

CALIFORNIA SEA LION PREDATION ON CHICKS OF THE COMMON MURRE

DOUGLAS J. LONG

*Department of Ichthyology
California Academy of Sciences
Golden Gate Park
San Francisco, California 94118 USA*

LUCY GILBERT

*Department of Animal and Plant Science
P.O. Box 601, University of Sheffield
Sheffield S10 2UQ, United Kingdom*

Abstract.—Current knowledge of predation on Common Murres is largely confined to several species of terrestrial predators, and little is known of the role of aquatic predators on murre life history. Our field observations demonstrate that the California sea lion (*Zalophus californianus*) is a predator on Common Murre (*Uria aalga*) chicks. We present the first record of pinniped predation on murres along the west coast of North America, and the first record of California sea lion predation on seabirds.

LEÓN MARINO DE CALIFORNIA (*ZALOPHUS CALIFORNIANUS*) DEPREDANDO SOBRE PICHONES DE *URIA AALGAE*

Sinopsis.—Lo que se conoce sobre la mortalidad producida a *Uria aalga* por depredadores, está mayormente circunscrito a organismos terrestres. Nuestras observaciones demuestran que el León Marino de California (*Zalophus californianus*) es un depredador de los polluelos de *Uria*. Presentamos el primer informe de depredación de pinípedos en dichos tipos de aves en la costa oeste de Norte América, y el primer informe de depredación de aves marinas por parte de este tipo de mamíferos.

Known predators of murres (*Uria* spp.) include several species of birds and terrestrial mammals that may attack adults, juveniles, or eggs at nesting sites (summarized in Donaldson et al. 1995, Johnsgard 1987), but the only confirmed aquatic predators of Common Murres (*Uria aalga*) are grey seals (*Halichoerus grypus*) in the western Atlantic (Lucas and McLaren 1988). A cursory summary of literature by Riedman (1990) concerning avian prey of pinnipeds showed that there are no other known records of pinniped predation on Common Murres, and that while several species of pinnipeds may prey on other species of seabirds, there are no records of California sea lion (*Zalophus californianus*) predation on seabirds of any species. California sea lions and Common Murres frequently share rookery sites and often compete for space (Boekelheide et al. 1990), but no direct predatory interactions have yet been recorded. This note documents California sea lion predation on Common Murre chicks off central California and suggest that these pinnipeds are occasional predators of Common Murres.

Observations of the predatory interactions took place during early dusk on 6 Jul. 1994 on Southeast Farallon Island at the Farallon Islands National Wildlife Refuge off the coast of central California (37°42'N,

123°00'W). Seasonal surveys and observations of Common Murre nesting sites are conducted yearly from a blind on Shubrick Point at the eastern end of the island by biologists from the Point Reyes Bird Observatory (Bokelheide et al. 1990). While observing fledgling Common Murres, the chicks were seen jumping off a rocky ledge of the rookery into the surf below where they were joined by a parent. In this area near the shore, several groups of chicks and adults were intermittently floating on the surface and diving. During this time, a loose herd of about ten juvenile and subadult male California sea lions was swimming around the point. Upon reaching the murres, they began diving and surfacing in circles around the birds. At least one of the sea lions submerged, swam below the chicks, and seized one in its jaws while surfacing, and dived with the chick in its mouth. This behavior continued and within a 2-min period, three chicks were taken by the sea lions and then the sea lions abruptly left the area. Because none of the chicks or their remains resurfaced, and because none of the sea lions were later seen with their carcasses, we identify these behaviors to be acts of predation, and rule out other behaviors such as play or territorial aggression. California sea lions feed primarily on fish and cephalopods (Jones 1981, Ainley et al. 1982), and it was previously assumed that the sea lions posed no threat to murre chicks (Kenyon 1949). However, these observations are the first documented instances of California sea lion predation on seabirds, and the first confirmed record of pinniped predation on Common Murres on the west coast of North America. The precise motivation for predation on the murre chicks is unknown, other than the downy chicks being an easily captured food source for the sea lions. Interestingly, it is usually the males of other pinniped species that are responsible for predation on seabirds (Riedmann 1990), so our observation is not entirely out of the ordinary.

Several other species of pinnipeds along the Pacific coast of North America are known to occasionally feed on seabirds. Documented records of predation include those of the northern fur seal (*Callorhinus ursinus*) on Rhinoceros Auklets (*Cerorhinca monocerata*), Marbled Murrelets (*Brachyramphus marmoratum*), and Black-footed Albatrosses (*Diomedea nigripes*) (McHugh 1951, Riedmann 1990, Scheffer 1950); and the Steller sea lion (*Eumetopias jubatus*) on Glaucous-winged Gulls (*Larus glaucescens*) (O'Daniel and Schneeweis 1992). These records, however, did not indicate predation occurred at seabird rookeries as our observations did, so Common Murres may be more vulnerable to pinniped predation at breeding sites. Further studies need to be undertaken to estimate the actual impact of pinniped predation on the natural mortality of Common Murres.

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