

## THE SCREECH-OWL SURVEY PROJECT: PAST AND FUTURE

by Oliver Komar, Newton

The Eastern Screech-Owl (Otus asio) is a surprisingly abundant predator in eastern Massachusetts. It is extremely adaptable, nocturnally preying on mammals, birds, insects, reptiles, and amphibians. However, to find one without first attracting it through the aid of a tape recording or a whistled imitation of its calls (the playback technique) is an unusual event in Massachusetts. Furthermore, they do not fly over open fields at dusk as do other owl species, although they may be seen along the edges of the woods.

High levels of Christmas Count owling and participation on owl prowls conducted by local bird clubs indicated to Bird Observer's Field Studies Committee that many Massachusetts birders were venturing out at night to locate screech-owls using playback techniques. The Screech-Owl Survey Project was created in March of 1982 to convert this unorganized owling into a useful scientific data-collection effort. Over these past two years the effort has proved very successful, and a great quantity of data has been collected. Survey workers have gathered habitat information from 358 stations, and have located a total of 137 owls, producing a sizable data base. See BOEM 10(5):263 for a description of the survey project. Since that publication, the instructions for data collection have been modified to include any time of night and certain behavior details.

Past projects (five since March 1982) have been successful, although the two December projects attracted more participation than the three April projects combined. Certain comparisons of the two periods require more data, but others show very interesting differences, such as the ratio of red-phase to gray-phase owls. According to the data collected thus far, red-phase owls predominate in April, gray-phase in December! Pending further data collection, a complete analysis will appear in this journal. A copy of the current summary report (sent only to project participants) may be obtained by sending \$1.00 to Oliver Komar, 61 Wade St., Newton, Mass. 02161.

The Screech-Owl Survey Project is an example of using amateur birding to scientific advantage. The project utilizes techniques routinely practiced by birders to study an important and poorly understood member of our own ecosystem. Collecting the data can be rewarding for any birder or naturalist. In addition to screech-owls, participants have sighted or heard Great Horned, Barred, and Saw-whet owls, woodcocks, Red Foxes, and opossums during survey work. Many of the thirty-six participants have indicated that they enjoy the work and will contribute data again.

The Screech-Owl Survey Project will be continued regularly, at intervals of eight months, until enough data have been collected. Depending on the year, it will fall roughly on the first ten days of August and December, and the last ten days of April. The April period supplies breeding season data, and it is hoped that participation during that critical period will increase in future years. The next scheduled April survey is in 1985. The December survey, consistently successful because of its proximity to the Christmas Count, is also scheduled next for 1985. In 1984, only the new August survey is scheduled. This will be the first post-breeding season survey but may also be the most exciting and enjoyable, as temperatures will be warm and owls should be at the peak of their yearly population fluctuation. Many young owls should be about, as food supply is abundant during the summer months. It is hoped that participation in August will be the highest ever, since we have no data as yet for that time period. We encourage everyone who enjoys owling to contribute data or to learn the sport by joining other owlers. Simply contact the compiler (see announcement this issue) for information, instructions, and data forms. Past participants will find it easy to continue with the survey by returning to their previous stations, skirting the initial process of habitat classification at new locations.

Bird Observer's Screech-Owl Project is designed to determine the relative abundance of the Eastern Screech-Owl per habitat type. This information may be useful to environmental agencies to identify areas of ecological unbalance. For instance, a badly polluted watershed may be devoid of the owls, while a similar habitat in a healthy watershed may show an above average abundance for the species. Because the screech-owl is apparently the most abundant predator throughout much of its range in Massachusetts, it may be an excellent indicator species for the ecological well-being of an area. (Persons interested in analysing data, creating ways to use it, or publishing articles on the results of the survey, should contact the compiler, as volunteer workers are needed.)

Using survey data, we also may roughly estimate the total population of Eastern Screech-Owls in a given area. For example, April survey data indicate an average eastern Massachusetts breeding density of five pairs per square mile (provided all single owl responses represented a breeding pair). If each pair produces two young, an area the size of Newton (17.3 square miles) can be predicted to contain as many as 360 screech-owls in the month of August!! Please contact the compiler for data forms.

OLIVER KOMAR, active in BOEM's Field Studies Committee, began watching birds at age seven and in the twelve years since has birded across this country and in Mexico, Peru, Costa Rica, and Chile. His future plans include college with studies focused on ecology, but in the interim, he is busy with a

Newton Arts in the Parks production of West Side Story - acting, directing, singing, and dancing. He also works for a board-game company and is the assistant producer of a high school quiz tournament shown on broadcast television.

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## SCREECH-OWL SURVEY

August 3 - 13, 1984

**SCREECH-OWL SURVEY:** August 3-13, 1984, a new time period when temperatures are pleasant and screech-owls abundant. For current data forms, instructions, and information, contact: Oliver Komar, 61 Wade Street, Newton, MA 02161. Telephone: (617) 332-5509.

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### GOOD NEWS ABOUT PLUM ISLAND

The master plan for Parker River National Wildlife Refuge published in February states that the U.S. Fish and Wildlife Service will seek an off-island site for the refuge headquarters. This is good news for worried environmentalists and birdwatchers who were up in arms over the original (1980) proposal to locate the headquarters at the center of the refuge with a full-width paved access road leading to it. To insure that the fragile ecology of Plum Island will not be thus threatened again, Massachusetts Audubon Society and other concerned groups have located a suitable off-island site and are planning to secure it until the Fish and Wildlife Service can obtain funds for purchase of the land and construction of the headquarters there. This "watchdog" effort merits the support of every birder who has ever set foot on Plum Island.

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## **DON'T GO TO CANADA WITHOUT THESE BOOKS!**

Still available is Roger Burrows' *Birdwatcher's Guide To Atlantic Canada, Vol 1*: covers all islands and ferry routes in Canada's great Northeast (Newfoundland, Maritimes, Bluenose, Labrador, Coasts). *Volume 2* concentrates on Nova Scotia, Cape Breton, Bay of Fundy and is due out February 1. \$7 each postpaid, \$13 for two, \$20 for three. Fred Bouchard, 9 Walnut St., Belmont 02179 MA. The book is a thorough, insightful companion for birdseekers, well-indexed and illustrated by the ornithologist/author, Vol 1 has 175pp; Vol 2 may exceed 200pp.