

CONVENTION ON THE CONSERVATION OF MIGRATORY SPECIES OF WILD ANIMALS

A. PROPOSAL

To include *Tursiops truncatus* in Appendix II of the Convention; only the populations of the Baltic Sea and the North Sea.

B. PROPONENT

Kingdom of The Netherlands

C. SUPPORTING STATEMENT

1. Taxon

1.1 Classis	Mammalia
1.2 Ordo	Cetacea
1.3 Familia	Delphinidae
1.4 Genus and species	<i>Tursiops truncatus</i> (Montagu 1821)
1.5 Common names	
English	Bottlenose dolphin
French	Grand souffleur
Spanish	Tursion
Dutch	Tuimelaar

2. Biological data

2.1 Distribution (current and historical) - see also 5

The bottlenose dolphin is found worldwide in temperate and tropical waters, both offshore and inshore. There appear to be two main morphological forms - large and small. In general the large form occupies colder waters than the small form (Mitchell 1975). There is general agreement that the form found in the North Atlantic on the American, Canadian, Greenland and European coasts is *Tursiops truncatus*, the large form. The smaller form, going mainly by the name of *Tursiops aduncus*, is most common in the Indian and South Pacific Oceans. The name *Tursiops gilli* is associated with the North Pacific populations. This general picture is a simplification of information in Mitchell (1975a) and in Marcuzzi and Pilleri (1971), not a direct quotation. Ross (1977) was able to divide South African specimens into two groups, one similar to *Tursiops truncatus* specimens from British waters but with some differences and one resembling *Tursiops aduncus* and confirming that, at least in this sample, *T. aduncus* is synonymous with the types *T. absulam*, *T. catalania* and *Delphinus gadamu*. Tomilin (1957) reviews information on a possible sub-species *T. t. ponticus* in the Black Sea, but concludes that the evidence is contradictory. Few modern authors have investigated the taxonomy of the genus, and then only for local populations.

## 2.2 Population (estimates and trends)

Population censuses have only recently been undertaken in some areas so that past and present distributions cannot be compared. The British and Netherlands stranding records, however, the only ones sufficiently complete for comparisons to be made, indicate a marked decline in recent years. The first change was noted just after the Second World War and there has been speculation that wartime activities, including chemical dumping and minesweeping might have contributed to the decline; the second, far more marked decline, begins in the early sixties and has been linked to the parallel increase in pollution of the North Sea (Fraser 1974; van Bree 1977; Verwey 1975; Verwey & Wolff, 1981). Van Bree (1977) rejects climatic changes as responsible for the decline in strandings of this species because of the two marked changes. Also Bakker & Smeenk (1987) arrive at the conclusion that no simple correlation with temperature exists.

Very few population estimates have been made, and then only for local areas. Mitchell (1975) estimated a population of perhaps 17 000 based on cumulative catch records, for the stock fished off Hatteras, North Carolina in the late 19th century. The population involved in the eastern tropical Pacific tuna fishery has been estimated at 588 000 (IWC 1978). Some of the problems in censusing this species are discussed by Leatherwood, Gilbert and Chapman (1976). They are mostly related to the non-random distribution of schools in a study area but may be overcome with appropriate techniques. The Black Sea population declined through overfishing (Mitchell 1975b).

## 2.3 Habitat (short description and trend)

The most comprehensive information on food habits comes from the Black Sea population where mostly inshore, bottom living fish are taken (Tomilin 1957). Information from South African specimens suggest the T. truncatus form feeds further offshore than the T. aduncus form. Both forms take cephalopods as well as fish (Ross 1977). Captive specimens take 6-7 kg (Mitchell 1975a), up to 20-30 kg (Tomilin 1957) of fish a day.

## 2.4 Migrations (kind of movement, distance, proportion of the population migrating)

There is evidence of some migratory movements in many areas, but whether they are primarily related to food distribution or to seasonal temperature and whether they are long-distance or relatively local - perhaps only inshore and offshore - is not clear and may differ in different areas (Fraser 1974; Ross 1977; Mitchell 1975). Verwey (1975) describes inshore movements in spring in pursuit of coastal spawning herring.

## 3. Threat data

### 3.1 Direct threat of the population (factors, intensity)

The habit of schooling with tuna has led to some kills in areas where this fishery took place, but only hundreds have been involved in comparison with the thousands of other species (Perrin, Lo & Whalen 1979), at least in the eastern tropical Pacific.

In the fairly recent past there were many local fisheries, producing meat, leather, oil and meal (Mitchell 1975b). A few may still be taken

directly in the Caribbean, West Africa and Indonesia. No exact catch figures are available. Most fisheries were for meat for human consumption except the Turkish fishery, which was for oil and meal.

The only information on the take in European waters is given by Duguy (1977), who notes two taken in trawls and two shot between 1971 and 1976 on the French coasts.

Indirect takes are reported from most types of fishing operation, particularly from purse-seining, but no reports of more than hundreds in any area were located and most reports mention only tens (IWC 1979). The carcasses are not used and usually neither systematic information on numbers nor any biological information is collected.

The main use of the species today is for display and research. Ridgeway & Benirschke (1977) listed places where the species is known to be held - over a hundred world-wide, representing perhaps a thousand animals (at least 60 specimens in Europe). Breeding in captivity is reasonably successful, but very expensive as a source of animals. It was estimated that by the time an F2 generation animal is produced (13-16 years) over one million dollars would have been spent on a breeding colony started with one male and twelve females.

### 3.2 Habitat destruction (quality of changes; quantity of loss)

Verwey (1975) describes how the closure of the Zuiderzeedam in 1932 led to the disappearance of Tursiops from the Dutch Wadden Sea due to extinction of its major prey. Its North Sea habitat changes through disturbance, such as through ships and seismic surveys, pollution, and possibly food limitation through overfishing (Evans 1987).

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

No information.

### 3.4 Threat connected especially with migrations

None known.

### 3.5 National and international utilization

Tursiops is mainly caught for display in aquariums and zoos.

While no trade in live specimens or products appears in national statistics, at least some and perhaps most live specimens in Europe appear to have originated in the USA, although a small fishery may still exist in the Adriatic (Mitchell 1975).

## 4. Protection status

### 4.1 National protection status

Belgium:	Protected
Denmark:	Protected
Federal Republic of Germany:	

Finland:	
France:	Protected
German Democratic Republic:	
Norway:	
Poland:	
Sweden:	Protected
The Netherlands:	Protected
Union of Socialist Soviet Republics:	
United Kingdom:	Protected

#### 4.2 International protection status

CITES Appendix II

Berne Convention Appendix II

#### 4.3 Additional protection needs

More information on speciation is urgently required and in the meantime there must be some clear international agreement on the naming of populations - even if not taxonomically perfect - to obviate any risk to live specimens in transit.

The situation with respect to life parameters and particularly with respect to behaviour, is better than for most cetaceans. Knowledge of populations and distribution is, however, poor in most places particularly in European waters.

Reporting of by-catches and direct catches should be improved and efforts to collect biological information made to help in the taxonomical and population work. Countries without such obligations through international legislation should consider specific national legislation if necessary.

#### 5. Range states (North Sea and Baltic Sea)

Belgium, Denmark, Federal Republic of Germany, France, Norway, Sweden, The Netherlands, Union of Socialist Soviet Republics, United Kingdom, International waters.

#### 6. Comments from range states

None received.

#### 7. Additional remarks

None.

#### 8. References

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