

52
JAN 81

52

TASL News



22 Almont Street
Malden, MA 02148

NEXT HARBOR CENSUS: FEBRUARY 8, 1981

Our thanks to the following participants who made the November 23, 1980 TASL census possible:

- NAHANT: Chris Floyd, Bill Foley, George Gove, Dave Lange
- WINTHROP: Jim Barton, Barbara Gard, Elizabeth Bell, Craig Jackson, Fay and Peter Vale
- CENTRAL: Christine Newman, Soheil Zende
- QUINCY: Dave Brown, Bob Campbell, Glenn D'Entrement, Kate Ellis, Priscilla Jenkins, Nick and Oliver Komar, Mimi Murphy, Leif Robinson, Mike Sharpe, Lois Tarlow, Ruth Walter, Barbara Willis, Ruth Wright
- HINGHAM: David Clapp, Sibley Higginbotham, Jack Moore, Wayne Petersen

Artwork for this issue of TASL News was contributed by Denise Braunhardt and Michael Payne. The map is by Julie Roberts.

TASL News is produced by Craig Jackson and Soheil Zende, with assistance from Barbara Gard, Fay Vale, and Leif Robinson.

January 1981



COMMON GOLDENEYE (BUCEPHALA CLANGULA)

The Common Goldeneye is sometimes called the "whistler" because of the sound produced by the pinions (wing feathers) when the birds are flying overhead. The sound is often recognized by good birders or hunters even if the bird is not visible, and is sometimes described as comparable to that of a rock skipping over the surface of the water.

French residents of Southern Labrador have another name for the goldeneye. They call it "le plongeur" (the plunger) because of its incredible ability at diving. These birds are able to rise directly up out of a dive, opening their wings and taking off into the sky. The reverse is also true. They have been seen dropping from the sky like a bullet into the water and directly diving under the surface. The following account by J. G. Millais (1913) illustrates this skill.

I was collecting birds one day in February,..., when I heard the sound of goldeneye, accompanied by a peculiar hum of something passing through the air. On looking up I was just in time to see the interesting spectacle of a peregrine making a stoop at three goldeneyes. The ducks at this moment were high, I should say 80 yards in the air, and closed their wings as they heard or saw the peregrine coming, and dropped as if shot to the surface of the water. On striking the water there was no pause, they just passed out of sight, rising nearly 100 yards away, and flying low over the water. ¹

Males are crisply black and white. They have black heads with a green gloss, a rather short bill, and a white, almost circular cheek patch on their faces which looks like an eye patch from a distance. The back is black with white and black striped markings in the wings. They are all white on the breasts and belly and have bright orange feet.

The females have ruddy brown heads and are more dully gray-colored all over than the males, with light breast feathers and dark upper back feathers. The female also has a white or light neck-ring.

NOTICE

Your 1980 TASL News subscription expires with this issue. We hope that you have found our newsletter worthwhile, and invite you to resubscribe. We request a \$2.00 donation to cover costs; larger gifts are very welcome. Please make checks out to Craig Jackson and mail to 22 Almont Street, Malden 02148. Thank you.

These birds are active daytime feeders that have been seen foraging for aquatic food in depths of 3-20 feet; they prefer waters less than 5 feet deep and only go deeper when shallower waters are frozen. Goldeneyes generally feed on crustaceans, especially crabs and crayfish, insects, mollusks, and some plants; however, it has been noted that they seem able to survive any type of available food.

Mating begins in February and usually ends in late March. The social displays of the male Common Goldeneye and the courtship rituals of both birds have been called spectacular, diverse, and more complex than those of any other North American waterfowl.

The display begins with the male charging about on the water actively chasing other males. Later, he stretches his head forward along the water, then throws it rapidly back and upward with his bill pointing towards the sky. During this movement he utters a loud rasping sound. He then swings his orange feet forward, sending up spray in front of him. The female mating or courtship posture is to lie limply as if dead on top of the water.

While the female is thusly occupied, the male is bathing, dipping, shaking his bill in the water ("water-twitching"), and rolling his cheeks on his shoulders. Just prior to mounting, the male performs a vigorous series of "water-twitching" movements, preens suddenly, and momentarily and immediately approaches the female in a "steaming" fashion (head up and "full-speed ahead"). During copulation the male normally shakes his wings one or more times, and before releasing the female he pulls her around in a partial or complete circle. He then swims away, with his head feathers fluffed, performing lateral head-turning movements while uttering low grunting sounds.²

Goldeneyes' preferred breeding habitat is generally ponds and streams that have marshy shores with adjacent stands of old hardwoods to provide nesting sites. (They also nest in available nesting boxes.) They usually lay 7-15 pale green eggs, at laying intervals of 1½ days, in a mass of down, in tree cavities which are sometimes as high as 60 feet off the ground, but the more usual height is 18 feet. Incubation lasts 27-32 days. These cavities have been as much as 3 or 4 feet deep and observers have heard the ducks clambering up in the inside of the tree to get out of the nest. R. A. Gilbert's account of the young leaving the nest was especially delightful to me.

At 6:45 the old duck appeared at the entrance to the nest where she sat for five minutes moving her head continually and looking about in every direction included within her field of vision; then she sank back out of sight, reappearing at the end of a minute and looking about as before for another five minutes. At the end of this second period of observation she flew down to the water and swam round the stub three times, clucking and calling. On completing the third round she stopped directly under the hole and gave a single loud cluck or call, when the ducklings began scrambling up to the entrance and dropping down to the water in such quick succession as to fall on top of one another. They literally poured out of the nest much as shot from one's hand. One or two hesitated or paused for an instant on reaching the mouth of the hole, but the greater number toppled out over the edge as soon as they appeared. All used their tiny wings freely, beating them continuously as they descended. They did not seem to strike the water with much force.³

Dr. W. N. Macartney (1918) described them falling out of their nest. "Not unlike a flock of butterflies, they came down pell-mell, fluttering and tumbling, some of them heels over head, until they reached the ground unharmed."

In North America, the Common Goldeneye's breeding range is nearly transcontinental, generally following the distribution of boreal coniferous forests. They are found in Canada from British Columbia to the Maritime Provinces and also in some New England States. The density of population has been reported as one nesting pair per hundred acres of swamp.

In winter they are found in salt bays and along ocean coasts, where at dusk they gather in large rafts well away from shore. In the morning they come inshore and then scatter to feed. They are primarily found along the Atlantic Coast, where almost half the continental wintering goldeneyes were found in the late 1960's.

Barbara Gard,



Footnotes

1. Bent, 1962, p. 9.
2. Johnsgard, 1965, p. 482.
3. Bent, 1962, p. 5.
4. Ibid., p. 6.

Bibliography

- Bent, A. C., Life Histories of North American Wild Fowl, Part II, Dover, New York, 1962, pp.1-14.
- Johnsgard, Paul, Waterfowl of North America, Indiana University Press, Bloomington, 1975, pp.472-483.
- Peterson, Roger Tory, A Field Guide to the Birds, Houghton Mifflin, Boston 1947, and 1980.
- National Audubon Society, Field Guide to North American Birds, Alfred A. Knopf, New York, 1977.
- U.S. Fish and Wildlife, Ducks at a Distance, U.S. Government printing office, 1978 0-247-077.

YEAR OF BOSTON HARBOR: A WINTER OVERVIEW

It's by now a familiar scenario to at least the fifty people who participated in the Boston Harbor winter censuses: Friday before the census some nasty weather dumped six or eight inches of snow on Boston. By Saturday the skies began to clear; Sunday dawned cold and "brisk," as New Englanders like to call howling nor-westerly winds. But the loyal TASLers were out censusing on schedule, counting up the ducks, all the while looking forward to hot chili at the compilation.

Despite vagaries of weather and birds, our Harbor surveys in 1980 were very successful. We learned about and documented both the large number of water birds and the areas of the Harbor in which they congregate. We also had our share of rarities: Mew Gull, Barrow's Goldeneye, and King Eider. However, our most interesting find was an extremely high count of Great Cormorants in November.

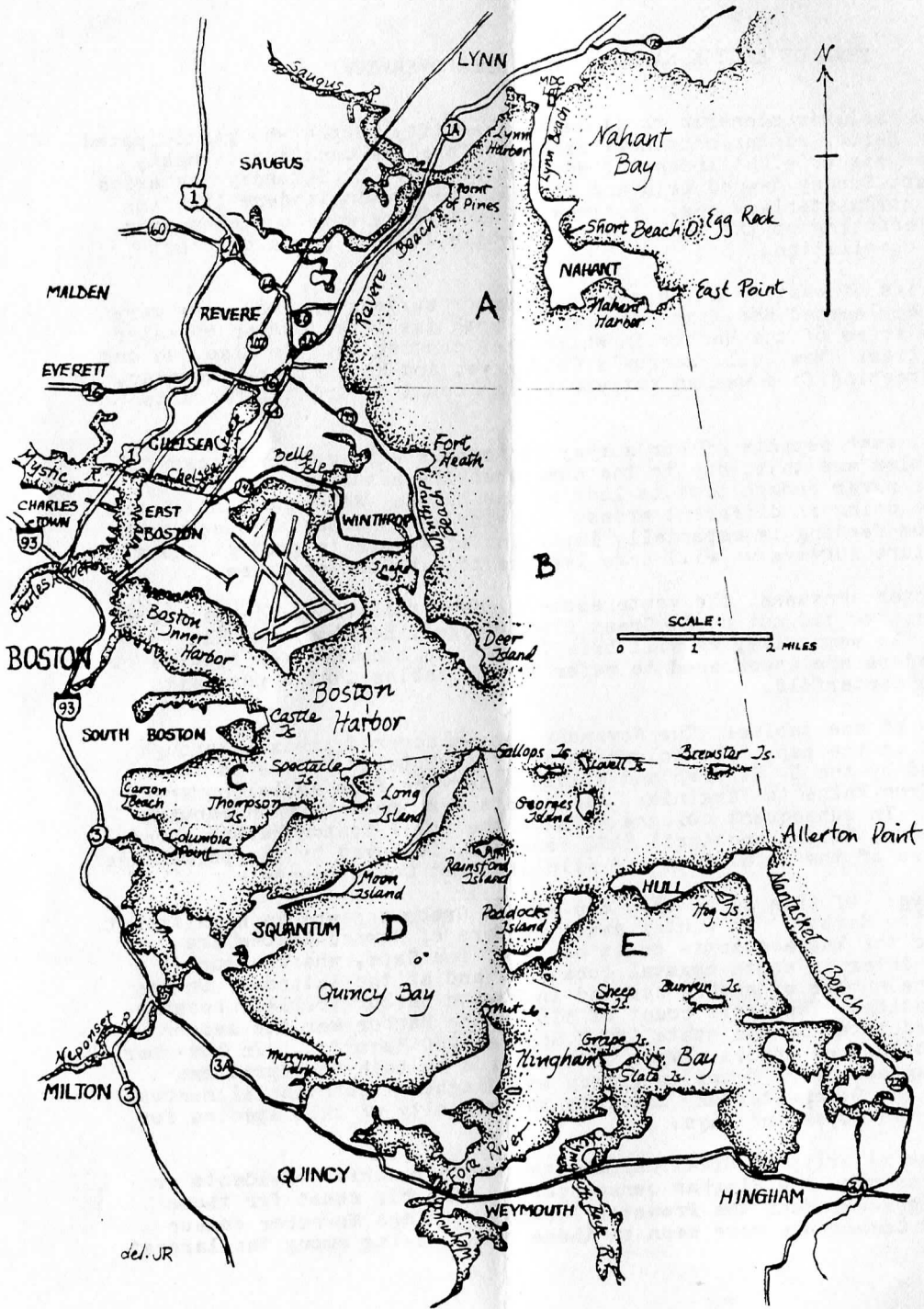
Unfortunately, some aspects of our survey and census were not so successful. The chief problem was that, due to the comprehensive nature of the survey, there just was never enough time to look at the birds. We did not note what the birds were doing in different areas. Knowing which areas are used most extensively for feeding is especially important if we are to protect these areas. In future surveys we will urge leaders to make better notes.

During the winter censuses, the venturesome birders tallied up 51 species of water birds. We did not count Great Black-backed, Herring, and Ring-billed Gulls. To summarize, we will briefly discuss a half-dozen species of birds. Readers are encouraged to refer to the tables that appear with the map in the centerfold.

An explanation of the tables: The November census covered Areas A through E as indicated on the map. The column marked "F&W Totals" refers to the counts compiled by the U. S. Fish and Wildlife Service from aerial surveys of waterfowl from Maine to Virginia; All counts were made between January 1 and 8, 1980. In subsequent columns we show the total Boston Harbor counts from the February, March, and April TASL censuses, followed by the percentage these counts are of the total Fish and Wildlife East Coast counts.

ns and Grebes: Of this group only the Horned Grebe appears in significant numbers in Boston Harbor. In winter small numbers of Horned Grebes are scattered along the Massachusetts coast north of the Cape, whereas much larger flocks winter in south coastal locations and at the Islands. On the March census the number of grebes counted in Boston Harbor tripled, because of spring migration. The April count of 116 in the Harbor was the season's highest reported total in the state (BOEM Spring 1980 Records). In November, TASL tallied 342 Horned Grebes. Most of the birds on both the April and the November censuses were found in Quincy and Hingham. Substantial numbers in Lynn Harbor and Dorchester Bay indicate the affinity of this species for shallow, protected coves and bays.

Cormorants: The majority of Great Cormorants, whether winter residents or migrants, were seen by the Hingham census party. The big roost for these birds is on Shag Rocks near the Brewster Islands. On the November census over 1000 Great Cormorants were seen on these rocks, being among the largest



WATER BIRDS IN BOSTON HARBOR

Species	TASL 11/23							F&W totals Jan. 80	TASL 2/16		TASL 3/16		TASL 4/13	
	Nahant Bay	Area A	Area B	Area C	Area D	Area E	Totals		#	%	#	%	#	%
Common Loon		4			5	6	15			1			2	
Red-throated Loon		4			3		7			1				
Red-necked Grebe						1	1			4			4	
Horned Grebe		38	2	41	71	90	342	18		51			116	
Pied-billed Grebe						1	1							
Great Cormorant	90	11	51	17	315	1018	1412	430		609			2	
D.-c. Cormorant		1		2	10	10	23						556	
Great Blue Heron			4		2	6	12							
Snowy Egret							6						23	
B.-c. Night-heron						6	6	1		1			16	
American Bittern						1	1							
Canada Goose						85	85	742503						
Brant					1110	127	1237	67742	1100	1.6	1309	1.9	1186	1.8
Snow Goose						2	2	92006						
Mallard			35	13	20	3	71	114585	90	-	43	-	29	-
Black Duck		71	292	368	672	460	1863	193202	1450	.8	1527	.8	294	-
Pintail								13885	1	-				
Blue-winged Teal							0						1	-
Redhead								12095					1	-
Canvasback								79303	9	-	1	-		
Greater Scaup		170	280	401	272	1331	2454	167011	3000	1.8	3629	2.2	41	-
Lesser Scaup														
Common Goldeneye		14	106	59	161	154	494	28490	650	2.3	1133	4.0	41	0.1
Barrow's Goldeneye									3		1			
Bufflehead		262	139	152	497	580	1630	37572	800	2.1	1351	3.6	699	1.9
Oldsquaw					36	23	59	12666	2	-	11	-	5	-
Common Eider		1151	7900	1	42	256	9350	135793	7000	5.2	6799	5.0	426	0.3
King Eider														
W.-w. Scoter		306	75	6	317	26	732	39375	33	0.1	67	0.2	9	-
Surf Scoter	1					2	2							
Black Scoter			1			6	7							
Ruddy Duck			2				2	31898						
Hooded Merganser			4				4							
Common Merganser														
R.-b. Merganser		71	325	183	909	1108	2596	49066	700	1.4	1245	2.5	273	0.6
American Coo				2			2	16415						
Shorebird (sp.)													200	
Killdeer									1		2		12	
B.-b. Plover		5	7		36		48							
Ruddy Turnstone		2	4				6							
Willet					1		1							
Greater Yellowlegs					3		3						14	
Red Knot			2				2		5					
Purple Sandpiper		120	331		7	50	508	15		100			300	
Dunlin	225	13	225		212		450	140		213				
Sanderling	101	12	3		8		23	2		90				
Iceland Gull								2		1				
Mew Gull													1	
Black-headed Gull			1				1	5		2				
Bonaparte's Gull	15	3	29		2	21	55	7		2				
Black Guillemot	1													

Nahant Bay was partially censused by the Area A party.
Harbor totals do not include Nahant Bay data.

concentrations of Great Cormorants ever tallied in the United States.

Brant: Surprisingly, all four TASL censuses tallied up around 1200 Brant in the Harbor. Although by April most species of waterfowl had clearly migrated, Brant were still here in undiminished numbers. The reason is that Brant breed farther north than any other waterfowl except for Oldsquaw. Their migration schedule reflects the fact that they can't find their breeding grounds sufficiently free of ice any earlier than June.

Brant choose their winter quarters carefully. Their main requirements are open shallow water, and eel grass or sea lettuce. They are primarily found in Quincy Bay and Hingham Harbor, though hundreds may occasionally be found at Point of Pines, Revere; Wood Island Marshes, west of Logan Airport; and Snake Island in Winthrop. Other large concentrations in the state occur at Plymouth Beach/Duxbury, and in Cape Cod Bay off Brewster.

Greater Scaup: Second in numbers only to Common Eider, the wintering scaup of Boston Harbor exhibit extreme flock behavior. These birds are commonly seen roosting or feeding in dense flocks in Lynn Harbor and Revere Beach, around Logan Airport, Dorchester Bay, and Quincy Bay. By early April, most of these ducks have departed for their breeding grounds in the Canadian Northwest Territories, Yukon, and Alaska.

Common Goldeneye: Our mid-February count was 650, whereas Fish and Wildlife counted no more than 250 in early January. We believe our count to be the more accurate one for two reasons: Ground observers can see female goldeneyes much more easily than aerial surveyers. Also, as goldeneyes scatter widely to feed, ground observers are likely to pick up and count small groups and individuals much more accurately than an observer in a fast moving plane. See the article in this issue for more information on goldeneye.

Common Eider: According to the U. S. Fish and Wildlife censuses, in 1979 and 1980 over 70% of all U. S. East Coast eider are found off the coast of Massachusetts. See table:

	1979		1980	
	#	%	#	%
Massachusetts	84679	73.0	98900	72.8
Maine	30915	26.6	36209	26.6
New Hampshire	357	0.3	684	0.5
Rhode Island	45	0.03	0	0
TOTAL EIDER	115996	100.0	135793	100.0

The eider begin arriving in Boston Harbor in early November; from then until mid-December immense migrant flocks of 10 to 18 thousand birds are seen in the main shipping channel near the Brewster Islands.

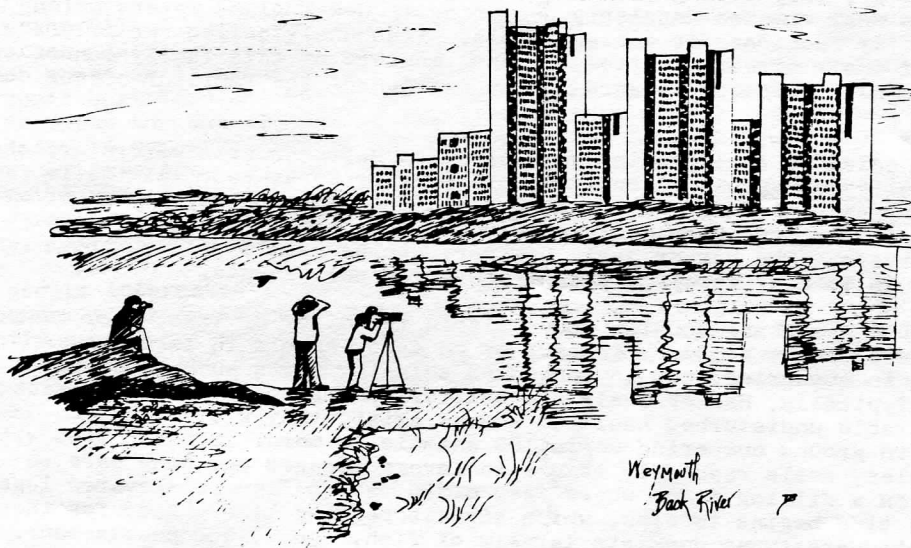
During the winter, eider populations and their locations change a great deal in response to ice conditions as well as their depletion of mussel beds. In Boston Harbor in 1979, eider populations declined from 14000 in early January to 9000 in late February. In 1980 the February and March censuses both tallied up about 7000 eider.

Clearly, the 7 to 14 thousand eider resident in our area during the past

two winters represent 5 to 10% of the entire East Coast population.

During the November census my friend Chris and I, while driving around that urban wasteland called Columbia Point, came upon a small band of Horned Grebes floating not fifteen feet from shore. Reflected in the calm waters of Dorchester Bay, totally dominating the little black-and-white birds, was a giant, anonymous, rectangular apartment building. A rat scurried about in the junk lying on the shore. Those grebes and the Brant, the scaup and the other birds of the Harbor travel thousands of miles from the interior of the continent and arctic Canada to spend a few months at our doorstep; our guests, so to speak. They seem to put up with rats and apartment buildings, but oil spills, heavy metal pollution, and destruction of wetlands will destroy them. TASL and other coastal survey projects are first steps in acknowledging our stewardship over so much life on this continent.

C. J. and S. Z.



BIRD OBSERVER OF EASTERN MASSACHUSETTS

Since 1973 Bird Observer, a bimonthly magazine, has been publishing records of eastern Massachusetts bird-sightings. Each issue features an article on where to find birds in this state (and elsewhere). The December 1980 issue has a lengthy article by Wayne Petersen on birding the Scituate area. Other pieces on field problems, ornithological research, and controversial subjects such as birding etiquette also appear in the magazine.

Annual subscription to Bird Observer is \$7.50. If you are interested in subscribing, please mail your check to: Bird Observer, Inc., 462 Trapelo Road, Belmont, MA 02178.



HARBOR SEAL (PHOCA VITULINA)

Wayne Petersen

Since its inception, the Boston Harbor TASL program's major objective has been the assessment and censusing of water bird populations, as well as the establishment of usage areas and seasonality of occurrence for a variety of bird species. Along with its bird populations, Boston Harbor and its adjacent waters also harbor a wintering population of pinnipeds, better known as seals. Seals, like whales and dolphins, are marine mammals; however, they belong in their own taxonomic order called Pinnipedia. All of the seal species regularly occurring in New England waters belong in the family Phocidae, or earless seals. Frequently called "wrigglers" because of their hitching motion on land, members of this family cannot turn their hind flippers forward in the fashion of the familiar circus sea lion.

The two species of seal regularly recorded in Massachusetts waters are the Harbor Seal (Phoca vitulina) and the rare Gray or Horsehead Seal (Hali-choerus grypus). Because of its rare status and local distribution off Nantucket Island, the Gray Seal would not ordinarily be encountered by most observers. The Harbor Seal, however, can be seen easily by those hardy enough to make observations at preferred seal haunts.

While Harbor Seals are usually found within ten miles of land, they tend to congregate on rocky or sandy islands or on sandy shoals in large river mouths or in estuaries, not in congested shipping ports such as Boston Harbor. Typically, Harbor Seals are solitary animals; however, in areas where suitable undisturbed haul-out ledges exist, they will often concentrate in groups numbering up to 100 animals or more. Closely tied with tidal cycles, seals regularly return to favored ledges and sand bars to haul out on a falling tide, where they often remain like fur-covered logs until the tide begins to flow, which signals feeding time. Food for these well-adapted creatures consists largely of fish, squid, and crustaceans. It has been estimated that a seal normally consumes 6-10 percent of its body weight in fish per day.

The range of the Harbor Seal in the western Atlantic extends from Arctic waters south of New England and New York, and occasionally further south. Local seals begin to arrive from further north in October and generally depart by April. It is believed that most Harbor Seals wintering in Massachusetts waters are yearlings. Harbor Seal pupping, which occurs in late spring, seldom takes place south of New Hampshire (Isles of Shoals) and is more typical of Maine waters and those to the north.

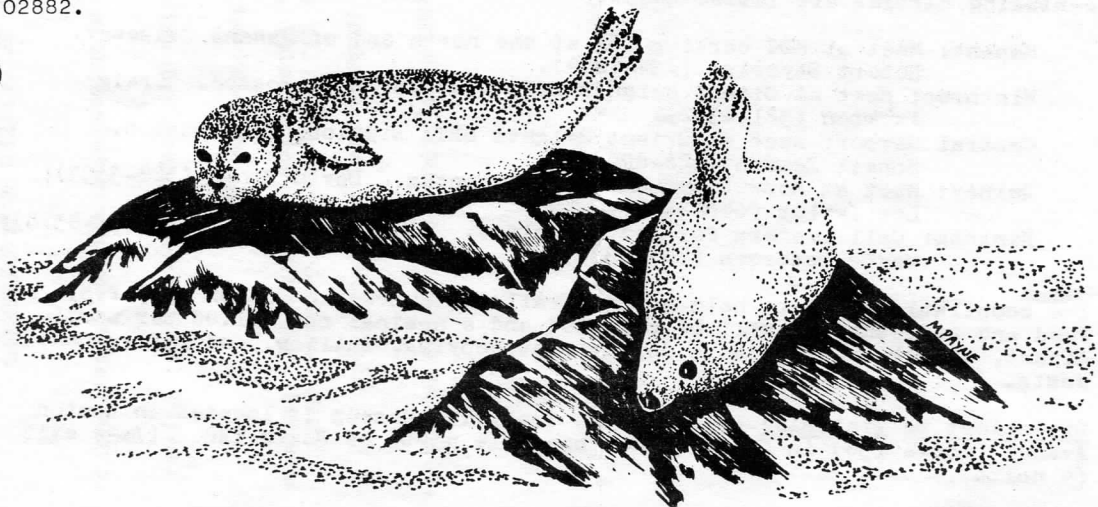
Harbor Seals can be recognized by their relatively small size (up to 6-6½ feet), and their greyish fur, variously marked with small black and white

spots. Fur color varies considerably, and it can often appear tan, brown, or reddish, irregularly blotched or spotted with black. Coloration also varies depending upon whether the fur is wet or dry. Hauled out, seals often resemble driftwood or rocks when seen from a distance. When swimming, their appearance suggests a dog's head in the water, although occasionally one sees just a rounded grey lump as the seal exposes only its nose and snout vertically in a posture called "bottling".

Harbor Seals now enjoy protection under the U.S. Marine Mammal Protection Act of 1972, but they face a variety of natural predators. At sea and in the Arctic, Killer Whales, sharks, and Polar Bears are all natural enemies. More subtle, but equally threatening to a seal population are the pressures exerted by a host of ectoparasites, heart and lung worms, and various pneumonia-like respiratory infections. The major seal epidemic of last winter, reported so widely in the media, was ultimately determined to be caused by an avian virus. In an apparently unique situation, this bird virus killed over 500 seals in Massachusetts last year. (This was a substantial portion of the population in Massachusetts waters.) Details of this phenomenon and its peculiar transmission are still being unraveled.

While the TASL surveys are unlikely to record significant concentrations of Harbor Seals, occasional individuals can be encountered. (Several places where small numbers can be seen regularly are the breakwaters off Simpson's Boat Yard and the tidal rocks by the Five Sisters in Winthrop, and Thompson and Nut Islands in the south harbor - Ed.) If one wishes to see seals in numbers, some of the better places to look are the off-shore ledges of Cape Ann, the rocks off Minot in North Scituate, Manomet Point, the north end of Monomoy Island off Chatham, New Island in Nauset Marsh, and Jeremy Point in Wellfleet Bay. If one has the opportunity to get there, impressive numbers may also be seen off Nantucket.

For people interested in making serious seal observations, there is an opportunity for amateurs to participate in a seal study being conducted jointly by the University of Rhode Island and the Manomet Bird Observatory. For information and details, write to Carol Price, Seal Census, Graduate School of Oceanography, University of Rhode Island, Narragansett, R.I., 02882.



TASL CALENDAR - 1981

We will be continuing our winter water bird surveys during 1981. We will be comparing our results with last year's, trying to determine whether our data from last year represented "normal" populations. Since comparison will be important, we will try to duplicate tide and time of year as closely as possible.

Since we also want to look more closely at the region's bird life, something our surveys have not permitted, we will be running additional field trips and seminars. As the harbor bird life is part of a larger ecological system, one that includes the rivers, inlets, and other wetlands, these field trips will examine some of these areas. Specifically, we will examine the bird life and overall ecological significance of the Saugus, Charles, and Neponset Rivers, as well as Belle Isle Inlet.

- February 8 - Survey and census of Boston Harbor water birds
- March 8 - Survey and census of Boston Harbor water birds
- April 5 - Survey and census of Boston Harbor water birds
- May 31 - "Marshes of the Saugus River" Leader: Craig Jackson (321-4382).
- June 21 - "Checking out the Charles" Co-leaders: Nick and Oliver Komar (332-5509); Jim Barton (354-7435).
- July 26 - "Salt marsh ecology - Belle Isle, East Boston" Leader: Soheil Zende (628-8990 work: 923-0941).
- August 9 - "Investigation of the Neponset River system" Leader: David Brown (328-3533).
- November ? - Survey and census of Boston Harbor water birds

All Boston Harbor water bird surveys will start at 8 A.M. They will last about six hours and will be followed by a compilation where food and refreshments will be available. The leaders and meeting places for the five censusing parties are listed below.

- Nahant: Meet at MDC parking lot at the north end of Nahant Causeway. Robert Stymeist (734-1289).
- Winthrop: Meet at Orient Heights MBTA Station, East Boston. Craig Jackson (321-4382).
- Central Harbor: Meet at Orient Heights MBTA Station, East Boston. Soheil Zende (628-8990).
- Quincy: Meet at Moswetuset Hummock, Squantum. David Brown (328-3533); Lee Taylor (646-2529).
- Hingham: Call leaders for meeting place. Sibley Higginbotham (472-8578); Wayne Petersen (447-0332).

The compilation will be held at the Trailside Museum in Canton at 3 P.M. Food and refreshments will be provided and a nominal fee, \$1.00 per participant, will be collected to defray photocopying, mailing, and refreshment costs.

Directions to Trailside Museum: The Trailside Museum is located on Canton Avenue (Route 138) in Canton about one mile north of Route 128. (Take exit 64 north).