



Apr 18th, 1:30 PM - 2:30 PM

Patterns of Organochlorine Pesticide Contamination in Neotropical Migrant Passerines

Heidi B. Richardson
Illinois Wesleyan University

J. A. Klemens
Illinois Wesleyan University

R. G. Harper, Faculty Advisor
Illinois Wesleyan University

J. A. Frick, Faculty Advisor
Illinois Wesleyan University

A. P. Capparella, Faculty Advisor
Illinois Wesleyan University

Follow this and additional works at: <https://digitalcommons.iwu.edu/jwprc>

Richardson, Heidi B.; Klemens, J. A.; Harper, Faculty Advisor, R. G.; Frick, Faculty Advisor, J. A.; and Capparella, Faculty Advisor, A. P., "Patterns of Organochlorine Pesticide Contamination in Neotropical Migrant Passerines" (1998). *John Wesley Powell Student Research Conference*. 12.

<https://digitalcommons.iwu.edu/jwprc/1998/posters2/12>

This Event is protected by copyright and/or related rights. It has been brought to you by Digital Commons @ IWU with permission from the rights-holder(s). You are free to use this material in any way that is permitted by the copyright and related rights legislation that applies to your use. For other uses you need to obtain permission from the rights-holder(s) directly, unless additional rights are indicated by a Creative Commons license in the record and/ or on the work itself. This material has been accepted for inclusion by faculty at Illinois Wesleyan University. For more information, please contact digitalcommons@iwu.edu.

©Copyright is owned by the author of this document.

Poster Presentation 30

**PATTERNS OF ORGANOCHLORINE PESTICIDE CONTAMINATION IN
NEOTROPICAL MIGRANT PASSERINES**

Heidi B. Richardson, J.A. Klemens, R.G. Harper*, J.A. Frick*, and A.P. Capparella*
Departments of Biology and Chemistry, Illinois Wesleyan University, and
Department of Biological Science, Illinois State University

Previous work by our group has consistently shown low-level pesticide contamination in Neotropical migrant passerines (those songbirds that breed in North America and winter in the West Indies, Central and South America). To further this work, chemical analysis of eleven Neotropical migrant passerine species was conducted. The birds were collected in Illinois along the Mississippi River in May, 1996 and tested for the presence of 17 organochlorine pesticides. The most prevalent pesticides detected were p,p'-DDE, dieldrin, and heptachlor epoxide. No statistically significant differences in pesticide levels were found between males and females or between winter habitats (forest and shrub). Birds wintering in Central America were significantly more contaminated than birds that winter in Northern South America. Insect gleaners (warblers and vireos) were significantly more contaminated than aerial insect feeders (flycatchers), which were significantly more contaminated than plant consumers (thrushes, buntings, and grosbeaks). These findings suggest that winter range and diet are larger determinants of contamination levels in Neotropical migrant passerines than other characteristics considered.