

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

A. Proposal: Inclusion of Stenella longirostris (eastern tropical Pacific populations) 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>Stenella longirostris</u> (Gray, 1828)
1.5. Common Name(s)	
English:	spinner dolphin
Spanish:	delfin tornillo
French:	dauphin a ventre rose

2. Biological data

2.1. Distribution (current and historical)

The spinner dolphin has a worldwide distribution in tropical waters. It is found in the Pacific, Atlantic and Indian Oceans (Leatherwood and Reeves, 1983; Perrin and Gilpatrick, in press).

2.2. Population (estimates and trends)

As for other dolphin species in the eastern tropical Pacific, extensive studies of morphology, coloration, reproduction and distribution have revealed the existence of several forms: the Costa Rican, the eastern, the northern whitebelly and the southern whitebelly "stocks" (Perrin et al., 1985; Perrin and Gilpatrick, in press). Recent estimates of relative abundance show that the eastern spinner declined over the period 1975 to the early 1980s. Indices for the following years suggest some increase in abundance. It has been suggested that the higher estimates for 1985/1986 may not indicate a real increase in stock size, but rather that this stock stayed relatively stable during the 1980s (Buckland and Anganuzzi, 1988; Anganuzzi and Buckland, 1989). On the other hand, the northern whitebelly spinner stock experienced a notable decline from 1976 to 1980, remaining relatively stable since, with slight indications of increase. These conclusions, however, should be interpreted with caution, since large fluctuations of unknown origin were observed over the years. Estimates for the southern whitebelly

stock show little evidence of population changes, although the pattern for this may be approximately the same as that for the northern whitebelly spinner (Buckland and Anganuzzi, 1988; Anganuzzi and Buckland, 1989).

2.3. Habitat (short description and trends)

In most tropical waters nearly all records of spinner dolphins are associated with inshore waters, islands or banks. However, in the eastern tropical Pacific the species occurs in very large numbers on the high seas, with preference for the area known as the Tropical Surface Water, featuring a shallow mixed layer, shoal and sharp thermocline and relatively small annual variation in surface temperature (Au and Perryman, 1985; Perrin and Gilpatrick, in press). In these waters, spinners are present in mixed schools with spotted dolphins (Stenella attenuata), tuna and birds.

Small mesopelagic fish, squids and crustaceans comprise the main food of spinner dolphins, which may dive to at least 200-300 m.

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

Preliminary results of tagging experiments in the eastern tropical Pacific indicate that spinner dolphins may have a seasonal offshore-onshore movement like that of spotted dolphins (Stenella attenuata): onshore in fall and winter and inshore in late spring and summer. The maximum net distance travelled by a marked individual was 275 nautical miles in 395 days, suggesting that the extent of movements may be less than in spotted dolphins (Perrin et al., 1979; Hedgepeth, 1985; Perrin and Gilpatrick, in press).

3. Threat data

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

The most significant take of spinner dolphins is incidental to the purse seine fishery for tuna in the eastern tropical Pacific. The mortality of spinner dolphins has been increasing since the late 1970s, and, after a low mortality recorded in 1983, is again increasing dramatically. The numbers of eastern spinners killed in 1984 and 1987 were around 5,000 and 11,000, respectively, reaching a peak of nearly 19,000 in 1986. In the meantime, the catch levels for northern whitebelly spinners were on the order of 1,300 and 3,500, with a peak of nearly 6,200-6400 in 1986 (IATTC, 1989).

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

Relatively high levels of mercury and contamination with DDT, Dieldrin and PCBs have been reported in specimens from the eastern Pacific and the Caribbean Sea. The presence of mercury seems to be related to a natural source, but in the case of DDT and PCB the agricultural and industrial development in Central America may be the cause (Omni Research, Inc., 1973; Gaskin et al., 1974).

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

No information.

3.4. Threats connected especially with migrations

Offshore migration of spotted and spinner dolphins during spring and summer would increase the density of these species in the tuna fishing grounds, where dolphins and tuna are caught together (Au and Perryman, 1985).

3.5. National and international utilization

Dolphins taken in the eastern tropical Pacific fishery for tuna do not have a commercial value, and they are discarded.

4. Protection status and needs

4.1. National protection status

Protected by law in the USA, Ecuador, Colombia, El Salvador, France and Mexico (Klinowska, in press). No information is available from other countries.

4.2. International protection status

Stenella longirostris is listed in Appendix II of CITES. Dolphin populations in the ETP are currently under assessment by the Inter-American Tropical Tuna Commission (IATTC) and the U.S. Government. The eastern and northern whitebelly stocks in the ETP have been categorized "At Risk" by the IUCN, although the species is listed as "Not Threatened" (Perrin, 1989).

4.3. Additional protection needs

Cooperative research is needed in order to study stock discreteness and distribution, reduce the incidental mortality and identify potential sources of habitat degradation such as pollution.

5. Range States

Colombia, Costa Rica, Ecuador, El Salvador, France (Clipperton Islands), Guatemala, Honduras, Mexico, Nicaragua, Panama, Peru, Spain, the Netherlands, Vanuatu and the U.S..

6. Comments from Range States

7. Additional remarks

8. References

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