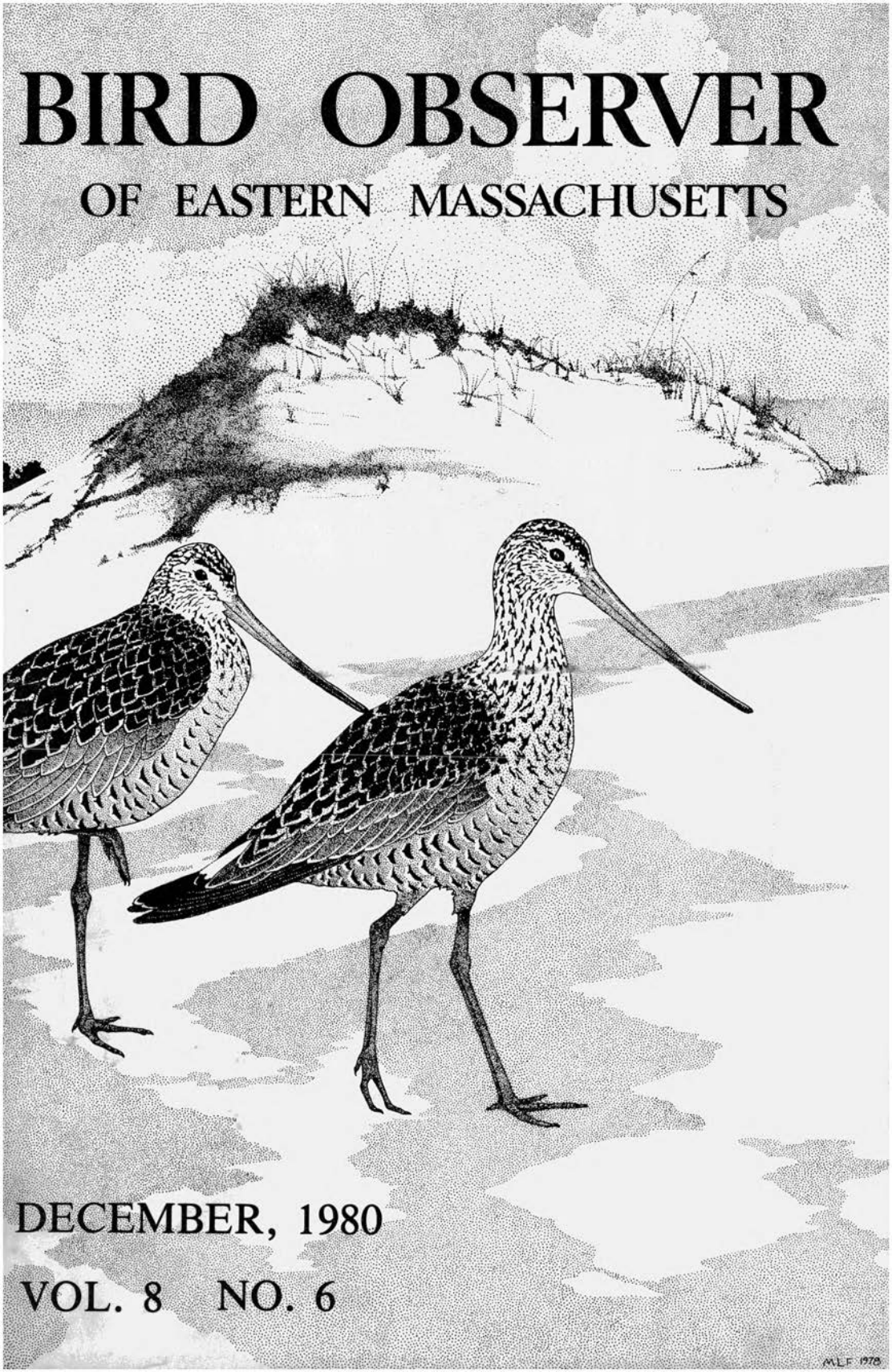
BIRD OBSERVER

OF EASTERN MASSACHUSETTS



DECEMBER, 1980

VOL. 8 NO. 6

MLF 1978

BIRD OBSERVER

OF EASTERN MASSACHUSETTS

DECEMBER, 1980
VOL. 8 NO. 6

Bird Observer of Eastern Massachusetts (USPS 369-850)
A bi-monthly publication
Volume 8, No. 6 November – December 1980
$6.50 per calendar year, January – December
All correspondence should be sent to: } Bird Observer
462 Trapelo Road
POSTMASTER: Send address changes to: } Belmont, MA 02178

Second class postage is paid at Boston, MA.

Subscription to BIRD OBSERVER is based on a calendar year, from January to December, at $6.50 per year. Back issues to new subscribers are available at $6.50 per year or $1.25 per issue.

Advertising space is available on the following schedule: full page, $40.00; half page, $20.00; quarter page, $10.00. Subscribers only may advertise one-of-a-kind birding items free of charge on a space available basis. Such announcements must be limited to 25 words. All advertising copy is subject to approval by the staff.

Bird Observer of Eastern Massachusetts has been declared a non-profit tax-exempt organization by the Internal Revenue Service. Any gifts to Bird Observer will be greatly appreciated and will be tax deductible to the full extent of the law.

TABLE OF CONTENTS

RENEWAL NOTICE

This issue concludes Volume 8 of Bird Observer. If you have not yet renewed your subscription for Volume 9, 1981, please do so now. The subscription rate for Volume 9 is $6.50 for all subscription requests postmarked before February 15. (The deadline has been changed to February 15 due to the late publication of this issue.) The subscription fee will be $7.50 for all subscription requests postmarked after February 15.

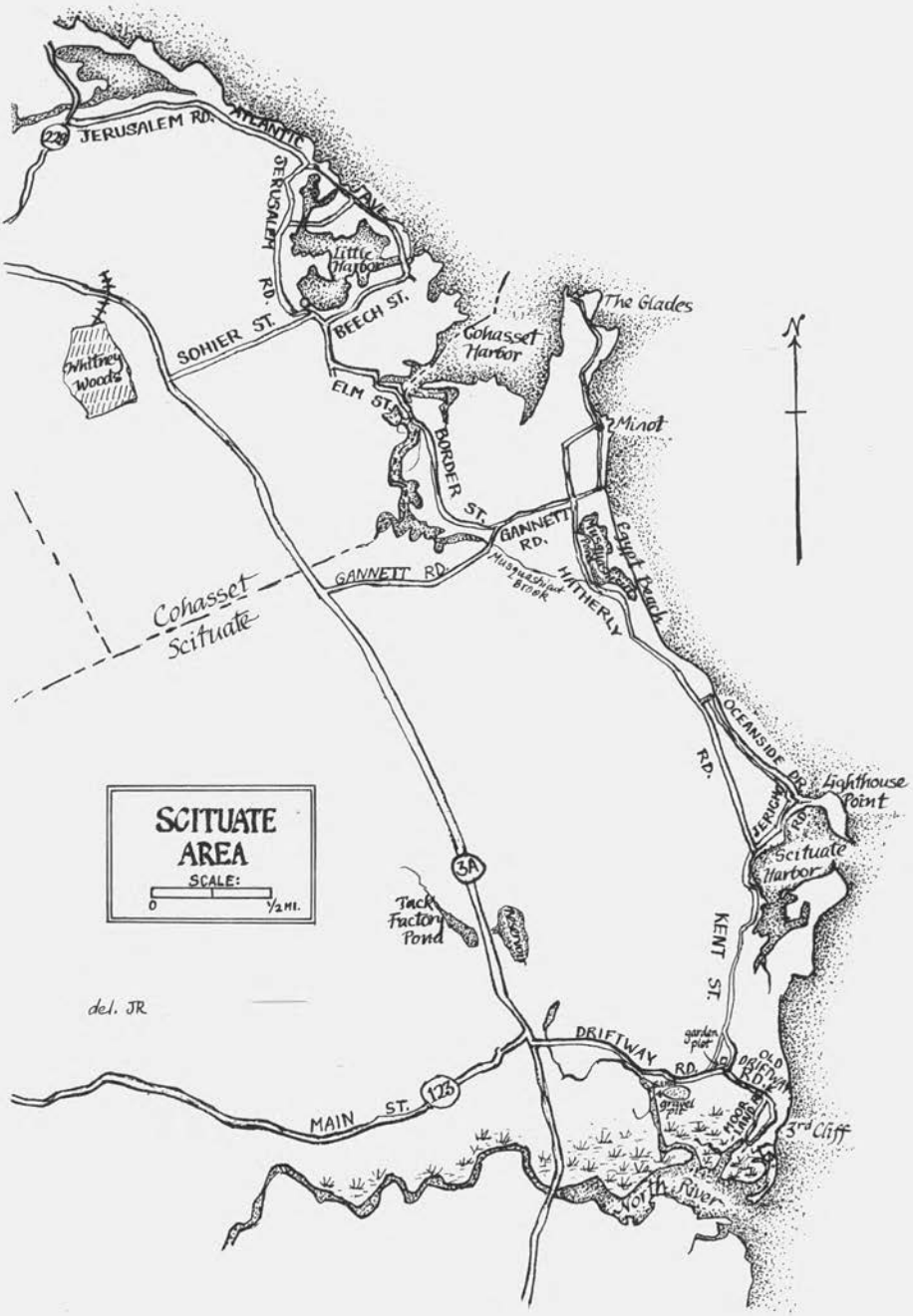
If you have not yet renewed your subscription, there should be a handy renewal form inserted inside the cover of this issue. Please send that form, or send your name and address, along with your check made out to Bird Observer, to:

BIRD OBSERVER
462 Trapelo Road
Belmont, MA 02178

BLACK-CHINNED HUMMINGBIRD RECORD CONFIRMED

The hummingbird tentatively identified in Volume 8, No.1, of Bird Observer as a Black-chinned (Archilochus alexandri) has been confirmed as this species by Dr. Alan R. Phillips, a noted authority on the critical identification of birds, particularly hummingbirds and flycatchers. It is the first record for Massachusetts. It should be noted that, although definitely a female, the bird could not be aged positively. The specimen has been deposited in the MCZ.

Bird Observer is written, edited, typed, and published by volunteers. We continue to need volunteer help at all stages of the magazine. Whether you've been birding for six months or sixty years, Bird Observer can use your help. If you would like to work on the magazine, please contact Bob Stymeist at 734-1289 or Paul M. Roberts at 776-8566.


JERUSALEM RD.
ATLANTIC
JERUSALEM RD.
AVE.
Little Harbor
SOHIER ST.
BEECH ST.
Cohasset Harbor
The Glades
Whitney Woods
ELM ST.
BORDER ST.
Minot
GANNETT RD.
GANNETT RD.
Egypt Beach
HATHERLY
Cohasset
Scituate
OCEANSIDE DR.
Lighthouse Point
JERICHO RD.
Scituate Harbor
SCITUATE AREA
SCALE:
0
½ MI.
3A
Tack Factory Pond
KENT ST.
del. JR
DRIFTWAY
garden plot
OLD DRIFTWAY RD.
MAIN ST.
3rd Cliff
North River

THE SCITUATE COAST - A BIRDER'S VIEW

by Wayne R. Petersen, Whitman

Massachusetts is endowed with a lengthy coastline. If the touring bird finder were to begin at Salisbury Beach, follow the coast south toward Boston Harbor, around Cape Cod Bay, along the Cape's back side, around Buzzard's Bay, and finally end in the vicinity of Acoaxet on the Rhode Island border, he would have sampled a wide and varied array of geologic formations and faunal-floral habitats. Each of the stretches has its own special features, charm, and bird specialties. This is fortunate, since much of the pleasure in birding seems to lie in sampling different areas for different birds. Obviously, some coastal areas are far richer than others. Some are sufficiently developed to render them unattractive to birds. Others may not afford an adequate diversity of local conditions to be highly attractive to a variety of bird species, while still others do not enjoy the optimum geographical location that places such as Monomoy Island seem to possess. With these considerations in mind, it would seem that in Massachusetts there are few really prime areas (such as the Parker River National Wildlife Refuge) that provide wide species diversity on a year-round basis. The stretch of coast running from Cohasset to the North River in Scituate is one of these prime areas.

Coastal Cohasset, located on the south shore of Massachusetts Bay, begins roughly at the base of the Hull peninsula and runs southeast, to Scituate. The Scituate coast continues to the southeast, gently turning southward at Lighthouse Point in Scituate Harbor. The distance from the intersection of Route 228 in Cohasset south down Route 3A (the main connecting road) to the North River crossing in Scituate is roughly 8 miles. Traveling the coastal roads will alter this figure somewhat, but the region is less than 10 miles in extent as the crow flies. All of the areas described are to the east of and enclosed by Route 3A, and are bordered by Route 228 on the north and the North River on the south.

WHITNEY WOODS TO NORTH RIVER

Time, season, and tides should influence the way in which the birder chooses to work this region. For convenience, I will describe a circular route that works south down Route 3A and then follows the coast north.

Starting south on Route 3A from the Route 228 intersection, you pass inviting maple swamps, venerable White Pine groves, and mixed transition woods, some containing substantial specimens of American Holly (*Ilex opaca*), a tree at the northeastern limit of its range. Should the curious naturalist wish to digress, easy access to the woodlands on the right may be found along an old railroad spur less than a mile from the junction of Route 228, or at a point further south, across from where Sohier Street enters from the left. This extensive area, known as Whitney Woods, is criss-crossed with trails and bridle paths, making it ideal for the bird finder. In addition to its rich flora, warblers, vireos (including the White-eyed Vireo), and Hermit Thrushes are all regular nesters, and at least two recent known occurrences of Acadian Flycatchers are from these woodlands. Also resident but rarely seen, is the Pileated Woodpecker, a wide-ranging and elusive species much of the year. And finally, since a flightless

young was picked up several summers ago, the Saw-whet Owl may be an irregular (?) breeding resident.

Continuing south on Route 3A, just north of the intersection of Route 123, you encounter Tack Factory Pond on the right and a larger unnamed reservoir pond on the left. These ponds are attractive to swallows in early spring; in the summer, when the water level often drops, herons, such as Snowy Egret, and several species of shorebirds frequently gather on the muddy margins. At high tide on the outer coast, "peep" are often among these shorebirds. The Western Sandpiper has been recorded here on various occasions.

Continue until Route 3A crosses the North River. Stop here and scan the extensive marshes on the left. This is an excellent place from which to observe Great Blue Heron, Green Heron, Little Blue Heron (occasional), and Snowy Egret at appropriate seasons. During the winter several species of waterfowl might be present. Red-tailed Hawks are not infrequent in winter, when they often scan the river from wooded islands in the salt marsh.

NORTH RIVER REGION

After surveying the marshes, retrace your route to Driftway Road, which enters from the right. Follow Driftway Road east, paralleling the North River, until a large sand and gravel facility is seen on the right. Parking is easy on a small loop road to the left. You are now centrally located for some fine birding on foot. On the left is the Scituate dump, which in winter is highly attractive to gulls and affords fine studies of their myriad plumages. There is always the possibility of a rarity such as the Lesser Black-backed Gull, which has been recorded at the nearby North River mouth.

A monoculture of rushes (Phragmites communis) behind the sand and gravel area serves as a buffer for the salt marsh edge bordering the North River. A walk through this area can yield swarms of Yellow-rumped Warblers in fall and winter, and Northern Shrikes and Short-eared Owls are recorded regularly. Slightly farther east, the Phragmites gives way to thickets of Bayberry, Black Cherry, and other typical coastal vegetation. These thickets often harbor interesting birds in migration, including large bands of wandering House Finches in late summer. When their water is low, the adjacent sewer treatment beds frequently have shorebirds. Pectoral,Baird's, and Buff-breasted Sandpiper have all been recorded here, in addition to a number of commoner species. Among the "guard geese" in the sewer ponds, look for Blue-winged Teal in late August. Immediately behind the sewer ponds is a tidal creek that runs out to the North River. A walk along the edge of the salt marsh, beginning on the west side of the creek, especially where the Bayberry and Phragmites come close to the marsh edge, can produce views of Sharp-tailed and Seaside Sparrows, and occasionally Clapper and Virginia Rails during the colder months. Flood tide is the best time to work this area, since the tide forces these marsh inhabitants into the adjacent vegetation. And while searching for sparrows, keep an eye out for the semi-nocturnal Gray Fox, which is occasionally seen hunting the same marsh edges.

After covering the sand and gravel area, return to your car and continue a

short distance to Old Driftway Road on the right, just beyond the sewer treatment plant. Almost at once, a large garden plot is seen on the left, at the corner of the intersecting Kent Street. This garden and adjacent thickets have, over time, produced many an interesting flycatcher, warbler, or sparrow. Dickcissel, Lincoln's Sparrow, Mourning Warbler, and Yellow-breasted Chat are all possibilities. (Caution! Be discreet in walking the garden edge!)

THIRD CLIFF

From this point, continue out Old Driftway Road to Moorland Road, which loops around the section locally called Third Cliff or Rivermoor. There is public access to the beach at the mouth of the North River off this street, but parking is a problem and violators can be ticketed. The shingle beach at the river's mouth is one of the key shorebird roosting areas on the South Shore. In addition, a modest colony of much-harassed Least Terns nests on the sand portion of the spit, as do Piping Plovers and Savannah Sparrows. In late fall, "Ipswich" Savannah Sparrow,Lapland Longspur, and Snow Bunting are regular, while great flocks of Common Eider and Brant usually feed at the river's mouth.

The shorebird season at Third Cliff extends all year round. Dunlin and Sanderling are the dominant winter species, but migration brings all the regularly occurring shorebird species in varying numbers. Species for which Third Cliff is especially important are Semipalmated Plover, Ruddy Turnstone, Red Knot (one of the best areas on the Atlantic Coast), White-rumped Sandpiper, Least Sandpiper, Semipalmated Sandpiper, and Western Sandpiper. The list also includes such fancies as American Oystercatcher, Rufous-necked Sandpiper, Curlew Sandpiper, and Wilson's Phalarope. Best viewing in this area is at high tide and for an hour thereafter.

Forster's, Common, Roseate, Royal (occasional only), and Black Terns are more or less regular here. On occasion in late summer, these birds are harried by an itinerant Parasitic Jaeger. Pans in the adjacent salt marsh often sustain feeding herons and egrets, and a visit at dusk will routinely produce Black-crowned Night Herons (and in late summer, occasionally a Yellow-crowned Night Heron).

SCITUATE HARBOR TO MUSQUASHICUT POND

Leaving Third Cliff, return to Driftway Road and follow it into Scituate Center. Continue through town on Jericho Road, which skirts Scituate Harbor. In winter, the harbor supports Black Ducks, Greater Scaup, Buffle-heads, and not infrequently, a Barrow's Goldeneye. Late fall frequently finds substantial numbers of Bonaparte's Gulls sharing the mud flats with flocks of Dunlin. Jericho Road eventually leads to Lighthouse Point, where a fine ocean vantage point can be obtained. A variety of bay and sea ducks can be seen offshore here, and it was not far from this point where the first Massachusetts record of Steller's Eider was obtained. Returning fishing boats should be watched for "white-winged" gulls in winter.

After leaving Lighthouse Point, head north on Oceanside Drive. In winter stop at appropriate locations to look for sea ducks, particularly King Eiders and Harlequin Ducks, both of which are rare but have been seen from

time to time. Pay special attention to the area at Egypt Beach, since this is one of the better locations for the two rare ducks, and for Red-necked Grebes in March and April.

To leave Egypt Beach, take Egypt Beach Road to Hatherly Road where you should turn right. Continue until Musquashicut Brook flows under the road into Musquashicut Pond on the right. Park in the vacant lot near the brook. This pond, now sadly developed around much of its perimeter, was once a famous shorebird and marsh bird location. Now, disturbance and generally high water levels have tainted it somewhat. Nonetheless, Pied-billed Grebes, herons, pond ducks, a few shorebirds, and Ring-billed and Laughing Gulls are still regular in season. It is one of the most reliable ponds on the South Shore for Gadwall. In winter, Iceland Gulls are occasionally seen on the ice.

MINOT AND THE GLADES

Beyond Musquashicut Pond, you come to a stop light at Gannett Road, where you should follow the road to the ocean. The road traverses a high sea wall that affords a fine view of the offshore, wave-washed islets of Minot. These rocks, with their rockweed-barnacle biota, harbor hundreds of Purple Sandpipers in winter. At high tide, careful scrutiny with a telescope can sometimes produce a Ruddy Turnstone or Red Knot. Both cormorant species are common at appropriate seasons, while the wintering sea ducks almost annually include a King Eider or Harlequin Duck. Red-necked Grebes are also routine in winter.

Beyong the sea wall, on the right, is the Minot Light Inn. Discreet parking in this area allows the observer to walk a short distance to an iron gate across the road. While this gate marks the entrance to a private area known as the Glades, small groups of birders are generally permitted to use the trails and roadway to explore the headland. However, it must always be recalled that the area is private property.

The Glades is a forested rock outcrop that features dry oak woods, dense Green Briar tangles, and much Poison Ivy. Its plants reflect some of its more subtle charms, however, with the Polypody Fern, Ebony Spleenwort, Yellow Trout Lily, Scarlet Pimpernel, and several of our more uncommon goldenrods serving as ample testimony to its special characteristics. On the seaward side, you look towards sturdy Minot Light, over whose ledge Black Guillemots are regularly seen in modest numbers from mid-winter to late April. On the inside of the headland, a small salt marsh that borders Cohasset Harbor often has herons, shorebirds, Brant, and Red-breasted Mergansers at appropriate seasons.

During migration, landbirds can be abundant under proper weather conditions. Most of the southern warblers are recorded from time to time, flycatchers are a feature in late spring and in late summer, and sparrows are often abundant along the weedy roadside. The White-eyed Vireo is an irregular summer resident, and Screech Owls are permanent residents that can often be stimulated to call by imitations of their calls, even during the daytime. During April and September, hawk flights often develop over the Glades. Most regular are Sharp-shinned Hawks and American Kestrels; however, Peregrines and Merlins occur with tantalizing regularity.

It should be obvious that the Glades warrants a visit at any season; just be sure to dress warmly in winter! As with many choice birding spots, repeated visits and lots of patience are the keys to ultimate success, and given these, this area will not leave the dedicated observer disappointed.

LITTLE HARBOR REGION

By returning to Gannett Road, you pick up Border Road to the right, which eventually leads into Cohasset Center and then on to Little Harbor via Jerusalem Road. This stretch passes through well-planted estates, many of which have roadside tangles that can harbor semi-hardy wintering species such as Carolina Wren, Catbird, Hermit Thrush, and, rarely, Yellow-breasted Chat. A look at active feeders will also produce species like towhees, finches, and the more common chickadees, titmice, and nuthatches. Persistence is the key to seeing many of these thicket lovers.

Once in the vicinity of Little Harbor, poke into the surrounding roads to inspect all the coves and backwaters of this bountiful area. Both diving ducks and puddle ducks abound in winter, often with some surprises like European Wigeon, teals, or Pintail. One summer, a White Ibis graced the shallows that, in winter, are the feeding areas of Dunlin and Sanderlings. The ocean beach across the road from Little Harbor often has numbers of graceful Bonaparte's Gulls in early winter, and rarely these have been joined by a Black-headed Gull.

For the last leg of the trip, continue up the ocean front on Jerusalem Road, checking offshore in winter for King Eider among the more regular Common Eider. Also look closely for rafts of Red-necked Grebe in March and April, since this seems to be an important gathering area for them in early spring, before they depart for the Canadian interior. Jerusalem Road eventually brings the visitor to Route 228, which leads back to Route 3A to the left and the starting location of the trip.

APRIL HAWK MIGRATION CONFERENCE

The second New England Regional Hawk Migration Conference, sponsored by the New England Hawk Watch, will be held in Holyoke, Massachusetts, on April 4, 1981. Presentations will cover various hawk topics, including hawk identification (by Peter Dunne, with special attention given accipiters), the Peregrine and Bald Eagle Recovery Projects, the dynamics of hawk flight, our understanding of hawk migration through the various parts of New England, and a summary of the current state of hawk migration studies. There will be a raptor art exhibit and displays by various organizations.

The conference will be in two segments, from 9-12 and 1-5, followed by a social hour from 5-6:30. The registration fee for the conference is $4; registration will be limited to 300, so please make your reservations soon.

A banquet will be held on Saturday evening at 6:30, with William S. Clark, Director of the Raptor Information Center of the National Wildlife Federation as guest speaker. Banquet reservations are $10.

The conference will be held at the Holiday Inn in Holyoke, at Exit 15 off Route 93, north of the Mass. Pike. Special rates ($30 for a single, $38 for a double) are available for those who wish to lodge at the conference center.

There will be a field trip to Bray Tower on Mt. Tom on Sunday morning.

Registration forms and additional information can be obtained by writing:

HAWKS
P.O. Box 212
Portland, CT 06480

AN APPLICATION OF BEHAVIORAL RESEARCH IN ZOOS: IMPROVING THE BREEDING ENVIRONMENT FOR CAPTIVE KING PENGUINS (Aptenodytes patagonica)

by Deborah S. Schildkraut, Winchester

Originating as "sideshows," zoos have become institutions with important public responsibilities. Modern zoos educate as well as entertain the public, conduct animal and veterinary research, and work for wildlife preservation and conservation. Zoos and wild animal parks throughout the world maintain captive populations of thousands of species of animals. In maintaining such populations, zoos have become the last bastion for species on the verge of extinction in the wild.

Behavioral research is a relatively new activity at zoos, but it is fast gaining acceptance. The reasons for behavioral studies of wild animals in captivity are multiple. In addition to contributing to the general body of scientific knowledge, such studies provide specific information which may be applied directly in the conduct of a zoo's essential functions. When a wild bird or mammal is placed in a captive environment, problematical changes in its behavior often occur. Behavioral research is used to pinpoint these problems and to help find their solutions. Knowledge from behavioral research is used to improve captive environments and to contribute to the mental and physical well-being of the animals. With regard to the zoo's function in the preservation of a species, such knowledge may suggest ways of inducing successful reproductive behavior in a captive population.

At the Stone Zoo in Stoneham, Massachusetts, the Department of Behavioral Research, aided by zoo staff, students, and research volunteers, has been conducting several studies on avian behavior. One of these studies concerns the breeding behavior of the zoo's population of King Penguins. The following description of the King Penguin study is intended not only to inform you, but also to entice you to visit the zoo and to spend some time observing the avian collection yourself.

The King Penguin (Aptenodytes patagonica) is an impressive-looking species. Standing 36 inches tall, it is the second largest member of the penguin family, Spheniscidae (the Emperor Penguin, A. forsteri, is the largest at 48 inches). The King Penguin is colorful as penguins go, with vivid yellow tear-drop-shaped ear patches, a dusting of yellow at the top of the white ventral surface, a silvery tinge to the shiny black back, and a bright-pink lower mandible. Males and females look alike; indeed, they cannot be distinguished by external examination.

In the wild, these penguins are highly social, colonial-nesting birds. They nest in the Falkland Islands, which are located east of the southern tip of South America. Both the male and female of a pair take turns sitting on the sole egg, switching about four times during the 54-day incubation period. They also share parenting duties, which last about ten months before the offspring finally becomes independent.

The six King Penguins housed at the Stone Zoo are currently being studied because they have not reproduced successfully here. Reproduction involves a sequence of behaviors, including courtship, copulation, incubation, and parenting. For several years, the three original penguins of the Stone Zoo group occasionally produced eggs. Some of these eggs were determined to be infertile, and the others failed to hatch for unknown reasons. Mating had been observed and eggs had appeared, so it was known that both sexes were represented in the group of three birds. However, which was male or female remained a mystery. On one occasion, a bird sat on an egg for one week, then switched off to another bird. The second bird continued to incubate for another eight weeks without a break! The infertile egg was finally removed by the staff, but not without a struggle. (Infertile eggs rot from the warmth of incubation.)

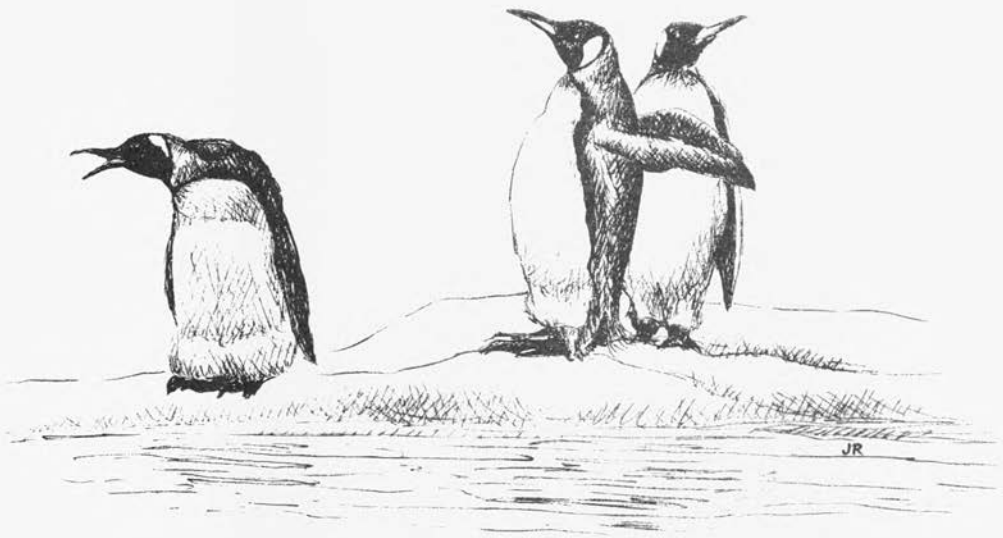
Research on other groups of penguins indicated that three birds may not be "social" enough to form a thriving penguin group. Perhaps three is insufficient for adequate social stimulation, such as competition for mates and breeding sites. On the basis of this information, three additional birds were acquired from a New York zoo this past spring.

The introduction of the three New York King Penguins to the Stone Zoo three went smoothly. For some time the birds remained in two groups of three, interacting infrequently, and apparently avoiding contact. If one group needed to pass the other, it would pass at a distance as far as the exhibit would allow. During the summer, intermingling between the two groups occurred with increasing frequency. In August, the first egg appeared. In September, mating was observed, and a few weeks later a second egg appeared. The two incubating pairs were switching incubation duties regularly. The two remaining birds appeared to be courting.

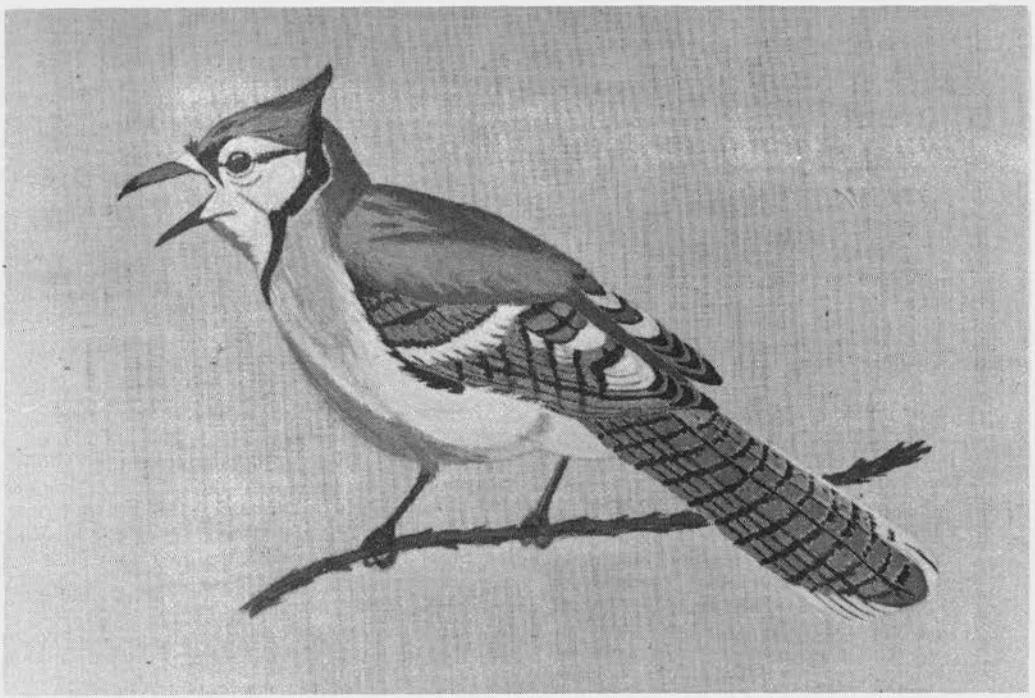
On an October evening, close to the expected hatch date of the first egg, a bizarre incident was observed by a research volunteer. The first egg was observed to have a large hole near the top. The penguins began pecking at the egg as if to eat it, and, in a bout of excited activity, destroyed the egg. Bits of shell were strewn everywhere. The following morning, staff members attempted to remove a piece of the shell to determine what went wrong. With the entrance of the staff, the penguins again burst into activity, and the second egg was destroyed. Samples of the second egg were also collected.

Analysis of the shells revealed no evidence of fertility. Both shells were extremely thin, indicating a lack of calcium.

These observations and the associated analyses are providing much information which should be useful in improving the chances of successful breeding by the King Penguins. It is now known that there are two pairs of penguins, and that at least two females are capable of producing eggs. It appears that a third pair is forming. The analysis of the egg shells has led to a re-examination of the penguins' diet, working toward a diet with increased calcium for a thicker, stronger egg shell. The observations also point to areas of the exhibit that need to be redesigned. For example, the surface design does not appear to facilitate incubation. The penguins must move within close proximity to any incubating bird in order to pass from one place to another. The slight incline of the surface area could also be a problem if an egg should roll off of its foot-top "nest." The egg could easily crack or be difficult for the penguin to retrieve. The staff are optimistic that, with the modifications suggested from the behavioral studies, the King Penguins will indeed be able to thrive and successfully reproduce. Maybe next season!



King Penguins by Julie S. Roberts



Blue Jay by Maggie Taylor

WHERE DID ALL THE BLUE JAYS GO?[1]

by Hanson C. Robbins, Medfield

Where are all the Blue Jays going? This question occurred to Bill Geizentanner, Elissa Landre, and me after spending a fascinating September morning in Chatham observing wave upon wave of Blue Jays, sometimes 200+ birds in a group (interspersed with accipiters), pass us on their way south towards Monomoy. Having read many reports about the exodus of Blue Jays from Massachusetts in the winter of 1978-79 and having witnessed their scarcity in Christmas counts led to an effort to answer the question by comparing the 1977 and 1978 Christmas counts. Surely, I told myself, comparison would reveal some place south of us just overrun with Blue Jays.

The task was not easy. I did not discover any large concentration of Blue Jays south of Massachusetts in the winter of 1979, and my investigations raised more questions than answers. For example, should we assume that the low Christmas counts in 1978 in eastern Massachusetts were due to the "out-migration" of these noisy creatures? Maybe those Blue Jays who normally come down to the Massachusetts coastal plain for the winter failed to appear in 1978-79. I present below evidence that tends to confirm such speculations. Is there a connection between the absence of Blue Jays in the 1978 count and the noticeable absence of other species? What causes this year-to-year variation in winter bird populations? What causes them to choose a particular wintering ground?

There are also questions relating to statistical objectivity, or the lack thereof, in Christmas counts. Having been on a few counts, I would say most participants concentrate on coming up with the greatest number of species and are rather less concerned about precise counts of birds within a species, particularly the common ones such as Blue Jays. This could be the explanation for the singular increase in the Blue Jay count on the 1978 Nantucket Christmas Count chosen by the Nuttall "hot shots" to be "covered properly" that year. These stalwarts (including many of BOEM's staff) racked up 123.5 party hours in 1978, compared to only 67 party hours in what must have been a less frantic 1977 Christmas count.

- -

[1] Editor's Note: Mr. Robbins wrote this article late in 1979, after the 1978 Christmas Bird Count data was published by the National Audubon Society. The manuscript was submitted to Bird Observer in January 1980, but due to lack of space, we were unable to publish it at that time. Although Blue Jays have been quite plentiful the past two winters, this article remains timely. First, it attempts to explain where the Blue Jays were during the winter of 1978-79. (As indicated in earlier issues of Bird Observer, the failure of the 1978 mast crop is believed responsible for the absence of Blue Jays in much of the northeast that winter.) The article is also important in that it is an all-too-rare example of an amateur birder using published data to better understand the bird life of Massachusetts. It is the Editor's hope that more readers will use Christmas and Breeding Bird count data to document changes in Massachusetts' bird life and that this research can be published by Bird Observer.

Nantucket was the only place in eastern Massachusetts to show an increase in Blue Jays from 1977 to 1978, from 53 to 76.

Banding records were then examined. In the fall of 1978, Manomet Bird Observatory banded 91 Blue Jays. There was only one recovery (in Wareham) 10 days after the bird had been banded. The sole recovery is also important. It illustrates one important fact, not generally recognized, about the migration habits of Blue Jays. Unlike many passerines, Blue Jays seem to be very casual in their southward meanderings. One must imagine them lingering a day here and a day there, wherever the food supply is adequate or the weather is suitable. That only 91 Blue Jays, a very low number, were banded in 1978 is significant. Manomet's banding data clearly did not reveal the wintering grounds of Blue Jays. A. C. Bent cites several relevant banding records in Life Histories of North American Jays, Crows and Titmice, but he fails to provide retrieval dates.

Despite the limitations of the Christmas Count data, I had no choice but to use it. I compared each 1978 Christmas Count Blue Jay total to the corresponding 1977 count. Gains or losses were calculated for each count area in eastern Canada and the eastern United States. In an attempt to offset any unreliability of the Christmas count figures, a percentage gain or loss from year to year of less than 25% was arbitrarily considered insignificant, i.e., as no change. I avoided the Midwest, Louisiana and Texas coast counts on the assumption that the Appalachian Mountains represent a natural barrier to migrating eastern Blue Jays. The findings appear on the accompanying map. A plus sign (+) represents a 1978 Blue Jay total 25% greater than the corresponding 1977 total. A minus (-) represents the opposite, a 1978 total at least 25% lower than the corresponding 1977 total. A zero means a total from year to year within a plus or minus 25% variation.

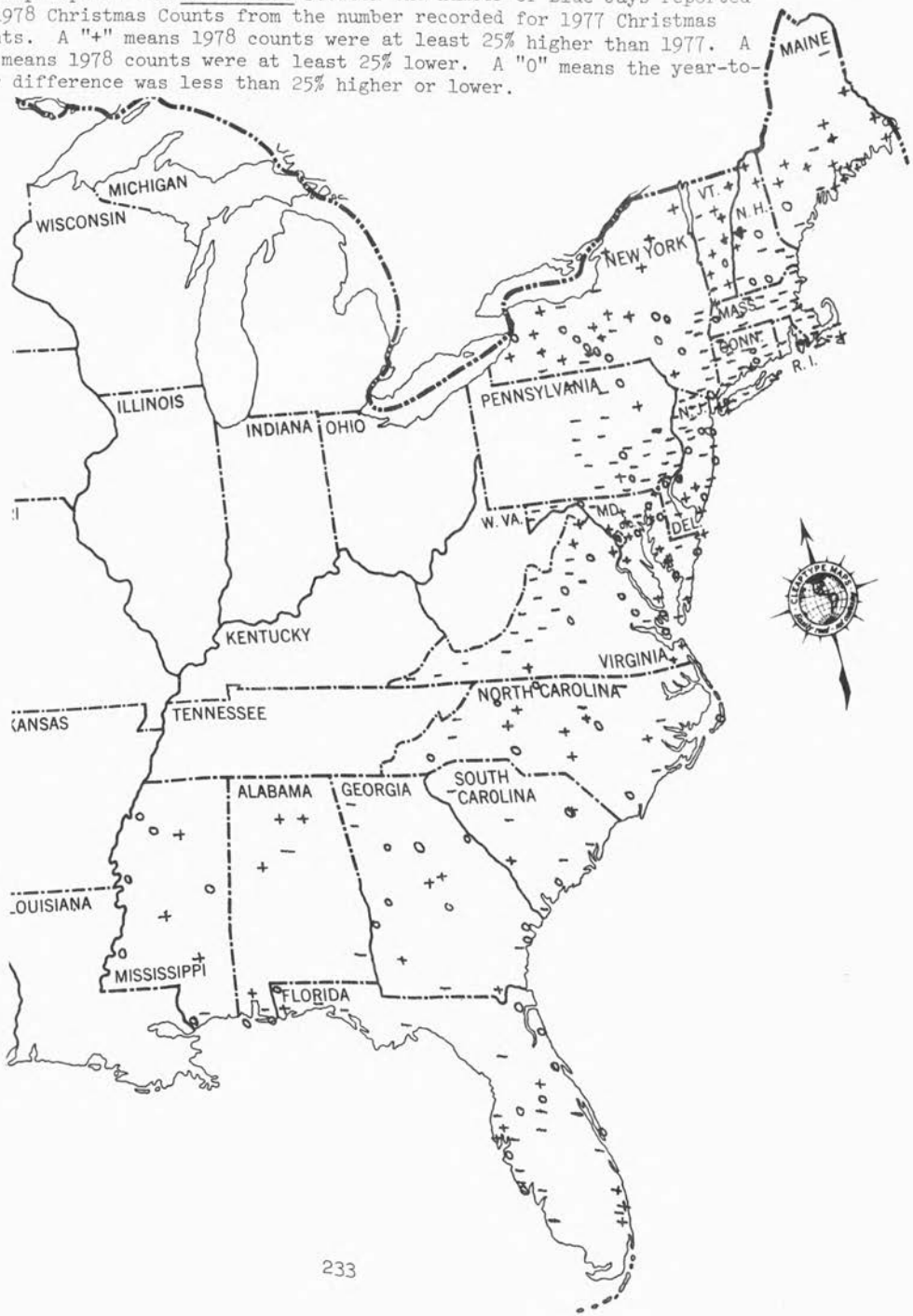
The map shows a very interesting pattern, particularly in New England and in New York. Along with Massachusetts, coastal Maine from about Portland south, coastal New Hampshire, Rhode Island, Connecticut, northern New Jersey, and eastern Pennsylvania suffered marked declines in Blue Jay numbers. Canada (not shown), northern Maine, northern New Hampshire, and Vermont had gains over 1977. This suggests that the jays we usually count at Christmas did not come south in 1978. It would also explain why the Manomet Bird Observatory had a poor Blue Jay banding year in 1978. Similarly, a case could be made that the low 1978 Blue Jay counts along the Hudson Valley were due to the failure of the birds to descend from the Adirondacks.

But large flocks of Blue Jays were going south that day in Chatham. Furthermore, unusually big counts were reported from Cape May later that same year. The map begins to show more zeros in southern New Jersey and eastern Maryland. Then, around Washington, D.C., in Virginia, western Maryland and part of the Maryland eastern shore, a series of pluses appears. This could be the answer. No other coastal plain areas from North Carolina to Florida show increases from 1977 to 1978.

An interesting phenomenon, which supports the deduction that "our" Blue Jays went to Washington, is revealed by the close examination of the Christmas counts at coastal promontories. The Blue Jays appear to have

Christmas Counts of Blue Jays

The map depicts the difference between the number of Blue Jays reported in 1978 Christmas Counts from the number recorded for 1977 Christmas Counts. A "+" means 1978 counts were at least 25% higher than 1977. A "-" means 1978 counts were at least 25% lower. A "0" means the year-to-year difference was less than 25% higher or lower.



been stacked up, as if afraid to cross open water, on southern Long Island and at Cape May, New Jersey. Cape Henlopin in Delaware also shows a marked increase in Blue Jays in 1978, suggesting that the blue horde was passing that point at the time of the Christmas count. Cape Charles, however, shows a marked decrease in Blue Jays in 1978. Logic dictates that if Massachusetts' Blue Jays were headed to the Carolinas for the winter, Cape Charles would show a plus. On the other hand, the Norfolk, Virginia area did show some pluses which cannot be explained by the above reasoning.

Another cluster of pluses appears in the North Carolina Piedmont. However, all along the Appalachian chain, from Pennsylvania to Georgia, a series of minuses appears, suggesting an exodus of Blue Jays from the southern mountains down to the foothills in 1978. Every state south of North Carolina shows no noticeable concentration of Blue Jays.

The Christmas counts indicate that Blue Jays do not leave the continental United States. In 1977 and 1978, Coot Bay, the Everglades, and Key Largo had zero jay counts.

I conclude, then, that the Blue Jay counts in eastern Massachusetts in December, 1978, were low because fewer jays came down from the north. Meanwhile, many Blue Jays migrated south from eastern Massachusetts and slowly worked their way down the coast to Maryland and northern Virginia. As to the reasons for the marked year-to-year difference in migration behavior, I leave that to the expert ornithologists to explain.

One final question. Why should we assume that Christmas counts indicate permanent wintering grounds for Blue Jays? Perhaps the Washington, D.C. concentration worked its way farther south during January and February. This may be an interesting subject to explore via compilation of banded bird retrieval records. Manomet alone has had 55 Blue Jay recoveries ranging between Alabama and Quebec. Also, in this age of miniature electronic components, low coast transmitters are now available to use to track individual birds.

* * * * *

I wish to acknowledge with thanks the help of Richard Forster of Masssachusetts Audubon Society and Trevor Lloyd-Evans of the Manoment Bird Observatory in this study.

TAKE A SECOND LOOK IN 1981

Take a Second Look (TASL) has completed a full year of Boston Harbor water bird censuses. In this process we have accomplished these goals:

First, several dozen nature-lovers and bird-watchers of varied experience came together six times in 1980 to count and observe the water birds of the Harbor. Previously, many of these people had not thought of Boston Harbor as a rich and varied resource for bird-study. The seminars that followed each field trip helped to deepen the participants' understanding of birds and bird-watching.

Second, the birds of the harbor were tallied, using consistent techniques repeatable from census to census. Thus our census data will be comparable from year to year.

And finally, the censuses served to pinpoint exactly where the birds concentrate in the harbor. This kind of pinpointing can help in the planning of future developments in Boston Harbor.

The consensus among TASL participants and advisors has been that the Boston Harbor water bird censuses should be continued, at least through 1981. Already there are indications that this winter's bird populations and concentrations might be quite different from last. The only way to know more about what is going on is to be out there in the field, gathering data. We invite everyone to participate in our three winter censuses, all on Sundays:

February 8 March 8 April 5

Censusing parties will meet at 8 a.m. on each date, and the field trips will last about five hours. Each field trip will be followed by a compilation and seminar; a $1 fee will be collected from all seminar participants, in order to defray refreshment costs. Those interested should contact one of the TASL coordinators listed below.

TASL News is published approximately four times a year and mailed out to TASL participants and others interested in our project. The contents include tabulations of current TASL censuses, as well as informative articles on the populations or behavior of birds and other wildlife in our region. Subscriptions to TASL NEWS costs $2 per year. Please send a check to one of the coordinators.

Craig Jackson, 22 Almont Street, Malden 02148; 321-4382
Soheil Zendeh, 380 Broadway, Somerville 02145; 628-8990

WHAT TO FEED WILD BIRDS

What wild birds like to eat and what many commercial bird mixes contain are not always the same, according to a recent report by Dr. Aelred D. Geis of the Patuxent Wildlife Research Center.

His study, which is part of the U.S. Fish and Wildlife Service's Urban Wildlife Research Program, reveals some new findings on bird-food preferences--some apparently unknown to several of the birdseed companies that provide ready-mixed foods for millions of Americans who participate in this intensely interesting pastime.

"White proso millet and black oil-type sunflower seeds are eagerly taken," he said. "Yet, such common ingredients of commercial mixes as flax, canary, and rape (a type of mustard) seeds are rarely eaten by the birds."

These and other findings of the report are based on 179,000 observations of feeding habits of birds in the Washington-Baltimore area. Though surveys are being continued in Maine, Ohio, and California, Geis expects that bird-food preferences will be quite similar throughout the nation.

"Milo or sorghum, wheat, oats, cracked corn, and rice," Geis said, "are common ingredients in commercial mixes, but are rarely attractive to birds if sunflower seeds or white proso millet are also present in the feeder."

Geis discovered that another common ingredient in mixes, peanut hearts, was especially attractive to starlings, thus, should not be used as bird food. The small, oil-type sunflower seeds were found to be more attractive to most bird species than the larger black stripe sunflower seeds that are usually available.

Only Blue Jays and Tufted Titmice showed a preference for the larger seeds while a number of other species, notably Goldfinches and Mourning Doves, much preferred the smaller oil-type sunflower seeds.

"Since the kinds of birds that frequent people's homes vary from place to place," Geis said, "it is impossible to come up with a mixture that is universally efficient in terms of bird visits per dollar spent.

He recommends that such seeds as white proso millet and black oil-type sunflower, which are sought by birds, be purchased separately from feed or pet stores and presented as needed by the birds that are in the particular area.

Among the findings of the Geis report is the following list of birds and their favorite bird seeds:

American Goldfinch--Hulled sunflower seeds, thistle seeds, and oil-type sunflower seeds

Brown-headed Cowbird--White proso millet, red proso millet, German millet, and canary seed

Cardinal--sunflower seeds of all types

Carolina Chickadee--Oil-type sunflower seeds (showed little interest in other bird seed)

Dark-eyed Junco--Red proso, white prosomillet, canary seed, and fine-cracked corn

Common Grackle--Hulled sunflower seeds and cracked corn

Evening Grosbeak--sunflower seeds of all types

House Finch--Oil-type sunflower seeds (other sunflower seeds ranked much lower)

House Sparrow--White proso millet (and most other seeds except flax and rape)

Mourning Dove--Oil-type sunflower seeds, white proso millet, thistle, wheat, buckwheat, milo, canary seed, hulled oats, and cracked corn

Purple Finch--Sunflower seeds of all types

Red-bellied Woodpecker--Black-striped sunflower seeds (occasionally)

Song Sparrow--White proso millet, red proso millet, and oil-type sunflower seeds

Tufted Titmouse--Peanut kernels and oil-type sunflower seeds (showed no interest in millet)

White-crowned Sparrow--Oil-type and black-striped sunflower seeds, white proso millet, and red proso millet (infrequent visitor to feeders)

White-throated Sparrow--All sunflower seeds, white proso millet, and peanut kernels (also use red proso millet, canary seed, and fine cracked corn)

Bird feeders will find a great deal of valuable scientific information in Geis' report, Relative Attractiveness of Different Foods at Wild Bird Feeders, Fish and Wildlife Service Special Wildlife Report 233. Single copies are available free from the Publications Unit, Fish and Wildlife Service, Department of the Interior, Washington, D.C. 20240.

AGWAY

Your Bird Feeding Headquarters

Feathered Friend Wild Bird Food

• wholly natural grain mixture • attracts many different species to your feeder (77-5015,10, 03)

50 lbs $11.39

20 lbs $5.25

10 lbs $2.99

Feathered Friend Sunflower Seed

• 100% pure, cleaned and graded • attracts grosbeaks, cardinals, goldfinches, chickadees and many others (77-5030, 27, 25)

50 lbs $13.99

20 lbs $7.95

5 lbs $2.29

Birdsnack Bird Food

• high sunflower content—AGWAY'S PREMIUM QUALITY BIRDFOOD MIXTURE • contains peanut hearts, canary seed and other premium ingredients (77-5103, 10, 15)

50 lbs $13.29

20 lbs $6.10

10 lbs $3.49

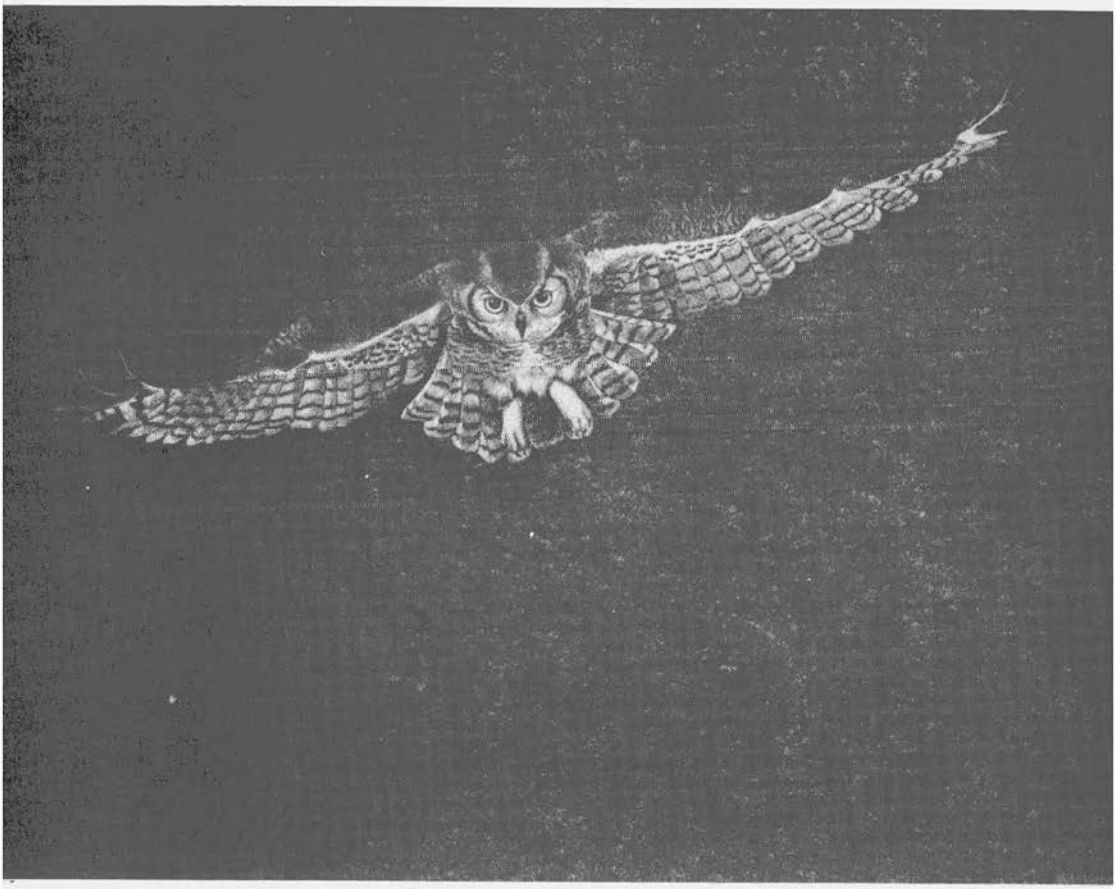
PRICES GOOD THROUGH FEBRUARY 15, 1981

AGWAY

WALTHAM STORE
50 EMERSON ROAD
WALTHAM
Phone 894-4880

STORE HOURS:
8-5 Mon.-Fri.
8-4 Sat.

MasterCard VISA



Great Horned Owl by Alison Webber

NOCTURNAL BIRDING

By Neal C. Clark, Needham

While cautiously approaching an old Red Pine stand through the freezing cold, I heard a faint tinkling of dropping icicles in the still night air. Just as I looked toward the sound, a large, dark bird lumbered up and away into the full moonlight and then back into the shelter of the conifers. I was instantly warmed. On this local night hike I had been thinking of owls--especially the Great Horned--and this is what I think I saw in that all-too-brief sighting.

Birding after dark can be exhilarating. To some, it may seem an offbeat, even dangerous hobby, but let me explain how I became interested, and why "night prowling" - as the National Park Service terms its evening guided hikes - is so fascinating.

As one who has always been most energetic at night, I have naturally come to enjoy especially the bird sights and sounds of evening. Owls, with their unique hooting and caterwauling, have long been a favorite bird of prey, and, in order to study them, I have had to follow them during their awake hours: after dark in most cases. Aside from owls, any form of wildlife seen or heard at night is intriguing if not startling. In the darkness of a woodlot, marsh, or field, <u>any</u> sound can make me freeze, my heart racing and mouth dry. Perhaps I secretly want to be scared, or just to be totally alone with Nature for awhile. I do know that I feel compelled to search the deep dark woods, for birding nocturnally means entering a whole new world, and one does not explore one of those every day.

To brave this new world a few simple precautions are due. First, if you plan to enter public property, such as a park, refuge, or sanctuary, find out whether after-dark jaunts are allowed. Then, on your car windshield attach a note directed to the local police with your name, address, and purpose, and you probably will not get towed. Second, while a flashlight may be necessary, use one with a piece of transparent red plastic over the beam to avoid frightening the wildlife. In this way, you can still see, but won't be seen too easily. Third, wear warm, dark clothes in order to be comfortable and less conspicuous. Fourth, you might want to carry along a small (possibly collapsible) seat or stool to sit and remain quiet on. Last and most important, allow your eyes enough time - up to a half-hour - to become adjusted to the blackness. After the first few minutes, you will be able to see better than you had anticipated. You will easily be able to see where you are going, particularly if the immediate region is familiar. With or without moonlight, given enough time per trip, you will see and certainly hear many winged creatures at any time of year.

Late January is a prime time to start listening for that Great Horned Owl. Virtually no other bird is vocal at this time, so the low, loud hoots of five to seven syllables are unmistakable. This large nocturnal raptor, with its wingspan of almost five feet, is difficult to spot, particularly during its silent flight. However, just hearing the savage bird is a chilling thrill. While it is more common in rural areas, this

species of owl is holding its own in the suburbs. In civilized areas, its deep, warning-like calls can let you mentally migrate to the Great North Woods. To locate its breeding grounds, head for a good-sized pine stand near water with plenty of adjacent open space which could support rabbits and other small mammals. During the day scour the ground for its 2-4 inch regurgitated pellets found under its roost trees. At night, listen patiently - the sound you finally hear will be long-remembered.

February is a good month to begin listening for, and perhaps seeing, the Ruffed Grouse drumming. To attract a mate and to warn off potential rivals, the male beats its wings, displacing air and creating a muffled yet far-ranging drum roll that commences slowly and builds rapidly. This crescendo drumming, which may be heard during the day and twilight, is also given on moonlit nights. You can feel the sound waves surround you, but it is often difficult to detect the source, especially if there are numerous trees to deflect those waves. The common but wary grouse is found in fairly deep mixed woods or borders of woods, and in recently burnt-over areas. The bird relishes the buds of the indicative tree types, aspen and birch, in these new-growth areas. To hear the drumming is easy enough, but to view the male's strutting on a favorite log or rock is a sight well worth the time, effort, and patience required.

March offers several intriguing examples of avian showmanship. First, the most curious performance is that of the American Woodcock, or Timberdoodle. In early spring the male bird executes an aerial breeding ritual for his mate that has to be seen to be believed. At pre-dawn and dusk, and sometimes all night, he sounds a very nasal "peent" call several times, then rises and circles horizontally high in the sky. Then he zigzags downward, singing or chittering sharply, only to land in almost the exact take-off spot to resume his "peenting." The best time to see the night sprite is either at twilight or later with the aid of a full moon. This gamebird feeds mainly on earthworms, so if you go to suitable areas (wooded swamps, damp fields and woods, and golf courses) the bird should be found. I cannot think of a better natural nocturnal spectacle than this pudgy bird's matchless show.

Another curious bird, at least by its sound, is the vociferous Barred Owl. Both mates indulge at certain times in a comical duet comprised of squawks and hoots, plus the more usual eight hoots in two sets of four that sound similar to a barking dog in the distance. This owl is more inquisitive than others and will answer most attempts at imitation. If you know where Barred Owls are, it is a sure bet that you can call them out, proving that at least one species of owl does give a hoot for humans. This owl prefers swampy woodlands of mainly deciduous trees. You can listen to its oft-repeated hoots early in the evening and possibly call it in close enough to see. You won't hear it fly, but may hear its racket suddenly coming down on you when least expected.

A smaller owl, the Screech, is a strictly nocturnal raptor. It is difficult to spot during the day, as it often hides, sunning, just inside a choice tree. It is fairly vocal at night, though, giving both a whinny-like wail and a penetrating, ringing noise. The Screech Owl's haunts are cemeteries, meadows, old orchards, and farm woodlots - a suburban bird of prey. On a spring night hear its horse-like calls and picture an owl no

taller than a meadowlark.

April brings many new night-time sounds, along with its showers. Early in the month the American Bittern, or Stake-driver, is back, active before dawn and sometimes all through the night. It is found in cattail marshes, swamps, and grassy fields, where it devours frogs, fish, crayfish, and other animal matter. Unless it is flushed at your feet, it is hard to see, even during the day, due to its cryptic coloration; but its pumping noises can be heard from afar. This pumping is its breeding-season song. Since it sounds like a stake being driven into a bog, the primitive pumping is the sound of a cattail marsh before daybreak.

Later in April, a virtuoso songster (indeed, it has been dubbed the American Nightingale) has returned, singing by day and by moonlight. This is the retiring Hermit Thrush, whose clear piping and flute-like tremolo ring throughout its territory. Save for its beautiful song, this bird could be overlooked because of its shy behavior, drab color, and ground-feeding habits. To sight it, seek out coniferous or mixed woods, keeping in mind that it shuns human habitations. If you are in its habitat at night, listen carefully and let the music weave through the dense undergrowth to fill you with tranquillity.

By the end of the month the aggressive, jeering Gray Catbird starts to set up its territory for the breeding season by singing during the day and part of the night. The song is chock-full of short musical quips and harsher notes, all in one hurried garble. Add to this some mewing calls and you have an active member of the family of Mimic Thrushes. This bold songbird is familiar to many because of its preference for nesting close to civilization. It utilizes gardens, thickets, and residential areas along with the forest undergrowth.

Also at this time in April the Veery returns. At a moonlit dusk its mysterious, downward-spiralling song adds a slight touch of sadness to the advancing darkness. The bashful Veery prefers moist deciduous woodlands, and will often take to a small tree to sing or to keep a sharp look-out for intruders. This plain-looking thrush does not render a plain song, but rather one that is moving in an eerie way, particularly if you are not sure who the minstrel is.

Early May brings back the Whip-poor-will. When I hear its much-repeated song I know summer is practically here. The bird utters a cheerful, and never tiresome, vocalization. It may be seen flying erratically about, usually not too high, and since the flight is quiet, an observer has to be attentive to identify one at night. One must admire their persistence - it is a matter of record that one individual bird called its name over one thousand consecutive times at the rate of one per second! The Whip-poor-will is found living in dry open woods and even in residential areas, where it goes hawking for beetles, flying ants, moths, and other insects. On your summer night hikes, this bird will be a steady whistling companion all evening long.

At this time the Wood Thrush is back from wintering in Mexico or farther south, and what a master musician he is. I believe this bird has a clearer and more cheerful song than the Hermit Thrush. The song is rendered during the evening, echoing down from an elevated site, "EE-o-lay-

teee!" The Wood Thrush's sanctum is moist deciduous woods, parks, and gardens. It has adapted well to the environment of humans and is one of the least wary in the family.

About the middle of May the Common Nighthawk joins us, the male soon giving aerial displays for the female. He dives from a great height on stiff wings, making a booming sound before he veers up at the last minute. This relative of the Whip-poor-will is much more easily viewed and is often heard as well. Its call is a nasal "peent," though not as abrupt as that of the American Woodcock. The Nighthawk can be heard calling above plowed fields, open country, towns, and even above the sporadic roars at Fenway Park, Boston. These darters with the white wing patches are not solely nocturnal, often coursing about on cloudy afternoons. Watch closely for them, for occasionally they fly so low and are so attentive to their hawking that they can almost dust you off. I have ducked this bird.

Late in May and on through June and July, a few more species of songbirds remain active until nightfall and beyond: both species of cuckoos (the Black-billed and the Yellow-billed) and the Mockingbird. All three appear to favor the moonlight and perhaps save some energy by singing then instead of just during the heat of the summer day. The cuckoos are secretive and sedentary, while the mocker is full of life and may be seen springing up singing, and fluttering down again - a trim bundle of showmanship. It is the mocker's mouth (its scientific name, Mimus polyglottos, means literally "mimic of many tongues") that endears it to so many birders. The Mockingbird is a fine imitator of numerous other birds; the only difference is that after short phrases of imitation are repeated, another bird's phrase is tacked on. He seems to prefer variety and will show off even at night.

Look and listen for these three birds right next door. The mocker habituates cities, villages, gardens, parks, and open woods, If one is nearby, you will know it, for its singing can be grating at times. The two cuckoos are harder to spot, yet still at hand, gorging themselves on available caterpillars - much to the delight of farmers and gardeners. Overgrown pastures and orchards entice them to nest in vines fairly low yet well-concealed by surrounding leaves and branches.

From August through the rest of the year scan for the night migrants. Shorebirds, flycatchers, many species of sparrows, wood warblers, and thrushes are some of the many that regularly journey south through the night sky. One of the choicest autumnal sounds is a flock of Canada Geese on whistling wings honking towards the south. This may be in October or even after Thanksgiving; they follow an urge to depart to warmer climes and we stay behind, shovelling snow.

One unusual method of observation at this time is to point your binoculars or spotting scope at a full moon and watch different feathered forms cross in front of the bright light. I have tried it and seen a few small birds, but have also found that it can be a long and possibly chilly wait between sightings, and that it is difficult to positively identify anything. If you have the patience and the time on a fair evening, especially towards midnight, then try it once.

Night prowling, or to some, night owling, can be an adventure throughout the year. To start, you might do as the late Dr. Wyman Richardson suggested:

> Come, some night in February, and stand for a while in the tall wood. There is no sound other than the rustle of a light breeze through a few tenacious oak leaves. Overhead a scattering of bright stars twinkles through the branches in a vain attempt to pierce the gloom of the forest. And then from a distance comes that vibrating, awe-inspiring call. Nearer and nearer it approaches, until at last it seems to fill all surrounding space. Soft, yet queerly penetrating, it reaches into your soul.

SUGGESTED REFERENCES

Brown, Vinson. Knowing the Outdoors in the Dark. New York: Collier Books. 1972.

Milne, Lorus J. and Margery J. The World of Night. New York: Harper and Row. 1956.

Richardson, Dr. Wyman. The House on Nauset Marsh. Riverside, Conn.: The Chatham Press, Inc. 1955.

RAPTOR RESEARCH AND REHABILITATION PROGRAM THREATENED

Nearly a decade ago, at the University of Minnesota, Dr. Gary Duke and Dr. Patrick Redig initiated a program to rehabilitate injured birds of prey. Over the years this project has expanded from a valuable regional resource to an organization with national impact, receiving injured birds from across the country. More than 1800 raptors, including 144 Bald Eagles, 21 Peregrine Falcons, and 28 Ospreys, and 900 other birds have been treated at the center.

Drs. Duke and Redig are convinced that the future of our wildlife might be ensured by learning about their diseases and nutritional problems now, rather than after they become endangered. Along with the primary objective of conducting medical research, the program is:

-- Rehabilitating injured and ill raptors
-- Training veterinary and post-graduate students to deal more successfully with wildlife problems
-- Increasing awareness of the value of raptors in the natural environment through public education

The program has been funded almost entirely by private foundations and individual donations, but it is now necessary to establish an ongoing, self-supporting program. Public support is needed. The need is particularly great as administrative changes within the University of Minnesota have eliminated vital funds. If additional funds are not obtained by June 30, 1981, the rehabilitation program will be terminated.

If you would like to make a donation or seek further information on the program, please write:

RRRP
Department of Veterinary Biology
College of Veterinary Medicene
University of Minnesota
St. Paul, MN 55108

WATERFOWL BREEDING SUCCESS

by Theodore H. Atkinson, Acton

A report published by the U.S. Fish and Wildlife Service forecasts that the 1980 fall flight of geese and ducks should be quite similar to that of 1979. Each year the U.S. Fish and Wildlife Service joins in a cooperative effort with the Canadian Wildlife Service, various state and provincial conservation organizations, and Ducks Unlimited, to evaluate the breeding success of ducks and geese and forecast the magnitude of the fall flight. Information on goose and brant population estimates are based on Fall 1979 production surveys, winter surveys conducted in December 1979 and January 1980, spring staging area counts, localized breeding ground surveys, satellite imagery, and vertical photography.

In 1980, a network of U.S. and Canadian ground stations plus NOAA 6 Satellite imagery High Resolution Picture Transmission (HRPT) and Landsat 2 and 4 microfiche were used to assess when snow and ice had melted sufficiently to permit nesting in key goose production areas in the Arctic. The satellite analysis is particularly valuable because the initiation of nesting and reproduction success in Arctic geese is strongly influenced by the extent and duration of snow cover on their breeding grounds. In 1980, snow-melt arrived early on the lowland adjacent to southern Hudson and James Bays; the area was quite snow-free by the middle of May. However, spring was late on northern Hudson Bay and to the northeast. Snow-melt was generally delayed past the third week in June, especially on Southampton and Baffin Islands. This caused below average reproduction due to late nesting, lack of nest sites, and high predation rates.

The Atlantic Canada Goose population, which nests in Newfoundland and in Quebec on the Ungava Peninsula south to the eastern shore of James Bay enjoyed better spring conditions. Despite a January 1980 wintering population of 768,000, some 7% below the January 1979 winter population, an increased fall flight is forecast for this year.

The Spring 1980 St. Lawrence River photographic inventory of Greater Snow Geese yielded 180,000 birds compared to 170,000 the previous spring. However, the Greater Snow Goose's breeding grounds, principally around Greenland, the northern Foxe Basin, and the islands of Bylot, Baffin, Axel Heiberg, and Ellesmere, had lingering snow cover and poor weather during most of June. The fall flight to the wintering grounds of the mid-Atlantic coast, from southern New Jersey to Cape Hatteras, is expected to be similar to that of 1979.

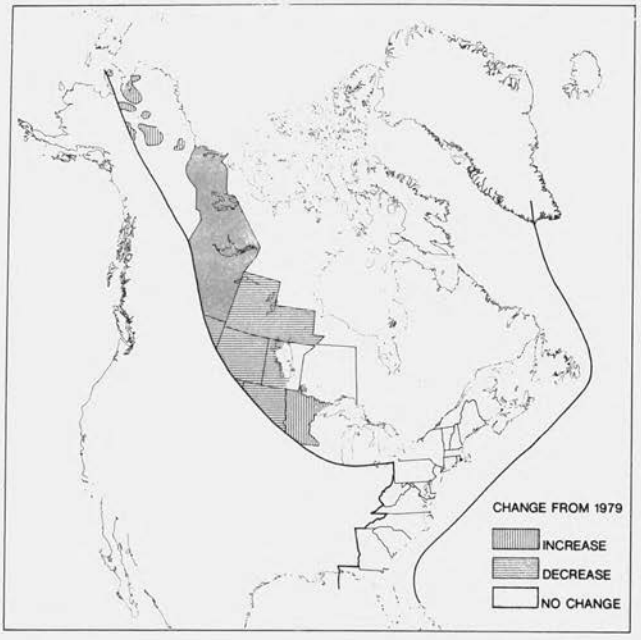
The January 1980 inventory of Atlantic Brant on the Atlantic Flyway was 69,000, up 57% from the 44,000 tallied in 1979. However, this increase included a relatively high percentage of non-breeding young. This factor, along with poor weather on the nesting grounds in the eastern Arctic, from Southampton and Baffin Islands north to Ellesmere Island, and in northern Greenland west and south to the Queen Maud Gulf lowlands, should produce a fall flight only slightly larger than that of 1979.

Throughout the United States and Canada the 1980 duck breeding population was estimated to be 6% lower than in 1979, but 6% above the 1955-79 average. In 1980 substantial increases in breeding populations were reported only in Alaska and Minnesota. Tha Mallard population decreased 6% from 1979, and was 9% below the 1955-79 average. Pintail populations declined 11%, and were 11% below the long-term average. Gadwall, Blue-winged Teal, Northern Shoveler, and scaup all declined in 1980, although their populations remained near or above the long-term average. Increased breeding populations were recorded for Wigeon, Green-winged Teal, Redhead, and Canvasback. The apparent increase in Redhead numbers (up 48% over 1979) may well be due to altered distribution and higher visibility during the drought year.

No population estimates of Black Ducks are available from breeding grounds. Black Duck population trends must be measured by winter surveys, along with appraisals of habitat conditions and selected breeding studies. In the Atlantic Flyway Black Ducks were 14% below the January 1979 estimate and 22% beneath the 10-year average. Scattered reports indicate that Black Duck pair counts were down in Maine, but breeding populations were on a par with 1979 in the Maritimes.

Drought conditions throughout much of the duck breeding range appeared to be responsible for the decline in population and limited 1980 breeding success. There is a close correlation between annual rainfall and duck breeding success. During the 1950's North America enjoyed large fall flights of ducks, compared to the flights during the drought years of the 1960's. Between 1969 and 1979 habitat conditions and duck populations were satisfactory, except for 1973 and 1977, when drought conditions prevailed. Moderate increases in the fall flight occurred in 1978 and 1979 following the small flight of 1977. The age ratios of ducks taken during the 1979-80 hunting season were generally higher than in the previous year, indicating a more successful breeding season. However, rainfall during 1979 and 1980 did not provide the best duck breeding habitat. Thus, 1980 was not a good year for ducks, although the forecast is for a flight similar to that of 1979.

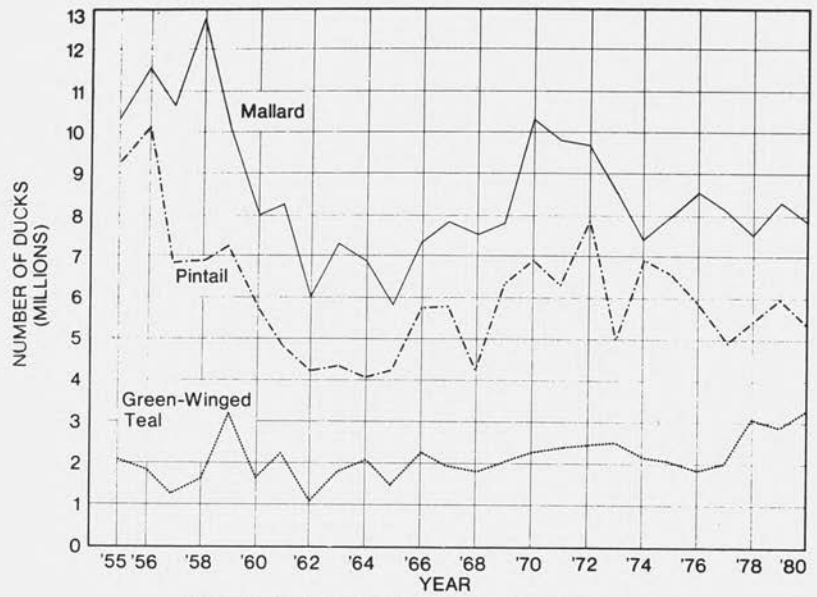
JUNE 7, 1980 SNOWLINE COMPARED TO JUNE 7
SNOWLINE ON A YEAR OF GOOD PRODUCTION.



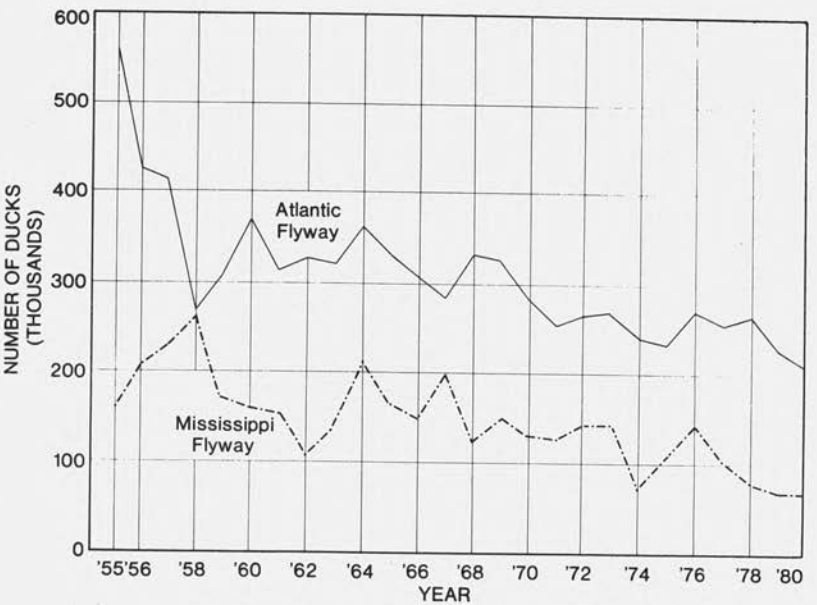
1980 DUCK FLIGHT FORECAST, ATLANTIC FLYWAY
FORECAST: NO CHANGE FROM 1979

Breeding population estimates for 10 species of ducks, 1955-80 (in thousands)

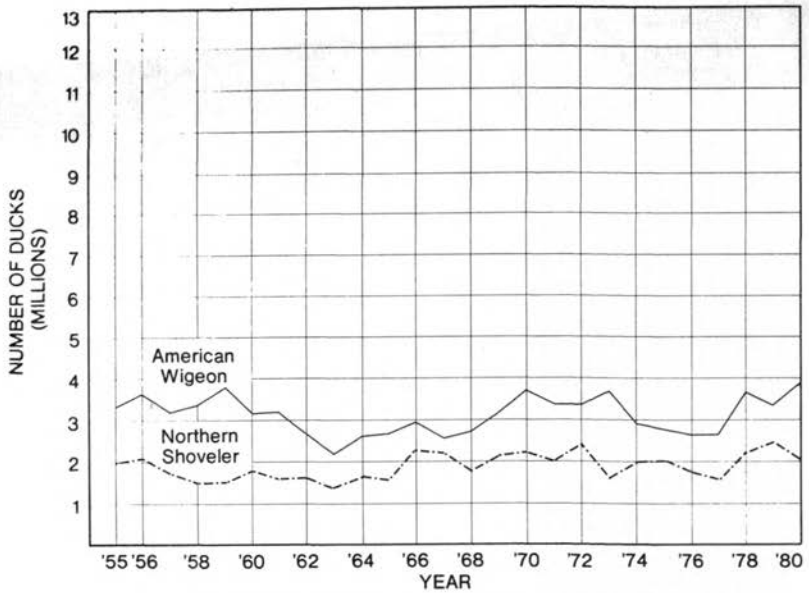
Year	Mallard	Gadwall	American wigeon	Green-winged teal	Blue-winged teal	Northern shoveler	Pintail	Redhead	Canvas-back	Scaup
1955	10,345	1,106	3,333	2,076	6,436	1,965	9,251	733	595	7,100
1956	11,711	1,202	3,712	1,898	6,267	2,084	10,124	928	692	6,595
1957	10,946	1,102	3,208	1,293	5,449	1,744	6,856	684	600	6,535
1958	12,904	687	3,372	1,618	5,799	1,515	6,889	524	713	6,040
1959	10,292	683	3,779	3,153	5,300	1,649	7,228	641	481	8,220
1960	8,206	873	3,165	1,630	4,303	1,859	5,769	542	575	5,566
1961	8,290	1,422	3,219	2,216	4,833	1,625	4,860	437	396	6,764
1962	6,144	1,610	2,721	1,119	3,890	1,633	4,299	664	385	6,398
1963	7,360	1,578	2,209	1,754	4,587	1,435	4,361	396	523	6,564
1964	6,974	1,223	2,630	2,051	4,943	1,685	4,111	560	658	6,326
1965	5,948	1,692	2,695	1,526	4,628	1,607	4,301	568	505	5,383
1966	7,401	1,976	2,901	2,219	5,616	2,272	5,777	747	683	5,421
1967	8,205	1,638	2,637	1,944	4,715	2,244	5,870	846	556	5,877
1968	7,586	2,098	2,783	1,805	3,697	1,811	4,225	502	557	5,971
1969	8,065	1,837	3,192	1,991	4,514	2,150	6,390	759	530	6,338
1970	10,379	1,698	3,752	2,259	5,633	2,269	7,004	834	601	6,930
1971	9,843	1,733	3,425	2,352	5,426	2,052	6,291	693	441	6,149
1972	9,867	1,776	3,428	2,407	5,673	2,505	7,875	489	429	9,527
1973	8,686	1,198	3,665	2,444	4,866	1,657	5,114	754	696	7,535
1974	7,296	1,562	3,003	2,221	5,437	2,060	7,165	613	493	7,045
1975	8,005	1,672	2,862	2,038	6,441	1,994	6,387	974	706	7,846
1976	8,563	1,478	2,699	1,844	5,023	1,818	6,045	946	686	6,973
1977	8,166	1,546	2,678	1,952	4,626	1,616	4,971	688	702	7,490
1978	7,615	2,019	3,808	2,978	4,497	2,162	5,664	833	423	7,125
1979	8,349	2,344	3,388	2,920	5,278	2,555	6,070	774	606	9,135
1980	7,866	1,459	3,857	3,280	4,903	2,050	5,420	1,146	688	7,690
1955-79 Average	8,686	1,510	3,131	2,068	5,115	1,919	6,116	685	569	6,834
Percent Change in 1980 from:										
1979	-6	-38	+14	+12	-7	-20	-11	+48	+14	-16
1955-79 Ave.	-9	- 3	+23	+59	-4	+ 7	-11	+67	+21	+13



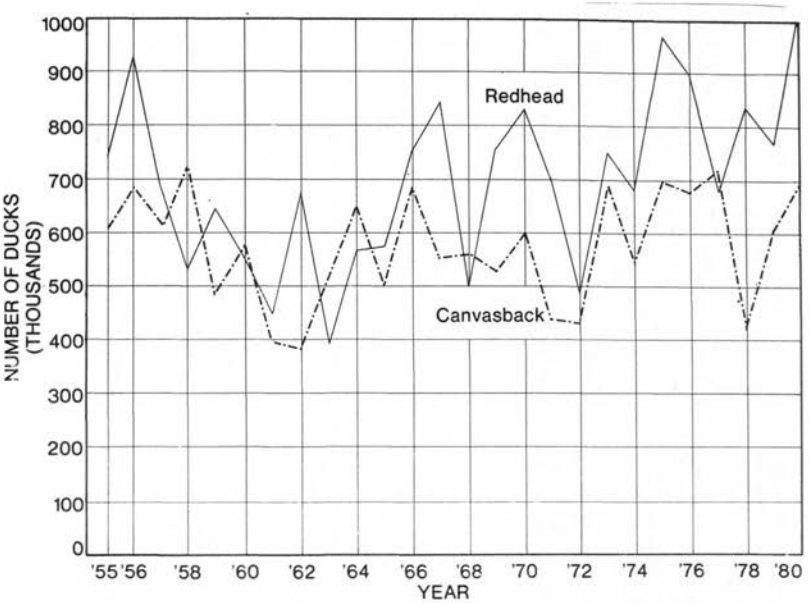
MALLARD, PINTAIL & GREEN-WINGED TEAL BREEDING POPULATION ESTIMATES, 1955-80, ADJUSTED FOR BIRDS NOT RECORDED BY AERIAL CREWS; INCLUDES AREAS WITH COMPARABLE ANNUAL SURVEYS



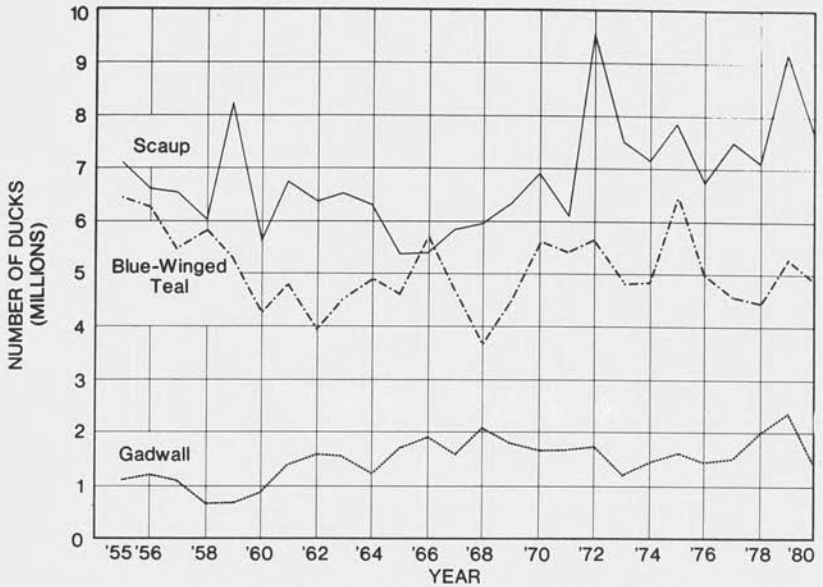
TRENDS IN BLACK DUCK DUCK POPULATIONS AS SHOWN BY THE MID-WINTER SURVEY, 1955-80



AMERICAN WIGEON & NORTHERN SHOVELER BREEDING POPULATION ESTIMATES, 1955-80, ADJUSTED FOR BIRDS NOT RECORDED BY AERIAL CREWS; INCLUDES AREAS WITH COMPARABLE ANNUAL SURVEYS



REDHEAD & CANVASBACK BREEDING POPULATION ESTIMATES, 1955-80, ADJUSTED FOR BIRDS NOT RECORDED BY AERIAL CREWS; INCLUDES AREAS WITH COMPARABLE ANNUAL SURVEYS



SCAUP, BLUE-WINGED TEAL & GADWALL BREEDING POPULATION ESTIMATES, 1955-80, ADJUSTED FOR BIRDS NOT RECORDED BY AERIAL CREWS; INCLUDES AREAS WITH COMPARABLE ANNUAL SURVEYS

INDEX, VOLUME 8, 1980

BIRD OBSERVER (USPS 369-850)
462 TRAPELO ROAD
BELMONT, MA 02178

SECOND CLASS POSTAGE PAID AT BOSTON, MA.