

Parker, Mike. 1999. Murres on Devil Slide Rock! It's the Decoys, Dummy. Tideline Vol 19 No. 2 1-3.

## ***Murres on Devil Slide Rock!*** ***It's the Decoys, Dummy***

*by Mike Parker*

It is first light as seabird biologist Sue Schubel attaches the spotting scope to the tripod. She is tired and her body aches from the previous two days of work. Nothing was going to keep Sue from rising out of bed and heading out into the cold Pacific Northwest wind to look at the stage she has helped create. The final touches were made just a few short hours ago but it took months to prepare all the equipment. And now, as she peers through the scope, she can see all the hard work is paying off as the first performer has arrived stage right.



Sue is part of a team of biologists that created an artificial common murre colony on the top of Devil's Slide Rock in January 1996. Her colleagues include a team of biologists from the U.S. Fish and Wildlife Service, Humboldt State University Foundation, U.S. Geological Service, National Audubon Society and Point Reyes Bird Observatory.

Common murres (*Uria aalge*) had not been seen breeding in San Mateo County since the early 1980's even though they are the most abundant breeding seabird in California.

However, a team of biologists are cooperating on a project to entice murres to once again breed on Devil's Slide Rock. Located just off the rugged San Mateo County coast, this rock had as many as 2,900 breeding murres in 1982. In 1986, no breeding murres could be found when biologists flew over Devil's Slide Rock during a common murre colony aerial survey in California. During this survey it was discovered murre numbers along the central California coast (between Point Reyes and Point Sur) reached an all-time low when only 93,326 breeding birds were estimated, a 60% decline from 1980 estimates.

This incredible decline was caused by several factors. Gill net fishing increased during this time. The California Department of Fish and Game estimated 70,000 - 80,000 murres drowned in gill nets along the central California coast between 1980 and 1986.

Two oil spills also contributed to the decline. In October 1984, the oil tanker *Puerto Rican* exploded outside of the Golden Gate, creating large oil slicks in the Gulf of the Farallons. Thousands of dead murres began washing up along the coast. Another spill occurred in January 1986. The barge *Apex Houston* spilled approximately 20,000 gallons of San Joaquin crude oil. An estimated 9,000 seabirds were killed; 6,300 were

Common Murres. This spill was the "straw that broke the back" of the Devil's Slide Rock colony.

A lawsuit was brought forward in 1989 by the U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration, and California Department of Fish and Game based on information gathered by Point Reyes Bird Observatory biologists on the *Apex Houston* oil spill. The case was settled out of court for \$6.4 million with \$4.92 million being set aside for Common Murre restoration. Reestablishment of historic murre colonies will reduce the impact of future catastrophes that may decimate the central California murre population by spreading out the colonies. Restoring a murre colony begins with understanding the biology of this seabird.

The common murre is the largest living member of the auk family, measuring about 15 inches long. During the summer, murres have dark brown backs with white underparts and necks. They are a seabird whose range is distributed widely throughout northern Pacific and Atlantic oceans. The southern most breeding colony in the Pacific occurs along the Big Sur coastline. Murre colonies also breed in northern Alaska above the Arctic Circle. In flight, murres fly rapidly and directly but they maneuver poorly. Murres are excellent swimmers, using their wings to "fly" underwater and reaching depths of 180 meters. They have been recorded diving for at least 2 ½ minutes with average dive times of 1 to 1 ½ minutes. On land, murres stand nearly upright but appear skittish and uncomfortable.

In California, murres begin attending breeding colonies as early as December. At larger colonies, such as the Farallon National Wildlife Refuge, the first arrivals can be spectacular. The murres will congregate in large flocks on the water at dawn. Eventually, a few murres will fly around the colony many times before landing. Once a few murres land, murres begin falling from the sky. In a matter of minutes the raft has moved from the water onto land. Each year, murres return to the exact location within the colony they bred the prior year. During the winter, murres attend the colonies sporadically but attendance becomes more regular as the breeding season approaches.

By April, attendance is daily and the first eggs can be seen as early as late April. The breeding colonies are extremely dense as murres nest shoulder to shoulder with approximately 20 breeding pairs per square meter. This close nesting behavior helps protect murre eggs and chicks from avian predators. Any gull or raven attempting to enter a murre colony is sure to meet many sharp-pointed bills being thrust in their direction. Both parents share incubation duties. After 32 days, a fuzzy black and white murre chick emerges. Parents take turns foraging for fish to feed the chick. The chicks, less than 25 days old and unable to fly, leave the nest site and go to sea with the adult male. The chicks will remain at sea for the next two years. Over the next several years, they will begin to make sporadic visits to colonies during the breeding season until they find a mate. Most chicks will return to their natal (birth place) colonies to breed when they are 4 to 7 years old.

So how do you get murres to breed on a rock that is empty of murres? You create a colony! Placing 384 common murre decoys on metal rods drilled into the rock, setting

up two independent sound systems that broadcast murre calls all day every day, and setting out triangular shaped mirror boxes are all part of creating this artificial colony. The use of decoys and sound recordings is called social attraction. The idea is to attract murrelets to Devil's Slide Rock and keep them on the rock long enough for them to meet other live murrelets.

Sue Schubel was witnessing this when she saw the first murre land on Devil's Slide Rock. By the second morning four murrelets were seen within the decoys and interacting with the mirrors. We expect it would take several years before breeding would occur. However, our first egg was observed on the rock during the first year of the project.

Three years later, we have 17 pairs of murrelets breeding on the rock. Perhaps just as important, 10-15 pairs of murrelets are establishing territories on the rock. Given time these birds may eventually choose Devil's Slide Rock as a place to breed. Over the next 7 years, we hope to establish 100 breeding pairs of murrelets on Devil's Slide Rock.

Inspired by our efforts, we expanded our restoration efforts in 1998 to San Pedro Rock, located approximately 1 mile north of Devil's Slide Rock. Murrelets were last documented breeding on San Pedro Rock in 1908 by San Franciscan ornithologist Milton S. Ray. Mr. Ray documented at least 400 murrelets breeding on the rock, but thousands may have used the rock before.

The colony was decimated in part due to the collection of murrelet eggs for sale in San Francisco markets. Mr. Ray also reported a local egger blamed the decline of this colony on the "continual blasting" caused by adjacent railroad construction. Today, the remnants of the abandoned railroad line can still be seen low on the Devil's Slide headlands less than 1000 feet from San Pedro Rock.

Twenty-five murrelets visited San Pedro Rock during the first year, but no breeding was detected. It may take several years to reestablish breeding on this extirpated colony because it has been nearly a century since murrelets bred here.

The rapid and sustained response by murrelets in the past three years to social attraction techniques, as well as the establishment of many breeding pairs at Devil's Slide Rock, bodes well for the permanent reestablishment of these historic colonies. Hopefully, Devil's Slide and San Pedro rocks will be covered with thousands of murrelets breeding again along the San Mateo coast.

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