

Abstracts from IBBA's 2001 Meeting

The IBBA annual meeting was held on 7 - 9 Sep 2001 and hosted by the Delta Marsh Bird Observatory, Delta, Manitoba. Windy, rainy weather reduced the numbers of birds captured to three, including two recaptured Tennessee Warblers, but it did not dampen the enthusiasm for the first Canadian meeting in the history of IBBA. Participants hailed from Iowa, Nebraska, Louisiana, Mississippi, Texas, Ohio, Minnesota, Illinois, Maryland, Saskatchewan and Manitoba. The Delta Marsh provided many opportunities for bird walks on Friday evening and Saturday morning. Saturday afternoon was reserved for the research paper sessions—titles and abstracts are below. Saturday evening we were entertained with a fish fry, Chinese auction, and regaled with the history of Delta Marsh by Gordon Goldsborough, Director of Delta Marsh Field Station. On Sunday, various activities were planned, including more banding and field trips into the Delta Marsh and to the Oak Hammock Marsh Wildlife Management Area.

Update from the Bird Banding Lab. KATHY KLIMKIEWICZ, *USGS Patuxent Wildlife Research Center, BBL.*

(No abstract was available).

Grasp-ejection of cowbird eggs by Warbling Vireos: A test of the Evolutionary Equilibrium Hypothesis. TODD UNDERWOOD, *Department of Zoology, University of Manitoba, Winnipeg, Manitoba, R3T 2N2.*

Why do about 90% of the host species of the Brown-headed Cowbird (*Molothrus ater*) accept the reproductive cost of raising a cowbird? The evolutionary equilibrium hypothesis predicts that egg acceptance is an adaptive response because the costs of rejecting a cowbird's egg outweigh the cost of accepting the egg. A major assumption of this hypothesis is that bill-size constraints prevent small hosts from grasp-ejecting cowbird eggs. Small hosts should be capable only of puncture-ejection, which can be costly because hosts may damage their own eggs while attempting to puncture the thick shell of the cowbird egg. I tested the bill-size constraints assumption by determining whether Warbling Vireos (*Vireo gilvus*), the smallest known puncture-ejector, are capable of grasp-ejecting cowbird

eggs. Warbling Vireos ejected 91% (n = 22) of plaster model cowbird eggs added to their nests. These solid eggs could not be punctured, thus significantly more eggs were grasp-ejected than accepted. No host eggs were damaged in any of the nests where the plaster egg was ejected. Video analysis confirmed grasp-ejection as the method of ejection. Warbling Vireos have a grasp-index (bill length x commissural width) well below that of previously known grasp-ejectors and puncture-ejectors. These results suggest that small bill size is not a constraint against egg ejection. Thus, many more species should be capable of grasp-ejecting cowbird eggs with little cost, which provides indirect support for the evolutionary lag hypothesis.

Manitoba owl research project. JAMES R DUNCAN, *Acting Chief, Biodiversity Conservation, Wildlife Branch, Manitoba Conservation, Box 24, 200 Saulteaux Crescent Winnipeg, Manitoba, R3J 3W3.*

Wildlife Branch staff have been monitoring Great Gray and other boreal forest owls as part of an ongoing research program since 1984. The examination of specimens compliments the owl research program, including (1) winter capture and banding of Great Gray and Northern Hawk owls — over 1300 Great Grays and 250 Northern Hawk Owls have been banded to date. Manitoba has documented longevity records for these two species, and data on age, molt, condition and sex are recorded. Information on dispersal, survival, winter habitat use, and nest site fidelity have been obtained. (2) Monitoring Nesting Populations — capture and banding of nesting Great Gray Owls in southeastern Manitoba. Since 1969, nesting Great Gray Owls have been studied in Manitoba. Efforts were standardized and primarily focused in southeastern Manitoba since 1984. Long-term nesting density, productivity and other life history data have been collected using radio-telemetry (until 1991) and banding/recapture techniques (ongoing). This information has been incorporated into forest management guidelines in Manitoba and North America. Northern Hawk and other owl nests have been studied opportunistically, as time and resources permit. (3) Volunteer Nocturnal Owl Surveys - Since 1991, a volunteer-based nocturnal owl survey has been conducted in Manitoba. Information of owl distribution,

population fluctuations, and habitat use have been obtained, as well as providing Manitoba citizens an opportunity to become involved in wildlife research. Data has been used by Manitoba University students for graduate research programs and in the development of habitat suitability index models for forest-wildlife management programs.

Eastern Loggerhead Shrike Survey, habitat assessment and stewardship in southeastern Manitoba, 2001. FRANÇOIS BLOUIN; *Eastern Loggerhead Shrike Recovery Action Group, Box 148, Rosser, Manitoba, R0H 1E0.*

The Loggerhead Shrike, *Lanius ludovicianus*, is designated as "endangered" under the Manitoba Endangered Species Act, while the Eastern subspecies, *L. l. migrans*, is listed as "endangered" by the Committee On the Status of Endangered Wildlife in Canada. To date, very little is known about the extent of distribution and abundance of this subspecies in southeastern Manitoba or about the type of habitat association it uses for nesting. An extensive survey of this area has been undertaken in an attempt to answer these questions. This presentation summarized the work that was conducted during the summer 2001 and some of the preliminary findings.

Is forest fragmentation bad for Ovenbirds breeding in boreal forest? DANIEL F. MAZEROLLE, *University of Saskatchewan, 112 Science Place, Saskatoon, Saskatchewan, S7N 5E2.*

I evaluated the effects of forest fragmentation caused by agriculture on arthropod prey abundance and space use and body condition of territorial male Ovenbirds (*Seiurus aurocapillus*) breeding in southern boreal mixed woods of Saskatchewan. Densities of Ovenbirds were more than 80% greater in contiguous forest than in forest fragments. Total arthropod biomass was similar between contiguous forest and forest fragments. There was also no relationship between total arthropod biomass and home range size of Ovenbirds, nor was arthropod biomass associated with densities of territorial male Ovenbirds. Therefore, current levels of fragmentation do not appear to be affecting space use of Ovenbirds by altering total arthropod prey biomass. As determined by radio-telemetry, Ovenbird locations within home ranges abutting forest edges were situated closer to edges than randomly plotted

locations, although edge use varied with time of day. Males tended to use edge habitat later in the day compared with the interior of fragments. However, arthropod abundance varied little in relation to edges. Overall, edges abutting agricultural fields did not seem to lower habitat quality or deter use by male Ovenbirds. Males in contiguous forest were larger than males in forest fragments and had higher values of body condition indices that were positively associated with energetic demands. Moreover, the proportion of heterophils, a type of white blood cell positively correlated with stress, decreased through the breeding season only for males in forest fragments. Total plasma protein and body mass corrected for structural size did not differ between landscapes indicating that the nutritional status of males in both landscapes was similar. Thus, current levels of fragmentation do not appear to be negatively influencing the health of male Ovenbirds. These findings also indicate that size of male Ovenbirds might be playing a role in habitat selection, but defending territories in contiguous forest appears to have physiological consequences. Overall, my results contrast with those of recent studies demonstrating a strong association between food abundance and forest fragmentation. It remains unclear whether boreal forest arthropods are less sensitive to fragmentation than arthropods in other areas, or whether the levels of forest fragmentation present in my study area have not reached a specific threshold required for causing reductions in arthropod prey. Consequently, food abundance is not likely responsible for previously documented differences in Ovenbird productivity between agricultural forest fragments and contiguous boreal forest.

Oak Hammock - The OTHER Marsh. PAULA GRIEFF, *Resident Naturalist, Oak Hammock Marsh Interpretive Centre, Box 1160, Stonewall, Manitoba, R0C 2Z0.*

Oak Hammock Marsh Wildlife Management Area is a restored wetland and uplands. It is approximately 3600 hectares in size. It supports a diversity of habitats including wetland, tall-grass prairie, lure crops, nesting cover, wet meadow, aspen/oak forest (east side), willow bluffs (west side), and creeks. This diversity is home to many species of birds—296 different species have been recorded here. This presentation gave an idea of what you might see.