

Breeding Bird Survey – 2003 Edson Forest Management Area

- Breeding bird surveys in Weyerhaeuser’s Edson Forest Management Area (FMA) are part of a comprehensive Wildlife-Biodiversity Monitoring Program intended to assess the occurrence and distribution of species across each Weyerhaeuser FMA in Alberta.
- Between June 2 and June 30, 2003, forest and wetland bird surveys were conducted in the Edson FMA. Surveys are repeated every 3 years and were previously conducted in June 2000.
- This is a long-term monitoring program designed to identify the structure and composition of regional bird communities and monitor for trends in species abundance and community composition.
- The forest bird surveys consisted of 18 survey routes with 16 sampling stations each. Sampling began 30 minutes before sunrise and continued for 5 hours. Each station was surveyed for 5 minutes and all birds within a 100 metre radius of the sample station were recorded.
- The wetland bird surveys took place at 16 sampling sites consisting of a variety of wetland types. They were sampled following the morning point count surveys.



Results and Key Findings

- Of the 64 species found during the 2003 forest bird surveys, 12% were residents, 43% were short-distant migrants and 45% were neo-tropical migrants. In 2000, 77 species were detected of which 14% were residents, 39% short-distant migrants and 48% neo-tropical migrants.
- In total, 1,742 birds were recorded in 2003. The most common species were the yellow-rumped warbler (151 detections), white-throated sparrow (133), pine siskin (126), chipping sparrow (112) and Swainson’s thrush (102).

*This summary is based on the work of:
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- The Yellow-rumped warbler had the highest mean station abundance (0.556), followed by the white-throated sparrow (0.478), chipping sparrow (0.385), Tennessee warbler (0.351) and Swainson's thrush (0.316).
- Three species found during the forest bird survey were identified as "May be of Concern" by the Provincial Government Wildlife Division. These are the Black-throated Green Warbler, Pileated Woodpecker and Western Tanager.
- There are 27 species in the Edson FMA that are of high regional responsibility. These are species that occur more in Alberta than elsewhere in Canada and include the American redstart, Connecticut warbler and least flycatcher.
- During the wetland bird survey, 63 species were observed, including waterfowl (11 species), wading birds (8), riparian associated bird species (5), gulls and terns (4), raptors (4), woodpeckers (2) and upland forest bird found within 100 metres of the high water line (29 species).
- Of the 572 individual birds counted, 26% were waterfowl, 25% were upland forest birds, 18% were waders, 16% were gulls and terns, 13% were riparian associated birds, 2% were raptors and less than 1% were woodpeckers.
- Wetland birds found in the Edson FMA that "May be of Concern" are the great blue heron, Caspian tern, black tern, great gray owl, osprey, pied-billed grebe, sandhill crane and white-winged scoter.

Conclusions

- The composition of bird communities was observed to be relatively stable. The proportion of birds in each migratory guild were similar in both years and 8 of the top 10 most abundant birds in 2003 were within the top 10 in 2000.
- The monitoring program provides a coarse filter approach to detect changes in species occurrences and bird communities can be highly variable from year to year.
- In both the forest and wetland bird surveys, species diversity and individual bird detections were found to have decreased between 2000 and 2003.
- Species found to have decreased in mean abundance found in the Edson FMA survey were recognized elsewhere as having long-term declines including the dark-eyed junco, least flycatcher, mourning warbler, pine siskin, rose-breasted grosbeak and white-throated sparrow.

This Research Report was prepared by Christy Strocel and Luigi Morgantini, Weyerhaeuser Company, Alberta Division.