

Long-term Study of the California Gull Population at Mono Lake Continues

B iologists have studied the California Gull (*Larus californicus*) population at Mono Lake every year since 1979. Under the direction of Dave Shuford of the Point Reyes Bird Observatory and David Winkler of Cornell University, researcher Justin Hite has been conducting the study since 1998, and will continue the work in 2003.

The objectives of the ongoing study are to measure year-to-year variation in population size and reproductive success and to determine their relationship to changing lake levels. The effects of changes in the Mono Lake ecosystem are of special interest both to biologists as well as to public agencies charged with protecting the lake's valuable natural and scenic resources. Protection of the Mono Lake ecosystem requires the lake's surface elevation to rise to an average of 6392 feet, and there is a continuing need to monitor the lake's resources, including nesting gulls, to document their responses to the changing

conditions. Currently Mono Lake is coming out of a six-year period of meromixis, where the lake's water is stratified—with fresher water on top, and saltier water trapped below. In this condition nutrients essential for algae production are trapped far below the surface—where the alkali flies and brine shrimp, which are the primary food source for the gulls, need the food to grow and multiply.

Nest Count Results From 2002

In 2002, nest counts estimated that 45,716 adult California Gulls were nesting at Mono Lake in late May. Before Los Angeles Department of Water and Power water diversions began in 1941, the majority of gull nests were on Negit Island. In 2002, just under 2% of Mono Lake's breeding gulls were on Negit Island roughly 81% were on the Negit Islets, and 17% on the Paoha Islet complex. The number of nests on Negit Island rose from 271 in 2001 to 391 in 2002.

An estimated 26,827 young fledged

from all the lake's nesting islands in 2002, continuing a third year of high reproductive success. During a prior six-year period of meromixis in the 1980s, gull nesting success was low the first two years but increased thereafter. During the current period of meromixis gull reproduction was extremely low for four years, followed by three years in which it was above average. This trend suggests a recovery similar to that in the 1980s and is consistent with observations that the lake's stratification is eroding more rapidly than initially projected (see Winter 2002 *Newsletter*).

Gull studies will continue this summer, adding another important piece to the puzzle that documents the restoration of Mono Lake. ❖

Information in this article was compiled from the study: Population Size and Reproductive Success of California Gulls at Mono Lake, California in 2002 by Justin M. Hite, Elizabeth O'Hara, Tricia Wilson, and Melissa T. Hite under direction of PRBO Conservation Science.

A downed powerline was the ticket to a feast. A fierce wind toppled a utility pole near the Lundy power plant on April 24, igniting a tremendous brush fire that swept northeastward, jumping Hwy 395 and incinerating 800 acres in the north Mono Basin. Human habitat was spared, barely. Some birds fared worse, notably, one to a half dozen American Magpie nests along Wilson Creek succumbed along with their host willows. The fish suffered the most. Approximately 20–30 thousand small trout were killed in rearing ponds along Wilson Creek due to ash settling into the water.

The fire went and the birds came. Walking the charred north moraine at the entrance of Lundy Canyon a couple days after the burn there were a multitude of birds to be seen. Lingering and scattered among the charred skeletons of bitterbrush and sage were American

Robins, White-crowned Sparrows, Spotted Towhees, Brewer's Blackbirds, Red-winged Blackbirds, and Mountain Bluebirds. Some of the first Green-tailed Towhees of spring were probing the green margins of the fire scar. Red-shafted Flickers and Hairy Woodpeckers scrutinized the badly burned cottonwoods along the return ditch. There were far more birds around this denuded moraine than you would expect to find on any given, fully-foliaged day. Did the fire expose a wealth of seeds? It seemed too cold for insects to be out. A search on the ground and found only scorched rocks, dirt and charcoal.

Reports from below the moraine indicated the birds were discovering food—30 American Pipits foraging in the burned meadow. The dead fish attracted a regular convention of eager scavengers. Perched among ice age tufa mounds and

Fire of Plenty

by Bartshe Miller



willows, Snowy and Great Egrets, California Gulls, and Turkey Vultures, all had arrived for a banquet of wildfire trout. These fish had been destined for the photos and bellies of fishermen. Fire intervened, and served them up smoked for the birds.