CONSIDERATION OF PROPOSALS FOR AMENDMENT OF APPENDICES I AND II

A. Proposal

Transfer of *Orcaella brevirostris* from Appendix II to Appendix I.

B. Proponent

Thailand.

C. Supporting statement

1. Taxonomy

1.1 Class:	Mammalia	
1.2 Order:	Cetacea	
1.3 Family:	Delphinidae	
1.4 Species:	*Orcaella brevirostris* (Owen in Gray, 1866)	
1.5 Scientific synonyms:	*Phocaena brevirostris* (Owen, 1866) *Orcella* [sic] *fluminalis* (Anderson, 1879)	
1.6 Common names:	English:	Irrawaddy dolphin
	French:	Orcelle
	Spanish:	Delfín del Irrawaddy
	Cambodia:	Ph'sout
	German:	Irrawadi Delphin
	Indonesia:	Pesut
	Lao:	Pha'ka
	Malaysia:	Lumbalumba
	Myanmar:	Labai
1.7 Code numbers:	CITES: A-111.002.003.001	

2. Biological parameters

2.1 Distribution

The Irrawaddy dolphin is patchily distributed in shallow, near-shore tropical and subtropical marine waters of the Indo-Pacific, from northeastern Australia in the south, north to the Philippines (Dolar *et al.*, 2002) and west to northeastern India (Stacey and Leatherwood, 1997; Stacey and Arnold, 1999). Its marine distribution is concentrated in estuaries and semi-enclosed water bodies (i.e. bays and sounds), generally adjacent to mangrove forests. Freshwater populations occur in three river systems - the Mahakam of Indonesia, the Ayeyarwady (formerly Irrawaddy) of Myanmar (formerly Burma) and the Mekong of Laos, Cambodia and Vietnam. Irrawaddy dolphins also occur in partially isolated brackish or freshwater bodies, including Chilka Lake in India and Songkhla Lake in Thailand.

In the Ayeyarwady River, Myanmar, the species is confined during the dry season to a 373 km river segment between the Taping tributary confluence at Bhamo and Mingun (located slightly upstream of Mandalay), with the distance from the nearest other reported record of this species almost 1000 km downstream in the river delta (Smith, 2003).

In the Mahakam River, East Kalimantan, Indonesia, Irrawaddy dolphins are generally restricted to a 300 km segment of the mainstem between Muara Kaman (located about 180 km from the

delta) upstream to Datah Bilang, seasonally inclusive of Semayang Lake and the Belayan, Kedang Rantau, Kedang Kepala, Kedang Pahu, and Ratah tributaries (Kreb, 2002).

In Palawan, Philippines, the species occurs only in brackish waters of the inner portion of Malampaya Sound (134 km^2), with the closest other record of the species in northern Borneo, some 550 km to the south (Smith *et al.*, in press).

The effective range of the species in the Mekong River is a 190 km segment located between Kratie, Cambodia (about 500 km upstream of the river mouth in Vietnam) to Khone Falls (or Lee Pee), which physically obstructs further upstream movement and is located slightly upstream of the Laos/Cambodia border (Beasley *et al.*, 2003). Dolphins previously inhabited Tonle Sap (Great Lake) (Lloze, 1973) but apparently have been extirpated there (Beasley *et al*., 2003)

In Songkhla Lake, Thailand, which is connected to the Gulf of Thailand by a narrow connecting channel in the far outer portion, the species occurs only in the inner and middle portions (Thale Luang), north of Papayurn Island (Beasley *et al.*, 2002). The geographically closest other published records are two specimens documented in 1901 from Pattani (Bonhote 1903 as cited in Pilleri and Gihr 1974), located about 100 km to the south from the connecting channel, and one stranding in 1994 in Surat Thani (Chantrapornsyl *et al.*, 1996), located about 300 km to the north of the connecting channel.

In Australia Irrawaddy dolphins range discontinuously in partially enclosed, shallow marine waters, particularly near the mouths of creeks and rivers across the northern rim from Broome to the Brisbane River (Stacey and Leatherwood, 1997; Parra *et al.*, 2002).

In northern and eastern Borneo of Malaysia and Brunei, Irrawaddy dolphins have been recorded in coastal waters near Muara Island, in Sandakan and Kuching bays, and in the mouths or lower reaches of the Brunei, Sarawak, Rajang, Kinabatangan, Baram, and Batang rivers (Weber, 1923; Banks, 1931; Gibson-Hill, 1950; Mörzer Bruyns, 1966; Pilleri and Gihr, 1972, 1974; Dolar *et al.*, 1997; Beasley and Jefferson, 1997; Beasley, 1998). The only records from southern Borneo in Indonesia, outside of the Mahakam River (see above), are second-hand reports from the Kumay and Kendawangan river mouths (Perrin *et al.*, 1996; Rudolph *et al.,* 1997).

In the Bay of Bengal of India the dolphins range from Vishakhapatnam, which is the western limit of the species' range, north to Calcutta (Owen, 1869; Cobbold, 1876; Ellerman and Morrison-Scott, 1951; James *et al.*, 1989). The species is also found in Chilka Lake (Annandale, 1915; Dhandapani, 1992,). In the southern portion of the lake, the dolphins are observed less often during the summer months (wet season) than the winter months (dry season), while sightings in the northern portion, which receives the main freshwater inputs, remain similar throughout the year (Sahu *et al.*, 1998).

In Bangladesh the dolphins occur in waterways of the Sundarbans Forest (Mörzer Bruyns, 1971; Kasuya and Haque, 1972), mainly in the western and downstream portions during the dry season, which are characterized by higher salinity and lower turbidity compared with the upstream and eastern portions (Smith, 2003). Along the coast of Bangladesh, the species has also been reported in Cox's Bazaar (Haque, 1982) and offshore of mangrove forests near Chittagong (Smith *et al.*, 2001).

In Myanmar, the only records of Irrawaddy dolphins in the Bay of Bengal are from the lower reaches and estuaries of the Myebone, Kalidan, and Kyaukpyu rivers along the Rakhine (Arakan) coast in the far north of the country (Smith *et al.*, 1997) and in the Ayeyarwady Delta (Smith, 2003).

2.2 Habitat availability

Irrawaddy dolphins are adapted to relatively rare ecological conditions – deep pools of large rivers and nearshore marine environments (including appended lakes) with substantial freshwater inputs (see reviews in Stacey and Leatherwood, 1997; Stacey and Arnold, 1999; Smith and Jefferson, 2002). These habitats are subject to intensive and increasing development and human use, which could result in the displacement of animals or, in extreme cases,

population extirpation. For instance, proposed navigation improvement schemes in the Mekong River, which entail blasting the pool-riffle sequences that compose dolphin habitat, would probably lead to a dramatic decline, if not extinction, of the Irrawaddy dolphin population due to the elimination or severe degradation of their deep pool habitat.

2.3 Population status

No estimate of total abundance for the species is available. However, several geographically isolated populations survive only in very low numbers. The Mahakam River population is Red Listed as Critically Endangered (CR; Hilton-Taylor, 2000) and proposals to classify the Ayeyarwady, Mekong, Malampaya and Songkhla populations also as CR have recently been prepared and reviewed by the IUCN Species Survival Commission's Cetacean Specialist Group (CSG; copies of the proposals are available on request from CSG Asia Coordinator at bsmith@wcs.org). The criteria used for Red Listing all of these populations were that (1) the numbers of reproductively mature individuals are less than 50 and (2) continuing population declines are projected based on known and potential threats.

A December 2003 survey of the dry-season range of Irrawaddy dolphins in the Ayeyarwady River resulted in an estimate of 59 individuals (range = 51-68; B.D. Smith, unpublished). Based on eight surveys of the entire range of the species in the Mahakam River, conducted from February 1999 to July 2000, the population was estimated at 34 individuals (Kreb, 2002). Line-transect surveys of the Malampaya Sound conducted between April and November 2001 resulted in a population estimate of 77 individuals (CV = 27.4%; Smith *et al.*, in press). Surveys of the entire range in the Mekong River conducted during 2002-2003 resulted in a best estimate of 69 individuals based on the sum of best estimates of group size, with a range of 57-84 based on low and high estimates (Beasley *et al.*, 2003). Extensive surveys of Songkhla Lake in May 2000 and February 2001 recorded only four sightings (Beasley *et al.*, 2002) and a line-transect survey in September 2003 covering the entire known range of the species in the Lake detected no dolphins (B.D. Smith, unpublished).

There is a published estimate of approximately 1000 animals for the western Gulf of Carpentaria, Australia (Freeland and Bayliss 1989). The scientific credibility of that estimate has been strongly challenged, however, due to the difficulty of distinguishing Irrawaddy dolphins from other species during aerial surveys over turbid waters and later surveys conducted in the gulf that indicated a much lower population density (Parra *et al.*, 2002; H. Marsh, pers. comm. as cited in Stacey and Leatherwood, 1997). In Southern Asia, relatively high encounter rates were recorded in channels of the Sundarbans mangrove forest and outer waters of the Ganges-Brahmaputra-Meghna Delta in Bangladesh during surveys conducted in March 2002 (0.0685 sightings/km; mean group size = 2.2, SD = 1.3) and February 2004 (0.0737 sightings/km; mean group size = 2.2, SD = 1.8), respectively (Smith, 2003; B.D. Smith, unpublished).

2.4 Population trends

Although no quantitative estimates of population trends exist for the species, probable declines in the number of individuals can be inferred for several populations. For small cetaceans generally, it is recommended that yearly removals (due to entanglement, boat collisions, etc.) should not exceed 1-2% of the population size (Wade, 1998) – the lower bound being more applicable to very small populations that are already vulnerable to extirpation due to demographic, genetic, and other factors.

For Malampaya Sound, using a minimum estimate of two dolphins killed per year (conservatively based on incidental kills in gillnets recorded between February and August 2001), this represents 2.6% of the population, according to the best estimate of abundance made during line-transect surveys (77 dolphins).

For the Mekong River, using an estimate of four deaths per year as the annual incidental catch rate (calculated from the mean number of carcasses recovered and determined to have died from gillnet entanglement by Beasley *et al.* (2002) and Beasley (unpublished) during 2001-2003), this represents 5.8% of the population, according to the best estimate of abundance (69) made during surveys conducted in the same years.

The Mahakam population has been subject to a mean annual mortality rate of greater than 10% in recent years, with the majority of deaths attributed to gillnet entanglement.

In Songkhla Lake circumstantial evidence indicates declining numbers. Compared to the 2001-2002 surveys reported in Beasley *et al.* (2002), the 2003 survey (see above) used three rather than two observers and search effort was conducted from a raised platform about two meters higher above the water line. This should have resulted in improved searching efficiency. Even with no change in efficiency, the 2003 survey should have produced at least one or two sightings. It is possible that the difference in results simply reflects random variation in sighting biases, but a precautionary interpretation would be that the very small population that existed in 2001 and 2002 has been reduced even further. This interpretation is reinforced by the high mortality experienced by the population (as evidenced by the large number of recorded deaths – 43 between January 1990 and December 2003; Beasley *et al.*, 2002; S. Choorak, pers. comm.) in relation to its extremely low (although precisely unknown) population size.

In the Ayeyarwady River, the best estimate of the total number of dolphins observed was the same (59) for surveys in 1998 (Smith and Hobbs, 2002) and 2003 (Smith, 2003) even though in the latter, the survey boat was traveling at a much slower speed in an upstream direction (7.8 km/hr) in comparison to the faster speed of the earlier downstream survey (13 km/hr), which should have resulted in a greater number of sightings if there had been no decline in population abundance.

Considering that the small sizes of these populations already make them vulnerable to extirpation from demographic variability, inbreeding depression and catastrophic environmental and epizootic events, the current rate of removals will almost certainly lead to extirpation within a short time (decades, at most).

2.5 Geographic trends

There is clear evidence of a major reduction in the extent of occurrence in at least two populations. The linear extent of the species' occurrence in the Ayeyarwady has declined by nearly 60% (or 488km) since historical reports in the 19th century (Smith 2003; Anderson 1879). In the Mekong River the downstream range of the species appears to have declined dramatically with no recent sightings below Kratie, Cambodia, and in Tonle Sap (Great Lake) where the species was known to occur in the past (Lloze 1973; Beasley *et al*., 2003). The lack of information on the historical distribution of the species does not allow for a comprehensive analysis of geographic trends.

2.6 Role of the species in its ecosystem

No specific studies of the role of the Irrawaddy dolphin in its ecosystem have been carried out. One important feature, however, is the role played by these dolphins in the Ayeyarwady River where they have traditionally engaged in "cooperative fishing" with local fishermen. In this fishery, during a ritualized sequence of human-dolphin interactions, the animals herd fish into a tight ball and then a single individual "signals" the fisherman to throw his net with a wave of its flukes, which also serves to further compress the fish school. Fishermen reported that they often caught more fish in a single cast of their net while fishing with the dolphins than during an entire day of fishing without them. The dolphins reportedly benefit from the fishing activity because they are able to easily capture fish that dart away from the net after it is thrown and others that are momentarily stuck in the mud after the net is pulled up (Smith *et al.*, 1997).

2.7 Threats

Similar to most small cetaceans the primary threat to Irrawaddy dolphins is entanglement in gillnets. During 1997-99, 16 deaths were recorded in the Mahakam River (10 dolphins from gillnet entanglement, three probably from vessel strikes, and three deliberately killed for unknown reasons; Kreb, 2000). From December 1990 to May 1996, at least 23 dolphins were reported accidentally killed in the Mekong River near the Laos/Cambodia border, 12 from entanglement in gillnets and most of the others apparently from the effects of explosives used for blast fishing (Baird and Mounsouphom, 1997). In the Sekong River, one dolphin died from

gillnet entanglement in August 1993 and another was reported killed in a bamboo fishing trap. In Cambodia, between January 2001 and May 2003, Beasley *et al.* (2003) examined 17 dolphin carcasses and concluded that at least seven of the animals had died from gillnet entanglement. Fourteen more carcasses have been collected since May 2003, six of the deaths having resulted from gillnet entanglement (Beasley, unpublished). Beasley *et al.* (2002) listed 28 records of dolphins that stranded in Songhkla Lake between January 1990 and April 2001. At least 13 of them were judged to have died from net entanglement, based upon the presence of net scars on the carcass or the reports of local fishermen (S. Choorak, pers. comm.). Of the total strandings, at least nine were neonates (i.e., one meter in length or smaller). Since that report, 15 additional strandings have been recorded, including nine calves (four of these in February 2003 and two in December 2003) and a pregnant female (S. Choorak, pers. comm). Several of those 15 animals were believed to have been killed accidentally in gill nets and fish traps set for sea bass, the carcasses having been discarded and then drifting ashore. Smith (2003) recorded a total of 5,701 fishing gears in the main channel of the Ayeyarwady during the November-December 2002. Gill nets accounted for the majority of fishing gears (53.5%). Gill nets were also the most widespread gears in terms of their distribution throughout the river and there was a significant positive relationship between gill net encounter rates (i.e., number of gears observed each day) regressed against downstream progress on the survey. The fact that gillnets were present in higher frequencies in areas where dolphins were reported to occur historically but were not observed during the 2002 survey, implies that these fishing gears may be at least partially responsible for the range decline of the species. During a survey of the coastal waters of Bangladesh in February 2004, a large number of fishing vessels were documented using large-mesh drifting gillnets to catch elasmobranches. A dead Irrawaddy dolphin was observed entangled in one of these nets and the fishermen stated that it was the fourth one they had caught in eight days of fishing (B.D. Smith, unpublished).

During December 2003 electric fishing, which uses high-voltage probes to indiscriminately kill or stun fish, was occasionally observed during daylight hours and reported by local villagers to be practiced widely and surreptitiously at night in the Ayeyarwady River. A local veterinarian reported that he had examined a stranded dolphin that was killed by electrocution (B.D. Smith, unpublished). In the Ayeyarwady River, Smith (2003) also recorded a total of 890 gold mining operations. Gold mining operations were primarily concentrated in areas of reduced water current, above and below defiles and near channel convergences – the same areas that constitute the preferred habitat of Irrawaddy dolphins. Large boat dredges (15.8% of the total operations) and hydraulic land blasters (13.4% of the total operations) introduce, break-up, and redistribute large quantities of gravel and fine sediments. This causes major changes in the geomorphologic and hydraulic features of river channels that make them suitable for supporting dolphins. These operations are also very noisy, which may interfere with the ability of dolphins to navigate, detect and catch their prey and possibly to communicate. Gold mining operations use mercury to amalgamate the gold. Relatively high levels of THg and MeHg have been found in the muscle of 104 fish belonging to 22 different species sampled from fishermen's catches and fish markets along the entire length of the river (Smith, 2003). Although we have no information on the effects of mercury on Irrawaddy dolphins, a casual link has been suggested between liver disease and high levels of the metal in bottlenose dolphins (*Tursiops truncatus*) and long-finned pilot whales (*Globicephala melas*; Bowles 1999).

An additional threat to the species is removal from the wild for live display (see 3.1 National utilization). These captures have the same effects as accidental or deliberate killings on the viability of wild populations. The charismatic appearance of Irrawaddy dolphins and behavioral characteristics they exhibit in the wild (e.g. spitting water, spy-hopping, fluke-slapping, etc.) make them especially attractive for shows and display in dolphinariums. The commercial motivation for capturing Irrawaddy dolphins is also particularly high due to the ability of the species to live in freshwater tanks, which avoids the high cost of water quality systems necessary for maintaining a saline environment. As the region within and nearby the species' range develops economically, the demand for theme parks, casinos and other entertainment venues that include dolphin shows will rapidly increase and lead to a greater demand for the live-capture and trade of the species.

In a recent action plan for the conservation of the world's cetaceans, the IUCN Species Survival Commission Cetacean Specialist Group expressed concern about the potential effects of live captures on Irrawaddy dolphin populations, several of which had declined to such low numbers that the removal of even a few individuals could result in local extinctions (Reeves *et al.*, 2003). Irrawaddy dolphins from Critically Endangered populations in Songkhla Lake, Malampaya Sound and the Mekong, Mahakam, and Ayeyarwady rivers cannot be reliably differentiated from animals belonging to other populations that may occur in greater numbers. It must be emphasized that no credible abundance estimate exists for any population of this species that would indicate a sufficient number of animals to justify deliberate removals.

3. Utilization and trade

3.1 National utilization

These dolphins are not known to be killed deliberately for products in any part of their range. The principal current use at the national level is live-capture for display in dolphinariums. Captive displays of Irrawaddy dolphins are exclusive to Asia, where the demand for captive cetaceans is high and rapidly increasing. According to an inventory conducted as part of the Second Workshop on the Biology and Conservation of Small Cetaceans and Dugongs of SE Asia, 24-26 July, 2002, Dumaguete, Philippines, more than 80 dolphinariums exist in at least nine Asian countries (Perrin *et al.*, in press; also see Reeves, 2003). A large number of additional dolphinariums are planned to be added to those already existing in Asia, at least 13 (Corkeron, 2002). Many of the existing facilities are unregulated or operate in contravention to national laws.

Sixteen Irrawaddy dolphins were captured from Semayang Lake (Tas'an & Leatherwood, 1984; an appended water body to the Mahakam River; 6 in 1974 and 10 in 1978). Six more Irrawaddy dolphins were removed from the Mahakam River and exported to the same aquarium in 1984 (Wirawan, 1989). Despite the Critically Endangered status of this population, plans exist to catch additional dolphins to stock a new facility in Tenggarong (D. Kreb, pers. comm.). The first known live-capture of Irrawaddy dolphins in Cambodian waters occurred in 1994 (Perrin *et. al.*, 1996). In January 2002, at least eight Irrawaddy dolphins were captured by local Cambodians. No credible population assessments were conducted prior to any of the captures discussed above.

Another form of use is dolphin watching in the wild. Irrawaddy dolphins are the subject of nature tourism programs in the Mekong River and Chilka Lake. Although this form of tourism has in some cases been promoted as a substitute for captive displays, in the latter two situations, there is concern among scientists that collisions with dolphin watching vessels and the habitat disturbance caused by this activity may threaten the viability of these populations.

3.2 Legal international trade

Although the current level of international trade is small in absolute terms, it is expected to increase rapidly in the near future due to increasing demand for live animals to stock new and existing dolphinariums in Asia (see 3.1 National utilization).

3.3 Illegal trade

The secrecy surrounding most live-captures to stock dolphinariums prevents a credible assessment of this issue. Usually, illegal trade can only be inferred, after the fact, when animals show up in a facility and authorities are unable or unwilling to reveal their origins or how they got there.

3.4 Actual or potential trade impacts

The difficulty of identifying the source population of individual Irrawaddy dolphins once they are on display at a facility and the loosely regulated and poorly documented nature of most live captures mean that trade is almost impossible to monitor while the impacts are potentially

catastrophic. The removal of only a few individuals could be decisive in causing the extinction of a Critically Endangered population of the species.

3.5 Captive breeding or artificial propagation for commercial purposes (outside country of origin)

Captive births of the Irrawaddy dolphins have been reported at Oasis Sea World in Thailand (I. Beasley, pers. comm.) and Jaya Ancol Aquarium in Indonesia (Tas'an and Leatherwood, 1980).

4. Conservation and management

4.1 Legal status

4.1.1 National

Directed taking of cetaceans is currently prohibited in Australia, Bangladesh, India, Laos, Malaysia, and Thailand. The legal status of Irrawaddy dolphins in Indonesia, Myanmar and Timor Leste is unclear. In Cambodia a new fisheries law and royal decree will provide protection to all cetaceans by the end of 2004. In Vietnam all cetaceans are protected by a decree of the national assembly but this is not generally enforced. Some cetaceans are given legal protection in the Philippines but Irrawaddy dolphins are not included in the list of species (Perrin *et al.*, in press).

4.1.2 International

All cetaceans not listed in Appendix I were listed in Appendix II of CITES in 1979. As a species the Irrawaddy dolphin is listed by the IUCN as Data Deficient. However, the Mahakam River population is listed as Critically Endangered, and four additional geographically isolated populations – those in the Ayeyarwady and Mekong rivers, Songkhla Lake and Malampaya Sound have been formally proposed for listing as Critically Endangered. The species is listed in Appendix II of the Convention on Migratory Species of Wild Animals (CMS), meaning that it has an unfavorable conservation status and therefore would benefit from international cooperation in its conservation and management.

4.2 Species management

4.2.1 Population monitoring

No formal program exists to assess the status of the species but surveys have recently been conducted of populations in the Ayeyarwady, Mekong, and Mahakam rivers, Songkhla Lake and Malampaya Sound (see 2.3 population status). NGO's, including the Wildlife Conservation Society, Whale and Dolphin Conservation Society, Ocean Park Conservation Foundation and World Wildlife Fund – Philippines, are implementing conservation projects for these populations that include dolphin monitoring as a key component.

4.2.2 Habitat conservation

Although a few areas where the species occurs have been designated as protected (none specifically for cetaceans), little has been done to conserve dolphin habitat. Malampaya Sound was proclaimed a protected seascape in 2000 but this is the lowest possible prioritization given to a protected area. Portions of Irrawaddy dolphin habitat in the Sundarbans Delta of Bangladesh and India are included within National Parks and World Heritage Sites although no specific provisions have been implemented for dolphin habitat conservation. The Cambodian Department of Fisheries has recently drafted a Royal Decree for protection of the Mekong River Irrawaddy dolphin population, which includes the designation of eight protected areas (5721 hectares) in a 190 km segment of the river above Kratie.

4.2.3 Management measures

No specific measures have been implemented by management authorities for conserving Irrawaddy dolphins.

4.3 Control measures

4.3.1 International trade

There are no control measures on international trade other than CITES.

4.3.2 Domestic measures

There are no domestic measures to ensure the sustainability of removals, except for the national legislation discussed above (section 4.1.1. National).

5. Information on similar species

Irrawaddy dolphins have distinctive characteristics that allow them to be easily identified – rounded head, all gray coloration, small falcate dorsal with a blunt tip, large paddle-like flippers, and a U-shaped blowhole that is open toward the front. However, individuals from demographically isolated populations cannot be differentiated on the basis of visual or morphometric characters and it is currently impossible to identify the origin of live specimens using genetic techniques. It is also highly unlikely that managers will have this ability in the near future due to the difficulties involved with collecting a sufficient number of genetic samples from wild populations to reliably match live-captured dolphins to their demographic source. This identification problem particularly applies to Critically Endangered populations, where the low numbers of extant individuals mean that opportunities to collect genetic samples from strandings and bycatches are infrequent. Meanwhile the danger of mortality, injury or disturbance inhibits the use of biopsy darting on individuals from these populations.

6. Other comments

On April 2004 the Thailand CITES Management Authority communicated this proposal and a request for comments to the Management and Scientific Authorities of the range states of this species and to the Convention on Migratory Species and International Whaling Commission (the two intergovernmental bodies involved with managing the species) in accordance with Article XV of the CITES Resolution Conf. 9.24 (Rev. CoP12) Criteria for amendment of Appendices I and II. Sufficient time was not available to incorporate comments from the range states and intergovernmental bodies. These will be incorporated into a revised proposal or annexed to it before consideration at CoP13.

7. Additional Remarks

Orcaella brevirostris meets the biological criteria for inclusion in Appendix I as listed in Resolution Conf. 9.24 (Rev. CoP12). Specifically, the species meets:

Criterion B: The wild population has a restricted area of distribution and is characterized by (i) fragmentation, (iii) a high vulnerability due to the species' biology or behaviour [dependency on deep pools in rivers and nearshore marine environments with substantial freshwater inputs and susceptibility to entanglement in fishing gear], and (iv) an observed, inferred or projected decrease in the area of distribution, the number of sub-populations, the number of individuals, and the area or quality of habitat.

Criterion C: A decline in the number of individuals in the wild, which has been (i) observed as ongoing and (ii) inferred or projected on the basis a decrease in area or quality of habitat, levels or patterns of exploitation [interpreted to include bycatch in fishing gear], and threats from extrinsic factors [e.g. water development such as damming and diversion].

8. References

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