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

A. Proposal: Inclusion of Orcinus orca (eastern North Pacific population) in Appendix II.

B. Proponent:

C. Supporting Statement

1. Taxon

1.1. Classis	Mammalia
1.2. Ordo	CETACEA
1.3. Familia	Delphinidae
1.4. Genus/Species/Subspecies	<u>Orcinus orca</u> (Linnaeus, 1758)
1.5. Common Name(s)	
English:	killer whale
French:	orque
Spanish:	orca
Russian:	kosatka
Japanese:	sakamata

2. Biological data

2.1. Distribution (current and historical)

The killer whale is a cosmopolitan species, being present in all oceans and seas of the world. In the northeastern Pacific Ocean, it has been recorded in the eastern Bering Sea, and as far north as the Chukchi and Beaufort Seas (Braham and Dahlheim, 1982; Heyning and Dahlheim, 1988). In the western North Pacific these whales are present along the Soviet coast in the Bering Sea, Sea of Okhotsk and off Japan (Tomilin, 1967; Kasuya, 1971).

2.2. Population (estimates and trends)

Few population estimates exist for killer whales. They seem to be abundant off the coast of Alaska, in particular in the Prince William Sound area, where approximately 230 whales are said to be present among 372 whales reported for southern Alaska (Leatherwood et al., 1984; IWC, 1987). An estimated 260 whales comprising 30 pods have been reported for the intracoastal waterways of British Columbia and Washington State (Bigg, 1982).

2.3. Habitat (short description and trends)

Although reported from tropical waters and the open ocean, killer whales seem to be most common in colder waters, with greater abundance within 800 km of major continents (Heyning

and Dahlheim, 1988). Braham and Dahlheim (1982) observed that the majority of groups off southeastern Alaska and the Pacific side of the eastern Aleutian Islands were in waters less than 200 m, deep while those in the southeastern Bering Sea were concentrated over continental shelf waters, particularly near the 200 m contour.

The killer whale appears to be an opportunistic feeder. The diet may vary from one region to the next, between groups of pods in the same region, among age and sex classes and within years. Furthermore, differences between the diets of resident and transient killer whales in Puget Sound have been reported. Food items include other cetaceans, pinnipeds, birds, many species of fishes (especially herring and salmon) cephalopods and sea turtles. Studies in Japan and other areas revealed that marine mammal preys are preferred by the larger killer whales (Matkin and Leatherwood, 1986; Heyning and Dahlheim, 1988). In some areas of the North Pacific large schooling fishes such as salmon may be the preferred prey, at least seasonally (Matkin and Leatherwood, 1986; Heimlich-Boran, 1986).

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

In some areas, killer whales occur seasonally, but in other areas they are apparently year-round residents. In the Beaufort, Chukchi and northern Bering Seas these whales move south with the advancing pack ice, performing long-range movements (IWC, 1982). Similar movements are reported for the western North Atlantic (Sergeant and Fischer, 1957). According to Ivashin and Votrogov (1981) killer whales approach the Chukotka coasts in June and leave the area in November or even as late as December. On the other hand, year-round and seasonal occurrence are recorded for the waterways of British Columbia and Washington State, where pods are known to range approximately 370 nautical miles (IWC, 1982; Bigg, 1982).

3. Threat data

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

In Japanese waters annual takes of up to 170 were reported for the 1950s and late 1960s (Nishiwaki and Handa, 1958; Mitchell, 1975b). In recent years reports account for no more than 10 every year (IWC, 1980, 1990).

The killer whale is one of the most popular cetaceans in captivity. From 1962 to 1976, a live-capture fishery was active in Washington State and British Columbia. By 1976, 302 animals were captured, of which had 10 died, 55 were kept for public display and 237 were released (Asper and Cornell, 1977). Since 1976 only one killer whale has been captured in this region (Heyning and Dahlheim, 1988).

Incidental catches have been reported in the past (Leatherwood and Reeves, 1982).

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

High concentrations of PCBs and DDT have been found in the tissues of killer whales from Washington State (Calambokidis et al., 1984). Habitat disturbance may be a matter of concern in areas inhabited by killer whales and supporting whale watch industries (Barstow, 1986).

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

There are no studies on the effects of pollutants on killer whales, but these substances have been found to affect the reproductive cycle of other marine mammals (Reijnders, 1986; Subramanian et al., 1987).

3.4. Threats connected especially with migrations

Excessive boat traffic in areas supporting whale watch industries may affect movements of killer whales (Barstow, 1986).

3.5. National and international utilization

Direct catches in Japan are for human consumption. The viscera and old meat may be processed into fertilizer and bait (Mitchell, 1975).

In the eastern North Pacific the species was formerly subject to live-captures for local display and for export (Leatherwood and Reeves, 1982).

4. Protection status and needs

4.1. National protection status

This species is protected in most of the countries of the area, with the exception of Japan.

4.2. International protection status

Orcinus orca is listed on Appendix II of CITES. Trade in this species has been summarized by Klinowska (in press), most related to live-captures for display. The species is also included in Appendix II of the Berne Convention (Klinowska, in press).

Orcinus orca is included in the IWC Schedule. In 1980 the IWC Scientific Committee recommended classification of the Antarctic stock(s) as Initial Management Stock(s). Sometime after the catch limits were recommended to be zero (IWC, 1981). The species is "Not Threatened" according to the IUCN (Perrin, 1989).

4.3. Additional protection needs

More studies on population structure and dynamics. The effects of boat traffic on populations subject to whale watching should be monitored. The probable impact of the killer whale populations on the fish resources should be further assessed.

5. Range States

Canada, Japan, the USA and the USSR.

6. Comments from Range States

7. Additional remarks

8. References

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