

FOREWORD

You are holding in your hands the first in a new generation of wildlife volumes—a book that documents the present distribution of all the nesting birds of Vermont and lays a firm basis for detecting the many changes that will take place in the years to come. Man is altering his environment at an ever accelerating pace, and many of the renewable resources that we have taken for granted in the past will not remain our legacy for the future. We have arrived at the time when it becomes imperative to resort to land-use planning in order that representative samples of our various native habitats will remain intact for the benefit of future generations.

Vermont is blessed with an abundance of rural land, including extensive forests, a mosaic of fields and brushlands, streams that flow throughout the year, and a scattering of lakes and marshes. Although most of this heritage is not under an immediate threat, we are aware of many environmental influences that gradually reduce biotic diversity and that combine to make it increasingly urgent that sound planning for the future be undertaken. Consider, for example, the loss of elm trees from the introduced Dutch elm disease; the spruce forests defoliated by spruce budworm; periodic defoliations by the introduced gypsy moth; the disappearance of forest, orchard, farm, and roadside birds from use of pesticides; the draining of wetlands for agriculture; decline of productivity in lakes and forests as a result of acid rain; roadside pollution from lead and other heavy metals; eutrophication of lakes from agricultural runoff; and loss of topsoil from poor soil conservation practices. Consider also the trend toward monoculture or at least toward more aggressive management of our forests; shorter rotation cutting with a resultant decrease in tree cavities; the direct competition for nesting cavities between introduced starlings and House Sparrows and such native species as flickers and bluebirds; the decline in neotropical migrants as our forests become increasingly fragmented; and also the threat of water contamination from toxic waste disposal. These are but a few examples of the forces that are acting to reduce biotic diversity in Vermont and across the whole continent.

Of all the wild animals that might serve as indicators of environmental change, birds are uniquely suited for study. They are highly mobile, have specific habitat requirements, and react rapidly to changes in their surroundings. Birds also are easier to find and to identify than are most other animals, and it is possible to enlist a corps of trained and enthusiastic amateurs to conduct much of the fieldwork.

Until now, information on the distribution of birds in Vermont has been fragmentary. Meticulous local records have been kept over several decades at localities such as Bennington, Burlington, St. Johnsbury, Wells River, and Woodstock. For other areas of the state, and especially the mountains, little published information is available. The 21 Breeding Bird Survey routes in Vermont provide an index to population trends for the more common species. This sampling, however, is limited to the vicinity of roads, and is not effective for the rare species or those dependent on special restricted habitats.

A unique advantage of grid-based atlases such as this one is that they give information from throughout an area of interest rather than merely compiling data from existing sources. The six years of atlas fieldwork have provided the challenge for expert observers to visit places never before searched by naturalists. The results have been outstanding. Every priority block in Vermont was visited. Seven species never before found nesting in the state have been discovered. Much has been learned about the habitat requirements of the rarer species. For the first time there is adequate knowledge of the elevational range of each nesting species. Numerous changes in distribution have been documented by comparing atlas results with historic records. Furthermore, some species that were assumed to be widely distributed were undetected in places where they had been expected to occur; this has provided the first evidence that those populations may be in jeopardy.

The successful completion of this atlas is a tribute to the organizational abilities of the Vermont Institute of Natural Science, to the collaboration of the various Audubon groups throughout the Green Mountain State, to the expertise and dedication of two hundred active field observers, and to the untold numbers of Vermont landowners who perceived the importance of the atlas project and granted permission for the atlasers to explore their woodlands, fields, swamps, and ponds. All may be justly proud of the result.

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