-bellied Plover	Semipalmated Plover	Killdeer	American Oystercatcher	Greater Yellowlegs	Lesser Yellowlegs	Willet	Whimbrel
1. Chincoteague	51	...	5	255	8	2	...	...
2. Wachapreague	225	11	17	107	131	60	11	...
3. Cape Charles	91	...	22	265	36	8	63	15
4. Little Creek	3	...	92	160	...	...	...	...
5. Back Bay	23	...	105	...	3	2	...	...
6. Newport News	18	...	147	...	...	...	...	...
7. Mathews	...	...	33	...	2	...	1	...
8. Williamsburg	...	...	42	...	1	...	...	...
9. Hopewell	...	...	45	...	...	...	...	...
10. Brooke	...	...	1	...	...	...	...	...
11. Fort Belvoir	...	...	7	...	...	...	...	...
12. Manassas-B.R.	...	...	3	...	...	...	...	...
13. Nokesville	...	...	6	...	...	...	...	...
14. Lake Anna	...	...	1	...	...	...	...	...
15. Gordonsville	...	...	5	...	...	...	...	...
16. Charlottesville	...	...	2	...	...	...	...	...
17. Warren	...	...	...	...	...	...	...	...
18. Banister WMA	...	...	6	...	...	...	...	...
19. Lynchburg	...	...	3	...	...	...	...	...
20. Danville	...	...	20	...	...	...	...	...
21. Philpott Res.	...	...	...	...	...	...	...	...
22. Calmes Neck	...	...	18	...	...	...	...	...
23. N. Shen. Valley	...	...	30	...	...	...	...	...
24. Shen. NP-Luray	...	...	17	...	...	...	...	...
25. Big Flat Mtn.	...	...	...	...	...	...	...	...
26. Rockingham Co.	...	...	3	...	...	...	...	...
27. Augusta Co.	...	...	7	...	...	...	...	...
28. Waynesboro	...	...	8	...	...	...	...	...
29. Lexington	...	...	1	...	...	...	...	...
30. Peaks of Otter	...	...	...	...	...	...	...	...
31. Clifton Forge	...	...	CW	...	...	...	...	...
32. Fincastle	...	...	13	...	...	...	...	...
33. Roanoke	...	...	15	...	...	...	...	...
34. Blacksburg	...	...	19	...	...	...	...	...
35. Claytor Lake	...	...	1	...	...	...	...	...
36. Tazewell	...	...	CW	...	...	...	...	...
37. Glade Spring	...	...	8	...	...	...	...	...
38. Nickelsville	...	...	3	...	...	...	...	...
39. Wise County	...	...	1	...	...	...	...	...
<b>Total individuals</b>	<b>411</b>	<b>11</b>	<b>706</b>	<b>787</b>	<b>181</b>	<b>72</b>	<b>75</b>	<b>15</b>

Marbled Godwit	Ruddy Turnstone	Red Knot	Sanderling	Western Sandpiper	Least Sandpiper	Purple Sandpiper	Dunlin	Short-billed Dowitcher	Long-billed Dowitcher	dowitcher, sp.	Common Snipe
...	5	9	231	...	...	...	128	...	...	...	5
...	7	...	60	37	...	...	4437	...	...	44	1
37	72	...	398	13	...	1	904	1	2	2	6
...	51	...	600	CW	...	50	96	...	3	...	1
...	...	...	645	1	...	...	21	...	...	...	20
...	4	...	70	20	...	...	600	...	...	...	5
...	...	...	127	...	...	...	131	8	...	...	CW
...	...	...	...	...	...	...	...	...	...	...	1
...	...	...	...	...	12	...	...	...	...	...	30
...	...	...	...	...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	14
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	4
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	1
...	...	...	...	...	...	...	...	...	...	...	4
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	1
...	...	...	...	...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	...	...	...	...	26
...	...	...	...	...	...	...	...	...	...	...	7
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	18
...	...	...	...	...	...	...	...	...	...	...	23
...	...	...	...	...	...	...	...	...	...	...	10
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	...	...	...	...	8
...	...	...	...	...	...	...	...	...	...	...	4
...	...	...	...	...	...	...	...	...	...	...	1
...	...	...	...	...	...	...	...	...	...	...	10
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
37	139	9	2131	71	12	51	6317	9	5	46	213

	American Woodcock	Laughing Gull	Little Gull	Bonaparte's Gull	Ring-billed Gull	Herring Gull	Iceland Gull	Lesser Black- backed Gull	white-winged gull
1. Chincoteague	7	...	...	8	1239	922	...	...	...
2. Wachapreague	10	...	...	57	1704	1281	...	...	...
3. Cape Charles	124	...	...	21	3678	3915	...	1	...
4. Little Creek	4	...	1	1010	12,950	3365	CW	3	...
5. Back Bay	1	1	...	104	2545	860	...	1	...
6. Newport News	9	48	...	314	5438	1830	...	...	...
7. Mathews	...	...	...	7	901	527	...	...	...
8. Williamsburg	2	...	...	15	721	185	...	...	...
9. Hopewell	...	...	...	2	9541	495	...	...	...
10. Brooke	...	...	...	...	2400	650	...	...	...
11. Fort Belvoir	1	...	...	...	896	258	...	...	...
12. Manassas-B.R.	...	...	...	...	389	6	...	...	...
13. Nokesville	...	...	...	...	312	375	...	1	...
14. Lake Anna	...	...	...	7	1175	11	...	...	...
15. Gordonsville	...	...	...	...	...	...	...	...	...
16. Charlottesville	...	...	...	...	...	...	...	...	...
17. Warren	...	...	...	...	3	...	...	...	...
18. Banister WMA	4	...	...	...	338	1	...	...	...
19. Lynchburg	...	...	...	...	3	...	...	...	...
20. Danville	1	...	...	...	355	3	...	...	...
21. Philpott Res.	...	...	...	...	2	...	...	...	...
22. Calmes Neck	...	...	...	...	1	...	...	...	...
23. N. Shen. Valley	...	...	...	...	...	...	...	...	1
24. Shen. NP-Luray	3	...	...	...	...	...	...	...	...
25. Big Flat Mtn.	...	...	...	...	...	...	...	...	...
26. Rockingham Co.	...	...	...	...	...	...	...	...	...
27. Augusta Co.	...	...	...	...	...	...	...	...	...
28. Waynesboro	...	...	...	...	...	...	...	...	...
29. Lexington	...	...	...	...	...	...	...	...	...
30. Peaks of Otter	...	...	...	...	...	...	...	...	...
31. Clifton Forge	...	...	...	...	CW	...	...	...	...
32. Fincastle	...	...	...	...	1	...	...	...	...
33. Roanoke	...	...	...	...	176	...	...	...	...
34. Blacksburg	...	...	...	...	15	...	...	...	...
35. Claytor Lake	...	...	...	...	3	...	...	...	...
36. Tazewell	...	...	...	...	...	...	...	...	...
37. Glade Spring	...	...	...	...	...	...	...	...	...
38. Nickelsville	...	...	...	...	...	...	...	...	...
39. Wise County	...	...	...	...	...	...	...	...	...
Total individuals	166	49	1	1545	44,783	14,684	...	6	1

Great Black- backed Gull	gull, sp.	Royal Tern	Forster's Tern	Rock Dove	Mourning Dove	Barn Owl	Eastern Screech-Owl	Great Horned Owl	Barred Owl	Short-eared Owl	Northern Saw-whet Owl
216	...	...	...	219	265	...	1	3	...	6	...
44	100	...	1	75	323	...	4	1	...	...	...
341	...	...	...	960	1487	3	22	31	...	1	...
550	...	CW	18	855	1800	...	9	26	6	...	...
251	...	...	16	186	490	1	13	40	3	1	...
196	...	...	...	524	833	...	6	5	...	...	...
89	...	...	...	5	271	...	1	26	2	...	...
28	...	...	...	181	272	...	9	9	4	...	...
105	...	...	...	140	539	2	8	15	11	5	...
63	...	...	...	9	166	...	...	1	3	...	...
19	...	...	...	245	648	...	6	6	2	...	...
...	...	...	...	226	966	1	2	3	1	...	...
52	...	...	...	398	414	5	8	23	2	4	1
1	...	...	...	19	130	...	7	15	4	...	...
...	...	...	...	30	183	...	1	2	1	...	...
...	...	...	...	83	84	...	1	2	2	...	...
...	...	...	...	11	72	...	1	2	3	...	...
...	...	...	...	161	419	...	7	6	2	...	...
...	...	...	...	261	212	...	4	...	...	...	...
...	...	...	...	316	465	...	2	2	3	...	...
...	...	...	...	40	75	...	3	1	...	...	...
...	...	...	...	465	892	...	12	6	3	...	...
...	...	...	...	567	1249	...	27	12	7	1	...
...	...	...	...	582	1413	...	25	12	3	...	...
...	...	...	...	...	3	...	...	...	...	...	...
...	...	...	...	625	991	...	1	3	...	...	...
...	...	...	...	618	649	2	7	13	...	9	...
...	...	...	...	387	563	...	2	...	1	...	...
...	...	...	...	7	11	...	8	...	...	...	...
...	...	...	...	...	2	...	2	...	...	...	...
...	...	...	...	150	46	...	3	2	...	...	...
...	...	...	...	354	253	...	14	6	2	...	...
...	...	...	...	415	133	...	2	2	1	...	...
...	...	...	...	296	541	...	3	...	...	...	...
...	...	...	...	23	28	...	...	...	...	4	...
...	4	...	...	105	104	...	2	...	...	...	...
...	...	...	...	373	647	...	6	6	...	...	...
...	...	...	...	24	135	...	...	1	1	...	...
...	...	...	...	62	79	...	2	2	1	4	...
1955	104	...	35	9997	17,850	14	231	284	68	35	1

	owl, sp.	Belted Kingfisher	Red-headed Woodpecker	Red-bellied Woodpecker	Yellow-bellied Sapsucker	Downy Woodpecker	Hairy Woodpecker	Northern Flicker	Pileated Woodpecker
1. Chincoteague	...	15	1	33	3	48	9	101	8
2. Wachapreague	...	15	...	16	6	16	1	35	CW
3. Cape Charles	...	25	1	79	27	93	10	300	11
4. Little Creek	...	30	...	36	5	54	2	100	36
5. Back Bay	...	35	...	47	4	60	7	122	32
6. Newport News	...	35	...	55	10	46	3	123	11
7. Mathews	...	12	1	57	8	48	3	132	10
8. Williamsburg	...	20	9	114	46	66	17	183	33
9. Hopewell	...	20	17	102	40	71	4	111	22
10. Brooke	...	5	16	62	29	54	5	53	19
11. Fort Belvoir	...	24	45	288	70	263	42	155	55
12. Manassas-B.R.	...	5	3	118	14	104	9	143	32
13. Nokesville	...	2	38	89	15	63	14	70	22
14. Lake Anna	...	15	1	23	3	25	4	19	8
15. Gordonsville	...	5	3	35	17	38	4	39	18
16. Charlottesville	...	4	...	60	35	93	15	70	27
17. Warren	...	3	3	52	26	53	13	41	19
18. Banister WMA	...	2	100	41	24	31	...	56	5
19. Lynchburg	...	4	2	47	50	52	10	40	15
20. Danville	...	7	5	17	10	11	12	53	2
21. Philpott Res.	...	4	...	7	2	24	1	14	7
22. Calmes Neck	...	2	24	199	32	174	38	63	66
23. N. Shen. Valley	...	18	3	111	36	115	19	53	35
24. Shen. NP-Luray	...	14	1	39	14	107	21	31	26
25. Big Flat Mtn.	...	1	...	9	8	20	6	9	17
26. Rockingham Co.	...	7	4	30	...	33	5	13	11
27. Augusta Co.	...	6	...	51	1	58	9	15	5
28. Waynesboro	...	22	CW	53	7	85	15	51	35
29. Lexington	...	3	...	14	5	14	4	12	8
30. Peaks of Otter	...	...	...	8	13	20	4	7	21
31. Clifton Forge	...	...	...	7	1	18	1	5	8
32. Fincastle	...	14	2	28	22	44	9	28	19
33. Roanoke	...	10	...	15	15	44	6	28	11
34. Blacksburg	1	7	...	23	12	81	11	51	11
35. Claytor Lake	...	...	...	10	3	25	2	3	7
36. Tazewell	...	5	...	2	...	12	1	2	...
37. Glade Spring	...	7	...	13	5	38	...	9	13
38. Nickelsville	...	3	...	5	4	22	8	8	7
39. Wise County	...	1	...	2	2	28	4	6	10
Total individuals	1	407	279	1997	624	2251	348	2354	702

	Eastern Phoebe	Ash-throated Flycatcher	Horned Lark	Tree Swallow	Blue Jay	American Crow	Fish Crow	crow, sp.	Common Raven	Black-capped Chickadee	Carolina Chickadee	chickadee, sp.
2	...	...	19	...	75	213	3	...	...	...	155	...
3	...	...	5	...	25	461	2	...	...	...	106	...
8	...	87	3	...	161	464	319	528	...	...	367	...
4	...	...	...	...	149	1080	345	...	...	...	247	...
8	...	2	5	...	159	400	15	...	...	...	217	...
...	...	28	...	...	119	325	15	...	...	...	159	...
6	...	...	...	...	169	631	3	...	...	...	172	...
11	1	1	...	...	261	275	4	65	...	...	290	...
10	...	22	...	...	197	343	31	...	...	...	289	...
4	...	8	...	...	238	500	12	...	...	...	234	...
1	...	1	...	...	426	3089	150	...	...	...	915	...
...	...	...	...	...	557	951	20	...	...	...	414	...
...	...	542	...	...	818	824	95	...	...	...	141	...
2	...	2	...	...	189	357	...	...	...	...	81	...
1	...	...	...	...	389	439	1	...	...	...	83	...
1	...	51	...	...	404	543	7	...	8	...	191	2
3	...	...	...	...	250	286	...	...	...	...	102	...
4	...	...	...	...	279	354	...	...	...	...	61	...
4	...	43	...	...	363	550	...	...	4	...	189	...
CW	...	200	...	...	234	375	...	...	...	...	118	...
1	...	...	...	...	61	240	...	...	4	...	113	9
...	...	50	...	...	576	533	...	...	7	1	594	...
4	...	21	...	...	834	1118	2	...	5	5	634	...
4	...	790	...	...	643	1302	...	...	57	5	236	...
...	...	...	...	...	6	17	...	...	7	...	21	...
...	...	50	...	...	242	196	7	...	5	6	48	...
...	...	187	...	...	497	790	77	55	3	4	146	...
2	...	12	...	...	565	1134	605	60	20	3	200	...
...	...	...	...	...	112	664	...	...	1	7	39	14
4	...	...	...	...	46	112	...	...	7	20	43	...
1	...	...	...	...	117	311	...	...	5	3	90	...
4	...	162	...	...	539	1003	...	...	6	10	186	...
1	...	22	...	...	164	248	...	...	3	8	90	...
8	...	99	...	...	243	882	...	...	7	33	102	92
...	...	40	...	...	73	424	...	...	3	...	44	6
...	...	...	...	...	63	146	...	...	4	4	27	...
1	...	...	...	...	262	307	...	...	...	...	76	...
12	...	...	...	...	103	130	...	...	2	...	108	...
...	...	CW	...	...	98	47	...	...	2	...	50	...
114	1	2444	8	10,706	22,064	1713	708	158	109	7378	123	

	Tufted Titmouse	Red-breasted Nuthatch	White-breasted Nuthatch	Brown-headed Nuthatch	Brown Creeper	Carolina Wren	House Wren	Winter Wren	Sedge Wren
1. Chincoteague	76	...	1	41	19	106	...	3	...
2. Wachapreague	35	6	7	...	2	40	...	3	...
3. Cape Charles	88	21	1	18	38	494	33	35	2
4. Little Creek	81	3	8	29	20	160	5	8	2
5. Back Bay	75	5	13	6	9	194	...	1	4
6. Newport News	144	1	3	4	12	73	...	2	...
7. Mathews	105	2	1	33	5	130	3	4	...
8. Williamsburg	212	5	73	57	15	169	...	15	...
9. Hopewell	132	1	26	2	16	139	...	17	1
10. Brooke	156	5	32	...	8	66	...	4	...
11. Fort Belvoir	870	53	134	...	93	217	2	13	...
12. Manassas-B.R.	460	4	76	...	13	92	2	2	...
13. Nokesville	157	9	52	...	12	88	...	2	...
14. Lake Anna	38	1	9	...	1	25	...	3	...
15. Gordonsville	46	...	17	...	1	37	...	3	...
16. Charlottesville	171	19	37	...	8	165	1	10	...
17. Warren	88	...	10	...	5	89	...	3	...
18. Banister WMA	72	8	16	8	2	44	...	6	...
19. Lynchburg	172	22	43	...	12	93	...	12	...
20. Danville	108	1	21	9	6	53	...	1	...
21. Philpott Res.	45	4	5	3	6	49	...	2	...
22. Calmes Neck	425	1	171	...	50	137	...	6	...
23. N. Shen. Valley	343	16	124	...	27	108	...	15	...
24. Shen. NP-Luray	263	46	63	...	26	82	...	32	...
25. Big Flat Mtn.	14	6	8	...	3	10	...	4	...
26. Rockingham Co.	83	2	13	...	6	30	...	2	...
27. Augusta Co.	108	3	30	...	4	51	...	1	...
28. Waynesboro	179	3	85	...	6	86	...	8	...
29. Lexington	31	1	10	...	2	30	...	2	...
30. Peaks of Otter	48	13	37	...	3	29	...	2	...
31. Clifton Forge	67	13	20	...	...	19	...	3	...
32. Fincastle	88	6	24	...	6	72	...	6	...
33. Roanoke	201	5	21	...	12	64	...	8	...
34. Blacksburg	161	3	46	...	14	95	...	7	...
35. Claytor Lake	97	...	18	...	2	22	...	1	...
36. Tazewell	34	...	13	...	...	5	...	1	...
37. Glade Spring	55	1	35	...	2	44	1	8	...
38. Nickelsville	53	...	38	...	3	13	1	2	...
39. Wise County	84	2	33	...	...	18	...	6	...
<b>Total individuals</b>	<b>5665</b>	<b>291</b>	<b>1374</b>	<b>212</b>	<b>469</b>	<b>3438</b>	<b>48</b>	<b>263</b>	<b>9</b>

	Marsh Wren	Golden-crowned Kinglet	Ruby-crowned Kinglet	Blue-gray Gnatcatcher	Eastern Bluebird	Hermit Thrush	American Robin	Varied Thrush	Gray Catbird	Northern Mockingbird	Brown Thrasher	Water Pipit
1	90	13	...	128	8	1839	...	8	73	4	...	...
1	69	12	...	85	16	137	...	4	74	7	...	...
4	204	99	1	197	97	3397	...	31	211	19	866	...
2	177	34	1	1	5	1425	...	3	118	21	5	...
9	90	39	...	67	22	846	...	30	158	25	159	...
...	51	29	...	31	10	54	...	2	165	7	1	...
...	74	38	...	570	14	3074	...	13	145	17	...	...
5	212	160	...	220	55	544	...	3	120	30	87	...
...	106	30	1	188	44	905	...	...	126	25	303	...
...	23	14	...	242	93	630	...	1	233	3	...	...
...	372	22	...	238	186	1489	...	2	218	4	1	...
...	135	7	...	191	22	444	...	...	172	2	...	...
...	109	5	...	132	49	2275	...	...	142	1	11	...
...	50	12	...	74	40	222	...	...	44	...	...	...
...	29	2	...	98	23	460	...	1	109	3	...	...
...	130	18	...	87	64	1491	...	...	157	1	...	...
...	40	3	...	158	14	308	...	...	105	2	...	...
...	101	41	...	102	33	528	...	...	75	14	...	...
...	76	11	...	138	43	59	...	...	117	1	...	...
...	90	18	...	162	6	11	...	...	127	3	...	...
...	43	7	...	52	9	44	...	...	25	...	...	...
...	111	1	...	224	25	85	...	...	217	...	...	...
...	113	26	...	626	19	1657	...	...	282	1	...	...
...	199	22	...	392	46	1285	...	...	155	...	1	...
...	11	...	...	...	18	29	...	...	2	...	...	...
...	26	...	...	57	1	67	...	...	70	...	...	...
...	19	2	...	103	3	82	...	...	130	...	1	...
...	73	10	...	159	35	406	...	...	157	...	...	...
...	69	2	...	22	18	460	...	...	36	...	...	...
...	49	2	...	45	4	72	1	...	6	...	...	...
...	34	8	...	22	6	44	...	...	15	1	...	...
...	74	3	...	64	34	199	...	...	133	...	1	...
...	80	4	...	44	16	2	...	...	107	1	...	...
...	56	7	...	79	13	31	...	...	80	2	6	...
...	14	...	...	41	6	92	...	...	23	...	...	...
...	...	...	...	2	1	4	...	...	2	...	...	...
...	32	...	...	17	1	19	...	...	60	1	...	...
...	21	10	...	73	9	127	...	...	23	2	...	...
...	11	5	...	3	9	48	...	...	1	1	...	...
<b>Total individuals</b>	<b>22</b>	<b>3263</b>	<b>716</b>	<b>3</b>	<b>5134</b>	<b>1117</b>	<b>24,891</b>	<b>1</b>	<b>98</b>	<b>4213</b>	<b>198</b>	<b>1442</b>

	Cedar Waxwing	Loggerhead Shrike	European Starling	Solitary Vireo	Orange-crowned Warbler	Yellow-rumped Warbler	Pine Warbler	Prairie Warbler	Palm Warbler
1. Chincoteague	45	...	6536	...	...	2327	21	...	...
2. Wachapreague	89	...	1481	1	1	1046	1	...	16
3. Cape Charles	1516	...	5030	...	6	5382	12	1	158
4. Little Creek	343	...	5600	2	1	525	21	...	10
5. Back Bay	65	...	2475	...	2	3915	16	...	3
6. Newport News	65	...	2551	...	...	765	9	...	1
7. Mathews	208	...	3800	...	1	1057	24	...	8
8. Williamsburg	160	...	2088	...	CW	762	41	...	4
9. Hopewell	347	1	1007	...	...	91	3	...	2
10. Brooke	16	...	800	...	...	55	...	...	...
11. Fort Belvoir	120	...	1598	...	...	283	...	...	...
12. Manassas-B.R.	156	...	4040	...	...	379	...	...	...
13. Nokesville	307	...	5617	...	...	226	...	...	...
14. Lake Anna	15	...	739	...	...	20	...	...	...
15. Gordonsville	75	1	1560	...	...	105	...	...	...
16. Charlottesville	380	...	3857	...	...	121	1	...	...
17. Warren	25	1	452	...	...	90	...	...	...
18. Banister WMA	116	...	2392	...	...	78	4	...	...
19. Lynchburg	178	...	2383	...	...	72	2	...	...
20. Danville	40	...	1379	...	...	12	1	...	...
21. Philpott Res.	18	...	269	...	...	5	...	...	...
22. Calmes Neck	197	12	3929	...	...	42	...	...	...
23. N. Shen. Valley	593	5	10,328	...	...	63	1	...	...
24. Shen. NP-Luray	167	1	5655	...	...	58	1	...	...
25. Big Flat Mtn.	15	...	...	...	...	1	...	...	...
26. Rockingham Co.	...	6	7859	...	...	37	...	...	...
27. Augusta Co.	23	1	2171	...	...	13	...	...	...
28. Waynesboro	110	3	2611	...	...	88	...	...	...
29. Lexington	134	1	650	...	...	92	...	...	...
30. Peaks of Otter	...	...	52	...	...	70	...	...	...
31. Clifton Forge	13	1	350	...	...	15	...	...	CW
32. Fincastle	2	7	4849	...	...	64	...	...	...
33. Roanoke	...	3	2016	...	...	36	...	...	...
34. Blacksburg	41	...	995	...	...	33	...	...	...
35. Claytor Lake	379	1	467	...	...	25	...	...	...
36. Tazewell	...	...	399	...	...	...	...	...	...
37. Glade Spring	49	6	1715	...	...	31	...	...	...
38. Nickelsville	30	1	870	...	...	173	...	...	...
39. Wise County	...	...	67	...	...	...	...	...	...
<b>Total individuals</b>	<b>6037</b>	<b>51</b>	<b>100,637</b>	<b>3</b>	<b>11</b>	<b>18,157</b>	<b>158</b>	<b>1</b>	<b>202</b>

Black-and-white Warbler	Common Yellowthroat	Northern Cardinal	Painted Bunting	Rufous-sided Towhee	American Tree Sparrow	Chipping Sparrow	Field Sparrow	Vesper Sparrow	Savannah Sparrow	Savannah (Ipswich) Sparrow	Sharp-tailed Sparrow
...	...	94	...	10	...	45	45	1	67	1	3
...	...	151	...	6	30	10	55	...	14	2	14
...	6	397	...	104	2	51	325	41	296	1	120
...	1	196	...	33	...	...	42	1	47	...	26
...	3	110	1	78	1	29	18	...	42	...	...
...	...	204	...	34	...	1	25	...	44	...	1
...	...	304	...	66	1	2	109	...	7	...	...
...	...	382	...	137	2	14	171	...	21	...	...
...	1	483	...	48	1	1	52	...	28	...	...
...	...	253	...	27	10	1	48	...	3	...	...
...	...	579	...	96	7	...	71	...	2	...	...
...	...	301	...	21	22	...	67	...	12	...	...
...	...	369	...	62	37	...	27	1	37	...	...
...	...	96	...	7	2	2	15	...	6	...	...
...	...	295	...	27	...	...	21	...	...	...	...
...	...	339	...	38	5	...	76	...	1	...	...
...	...	236	...	14	3	...	24	...	...	...	...
...	...	337	...	88	...	2	50	...	4	...	...
...	...	361	...	56	...	...	22	...	4	...	...
...	...	224	...	29	...	5	50	...	...	...	...
...	...	150	...	7	...	...	12	...	...	...	...
...	...	804	...	5	71	...	25	...	...	...	...
2	...	767	...	9	35	...	64	...	2	...	...
...	...	569	...	7	21	...	103	...	...	...	...
...	...	20	...	1	...	...	...	...	...	...	...
...	...	133	...	...	1	...	20	1	...	...	...
...	...	335	...	4	2	...	163	...	...	...	...
...	...	282	...	12	...	...	43	...	2	...	...
...	...	65	...	5	1	...	23	...	...	...	...
...	...	59	...	1	...	...	2	...	...	...	...
...	...	75	...	2	...	1	2	...	...	...	...
...	...	298	...	10	...	...	137	...	4	...	...
...	...	204	...	11	...	...	20	...	1	...	...
...	...	344	...	29	...	1	20	...	...	...	...
...	...	121	...	...	...	...	...	...	...	...	...
...	...	58	...	5	...	...	2	...	...	...	...
...	...	187	...	23	...	...	88	...	...	...	...
...	...	138	...	28	...	...	51	...	...	...	...
...	...	196	...	18	...	...	12	...	...	...	...
<b>2</b>	<b>11</b>	<b>10,516</b>	<b>1</b>	<b>1158</b>	<b>254</b>	<b>165</b>	<b>2100</b>	<b>45</b>	<b>644</b>	<b>4</b>	<b>164</b>

	Seaside Sparrow	Fox Sparrow	Song Sparrow	Lincoln's Sparrow	Swamp Sparrow	White-throated Sparrow	White-crowned Sparrow	Dark-eyed Junco	Lapland Longspur
1. Chincoteague	4	3	184	...	78	166	2	302	...
2. Wachapreague	...	72	146	...	23	1418	...	328	...
3. Cape Charles	17	33	1021	2	385	2219	17	345	...
4. Little Creek	6	2	210	1	59	471	...	240	...
5. Back Bay	...	6	258	...	167	382	5	194	...
6. Newport News	...	16	253	...	24	512	...	506	3
7. Mathews	...	1	264	...	15	476	...	1324	...
8. Williamsburg	...	19	342	...	26	814	4	1075	...
9. Hopewell	...	14	575	...	55	2079	19	1120	...
10. Brooke	...	4	340	...	18	1400	4	1200	...
11. Fort Belvoir	...	8	424	...	18	1242	6	1786	...
12. Manassas-B.R.	...	...	112	...	...	267	19	919	...
13. Nokesville	...	1	276	...	5	675	119	1648	4
14. Lake Anna	...	1	226	...	5	209	7	492	...
15. Gordonsville	...	3	183	...	1	590	19	924	...
16. Charlottesville	...	4	329	...	6	723	69	675	...
17. Warren	...	...	327	...	12	636	30	439	...
18. Banister WMA	...	...	518	...	174	1127	3	2413	...
19. Lynchburg	...	2	204	...	2	688	5	832	...
20. Danville	...	2	124	...	2	321	1	893	...
21. Philpott Res.	...	...	151	...	8	257	20	458	...
22. Calmes Neck	...	...	287	...	...	421	284	715	...
23. N. Shen. Valley	...	2	283	...	10	402	277	2587	...
24. Shen. NP-Luray	...	4	400	...	7	756	350	2550	1
25. Big Flat Mtn.	...	...	1	...	...	114	...	49	...
26. Rockingham Co.	...	...	72	...	1	183	187	309	...
27. Augusta Co.	...	...	125	...	...	137	169	967	...
28. Waynesboro	...	1	153	...	2	277	164	501	...
29. Lexington	...	1	88	...	2	250	5	462	...
30. Peaks of Otter	...	...	11	...	...	123	...	170	...
31. Clifton Forge	...	3	21	...	2	104	...	209	...
32. Fincastle	...	3	152	...	...	296	106	656	...
33. Roanoke	...	...	200	...	...	169	18	339	...
34. Blacksburg	...	10	211	...	...	486	120	536	...
35. Claytor Lake	...	...	44	...	...	39	31	104	...
36. Tazewell	...	2	64	...	...	36	...	152	...
37. Glade Spring	...	3	213	...	1	230	90	147	...
38. Nickelsville	...	2	106	...	...	92	25	267	...
39. Wise County	...	1	181	...	...	95	4	280	...
<b>Total individuals</b>	<b>27</b>	<b>223</b>	<b>9079</b>	<b>3</b>	<b>1108</b>	<b>20,882</b>	<b>2179</b>	<b>29,113</b>	<b>8</b>

	Snow Bunting	Red-winged Blackbird	Eastern Meadowlark	Rusty Blackbird	Brewer's Blackbird	Boat-tailed Grackle	Common Grackle	Brown-headed Cowbird	blackbird, sp.	Northern (Baltimore) Oriole	Northern (Bullock's) Oriole	Purple Finch
31	39,132	151	...	...	...	320	8816	850	...	...	...	9
1	520	366	2	...	...	71	6409	43	100	...	...	3
30	877	334	10	...	...	1526	699	300	...	...	...	12
...	4240	76	24	...	...	175	2500	4715	...	...	...	13
19	6850	328	150	5	...	205	4185	417	...	...	...	37
3	1476	87	2	...	...	51	8584	176	...	...	...	20
CW	457	181	...	...	...	...	231	53	...	...	1	25
...	1323	80	9	...	...	...	381	3	...	3	...	29
...	732	187	2	...	...	...	918	22	...	...	...	5
Z	50	8	20	1	...	...	67	...	...	...	...	89
...	189	10	48	...	...	...	206	92	...	...	...	27
...	1	10	...	...	...	...	3	18	...	...	...	115
8	10	168	33	6	...	...	620	54	1	...	...	12
...	48	24	...	...	...	...	57	...	...	...	...	3
...	58	34	...	...	...	...	78	8	...	...	...	10
...	7	25	...	...	...	...	925	32	...	...	...	50
...	8	17	...	...	...	...	3	...	...	...	...	53
...	6	139	111	...	...	...	3163	88	...	...	...	9
...	CW	58	...	...	...	...	57	3	...	...	...	63
...	127	52	...	...	...	...	545	11	...	...	...	89
...	...	11	...	...	...	...	...	...	...	...	...	11
...	1	33	...	...	...	...	32	4	...	...	...	60
...	176	239	9	...	...	...	21	151	...	...	...	69
...	92	220	10	...	...	...	1	16	...	...	...	71
...	...	...	...	...	...	...	...	...	...	...	...	8
...	77	77	610	3	...	...	1519	1929	...	...	...	22
...	2	241	65	...	...	...	1406	209	...	...	...	27
...	21	40	18	...	...	...	222	51	...	...	...	35
...	...	2	...	...	...	...	12	33	...	...	...	98
...	...	...	...	...	...	...	21	...	...	...	...	17
...	15	3	...	...	...	...	8	...	...	...	...	50
...	33	73	539	...	...	...	899	26	...	...	...	27
...	1	6	...	...	...	...	1	31	...	...	...	2
...	...	15	...	...	...	...	1	1	...	...	...	91
...	...	1	...	...	...	...	...	...	...	...	...	2
...	CW	CW	...	...	...	...	38	3	...	...	...	21
...	3	100	2	...	...	...	21	2	...	...	...	4
...	1	31	3	...	...	...	1	...	...	...	...	7
...	101	1	3	...	...	...	100	...	...	...	...	36
<b>99</b>	<b>56,634</b>	<b>3428</b>	<b>1670</b>	<b>15</b>	<b>2348</b>	<b>42,750</b>	<b>9341</b>	<b>101</b>	<b>3</b>	<b>1</b>	<b>1331</b>	



	House Finch	Red Crossbill	Pine Siskin	American Goldfinch	Evening Grosbeak	House Sparrow
1. Chincoteague	45	...	23	81	...	177
2. Wachapreague	428	1	...	48	...	118
3. Cape Charles	332	7	247	384	21	198
4. Little Creek	216	...	84	146	...	254
5. Back Bay	71	...	55	128	...	156
6. Newport News	313	...	...	104	...	257
7. Mathews	382	...	10	341	...	65
8. Williamsburg	380	...	3	130	4	90
9. Hopewell	152	...	1	141	4	38
10. Brooke	134	...	2	59	1	71
11. Fort Belvoir	416	...	24	288	6	534
12. Manassas-B.R.	680	...	6	143	...	216
13. Nokesville	675	...	3	77	6	538
14. Lake Anna	56	...	...	47	1	56
15. Gordonsville	337	...	...	35	6	78
16. Charlottesville	245	...	26	95	1	209
17. Warren	116	...	41	123	...	26
18. Banister WMA	363	...	5	84	13	312
19. Lynchburg	550	...	89	214	18	68
20. Danville	451	...	4	286	8	228
21. Philpott Res.	6	...	5	60	1	16
22. Calmes Neck	495	...	23	237	...	456
23. N. Shen. Valley	1789	...	6	325	35	549
24. Shen. NP-Luray	572	...	206	160	25	301
25. Big Flat Mtn.	...	1	8	11	7	...
26. Rockingham Co.	279	...	26	85	2	851
27. Augusta Co.	468	...	48	179	4	453
28. Waynesboro	239	...	56	123	117	271
29. Lexington	315	...	...	30	...	5
30. Peaks of Otter	4	6	9	35	1	...
31. Clifton Forge	123	9	55	51	9	38
32. Fincastle	442	4	38	116	11	237
33. Roanoke	344	...	85	96	1	54
34. Blacksburg	449	...	135	284	1	169
35. Claytor Lake	61	...	1	23	...	36
36. Tazewell	68	...	52	...	1	115
37. Glade Spring	98	...	91	75	...	278
38. Nickelsville	182	...	60	100	...	40
39. Wise County	211	...	166	80	5	105
<b>Total individuals</b>	<b>12,487</b>	<b>28</b>	<b>1693</b>	<b>5024</b>	<b>309</b>	<b>7663</b>

(See explanation of symbols for water conditions and weather on page 40.)

Total species	Total individuals	Date	Time in field (a.m. to p.m.)	Water/snow conditions	Skies (a.m.)	Skies (p.m.)
126	102,419	29 Dec	6:30-5:15	SWF, MWO, S(0-4)	CLR	PCD
125	42,410	16 Dec	6:00-5:00	WPF, S(1-2)	CLR	PCD
161	112,528	30 Dec	4:00-6:00	SWF, MPO, S(0-0.5)	CLD, LGR	PCD
141	57,110	31 Dec	5:30-5:30	SPF	FOG, LGR	FOG, LGR
146	57,057	29 Dec	4:00-5:30	SWF, MPF	CLR	CLD
117	32,122	16 Dec	5:00-5:00	WOP	CLR	PCD
104	19,803	31 Dec	5:00-5:00	SWF, MPF	CLD, FOG, LGR	CLD, FOG, LGR
113	23,292	17 Dec	5:00-5:00	SWF, MPF, S(0-3)	PCD	CLD
109	45,146	17 Dec	5:45-5:15	SWF, MWO	CLR	PCR
85	12,180	18 Dec	6:30-6:30	SWF, MPO, S(12)	CLR	CLR
106	26,835	23 Dec	6:00-5:30	WFZ, S(4-6)	CLR	PCD
82	14,116	30 Dec	8:00-5:00	SWF, MPO, S(2-4)	PCD	CLD
86	20,771	17 Dec	3:00-5:30	SWF, MPO, S(5-7)	CLR	CLD
86	6078	20 Dec	3:30-5:00	SPF, MWO, S(8-12)	CLR	CLR
69	8941	17 Dec	7:00-5:00	SWF, MPO, S(5)	PCR	CLD
74	13,334	17 Dec	6:30-5:30	SWF, MWO, S(7-9)	PCD	PCD
66	4620	31 Dec	6:00-5:30	SWF, MWO, S(4-6)	FOG, LGR	FOG, LGR
78	14,941	17 Dec	7:00-5:30	SWF, MPF, S(0-2)	CLR	PCD
73	9105	16 Dec	6:00-5:30	SWF, MPO, S(8)	CLR	CLR
78	8301	16 Dec	4:00-6:00	SWF, MPF, S(2)	PCD	PCD
65	2733	31 Dec	6:00-5:15	SPF, MWO	CLD, FOG, HVR	CLD, FOG, LGR
85	22,284	30 Dec	5:30-6:00	WFZ, S(3-4)	CLD	PCD
100	30,043	16 Dec	12:01-6:00	SWF, MPO, S(4)	CLR	CLR
83	20,875	17 Dec	5:45-5:45	SWF, MPF, S(10)	PCD	PCD
38	489	26 Dec	6:45-5:45	SWF, MPO, S(5-9)	PCD	CLR
72	17,400	30 Dec	8:00-5:00	SWF, MWO, S(6)	PCD	CLD
75	11,285	23 Dec	7:00-5:00	SWF, MPF, S(9)	CLR	CLR
76	11,134	30 Dec	7:00-4:45	SPF, MWO, S(3)	CLR	CLR
63	3990	26 Dec	5:00-5:00	SWF, MPF, S(6)	PCD, LSN	CLR
47	1223	30 Dec	8:00-4:00	SWF, MPF, S(3)	PCD	PCD
61	2206	30 Jan	8:00-8:00	SWF, MPF, S(4-6)	CLD, FOG	PCR
78	12,688	17 Dec	5:00-5:00	SWF, MPF, S(3)	PCD	PCD
78	6174	16 Dec	4:00-5:00	SPF, MPO, S(1-3)	PCD	PCD
80	8098	16 Dec	6:00-5:30	SWF, MPO, S(8)	PCD	CLR
61	3526	27 Dec	7:10-5:20	SWF, MMF, S(3-6)	OVC	LSS, FRN
48	1669	27 Dec	7:30-5:00	SWF, MPF, S(2)	LSN	LSN
71	6396	30 Dec	4:00-4:45	SWF, MWO, S(2-4)	FOG	FOG
62	3204	23 Dec	7:30-4:30	SWF, MPF, S(5)	CLD	PCD
55	2293	17 Dec	7:00-5:00	SWF, MPF, S(4-6)	CLD, LSN	CLD, LSN
195	798,813	...	...	...	...	...



	Temperatures (° Fahrenheit)	Wind direction	Wind speed (miles/hour)	Number of field observers	Number of field parties (non-owling)	Number of feeder observers	Number of hours at feeders
1. Chincoteague	24 - 40	SE	2-6	20	14	...	...
2. Wachapreague	22 - 30	NW	15-30	23	12	6	5.50
3. Cape Charles	40 - 60	SW	5-10	51	9-28	...	...
4. Little Creek	35 - 62	SE-SW	0-20	29	14-17	...	...
5. Back Bay	28 - 53	NW	0-10	31	13-22	...	...
6. Newport News	24 - 45	NW	15-25	37	14	1	3.00
7. Mathews	39 - 55	S	0-15	35	10-11	2	2.00
8. Williamsburg	12 - 28	NW	8-15	20	9	2	11.00
9. Hopewell	11 - 29	Calm	...	34	13-15	2	6.50
10. Brooke	18 - 28	N	0-10	19	10-11	...	...
11. Fort Belvoir	3 - 21	N	10	62	37	1	4.00
12. Manassas-B.R.	32 - 38	?	5	32	12	...	...
13. Nokesville	-5 - 22	NW	0-4	29	15	1	2.00
14. Lake Anna	18 - 36	E	0-5	8	6	1	8.00
15. Gordonsville	3 - 30	SW	0-3	16	7	2	3.50
16. Charlottesville	-2 - 27	S	0-3	17	13	1	1.00
17. Warren	33 - 38	S	0-3	17	10	...	...
18. Banister WMA	14 - 22	NW	5	8	6	...	...
19. Lynchburg	10 - 23	NW	20	27	11-15	5	15.00
20. Danville	17 - 25	N	0-15	12	9	7	13.00
21. Philpott Res.	40 - 51	S	5	10	5	...	...
22. Calmes Neck	25 - 44	NW	0-5	34	17	1	4.00
23. N. Shen. Valley	0 - 22	NW	10-30	46	23	...	...
24. Shen. NP-Luray	-6 - 21	NW	5-15	35	18	9	20.50
25. Big Flat Mtn.	20 - 29	NW	10-30	2	2	...	...
26. Rockingham Co.	30 - 40	Calm	...	18	23	...	...
27. Augusta Co.	-6 - 18	N	0-10	17	8	8	21.00
28. Waynesboro	31-50	N	0-5	34	15	...	...
29. Lexington	25 - 35	SW-NW	0-25	12	2-5	...	...
30. Peaks of Otter	35 - 45	N	3	10	5	...	...
31. Clifton Forge	35 - 45	NW	0-5	8	5-6	5	11.00
32. Fincastle	0 - 20	NW	5	22	13	...	...
33. Roanoke	4 - 21	N	5-20	20	10	1	2.00
34. Blacksburg	0 - 16	Calm	...	33	16	26	53.50
35. Claytor Lake	12 - 27	W	10-15	5	2	1	1.00
36. Tazewell	15 - 31	SW	8-10	6	4	2	8.00
37. Glade Spring	33 - 46	NE	5	18	7	1	2.00
38. Nickelsville	10 - 20	NW	12-15	6	4	...	...
39. Wise County	6 - 28	SW	5-30	7	4	4	11.00
...	...	...	...	871	427-470	89	208.50

Hours owling	Miles owling	Hours on foot	Hours by car	Hours by boat/canoe	Total hours (excludes owling and feeder hours)	Miles on foot	Miles by car	Miles by boat/canoe	Total miles (excludes owling miles)
1.50	3.00	92.00	12.00	...	104.00	64.00	193.00	...	257.00
1.25	2.00	30.00	45.25	5.50	80.75	26.00	338.00	14.00	378.00
9.00	30.00	188.00	32.00	3.00	223.00	137.00	313.00	10.00	460.00
4.50	40.00	84.00	34.00	...	118.00	50.00	406.00	...	456.00
8.50	100.00	100.00	28.00	...	128.00	62.00	351.00	...	413.00
4.00	10.00	49.00	54.00	...	103.00	45.00	493.00	...	538.00
8.75	28.00	47.00	51.00	...	98.00	40.50	398.00	...	438.50
5.50	15.00	43.50	24.25	...	67.75	36.00	306.50	...	342.50
7.75	30.50	75.50	34.75	3.00	113.25	54.50	303.00	16.00	373.50
0.75	2.00	55.50	34.00	...	89.50	51.00	180.00	...	231.00
6.00	38.00	129.50	44.00	...	173.50	113.50	321.50	...	435.00
31.00	11.00	48.00	117.00	...	165.00	56.00	188.00	...	244.00
8.00	84.00	52.00	70.50	...	122.50	55.50	576.50	...	632.00
8.00	106.00	18.00	32.00	...	50.00	16.00	302.50	...	318.50
3.00	12.00	17.00	41.50	...	58.50	25.25	359.00	...	384.75
0.50	1.00	68.50	14.00	...	82.50	80.00	134.00	...	214.00
2.00	11.00	42.50	20.00	...	62.50	59.00	198.00	...	257.00
3.00	5.00	29.50	19.00	...	48.50	34.00	135.00	...	169.00
2.00	4.00	35.00	47.00	...	82.00	26.00	575.00	...	601.00
5.00	22.00	24.50	25.50	...	50.00	26.50	299.00	...	325.50
1.00	12.00	8.50	34.75	...	43.25	8.00	201.00	...	209.00
2.00	6.00	63.00	67.00	...	130.00	55.00	542.00	...	597.00
8.00	16.50	81.00	97.50	6.00	184.50	103.00	1012.00	5.00	1120.00
6.50	20.50	63.75	62.50	...	126.25	55.50	516.00	...	571.50
0.50	1.00	19.50	...	...	19.50	25.00	...	...	25.00
0.50	1.00	12.50	41.50	...	54.00	14.00	335.75	...	349.75
2.25	24.00	15.50	40.25	...	55.75	18.00	431.50	...	449.50
...	...	62.50	46.00	...	108.50	66.50	408.00	...	574.50
2.00	18.00	13.50	13.50	...	27.00	14.00	118.00	...	132.00
...	...	17.00	10.00	...	27.00	11.00	40.00	...	51.00
2.00	13.00	12.50	8.00	...	20.50	12.50	114.50	...	127.00
5.00	24.00	28.00	41.00	...	69.00	26.00	185.00	...	211.00
8.00	75.00	34.00	39.25	...	73.25	36.50	301.00	...	337.50
1.00	5.00	47.50	48.00	...	95.50	59.50	309.00	...	368.50
...	...	3.00	14.00	...	17.00	2.50	104.70	...	107.20
...	...	3.00	24.00	...	27.00	5.00	231.00	...	236.00
4.50	5.00	24.50	34.50	...	59.00	18.00	258.50	...	276.50
1.00	7.00	1.50	20.00	...	21.50	2.00	121.00	...	123.00
1.00	17.00	11.25	12.50	...	23.75	9.50	91.00	...	100.50
165.25	799.50	1751.00	1434.00	17.00	3202.50	1599.25	11,689.95	45.00	13,434.70

*Explanation of abbreviations used on page 37.*

Abbreviations used to describe weather conditions		Abbreviations used to describe water conditions	
CLR	= Clear	MMF	= Moving water mostly frozen
CLD	= Cloudy	MPF	= Moving water partly frozen
FOG	= Fog or foggy	MPO	= Moving water partly open
FRN	= Freezing rain	MWO	= Moving water open
HVR	= Heavy rain	SPF	= Still water partly frozen
LGR	= Light rain	SWF	= Still water frozen
LSN	= Light snow	WFZ	= Water frozen
LSS	= Light sleet/snow	WOP	= Water open
OVC	= Overcast	WPF	= Water partly frozen
PCD	= Partly cloudy		
PCR	= Partly clear		
S(1-10) = Snow on the ground (numbers in parentheses denotes depth in inches)			

**1989-1990 CHRISTMAS COUNT HIGHLIGHTS**

Only one new species, Painted Bunting (*Passerina ciris*), was added to the cumulative count list. Even though Cape Charles birders labored under rainy conditions, with most water areas frozen over, they still managed to come up with nine more species than last year's total for the highest number in the state — 161. Back Bay followed with 146. Many other areas experienced bad weather conditions which resulted in an expected drop in the numbers of birds found.

An Eared Grebe (*Podiceps nigricollis*) was found at Little Creek, only the second time this decade that species has been spotted on a Virginia Christmas count. The last count record was in 1987 in Lynchburg. Two other occurrences have been recorded on Christmas counts — one at Back Bay in 1966, and one at Chincoteague in 1969.

Brown Pelican (*Pelecanus occidentalis*) numbers continue to climb, with an all-time high total of 36 — one at Cape Charles, 28 at Little Creek (more than doubling last year's total for that count), and six at Back Bay. Highly unusual were four Yellow-crowned Night-Herons (*Nycticorax violaceus*) at Little Creek, the first seen on that count since the early 1960s.

Snow Goose (*Chen caerulescens*) numbers increased dramatically, with record highs realized at Wachapreague, Cape Charles, and Hopewell, and a near-record high at Chincoteague, bringing the total to more than 51,000 birds, the highest aggregate total since 1969. Even though Back Bay's number of 18,000 individuals

was higher than the past three years, the figure does not begin to approach the record numbers found there in the early to mid 1970s when it was usual to tally 27,000 or more per count. Blue Goose numbers held steady, with the most individuals found, as usual, at Hopewell. Canada Goose (*Branta canadensis*) numbers continue to sky-rocket, with Wachapreague, Cape Charles, Lake Anna, Danville, Calmes Neck, Northern Shenandoah Valley, Lexington, Blacksburg, and Glade Spring all reporting peak counts.

The appearance of four Blue-winged Teal (*Anas discors*) on both the Tazewell and Glade Spring counts was noteworthy. It was the first record for this species on either of those counts. Newport News was the only site that experienced a peak count of Ring-necked Ducks (*A. collaris*) (159), although Cape Charles recorded an all-time high of Lesser Scaup (*A. affinis*) (1024) and Surf (*Melanitta perspicillata*) (15,678) and White-winged (*M. fusca*) (1077) scoters.

*Cathartidae* numbers were normal for most areas; Philpott Reservoir, however, had 7-year highs for both Black (*Coragyps atratus*) (34) and Turkey (*Cathartes aura*) (70) vultures. Little Creek recorded Osprey (*Pandion haliaetus*) on its count for the fourth year in a row. Bald Eagle (*Haliaeetus leucocephalus*) totals were somewhat lower than those of the past three years, but no count recorded significantly lower numbers.

Tazewell chalked at least one Golden Eagle (*Aquila chrysaetos*) for the seventh consecutive year, while Cape Charles recorded the species for only the second time in its 25-year history. Nine counts reported a total of 16 Merlins (*Falco columbarius*), the highest state Christmas count total ever. While it is commonplace to find Merlins on the coastal counts, it was highly unusual that one showed up at Northern Shenandoah Valley and another at Shenandoah National Park-Luray, the second record for both counts. A Peregrine Falcon (*Falco peregrinus*) was unique in the 44-year history of the Charlottesville count.

Ruffed Grouse (*Bonasa umbellus*) numbers were at an all-time high (18) at Calmes Neck, doubling the number found last year. Northern Shenandoah Valley recorded the year's highest total of Wild Turkeys (*Meleagris gallopavo*) (38), and Lynchburg found a record number of 15 for that count. State Christmas count totals for this species have been on the increase for some time, and the 173 found on 19 of the 39 counts in 1989 surpassed all previous years.

Back Bay had a whopping 30 King Rails (*Rallus elegans*), the best tally of this species in 13 years. Soras (*Porzana carolina*) also made a good showing there with four present, the most seen since 1975 when 14 were recorded. American Coot (*Fulica americana*) numbers dwindled to a mere 544 seen on 16 counts, directly attributable to the absence of this species at Fort Belvoir. Record numbers of coots have been there for the last four out of five years, but only one individual was found in 1989.

For the most part, shorebird numbers were unremarkable. Cape Charles recorded an all-time high of 15 Whimbrel (*Numenius phaeopus*), and a new high of nine American Woodcocks (*Scolopax minor*) was recorded at Newport News.

It was not a year for unusual members of the *Laridae* family to appear. No jaegers were seen; Laughing Gulls (*Larus atricilla*) were found on only two counts; one Little Gull (*L. minutus*) was at Little Creek; and Lesser Black-backed (*L. fuscus*) numbers were about half what they have been in the previous four years. The only terns represented were 35 Forster's (*Sterna forsteri*) tallied on just three coastal counts.

Short-eared Owls (*Asio flammeus*) were numerous, with nine counts reporting them. Wise County had four, the most ever, and the first since 1978 when one individual was found there. Nokesville tallied a Northern Saw-whet Owl (*Aegolius acadicus*), a first for that count.

There were almost twice as many Red-headed Woodpeckers (*Melanerpes erythrocephalus*) this year as last, with Nokesville finding 38, only the second time they have been observed during that count's five-year history. Brooke observers saw 29 Yellow-bellied Sapsuckers (*Sphyrapicus varius*), the most for that count over a 37-year span. The 11 Pileated Woodpeckers (*Dryocopus pileatus*) at Cape Charles were surprising, since that species is usually not numerous on the Eastern Shore.

One of the year's highlights was an Ash-throated Flycatcher (*Myiarchus cinerascens*) at Cheatham Annex near Williamsburg. Written documentation, along with a photograph taken a couple days later, was submitted to the records committee and becomes the sixth officially accepted state record. (Other reports of Ash-throateds have not been submitted for review.)

A fine showing of Horned Larks (*Eremophila alpestris*), with 200 at Danville, 790 at Shenandoah NP-Luray, and 542 at Nokesville, helped bring the aggregate total to 2444, the most seen since 1981.

For the first time in its seven-year history, Philpott Reservoir birders found three Brown-headed Nuthatches (*Sitta pusilla*). On the other hand, Clifton Forge did not find Brown Creepers (*Certhia americana*), the first miss for that count, although they did have a higher-than-usual (13) number of Red-breasted Nuthatches (*Sitta canadensis*).

Both Sedge (*Cistothorus platensis*) and Marsh (*C. palustris*) wren numbers were down this year, with only 9 Sedges found on four counts and 22 Marshes on six counts. The previous year's totals were 24 and 41 respectively.

For the first time in six years, Northern Shenandoah Valley surpassed Mathews County in Eastern Bluebird (*Sialia sialis*) totals. These two areas have shown remarkable increases in their bluebird populations, probably directly due to residents providing many nesting boxes. There were twice as many Hermit Thrushes (*Catharus guttatus*) this year. They were found on every count in the state, with an astounding 19 counts (Newport News, Williamsburg, Hopewell, Brooke, Fort Belvoir, Manassas-Bull Run, Nokesville, Lake Anna, Gordonsville, Charlottesville, Banister River WMA, Northern Shenandoah, Shenandoah NP-Luray, Big Flat Mountain, Augusta County, Waynesboro, Fincastle, Blacksburg, and Nickelsville) reporting all-time highs of this species! It was also a good year

for American Robins (*Turdus migratorius*) with almost three times as many found this year as last. The highlight of the thrush family representation, however, was the Varied Thrush (*Ixoreus naevius*) seen by several observers on the Peaks of Otter count — only the third Christmas count record.

Mimics presented no surprises this year. Gray Catbird (*Dumetella carolinensis*) was completely absent away from the coast, although Brown Thrashers (*Toxostoma rufum*) showed up on several counts where they are infrequently encountered. Cape Charles counters found a record 1516 Cedar Waxwings (*Bombycilla cedrorum*), but generally it was not an outstanding year for this species.

Loggerhead Shrikes (*Lanius ludovicianus*) barely maintained their numbers in the mountainous regions, were found on only two Piedmont counts (Gordonsville and Charlottesville), and were completely absent from the Coastal Plain except for a lone individual at Hopewell. The 51 found on all counts combined is the next to lowest number recorded during the decade, though the highest total, in 1982, was only 79.

Solitary Vireos (*Vireo solitarius*) were at Little Creek again, for the third year in a row, but the one found at Wachapreague was a first for that count. Unusual warblers were scarce, but one Prairie (*Dendroica discolor*) turned up at Cape Charles, and two Black-and-Whites (*Mniotilta varia*) were at Northern Shenandoah Valley.

The Painted Bunting finally cooperated with birders at Back Bay and was found on count day this year. It had been in the same area for almost two years and was present all during count week last year, but, as luck would have it, the bird was nowhere to be found on count day of 1988. This is the first time the Painted Bunting has ever been seen on a Virginia Christmas count.

Thirty American Tree Sparrows (*Spizella arborea*) were a surprise on the Wachapreague count, as was one that was seen on the Hopewell count. Rockingham County reported a Vesper Sparrow (*Pooecetes gramineus*), the only one in the Mountains and Valleys region. Savannah (Ipswich) Sparrow (*Passerculus sandwichensis*) numbers were way down, with only four reported from three counts. Seaside Sparrow (*Ammodramus maritimus*) numbers were also down. Lincoln's Sparrows (*Melospiza lincolni*) appeared on both the Cape Charles and the Little Creek counts, and the Lapland Longspur (*Calcarius lapponicus*) at Shenandoah-Luray was a first for that count.

Fifteen Brewer's Blackbirds (*Euphagus cyanocephalus*) were found on four counts, about twice as much of a showing as in previous years. Mathews County was the only one reporting Northern Orioles (*Icterus galbula*), and a Bullock's race of the Northern Oriole was carefully identified and photographed there as well.

House Finch (*Carpodacus mexicanus*) numbers were slightly down this year, but their numbers continue to sky-rocket in all parts of the state. Big Flat Mountain which is located in the high altitudes, was the only count that did not report this species, and Peaks of Otter, also with elevations 1500 feet or more, reported only four.

Red Crossbills (*Loxia curvirostra*) made a strong showing at Peaks of Otter, Clifton Forge, and Fincastle with 19 individuals found in that region. Another mini-stronghold for crossbills this year was the Eastern Shore, with two counts reporting eight birds. Pine Siskins (*Carduelis pinus*) were missed on only five of the 39 counts and there were more than 10 times as many in 1989 as there were in 1988. Evening Grosbeaks (*Coccothraustes vespertinus*) also were present in good numbers, with 26 counts reporting them.

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- 1912. Bird-Lore's Twelfth Christmas Bird Census. *Bird-Lore* 14:31.
- 1920. Bird-Lore's Twentieth Christmas Census. *Bird-Lore* 22:33.
- 1921. Bird-Lore's Twenty-first Christmas Census. *Bird-Lore* 23:19-20.
- 1922. Bird-Lore's Twenty-second Christmas Census. *Bird-Lore* 24:25.
- 1923. Bird-Lore's Twenty-third Christmas Census. *Bird-Lore* 25:27.
- 1924. Bird-Lore's Twenty-fourth Christmas Census. *Bird-Lore* 26:32.

Murray, J. J. (ed.)

- 1943. 1942 Christmas Bird Census. *Raven* 14:8.
- 1944. Christmas censuses. *Raven* 16:17.

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#### CHRISTMAS COUNT DESCRIPTIONS

1. CHINCOTEAGUE NATIONAL WILDLIFE REFUGE. 37°58'N; 75°22'W  
Center: 2 miles north of center of Chincoteague.  
Compiler: F.R. Scott (115 Kennondale Lane, Richmond VA 23226)
2. WACHAPREAGUE. 37°40'N; 75°42'W  
Center: jct. CRs. 789 and 715.  
Compiler: Irvin Ailes (RFD 1, Box 365-22, Chincoteague VA 23336)
3. CAPE CHARLES. 37°12'N; 75°56'W  
Center: 1.5 miles southeast of Capeville Post Office.  
Compiler: Henry Armistead (523 E. Durham St., Philadelphia PA 19119)
4. LITTLE CREEK. 36°51'N; 76°06'W  
Center: 3.8 miles northeast of Kempsville in Virginia Beach.  
Compiler: Paul Sykes, Jr. (1080 Forest Rd., Watkinsville GA 30677)
5. BACK BAY NATIONAL WILDLIFE REFUGE. 36°39'N; 76°00'W  
Center: 1.5 miles east of Back Bay.  
Compiler: Paul Sykes, Jr. (1080 Forest Rd., Watkinsville GA 30677)

6. NEWPORT NEWS. 37°05'N; 76°25'W  
*Center:* northern corner of Magruder & Cmdr. Shepard Blvds.  
*Compiler:* Teta Kain (Rt. 5, Box 950, Gloucester VA 23061)
7. MATHEWS. 37°25'N; 76°18'W  
*Center:* 0.5 mile east of Beaverlett Post Office.  
*Compiler:* Mary Pulley (Redart VA 23142)
8. WILLIAMSBURG. 37°17'N; 76°42'W  
*Center:* Colonial Williamsburg Information Center.  
*Compiler:* Brian Taber (104 Druid Court, Williamsburg VA 23185)
9. HOPEWELL. 37°23'N; 77°17'W  
*Center:* Curles Neck.  
*Compiler:* Larry Robinson (3320 Landria Dr., Richmond VA 23225)
10. BROOKE. 38°22'N; 77°20'W  
*Center:* at road 3 miles east southeast of Brooke.  
*Compiler:* David Stewart (10715 Midsummer Dr., Reston VA 22091)
11. FORT BELVOIR. 38°41'N; 77°12'W  
*Center:* Pohick Church.  
*Compiler:* David F. Abbott (2314 Hunters Square Ct., Reston, VA 22091)
12. MANASSAS-BULL RUN. 38°50'N; 77°26'W  
*Center:* Centreville.  
*Compilers:* J. Duncan Love (4204 Holborn Ave., Annandale VA 22003)  
and Charles E. Chambers (8911 Moreland Lane, Annandale VA 22003)
13. NOKESVILLE. 38°37'N; 77°33'W  
*Center:* Fleetwood Dr. (Rt. 611) at Cedar Run.  
*Compiler:* Ken Bass (12604 Valley View Dr., Nokesville VA 22123)
14. LAKE ANNA. 38°05'N; 77°49'W  
*Center:* center of bridge over Lake Anna on SR 208.  
*Compiler:* Michael R. Boatwright (307 Sugar Mill Dr., Amherst VA 24521)
15. GORDONSVILLE. 38°09'N; 78°12'W  
*Center:* jct. of US 15 & 33 north of the town of Gordonsville.  
*Compiler:* Donald R. Ober (PO Box 6, Orange VA 22960)
16. CHARLOTTESVILLE. 38°04'N; 78°34'W  
*Center:* near Ivy.  
*Compiler:* Charles Stevens (615 Preston Pl., Charlottesville VA 22903)
17. WARREN. 37°51'N; 78°33'W  
*Center:* at Keene.  
*Compiler:* Charles Stevens (615 Preston Pl., Charlottesville, VA 22903)
18. BANISTER RIVER WILDLIFE MANAGEMENT AREAS. 36°43'N; 78°48'W  
*Center:* at Banister River WMAs.  
*Compiler:* Jeffrey Blalock (103 Elizabeth Court, South Boston VA 24592)



19. LYNCHBURG. 37°24'N; 79°11'W  
*Center:* Lynchburg College.  
*Compiler:* John Dalmas (502 Rainbow Forest Dr., Lynchburg VA 24502)
20. DANVILLE. 36°34'N; 79°25'W  
*Center:* Ballou Park.  
*Compiler:* Penultima J. Wiseman (162 Howeland Cir., Danville VA 24541)
21. PHILPOTT RESERVOIR. 36°53'N; 80°03'W  
*Center:* near intersection Rts. 605 and 623.  
*Compiler:* Clyde Kessler (PO Box 3612, Radford VA 24143)
22. CALMES NECK. 39°07'N; 77°54'W  
*Center:* Castlemans Ferry Bridge, SR 7 and the Shenandoah River.  
*Compilers:* Frances Endicott (Rt. 1, Box 448, Bluemont, VA 22012) and Gregory Justice (PO Box 226, Millwood, VA 22646)
23. NORTHERN SHENANDOAH VALLEY. 39°03'N; 78°10'W  
*Center:* jct. Crooked Run and Rt. 606.  
*Compiler:* Rob Simpson (Rt. 1, Box 154-B, Stephens City, VA 22655)
24. SHENANDOAH NATIONAL PARK—LURAY. 38°35'N; 78°28'W  
*Center:* Hershberger Hill.  
*Compiler:* Terry Lindsay (Shenandoah National Park, Rt. 4, Box 348, Luray, VA 22835)
25. BIG FLAT MOUNTAIN. 38°11'N; 78°43'W  
*Center:* on Pasture Fence Mountain.  
*Compiler:* Charles Stevens (615 Preston Pl., Charlottesville, VA 22903)
26. ROCKINGHAM COUNTY. 38°26'N; 79°02'W  
*Center:* Ottobine.  
*Compiler:* Max Carpenter (Rt. 1, Box 396, Dayton VA 22821)
27. AUGUSTA COUNTY. 38°12'N; 78°59'W  
*Center:* jct. CR 780 and 781.  
*Compiler:* John Mehner (Mary Baldwin College, Staunton VA 24401)
28. WAYNESBORO. 37°59'N; 78°57'W  
*Center:* Sherando at jct. of Rts. 610 and 664.  
*Compiler:* Allen Hale (Rt. 1, Box 242, Shipman VA 22971)
29. LEXINGTON. 37°51'N; 79°29'W  
*Center:* Big Spring Pond.  
*Compiler:* Robert O. Paxton (460 Riverside Dr., #72, New York NY 10027)
30. PEAKS OF OTTER. 37°27'N; 79°36'W  
*Center:* Peaks of Otter Visitor Center.  
*Compiler:* Barry Kinzie (PO Box 446, Troutville VA 24175)
31. CLIFTON FORGE. 37°49'N; 79°46'W  
*Center:* jct. Rts. 42 and 60.  
*Compiler:* Allen LeHew (POD 602, 76 Allegeny, Clifton Forge VA 24422)



32. FINCASTLE.  $37^{\circ}31'N$ ;  $79^{\circ}52'W$   
*Center:* north of Fincastle near jct. of Rts. 220 and 679.  
*Compiler:* Barry Kinzie (PO Box 446, Troutville VA 24175)
33. ROANOKE.  $37^{\circ}18'N$ ;  $79^{\circ}56'W$   
*Center:* Oakland Blvd. and Williamson Rd.  
*Compilers:* Peggy Spiegel, 303 Market St., Roanoke VA 24011) and Mike Donahue (4814 Bandy Rd., SE, Apt. #4, Roanoke VA 24014)
34. BLACKSBURG.  $37^{\circ}14'N$ ;  $80^{\circ}25'W$   
*Center:* jct. Rts. 685 and 657 near Linkous Store.  
*Compiler:* Clyde Kessler (PO Box 3612, Radford VA 24143)
35. CLAYTOR LAKE  $37^{\circ}03'N$ ;  $80^{\circ}44'W$   
*Center:* jct. Rt. 611 and Norfolk & Southern Railroad.  
*Compiler:* Clyde Kessler, (PO Box 3612, Radford VA 24143)
36. TAZEWEEL.  $37^{\circ}08'N$ ;  $81^{\circ}30'W$   
*Center:* Fourway.  
*Compiler:* Sarah Cromer (Box 765, N. Tazewell VA 24630)
37. GLADE SPRING.  $36^{\circ}47'N$ ;  $81^{\circ}47'W$   
*Center:* jct. Rts. 750 and 609.  
*Compiler:* Steven L. Hopp (Box II, Emory VA 24327)
38. NICKELSVILLE.  $36^{\circ}45'N$ ;  $82^{\circ}25'W$   
*Center:* Nickelsville.  
*Compiler:* Betsy McConnell (PO Box 293, Coeburn VA 24230)
39. WISE COUNTY  $36^{\circ}57'N$ ;  $82^{\circ}39'W$   
*Center:* at Dorchester.  
*Compiler:* Richard Peake (Clinch Valley College, College Ave., Wise VA 24293)



## MAJOR FALLOUT OF BIRDS IN AUGUSTA COUNTY, VIRGINIA

STEPHEN ROTTENBORN

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During the weekend of 12-14 October 1990, the combination of a strong cold front coming from the west and the remnants of a tropical storm moving along the Appalachians produced the largest fallout of birds I have ever witnessed in the fall. Particularly abundant the morning of the 13th (it was still raining at the time) were sparrows, with 10 species present along the railroad tracks between Lipscomb and Stuart's Draft in Augusta County. The following is a list of birds I saw in the Stuart's Draft area that morning, most of them sighted along the railroad tracks:

- 1 Peregrine Falcon (*Falco peregrinus*) (at the sewage treatment plant in Stuart's Draft)
- 6 Eastern Phoebe (*Sayornis phoebe*)
- 1 Barn Swallow (*Hirundo rustica*)
- 1 Marsh Wren (*Cistothorus palustris*) (fifth Augusta County record)
- 31 Palm Warblers (*Dendroica palmarum*) (a new peak count for Augusta County)
- 1 Connecticut Warbler (*Oporornis agilis*)
- 1 Scarlet Tanager (*Piranga olivacea*) (ties the fall late date for Augusta county)
- 26 Indigo Buntings (*Passerina cyanea*) (a fall peak count for Augusta County)
- 17 Chipping Sparrows (*Spizella passerina*)
- 17 Field Sparrows (*Spizella pusilla*)
- 6 Vesper Sparrows (*Pooecetes gramineus*)
- 105 Savannah Sparrows (*Passerculus sandwichensis*) (new peak count for Augusta County and the Mountains and Valleys region—only a fraction of those present; most were in fields along the tracks, and there were probably hundreds more that I could not see)
- 17 Grasshopper Sparrows (*Ammodramus savannarum*) (new Augusta County peak fall peak count and late fall date)
- 173 Song Sparrows (*Melospiza melodia*) (possibly a fall peak count for Augusta County)
- 14 Lincoln's Sparrows (*Melospiza lincolnii*) (a new peak count for Augusta County)
- 5 Swamp Sparrows (*Melospiza georgiana*)
- 1 White-throated Sparrow (*Zonotrichia albicollis*)
- 2 White-crowned Sparrows (*Zonotrichia leucophrys*)

At various other places in the Lyndhurst/Stuarts Draft area on that same day, I saw a total of 155 Canada Geese (*Branta canadensis*), another new peak count for the county. As is usually the case with fallouts like these, all the birds were gone the next day when the weather cleared.

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## THE 1990 BEACH-NESTING AND COLONIAL WATERBIRD SURVEY OF THE VIRGINIA BARRIER ISLANDS

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The authors and Michael Beck conducted the 16th consecutive annual survey of the beach-nesting and colonial waterbirds of the Virginia barrier islands, from Assawoman Island on the north through Fisherman Island on the south, during 17-20 June 1990.

Weather patterns played a significant role in the reproductive efforts of the birds surveyed. The periods of 14-16 May and 22-23 May brought rain and northeast winds to the area, the latter period coinciding with a spring tide. Both produced extensive beach and marsh flooding, washing out initial nesting attempts of all species except the large waders. Thunderstorms on 8 and 14 June caused additional washouts, interfering with renesting efforts following the May setbacks. Aside from Royal Terns (*Sterna maxima*), Sandwich Terns (*S. sandvicensis*), Herring Gulls (*Larus argentatus*), and Great Black-backed Gulls (*L. marinus*), no young of any of the other beach-nesting species were seen during the survey. In fact, most species were found to be renesting, evidenced by numerous nest scrapes and/or incomplete clutches at colony sites.

Table 1 on pages 50-51 provides an island-by-island summary of the 1990 survey data. Compared to data from previous surveys (Williams 1990b) several notable facts appear. Little Blue Herons (*Egretta caerulea*) continue to show signs of decline. This year's 30 birds is an all-time low compared to an all-time high of 326 in 1982 (Williams 1990b). Cattle Egrets (*Bubulcus ibis*) are more in evidence than they have been since the 242 counted in 1985 (Williams 1990b). The count of 169 Black-crowned Night-Herons (*Nycticorax nycticorax*) constitutes an all-time, low continuing a four-year decline on the barrier islands. Previous highs for this species of 2780 and 2317 occurred in 1976 and 1977 respectively, and until 1987 numbers remained in the 850-1100 range (Williams 1990b). A total of 17 Yellow-crowned Night-Herons (*N. violaceus*) is also an all-time low count. Since this species is not as colonial as the other large waders, we have felt that our survey pattern probably produces an incomplete inventory of them.

(continued on p. 52)

TABLE 1. Total number of adult birds found on each island during 17-20 June 1990 Virginia barrier islands survey.

	Assawoman Island	Metomkin Island	Cedar Island	Dawson Shoal	Parramore Island	Sandy Island	Chimney Pole Marsh	Hog Island
Brown Pelican	...	...	...	...	...	...	...	...
Great Egret	...	...	...	...	...	...	4	...
Snowy Egret	...	...	...	...	...	...	92	...
Little Blue Heron	...	...	...	...	...	...	2	...
Tricolored Heron	...	...	...	...	...	...	24	...
Cattle Egret	...	...	...	...	...	...	2	...
Green-backed Heron	...	...	...	...	...	...	10	...
Blk.-crowned Night-Heron	...	...	...	...	...	...	2	...
Yell.-crowned Night-Heron	...	...	...	...	...	...	...	...
White Ibis	...	...	...	...	...	...	...	...
Glossy Ibis	...	...	...	...	...	...	32	...
Northern Harrier	...	...	...	...	...	...	...	1
Wilson's Plover	17	25	8	...	...	...	...	...
Piping Plover	12	60	11	...	...	...	...	11
American Oystercatcher	5	177	102	2	...	37	21	69
Laughing Gull	...	...	...	...	...	...	...	...
Herring Gull	...	...	178	...	...	305	478	...
Great Black-backed Gull	...	...	11	...	...	6	60	...
Gull-billed Tern	...	22	45	...	...	...	...	2
Caspian Tern	...	...	...	...	...	...	...	...
Royal Tern	...	6	...	...	...	...	...	...
Sandwich Tern	...	...	...	...	...	...	...	...
Common Tern	...	167	363	...	...	15	...	72
Forster's Tern	...	48	...	...	...	...	...	...
Least Tern	...	108	162	...	...	...	...	44
Black Skimmer	...	227	863	...	...	131	...	433
Common Nighthawk	...	...	...	...	...	...	...	...
Horned Lark	...	...	...	...	...	...	...	6

	Rogue Island	Cobb Island	Little Cobb Island	Wreck Island	Ship Shoal Island	Godwin Island	Mink Island	Myrtle Island	Smith Island	Fishermans Island	Totals
...	...	...	...	...	...	...	...	...	...	194	194
...	...	...	...	31	...	...	...	...	...	160	195
...	...	...	...	151	...	...	...	...	...	91	334
...	...	...	...	14	...	...	...	...	...	14	30
...	...	...	...	145	...	...	...	...	...	68	237
...	...	...	...	66	...	...	...	...	...	147	215
...	...	...	...	3	...	...	...	...	...	...	13
...	...	...	...	69	...	...	...	...	...	98	169
...	...	...	...	1	...	...	...	...	...	16	17
...	...	...	...	...	...	...	...	...	...	4	4
...	...	...	...	69	...	...	...	...	...	167	268
...	...	3	...	1	...	...	...	1	...	...	6
...	...	4	...	...	5	...	...	8	...	...	57
...	...	8	...	2	6	...	...	19	4	3	136
...	3	65	8	54	61	...	...	57	92	36	789
...	...	...	...	8431	...	...	...	...	...	...	8431
...	...	454	...	553	2	...	...	...	...	575	2545
...	...	20	...	90	6	...	...	...	...	20	213
...	...	...	106	...	39	...	...	...	...	...	214
...	...	...	2	...	2	...	...	...	...	2	6
...	...	...	82	...	5	...	...	...	...	4047	4140
...	...	...	...	...	...	...	...	...	...	32	32
...	...	...	1236	94	428	...	...	...	...	...	2375
...	...	...	...	...	...	6	...	...	...	...	54
...	...	54	2	21	84	...	...	40	...	...	515
...	...	...	390	...	550	...	...	...	...	...	2594
...	...	...	...	1	...	...	...	...	...	...	1
...	...	1	...	...	...	...	...	2	...	2	11

(1990 Beach Nesting and Colonial Waterbird Survey - continued from p. 49)

It is worth noting at this point that for the first time since the surveys commenced in 1975, no heronry was found on Hog Island. That colony site supported significant numbers of both night-herons in the past, as well as Little Blue Herons (Williams 1990b). However, at nearby Chimney Pole Marsh, the small heronry noted in 1989 (Williams 1990a) had grown considerably this season with a total of 168 breeding adults of eight species. Possibly some of these birds formerly bred at the traditional site on the north end of Hog Island less than a mile away.

One of the highlights of the survey was finding 97 Brown Pelican (*Pelecanus occidentalis*) nests on the northeast corner of Fisherman Island on 17 June. A careful inventory of the nests revealed 18 one-egg nests, 36 two-egg nests, 22 three-egg nests, six nests with no eggs, 11 nests with two chicks and four nests with three chicks. All of the chicks were naked. One hundred and fifty-nine adult and 45 immature-plumaged pelicans were in or near the colony. A return visit to the site on 21 July found 83 downy/feathered young and 41 naked chicks. The quiet, almost accommodating nature of the adult pelicans is much in contrast with the diving, raucous greetings of other colonial beach-nesters.

Herring Gull counts were comparable to previous years (Williams 1990b). Laughing Gull (*L. atricilla*) numbers, however, remained down for the second year in a row. In Maryland this species is rapidly disappearing as a breeder, a decline believed to be directly related to a growing Herring Gull population (Rick Blom, pers. comm.). In Virginia, Herring and Laughing gulls also nest on marsh tumps to the west of the barrier islands; therefore, their numbers are not revealed in our surveys.

Gull-billed Tern (*S. nilotica*) numbers reached an all-time low this year, marking a 90 percent decline in this species since 1975 (Williams 1975). Although weather disruptions may have influenced their nesting effort, concern for this species in Virginia is warranted.

Least Tern (*S. antillarum*) results reflect a four-year decline (Williams 1990b) on the barrier islands. Here again weather was influential this season, but one must wonder if the trend will continue or reverse as it did in 1980 and 1981, after two lean years. Encouragement for the future of this species in Virginia can be found in its successes elsewhere in the region (Beck 1990).

The Black Skimmer (*Rynchops niger*) tally for 1990 was an all-time low (Williams 1990b). We were able to find only a few active nests, and even those had incomplete clutches. At many sites the adults were loafing or attending empty nest scrapes. We had not noted skimmer young during our surveys since 1985. As with other beach-nesting species, they reneest throughout the summer. The snapshot quality of our survey obviously may not have coincided with peak skimmer hatching over the last five years. Spot follow-ups at nest sites in 1990 on Hog, Cobb, and Little Cobb Islands through July revealed, however, a continued lack of nesting for this species.

The total of 789 American Oystercatchers (*Haematopus palliatus*) was the second-lowest tally since a concerted effort to count them was begun in 1979. Although we were able to locate nests on several islands, even into July, no young of this species were noted.

Forster's Tern (*S. forsteri*) colonies were located on Metomkin and Godwin Islands. This species had not been recorded on our surveys since 1985 (Williams 1990b), due in large part because of their choice of nesting habitat along the drainage creeks of marsh islands outside the scope of our surveys.

Piping (*Charadrius melodus*) and Wilson's plover (*C. wilsonia*) numbers remained stable and quite consistent with those of previous years (Williams 1990b). It should be pointed out that 44 percent (60 birds) of the Piping Plovers and 44 percent (25 birds) of the Wilson's Plovers recorded were on Metomkin Island and essentially all of them were on the northern half of the island.

For the first time since 1975 no colonial species were found on Dawson Shoal in Wachapreague Inlet. This void was due directly to recent flooding. However, a new sand bar off the southern tip of Cedar Island, about one-half mile west of Dawson Shoal, did have colonial birds (358 Black Skimmers, 51 Common Terns (*S. hirundo*)) in numbers quite similar to those noted on Dawson Shoal in the past.

The southern half of Metomkin Island, once the nesting site of thousands of colonial birds, including the large waders, Brown Pelicans, all of the colonial beach-nesters, and gulls, was completely devoid of breeding activity in 1990. Even oystercatchers and Willets (*Catoptrophorus semipalmatus*) were conspicuously low in number (8 and 1 respectively). This is the first year no colonial species have occupied this area since at least 1975, though numerous potential colony sites are available. Fox tracks were evident on this isolated portion of the island and the presence of this mammal may account for lack of colonial birds. Similarly, fox tracks were found on Assawoman Island for at least the third year in a row.

Every survey produces finds other than colonial and beach-nesting species. Three American Woodcock (*Scolopax minor*) were seen on Fisherman Island on 17 June. On 18 June a Sooty Shearwater (*Puffinus griseus*) flew along the breakers off Smith Island and nine Whimbrel (*Numenius phaeopus*) were seen in the marsh of the same island. Two different immature Northern Gannets (*Sula bassanus*) were found. One was seen off Hog Island on 18 June with a piece of green nylon on its head or beak and a second bird, which was molting, was captured and released off Metomkin Island on 19 June.

A single Bank Swallow (*Riparia riparia*) was observed on Cobb Island on 18 June and again on 17 July. An adult American White Pelican (*P. erythrorhynchos*) in breeding plumage, including bill plates, was seen flying over Metomkin Island on 19 June. This species has been recorded in that location on eight of the last nine surveys. Waterfowl were represented by one Red-breasted Merganser (*Mergus serrator*) seen off Cobb Island and four more seen off Ship Shoal Island 18 June, one Common Loon (*Gavia immer*) off Ship Shoal Island the same day, and a Black Scoter (*Melanitta nigra*) seen the next day off Assawoman Island. Two broods of American Black Ducks (*Anas rubripes*) were found on 18 June on Cobb Island.

Also unusual were sightings of Black Vultures (*Coragyps atratus*) on Cedar Island (two birds) and Hog Island (one bird) on 19 and 20 June respectively. And finally, a pair of Barn Owls (*Tyto alba*) nested in the bottom drawer of an old stove in a burned out storage shack on Hog Island for at least the second year in a row. Three downy young were found on 19 June.

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#### BANDING RESULTS AT KIPTOPEKE BEACH, 1990

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Hampton, Virginia 23661

The twenty-eighth consecutive year of operation of the Kiptopeke Beach Banding Station opened on 1 September 1990 and ran continuously through 20 October, a total of 50 days. Of those 50 days, there was only one day during which the station did not open because of inclement weather.

The station, which overlooks the Chesapeake Bay at the southern tip of the Delmarva peninsula, is operated as a project of the Research Committee of the Virginia Society of Ornithology. There were 26 mist nets used and the station procedures were essentially the same as those practiced in previous years.

During the 1990 season, 2669 birds of 88 species were banded in 8080 net hours. There were 18 returns of birds banded at the station in previous years, and 139 repeats of birds banded there this year. There were no recoveries of birds banded elsewhere.

Kiptopeke was indeed a mixed bag this year. With the altered habitat, which was due to the campground under development there, new locations had to be found

for all nets except those on the beach. Perhaps the greatest change, birdwise, was the demise of the hedgerow, but a compensation for this loss resulted from the brush piles that had been built up in the field adjacent to the station. A pleasant change was that, with the increased activity nearby and the opening up of the woods, the bulk of the deer population moved into more secluded areas, and with them went those pesky seed ticks.

Although it is risky to draw conclusions about how only one year's changes might have affected bird migration, I feel certain statistics indicate a trend. Despite more cold fronts than usual passing through the area during the 1990 fall season, there were only two major bird movements, and on some days, when the weather was perfect for a flight day, there was none. We began to wonder whether the habitat changes had caused the birds to alter their route, or the early, cool fall that changed into a lingering Indian summer might have just delayed the migration.

In any event, specifics of the banding period are as follows: the unusual numbers of Blue Grosbeaks (*Guiraca caerulea*), Savannah Sparrows (*Passerculus sandwichensis*), and House Wrens (*Troglodytes aedon*) were a definite result of changed habitat, since they were nearly all removed from the brush pile nets. It would probably have been even more noticeable had we not had to remove 11 brush-pile nets the day before our first big sparrow movement, because the brush piles were being burned the next day. Warbler and thrush totals were down significantly, and needless to say, the absence of Charles Hacker's raptor banding resulted in a dramatic drop in birds of prey. Northern Cardinals (*Cardinalis cardinalis*) and Blue Jays (*Cyanocitta cristata*) were, however, the highest ever, with a spectacular Blue Jay migration lasting over three weeks and averaging about 5000 flying over daily.

The most commonly banded bird was, as in previous years, Yellow-rumped Warbler (*Dendroica coronata*) (633), followed by American Redstart (*Setophaga ruticilla*) (321), Common Yellowthroat (*Geothlypis trichas*) (303), Blue Jay (240), and Gray Catbird (*Dumetella carolinensis*) (145). New birds for the station were Least Sandpiper (*Calidris minutilla*), Solitary Sandpiper (*Tringa solitaria*), and Red-headed Woodpecker (*Melanerpes erythrocephalus*), bringing the station list to 155 species in 28 years. The sandpipers were feeding in rain ponds in the brush pile area.

Licensed banders who rotated in charge of the station were Don Schwab, John Dillard, John Buckalew, Karen Terwilliger, and Walter Smith. As in the past, the banders were aided by many volunteer assistants, and their help was greatly appreciated. Dr. Sonenshine, from Old Dominion University, visited the station on several days in connection with his continuing study on the transmission of Lyme Disease.

Permission to use the private land on which is the station is located was again kindly extended by John Maddox, owner of the property. It is very probable that 1990 will be the last year that banding will be conducted at Kiptopeke beach because the area is under extensive development. Plans are underway to locate a new, more isolated area on the Eastern Shore where banding activities may be carried out in the future.





## INFORMATION FOR CONTRIBUTORS

The following information should be of help to anyone wishing to submit articles to be considered for inclusion in future editions:

*The Raven*, the official journal of the Virginia Society of Ornithology, functions to publish original contributions and review articles in ornithology, not published elsewhere, mostly relating to the birdlife of Virginia. *The Raven* may also rarely reprint an article published elsewhere if it appears to be of particular interest to VSO members. Although most bird papers published in this journal concern the distribution, abundance, and migration of birds in Virginia, other aspects of ornithology are also covered, such as historical and bibliographic reviews and life-history and behavioral notes, especially when these are based on observations in Virginia. The activities of various public and private organizations engaged in biological and conservation work in Virginia is also of interest to the readership of *The Raven*. In addition, the journal serves to publish the official proceedings of the Society and other formal items pertaining to all aspects of the Society's activities. It may also print articles pertaining to the activities of VSO chapters and the various public and private organizations engaged in biological and conservation work in Virginia.

All contributions should be sent to the editor (Route 5, Box 950, Gloucester, Virginia 23061). Those having IBM compatible computers at their disposal are urged to submit materials for publication on either high- or low-density 5 1/4-inch diskettes, preferably using WordPerfect word-processing program. Modem transmission should be discussed with the editor by calling (804) 693-7699. If computer use is not possible, manuscripts, tables, and literature cited should be typewritten (*everything*, including tables and literature cited) and double-spaced on only one side of 8 1/2 x 11-inch good quality paper. Handwritten materials are discouraged.

At this time, only black-and-white photographs, graphs, maps, illustrations, figures, etc. may be used in *The Raven*. Generally the original size should not exceed 5 x 7 inches, keeping in mind that all such materials must be reduced substantially for final copy.

Format of *The Raven* generally follows guidelines set by the Council of Biology Editors as outlined in *CBE Style Manual*, 5th edition, published by Council of Biology Editors, Inc., Bethesda, Maryland 20814. It is standard policy that most manuscripts will be reviewed by someone qualified in the subject matter. The editor will acknowledge, by phone or letter, receipt of all articles submitted and will discuss reviewing policies with the author at that time.

Under most circumstances vernacular and technical names of birds should adhere to those in the Sixth edition of the A.O.U. Check-list of North American Birds and subsequent supplements. For bird measurements and weights, metric units are now the accepted standard. All figures and tables should be on separate pages and not included in the narrative text, and figures must be in a form suitable for photographic reproduction. Any extensive changes in figures must be charged to the author.

Deadlines for submission of articles are 1 January for the spring issue and 1 August for the fall issue. Authors contemplating submitting lengthy papers requiring review or those with extensive tabulations or figures should contact the Editor in advance.



# 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 yearly, containing articles about 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 \$10.00 for active members, \$15.00 for sustaining members, \$25.00 or more for contributing members, \$250.00 for life members, and \$18.00 for family members (limited to husband, wife and their dependent children).

Editorial queries and comments may be directed to Teta Kain, Rt. 5, Box 950, Gloucester, Virginia 23061.

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# *The Raven*

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JOURNAL OF THE VIRGINIA SOCIETY OF ORNITHOLOGY

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JOSEPH EDWARD GOULD (1866-1945)  
EARLY VIRGINIA OOLOGIST AND ORNITHOLOGIST

DAVID W. JOHNSTON

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Joseph Edward Gould was born 8 January 1866 on St. Simons Island, Georgia, and died in Norfolk, Virginia, on 3 November 1945. He was the youngest of 11 children of Deborah Abbott and Horace Bunch Gould, a successful cotton planter and lifelong resident of Black Banks Plantation. In her historical novel about the generations of Goulds on St. Simons, Eugenia Price (1965) describes the trials and tribulations of the Horace Bunch Gould family, but the novel ends at the time of the Civil War and contains no reference to young Joseph. As a small boy, Joseph had a great love of birds, started an egg collection, and learned the names, appearances, and habits of the birds (D. H. G. Gould, unpub. ms.). In 1946, Gould's egg collection was given to Almon O. English of Roanoke. English subsequently gave the Gould egg collection to the Charleston (South Carolina) Museum, probably because he (English) had been acquainted with Alexander Sprunt, Jr. who had a close connection with the museum. Gould's egg catalog, notebooks of field observations, and correspondence were recently given to me by Mrs. Almon O. English.

Three obituaries recounted briefly some of Gould's activities (Bailey 1945; English 1946, 1948); additional notes on his life were found in correspondence from Jessie Gould to Almon English. Joseph attended the Advanced School Academy in Utica, New York where his classmates included "sons of all the best people (Senators and Representatives)." He left the academy at the age of 15 to get mechanical training with the Pennsylvania Railroad in Dennison, Ohio. During his apprenticeship at Dennison, his student days in mechanical engineering at Ohio State University in Columbus (1889-1892), and at his father-in-law's farm near Jersey, Ohio, he added to his egg collections. The oldest egg set recorded in his catalog was that of an Eastern Phoebe (*Sayornis phoebe*) taken at Columbus in 1885 when he was 19 years old. While working for several railroads (Pennsylvania, Cincinnati-Southern, Rock Island System, and Norfolk Southern), he made trips to the midwest and southern states where he observed birds and collected their eggs. From 1905 to 1915, he was Superintendent of Motive Power for the Norfolk Southern Railroad in Norfolk. Between 1906 and 1915, he occasionally visited Harold H. Bailey at Bailey's James River farm in Warwick County, and they often went on egg-collecting trips in Norfolk and Princess Anne counties. Bailey once referred to Gould as "my friend and local bird crank" (Bailey 1910). Their field associations continued intermittently until at least 1932. From 1915 until 1921, he worked for the Charlotte Harbor and Northern Railroad in Arcadia, Florida, and he made observations and took egg sets in several Florida localities. Although he officially retired to Norfolk in 1922, he continued to work periodically in railroading into the late 1930s, returned often to St. Simons Island and Arcadia, and made nearly daily observations of birdlife in the Norfolk region until 1943. About 1931, the Gould and English families became close friends, the men making infrequent trips to favorite birding spots near Norfolk.



He joined the American Ornithologists' Union in 1889 and was an associate and honorary member (after 50 years) at the time of his death. He was a charter member of the Virginia Society of Ornithology, having been invited by Professor Ruskin S. Freer (in litt., 9 October 1929) to join in forming a state organization.

Gould's egg catalog contains data for 588 sets representing 167 species. Many sets were taken on St. Simons Island intermittently from 1890 to 1911 and in the Columbus, Ohio region (1885-1905). Smaller number of sets came from English Lake, Indiana (1891-1894), the Charlotte Harbor and Arcadia areas of Florida areas (1895-1919), North Carolina, Tennessee, Colorado, West Virginia, Kansas, Kentucky, California, New Jersey, and the District of Columbia. His 20 Virginia sets were taken mostly in the Norfolk-Lynnhaven areas (1908-1940). Gould personally collected most of the sets in his collection, except for a few sets from California (gulls, cormorants, House Finch (*Carpodacus mexicanus*), taken by William Flint) and Georgia (Swainson's Warbler (*Limnothlypis swainsonii*)) taken by Troup D. Perry.

An examination of his catalog has revealed many overlooked records, both from Virginia and other states:

(a) Henslow's Sparrow (*Ammodramus henslowii*), a 3-egg set from an old field at Rosemont (near Norfolk), Virginia, 3 May 1913—the first and one of two recorded nests for the Coastal Plain (R. B. Clapp, pers. comm.); the species is now absent as a breeding bird in the greater Norfolk area (Kain 1987). Bailey (1913) erroneously gives the date as 30 May 1913.

(b) Whip-poor-will (*Caprimulgus vociferus*), a 2-egg set from Cape Henry, Virginia, 17 May 1908—one of three egg sets from the Virginia Tidewater area, where the species is now a rare summer resident (Kain 1987).

(c) Gould and his wife went to Mountain Lake in May and June 1915. There, in company with Harold H. Bailey and his father, Harry Balch Bailey, he collected egg sets from four wood warbler species, including the second known set of the Magnolia Warbler (*Dendroica magnolia*) from that high mountain site.

(d) Egg sets of Caspian Tern (*Sterna caspia*), Bank Swallow (*Riparia riparia*), and Black-billed Cuckoo (*Coccyzus erythrophthalmus*) were important early records from coastal Georgia (Greene et al. 1945; Burleigh 1958). He established the first breeding record (1906) of the Swainson's Warbler for North Carolina (Pearson et al. 1942). On one of his railroad trips to Kansas in 1889, he collected an egg of the Passenger Pigeon (*Ectopistes migratorius*), one of the few nesting records for that species in the state (fide Thompson and Ely 1989).

His egg catalog also contains early instances of Brown-headed Cowbird (*Molothrus ater*) nest parasitism on several host species: Acadian Flycatcher (*Empidonax virens*) in 1892; \*Brown Thrasher (*Toxostoma rufum*), Blue-gray Gnatcatcher (*Polioptila caerulea*), \*Red-eyed Vireo (*Vireo olivaceus*), \*American Redstart (*Setophaga ruticilla*) in 1889; \* Common Yellowthroat (*Geothlypis trichas*) in 1894; and Scarlet Tanager (*Piranga olivacea*) in 1895. Some of these dates (\*) of parasitism predate those given by Friedmann (1963).

Daily observations of birds were recorded from his residence (1920 Springfield Ave., Campostella Heights) in Lynnhaven and nearby sites, such as the Elizabeth River, in 1888 and from 1922 through 18 August 1943. He included numbers of birds seen in specific habitats, foods eaten, arrival dates in spring and fall, weather conditions (temperatures, rainfall, snow conditions), and behavior of birds in subfreezing weather and snowfall. Some of his records were contributed to Wells Cooke's studies on the migrations of North American birds. Additional natural history observations were made: first frog choruses in spring and "the groundhog saw its shadow at 12 noon" on 2 February 1942. His daily bird observations constitute important historical records of species' occurrences in that part of the state, including Black-legged Kittiwake (*Rissa tridactyla*), Bewick's Wren (*Thryomanes bewickii*), and Cerulean Warbler (*Dendroica cerulea*).

Gould possessed a modest reticence which might have prevented him from publishing many of his records. He was credited with collecting the first Harris' Sparrow (*Zonotrichia querula*) in Ohio in 1889 (Davie 1898, English 1946). He published two notes in the *Auk* (1915, 1923) and wrote, or was mentioned in several notes in *The Raven* (1930-1939), chiefly on birds of the Norfolk area where he recorded 123 species from 1922 to 1939. At a VSO meeting (Murray 1939) he narrated some of his outstanding experiences with such birds as Passenger Pigeons and an Ivory-billed Woodpecker (*Campephilus principalis*).

When he died, Gould had a very large library of old books and journals which his widow, Jessie, gave to close friends or sold to book dealers and libraries, along with field glasses, a stopwatch, and a switchblade knife.

With close friends, he had a quiet manner of relating in detail the habits of breeding birds, often with a bit of humor (such as finding a Great Horned Owl (*Bubo virginianus*) nest under the seat of a deserted privy). He was a kind and courteous gentleman who pursued his avocation in a quiet but dedicated manner. His philosophies of field ornithology were summed up in a paper which was read by Dr. J. J. Murray (1932) at the second annual meeting of the VSO on 13 February 1932; a copy of the paper is in the VSO files. Titled, "Reminiscences of a Field Ornithologist," Gould stated that "The main qualifications [for being a field ornithologist] are a genuine love for birds, and a willingness to exert great patience and oft times personal discomforts in their pursuit and study. But don't forget this—when you make a report on information for others, be sure it is correct . . . I think the real intimacy with birds is best obtained through hunting their nests . . . Most nest hunters are also egg collectors—so was I for a number of years and am now to a certain extent, but I collected only for myself, and not to trade or sell . . ."

#### ACKNOWLEDGMENTS

I am grateful to Mrs. Almon O. English for donating Gould's field catalog and sharing her husband's and her own early experiences with the Goulds in Norfolk, and to Joseph's great nephew, David H. G. Gould, for personal notes. William Post of the Charleston Museum checked some of the egg sets currently in his care and commented on a draft of the manuscript. Roger B. Clapp kindly read and commented on a draft of this paper; thanks is extended to Brooke Meanley for reviewing the final manuscript.

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## APPARENT PREDATION ON WHITE-THROATED SPARROW BY BLUE JAY

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On 25 December 1990, at Aldie, Virginia, I heard frenzied calls of about 20 White-throated Sparrows (*Zonotrichia albicollis*) and a few Northern Cardinals (*Cardinalis cardinalis*) at a feeding station by my back porch. When I approached the station, a Blue Jay (*Cyanocitta cristata*) flew from it, laboriously carrying in its bill a small bird held by the neck. The Blue Jay flew about 15 ft along a hedgerow and down into the brush.

I subsequently found the Blue Jay perched in a low bush about 2 ft from a dead White-throated Sparrow on the ground. The Blue Jay seemed reluctant to leave, but it eventually flew off. The sparrow, lying on its back, showed no evident wounds. I left the site briefly, and when I returned in about 15 minutes found the sparrow gone, presumably retrieved by the Blue Jay.

Blue Jays have long had a reputation as predators on the contents of other birds' nests, inspired no doubt by Audubon's (1834) account and plate of Blue Jays feeding on a bird's eggs.

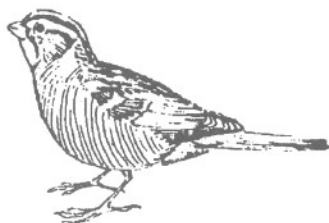
The literature makes it clear that Blue Jays readily take eggs and young of other birds, and sometimes even young domestic chickens (*Gallus gallus*) (Barber 1907, Naumann 1916). Beal's study (1897) of stomach contents showed that eggs and small birds represented less than one percent of the Blue Jay's diet.

Predation on adult birds, however, is uncommon. Despite the widespread abundance of the species, its frequent use of feeding stations, and a very large number of observers, I found reports of only seven instances in which adults were taken. These included Yellow-rumped Warbler (*Dendroica coronata*) (Johnson and Johnson 1976), Dark-eyed Junco (*Junco hyemalis*) and [American] Tree Sparrow (*Spizella arborea*) (Naumann 1916), Purple Finch (*Carpodacus purpureus*) (Downs 1958), and House Sparrows (*Passer domesticus*) (Ennis 1948, Redmond 1977, Master 1979).

The average weights of the Blue Jay and White-throated Sparrow are about 87 and 30 g, respectively (Dunning 1984), suggesting that the Blue Jay was carrying about 35 percent of its weight. The other reports indicate that the Blue Jay also flew off with the Yellow-rumped Warbler (ca. 12.5 g) and both male and female House Sparrows (ca. 28 and 27 g, respectively) and evidently also the Purple Finch (25 g), but none was carried more than about 30 yards. The White-throated Sparrow is the heaviest of those species that Blue Jays are reported carrying in flight, but Blue Jays may attack species considerably larger. One was seen attacking in flight and subsequently killing a fledgling Mourning Dove (*Zenaidura macroura*) that weighed 65 g (DuBow 1985).

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## WESTERNMOST COMMON RAVEN NEST IN VIRGINIA

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On Saturday, 10 March 1984, I observed an adult Common Raven (*Corvus corax*) flushing from a cliff face on Bear Rock on Powell Mountain in Scott County near the town of Dungannon in southwest Virginia and very near the Wise County line. Bear Rock is a spur protruding into a canyon formed by Little Stony Creek and Corder Branch. On closer inspection, I found a ledge with droppings where the raven had flushed. The ledge was in an undercut area near the top of the 100-foot cliff. Because of the raven's behavior and the obvious use of the ledge, I suspected nesting activity.

On 24 March, Louis Kalina observed adult ravens carrying food to the nest at 10- to 15-minute intervals. The ravens were extremely cautious when flying near the cliff face, making numerous passes before alighting on the nest ledge. By 11 April at 7:15 a.m., the young could be plainly heard up to a quarter of a mile away. On 14 April the feeding had shortened to 3- to 5-minute intervals. By 29 April the young were well developed and almost fully feathered. On the same day, a one-and-a-quarter-inch pellet was collected containing hair and small rodent bones.

On 8 May at least two of the young had fledged and were seen in a tree above the cliff and across the gorge. The nest was visited again on 10 May. By that time all four of the fledglings had regrouped on a rock across the gorge. The young could be seen pumping their wings and sometimes hovering above the rock. The parents fed the young only twice during the hour and a half that we spent observing the birds. The interval between the two feedings was over an hour. When a feeding was over and the parent left the rock, one or more of the young would follow for a short distance and then return to the rock.

On Saturday, 19 May, I collected some of the nest material which was left on the nest ledge. The nest contained both large and small twigs, deer hair, horse hair, small rodent bones, moss, mud and pellets. From this point on, the ravens were not seen in the gorge. By 7 March 1985, the ravens had returned to the same ledge, presumably to raise another brood.

## ACKNOWLEDGMENTS

Thanks is extended to Dr. Richard Peak for reviewing this paper.

## ALDER FLYCATCHER IN SUMMER IN THE NORTHERN VIRGINIA PIEDMONT

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Kain (1987) listed but one record of the Alder Flycatcher (*Empidonax alnorum*) for the Virginia Piedmont. At 6:09 a.m. on 15 July 1989, while atlasng birds in the extreme northeastern portion of the Thoroughfare Gap 7.5' quadrangle, I was astonished to hear the distinctive "we be yo" song of this species. The locality was in Prince William County at 450 ft in a brushy field between two large estates on High Ridge Road, .4 mi south of its junction with rt. 734 (Sudley Road) and about .65 mi east southeast of Woolsey.

After I first heard the flycatcher, I walked into the field and saw the bird. I returned on the 17th and taped the song and a variety of calls given by this bird. I searched the area thoroughly for nests but could find none, nor did playing back the tape ever get a response from more than one bird. The bird could not be found on my next visit on 5 August. M. Ralph Browning, who is familiar with *alnorum* in the west, and Claudia P. Wilds, who is familiar with the songs of both this and the Willow Flycatcher (*Empidonax traillii*), later confirmed the identification from the taped vocalizations.

The habitat was an acre of dense, chest-high goldenrod, poke, and Queen Anne's lace with many small emergent shrubs and trees to a height of about 20 ft, including cherry, sumac, and a few sweetgum. When I played the tape, the flycatcher would stop singing, fly in circles around the point where I stood, and sometimes fly down into the brush nearby. The principal other species singing in the immediate habitat where the flycatcher was found were Common Yellowthroats (*Geothlypis trichas*), a single Yellow-breasted Chat (*Icteria virens*), a Rufous-sided Towhee (*Pipilo erythrophthalmus*), two Indigo Buntings (*Passerina cyanea*), Field Sparrows (*Spizella pusilla*), and Song Sparrows (*Melospiza melodia*).

I returned on 15 April 1990 to determine whether a nest had been present. Despite a thorough search, the only one I found was the much decayed remnants of one nest, apparently that of an American Goldfinch (*Carduelis tristis*). Although a few leaves had budded out on the bushes, all branches were essentially bare and I feel confident that I missed no other nests. Thus I have no good evidence that the singing Alder Flycatcher was actually nesting, but it did appear to be on territory and presumably had been was a summer resident rather than a fall migrant.

This is one of very few summer records of the Alder Flycatcher in Virginia away from the Mountains and Valleys Region. The only other record from the Piedmont, a singing bird at Lynchburg 6 May 1974 (Scott and Cutler 1974), was presumably a migrant (Kain 1987). A singing bird reported by F. R. Scott (1978) at Lewisetta, Northumberland County, on 16 July 1978 is the only summer record from the Coastal Plain, and it may also have represented an unmated male.

Alder Flycatchers have been recorded relatively seldom even in the mountains, and an occupied nest has not yet been found in Virginia. One or more birds nest-building above 4800 ft on Mt. Rogers on 12 and 13 June 1980 were the first evidence of breeding in the state (Scott 1981), but the species has also been heard singing during the breeding season in Montgomery (Conner 1976), Highland (Larner 1975, Ake et al. 1976, Peak 1978), and Tazewell (Peake 1976) counties. Through 1989 there were about 10 reports (excluding the one above) from the Virginia atlas project (S. E. Ridd in litt.) that indicate late spring and summer occurrences in Washington, Madison (or Page), Bath, and Washington counties as well.

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## WARBLER MORNING IN GREAT DISMAL SWAMP

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On 21 April 1991, I visited the Great Dismal Swamp National Wildlife Refuge to look for Swainson's Warblers (*Limnothlypis swainsonii*). I quickly located three singing males near the parking area at the head of Jericho Ditch, and because there seemed to be a warbler at every turn, I began walking along the roads in the Swamp, counting every warbler I saw or heard. Between 9:00 a.m. and 4:30 p.m. I walked an 11-mile loop along Jericho, Middle, and Lynn Ditches and recorded eighteen species of warblers. What impressed me even more than the number of species, was the high density of some species, especially ones that breed in the Swamp. Apparently the rain that had been falling for two days (and continued into the morning of the 21st) had produced a fallout that accumulated migrants in addition to breeding summer residents, producing the high concentration of warblers. This phenomenon, coupled with the large area surveyed, resulted in some record counts:

- 126 Prairie Warblers (*Dendroica discolor*) (peak count for Virginia)
- 187 Prothonotary Warblers (*Protonotaria citrea*) (peak count for Virginia)
- 24 Worm-eating Warblers (*Helmitheros vermivorus*) (peak count for the Coastal Plain)
- 257 Ovenbirds (*Seiurus aurocapillus*) (peak count for Virginia)
- 136 Common Yellowthroats (*Geothlypis trichas*) (spring peak count for Virginia)
- 89 Hooded Warblers (*Wilsonia citrina*) (peak count for Virginia)

Other good counts were recorded for the following birds:

- 60 White-eyed Vireos (*Vireo griseus*)
- 6 Orange-crowned Warblers (*Vermivora celata*)
- 14 Black-and-white Warblers (*Mniotilta varia*)
- 20 American Redstarts (*Setophaga ruticilla*)

The roads I walked while censusing were far enough apart so that I avoided or minimized counting birds more than once, and if I had questions as to whether a bird had been counted or not, it was left uncounted; I therefore consider the above numbers to be conservative. Given the fact that I covered only a small portion of the Swamp, the actual number of warblers in Dismal Swamp on the 21st must have been staggering, attesting to the Swamp's importance both as a breeding area and as a stopover for migrating birds.

## 1991 REPORT OF THE VSO RECORDS COMMITTEE

ROBERT L. AKE  
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The 1991 report of the VSO Records Committee includes all records reviewed from 1 August 1990 through 31 August 1991. Of the 18 records considered during that period, 11 were accepted, none were rejected, and seven were tabled until further evidence is received. The accepted records include one species which is new to Virginia and is placed on the hypothetical list, because no physical evidence was obtained. The 1991 committee members are:

*Chairman:* Robert L. Ake *Non-voting secretary-compiler:* Teta Kain

*Voting members:*

Three-year term:	Robert Ake, David Johnston, Bill Williams
Two-year term:	David Abbott, Tom Simpson, Ken Bass
One-year term:	Roger Clapp, Fenton Day, Barry Kinzie

### ACCEPTED RECORDS

*(Documentation was submitted by the person(s) whose name(s) appear in brackets.)*

ASH-THROATED FLYCATCHER (*Myiarchus cinerascens*). A single bird was found at Cheatham Annex during the 1989-90 Williamsburg Christmas Bird Count [Bill Williams]. The next day, several people returned to the site and found the bird in approximately the same location. Photographs were obtained by Brian Patteson. The sighting is the seventh documented Virginia record and the fifth record for the Coastal Plain.

VARIED THRUSH (*Ixoreus naevius*). A single individual was observed in a residential area of Salem on 18 November 1989 for approximately 15 minutes [Norwood C. Middleton, Harry Turner]. No photographs were obtained. This is the fourth accepted Mountains and Valleys record.

FORK-TAILED FLYCATCHER (*Tyrannus savana*). One was seen by a number of observers at Chincoteague National Wildlife Refuge on 18 May 1990 [Jeese Fulton, Kerrie Kirkpatrick]. No photographs were obtained. The sighting becomes the second Virginia and second Coastal Plain record.

MISSISSIPPI KITE (*Ictinia mississippiensis*). A bird was seen flying over a farm near Marshall, Fauquier County, on 13 August 1990 [John Alcock]. Slides of the bird in flight were also submitted with the documentation. This becomes the third Piedmont record for the kite.

**BLACK GUILLEMOT** (*Cepphus grylle*). One bird was observed in the surf off the beach at Back Bay National Wildlife Refuge on 23 February 1986 [Grayson Pearce]. It is first confirmed state sighting of this species and becomes #419 on the Virginia list. Because no physical evidence (photograph or specimen) was obtained, the bird is placed on the hypothetical list as the first Virginia and first Coastal Plain record.

**RUFIOUS HUMMINGBIRD** (*Selasphorus rufus*). A single individual appeared at a feeder in a yard at Roanoke on 29 October 1987 and was seen regularly until it was found dead on 5 December 1987. [Bill Opengari, Roger Clapp]. The specimen was sent to the National Museum of Natural History where a positive identification was made, and is #596975 in the collection there. It is the sixth Virginia and first Mountains and Valleys record, moving the species from the accidental to the regular state list.

**RUDDY TURNSTONE** (*Arenaria interpres*). A close observation of a bird feeding along the shoreline of Buggs Island Lake, east of Clarksville on 17 May 1987 [Jeff Blalock] becomes the third Piedmont record.

**AMERICAN BITTERN** (*Botaurus lentiginosus*) (breeding record), Huntley Meadows, 18 June 1990 [Ed Weigel, Ken Howard]. This record had been accepted on previous rounds, but photographs taken of juvenile bitterns found at the park in 1990 were circulated for further verification.

**BLACK-CAPPED PETREL** (*Pterodroma hasitata*). Following Hurricane Hugo on 23 September 1989, a bird was found on the lawn of a home in Verona, Augusta County [John Mehner, Roger Clapp]. It was treated at the Wildlife Center of Virginia in Weyers Cave, but died the next day. The carcass is now at the National Museum of Natural History (collection # USNM 596792). The record comprises the sixth Virginia and second Mountains and Valleys record and is moved to the regular state list.

**GREATER WHITE-FRONTED GOOSE** (*Anser albifrons*). One was found with two Canada Geese on Lake Shenandoah near Swoope, Augusta County, on 25 March 1990 [YuLee Lerner]. A photograph was obtained and the sighting becomes the third record for the Mountains and Valleys region.

**RED PHALAROPE** (*Phalaropus fulicaria*). A photograph was obtained of an individual bird in a small farm pond in South Boston on 23 December 1990 [Jeff Blalock]. This is the second occurrence of this species in the Piedmont.

UNRESOLVED, further committee action required:

**SHARP-TAILED SANDPIPER** (*Calidris acuminata*). Hunting Creek, Alexandria, 16 September 1989.

**MISSISSIPPI KITE** (*Ictinia mississippiensis*). Meherrin River in the Greenville-Southampton counties area, 11 June 1988.

**MISSISSIPPI KITE** (*Ictinia mississippiensis*). Huntley Meadows, Fairfax County, 8 May 1990.

**WHIMBREL** (*Numenius phaeopus*). Lynchburg, 2 June 1990.

CALIFORNIA GULL (*Larus californicus*). Fort Story, 28 Jan 1989.

Two hypothetical records were presented to the committee for re-evaluation under the terms of the new amendment to the Records Committee by-laws passed in August 1990. Both were tabled for the present until certain aspects of the re-evaluation process can be clarified.

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### A MAGNIFICENT FRIGATEBIRD IN WYTHE COUNTY, VIRGINIA

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On Thursday, 13 October 1988, a female Magnificent Frigatebird (*Fregata magnificens*) was rescued from a pond in Wythe County, Virginia. This was the sixth recorded sighting in Virginia. The location was unusual in that all previous sightings were made along the Atlantic Coast, this being the first sighting in the Mountains and Valleys region of the state (Kain 1987). This location was approximately 290 miles inland.

Normally found in tropical oceans from Brazil and Peru north to Baja California and peninsular Florida, frigatebirds are occasional visitors to New England and Nova Scotia. Sightings in interior North America are rare and usually associated with storms. Prior to Hurricane Gilbert in September of 1988, records existed north to Kansas, Iowa, Wisconsin, Indiana, and Ohio (AOU 1983).

On 16 September 1988 Hurricane Gilbert made landfall on the Mexican Gulf Coast. Remnants of the storm then moved north and northeast toward the Great Lakes region. Sightings of frigatebirds were made in the aftermath of this storm in the midwestern states as far north as Minnesota, Wisconsin, Michigan (Tessen 1989), and the province of Ontario (Wier 1989). In the Appalachians two other sightings were notable: 24 September at Cherokee Lake, Tennessee, and on 29 September along the Ohio River at Cabell, West Virginia (Hall 1989).

The Wythe County frigatebird was first observed in a duckweed-covered pond at the Cripple Creek Trout Farm south of Rural Retreat. Eyewitnesses speculated that it was attempting to pick up a dead trout floating on the surface where it impacted. Darrel Briggs, owner of the farm, waded into the waist-deep water when it became apparent the bird was not going to escape on its own. When later dry and presented with the opportunity to fly, it refused. Due to the extremely low temperatures, with lows in the

mid 20s, it was decided to keep the bird inside overnight. On Friday the frigatebird was transferred to the New River Wildlife Center in Blacksburg, Virginia. While being observed there, it was found to be suffering from dehydration. It also received the nickname "Maggie."

Positive identification of this bird was aided by photographs that were taken at the time of its capture and also at Blacksburg. These photos (Hall 1989) clearly show the characteristic white breast of a female Magnificent Frigatebird. The throat was dark brown, the back of the neck showed a band of white, and the wingspan was at least 76 inches, indicating the bird was probably a 3- to 4-year old subadult.

Literature that I located made mention that one of the Magnificent Frigatebird's methods of feeding is to harass other seabirds into dropping their catch which is then scooped up. Such a feeding strategy would obviously be unproductive in our area. Surface feeding is also habitual and a trout farm would provide an excellent opportunity. A report of a storm-driven frigatebird eating freshwater fish exists (Terres 1980). There is inherent danger in surface fishing, especially when a frigatebird is weakened by dehydration—the combination of a long wingspan (to 7.5 ft) and short legs make take-off from water unlikely. Their minimally waterproofed feathers add to the danger (Terres 1980).

After a brief stay at the rehabilitation center, "Maggie" was released, apparently successfully, on the Florida Gulf Coast in early November.

The VSO Records Committee accepted the bird as *Fregata magnificens*, on the basis of its plumage and size, in November 1990, making it the sixth State and first Mountains and Valleys region record. Because there are now more than five state records, the species is placed on the regular Virginia list.

Thanks is extended to Roger Clapp for his comments on the article.

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## IN MEMORIAM: FRANK C. RICHARDSON

Frank Cummings Richardson, a member of the VSO since 1950, and known affectionately to family and close friends as "Pop," died at Virginia Beach, Virginia, on 15 February 1991, at the age of 104. He was born on 6 July 1886 in the town of Jefferson at the north end of Damariscotta Lake, Lincoln County, Maine. He graduated from the University of Maine at Orono in 1909 with a Bachelor's Degree in Civil Engineering. He first worked at the Fort Pitt Bridge Works, Pennsylvania. In 1913 he met and married Margaret Little of Canonsburg. Margaret was his companion for the next 66 years until her death in 1979. During World War I, he worked in New York City with the famous naval architect, Theodore Ferris, helping design liberty ships while an employee of the Virginia Bridge and Iron works at Roanoke, Virginia. Throughout the 1920s and early 1930s, he operated a battery and appliance business at Oswego, New York. In 1933, he moved his wife and two of his three children to Southern Pines, North Carolina.

Frank took a job at the Newport News Shipbuilding and Drydock Company at Newport News, Virginia, in 1934 and worked there for four years. In 1938, he began work as a naval architect at the Norfolk Naval Shipyard, Portsmouth, Virginia. When he retired from the shipyard in 1956 at age 70, he was in charge of ship rigging. His interest in birds was sparked in the early 1940s by what he observed on fishing trips to the Outer Banks of North Carolina. In those early years, he birded alone until he met William F. "Froggy" Rountrey, Floy C. Burford, Jack E. Perkins, and others in the Norfolk area. He began keeping detailed notes of his bird observations, starting on 27 February 1949, and continued to do so into the 1980s, when he was in his 90s. Froggy Rountrey was the most frequent of his birding companions and a little later this list grew to include Ed Ames, Floy Burford, Charles Steirly, Paul Sykes, and others for birding sojourns in coastal Virginia and northeastern North Carolina. He was an avid field observer and frequent contributor of his bird observations to *The Raven*, *Audubon Field Notes*, and *American Birds*. He was co-discoverer, with Froggy Rountrey, of the first Say's Phoebe (*Sayornis saya*) in Virginia on 31 December 1956, and the first Ash-throated Flycatcher (*Myiarchus cinerascens*) on 26 December 1957. On 29 January 1965, he recorded the first sighting of the Western Tanager (*Piranga ludoviciana*) for Virginia (*Raven* 36:20). In 1952 at Norfolk, he helped found the Cape Henry Bird Club (now Cape Henry Audubon Society) which evolved from the old Tidewater Council of Natural History.

Pop Richardson participated in his first Christmas Bird Count at age 65—the Back Bay CBC on 26 December 1951. On 31 December 1986, he spent four hours afield with his long-time birding friend, Froggy Rountrey of Chesapeake, Virginia on the Little Creek, Virginia, Christmas Bird Count, at age 100. He is believed to be the oldest person ever to participate in a Christmas Bird Count in North America. He participated on 47 Christmas Counts—2 in New York and 45 in coastal Virginia (Back Bay 20 times, Little Creek 19, Nansemond River 2, and Norfolk County 4; the latter two counts were discontinued after 1967).

Pop was a quiet, genteel man who looked upon life with a positive attitude. I never heard him speak ill of another or raise his voice in anger. He was a most amiable birding companion. His enthusiasm was infectious and his energy in his later years was amazing to his much younger comrades. All those who knew him will long remember this kind,

soft-spoken man who loved a good birding experience. Pop is survived by a daughter, Carol R. Preston of Virginia Beach; a son, James L. Richardson of Norfolk; eight grandchildren; six great-grandchildren; and a great-great-grandchild.

Paul W. Sykes, Jr.

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### IN MEMORIAM: FLOY COOPER BURFORD

Floy Cooper Burford, a member of the VSO for 51 years, died at her home in Norfolk, Virginia, on 26 June 1991, at age 85. She was born on 20 February 1906 at Hickory Flat, Benton County, Mississippi. In 1925 she moved to Memphis, Tennessee, where she worked for a while at Western Union. She married Charles A. Barefield in 1928 and shortly thereafter moved to Norfolk, Virginia. She became interested in birds in 1931 through correspondence with her sister Lula Coffey of Memphis and the Reed Bird Guide, the only field guide then available. As her interest in ornithology grew, she made contact and became friends with Connie Darden, Dr. John H. Grey, Jr., Dr. Joseph J. Murray, Jack E. Perkins, Catharine Reed, William F. Rountrey, and others in Virginia. She joined the VSO in 1940.

In 1944, Floy returned to live in Memphis, where she joined the Tennessee Ornithological Society. Here she became interested in bird banding and assisted her sister and brother-in-law, Lula and Ben B. Coffey, Jr., in banding herons and Chimney Swifts (*Chaetura pelagica*) in eastern Arkansas, northern Mississippi, and western Tennessee. With fellow field birder Demett Smith, she found the first and only nest of the Western Meadowlark (*Sturnella neglecta*) in Tennessee, collected the first Rock Wren (*Salpinctes obsoletus*) for the state, and had the first sighting of the Green-tailed Towhee (*Pipilo chlorurus*) for Tennessee. Floy returned to Norfolk in 1952 and married Linwood E. "Uncle Dick" Burford. From this time on she actively spoke on birds and conservation issues to school children and civic groups in the Tidewater area. She was a founding member in 1952 of the Cape Henry Bird Club (now the Cape Henry Audubon Society). From the 1940s through the late 1980s, Floy was a frequent contributor of her bird observations in southeastern Virginia to *The Raven* and *American Birds* (including its predecessors, *Bird-Lore* and *Audubon Field Notes*). Among her contributions to *The Raven* were the following published articles: "Brown-headed Nuthatches" (14:34-37); "Kittiwake added to the Virginia list" (24:23); "Lapland Longspurs in Back Bay region, Princess Anne County" (24:24); "Visit to Back Bay Wildlife Refuge" (25:33); "Dickcissel at Norfolk, Virginia" (30:31); "Skua off-shore from Wachapreague, Virginia" (30:63); "Pomarine Jaeger (*Stercorarius pomarinus*) battles with gulls" (30:64); "Franklin's Gull at Norfolk, Virginia" (34:52); and "Unusual behavior of catbird and black snake" (36:60-61). Her contributions to *American Birds* number several hundred

published bird observations in the Middle Atlantic regional reports. Over the years she corresponded with a number of ornithologists regarding bird distribution and abundance in her beloved coastal Virginia. Her birding activities led to two trips to Mexico, two to South America, Trinidad, and the Galapagos Islands. During the 1950s and 1960s she was an active bird bander in southeastern Virginia, most of which she did in her large, attractively landscaped yard on the shore of Lake Taylor.

Floy, being a staunch field observer, was an active participant on the annual Christmas Bird Counts sponsored by National Audubon Society. Her first count was the Back Bay Christmas Bird Count in 1941. She participated on this count a total of 34 times and was the count compiler in 1953. She also took part on seven other Christmas Bird Counts from 1941 through 1990: Little Creek, Virginia (32 times); Norfolk County/Chesapeake, Virginia (5); Memphis, Tennessee (9); Hickory Flat, Mississippi (2); Moon Lake, Mississippi (3); and Lonoke, Arkansas (1). In addition to belonging to the VSO, the Tennessee Ornithological Society, and the Cape Henry Audubon Society, Floy was a member of Ferebee-Halstead Memorial United Methodist Church, The Nature Conservancy, the Virginia Plant Society, the Tidewater Council of Natural History (forerunner of Cape Henry Bird Club), and the Kempsville Women's Club.

Everyone knew Floy as a warm, loving, caring, friendly, outgoing lady with untiring energy, who never knew a stranger, and with whom it was a delight to be associated. Her home was open to all. She had the ability to instantly make one feel at ease. For the past 20 years or so she opened her home on Lake Terrace Circle in Norfolk to provide the hospitable atmosphere for compilation of the Back Bay CBC. Birds from near and far were greeted with open arms by a most gracious Floy. For the past several years, after her son and daughter-in-law, Cooper and Jeanne, came to live with her, the compilation gathering came to include hot bowls of delicious turkey stew cooked especially for the occasion and other fine food for the hungry birders. These and many, many other fond memories will live on in all those she touched in her long, rich, productive lifetime.

A verse from one of Floy's favorite original works is perhaps the most fitting epitaph: "She tread the earth with leaf mold on her shoes—where she has gone I do not think she would choose the golden harps and alabaster halls. She walks a woodland path and a vireo calls."

Floy is survived by a son, Charles Cooper Barefield of Norfolk; two sisters, Lula Coffey of Memphis, Tennessee, and Cleo Yancey of New Orleans, Louisiana; two grandchildren; and three great-grandchildren.

Paul W. Sykes, Jr.



## THE 1991 ANNUAL MEETING

JOHN DILLARD

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At 7:35 p.m. on Friday, 3 May 1991, David Hogg, president of the Monticello Bird Club, welcomed the group to the 57th annual meeting of the Virginia Society of Ornithology at the Days Hotel in Charlottesville, Virginia.

John Bazuin, president of the VSO, was introduced and expressed his thanks for the great planning that was already evident in the early stages of the meeting. Thelma Dalmas presented the Treasurer's report and stated that we had received \$18,966 in the past year and spent \$15,453 to end the year with \$16,602. The gain was due both to higher dues and contributions of \$4,027, which included a matching grant of \$2,000.

YuLee Lerner presented the Nominating Committee's report which included the following nominations:

Officers:

<i>President</i>	John Bazuin	Annandale
<i>Vice President</i>	Clair Mellinger	Harrisonburg
<i>Secretary</i>	John Dillard	Richmond
<i>Treasurer</i>	Thelma Dalmas	Lynchburg
<i>Raven Editor</i>	Teta Kain	Gloucester
<i>Newsletter Editor</i>	Betty Fields	Newport News

Directors:

<i>One-year term</i>	Larry Robinson	Richmond
<i>Three-year terms</i>	Bob Ake	Norfolk
	Dick Peake	Wise
	Peggy Spiegel	Roanoke

Since there were no nominations from the floor, a motion was made and passed that nominations be closed. A vote was taken and the nominees were elected.

The president described the various funds that should be maintained by the Society.

- A. An Endowment Fund to be used exclusively for funds donated to accomplish the Society's educational and scientific objectives is highly desirable.
- B. A fund to be used only for providing services for life members is needed.
- C. The General, Murray, and Annual Meeting Funds continue to be required. The Publication Fund has proved to be unnecessary.

The Society was asked to approve the following changes to the bylaws to establish funds described in the preceding paragraph:

- A. Delete existing Article VI, Section III, relating to the Publication Fund.

B. Revise Article VI, Section II, to read as follows:

Section II. An Endowment Fund shall be maintained for the purpose of funding projects authorized by the Board of Directors designed to accomplish the corporation's scientific and educational objectives set forth in Paragraphs 1 and 2 of Section B of the Articles of Incorporation.

- (a) Assets of this Fund will be set aside in a separate, income-producing account.
- (b) All donations, unless otherwise restricted, shall be credited to this Fund. Included are donations of cash; bequests by will of an individual; and, when deemed suitable by the Board, other property, such as appreciated long-term capital-gain securities and real estate.
- (c) The corpus of this Fund and the income therefrom shall be under the supervision and control of the Board.
  - (1) None of the corpus of this Fund shall be used or transferred except by a three-fourths vote of the Board (a quorum being present). It is intended that the principal not be spent, but invested to generate income, and that the Board determine the use or disposition of any donation or bequest of real estate.
  - (2) The income from this fund shall be used solely for accomplishment of the corporation's scientific and educational objectives and specifically not used for normal operating expenses.

C. Add Article VI, Section III, as follows:

Section III. A Life Membership Fund will be maintained for the purpose of producing income to service life memberships. All life membership dues, as of January 1991, will be credited to this fund which will be interest-bearing and will remain in perpetuity. Interest from this fund will be credited to the General Fund to defray normal operating expenses of the corporation.

Leigh Surdukowski described the nine field trips located in mountain tops, mountain hollows, and rolling Piedmont areas around Charlottesville. David Hogg commented on the owling trip on Friday night.

Jim Nix, Program Chairman, introduced Dr. Wesley Lanyon, formerly Chairman of Ornithology and Curator of Birds at the American Museum of Natural History, as well as president of the AOU. Dr. Lanyon gave an extremely interesting overview of 20 years of research on the comparative behavior, ecology, and systematics of the two species of meadowlarks.

Clair Mellinger, Vice President, presided over the Paper Session on Saturday at 2 p.m. at which the following papers were presented:

1. Dr. Carolyn Wells discussed *A bird population study at Prince Edward Lake* in which she participated with Daniel Caston and Carolyn Lefer. This was a seven-month study during 1990-91 and 40 species were observed. The relative abundance of the various species was discussed.

2. Larry Brindza presented *The Bald Eagles of Mason Neck*, a paper which described nest activity of a successful pair in 1990 during the period from pre-egg-laying to post-fledging. The weekly survey of the roost was also covered.

3. Dr. David Johnston discussed where birds of prey in Virginia come from and go to in his paper, *What band recoveries tell us about birds-of-prey distribution in Virginia*. Maps showing origin and recovery locations were presented.

4. Chris Pague addressed the challenge of protecting neotropical migrant travel corridors in his paper, *Virginia Heritage Program*. A study will be made in August-October 1991 on both sides of the Chesapeake Bay and volunteers are needed.

A meeting of local chapters on Saturday at 1 p.m. was led by John Bazuin. Approximately 30 people attended and discussed issues on which they needed assistance from the VSO.

The president presided over the Saturday night business meeting. He commented on the following accomplishments during the past year.

1. The Breeding Bird Atlas has been completed and thanks go to field workers, regional coordinators, and Sue Ridd, who did a good job for many years.

2. Steps have been taken to get the Atlas Book started and that is expected to move along relatively fast.

3. David Johnston's book *Birds of Prey in Virginia, A History of Specimen Records from 1863 to 1988*, has been published.

4. Discussion is underway toward publishing one or two other books in the Virginia Avifauna series.

5. *The Raven* is up-to-date and remains so because of the dedicated editorial work of Teta Kain who also does the typesetting.

6. Bettye Fields' production of the Newsletter continues to produce compliments.

7. The 28th year of banding at Kiptopeke was completed in 1991 under the leadership of Walter Smith. Unfortunately this is the last year at that location because of campground development at the site. John Dillard has been leading the attempt to find a new location and it appears that the Eastern Shore of Virginia National Wildlife Refuge will be available. Hawk censusing also was done at Kiptopeke under the leadership of Bill Williams.

8. Peggy Spiegel continues her outstanding job of organizing field trips. Leaders of the trips, Bill Akers, David Hughes, and Jerry Via, are doing an excellent job as indicated by the popularity of the activity.

9. A foray will be led by Fred Scott this year at Emporia on 4-9 June and members' participation is encouraged. Forays were restarted last year after a hiatus to work on the Atlas Project.

10. Thelma Dalmas was recognized for her contributions as treasurer in keeping us on a sound financial basis.

11. The Murray Award, ably handled by Charles Ziegenfus, attracted ten applicants this year.

12. Efforts to attract willed and gifted monies, as well as property, to endow the VSO's scientific and educational objectives have included restructuring funds and preparing a brochure to encourage donations.

13. Archival storage of VSO records is being investigated. The Smithsonian is available and other possibilities are being explored. Members are encouraged to donate significant records.

14. Our Records Committee has been running smoothly because of the work of John Dalmas, Teta Kain, and the rarities judges on the committee.

15. The Circulation, Education, and Public Information Committees and the Birdline continue to run smoothly because of the efforts of John Dillard, Jo Wood, Paul Saunier, and Mike Boatwright, respectively.

16. Motivated people are needed to take over the Annual Meeting, Conservation, Local Chapters, and Membership Committees. Bettye Fields was commended for handling the Annual Meetings Committee for a number of years.

The many different ways in which Ken Howard has helped preserve Huntley Meadows Park were acknowledged by John Bazuin prior to presenting the Jackson M. Abbott Conservation award to him. He played a major role in stopping a road from going through the park, monitors water quality to prevent siltation, and volunteers 20 hours a week to provide trailside interpretation.

A proclamation by the Board of Directors of the VSO was read, commending the major contributions of our field trip leaders—Bill Akers, Ruth Beck, David Hughes, and Jerry Via—to the well-being of the Society. Further, a contribution of \$100 was made to the Nature Conservancy in their names as an expression of our gratitude.

A proclamation was made by the Board expressing appreciation to the Monticello Bird Club and chairmen of the committees who arranged the highly successful annual meeting.

Jim Nix introduced Dr. J. P. Myers, formerly Senior Vice President for Science for National Audubon Society. Dr. Myers spoke about the three major threats to the environment—destruction of habitat, chemical contamination, and climatic change—which are produced by population increase and energy consumption excesses. One of the most effective ways to combat these problems is to support organizations that are working on these problems, such as the Environmental Defense Fund and National Audubon Society.

The meeting was adjourned after presentation of a Jefferson Cup to Dr. Myers.

---

## OFFICERS AND COMMITTEES OF THE VSO, 1991-92

*President:* JOHN BAZUIN, JR., 7495 Little River Tpk., Apt. 201, Annandale, VA 22003

*Vice President:* CLAIR MELLINGER, Eastern Mennonite College, Harrisonburg, VA 22801

*Secretary:* JOHN DILLARD, 7803 Brentford Dr., Richmond, VA 23225

*Treasurer:* THELMA DALMAS, 520 Rainbow Forest Dr., Lynchburg, VA 24502

*Raven Editor:* TETA KAIN, Route 5, Box 950, Gloucester, VA 23061

*Raven Editor Emeritus:* F.R. SCOTT, 115 Kennondale Ln., Richmond, VA 23226

*Newsletter Editor:* BETTYE FIELDS, 39 Culpeper Ave., Newport News, VA 23606

*Immediate Past President:* BILL WILLIAMS, 108 Deerwood Dr., Williamsburg, VA 23185

### *Elected Members of the Board of Directors:*

#### *Class of 1992*

Norwood C. Middleton, 1149 Forest Dr., Salem, VA 24153

James E. Strawn, 4633 Bruce Rd., Chester, VA 23831

Claudia P. Wilds, 3331 N St., N.W., Washington, DC 20007

#### *Class of 1993*

Jeffery Blalock, 103 Elizabeth Court, South Boston, Virginia 24592

David Johnston, 5219 Concordia St., Fairfax, Virginia, 22032

Juliana P. Simpson, 11 E. Monmouth St., Winchester, Virginia 22601

#### *Class of 1994*

Robert L. Ake, 615 Carolina Ave., Norfolk, VA 23508

Richard H. Peake, P.O. Box 103, Clinch Valley College, Wise, VA 24293

Peggy Spiegel, 303 Market St., Roanoke, VA 24011

### *Committees:*

*Annual Meetings:* Bettye Fields, 39 Culpeper Ave., Newport News, VA 23606

*Circulation:* John Dillard, 7803 Brentford Dr., Richmond, VA 23225

*Education:* Josephine Wood, 318 Jefferson Dr., Lynchburg, VA 24503

*Field Trips:* Peggy Spiegel, 303 Market St., Roanoke, VA 24011

*Kiptopeke Review:* Bill Williams, 108 Deerwood Dr., Williamsburg, VA 23185

*Murray Award:* Charles Ziegenfus, 332 Franklin St., Harrisonburg, VA 22801

*Public Information:* Paul Saunier, 1400 Rugby Rd., Charlottesville, VA 22903

*Publications:* Bill Williams, 108 Deerwood Dr., Williamsburg, VA

*Records:* Robert L. Ake, 615 Carolina Ave., Norfolk, VA 23508

*Research:* John Dalmás, 520 Rainbow Forest Dr., Lynchburg, VA 24502

*Site Guide:* Richard H. Peake, Jr., Box 103, Clinch Valley College, Wise, VA 24293

### LOCAL CHAPTERS OF THE VSO

This list of local chapters has been revised to May 1991. Total number of members in each chapter was not available at publication time.

1. Augusta Bird Club, Staunton-Waynesboro
2. Bristol Bird Club, Bristol
3. Cape Henry Audubon Society, Norfolk
4. Clinch Valley Bird Club, Tazewell
5. Cumberland Nature Club, Wise
6. Eastern Shore Bird Club, Accomac
7. Foothills Bird Club, Martinsville
8. Hampton Roads Bird Club, Newport News-Hampton
9. Lynchburg Bird Club, Lynchburg
10. Margaret H. Watson Bird Club, Pamplin
11. Marion Bird Club, Marion
12. Monticello Bird Club, Charlottesville
13. Montpelier Naturalists, Gordonsville-Orange County
14. New River Valley Bird Club, Blacksburg
15. Northern Neck of Virginia Audubon Society, Kilmarnock-White Stone
16. Northern Shenandoah Valley Audubon Society  
Winchester-Strausburg-Front Royal
17. Northern Virginia Chapter, Arlington-Fairfax
18. Richmond Audubon Society, Richmond
19. Roanoke Valley Bird Club, Roanoke-Salem
20. Rockbridge Bird Club, Lexington
21. Rockingham Bird Club, Harrisonburg
22. Virginia Beach Audubon Society, Virginia Beach
23. Westmoreland Bird Club, Montross
24. Williamsburg Bird Club, Williamsburg

**ANNUAL MEETINGS OF THE VIRGINIA SOCIETY OF ORNITHOLOGY**

Organizational Meeting: Lynchburg, 7 December 1929

1. Richmond, 13-14 February 1931
2. Charlottesville, 13 February 1932
3. Norfolk, 20-21 January 1933
4. Alexandria, 9-10 March 1934
5. Roanoke, 26-27 April 1935
6. Lynchburg, 21-22 February 1936
7. Richmond, 23-24 April 1937
8. Lexington, 29-30 April 1938
9. Norfolk, 17-18 February 1939
10. Harrisonburg, 10-11 May 1940
11. Roanoke, 9-10 May 1941
12. Blacksburg, 3-4 May 1946
13. Charlottesville, 16-17 May 1947
14. Lexington, 23-24 April 1948
15. Charlottesville, 20-21 May 1949
16. Harrisonburg, 5-6 May 1950
17. Danville, 27-28 April 1951
18. Williamsburg, 15-16 February 1952
19. Arlington, 8-9 May 1953
20. Lynchburg, 23-24 April 1954
21. Norfolk, 28-30 April 1955
22. Salem, 27-28 April 1956
23. Wachapreague, 3-4 May 1957
24. Blacksburg, 2-3 May 1958
25. Williamsburg, 6-7 February 1959
26. Bridgewater, 29-30 April 1960
27. Abingdon, 8-10 June 1961
28. Newport News, 27-28 April 1962
29. Lexington, 10-11 May 1963
30. Arlington, 1-2 May 1964
31. Mountain Lake, 21-22 May 1965
32. Norfolk, 18-19 February 1966
33. Richmond, 28-29 April 1967
34. Charlottesville, 10 May 1968
35. Williamsburg, 1-4 May 1969
36. Natural Bridge, 8-10 May 1970
37. Staunton, 7-9 May 1971
38. Fredericksburg, 21-23 April 1972
39. Mountain Lake, 1-3 June 1973
40. Virginia Beach, 10-12 May 1974
41. Salem, 9-11 May 1975
42. Abingdon, 7-9 May 1976
43. Harrisonburg, 13-15 May 1977
44. Williamsburg, 19-21 May 1978
45. Lynchburg, 18-20 May 1979
46. Arlington, 16-18 May 1980
47. Mountain Lake, 29-31 May 1981
48. Virginia Beach, 7-9 May 1982
49. Roanoke, 20-22 May 1983
50. Hampton, 4-6 May 1984
51. Staunton, 10-12 May 1985
52. Farmville, 23-25 May 1986
53. Williamsburg, 5-7 June 1987
54. McLean, 6-8 June 1988
55. Mountain Lake, 12-14 May 1989
56. Richmond, 4-6 May 1990
57. Charlottesville, 3-5 May 1991

# LIFE MEMBERS OF THE VIRGINIA SOCIETY OF ORNITHOLOGY

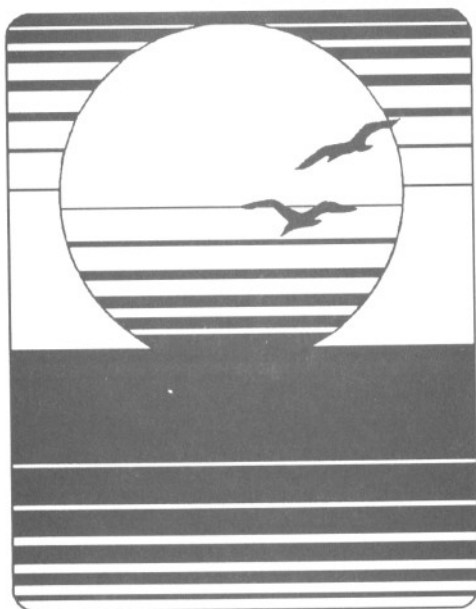
*(as of August 1991)*

Name	Residence	Year member joined VSO
Henry T. Armistead	Philadelphia, PA	1959
John B. Bazuin, Jr.	Annandale, VA	1973
Mr. Byard C. Bergey	Chesapeake, VA	1962
Rev. Thom W. Blair	Standardsville, VA	1982
William P. Blakeslee	Atlanta, GA	1986
Stella Louise Borchelt	Blacksburg, VA	1976
Maurice Brooks	Morgantown, WV	1934
Mrs. J. S. Burrows	Blacksburg, VA	1975
Hartsell L. Cash	Winston-Salem, NC	1984
Roger B. Clapp	Washington, DC	1985
Mrs. Colgate W. Darden	Norfolk, VA	1938
Paul G. Dumont	Arlington, VA	1987
Kenneth H. Dubke	Ooltewah, TN	1966
Dr. and Mrs. Ernest P. Edwards	Sweet Briar, VA	1938
Miss Gene Evans	Rockville, MD	1964
Thomas W. Finucane	Kingsport, TN	1965
Harriet S. Gilbert	Winchester, VA	1956
Mrs. Dorothy C. Gulick	Casanova, VA	1967
Dr. Charles O. Handley	Washington, DC	1938
John W. Hanes	Alexandria, VA	1974
J. A. ImBrogo	Monessen, PA	1984
Teta Kain	Gloucester, VA	1979
Barry L. Kinzie	Troutville, VA	1974
Allen and Valerie Kitchens	Arlington, VA	1970
Mr. Austin R. Lawrence	Palm Coast, FL	1968
Royster Lyle, Jr.	Lexington, VA	1946
Dr. John F. Mehner	Staunton, VA	1964
Mrs. Myriam P. Moore	Lynchburg, VA	1961
Linda S. Myers	Radford, VA	1985
Rita J. Myrick	Arlington, VA	1979
Sally M. Nelson	Roanoke, VA	1939
Christopher A. Pague	Richmond	1979
Richard H. Peake	Wise, VA	1953
Pennsylvania Birds	Narvon, PA	1989
Dr. Olin S. Pettingill	Wayne, ME	1950
Doug and Sally Pfeiffer	Blacksburg, VA	1984
John David Powell	Arlington, VA	1978
Mrs. Bernice R. Ragsdale	Petersburg, VA	1929
Sue Ridd	Glen Allen, VA	1975
Chandler S. Robbins	Laurel, MD	1962
Elois M. Rogers	Kennett Square, PA	1972
Miss Katy Friel Sanders	Churchton, MD	1938
Philip C. Shelton	Wise, VA	1970



*(Life members, continued)*

Charles E. Stevens	Charlottesville, VA	1944
Paul A. Stewart	Oxford, NC	1972
Dr. Joseph Straughan	Wise, VA	1971
Grace E. Suttle	Richmond, VA	1985
Miss Helen W. Taylor	Norfolk, VA	1966
Mrs. Ray P. Teele	Fort Collins, CO	1963
John J. Tonkin	Alexandria, VA	1984
Jerry Via	Daleville, VA	1968
Dr. George L. Wallace	Martinsville, VA	1963
Evelyn Watkins	Harrisonburg, VA	1939
Dr. R. J. Watson	Arlington, VA	1940
Erika Wilson	Falls Church, VA	1982
Mr. and Mrs. J. W. Wiltshire	Lynchburg, VA	1929
Miss Josephine E. Wood	Lynchburg, VA	1954
Charles Ziegenfus	Harrisonburg, VA	1978



## JACKSON M. ABBOTT CONSERVATION AWARD RECIPIENTS

In 1973 the VSO board of directors established a conservation award to be given to individuals or organizations that have demonstrated outstanding conservation work in the state of Virginia. In 1989 the award was renamed in honor of Jackson M. Abbott for his lifelong devotion to conservation and his effective work on its behalf. The following is a list of recipients of the award and the work for which it was given:

1973. The U. S. Coast Guard for its conscientious preservation of Osprey nests located on navigational aids.
1974. Persons responsible for recent legislation strengthening the protection of birds of prey in Virginia.
1975. Dr. Philip Shelton for his efforts to persuade the Commonwealth of Virginia to institute effective strip-mining controls.
1976. North Carolina Governor and Legislature for efforts to protect the New River against a pumped-storage hydroelectric project.
1977. Dennis Holland for his conscientious and untiring efforts to maintain the integrity of the National Wildlife Refuge system.
1978. The Virginia Chapter of the Nature Conservancy for its work in preserving the barrier islands of the Virginia Eastern Shore.
1979. Dr. Mitchell A. Byrd for his work on endangered species in Virginia. Seven of his students were also recognized.
1980. Jackson M. Abbott in recognition of his invaluable work for conservation of the Bald Eagle.
1981. Citizens for Southwest Virginia for their efforts to insure that development of the Mount Rogers Recreation Area would not destroy the natural beauty of the region.
1982. Walter E. Feurer for his work at Cheatham Annex, his efforts in environmental protection and willingness to assist others in conservation matters.
1983. Margaret O'Bryan in recognition of her efforts on behalf of the Non-game Tax Refund Check-off Bill.
1984. John Fulton in recognition of the programs he instituted to preserve the health and vigor of Kerr Lake forests and to improve habitat for wildlife in that area.
1985. Sylvia Ann Brugh for successfully leading opposition against the Burke's Dam Project which threatened plant and wildlife habitat on the upper James River, an action which led to Scenic River designation for that section of the river.
1986. Susan B. Haines for her work to protect the Bald Eagle population at Mason Neck on the Potomac River.
1987. Henry Bashore for his enthusiasm, leadership, and tireless efforts to establish conservation awareness and to preserve important wildlife habitat in the Northern Neck.
1988. Ed Risley for his active participation on committees to preserve Assateague, Dyke Marsh, Mason Neck and Huntley Meadows.
1989. Norma Hoffman and Citizens Alliance to Save Huntley Meadows for significant contributions to the maintenance, preservation, and public awareness of critical habitat of birds and all wildlife.
1990. Gary Fraser and Karen Mayne of the USFWS for their efforts to protect Bald Eagle habitat along the James River.
1991. Ken Howard for the many different ways in which he has helped preserve Huntley Meadows Park.

## REVIEW

RICHARD PEAKE

Box 103  
Clinch Valley College  
Wise Virginia 24293

*A Field Guide to Advanced Birding: Birding Challenges and How to Approach Them.* Kenn Kaufman. 1990. The Peterson Field Guide Series No. 39. Boston, Mass.; Houghton Mifflin Co. 299 pp. illus. ISBN 0-395-53376-7. Paperback, \$14.95.

If you have studied your Peterson and diligently studied your National Geographic field guide, but still have trouble identifying gulls, chickadees, and *Empidonax* flycatchers, you will want to use this book. I was given a copy of Kaufmann's guide by someone who thought I was ready for it, and I am now, with considerable trepidation, in the process of trying to learn to identify silent flycatchers with the help of this book. I still recommend much caution, although I have enough faith in Kaufman's skill and veracity to believe it can be done.

Though I am a convert to Kaufmanology, those who know Kaufman only as an after-dinner raconteur of great birding tales may not know that he is an extremely astute field ornithologist. It is fun to be afield with him, and he definitely knows his birds and is concerned that others extend their skills. This volume definitely belongs in the library of any birder beyond the novice stage who is truly interested in developing additional birding skill.

If nothing else, reading the chapter on chickadee identification should improve the accuracy of reporting on chickadees in Virginia. It might, in fact, encourage more Virginia birders to make Claudia Wilds happy by turning in more "chickadee, sp." identifications on their Christmas counts. Among the other birds Kaufman deals with are winter loons, dark ibises, shorebirds, hummingbirds, fall warblers, and sparrows.

Even though this book is for the "advanced birder," any birder, beginner or expert, can benefit from it. There is an especially useful introduction on the techniques of bird identification. If you do not have this book already, go out and buy it—or give somebody a hint that it would make a great birthday or Christmas gift!



## REVIEW

RICHARD PEAKE

Box 103 Clinch Valley College  
Wise Virginia 24293

*A Guide to the Birds of Costa Rica.* By F. Gary Stiles and Alexander Skutch, illus. by Dana Gardner. Comstock Publishing Associates, Cornell University Press, Ithaca, New York. 1989. 511 pages, 52 color plates, photographs, black-and-white drawings. Paper \$35, hardcover \$65.

This is a book for many tastes—the serious ornithologist, the lister, and the armchair birder will all find this book worth owning.

Birders visiting Costa Rica in the past have had to use guides not specifically directed to the birds of Costa Rica. No longer is this true, and Stiles, Skutch, and Gardner have done an excellent job in dealing with a large and varied avifauna. The species accounts are informative without being burdensome, and the plates—though necessarily very full in many cases—are quite well done and bear up excellently in the field. A person who studies the plates thoroughly ahead of time will not have to wrack his brain to imagine what bird he is looking at in the field, although the sheer number of species possible can cause “bird overload.”

Though the number of Costa Rican birds that must be learned is formidable, this guide is most helpful, whether the birder explores Costa Rica’s rich avifauna with a group or solo. For those brave enough to attempt it alone, there are maps and discussions of the various ecological niches that are helpful, as well as a section listing some particularly productive birding hotspots.

Whether or not Costa Rica is in a birder’s immediate plans, this is a book that should be acquired. If nothing else, it can serve for many warm evenings of dreaming by the fire. No birder or serious ornithologist should venture into Costa Rica without this guide at hand.



## HAWKWATCH —1990

DAVID HOLT

3094 Forst Acre Trail  
Salem, Virginia 24153

Hawkwatchers of long standing have come to understand that their efforts do not solve the many mysteries of hawk migration in a single season. They realize that the task is to continue collecting and compiling data, with the hope that in the long run, some sense can be made of it. Consequently, these highlights are offered, not to reveal the solution of a mystery, but to direct attention to the best method of solving the mystery.

Last year, this report highlighted the efforts of two hawkwatchers on a single day. This year, the spotlight will be on many hawkwatchers on many days. But, as you will see, the common thread in the two yearly reports is the fact that the conventional wisdom has been contradicted.

Prior to 1989, it was generally thought that in the absence of wind and sunshine there would be no significant hawk migration. In the fall of 1989, June Crutchfield and Alice Davis destroyed that notion in one fell swoop (Holt 1990).

For many years we believed that mountain ridges were leading lines which produced high concentrations of migrating hawks at latitudes spanned by the state of Virginia. Sporadic and experimental watches, however, have reported data that indicate that migration through Virginia is on a broad front and can be witnessed from any location. Twenty years ago birders believed there was no significant migration of hawks through the state. This report shows that nearly 52,000 migrating hawks were counted in Virginia during the fall of 1990. It is obvious that we must not cling too tightly to the conventional wisdom of yesteryear in regards to raptor migration. The data are often proving us very wrong.

The highlight of the fall 1990 season was the addition of two new and important sites—Snickers Gap, near the northern terminus of the Blue Ridge, and Knob Mountain, a foothill off the western slope of the Blue Ridge near Rileyville. Jesse Fulton's pioneering effort at Snickers Gap has produced some excellent counts, particularly of Sharp-shinned (*Accipiter striatus*) and Red-tailed (*Buteo jamaicensis*) hawks, rivaling counts at Rockfish Gap. Steve Cardano, who is banding at Knob Mt., provided Redtail counts that were remarkable. Traditionally, all watches in the northern part of the Blue Ridge produce better tallies of Red-tailed Hawks, Red-Shouldered Hawks (*Buteo lineatus*), and Northern Harriers (*Circus cyaneus*) than those to the south.

The far southwest was included for the first time this year. David Raines sent four reports from Birch Gap on Pine Mountain in Dickenson County, and Richard Peake sent one from Pound Gap. Other than Mendota Fire Tower on Clinch Mountain near Abingdon, there have been no reports from the Appalachian Plateau in the southwest and we look forward to further reports from that important area.

On 22 September Myriam Moore was preparing to attend the Eagle Eyrie site which she is pioneering. While loading the car, she noted a large kettle of Broad-winged

Hawks (*Buteo platypterus*) and proceeded to count. She never left her residence, spending the next three hours counting 1103 hawks. On this day, Harvey's Knob logged 108 hawks and Rockfish Gap 635. We cite this as just another anomaly in the lore of hawkwatching, and not to imply that Myriam lives at a great hawkwatching site.

The experimentation cited above, if continued, will be extremely valuable. But there are other locations begging for coverage. The Piedmont region of the state has been severely neglected, as well as metropolitan areas. It is now believed that migrating hawks can be seen in these areas. They may not be seen in surroundings that will satisfy our aesthetic values, but a goal of 50 hawkwatching hours in 1991 would be very satisfactory for the Piedmont region, which is far removed from any influence of the mountains. Equally hoped for is a concerted watch in a major metropolitan area. It is quite possible that such observation could produce some remarkable and satisfying results, adding significantly to our knowledge of raptor movement across the state.

Perhaps Myriam Moore (1990) summarized our hopes for future hawkwatching best when she said: "Virginia's wealth of mountain ranges, ridges, gaps, foothills, and coastline offers migrating hawks countless choices of suitable flight paths—and a tremendous challenge to Virginia birders to gain insight into the migrational movements across our state. With the flights so widely dispersed, our watchers must be content with very few of those mad moments when the sky is filled with hawks. Often the birds are quite high or way out, disappointing those watchers who would like to shake hands with every passing hawk. On many days, there is little high drama other than the panoramic views that many of our lookouts provide. Comparing our modest reports to the seasonal summaries from points like Cape May or Hawk Mountain is unrealistic, because to us a little is a lot! The phenomenon of hawk migration is still phenomenal when, on a smaller scale and with fewer birds in sight at one time, we may observe more detail."

Table 1 on pages 90-91 is a recap of hawkwatching activities in Virginia from September through December 1990. This report was compiled under the auspices of HMANA and is published by the Raptorians, an independent group interested in raptor migration. Anyone wishing to join the Raptorians should contact Myriam Moore, 32 Columbia Ave., Lynchburg, VA 24503.

#### LITERATURE CITED

- Holt, D.  
1990. Hawkwatch—1989. *Raven* 61:96.
- Moore, M.  
1990. Raptorian report, Fall 1990. *The Virginia Hawkwatch*.



TABLE 1. *Virginia hawk lookout totals—1990.*

	Black Vulture	Turkey Vulture	Osprey	Bald Eagle	Northern Harrier	Sharp-shinned Hawk	Cooper's Hawk	Northern Goshawk	Red-shouldered Hawk
1. Kiptopeke Beach	34	227	1100	23	286	4634	679	...	46
2. Short Hill Mountain	...	...	63	29	86	1114	137	2	40
3. Rockfish Gap	5	18	159	14	67	1431	119	4	35
4. Harvey's Knob	15	42	113	8	39	607	70	...	15
5. Snickers Gap	46	66	76	14	57	611	115	4	35
6. Mendota Fire Tower	39	...	39	1	7	247	97	...	7
7. Cuba Pines	...	42	10	6	14	18	11	...	...
8. Knob Mountain	...	...	1	2	2	32	26	...	1
9. Eagle Eyrie	3	...	8	1	1	22	6	...	...
10. Birch Gap	4	...	1	...	...	4	...	...	...
11. Radford	...	...	...	...	...	3	...	...	...
12. Linden Tower	1	7	...	...	2	...	...	...	2
13. Bearfence Mountain	...	...	...	...	...	1	2	...	...
14. Wintergreen	2	16	5	...	...	10	1	...	...
15. Lynchburg	...	...	...	...	...	2	...	...	...
16. Pound Gap	...	3	...	...	...	1	...	...	...
17. Smart View	...	...	...	1	1	10	2	0	1
<b>Totals</b>	<b>149</b>	<b>421</b>	<b>1575</b>	<b>99</b>	<b>562</b>	<b>8747</b>	<b>1265</b>	<b>10</b>	<b>182</b>

## 1990 VIRGINIA HAWK LOOKOUT SITES

1. Kiptopeke Beach: At the southern tip of the Eastern Shore peninsula
2. Short Hill Mountain: Across the Potomac River from Harper's Ferry in Loudoun County.
3. Rockfish Gap: Crest of the Blue Ridge on Afton Mountain, adjacent to Interstate Hwy. 64.
4. Harvey's Knob: Crest of the Blue Ridge at milepost 95 on the Blue Ridge Parkway.
5. Snickers Gap: At the intersection of rts. 7 and 601 on the Loudon-Clarke county line.
6. Mendota Fire Tower: Crest of Clinch Mountain near rt. 802 in Washington County.
7. Cuba Pines: York River at the entrance of the Perrin River in Gloucester County.
8. Knob Mountain: A foothill off the western slope of the Blue Ridge near Rileyville.
9. Eagle Eyrie: Atop Locke Mountain in Bedford County (elevation 1474 ft).

Broad-winged Hawk	Red-tailed Hawk	Golden Eagle	American Kestrel	Merlin	Peregrine Falcon	Unidentified	Total individuals	Total hours Station manned	Total days Station manned
496	193	2	2780	495	450	183	11,628	474	64
168	1381	6	45	4	3	52	3130	410	83
14,735	443	5	107	4	5	115	17,266	392	69
7333	292	3	93	2	2	94	8728	257	49
841	418	...	47	4	5	23	2362	161	32
3501	31	1	77	4	5	31	4087	120	20
...	18	...	1	...	...	16	136	106	67
2	342	1	...	...	...	12	421	65	13
1210	18	...	3	...	...	8	1280	25	8
560	8	...	...	1	1	9	588	20	4
234	...	...	2	...	...	...	239	16	10
175	6	...	2	...	...	...	195	7	1
59	...	...	...	...	...	1	63	4	1
129	13	...	7	...	...	6	189	4	1
1097	...	...	...	...	...	4	1103	3	1
80	5	...	...	...	...	6	95	3	1
400	2	...	2	...	...	...	419	2	2
<b>31,020</b>	<b>3170</b>	<b>18</b>	<b>3166</b>	<b>514</b>	<b>471</b>	<b>560</b>	<b>51,929</b>	<b>2069</b>	<b>426</b>

## 1990 VIRGINIA HAWK LOOKOUT SITES (con't)

10. Birch Gap: On Pine Mountain in Dickenson County (elevation 3149 ft).
11. Radford: In the residential area of the city.
12. Linden Tower: Eight miles north of Linden on rt. 638 in Warren County.
13. Bearfence Mountain: On Skyline Drive in Shenandoah National Park.
14. Wintergreen: In western Nelson County.
15. Lynchburg: In the residential area of the city.
16. Pound Gap: Near Pound in Wise County.
17. Smart View: On the Blue Ridge Parkway at milepost 154.

## INDEX TO VOLUME 62—1991

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