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Patterns of Organochlorine Pesticide Contamination in Neotropical Migrant Passerines

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Poster Presentation 30

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

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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.