



Final report to Nova Scotia Species At Risk Conservation Fund

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Stewardship and conservation of a declining songbird at risk, the Bicknell's Thrush

Introduction

The Bicknell's Thrush is one of the rarest songbirds in North America, with a global population of less than 25,000 pairs (Rimmer et al. 2001). It has been listed as a Species of Special Concern by COSEWIC. It is listed as Vulnerable under the Nova Scotia Endangered Species Act. The species is at risk in Canada due to low numbers, patchy distribution, low reproductive potential, range-wide habitat pressure, and recent population declines. Bird Studies Canada's High Elevation Landbird Program (HELP) has been monitoring Bicknell's Thrush in New Brunswick and Nova Scotia since 2002. Analysis of HELP data has indicated that, since HELP began in 2002, Bicknell's Thrush has undergone significant annual declines along 26 survey routes in Nova Scotia.

The short-term goal of this project was to provide new information on Bicknell's Thrush trends and status that could be used to inform an updated COSEWIC status report on the species within 1-2 years. Our long-term goal is to see a reversal of current Bicknell's Thrush population declines along our HELP survey routes. We proposed to achieve this by means of a new focus on coordinated management and conservation action for Bicknell's Thrush facilitated by 1) the development of a Nova Scotia Best Conservation and Stewardship Practices document; 2) the activities of an International Bicknell's Thrush Working Group; and 3) critical information tracking and feedback through continued population monitoring and population data analysis.

Project Objectives

1. Undertake sixth (2007) and seventh (2008) years of HELP surveys along 26 pre-determined, long-term (since 2002) routes in Nova Scotia. Analyze data after each survey year to determine if declines are continuing both within Cape Breton Highlands National Park and outside the park.
2. Produce a Best Conservation and Stewardship Practices Document for Bicknell's Thrush habitat in Nova Scotia. The document will be a user-friendly guide to help landowners, land users, and land managers minimize negative impacts on Bicknell's Thrush habitat and will function as a tool for agencies with management responsibility for Bicknell's Thrush forests in Nova Scotia.
3. Organize and attend a two-day, in-person inaugural meeting of the International Bicknell's Thrush Working Group wherein we will develop an Action Plan to guide Bicknell's Thrush research and conservation across the species' breeding and wintering range.

Work Completed

1. We undertook the 6th and 7th years of monitoring through the High Elevation Landbird Program and produced reports on both years' results. The latest report is available at <http://www.bsc-eoc.org/library/acbithreport.pdf>.

2. We produced a Best Conservation and Stewardship Practices document. A draft was produced in March 2008, and this draft version was then revised and finalized in March 2009. It is available as a hard-copy and will also soon be available on BSC's website at <http://www.bsc-eoc.org/volunteer/achelp/index.jsp>
3. We organized and attended the inaugural meeting of the International Bicknell's Thrush Conservation Group (November 2007, prior to this project's start date). We also organized and attended the second meeting of this group in October 2008. Bird Studies Canada's Atlantic Canada Program Manager Becky Whittam is the co-chair of this group.

Results

Objective 1: Monitoring

Results of the 2007 and 2008 High Elevation Landbird Program indicate that Bicknell's Thrush is continuing to decline in Nova Scotia along survey routes both within Cape Breton Highlands National Park (18.5% annual decline) and outside of the park (17.1% annually). These declines were noted in the revised COSEWIC status report that will be reviewed by COSEWIC in November 2009 when the species' status will almost certainly be changed to *Threatened*.

Objective 2: Best Conservation and Stewardship Practices document

This document has been finalized and will be distributed to partners and stakeholders in Nova Scotia. These include: Cape Breton Highlands National Park, Nova Scotia Department of Natural Resources (Wildlife Division, Forest Management Division, and the Cape Breton regional office), NewPage Corporation, CPAWS Nova Scotia, Nature Nova Scotia, Nova Scotia Bird Society, Nature Conservancy of Canada, Ecology Action Centre and the Nova Forest Alliance.

Objective 3: International Bicknell's Thrush Conservation Group

1. In response to heightened conservation concerns, including the declines reported by HELP, a coalition of scientists, natural resource managers, and conservation planners formed during the fall of 2007. The International Bicknell's Thrush Conservation Group (IBTCG: www.bicknellsthrush.org) held its inaugural meeting in Woodstock, Vermont, with 25 people attending from five northeastern states and two Canadian provinces. The groups' overall mission and goals are as follows:

Mission

To develop a broad-based, scientifically-sound approach to conserve Bicknell's Thrush, incorporating research, monitoring, and on-the-ground management actions

Goals

1. Establish an explicit conservation objective for Bicknell's Thrush across its range
2. Establish and formalize administrative structure of IBTCG
3. Summarize what we know about Bicknell's Thrush limiting factors range-wide; prioritize research and monitoring needs
4. Develop preliminary set of conservation actions and associated resources necessary to accomplish them
5. Develop a unified breeding season monitoring program/survey design

The group met again in October 2008 and a draft Action Plan has been written.

Assessment of achievements/lessons learned

We have successfully implemented all of our project goals. The results of the High Elevation Landbird Program indicate that the Bicknell's Thrush continues to decline in Nova Scotia. Our data have been used in a revised status report that will be reviewed by COSEWIC in November 2009. The production of the Best Conservation and Management Practices guide has been a more complicated process than anticipated, in part because the audience for the report is both specific (forestry companies working in the highlands of Cape Breton – of which there is only one, NewPage Corporation) and general (public, for educational purposes). Hopefully the final product can serve both audiences.

Recommendations for follow-up

It is important to continue monitoring this species in order to determine if our work and that of the International Bicknell's Thrush Conservation Group is having a positive impact. Whether the monitoring continues through the High Elevation Landbird Program or a new, range-wide program called Mountain BirdWatch (set to be launched in either 2009 or 2010) has yet to be decided. Regardless, it is important to continue monitoring within protected areas (Cape Breton Highlands National Park) as well as in the industrial forest land south of the park. It would also be extremely valuable (though logistically difficult) to conduct some surveys during the breeding season in the Pollets Cove/Aspy Fault provincial wilderness area, which contains about 10% of the Bicknell's Thrush range of habitat in Nova Scotia. Finally, much remains to be learned about the basic biology of the Bicknell's Thrush. In particular, it would be valuable to obtain information on migratory timing and pathways as well as wintering area connectivity. Bird Studies Canada, in partnership with the Canadian Wildlife Service and U.S. collaborators, plans to undertake a study in 2009 and 2010 using new geolocator technology to track the migration pathways and wintering locations of Bicknell's Thrush. Up to 140 geolocators will be deployed on birds at seven different sites across the species' range, including Cape North, Nova Scotia. Such a study will allow us to determine, among other things, if birds in different breeding areas (such as Cape Breton) are wintering in unique sites or if there is mixing of breeding populations on the wintering grounds. Such important research should be supported.

Papers related to our Species At Risk Conservation Fund grant:

Bredin, K. and B. Whittam. 2009. Protecting the Bicknell's Thrush. Best Conservation and Stewardship Practices for Nova Scotia's High Elevation Habitat. Unpublished report by Bird Studies Canada (Atlantic Region), Sackville, NB. 24 pp

Hart, J. A., C. C. Rimmer, R. Dettmers, and B. Whittam. in prep. A conservation action plan for Bicknell's Thrush (*Catharus bicknelli*). International Bicknell's Thrush Conservation Group.

Campbell, G and B. Whittam. 2008. High Elevation Landbird Program 2007 report. Unpublished report by Bird Studies Canada (Atlantic Region), Sackville, NB. 24 pp

Campbell, G and B. Whittam. 2009. High Elevation Landbird Program 2008 report. Unpublished report by Bird Studies Canada (Atlantic Region), Sackville, NB. 16 pp

Aubry, Y, S. Paradis, J. Hart, K. McFarland, C. Rimmer, J. Paquet, B. Whittam. Update COSEWIC status report for Bicknell's Thrush (*Catharus bicknelli*). Submitted to COSEWIC February 2009. 46 pp