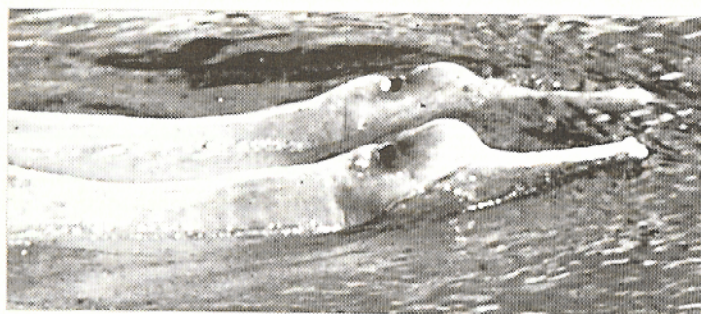


# SHOULD VENEZUELAN BOTOS BE IMPORTED INTO THE UNITED STATES?

Article by Aldemaro Romero



Amazon river dolphins (botos) swimming at the surface. Thomas Henningsen/Marine Mammal Images

A wide geographic distribution does not necessarily equate with abundant or balanced distribution throughout a species range. The boto is more frequently seen at the junctions of rivers and tributaries than in other areas within its identified range. This pattern is consistent with observations in the Amazon basin. Groups of this species tend to be small—never more than six individuals.

Because population censuses and proper species classification are both lacking for this species in Venezuela, there is not enough evidence to support the conclusion that this species is not endangered.

1997, the Dallas World Aquarium applied to the National Marine Fisheries Service for a permit to capture and import four botos (*Inia geoffrensis*) from the Apure River, Venezuela into the U.S. Even though the permit request was ultimately denied, the aquarium has stated that they are considering reapplying in the near future. This request raises the question of whether there is any solid ecological, scientific or ethical justification to permit the removal of individuals of this or any species from their natural habitat for the purpose of public or commercial display? I believe there is not.

Dallas World Aquarium cited four reasons in support of their application: a) the boto is not endangered in Venezuela; b) the boto is not hunted in Venezuela; c) the Venezuelan government carefully controls the boto population; and d) Venezuelan aquarium facilities have a good track record maintaining these animals.

## EVALUATION OF THE EVIDENCE

**A) The Boto Is Not Endangered In Venezuela.** *Sufficient data do not exist to support this conclusion.* The boto or Amazon river dolphin, *Inia geoffrensis*, is known in Venezuela by many names, among them *delfin de agua dulce*, *fansa*, and *tonina de rio*. The boto is a freshwater species with broad distribution in the riverine systems of northern and central South America. It has primarily been observed in the Apure and Orinoco Rivers in Venezuela, but no complete population surveys have been made of this species in Venezuela. With their wide distribution, a fragmented genetic makeup is a definite possibility. Morphological information suggests that this species is actually a mosaic of subspecies and populations (see inset box). Only genetic analysis at the molecular level will clarify the systematics of this species. Until such research is possible, we cannot tell if we are dealing with one species, several subspecies, or even more than one species. How can it be said that the species is not endangered if we don't even know how many species we are dealing with?

### How many *Inias*?

Dale Rice's 1998 overview of marine mammal taxonomy and distribution supports the split of *Inia geoffrensis* into three subspecies based on their clearly differentiated geographic distributions in the rivers of upper South America. *Inia geoffrensis geoffrensis* inhabits the Amazon River and its tributaries except the upper Rio Madeira. *I. g. humboldtiana* is found in the Orinoco River drainage system of Venezuela and Columbia while *I. g. boliviensis* inhabits the Madeira River system (above the Teotonio Rapids) that borders Bolivia and Brazil. Some researchers believe that the Madeira River boto is a discrete species, *I. boliviensis*, but there is not sufficient genetic or systematic evidence to support this split at this point.



Legend ● = boto sightings (all studies) and captures in Venezuela

**B) The Boto Is Not Hunted In Venezuela.** *There is evidence available that this is not true.* My colleagues and I have found that botos have been exploited for human con-





Dead boto in boat, killed by locals in Peru

sumption by Tamanaco Indians, one of the original inhabitants of the Orinoco watershed. Commercial uses of boto by-products have also been widely reported. We have anecdotal evidence of botos being captured in the Portuguesa State for human consumption and for the use of organs as religious artifacts. In addition, individual animals are occasionally captured in nets as fishing by-catch. Such animals are usually released but sometimes die entangled in the nets. One researcher reported that Apure fishermen have few superstitions regarding dolphins, and it was consequently easy to hire fishermen for aid in capture. He reports that harpoons and nets are used to capture these animals. Some local people in Apure state also regard the blubber as an

excellent remedy for asthma.

**C) The Venezuelan government carefully controls the boto population.** *The record appears to state otherwise.* Venezuela has a dismal environmental record in many areas, including wildlife management. Venezuela's water pollution and its ineffective management of legally protected areas are well known. Government conservation policies have been aimed more at promoting the hunting of allegedly abundant species than protecting vulnerable species. A harvesting program of the Orinoco caiman (*Caiman crocodilus*) ended in disaster, plagued by corruption and mismanagement. The Venezuelan Ministry of the Environment proposed a program at a CITES meeting to allow sport hunting of the jaguar (*Panthera onca*), even though it is classified as endangered and is carefully protected in all other countries within its range. Initiatives to hunt both caiman and jaguar were proposed by the very same agency (Profauna) that controls collecting permits for botos. Top-ranking officials of this agency have publicly stated that dolphins were there "to take advantage of" from an economic viewpoint, and have proposed studying dolphin populations to determine if they can be exploited for human consumption.

Further, neither protected areas nor laws single out aquatic mammals for protection. Some captures of cetaceans have actually taken place in waters of national parks established for animal protection. Although two pieces of legislation have been passed that are designed to protect wildlife in Venezuela — the Wildlife Protection Law (a civil statute enacted in 1970) and the Environmental Criminal Law (a penal statute enacted in 1992) — enforcement is virtually unknown. The Venezuelan government, however, has persecuted people who object to illegal species exploitation. These

#### Population pressures on *I. geoffrensis* in Venezuela

**Habitat Disruption:** Dam construction in several rivers contributed to the depletion of this species in some watersheds. More river modifications are planned in the near future for the Orinoco, Apure (where collecting animals for the aquarium is proposed), and Meta Rivers. Dams affect *Inia* populations in several ways: elevating the water salinity (caused by diminished freshwater flows from dammed rivers) and by depleting migratory fish populations on which *Inia* feeds. This breaks up dolphin populations, increasing the risks related to lower genetic variability.

**Deforestation:** Many species of fishes, including some that are dietary staples of river dolphins, depend upon fallen seeds and fruits from trees whose bases are inundated when the river floods every year. Few trees drop fewer fruits and seeds into the rivers, posing a threat to the river ecosystem as a whole. Deforestation rates in Venezuela are high.

**Pollution:** Water pollution in Venezuela is pronounced and widespread. Pesticides have been found in the milk of *I. geoffrensis* and high levels of mercury, from gold-mining activities, have been found in fish in the Orinoco basin. The Venezuelan press reported a massive die-off of fish and botos at Caño Cunavichito in the Apure watershed in March and April of 1995; many attribute this to chemical pollution. For these and other reasons, *Inia* has been classified as Vulnerable by IUCN and has been included in Appendix II of CITES.

**Human capture:** *I. geoffrensis* constitutes 16% of all captures reported, making it the third most captured species of cetacean in Venezuela. The proposed collecting location for the animals is the same location where it has been captured before for both live-captive displays and scientific purposes: the Apure River, near San Fernando de Apure. It is close to an airport that allows easy airlifting of animals. Botos have also been collected in Venezuela for postmortem scientific studies. The number of animals taken for this purpose is not known.



cases have been brought before the Inter-American Commission of Human Rights as flagrant violations of individual liberties.

**D) Aquarium facilities in Venezuela have a good track record handling these mammals.** *Available data do not support this conclusion.* In general, botos fare poorly in captivity. The only Venezuelan aquarium to keep botos for extended periods of time is the Acuario J. V. Seijas of Valencia, in Carabobo State, and their record is not encouraging. Between 1975 and 1986, this institution captured 10 botos, 8 of whom were dead by 1990. All mortalities were caused by ingestion of foreign objects thrown by visitors, although inadequate diet may have contributed to a generally poor level of health. Only one birth has been registered there. An aquarium in Moron, Carabobo State, has also kept at least one boto for a limited time.

All of these factors combine to paint a picture that does not support the Dallas World Aquarium's application. In particular, the poor survival rate in captivity suggests that neither the boto, the aquarium nor the public would be served by this capture. There seems to be little to support the application on the basis of information gained.

Add to this increasing public opposition to keeping marine mammals in captivity. Grassroots organizations in many countries throughout Latin America have followed suit in opposing capturing, keeping, and/or exporting cetaceans for aquarium exhibits. This attempt to capture and send botos to the Dallas Aquarium met fierce resistance among many Venezuelan environmentalists. Here are a few of the objections to holding marine mammals in captivity:

- marine mammals are usually held captive for their income-producing benefits, not for public education
- many marine mammals fare badly in captivity, especially the boto, whose captive survival rate is very poor
- captive conditions are inhumane by definition — these are free-ranging, social animals forced to live in much more solitary, confined conditions than is natural for them.

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