Alaska Bird Observatory Tackles High Water and Trail Erosion

The Alaska Bird Observatory (ABO) has operated a landbird migration station at Creamer's Field Migratory Waterfowl Refuge in Fairbanks since 1992. Fourteen of 30 nets are located in a seasonal wetland underlain by permafrost. During a typical spring banding period, up to six nets may be located over standing water until the wetland drains, usually by late May or early June. In recent years, excessive rainfall has flooded up to 12 net lanes during our fall migration period.

These unusually high levels of precipitation, combined with over a decade of foot traffic to check nets, resulted in excessive erosion at our station. By 2003, several of our trails had developed into deep trenches with exposed tree roots and nasty holes. Many net lanes had turned into a peat quagmire in places, making accessing the nets difficult at best, dangerous or inaccessible at worst. Wood pallets were used as a temporary and unsightly measure to reach the nets.

To mitigate our damage to the terrain and reduce the injury (and dunking) risk to our crew and bagged birds, we undertook a major trail repair project that started with the acquisition of necessary permits and materials that had to be barged to Alaska. Double-than-average rainfall in July 2003 postponed the start of repairs until late May 2004. Trails and net lanes underlain by more stable soils were leveled with rock, covered with Typar™ material, and then built up with a sand/gravel mixture. For deeply eroded net lanes, we first leveled the area with woodchips sandwiched between two layers of Typar. We then covered the lanes with assembled Geoblock® units, which consist of three-dimensional, interlocking panels made of heavy-duty plastic. Geoblock serves as a load distribution system for driveways, golf cart paths, and off-road vehicle trails in wetlands, and has the added advantage of supporting vegetation growth. We backfilled our Geoblock panels with a sand/gravel mixture and are waiting to see if subsequent flooding in the wetland redistributes silt and allows vegetation growth along the edges of the trails and lanes. We have yet to determine how the altered substrate under the nets will affect our capture rates, but we were netting decent numbers of birds over the new lanes when this article was written in late July. Feel free to contact us for more information on the use of Geoblock to stabilize net lanes.

As for banding news, during fall migration 2003 we banded 1,827 birds of 36 species, our second-lowest total in 13 years. From 2001-2003, decreases in population indices have been marked and consistent for Alder Flycatcher, Orange-crowned Warbler, Yellow-rumped Warbler, Yellow Warbler, Blackpoll Warbler, and American Tree Sparrow. White-crowned Sparrow captures were down markedly in 2003, with the population index this fall being the lowest ever. Capture rates for Swainson's Thrush and Northern Waterthrush were up markedly from the past several years. Notable captures included a Red Crossbill, two Yellow-bellied Flycatchers, and a Western Wood-Pewee.

In August 2004, ABO welcomed Dr. Susan Sharbaugh as our new Senior Biologist. She replaces Kevin Hannah, who took a job with the Canadian Wildlife Service in April. Dr. Sharbaugh received her Ph.D. at the University of Alaska Fairbanks for her innovative work on the overwintering physiology of Black-capped Chickadees and is a welcome addition to the science program at ABO. 💻

For more invormation about ABO, visit the website at http://www.alaskabird.org.

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💻 = Pictures in WBBA's Photo Gallery