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# TASL News

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



### GREATER SCAUP (Aythya marila)

They are here again, now that it is winter. From the far north, from as far west as western Alaska, they pour across the continent into our bays and coves and harbors. They come so far; is that why scaup seem always to rest when we watch them?

A medium-sized, compact, broad-bodied diving duck with a large wide bill and large round head, Greater Scaup is known simply as Scaup in the Old World. The New World boasts a Lesser Scaup, a bird slightly smaller and not so northerly in its year-round distribution. Hunters call both species "Bluebill" and let it go at that. Birders, though, try to distinguish the Lesser from the Greater by the gloss on the head (purple in the Lesser, green in the Greater); by the greyness of the sides (Lesser is greyer); by the length of the wing-stripe in flight (longer in Greater); and -- a risky proposition -- by habitat preference (Lesser in fresh water, Greater in salt). Adult males of both species have black heads and necks (with appropriate gloss), bright blue-grey bill, and golden-yellow eyes. The mantle, back, and scapulars are vermiculated white, giving a pale grey Females are mainly brownish-black with a broad band of white around the base of the bill. Juveniles closely resemble females, but the white band around the base of the bill is narrower, and often absent on the forehead. Perhaps the cleverest field mark for distinguishing the two species in any plumage is that, in profile, the head of the Greater Scaup appears rounded and bulbous, whereas the Lesser has a sharp little peak at the back of the head, giving it the angular look of a Ring-necked Duck.

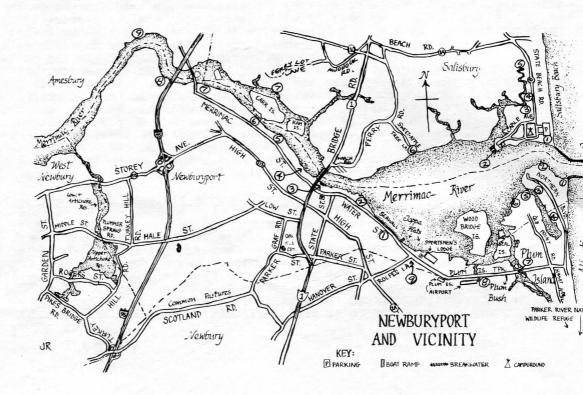
Both species nest in northern prairie and tundra habitats near fresh-water lakes; in migration and winter both can be found on fresh water as well as the ocean. Fresh Pond in Cambridge sports both in the fall, where they can be studied at close range. And in winter flocks of several hundred Lesser Scaup have been found in Nantucket Harbor. Yet it is safe to assume that the large flocks of scaup seen in Boston Harbor are mostly Greaters. Over 6000 were counted on the February 1981 TASL Census. On a typical day there are concentrations of one to five hundred scattered in Lynn Harbor, off Winthrop, around Snake Island, in Dorchester Bay off the L-Street Beach, in Squantum Cove, along Wollaston Beach, and off World's End.



Greater Scaup are said to be nocturnal in their feeding preference, flying in tight flocks from their day roosts to favorite feeding areas. Their food while here seems to be mostly bivalve mollusks, especially the blue mussel (Mytilus edulis). Although I complain about their relative inertness most of the time, there have been times when I've watched their incessant dives after food for hours, enjoying their rapid, powerful swoop forward and down, followed half a minute later by their bobbing reappearance. One such time I watched a most amusing performance as a submerged male would repeatedly come up directly underneath another male, who would literally run out of the way. I assume this to have been a display of male sexual rivalry, as the season was late March.

(The author wishes to thank Mr. Robert Stymeist for providing background material for this article.)

This issue of <u>TASL News</u> was produced by Soheil Zendeh, with assistance from Janet Heywood, <u>Craig Jackson</u>, Barbara Phillips, and Polly Stevens. Newbury-port map by Julie Roberts.



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A number of birdwatchers, including the author of the following article, spend much time birding Newburyport Harbor and the Merrimack River. Most go to only a few well-known spots, those places where the majority of birds are found. For the Newburyport Harbor TASL survey, however, all sections of the river had to be covered. The following article by one of the survey leaders describes the entire survey route (see accompanying map) and tells what birds are likely to be seen at various stops along it. (Ed.)

Last winter when I was asked to participate in the TASL Newburyport census of winter water birds on the Merrimack River, I thought that such a count would take only a few short hours. The census area covered that stretch of the Merrimack between its mouth and Amesbury. Surely a few stopping points on each side of the river would be enough to get views of all birds in the river. The first glimmering that not all would meet the eye with such a limited itinerary came when a scouting party casually met at 8:00 a.m. only to run out of daylight before it had covered the entire census area.

After that exploratory survey, it was decided that for the TASL survey three parties were needed: Bob Campbell and I were to cover the north side of the river from its mouth to Carr Island; two other parties were to cover the south side - Eric Nielsen and Celestyn Brozek starting at the Merrimack's mouth and working westward to the Sportsmen's Club, Herman D'Entremont starting at the seawall on Water Street and working westward to the last vantage point, the north side of the river beyond the "chain" bridge.

The following routes and viewing spots have been worked out for the Newburyport TASL survey, with twenty-six stops divided among the three parties. The stops for the north side party number seven. The first is the parking lot overlooking the breakwater at the mouth of the river in Salisbury. From there we count the birds on the north side of the Plum Island breakwater, make note of birds on the ocean side, and census birds which are visible from the middle of the river to the near shore. (Birds on the Salisbury breakwater are counted from Plum Island.) Birds encountered here include Common and Red-throated Loons, Horned Grebes, and the usual sea ducks such as scaup, Common Goldeneyes, Buffleheads, Oldsquaws, eider, scoters, and Red-breasted Mergansers. Along the breakwater we look for Purple Sandpipers, and Glaucous and Iceland Gulls.

The second stop is at the boat ramp, where Black Rock Creek enters the Merrimack. A flock of goldeneyes and/or scaup are usually in the river, as well as Buffleheads and Red-breasted Mergansers. Along Black Rock Creek, Black Ducks line up, with Mallards sparsely spaced among them. Common Mergansers are also sometimes in this creek.

The third through fifth stops are along Black Rock Creek, where we look for Black Ducks, Mallards, an occasional Bufflehead or goose, and sometimes Lesser Scaup. Green-winged Teal and Common Snipe may also be found.

Stop six allows us to observe the river directly across from Joppa Flats. From stop five, we go to Route 1A and turn left. After turning left onto Ferry Road, we take another left onto Sweet Apple Tree Lane and park at a small grassy opening. Here we follow the path toward the water which is roughly a quarter mile walk. (There can be good land birding along this path.) Once there we look for Oldsquaws and goldeneyes in the middle of the river. There will be Black Ducks, sea ducks, Common Mergansers, and an occasional small qull.

For our final stop (number seven) we return to Route 1A and turn left. Parking the car after the houses on Carr's Ferry Road, we walk through the pine woods, and past plowed and unplowed fields until the path ends. This mile long walk offers some land birding and brings us out to the north side of Carr Island. Common Mergansers, goldeneyes, and Buffleheads can be found here, and one can search east and west along the river for Canvasbacks, Pintails, and Green-winged Teal.

Eric Nielsen's party starts at the mouth of the Merrimack River on Plum Island and counts the birds on the south side of the Salisbury breakwater. Their second stop is at the parking lot on the northern tip of Plum Island. Black Ducks, goldeneyes, scaup, Red-breasted Mergansers, Oldsquaws, and scoters can be counted here.

Two stops are then needed to fully census birds within the area known as The Basin. From the second of these spots, the church parking lot, Barrow's Goldeneyes can be seen as well as Common Goldeneyes and Black Ducks. Black-bellied Plovers and Dunlins may also be observed along the edges of The Basin.

Returning to the main road, Eric goes back toward the Plum Island bridge. Taking Old Point Road on the right, he follows it to the end. Looking west, birds are counted on the eastern side of Woodbridge Island - mostly Canada Geese and Black Ducks. Other sea ducks including Oldsquaws are counted looking north.

The next stop is the Plum Island Bridge. Seal Island and birds south of Woodbridge Island are counted from here. Another stop along the causeway on the north side enables us to census the rest of the birds around Woodbridge Island. A final stop at The Sportsmen's Lodge completes the second party's route. Black Duck's and sea ducks are counted, along with any smaller gulls that are present. This is also a fine spot from which to view shorebirds.

The third party, Herman D'Entremont's, begins its part of the TASL census at the sea-wall boat ramp on Water Street. Oldsquaws, both goldeneyes, Red-breasted Mergansers, scaup and Buffleheads can be found here. Two more stops along the sea wall are needed to fully census this part of the river before the Route 1 bridge. At Cashman Park Herman scans carefully for Canvasbacks, Pintails, Common Mergansers, and Redheads.

Herman then makes a quick stop at Merrimack Court to count ducks between Ram and Carr Islands, and then takes time to scan from Gould's factory. Returning to Merrimack Street, he continues west. Turning right onto Jefferson Street he walks to the end and looks in both directions. Goldeneyes, Buffleheads, Common Mergansers, and sometimes Pintails or Canvasbacks may be seen along this stretch of the river.

Going west on Merrimack Street again, Herman turns right onto Main Street, parks, and then walks onto the bridge. By scanning from several spots on this bridge, it is possible to count all the birds around Deer and Eagle Islands.

The eighth stop is the "pumping station." Returning to Merrimack Street, Herman bears right onto Spofford Street. Another right is made onto Ferry Road and a final right is made immediately after crossing Route 95. This strategic stop is located on a sharp bend in the river. Common Mergansers are usually present with goldeneyes and Buffleheads. Wintering eagles may also be present and Herman keeps his eye out for one. Land birding is also good in the pines here.

Herman backtracks to Main Street where he crosses the bridge into Amesbury. At the next fork he bears left (still Main Street) and follows this to a park on the left. This is the final stop. This past winter ice usually formed as a solid mass here since it is beyond the reach of strong tidal action. As a consequence few ducks were counted here.

Using these twenty-six strategic spots there is no place where ducks can be hidden from view between the mouth of the Merrimack up to Amesbury. During times of major movement, the numbers of ducks can be dramatic. However, since this was only the first year that the census was taken, our knowledge of winter resident numbers is incomplete; where waterfowl are generally found, and whether hunting has an effect on how many birds can be found are questions which need further study to resolve.

Species	TASL 11/29/82	TASL 1/10/82	TASL 2/7/82		
Common Loon Great Cormorant	1 3		8		
Dc. Cormorant Canada Goose	18	163	391		
Brant Mallard	4	13	19		
Black Duck Green-winged Teal	1017	751 1	2236		
Canvasback Common Goldeneye Barrow's Goldeneye	45	33	552		
Bufflehead	136	71	100		
Oldsquaw Common Eider Ww. Scoter	10 25 2	13 26	135 158		
Hooded Merganser Common Merganser Rb. Merganser	10	38	41 153		
killdeer Bb. Plover Common Snipe Dunlin Iceland Gull Bonaparte's Gull	1 3 1 144 3	2 19	7		
TUTALS	1427	1134	3803		

Glenn D'Entremont

WATER BIRDS IN NEWBURYPORT HARBOR
Winter of 1981-1982



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## WATER BIRDS IN BOSTON HARBOR Winter of 1981-1982

Species	TASL 11/29/81	F&WS 1/6/82	TASL 1/10/82	TASL 2/7/82	TASL 3/7/82
Common Loon	6			1	2
Red-throated Loon	1			Table 1	
Red-necked Grebe	2			0.5	68
Horned Grebe	60		13	25	00
Pied-billed Grebe	1				
Cormorant (sp?)					
Great Cormorant	425		430	725	174
Dc. Cormorant	11			2	1
Great Blue Heron	1			3	3
Bc. Night-heron	1	and a strike			
Canada Goose			1	4	7
3rant	1697		1133	1626	1553
Mallard	63	100	51	147	49
Black Duck	1289	400	1571	1871	956
Gadwall	1				
Green-winged Teal	it				
	-		3	1	
American Wigeon		Service State	10		9
Canvasback	690	700	1299	3804	3635
Greater Scaup	160	trace	325	982	779
Common Goldeneye	100	trace	1	- 702	
Barrow's Goldeneye	822	0.7	500	1006	875
Bufflehead	022		500	1000	
Oldsquaw	6044	6100	3259	6922	311
Common Eider		0100	3239	0922	311
King Eider	2	500		370	
Scoter (sp?)		500	0.1	123	128
Ww. Scoter	1106		81		120
Surf Scoter	21		8	30	
Black Scoter	16				
Ruddy Duck					
Hooded Merganser	8		10	20	14
Common Merganser	La Conde		10	20	1024
Rb. Merganser	1007	100	562	1572	1024
Killdeer				1	
Bb. Plover	25				
Ruddy Turnstone	1			4 X44 5	
Shorebird (sp?)	1 1		6		
Greater Yellowlegs	1			110	330
Purple Sandpiper	8/			468	330
Dunlin	527		40		
Sanderling	5				
Glaucous Gull				46 - 61-11	
Iceland Gull			1		
Lesser Bb. Gull			1	1	
Black-headed Gull	3		3	1	
Laughing Gull	111				
Bonaparte's Gull	283		555	S-1-12	
Forster's Tern	1				
Black Guillemot	-				
DIACK GUILLEMOL					
TOTALS	14,384	7,800	9,857	19,713	12,74

Participants in Boston Harbor TASL Censuses (1981-82):
Karen and Alan Altman, Jim Barton, Fred Bouchard, Denise Braunhardt, Dave Brown, John Damian, Katherine Durham, Jerry Flaherty, Chris Floyd, George Gove, Janet Heywood, Sibley Higginbotham, Harriet Hoffman, Craig Jackson, Dave Lange, David Leland, Terry Leverich, Christine Newman, Bert Nickerson, Sharon and Neil Osborne, Wayne Petersen, Martha Reinstein, Mike Rezendes, Rhonda Rivers, Tim Rummage, E. Manning Sears, Mike Sharpe, Dorothy Skeels, Ruth and Bud Soper, Alan and Geraldine Stephens, Bob Stymeist, Lee Taylor, Sandy Thomas, Soheil Zendeh

During the winter of 1981-82, TASL expanded its harbor surveys. This past winter, in addition to the efforts of our loyal Boston TASLers, an equally faithful group conducted a similar survey in the Newburyport - Salisbury area. (See article this issue for details of the survey routes.) We also made two changes in the scheduling of our surveys. In past years we had made certain assumptions regarding the correlations of our survey in February with that of U.S. Fish and Wildlife Service, taken the first week in January. To ascertain whether these assumptions have been correct, and also to obtain data that could be compared more directly, we decided to initiate a January survey. At the same time we decided to drop our April survey since many species of water birds have already moved north in large numbers by that time.

In this article I would like to briefly discuss in general some of this year's survey results, compare these results with past years' and with those of U.S. F.&W.S., and make comparisons between the types and numbers of birds seen in Boston and Newburyport Harbors. To simplify my analysis, I have chosen the eight most common species found in each area, and constructed tables for each of them. These tables contain TASL data for each winter with that of Christmas Counts and of Fish and Wildlife. The Christmas Counts used are Newburyport, Greater Boston, and Quincy. The Greater Boston and Quincy counts when combined effectively cover the same area as does the Boston Harbor TASL Survey. However, the Newburyport Christmas Count area also includes the Parker River and ocean areas off Plum Island and Salisbury (areas that TASL does not census). Comparisons with Fish and Wildlife data are also not easy to make. Their Newburyport coverage is similar to the Christmas Count and thus creates the same problems. is denoted in the tables as F-1.) Boston Harbor is even more difficult to analyze since two different Fish and Wildlife areas are involved, F-3 and F-4. F-3 covers the entire coast from Broad Sound off Winthrop almost up to Gloucester, while F-4, which covers the rest of Boston Harbor, also covers areas past the Brewsters and as far south as Cohasset. These problems should be kept in mind when looking at the tables.

Although TASL tries to minimize variables in its surveys, by scheduling censuses according to tides and by covering the same routes, there is one variable over which we have no control - weather. There are three effects of weather that should also be kept in mind when looking at our results. First is the amount of icing that has occurred. Extreme or extended cold may freeze ocean or harbor waters causing some species to move southward. Conversely, warmer conditions will enable these same birds to stay further north. (For a detailed analysis of last winter's freeze, see TASL News, April 1981.) Second, high winds may force more water birds to seek shelter, in addition to creating choppy wave conditions, which make the birds difficult to count. The third effect of weather is simply the degree of visibility.

The winter of 1981-82 was milder than the previous year. This was best reflected by the high number of Brant that wintered in Boston Harbor. The comparative mildness of the winter may also have accounted for the low counts that were recorded in Boston Harbor for Black Duck, Greater Scaup,

#### COMMON WINTER WATER BIRDS IN BOSTON HARBOR

1979 - 1982

Species	Year	TASL	CHRISTMAS COUNTS		F&WS		TASL CENSUSES			
		Nov.	Boston	Quincy	F-3	F-4	Jan.	Feb.	Mar.	Apr.
Great	1979-80		116	602				430	609	2
Cormorant	1980-81	1412	126	337				110	1444	
	1981-82	425	117	263			430	725	174	
Brant	1979-80		170	1623	-	655		1100	1309	1186
	1980-81	1237		1107	95	73	es like	490	2247	562
	1981-82	1697	512	727	-	-	1133	1626	1553	
Black Duck	1979-80		1802	1516	1148	1204		1450	1527	294
	1980-81	1863	1000	1329	1116	197		526	1028	362
Duck	1981-82	1289	1406	950	800	400	1771	1871	956	1110
Greater Scaup	1979-80	Salva.	2233	2426	1300	3172		3000	3629	41
	1980-81	2454	4064	1432	5300	5300		6050	2663	190
Scaup	1981-82	690	2079	284	600	700	1299	3804	3635	
Common Goldeneye	1979-80		415	995	109	149		650	1133	41
	1980-81	494	373	489	133	106	<b>434</b> j.	728	1547	137
dordeneye	1891-82	160	401	486	trace	trace	325	982	779	
Buffle-	1979-80		594	467	129	81		800	1357	699
head	1980-81	1630	513	366		126		769	1215	1193
neau	1981-82	822	497	483	trace		500	1006	875	
Common	1979-80	Service L	1931	4292	1665	5915	-	7000	6799	426
	1980-81	9350	5704	947	12,775	5920		2600	10,131	497
Fidel	1981-82	6344	6682	3289	5500	6100	3259	6922	3117	
Rb. Merganser	1979-80		892	2197	45	39		700	1245	273
	1980-81	2596	440	737	185	185		833	1522	904
	1981082	1007	876	865	trace	100	562	1572		
THE R	1979-80			17,689	2962					
TOTALS	1980-81	21,036	12,220	6744					21,797	2,02
	1981-82		12,570	7347	· · · · · · · · · · · · · · · · · · ·		9279	1	12,113	

trace = 50 birds or less

Common Goldeneye, Bufflehead, and Red-breasted Merganser during November as compared with those of the previous year. It is probable that a number of birds further north had not yet come down since northern waters were still open. The low count of Great Cormorant made in November appears to have had a much different cause, however. The Hingham group was convinced that, due to gale force winds on the day of the count, large numbers of cormorants were hunkered down in the ledges on Shag Rocks; thus, most of them were not visible.

Although the winter was relatively mild, the days on which TASL counts were scheduled tended to have some of the worst weather! In November, as previously noted, gale force winds made long-distance viewing very difficult. This made accurate counting of cormorants on Shaq Rocks impossible but may not have affected the counts of other species as much since heavy winds often force water birds to seek shelter near shore. Of course, since the winds were from the northwest, it is also possible that birds which sought shelter on the lee of harbor islands were not visible. count day in January, although clear and again with strong northwest winds, also occurred near the beginning of an extreme cold wave. Since the ocean was still relatively warm, this created "sea smoke" or fog conditions over the ocean and thus, visibility was poor. The February count day was also cold and windy creating "choppy" conditions, but was probably the best of all our census days. Finally, conditions in March were so bad that the census was almost cancelled. (One group in Newburyport did cancel.) The day before there had been a major Nor'easter and the day of the count was very foggy. As a result, all counts for March are suspect.

There is a very obvious difference between the Boston Harbor results and those of Newburyport - Boston has a lot more birds! However, when one considers how much larger an area is included within the Boston Harbor count, this should not be surprising. We must look elsewhere for differences. Different species dominate the two harbors. In Newburyport, Black Ducks account for anywhere from 59% to 71% of the total water bird population. (I have ignored the March figure since the party which in all prior counts had recorded significantly greater numbers of Black Ducks did not cover their area that day.) In Boston, by contrast, Common Eider accounted for 30% to 78% of the birds throughout the winter. (Again, March data are discounted because of the poor weather conditions.) Other species are absent or nearly so, throughout the winter in one harbor while abundant in the other, e.g., Great Cormorant and Brant, which are scarce in Newburyport, and Canada Goose, which is practically non-existent in Boston Harbor. These differences are also shown by species which have large jumps during migration. Common Newburyport migrants rare to Boston are Common Merganser and Oldsquaw, while Boston counters with Greater Scaup and Horned Grebe. In contrast, Bufflehead, Common Goldeneye, and Red-breasted Merganser follow similar patterns in the two harbors - Bufflehead remaining relatively constant; Common Goldeneye and Red-breasted Merganser increasing significantly during migration. Undoubtedly, the availability and type of food resources of each harbor is the major factor that determines its water birds. However, other factors, such as depth of water and geographic location also play a part.

As previously stated, in prior years we have made assumptions regarding the differences between Fish and Wildlife and TASL data. Since the sur-

veys had been taken a month apart, the biggest assumption was that the February TASL survey could be compared. A second assumption we made was that since they conducted their survey from the air, F.&W.S would miss many of the females of non-rafting ducks. Last November we received a letter from the state waterfowl biologist, Mr. Heusman, stating that for the past two years, and probably again for the coming winter, due to air travel restrictions around Logan Airport, they had relied on ground-based observations for their surveys of some parts of the Boston area. Thus, by conducting a January census this year we knew that we would be able to compare our coverage instead of technique. A preliminary analysis seems to confirm that our coverage is indeed better, which should be no surprise since in covering Boston, for each census we spend at least 30 party-hours and make at least 85 stops! This past January we recorded significantly larger numbers than F.&W.S. for all species (and especially for nonrafting ducks), except for Common Eider and scoter. It is likely that many of their scoters were counted between Hull and Cohasset, which is outside our area. The discrepancy for eider is harder to explain. Although we felt that between our parties three thousand eider could not be missed, the fact that the Fish and Wildlife count correlates so closely not only with our November and February counts but also with the Greater Boston Christmas Count, convinces me that we must have missed the eider due to the strong northwest winds. Fish and Wildlife's count seems to have been made before the cold wave hit and thus the eider must not have been sheltered.

We hope to complete two more years of our harbor surveys. At the end of that time we will have complete data for five consecutive winters in Boston Harbor and will, we think, be able to make significant conclusions regarding its winter water birds. We will also have three years' data for Newburyport Harbor and three years in which we have direct, i.e., January, comparisons with U.S. F.&W.S Surveys. We hope you will join us and help by participating in this fascinating and exciting project.

Craig Jackson

COMMON WINTER WATER BIRDS
IN NEWBURYPORT HARBOR 1981 - 1982

Species	TASL	N'port Xmas Count	F&WS F-1	TASL Censuses		
	Nov.			Jan.	Feb.	Mar.
Canada Goose	18	3344	500	163	391	670
Black Duck	1017	6925	3100	751	2236	424
Common Goldeneye	45	405	200	33	552	742
Bufflehead	136	133	100	71	100	81
Cldsquaw	10	62	-	13	135	263
Common Eider	25	328	100	26	158	70
C. Merganser	-	163	-	38	41	102
Rb. Merganser	10	161	-	3	153	190

#### "A" AWARDS FOR FRIENDS OF BELLE ISLE

Two founders of "Friends of Belle Isle Marsh," Craig Jackson and Soheil Zendeh, were awarded Audubon "A" Awards for their work in preserving and protecting the marsh. The award ceremony took place on November 3, 1982 at the annual meeting of the Massachusetts Audubon Society.

Craig and Soheil wish to share this honor with all the people, in and out of FBIM, who have perceived the uniqueness and beauty of this marsh in the City of Boston, and have worked for its preservation and enhancement.



#### FIELD TRIPS AT BELLE ISLE MARSH, EAST BOSTON

The following field trips have been scheduled to start at 2 PM. Please meet at the entrance to Belle Isle Marsh Reservation on Bennington Street in East Boston. Dress very warmly and be prepared for light hiking. As the ground may be wet or muddy, boots are recommended. Also bring binoculars if possible; trip leaders may be able to provide an extra pair or two.

Field trips are free and open to the public.

Saturday, November 20, 1982

Saturday, December 11, 1982

Saturday, January 8, 1983

Saturday, February 19, 1983

Sunday, March 20, 1983

For further information please call any of the leaders:

Craig Jackson 321-4382 Kermit Norris 567-2339 Sobeil Zendeh 628-8990

#### MEETING LOCATIONS AND LEADERS FOR BOSTON HARBOR SURVEYS

- Nahant: Meet at MDC parking lot at the north end of Nahant Causeway. Robert Stymeist (734-1289); George Gove (729-1343).
- Winthrop: Meet at Orient Heights MBTA Station, East Boston. Craig Jackson (321-4382); Jim Barton (354-7435).
- Boston: Meet at Orient Heights MBTA Station, East Boston. Soheil Zendeh (628-8990).
- Quincy: Meet at Moswetuset Hummock, Squantum. Lee Taylor (646-2529); David Brown (328-3533).
- Hingham: Meet across the street from Burger King in Weymouth on Route 3A, between Fore River Bridge and Back River Bridge.
  Wayne Petersen (447-0332); Sibley Higginbotham (472-8587).

Participants should plan to meet leaders by 8 AM on the census dates. We expect each census to take about five hours and to be followed by a compilation.

To join the Newburyport Harbor Surveys, please call leaders:
Glenn D'Entremont (843-6988); Herman D'entremont (734-1289); Eric
Nielsen (661-7654).

#### CALENDAR FOR 1982-83 TASL WINTER HARBOR SURVEYS

November 13 (Saturday): Boston Harbor November 14 (Sunday): Newburyport Harbor

January 15 (Saturday): Boston Harbor January 16 (Sunday): Newburyport Harbor

February 12 (Saturday): Boston Harbor February 13 (Sunday): Newburyport Harbor

March 12 (Saturday): Boston Harbor March 13 (Sunday): Newburyport Harbor

TASL News

PIPD OPSERVER

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