DYNAMICS OF WHITE SHARK (Carcharodon carcharias) PREDATION ON STELLER SEA LIONS (Eumetopias jubatus) IN CALIFORNIA.

Long, D.J.¹ and K. D. Hanni²

¹Department of Integrative Biology, University of California, Berkeley, CA. 94720 and ²The Marine Mammal Center, Sausalito, CA. 94965

Little is known about the role of predation in the decline of Steller sea lions (Eumetopias jubatus). Off California, white sharks (Carcharodon carcharias) are the primary predator on Steller sea lions. We analyzed records of white shark/Steller sea lion predatory interactions for a twenty-three year period (1970-1992) from stranding records along the mainland coast of California, and from pinniped census and white shark feeding observations at Southeast Farallon Island, California. White shark attacks on Steller sea lions were recorded year-round, but most shark wounded animals were seen in June, and in fall through early winter. Attacks usually occurred at pinniped rookeries and haul outs; white sharks primarily fed on other species of pinnipeds found in greater abundance. Females were attacked more often than males. There was a significant difference in attack records on four age classes; adults were attacked most frequently, followed by juveniles, subadults, and pups, respectively. Bites were usually located on the posterior body regions. The overall impact of white shark predation on the Steller sea lion population is minimal, since white sharks are not usually found in the central and northern parts of the Steller sea lion range. However, there has been a significant increase in white shark predation along the California mainland and at Southeast Farallon Island since the early 1980's. White shark predation may have a potentially important influence on the recovery of Steller sea lions in California if the sea lion population continues to decline and the white shark population increases.