Darrell Whitworth, a seabird biologist, shimmied into a crevice deep inside a sea cave on Anacapa Island, one of the Channel Islands off southern California. Anacapa itself is just fourteen miles west of Ventura, a little north of Los Angeles. Within a minute, Whitworth wormed his way back out with a satisfying grin on his face. He told me he had found two recently hatched eggshells in a cave that in previous years had not contained nests of Xantus’s Murrelets (*Synthliboramphus hypoleucus*).

He then opened the palm of his hand, and revealed the two eggshells. Next he described how the chicks broke free to emerge into a dark, volcanic environment. Although most birders know Xantus’s Murrelets as black-and-white blobs seen on pelagic trips, these strange little birds start their lives on dryland—in fact, under dryland. Adults place their nests in deep crevices on offshore islands, and the eggs are typically laid as far back in the cavity as possible—often more than three feet in. There are no beaches for egg laying on Anacapa, only sheer cliffs.

In 2002–2003, black rats (*Rattus rattus*) were finally eradicated from the narrow islet. In a controversial assault, the Channel Islands National Park, California Department of Fish & Game, U. S. Fish & Wildlife Service, National Oceanic & Atmospheric Administration, and the Island Conservation and Ecology Group dropped a rodenticide called brodifacoum on the island in tiny pellets. Most of the rats died in their burrows. In an effort to save the raptors and owls that would prey on the dead rats, biologists trapped as many as they could before the drop, but there were 94 dead birds found on the island following the project. Most were juvenile White-crowned Sparrows. The cost for the Anacapa Island rat eradica-
tion project was $1.6 million, funded in connection with mitigation for the American Trader oil spill in 1990 off Huntington Beach, California.

If the recent increase in murrelet nests is any indication of conditions in a rat-free environment, then the island is on its way to returning to a natural balance. Between 2000 and 2002, 42 percent of all murrelet nests were destroyed by black rats. In the aftermath of the evidently successful rat elimination effort, rat predation on murrelet nests on Anacapa Island was essentially stopped by 2004.

“We’ve found and currently monitor 25 nests,” says Whitworth, a murrelet specialist with the California Institute of Environmental Studies. “Most of their habitat is inaccessible, but we’ve found many on the water, and those numbers are increasing.”

About the size of an American Robin but capable of diving 30–45 feet, the Xantus’s Murrelet is a species whose biology and life history remain mysterious. The Channel Islands National Park harbors close to half the world’s population, estimated at 10,000–15,000 birds. The globally restricted breeding range of the species ranges from the Channel Islands south to islands off the coast of Baja California. Xantus’s Murrelet is listed as threatened in California.

Xantus’s Murrelets spend most of their lives at sea and return to nesting colonies between February and June. Safe from diurnal predators such as Peregrine Falcons and Western Gulls, these seabirds return to land at night, seeking appropriate nesting habitat in rocky crevices in cliffs hundreds of feet above the ocean. However, adults are not safe from all predators; for example, nocturnally hunting Barn Owls are island residents. Two
eggs are laid, and during the incubation period adults swap nest duties every three to four days for two months. When the chicks are just two days old, their parents coax them to leave the nest site, a rite of passage that almost always entails a free-fall from their lofty nest cave. Anacapa and Santa Barbara Islands host the largest Xantus’s Murrelet colonies in the Channel Islands.

“We’ve expanded our search on Santa Barbara Island,” says Paige Martin, seabird biologist for the National Park Service. “There’s more accessible habitat there. I’ve found 80 nests.”

In June of 2005, I watched Whitworth scale a craggy cliff at Landing Cove on the southeastern end of Anacapa Island, a region of the islet once overrun with rats. The island is honeycombed with volcanic caves, alcoves, and crevices still evolving over the course of millennia and now reaching across the weather-beaten cliffs that climb 300 feet high. They make ideal nesting habitat for the tiny murrelets, but they were also easy access for the introduced black rats. Now, without the rats, that cliff hosts five Xantus’s Murrelet nests where once there were none. Whitworth has been checking nests for several years now. In 2003, the number of murrelet nests increased by 42 percent. In 2004, the number of nests increased another 80 percent.

“Recovery is gradual,” he says. “It’s two to three years before they’re ready to breed. They have low reproductive rates, and they’re difficult to study.”
Xantus’s Murrelets pair for life. Currently, 300–600 pairs are estimated to breed on Anacapa, 500–750 pairs on Santa Barbara Island, and 750–1,200 pairs on the Coronado Islands off Tijuana, Mexico. Since 1994, Whitworth and other biologists have banded 1,400 murrelets around the islands to study how long birds attend colonies. Banding recoveries demonstrate that birds always return to the same island. These studies also show that the same murrelet pair returns to the exact same nest site year after year, and that individual murrelets can live up to 20 years.

“Their whole life cycle is intriguing,” says Whitworth. “Those little chicks drop from their nests and the spend live their whole lives at sea. It’s baffling to me. We may never know the whole story.”

Although anticipated recovery from the removal of black rats is an encouraging prospect, Whitworth makes it clear that rats remain a problem at other colonies—from Point Conception down to Baja. Xantus’s Murrelets also face dangers at sea. Like other marine creatures, they are vulnerable to such serious threats as oil pollution, entanglement in fishing nets, over-harvesting of food resources, and additional introduced predators. Another looming threat is climate change: The life cycle of the Xantus’s Murrelet is tightly related to sea surface temperature, and global warming could have drastic impacts on the species.
“Don’t expect that, because the rats are gone, the population is going to triple,” Whitworth says. There are pressures they’ve evolved with, but there are a lot of unknowns out there. These birds are 150–200 miles out at sea.”

As we sputtered around from cave to cave in the soggy, leaky skiff, almost every nest revealed recently hatched eggs. At four nests, the eggs had just hatched, and the parents were still tending the young. Moss Cave had four nests with all eight eggs hatched. Whitworth said it was the most ever in that particular grotto. We checked the last of the 25 nest sites near Cat Rock. Whitworth was beaming. The hatching rate for 2005 had soared to 96 percent.

Since the eradication of the introduced rats, all indications are that murrelets on Anacapa Island are recovering and that the rate of successful nests is on the increase. We still have much to learn about the basic biology of the Xantus’s Murrelet, and threats to the species clearly remain. But the outlook for this intriguing black-and-white seabird is hopeful.

What are the future prospects for the Xantus’s Murrelet? The answer will depend on local protection at the birds’ breeding colonies, as well as international cooperation to protect their oceanic feeding grounds. Monterey, California; 13 August 2004. © Mike Danzenbaker.