

POPULATION STUDIES OF BICKNELL'S THRUSH ON MT. MANSFIELD

Christopher C. Rimmer
Vermont Institute of Natural Science
Woodstock, VT 05091

Abstract: Research on the demography and breeding ecology of Bicknell's (Gray-cheeked) Thrush in Mt. Mansfield's subalpine spruce-fir zone was continued in 1993. Studies were concentrated on a 8.6 ha plot established in 1992 at 1160-1200 m elevation. Intensive spot mapping of territorial males yielded similar density estimates of 40-55 breeding pairs/100 ha in both years. To examine questions of population stability, territory size, movements, site fidelity, territorial turnover, productivity, and survivorship, a concerted effort was made to capture and band breeding Bicknell's Thrushes. Using mist nets, a carved wooden thrush decoy, and tape recorded playbacks, 35 individuals (31 adults and 4 juveniles) were uniquely color-banded in 1992 and 1993 on or near the study plot. Four of the six birds banded on the plot in 1992 were confirmed to return in 1993. Limited nest searching in both years located two nests, one of which was successful in producing young. This marked population is planned to serve as a foundation for future long- and short-term research at the Mt. Mansfield site.

Work on Mt. Mansfield's Bicknell's Thrush population is part of a regional effort to assess the conservation status of this subspecies, which has recently been proposed for designation as a full species. Recent evidence suggests that Bicknell's Thrush has experienced breeding range contraction and population declines. Habitat deterioration has been documented on both its high elevation breeding grounds and on its Hispaniolan wintering grounds. In 1992 and 1993, the Vermont Institute of Natural Science (VINS) and the Manomet Bird Observatory (MBO) launched an investigation of the current population status of Bicknell's Thrush. A survey of 336 peaks in New York, Vermont, New Hampshire, Maine, and Massachusetts located Bicknell's Thrushes on 229 (68%). Of 67 surveyed peaks with known historical records of Bicknell's Thrush in the four states, birds were encountered on 55 (82%). Estimated populations ranged from only one or two on more than 80 peaks to as many as 250 pairs on Mt. Mansfield. While these results suggest that the distribution of Bicknell's Thrush in New England and New York has not undergone significant change, important questions remain about its overall population size and stability.

Anticipated plans for 1994 research on Mt. Mansfield include: 1) establishing an additional study plot in lower elevation spruce-fir forest; 2) obtaining density estimates on both plots; 3) uniquely color-banding all known pairs of Bicknell's Thrushes on each study plot; 4) searching for individual thrushes banded in 1992 and 1993; 5) obtaining productivity data on the upper elevation plot by locating and monitoring nests, and through combined mist-netting and observations of family groups; and 6) testing and evaluating several possible vegetation sampling schemes in order to develop a protocol for widespread use throughout the range of Bicknell's Thrush.