

Red-headed Woodpecker Recovery Project: Research Team

Final Report for Minnesota Ornithologists Union's Savaloja Grant regarding the 2017

Summer Research Season

February 22, 2018

Last spring, the Red-headed Woodpecker Recovery (RhWR) research team submitted a grant application for a Minnesota Ornithologists Union's (MOU) Savaloja Grant. Our primary request was for funds to defray compensation expenses for the ornithological research assistants used to answer the following questions:

- 1) What factors govern red-headed woodpecker (RHWO) nest productivity and survival of juveniles into the next year?
- 2) What "internal" factors (e.g., sex, body condition, etc.) and/or "external" factors (e.g., food availability, weather, population density) drive RHWO to overwinter at Cedar Creek Ecosystem Science Reserve (CCESR) or migrate?
- 3) Where do RHWO go when they migrate? Do they migrate to the same place each year?

We were deeply gratified to receive a \$2,000 Savaloja Grant from the MOU. We now express our gratitude with this report on the application of these funds to critical research done this past summer.

With support from a variety of funding sources (as reported in our initial grant proposal), we were able to hire a post-doctoral research coordinator, Dr. Elena West, University of Wisconsin – Madison, to coordinate the work of our field research team. Dr. West worked half-time through the summer, and will continue to work this fall through December to analyze our data and formulate our research field work for 2018. Working with Dr. West at the CCESR were two summer full time ornithological research assistants, Candace Stenzel (MS, Winthrop University) and Jesse Beck (BS, University of Wisconsin-Stevens Point). Resources provided by the Savaloja Grant defrayed expenses for these research assistants' compensation and for printing and miscellaneous laboratory expenses.

During the course of the summer, the field research team "processed" sixty-six RHWO at CCESR, fifty adults and sixteen nestlings/fledglings. ("Processed" refers to capturing, banding, measurements, drawing blood samples and feather samples for DNA analysis, and possible use of location devices, listed below.) Thirty-nine RHWO were newly banded, and twenty-two nests were monitored. Twenty adults were outfitted with geo-GPS backpacks, of which eight were recovered in late summer and early fall, meaning that CPS and/or geolocator data were gathered from these birds. Fifteen juveniles were "marked" with radio backpacks, allowing their movement to be tracked. In all, seventy-two birds were captured.

Parallel to the work of the field research technicians, thirty-six citizen science volunteers contributed 1,550 hours to the 2017 summer RHWO research season. They worked on seven specific projects: 1. RHWO nest location; 2. RHWO parental effort in feeding nestlings; 3. Food use identification; 4. Nest tree tagging; and 5. Nest cavity porthole installation.

Data collected to date will be analyzed giving preliminary results in winter of 2017. Blood samples taken from summer RHWO captures will receive lab analysis over the 2017-18 winter. Spring 2018 recaptures of transmitter birds will allow downloading data regarding winter locations of these RHWOs.

In addition to the research conducted on RHWO over the summer fifteen guided hikes and programs about this project, led by RhWR volunteers, provided rich educational opportunities to over 200 people.

The research team of the RhWR created a partnership with Dr. Henry Streby at the University of Toledo, who is initiating similar research in Ohio and other states. This partnership will make it possible to compare different population's genetic patterns and adult and juvenile activities on a broader geographic scale for more conclusive research results.

A new round of grant requests will be issued in the coming months to support and expand our exciting research.

Please feel free to contact me with further questions or concerns about our project's use of the Savaloja Grant.

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jobaud@comcast.net) February 22, 2018

Appendix

Expenditures

Ornithological research assistants compensation	\$12860.00
Research coordinator compensation	\$16332.00
Housing for ornithological research assistant	\$763.00
Printing and postage	\$350.00
Miscellaneous expenses	<u>\$50.00</u>
TOTAL	\$30355.00