

Proposal for Inclusion of Species on the Appendices of the
Convention on the Conservation of Migratory Species of Wild
Animals

A. Proposal: Inclusion of Phocoenoides dalli in Appendix II.

B. Proponent

C. Supporting Statement

1. Taxon

1.1. Classis	Mammalia
1.2. Ordo	CETACEA
1.3. Familia	Phocoenidae
1.4. Genus/Species/Subspecies	<u>Phocoenoides dalli</u> (True, 1885)
1.5. Common Name(s)	
English:	Dall's porpoise
Spanish:	marsopa de Dall
French:	marsouin de Dall
Russian:	belokrylaya morskaya
Japanese:	rikuzen iruka, kita iruka

2. Biological data

2.1. Distribution (current and historical)

Found only in the North Pacific from Japan and California to the Sea of Okhotsk and Bering Sea inclusive (Tomilin, 1967). In the eastern north Pacific it is reported as common south to about 32°N. There are records of the species as far south as 28°N, off the coast of Baja California, Mexico, although reported only during periods of exceptionally cold waters (Jefferson, 1988). In the central North Pacific the southern limit is about 41°N. On the east coast of Japan it is found as far south as 35°N. At the northern end of the range, sightings are infrequent north of 62°N in the Bering Sea, but there have been occasional sightings in the Chukchi Sea (Jefferson, 1988).

2.2. Population (estimates and trends)

At least four stocks have been described: Pacific coast of Japan with around 58,000 individuals, Sea of Japan-Sea of Okhotsk with about 46,000 animals, a North Pacific stock comprised by 741,000 animals and a Bering Sea stock with 212,000 porpoises (Kasuya, 1982; Jones et al., 1987; Miyashita and Kasuya, 1988). Recent studies on the concentration of PCBs and DDE support the concept of four populations of Dall's porpoise (Subramanian et al., 1988).

2.3. Habitat (short description and trends)

Dall's porpoise is found in diverse habitats, including sounds, nearshore waters (near deep water canyons) as well as offshore waters more than 1000 km from shore. Waters less than 18°C are preferred, and the peak of abundance is in waters less than 13°C (Leatherwood and Reeves, 1983; Kasuya and Jones, 1984; Jones et al., 1987). In the central North Pacific prey items include primarily squids of the genera Gonatus, Gonatopsis and Berryteuthis, as well as a variety of epi- and mesopelagic fishes. In the eastern North Pacific fishes such as hake, herring and anchovy are reported (Morejohn, 1979; Crawford, 1981; Jefferson, 1988).

2.4. Migrations (kinds of movement, distance, proportion of the population migrating)

Seasonal migrations may occur in the Gulf of Alaska and the Bering Sea. Segregation of age and sex classes was determined in the western North Pacific population (Kasuya and Jones, 1984). Mother-calf pairs are only sighted north of 46°N. Data obtained from the mothership gillnet fishery confirm that pregnant and lactating females dominate in the northern Pacific area and that newborn calves are also present. These observations may probably indicate a calving and breeding area for the population north of the U.S. Exclusive Economic Zone (EEZ). The percentage of mature males in this area is low, and most mature males are found south of the U.S. EEZ (Jones et al., 1987).

Porpoises of the truei type winter off the Pacific coast of Japan, moving in summer towards the north, reaching the southern Kuril Islands. Up to 15,000 animals of the dalli type are reported to migrate through the Tsugaru Strait to the Pacific coast of Japan (Miyashita and Kasuya, 1988).

3. Threat data

3.1. Direct threats to the population (factors, intensity)

A fishery for Dall's porpoises operates only in Japanese waters. During the 1960s and 1970s the average annual catch of the truei type was 6,000 (Kasuya, 1982). While this fishery was developed primarily during winter months, in recent years it has spread to other seasons and areas, resulting in an increase in the annual catch and the inclusion of the dalli type in the captures (Miyashita and Kasuya, 1988). A total of 10,534 was taken in 1986, 13,406 in 1987, and about 39,000 in 1988 (IWC, 1988; IWC, 1989a,b) from a population of about 105,000 porpoises. The stock composition of the catches is not known. The effect of hunting at such a level on the populations is a matter of concern (Miyashita and Kasuya, 1988; Brownell et al., 1989; IWC, 1989b).

In addition to the direct catch, Dall's porpoises are also captured incidentally to other fisheries. The most important is that in the Japanese mothership salmon gillnet fishery which has operated in the northwestern North Pacific and Bering Sea since 1952. Previous estimates account for about 10,000 to 20,000 porpoises killed every year in this fishery (Ohsumi, 1975; Jefferson, 1988). Because the area for the fishery is located mainly within the U.S. EEZ, restrictions were devised to reduce the incidental mortality. The estimated annual incidental take within the U.S. EEZ for the period 1981-1985 ranged from 1,850 (1981) to 4,187 (1982). Outside the US EEZ the take ranged from 479 to 1,716 (Jones et al., 1987). A Japanese squid gillnet fishery took nearly 2,500 Dall's porpoises every year between 1982 and 1984. Two other squid fisheries, Korean and Taiwanese, operate in the area, but the number of porpoises incidentally taken remains unknown, although may be high (Jones et al., 1987; Brownell et al., 1989).

Dall's porpoises are also taken in a Japanese land-based salmon gillnet fishery in the western North Pacific. Estimated annual take in this fishery for 1981 and 1982 are 2,966 and 6,099 respectively (Jones et al., 1987; Jefferson, 1988). In the eastern North Pacific a few animals are taken incidentally to other fishing operations (Jefferson, 1988).

3.2. Habitat destruction (quality of changes, quantity of loss)

The drift net fishery operating in the North Pacific reportedly takes a variety of fish species that could include the prey of the Dall's porpoise. The development of the squid fishery in the region could eventually represent a potential threat by reducing food availability.

3.3. Indirect threat (e.g. reduction of breeding success by pesticide contamination)

High concentrations of organochlorines (especially DDT) were reported in Dall's porpoises from southern California (O'Shea, et al., 1980). High levels of PCBs and DDE were found to have a negative effect in testosterone levels of sex hormones in male Dall's porpoises (Subramanian et al., 1987).

3.4. Threats connected especially with migrations

Porpoises migrating to Japanese waters are heavily hunted (see 3.1). Animals from the North Pacific and Bering Sea stocks are victims of the incidental catch in salmon drifnets, affecting the species particularly in the calving grounds (Miyashita and Kasuya, 1988; Kasuya and Ogi, 1987).

3.5. National and international utilization

The overall direct catch in Japanese waters is used for food. It is felt that the dramatic increase of the direct catch of Dall's porpoise and other small cetaceans in Japan apparently may be attributed to the shortage of whale meat as a result of the IWC moratorium on whaling (IWC, 1989).

In the central North Pacific, porpoises incidentally caught in the salmon driftnet fishery are not utilized, and the carcasses are thrown back to the sea (Jones et al., 1987).

4. Protection status and needs

4.1. National protection status

The species is protected through national legislations in the USA, the USSR and Canada.

4.2. International protection status

Phocoenoides dalli is listed in Appendix II of CITES.

Populations of Dall's porpoise in the western-central North Pacific, Bering Sea and coastal waters of Japan are considered "At Risk" by the IUCN, although the species as a whole is classified as "Not Threatened" (Perrin, 1989).

Dall's porpoise was one of the marine mammal species included in the International Convention for the High Seas Fisheries of the North Pacific Ocean (INPFC) set by Japan and the USA in 1978 to assess the impact of the salmon drifnet fishery on marine mammal populations.

Along with other marine mammals the species is included in the Agreement between the USA and the USSR on Cooperation in the field of Environmental Protection (Klinowska, in press).

4.3. Additional protection needs

Particular attention should be paid to studies on stock identity and size, as well as the monitoring of the incidental take by the Korean and Taiwanese squid fisheries. The possible effects of pollutants and their use to discriminate stocks should be fully studied.

5. Range States

Canada, Japan, South Korea, Taiwan, the USA and the USSR.

6. Comments from Range States

7. Additional remarks

8. References

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