Clarkson UNIVERSITY

DEPARTMENT OF BIOLOGY

January 2, 2012

From: **Dr. Tom Langen, Dept. of Biology, Clarkson University**
To: **St. Lawrence River Research and Education Fund**
Re: **Final Report**

It is my great pleasure to provide a progress report for the project **Breeding golden-winged warbler use of electrical transmission line corridors in the St. Lawrence Valley of New York**, which was funded by the *St. Lawrence River Research and Education Fund* in March 2010. Also submitted are a student thesis that reports on the main project findings, and a set of talk slides on the project.

1) **Summary of Accomplishments**

The objective of this SLRREF funded project was to evaluate the suitability of electrical transmission line corridors as habitat for breeding golden-winged warblers (*Vermivora chrysoptera*), and to identify habitat management guidelines to maintain or improve suitability for this species and other shrubland birds. During the period of the grant, powerline corridors radiating from the NYPA hydropower dam on the St. Lawrence River in St. Lawrence County, New York were surveyed for golden-winged warblers. Habitat characteristics of occupied (warblers present) vs unoccupied sites were measured and compared. Our results have been disseminated to the (binational) Golden-winged Warbler Working Group, the Cornell Lab of Ornithology, the US Fish & Wildlife Service, New York State Dept. of Environmental Conservation, New York Audubon and the USDA National Resource Conservation Service.

2) **Project Activities, Results, and Accomplishments**

- Two Clarkson University undergraduates conducted surveys for golden-winged warblers and other shrubland birds along electrical transmission line corridors in May and June 2010, as specified by the grant proposal. Golden-winged warblers were detected at 25% of surveyed points along transmission line corridors; this is an excellent frequency of detection for these birds. Sites where golden-winged warblers were present in 2009 had birds present in 2010.

- John Wojcikiewicz measured habitat attributes, using the Cornell Lab of Ornithology Protocol, at points where golden-winged warblers were present and absent along transmission line corridors, in September and October 2010.

- John Wojcikiewicz completed a Biology Senior Thesis at Clarkson University: ***Vegetation Management along Powerline Corridors in Upstate New York: Implications for the Golden-Winged Warbler (Vermivora chrysoptera)***. He found that occupancy by golden-winged warblers was associated with transmission line corridors segments that had extensive, thick shrub vegetation cover, especially where dogwood (*Cornus* spp.) and willow (*Salix* spp.) predominated. Segments that were grassland corridors bordered by forest, and which had few or no shrub-scrub upland vegetation were not occupied. Golden-winged warblers occupied segments of transmission line corridors where vegetation management was by chemical means (herbicides) and segments where vegetation management was mechanical (mowing and cutting).

- In May and June 2011, Tom Langen led two field trips to show golden-winged warbler habitat, including powerline corridors, and to discuss management options to improve habitat for these birds. Over thirty people participated in these trips, including representatives of the Cornell Lab of Ornithology, the US Fish & Wildlife Service, New York State Dept. of Environmental Conservation, New York Audubon, Fort Drum Environmental Management Team, and the USDA National Resource Conservation Service. Langen consulted for NYSDEC on best management practices for warblers along powerline corridors that run through NYSDEC property.

Tom Langen • Associate Professor, Dept. of Biology
Clarkson University • PO Box 5805 • 8 Clarkson Ave., Potsdam, NY 13699-5805
Phone: 315-268-7933 • Fax: 315-268-7118 • tlangen@clarkson.edu

- Tom Langen participated in semi-monthly conference calls with the Golden Winged Warbler Working Group on management issues related to golden-winged warblers, including management along powerline corridors.

- Tom Langen presented at two workshops organized by New York Audubon and USDA National Resource Conservation Service (NRCS) in Canton and Watertown (NY). These workshops were designed to inform landowners on best management practices for maintaining golden-winged warbler habitat, and habitat for other shrubland birds. The workshops were also intended to recruit landowners into an NRCS program for golden-winged warbler habitat management.

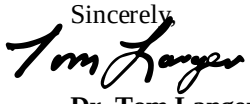
3) **Remaining Tasks**

- An oral and the written technical report will be provided to agencies involved in electrical transmission corridors (i.e. National Grid).

- Tom Langen will continue to be presented at workshops organized by New York Audubon and USDA NRCS to inform landowners on best management practices for maintaining golden-winged warbler habitat, and habitat for other shrubland birds.

I appreciate the support of the St. Lawrence River Research & Education Fund for this project. SLRREF is credited in all talks on the project. As you can see, the project has provided some conclusions about management best practices on powerline corridors, and these are being disseminated to environmental managers and private landowners concerned about conservation of these birds.

Sincerely,



Dr. Tom Langen
Dept. of Biology
Clarkson University