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

A. Proposal: Inclusion of *Inia geoffrensis* in Appendix II

B. Proponent:

C. Supporting Statement

1. Taxon

1.1. Classis		Mammalia
1.2. Ordo		CETACEA
1.3. Familia		Iniidae
1.4. Genus/Species/Subspecies		*Inia geoffrensis* (de Blainville, 1817)
1.5. Common name(s)		
English:	Amazon river dolphin	
Spanish:	Delfin rosado del Amazonas	
French:	Dauphin de l'Amazone	
Portuguese:	Boto	

2. Biological data

2.1. Distribution (current and historical)

The Amazon river dolphin is distributed in the Amazon and Orinoco Basins. According to Best and da Silva (1989a) the present distribution is nearly the same as in the past. The distribution seems to be limited by strong rapids and cold waters near the Andes. Three sub-populations (each bearing sub-specific status) of a single species *Inia geoffrensis* have been suggested (Best and da Silva, 1989a):
I. g. geoffrensis, distributed through the Amazon drainage basin, excepting the Upper Madeira River drainage;
I.g. humboldtiana, distributed throughout the Orinoco river basin; *I.g. boliviensis*, in the Madeira River drainage above the Teotonio Rapids.

2.2. Population (estimates and trends)

Overall population size is unknown. Differences in density exist between different river systems. Surveys in a 1,200 km section of the Amazon River between Manaus and Santo Antonio de Ica yielded estimates averaging 332 +/- 55 dolphins (Best and da Silva, 1989a). Data on trends are insufficient for any population.

2.3. Habitat (short description and trends)

In the Orinoco and Amazon basins, the species is found in a variety of riverine habitat types, including rivers, small

channels and lakes, excepting the estuaries and strong rapids and waterfalls. Concentrations occur mainly at the mouth of rivers, below rapids and smaller channels running parallel to the main river. During the high- water season dolphins may utilize both the flooded forest and grasslands. Shallow waters may also be frequented primarily for feeding (da Silva, 1986; Best and da Silva, 1989a,b). About 50 species of fish have been reported as the food of Amazon river dolphins in the central Amazon. Sciaenids, cichlids and characins are the preferred prey; some of them are of commercial value (Best and da Silva, 1989a,b).

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

Seasonal migrations seem to represent slight extensions of more or less stable home ranges. These extensions occur during flood seasons. Some of these migrations, however, are known to cross international boundaries: in the Casiquiare Canal and Upper Rio Negro (Venezuela, Colombia and Brazil); in the Rio Madeira-Guapore system (Brazil and Bolivia); in the Takatu River (Brazil and Guyana) and at Leticia (Peru, Colombia and Brazil) (Best and da Silva, 1989a).

3. Threat data

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

Directed catches have been reported in the past in Brazil and Bolivia (Pilleri, 1969; Pilleri and Gihr, 1977; Best and da Silva, 1989a). Several have been live-captured for display (Brownell, 1984, Klinowska, in press). There are at least two reports of dolphins harpooned probably due to their interference with fishing operations (Best and da Silva, 1989a).

Incidental catches are reported in the Amazon and Orinoco Rivers, but there are no estimates of the magnitude of these catches. However, fishing landings have increased up to four times in some areas, representing an increase in fishing effort. A major factor for this increase was the introduction of nylon gillnets in the 1960s. Lampara seine nets, fixed and drift gillnets are responsible for the majority of dolphin deaths. A yet unknown number of dolphins are killed by explosions during illegal fishing operations (Best and da Silva, 1989a).

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

Deforestation in flood plains for agriculture and the timber industry affects the hydrological cycle and the riverine ecosystem in the Amazon region as a whole. One of the major effects of deforestation is the reduction of fish productivity, and hence reduction of food supply for river dolphins and other

aquatic animals. Hydroelectric development is at present not a great threat, but several dams are projected for the next few year in the river systems of both Brazil and Venezuela (Best and da Silva, 1989a,b). Strandings have been reported in the Formoso River as resulting from changes in the water level produced by the deviation of waters for irrigation (Best and da Silva, 1989a).

Large quantities of pesticides are increasingly being used in agriculture in the Amazon and Orinoco Basins. Pollution by heavy metals in the Amazon comes from gold mining and associated indiscriminate use of mercury. Effluents from pulp mills are also a potential source of pollution (Perrin and Brownell, 1989; Best and da Silva, 1989a).

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

There are no direct studies on pollutant levels in Amazon river dolphins, but the level of contaminants in the Amazon and Orinoco Basins is of particular concern (see 3.2).

3.4. Threats connected especially with migrations

The projected damming of river systems in both Brazil and Venezuela (Best and da Silva, 1989a,b) may prevent the seasonal migration of Amazon river dolphins in the area. Dams may prevent migrations, breaking the populations into very small units with insufficient genetic variability, and reduce food supply (Ralls, 1989).

3.5. National and international utilization

Small catches for oil were carried out in Brazil by Portuguese settlers (Ferreira, 1972, quoted by Best and da Silva, 1989a). According to Best and da Silva (1989a) parts of stranded or incidentally caught dolphins will be sold as love charms, but there not seems to be a direct take of river dolphins for this purpose.

Live-captures of about 100 Amazon river dolphins were made during the 1960s and 1970s (Klinowska, in press; Brownell, 1984). Today very few survive in captivity (Perrin and Brownell, 1989; Best and da Silva, 1989a).

4. Protection status and needs

4.1. National protection status

There is national legislation that protects Amazon river dolphins directly and indirectly in Bolivia, Brazil, Colombia,

Guyana, Peru and Venezuela. The status of river dolphins in Ecuador is unclear (Atkins, 1989).

4.2. International protection status

Inia geoffrensis is listed in Appendix II of CITES. There are some other international agreements that would be applicable to the species, such as the Ramsar Convention, the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere and the Pacto Amazonico, but no direct action has yet being taken. Some bilateral agreements concerning the development of the Amazon region could also be applicable to the conservation of river dolphins in the area (Atkins, 1989; Best and da Silva, 1989a). The species is listed as "Vulnerable" by the IUCN (Perrin, 1989).

4.3. Additional protection needs

The actual inclusion of the species in international treaties, the establishment of protected areas, research and enforcement of existing laws should be the steps to follow (Best and da Silva, 1989a). Hydroelectrical projects should be planned in order to avoid further degradation of the habitat. In addition, the proposed categorization of the species as "Vulnerable" in the IUCN Red Data Book (Perrin, 1989) should be adopted.

5. Range States

Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru and Venezuela.

6. Comments from Range States

7. Additional remarks

8. References

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