United States Department of the Interior

FISH AND WILDLIFE SERVICE

FEDERAL BUILDING, FORT SNELLING
TWIN CITIES, MINNESOTA 55111

IN REPLY REFER TO:

FWS/AFWE-SE

June 5, 1991

Dear Kirtland's Warbler Supporter:

The Region 3 Endangered Species Division will be moving into a new area of rare species conservation in the next few months. Our plan is to evaluate the use of Population Viability Analysis (PVA) on a number of species later this year and continuing into 1992. If the evaluation is positive we will subsequently adopt this methodology as an operational tool. Trying the PVA approach on Kirtland's warbler will be the first step in our evaluation. (See the enclosures for a description of the PVA process.)

There are a number of reasons for selecting Kirtland's warbler as our first application of PVA. First, because the warbler is one of the most studied of the federally listed species in the Region, we will benefit from having reliable values for many of the parameters considered in the PVA models. Second, we are at a point in warbler management where there is serious discussion on the advisability, and feasibility, of fostering a second warbler population in Wisconsin. We need to have a better idea of the necessary size and habitat needs of a second population to ensure its viability over the long term. Third, the recovery program continues to be clearly based upon a goal of 1000 nesting pairs, yet that number is not supported by any firm data or recent analysis. Thus, we concluded the species is a good subject for PVA, and the PVA is likely to provide timely answers which will benefit the species.

In addition to analyzing the present situation and future goals as part of the evaluation of the long term viability of the species under the current management scenario, the PVA will also allow us to "play" with various parameters to see how long term population viability can be enhanced most effectively. For example, we can change the values of certain parameters within the model to simulate increased habitat quantity, or alternatively, increase habitat quality and thus secondarily increase the frequency of polygyny and reproductive success. Such manipulations should allow us to judge the advisability of continuing current recovery activities or to consider shifting the emphasis somehow.

Our plan is to conduct the PVA September 3-5, 1991, at the Minnesota Valley National Wildlife Refuge near our Regional Office. We will be inviting all those individuals with extensive knowledge of the species, its habitat management, and its problems. This is expected to be a group significantly larger than the recovery team alone. The Service will cover travel and per diem expenses whenever necessary to maximize attendance. The PVA workshop will be jointly run by Dr. Ulysses Seal, Chair of the Captive Breeding Specialist Group of the International Union for the Conservation of Nature; Dr. Robert Lacy, Chicago Zoological Society; and Dr. Jan Eldridge of our Division of Endangered Species. Jan will be contacting the workshop invitees in the near future to provide details on the materials they should plan to bring to the Minnesota Valley Refuge.

Although the PVA process superficially resembles the steps involved in the preparation of a recovery plan, we believe the open discussion, coupled with extensive computer modelling, has great potential to provide new insight into the warbler's future. At the very least, the models will point out the most serious data gaps and justify additional research in those areas. Our hope, however, is that the analysis will go much further and will produce clear recommendations to ensure the species' existence over the next century. The analysis may either support our existing goals and management strategies, suggest a moderate reordering of priorities, or it may significantly redirect our recovery efforts.

In any case, a Kirtland's warbler PVA should provide a good test of the models' applicability to a well-studied species and will provide a forum for a fresh discussion of the warbler recovery program. Our office is committed to sincere testing of PVA through a series of species applications, and to simultaneously provide the maximum benefit to the species used in the tests. We are eagerly awaiting this first PVA workshop, and we hope all workshop invitees will make the commitment to attend and contribute to the analysis.

I will be presenting additional information on the PVA workshop at the upcoming Kirtland's Warbler Recovery Team meeting. If you have any questions before then please contact me or Jan at 612-725-3276.

Ronald L. Refsnider

Ronald L. Refsnider
Staff Biologist
Division of Endangered
Species

Enclosures