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## **Drowning in a Sea of Silence: The Bushmeat Concept as Applied to Marine Wildlife**

**Joanna Alfaro and Koen Van Waerebeek**

Peruvian Centre for Cetacean Research (CEPEC) and Asociación ProDelphinus (APD),  
calle J. Chávez 302, Pucusana, Peru. [jas\\_26@yahoo.com](mailto:jas_26@yahoo.com) and [cepec.dir@terra.com.pe](mailto:cepec.dir@terra.com.pe)

The bushmeat concept describes the commercial use of wildlife fauna for food. Although aquatic, and especially marine wildlife is exploited globally as a source of bushmeat, little attention is paid by governments or the public, either due to ignorance or equivocal assumptions that fisheries management deals with this issue adequately. Given that the practice, although typically illegal, is widely prevalent in coastal developing nations with high needs and few resources, dedicated field monitoring is vastly inadequate, whence information is anecdotal, outdated or non-existent.

In fact, the main anthropogenic threat to long-term survival for six of seven species of sea turtles, an undetermined number of small cetaceans, and three species of Sirenia is intimately related to the provision of bushmeat (meat, blood, turtle eggs and some viscera). Even for certain species where other lethal uses, including e.g. cetacean meat as shark bait, turtle shells as ornamental products and hides (manatees) also play a significant role in hunting pressure, often these are secondary.

While in a few cases archaeological evidence points to a historical usage of dolphin and turtle meat for human consumption (e.g. Oman, Patagonia, Chile), as a rule the taste for aquatic bushmeat was acquired over the past few decades (e.g. Peru, Sri Lanka, Philippines), while in a third group (e.g. Ghana, India, possibly Mauritania) this process is ongoing. The basic causes, over-fishing and burgeoning demand for protein from overpopulated coastal areas, are both simple and formidable. Mismanagement leads to over-exploitation that affects both industrial fisheries (typically gigantic far-seas fleets from developed nations) and artisanal fisheries. With the propagation of virtually unbreakable nylon gill nets in the 1970s, landings of commercial fish in coastal waters took off to the point of unsustainability: stocks slowly declined, then crashed. Initially discarded, with dwindling landings and soaring prices of traditional aquatic resources, sea turtles and small cetaceans rapidly turned into direct hunting targets, generally without any management scheme.

A succinct review showed that of 11 coastal South American nations, in six countries at least, a variable number of littoral communities consume cetacean and sea turtle products with regularity. In five West African nations surveyed (Van Waerebeek et al., 2000, 2001) i.e. Ghana, Mauritania, Senegal, The Gambia and Togo, firm evidence of dolphin meat consumption was found for all; ranging from occasional to frequent. Tendencies point upwards, again related to over-fishing. Fishermen can be considered as the last 'hunters and gatherers' societies. Since marine and other aquatic wildlife exploited for bushmeat, all too often fall between the mazes of attention by both fisheries and wildlife managers, special emphasis is needed to establish sound monitoring programmes, evaluate the impact on populations and propose conservation measures to ensure survival of these very slowly reproducing animals.