

## Recovery of Banded Birds at Stone Lakes National Wildlife Refuge and Beach Lake Wildlife Area

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The Stone Lakes National Wildlife Refuge and the adjacent Beach Lake Wildlife Area comprise over 1,000 acres of oak and riparian woodlands, open grasslands, marshland, vernal pools and ancient oxbow lakes in west-central Sacramento County. Since March 1996 we have banded birds at sites in this area as part of a collaborative study, involving the Sacramento-Yolo Mosquito and Vector Control District and researchers at the University of California, Davis, of wild bird populations as reservoirs of two enzootic viruses, western equine encephalomyelitis and St. Louis encephalitis. These viruses are occasionally transmitted to other vertebrates, including humans, by the vector mosquito, *Culex tarsalis*.

The abundance of individuals and the great diversity of bird species on Stone Lakes NWR became evident to us when we set mist nets in and adjacent to the riparian woodlands. To date during the nearly four-year study we have banded over 1,900 birds of 60 species.

In the last two years of our study we recovered three birds that had been banded by other researchers. Such recoveries are fairly rare, and provide a great opportunity to learn something about avian dispersal, migration, behavior and longevity. In addition, it has been exciting to contact other banders and to talk to them about "their birds" and the habitats in which their birds reside, and to trace the path those birds took to our nets.

The first bird we recovered was a male Common Yellowthroat (*Geothlypis trichas*) banded by a Point Reyes Bird Observatory banding team at The Nature Conservancy's Cosumnes River Preserve in south-central Sacramento County, California. The bander, Mike Lynes, captured and banded the yellowthroat on 10 August 1997 in the Tall Forest section of the preserve. It was reported as a hatching year bird. We recovered it on 19 June 1998 in a thick cattail stand on the west shore of lower Beach Lake. We recorded it as an adult male in alternate plumage and with a cloacal protuberance. It had traveled at least 13 miles directly northwest to reach the Beach Lake site.

Our second recovered bird was a Song Sparrow (*Melospiza melodia*) that was banded by a U. S. Forest Service team working along the west shore of Upper Klamath Lake, 2 miles north of Rocky Point in Klamath County, Oregon. The bander was Leigh Detweiler, working for Dr. C. J. Ralph of the Redwoods Sciences Laboratory. The sparrow, also reported as a hatching year bird, was banded on 24 August 1997. It had traveled a straight-line distance of about 315 miles to reach Stone Lakes NWR. We recovered the bird on 14 October 1998 on the west shore of North Stone Lake in some thick willows adjacent to tules and cattails along the shore. The habitat near Klamath Lake is marshland with dense upland brush, consisting primarily of cattails and

willows (C. J. Ralph, pers. comm.). The subspecies of Song Sparrow breeding at Klamath Lake, *M. m. fisherella*, is a summer resident that migrates south to winter in California (Gabrielson and Jewett 1970). The bird we recovered is very likely *fisherella*, a slightly larger and somewhat paler variety than the resident subspecies in the southern Sacramento Valley, *M. m. maillairdii* (Byers et al. 1995). Of the 17 subspecies of Song Sparrow that occur in California, only four reside in the north and migrate south to winter here in California (Small 1994). We have learned that at least one of these migratory forms visits the Stone Lakes NWR.

Our third recovered bird, a male Spotted Towhee (*Pipilo maculatus*), was banded near upper Beach Lake, Sacramento County, California, on 11 May 1996 by Tim Manolis, who was conducting bird population studies at the time in cooperation with the County of Sacramento. The bird, reported as an after-second year bird when banded, was recovered on 21 May 1999, making it at least five years old. The towhee was in good health with a largely swollen cloacal protuberance indicating that it was storing sperm for breeding. The bird was recovered on the east shore of upper Beach Lake, likely very near where it had been banded three years earlier (T. Manolis, pers. comm.). The habitat at upper Beach Lake consists of cottonwood and willow riparian woodlands adjacent to open grasslands with a lake shoreline of dense tules.

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#### LITERATURE CITED

Byers, C., J. Curson and U. Olsson. 1995. Sparrows and Buntings, a Guide to the Sparrows and Buntings of North America and the World. Houghton Mifflin Company, Boston and New York. 334 pp.

Gabrielson, N. and S. G. Jewett. 1970. Birds of the Pacific Northwest. Dover Publ., Inc. New York. 650 pp.

Small, A. 1994. California Birds their Status and Distribution. Ibis Publishing Company. 342 pp.