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TASL News

TAKE A SECOND LOOK IS A
PROJECT OF BIRD OBSERVER
OF EASTERN MASSACHUSSETTS

April 1981

THE PURPLE SANDPIPER

A long-eared black dog loped down to the shore by the jetty which extends out from Simpson's Boatyard in Revere. To her right was a low mound of stones, dark against the white sand of the beach. On its surface were about 200 Purple Sandpipers. Apparently the dog could not see them. Their backs were dark; they were round in shape; they were close in size to the stones among which they were feeding hurriedly.

The birds rose into the air in a tight flock, banked quickly right, out over the water, then quickly left, towards the jetty; first black; then white as they showed us their undersides and the linings of their wings; again black, then white; then black, then white; first in close ranks over the water; then in a long file over the sand where they lit.

The dog could now see the birds clearly against the white background of the sand. She charged. The birds rose again, banked right, and returned to the mound of stones. The dog looked this way, then that; first north, then south. Calidris ("a grey speckled sandpiper") maritima ("of the sea") was again lost to her sight. (Translation from Choate, 1973)

An hour before the dog appeared, the birds had been feeding out at the end of the jetty, dispersing until they had travelled several yards from each other; then regrouping in air; then landing and dispersing again among the rocks; moving a hundred feet closer to shore each time, as the tide receded.

* * *

The genus Calidris includes many other sandpipers common in our area: The Sanderling (C. alba); Semipalmated (C. pusillus); White-rumped (C. fusci-collis); and the Least (C. minutilla).

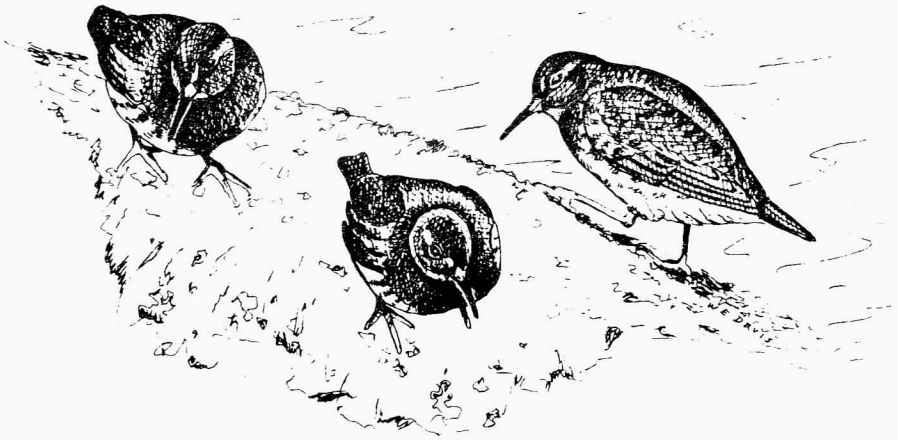
The Least Sandpiper is the most southerly of the genus in its year-round range; the Purple Sandpiper is the most northerly. (Matthiessen, 1973) The Least ranges from arctic Canada in the breeding season, south to central Brazil; the Purple from arctic Canada to Florida. (Terres, 1980) In Jacksonville, Florida, the bird is regularly recorded in small numbers on Christmas Counts. (A. B.)

* * *

In our area the Purple arrives in September and leaves in May, and is with us in greatest numbers from late fall through early spring, along coasts wherever there are stretches of wave-swept rocks which retain the Purple's food in crevices, pools, on rough surfaces, and among clinging vegetation.

/

The Purple flies from rock to rock as if they were stepping stones; walks with measured steps down slippery, steep slopes, then back up again; faces into high winds unmoved; seeks shelter when it must, among the rocks, to soon reappear; picks hurriedly but delicately at surfaces just washed by waves or freshly uncovered by the falling tide.



The Purple Sandpiper flies along steep slopes like a Bank Swallow; flies among breaking waves like a petrel; moves in flocks like sparrows across flat stretches of rock; swims in small pools like phalaropes; strides across them like yellowlegs; and probes into the sand like dowitchers.

With such a repertoire of skills, why occupy so narrow a niche? Why leave our winter beaches to the Sanderlings, when waves cover expanses of sand with great abundance of food?

Perhaps because a bird so capable of precision in its movements can exclude all competition from its three-dimensional habitat, a terrain which may offer economies of scale. The Purple need not move far among jumbled rocks to search a surface area which the Sanderling must run far to cover on the two-dimensional beach.

Waves scatter the Sanderling's food when they break on the beach. Waves concentrate the Purple's food when they break on rocks, leaving crustacea and larvae caught in crevices and pools.

* * *

The Purple was very rare south of Cape Ann until man began building jetties and breakwaters in the 1930's, to protect his works against the sea. Since that time the Purple Sandpiper has been extending its range steadily southward. (Pough, 1951) The bird has outdistanced some bird-guides. A pity. Many people south of New Jersey may not know to look for the annual coming of one of winter's best shows, much less that the Purple is not only a dignified but also a highly approachable bird, who will give you a close look at his elegant dark back, light underside, two-toned bill, and yellow legs.

J. H. Barton

Bibliography

Choate, Ernest A., The Dictionary of American Bird Names, Gambit, 1973.
Matthiessen, Peter, The Windbirds, Viking Press, 1973.
Pough, Richard H., Audubon Water Bird Guide, Doubleday & Co., 1951.
Terres, John K., The Audubon Society Encyclopedia of American Birds, Alfred A. Knopf, 1980.
American Birds (A. B.), Christmas Count issues dating back to 1971.
Bird Observer of Eastern Massachusetts, issues dating back to 1973.

SUMMER 1981 FIELD TRIPS

May 31: "Marshes of the Saugus River" Leader: Craig Jackson (321-4382).
June 21: "Checking out the Charles" Leaders: Nick and Oliver Komar (332-5509); Jim Barton (354-7435).
July 26: "Salt marsh ecology -- Belle Isle, East Boston" Leader: Soheil Zendeh (628-8990).
August 9: "Investigating the Neponset River system" Leader: David Brown (328-3533).

PREVIEW: TASL SUMMER TRIPS

With the completion of the April 5 census another winter season of Boston Harbor water bird surveys has come to an end. This spring and summer we will take a second look at some of the wetlands in the Boston Basin. Four field trips are planned, one each in May, June, July, and August. We will preview the first two here.

Sunday, May 31: Craig Jackson will lead a field trip to the Saugus River Marshes. These wetlands are tidal for approximately two miles upriver from the river's mouth at Point of Pines, Revere. This section of the river is bordered by extensive Spartina marsh where Sharp-tailed Sparrow, meadowlark, and other salt marsh and open field species breed. Beyond this point begins the transition to fresh water marsh, evidenced by substantial stands of cattails at the Saugus Ironworks and Breakheart Reservation.

On this field trip we will observe a variety of wetland habitats and study diverse populations of birds in each habitat. For more details please contact the leader no earlier than May 1.

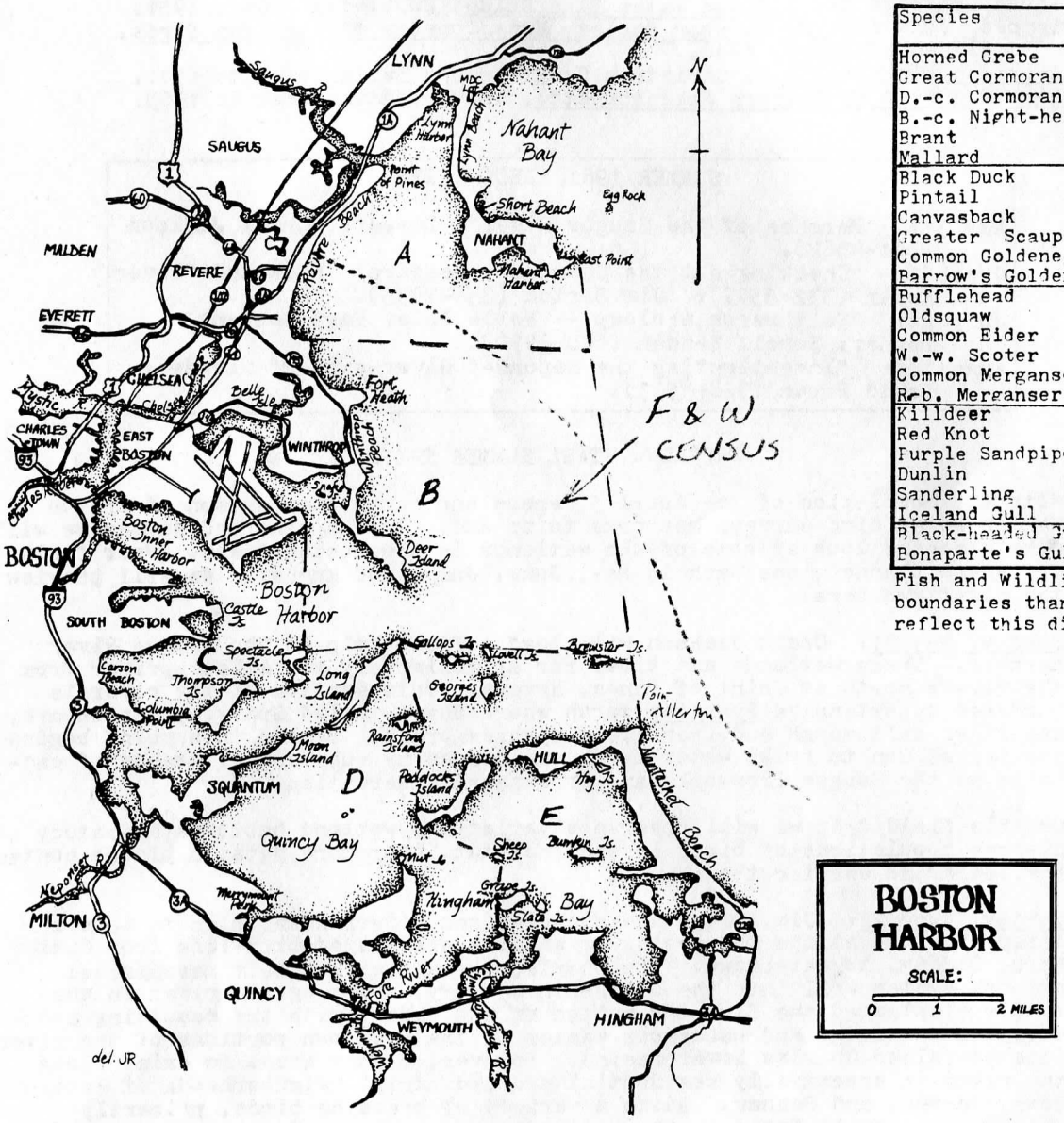
Sunday, June 21: Jim Barton and Nicholas and Oliver Komar plan to take a leisurely look at the Charles River and its associated bird-life from Cutler Park, Dedham, to Watertown. The Charles was an immense salt marsh/tidal estuary system well into the Ninteenth Century. Damming the river in the 1860's eliminated the flushing action of the tides, with the resulting accumulation of sludge and hazardous wastes in the downtown portions of the river (the so-called Charles River Basin). However, marshy areas do exist along the river in essentially residential and industrial neighborhoods of Watertown, Newton, and Dedham. Quite a variety of breeding birds, primarily passerines, can be found in the wetlands and woodlots adjacent to the river.

Join Jim, Nick, and Ollie for a summer look at an area in our own back yards. Please contact the leaders to request more information after June 1.

Tabulation for

Species	re B
Horned Grebe	
Great Cormorant	1
D.-c. Cormorant	
B.-c. Night-heron	
Brant	
Mallard	
Black Duck	17
Pintail	
Canvasback	
Greater Scaup	518
Common Goldeneye	5
Barrow's Goldeneye	
Bufflehead	12
Oldsquaw	
Common Eider	260
W.-w. Scoter	
Common Merganser	
R-b. Merganser	16
Killdeer	
Red Knot	
Purple Sandpiper	7
Dunlin	
Sanderling	
Iceland Gull	
Black-headed Gull	
Bonaparte's Gull	

Fish and Wildlife's Wa
boundaries than TASL's
reflect this discrepanc



WATER BIRDS IN BOSTON HARBOR

Tabulation for Census of February 8, 1981

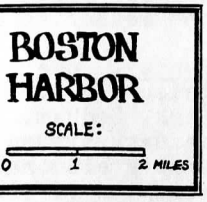
Species	Area B	Area C	Area	Partial total	TASL 2/17/80	F&W Jan. 81
Horned Grebe		1		1	18	
Great Cormorant	17	12	81	110	430	
D.-c. Cormorant		1		1		
B.-c. Night-heron					1	
Brant			490	490	1100	73
Mallard		1		1	90	
Black Duck	172	197	157	526	1450	197*
Pintail					1	
Canvasback					9	
Greater Scaup	5188	87	775	6050	3000	5300
Common Goldeneye	52	300	376	728	650	106
Barrow's Goldeneye					3	
Bufflehead	125	216	428	769	800	126
Oldsquaw					2	
Common Eider	2600			2600	7000	5920
W.-w. Scoter					33	3175*
Common Merganser					23	
R.-b. Merganser	161	79	593	833	700	38
Killdeer					1	
Red Knot					5	
Purple Sandpiper	75			75	15	
Dunlin					140	
Sanderling					2	
Iceland Gull					2	
Black-headed Gull					5	
Bonaparte's Gull					7	

Fish and Wildlife's Waterfowl Census has somewhat different boundaries than TASL's (see map). Starred counts (*) may reflect this discrepancy more than other counts.

WATER BIRDS IN BOSTON HARBOR

Tabulation for Census of March 8, 1981

Species	Area A	Area B	Area C	Area D	Area E	Total	TASL 3/16/80
Common Loon	1					1	1
Red-throated Loon							1
Red-necked Grebe							4
Horned Grebe	9	14	4	12	48	87	51
Great Cormorant	114	188	100	229	726	1444	609
D.-c. Cormorant		2				2	
Great Blue Heron					1	1	
B.-c. Night-heron						1	
Canada Goose	1		1			2	33
Brant		24	150	1941	132	2247	1309
Mallard	10	6	21	25	2	64	43
Black Duck	42	180	298	391	117	1028	1527
Green-winged Teal				3		3	
Pintail							1
Canvasback				4		4	1
Greater Scaup		835	326	502	1000	2663	3629
Lesser Scaup							1
Common Goldeneye	338	294	99	454	362	1547	1133
Barrow's Goldeneye				3		3	1
Bufflehead	167	91	185	321	451	1215	1351
Oldsquaw	1	4			3	8	11
Common Eider	10	2100		11	8010	10131	6799
W.-w. Scoter	20	4	1	71	18	114	67
Common Merganser				17		17	
R.-b. Merganser	174	201	59	297	791	1522	1245
Killdeer							2
Purple Sandpiper	225	70		15		310	100
Dunlin	10					10	213
Sanderling						90	
Glaucous Gull	1			1		2	
Iceland Gull	1	1			1	3	1
Black-headed Gull							2
Bonaparte's Gull							2



Participants in the February and March 1981 TASL censuses:

NAHANT: George Gove, Bob Stymeist
WINTHROP: Jim Barton, Craig Jackson, Denise Braunhardt, Dave Lange, Tim Rumage, Hob Calhoun, Rhonda Rivers, Judy Blake
CENTRAL: Christine Newman, Soheil Zendeh
QUINCY: Dave Brown, Glenn D'Entremont, Lee Taylor
HINGHAM: Sibley Higginbotham, Neil and Sharon Osborne, Wayne Petersen, Robert Remmes

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TASL News is produced by Craig Jackson and Soheil Zendeh, with assistance from Elizabeth Bell. Artwork for this issue was contributed by Ted Davis and Denise Braunhardt. The map is by Julie Roberts.

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WATERFOWL AND THE FREEZE

What effect did this winter's freeze have on our waterfowl populations? This was the question I asked myself after the February TASL results were in. Relative to last winter there had been significant increases in some of the major waterfowl species. Greater Scaup, for example, doubled from last February. Other species, such as Brant and Black Duck, decreased to one-half or one-third previous counts. My first assumption was that the colder winter and its accompanying frozen bays and estuaries had forced a great number of waterfowl further south than their normal wintering grounds. Though further analysis of waterfowl populations somewhat confirms that assumption, the answer certainly does not seem to be that simple.

I have looked at several sets of figures to try to understand the waterfowl populations of this past winter. (Although Great Cormorants are not waterfowl, I have included them in this analysis since they are an important wintering water bird in Boston Harbor and along the New England coast.) To a large extent I have used our TASL data (see tables). Though it only covers a short time period, this data proved very useful because it is generally consistent: trips take place simultaneously, the same areas are covered by the same parties, and tide conditions are generally the same. I have also tried to correlate these figures with two other sources: Christmas Counts and Fish and Wildlife Surveys. These two sources cover the period from mid-December to early January, which was the beginning of the freeze.

At first glance it seems impossible to compare the February and March 1981 TASL data. After all, only three out of five parties made the February census, and the cold biting wind and miserable conditions made visibility extremely poor that day. In addition, a large part of the southern Harbor was still frozen in February. In contrast, for March the visibility was excellent, all water was open, and every party completed its census.

However, closer examination of the data reveals that the weather conditions in February may have compensated, at least in part, for our missed coverage. Specifically, the strong easterly winds concentrated most waterfowl in close to shore, thus negating our poor visibility. It is also likely that much of Hingham Harbor was frozen, and that waterfowl counts would have been low in that area anyway.

Great Cormorant and Common Eider seem to have been the least affected by freeze conditions. About the same number of both species were seen in March as in November. Both counts were low in February but are not indicative of true numbers. Cormorants were low because Shag Rocks were not censused; eider because of poor visibility. A rough estimate of 10,000 eider had been made the day before the census under ideal conditions. The January Fish and Wildlife count for eider is also remarkably similar to our November and March counts. What is surprising is that, according to Fish and Wildlife figures, in 1981 Maine had 1½ times as many eider as did Massachusetts. In contrast, last year, during a much milder winter, Massachusetts had three times as many eider as Maine.

Brant and Black Duck populations, on the other hand, appear to have been strongly affected by the freeze. February counts of both species were low: Brant down to 490; Black Ducks below 200 in each area censused (cf. 754 in

Quincy alone last February). Both populations increased significantly in March. However, in the case of Black Duck, the March population was still only two-thirds last March's, and almost one-half the November Black Duck count. On the other hand, the Brant population in March 1981 was nearly double all previous TASL censuses!

Red-breasted Merganser and Bufflehead populations show another pattern. Both had high counts in November; their numbers were nearly halved by Christmas Count time. Numbers in February were similar to the Christmas Count, and populations doubled by March, as migration got under way. If Fish and Wildlife figures are any guide, the numbers of these birds took a further sharp dip in January, during the freeze. However, as has been noted in TASL News before, since goldeneyes, Buffleheads, and Red-breasted Mergansers tend not to raft, and since the females of all three species are dark and less noticeable in the water, it seems likely that Fish and Wildlife often misses many of these birds in their surveys, particularly if the seas are rough.

Both Common Goldeneye and Greater Scaup had low counts during November, relative to all other TASL surveys except for April 1980. By the time of the Christmas Counts both had more than doubled their numbers. Both also remained constant through February (Greater Scaup totalled an impressive high of 6000), but whereas scaup numbers then dropped to about half as many by March, goldeneye numbers doubled. Fish and Wildlife reported no Greater Scaup in Maine this year. Did extensive coastal ice force these birds south? This would help to account for the larger numbers present in Massachusetts and particularly in Boston Harbor, one of their prime locations in the state.

Evidently, one cannot just say that "the colder the weather, the further south waterfowl will winter." Dabbling waterfowl, which feed on underwater vegetation, may be forced further south by frozen bays and estuaries. Birds that feed in deeper water may not be affected greatly; perhaps they merely shift their resting grounds. The extreme weather conditions in February on the census day resulted in an especially high number of Common Goldeneyes being found in the Central Harbor, while much lower numbers were found in Winthrop (and those birds were in sheltered localities).

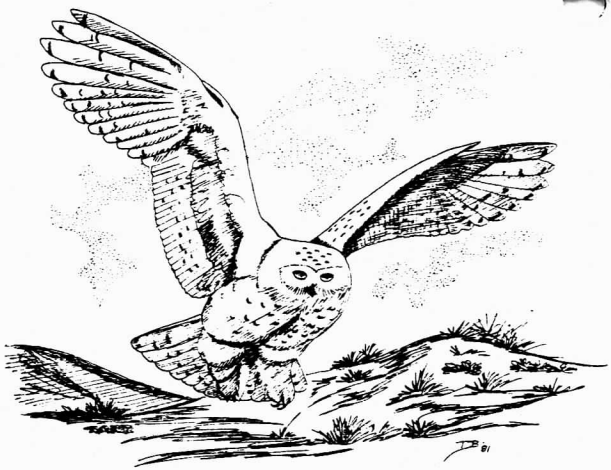
Many factors affect waterfowl distribution in our area. The effect people have on the birds' environment was especially evident in the Quincy area during the March census. Observers there had noted especially high numbers of feeding waterbirds in a large circle around Nut Island. It was only two weeks later that the reason for this phenomenon became clear. A report came out that there had been a major seepage of effluent from the sewage treatment plant.

Perhaps the most important thing I have learned is how useful records can be, if data are kept in a consistent manner. I have been especially pleased that TASL data have proved to be very useful, and feel that continuing our Harbor surveys will help us get a much better understanding of wintering water bird populations and dynamics in Boston Harbor. We encourage those who have not participated in TASL surveys to join us; even more importantly, we encourage bird clubs or other interested groups to start making similar surveys and censuses in their own coastal areas. C. J.

S P E C I A L T A S L P R E S E N T A T I O N

"Observing Owls: Studies Made Last Winter"

Trailside Museum, Sunday, April 26, 1981, at 7:00 PM



Discussion and slides presented by John Andrews, Lillian Brown, and Don Stokes on the Lexington Long-eared Owls, and by Dave Brown on the Short-eared and Snowy Owls at Squantum.

The Trailside Museum is located on Canton Avenue (Route 138) in Milton one mile north of Route 128 (Exit 64N).

Donation: $1

NEXT HARBOR CENSUS: APRIL 5, 1981

Inquiries about the Harbor Censuses, as well as other TASL actvities, should be addressed to TASL Coordinators:

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

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