

WA Willapa Bay Drift Gillnet

Tier 1 evaluation: The estimated total fishery related mortality and serious injury for the Oregon and Washington coastal stock of harbor seals is greater than 10 percent of the PBR level.

Tier 2 evaluation: No harbor seal mortalities were observed incidental to fishing effort in 1991. However, harbor seals did interact with the fishery. Two incidents of entanglement were observed in which the seals were released alive and uninjured. Based on observer data, incidental mortality was estimated to be a rare event which would not exceed 1 percent of the calculated PBR level for this stock.

WA Gray's Harbor Salmon Drift Gillnet (Excluding Treaty Tribal Fishing)

Tier 1 evaluation: As reported in the final SAR, the estimated total fishery related mortality and serious injury for the Oregon & Washington coastal stock of harbor seals (233) is greater than 10 percent of the PBR level (170).

Tier 2 evaluation: The reported estimate of annual mortality and serious injury of harbor seals in this fishery (10), based on observer data, is less than 1 percent of the calculated PBR level for the stock (17).

WA, OR Lower Columbia River (Includes Tributaries) Drift Gillnet

Tier 1 evaluation: The estimated total fishery related mortality and serious injury for the Oregon and Washington coastal stock of harbor seals (233) is not less than 10 percent of the PBR level (170).

Tier 2 evaluation: Based on observations in 1991–92, the estimated annual mortality and serious injury of harbor seals in this fishery is 213. However, during the observation period, all but one of the observed mortalities occurred during the winter season. The extrapolated annual mortality of harbor seals in this fishery from 1991 to 1993 was 233 seals in 1991 (all during the winter season), 192 seals in 1992 (180 in the winter season and 12 in the fall), and 11 seals in 1993 (all during the winter season). Although the estimated annual mortalities of harbor seals in 1991 and 1992 could justify placing this fishery in Category II, reduced fishing seasons and or season closures (due to restrictions on the fishery to minimize impacts on Snake River chinook salmon, which are listed under the Endangered Species Act (ESA)) are unlikely to result in the levels of harbor seal mortality observed in 1991 and 1992. The winter season of 1993, when an estimated 11 harbor seals were taken, was restricted due to ESA

considerations. The winter season was closed in 1994. The estimated annual harbor seal mortality for the fall fishery, 4 ($0+11+0/3=3.66$) is less than 1 percent of the calculated PBR level for this stock (17).

CA Set and Drift Gillnet Fisheries That Use a Stretched Mesh Size of 3.5 Inches or Less

Tier 1 evaluation: Based on logbook data (1991–1994) (NMFS 1995, Joe Cordaro, pers. com., SWO, NMFS), no annual mortality and serious injury of marine mammals has been reported in the CA set and drift gillnet fishery with small mesh.

AK Miscellaneous Finfish Set Gillnet

Tier 1 evaluation: No marine mammal serious injuries or mortalities have been documented incidental to this fishery.

Tier 2 evaluation: Marine mammal mortality and serious injury levels approaching 1 percent are not expected for any stock by this fishery.

HI Gillnet

Tier 1 evaluation: One bottlenose dolphin was reported entangled in a gill net in 1991 (Nitta and Henderson 1993); however, bottlenose dolphins are rarely reported as entangled in set gillnets in Hawaii. There are records of spinner dolphins being taken in nets or net fragments in Hawaiian waters, and one eyewitness account in 1990. There has been one reported incidental mortality of a Hawaiian monk seal in an inshore gillnet in 1976 (Barlow *et al.*, 1995). Due to the rarity of these interactions, this fishery is placed in Category III.

CA Herring Purse Seine

Tier 1 evaluation: Based on logbook data (1990–94) (Joe Cordaro, pers. comm.) the total mortality and serious injury of the CA coastal bottlenose dolphins across all fisheries, including the CA herring purse seine fishery, is less than 10 percent of this stock's PBR level (Barlow *et al.*, 1995).

CA Sardine Purse Seine

Tier 1 evaluation: Based on logbook data (1990–1992), no mortality or serious injury has been reported in this fishery.

CA Squid Purse Seine

Tier 1 evaluation: Based on logbook data (1990–92), the total annual average mortality and serious injury of California sea lions across all fisheries, including the squid purse seine fishery, exceeds 10 percent of this stock's PBR level.

Tier 2 evaluation: The total annual average mortality and serious injury of

California sea lions in the CA squid purse seine fishery is less than one percent of this stock's PBR level.

CA Squid Dip Net

Tier 1 evaluation: Based on logbook data (1990–1992), no mortality or serious injury has been reported in the CA squid dip net fishery.

WA, OR Salmon Net Pens

Tier 1 evaluation: As reported in the final SAR, the total estimated fishery related mortality and serious injury of the U.S. stock of California sea lions (2,446) based on observer data collected from 1991 to 1993 exceeds 10 percent of the calculated PBR level for this stock (505). However, preliminary estimates for the first three quarters of 1994 indicate that a large reduction in the mortality rate has taken place and that mortality may be less than 10 percent of the calculated PBR for 1994.

Tier 2 evaluation: Based on logbook data the incidental take of marine mammals is infrequent and California sea lion mortality and serious injuries are at a level less than 1 percent of the calculated PBR level.

OR Salmon Ranch

Tier 1 evaluation: No incidental, but not intentional, mortalities or serious injuries of marine mammals have been reported for this fishery.

AK Salmon Troll

Tier 1 evaluation: Total known Steller sea lion mortalities and serious injuries across all fisheries do not exceed 10 percent of the stock's PBR level with the current information. Low levels of observer coverage have been inadequate to determine mortality and serious injury levels for these stocks across all fisheries, and available data suggest that levels of mortality and serious injury may exceed 10 percent of some stocks' PBR levels if observer information were available.

Tier 2 evaluation: Known Steller sea lion mortalities and serious injuries for this fishery do not exceed 1 percent of the stock's PBR level and current information does not indicate that this level would exceed 1 percent with observer coverage for this fishery.

CA/OR/WA Salmon Troll

Tier 1 evaluation: Based on logbook data (1990–92), the mortality and serious injury of California sea lions across all fisheries, including the CA/OR/WA salmon troll fishery, exceeds 10 percent of this stock's PBR level.

Tier 2 evaluation: A review of logbook data (1990–1992) indicated that the majority of fishers reported intentional