



# **Aquatic Bushmeat:** A local issue with global responsibility

November 2016







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ISBN: 978-0-646-96447-8

## Citation:

Prideaux, M. 2016. *Aquatic Bushmeat: A local issue with global responsibility*, OceanCare, Wädenswil

## Photography:

Cover – Two boys near local fishing boats, Ghana, Jonathan Alderson/Alamy Stock Photos  
Inside cover, back cover and highlight pages: West African Fabric Design. Stakanov/Shutterstock  
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# **Aquatic Bushmeat:** A local issue with global responsibility

A report by Margi Prideaux for OceanCare  
November 2016





*Generations of traditional societies in Africa, South and Southeast Asia, the Pacific Islands, around Latin and Central America and in the Arctic have harvested meat from the forest and animals and fish from the sea, instead of farming livestock for their nutritional needs.*



# Aquatic Bushmeat:

## A local issue with global responsibility



Generations of traditional societies in Africa, South and Southeast Asia, the Pacific Islands, around Latin and Central America and in the Arctic have harvested meat from the forest and sea, instead of farming livestock for their nutritional needs. This harvest has long been called wild meat. In the tropics it has become known as 'bushmeat'.<sup>[2]</sup>

Up to 2.5 billion people depend on indigenous and community lands, which make up over 50 percent of the land and coastal areas on the planet. These communities have been managing their environment through their own systems based on traditional knowledge, practises, rules and beliefs for generations. In many cases they are descended from populations who inhabited a given country or region before the time of colonisation or establishment of state boundaries.

These are farmers, pastoralists, hunter-gatherers and fisher-folk who use forests, water bodies, coastal regions and pastures as a common resource. But they are not static. Every generation adjusts how they use the area to meet new needs and aspirations. These lands are as important to the future as they were to the past.<sup>[1]</sup>

Yet, legally these communities control less than one-fifth of the areas they call home. The remaining five billion hectares remain unprotected and vulnerable to land and ocean-grabs from more powerful entities including distant water fisheries.

These traditional lands are increasingly threatened by unsustainable activities such as logging, mining, plantations and industrialised fishing and these local communities are not, or are only minimally, involved in official decision-making surrounding these areas.

As the forest empties and coastal fish disappear, communities have turned to hunting additional species from rivers, estuaries and the sea for their protein. Now 'aquatic bushmeat' of dolphins, porpoises and small whales, dugong and manatee, seals, sea lions, walrus, polar bears, turtle and crocodiles is growing rapidly and unsustainably.

This new harvest should be included in all policy discussions about bushmeat sustainability and management.



*Aquatic bushmeat is the meat of aquatic wildlife – mammals, reptiles and amphibians – that have been harvested for food, medicine or other traditional uses, including as bait for fisheries*

# Bushmeat defined



The meat of wild animals has long been a part of the staple diet of many indigenous and local communities around the world. In equatorial rain-forest and savannah regions it has been called 'bushmeat'. This form of meat is any non-domesticated terrestrial wildlife – mammals, birds, reptiles and amphibians – that are harvested for food, medicine or other traditional uses. Very often bushmeat is locally traded for income or to access other goods needed by the community.<sup>[3]</sup>

Insects, crustaceans, grubs and molluscs are also hunted, and while they can be locally important dietary items, it is the larger vertebrates which constitute the majority of the terrestrial wild animal biomass consumed by humans.<sup>[4]</sup>

Despite rapid changes around the world, bushmeat remains a primary protein for many communities, as well as holding a special role in the cultural and spiritual identity for many. Using animal parts as cultural artefacts, for personal adornment or for hunting trophies is still a widespread practice throughout many regions.<sup>[4]</sup>

For generations bushmeat consumption has been sustainable, but modern pressures and growing human population has changed the balance. Community displacement by industrial mining,

commercial forestry, palm oil plantations and distant water industrialised fisheries has forced many communities into marginal areas, and their dependence on meat from the forest has increased.<sup>[3]</sup> Importing meat for these communities is unviable because many have low disposable incomes.<sup>[2]</sup> Their governments often have limited capacity to import cost-effective foods. These communities hunt to live.

Wildlife is also being corralled into increasingly restricted habitats, by the same modern forced pressuring communities, impacting their robustness and reducing their numbers. The use of modern hunting technology (e.g., shotguns, flashlights, outboard motors) places even further pressure on these wild species.

As a result, bushmeat harvesting is now a significant and immediate threat to the future of wildlife in many parts of the world.<sup>[3, 5]</sup> Governments have responded by declaring the hunting of certain wildlife illegal, but this has not stopped the hunts nor relieved the pressure. Instead it has driven the activity underground, and spawned an illegal trading network.

There has simply been insufficient attention to the role of bushmeat as an important component of



local livelihoods by development agencies, non-governmental, inter-governmental organisations and national governments.<sup>[4]</sup>

## Aquatic bushmeat

People who depend on wild protein will often substitute wild fish and wild meat for one another, depending on the price and availability of each. This means that a decline in one wild resource tends to drive up unsustainable exploitation of the other.<sup>[4]</sup>

Given the modern pressures, it is not surprising that an increased demand for aquatic bushmeat has now become a significant and immediate threat to aquatic wildlife in many regions of the world.<sup>[6, 7]</sup>

Building on the well understood terrestrial bushmeat definition, for this report, aquatic bushmeat is the meat of aquatic wildlife – mammals, reptiles and amphibians – that have been harvested for food, medicine or other traditional uses, including as bait for fisheries.

While terrestrial bushmeat tends to be restricted to equatorial regions, aquatic bushmeat is taken across

the tropic, temperate, sub-Arctic and Arctic regions. Aquatic bushmeat is obtained through hunting, netting and also by making use of stranded (dead or alive) animals.

There has been some discussion about including the consumption of animals accidentally caught in fishing practice (bycatch) within the definition. OceanCare believes that these takes are not aquatic bushmeat because they should be managed under the network of well established national or international fisheries regulations. Similarly, localised shark, fin-fish and shellfish fishing practice should be considered under fisheries regulations. Where there is evidence that the opportunistic use of bycaught animals has developed into directed catch, these hunt to become aquatic bushmeat.<sup>[8]</sup>

There are also discernible shifts in the species being hunted as fish supplies fall away, and fish prices rise. Several studies have demonstrated correlations between the availability and price of fish in markets and the increased demand for terrestrial bushmeat. There is increasing evidence of similar links to increased takes of aquatic bushmeat as well.<sup>[4, 9]</sup>





# Aquatic bushmeat around the world



## West and Central Africa

To give some brief examples of the sheer numbers of animals involved, at least twenty countries across West and Central Africa record trade of the West African manatees, coastal dolphins and small whales for food and other uses.<sup>[10-14]</sup>

In Ghana alone sixteen species are caught and over a thousand animals landed each year, including Clymene dolphins, pantropical spotted dolphins, melon-headed whales and common bottlenose dolphins, short-finned pilot whales, a long-beaked form of common dolphin and rough-toothed dolphins.<sup>[12, 15-20]</sup> Smoked dolphin and whale bushmeat is traded as far away as northern Togo, Burkina Faso, Niger and Mali.<sup>[18]</sup>

In 2014 researchers estimated terrestrial bushmeat consumption had grown to around five million tonnes for the Congo Basin alone. Aquatic bushmeat consumption is likely growing at a proportionate rate.

## Latin America

Many countries in Latin America have a history of using dolphin, seal, sea lion, manatee and otter meat for human consumption and as bait in fisheries.<sup>[21-28]</sup> Some of the most affected species are botos, dusky dolphins and long-beaked common dolphins.

The use of dusky dolphins as bait in long-line and gillnet shark fisheries is significant.<sup>[29]</sup> In some places fisheries that have occasionally hunted dolphins have rapidly increased their take because of the effectiveness of using dolphins as bait.<sup>[30]</sup> The annual catch of dolphins, especially in Peru, has recently increased.<sup>[31]</sup>

## Indian Ocean

There is a long history of the use of aquatic mammals for food and non-food purposes in parts of South Asia.

With increasing demand for protein, bycatch in parts of the Indian Ocean and South Asian riverine systems has evolved into aquatic bushmeat hunting. In the Ganges and Brahmaputra river systems of India and Bangladesh, fishermen have used oil and body parts of Ganges River dolphins as an attractant for large 'catfish'.<sup>[32]</sup>

Spinner dolphins, Indo-Pacific bottlenose dolphins and Indo-Pacific humpback dolphins are all vulnerable to traditional hunting around Madagascar.<sup>[32]</sup>

Dugong bycatch and bushmeat hunting has been recorded around Mayotte, in the Mozambique Channel, but has declined in recent decades due to the reduction in numbers of this species.<sup>[32]</sup>







Bushmeat hunting for local illegal trade is a serious threat for saltwater crocodiles in Indo-Myanmar.<sup>[34-36]</sup>

## Southeast Asia

In Southeast Asia around four thousand turtles are caught along the coast of Viet Nam each year, and more than one thousand green turtles are being hunted in Indonesia.<sup>[14]</sup> Green turtles are hunted annually in south east Sulawesi and the Gulf of Papua New Guinea.<sup>[14]</sup> Local fisherman in the Philippines are known to retain bycaught turtles but also target them while migrating.<sup>[37]</sup>

Declines in dugong numbers have been linked to hunting.<sup>[14]</sup> More recently bycatch has evolved into directed hunting of dolphins and dugong.<sup>[8, 32, 33]</sup>

The lines between bushmeat consumption, illegal poaching and trade are blurred in Southeast Asia. Chinese turtle poachers (mainly from Hainan province) are reported to have turned to Malaysian waters for their supply of entire animals.

Green and hawksbill turtles caught by fishers in Philippine waters also appear to be traded directly with Chinese buyers in South China and Sulu Sea, in order to evade enforcement controls. Much of the Vietnamese turtle catch is traded directly at sea in exchange for commodities brought on vessels from Hainan.<sup>[14, 38, 39]</sup>

Sea turtle egg collection is also high across Southeast Asia.<sup>[14]</sup>

## Pacific Islands Region, Central America, sub-Arctic and the Arctic Circle

Aquatic bushmeat of dolphins and turtles is consumed and used in the Pacific Islands Region and in Central America.

Small whales and dolphins, polar bears, seals, sea lions and walrus are hunted and consumed in sub-Arctic regions and the Arctic Circle.





*With one hand the world community demands that indigenous and local communities control their bushmeat harvest, while the other hand robs these communities of their other crucial protein source.*



# A debt of responsibility

Local enforcement of bushmeat laws is crucially important, but more attention should also be paid to reducing pressure on already impoverished people now turning in greater numbers to harvesting aquatic bushmeat.

Europe, China, Taiwan, Japan and North America owe a debt of responsibility to the people and wildlife of western Africa, South and Southeast Asia, the Pacific Islands Region and Latin America to reduce legal and illegal fisheries impact in these regions.

Salt water and fresh water fish have been an important protein resources for many of these communities,<sup>[4, 40]</sup> yet distant water industrialised fishing pressure is removing this resource from local consumption. In 2004 Brashares *et al* made the firm connection that years of poor fish supply coincided with increased hunting in nature reserves and sharp declines in biomass of forty-one wildlife species in western Africa. Local market data has provided evidence of a direct link between fish supply and subsequent bushmeat demand in villages.<sup>[9]</sup>

## Foreign fishing fleets driving bushmeat demand

In the western African region, industrial fishing vessels from Europe, China, Taiwan and Japan already out-perform local artisanal fishers by at least 20:1. Mirroring the land-grabbing of many extractive industries (mining, palm oil and forestry), Europe, China, Taiwan and Japan are all engaged in ocean-grabbing. They reap large benefits from resources that are in the waters of other regions without local communities receiving any direct benefits.<sup>[41, 42]</sup> These powerful fishing entities all sanction their own fishing vessels to legally continue this unbalanced harvest – a situation that is replicated in the Indian Ocean and the Pacific Islands Region.

This legal activity provides a cover for illegal, unreported and unregulated (IUU) fishing to also occur. IUU fishing often accounts for a large proportion of the total catch. These ventures disguise the origin of their illegal catch so well that it is able to be sold into consumer markets – mainly in Japan, the EU, the US, and other developed countries– as legal catch.

For example, IUU fish come into the EU market as either transshipment at sea, in port or through controlled harbours near to shore. The EU has regulations to control fish being loaded onto reefers (deep freeze factory ships) requiring tracking and establishing the legality of the catch, but

transshipments at sea make it hard for port authorities or flag authorities to monitor how, by whom and where transferred fish were caught. Daniels *et al* (2016) estimated that reefers transported a total of 142,471 megatonnes of fish out of western Africa in 2013. They further estimated that most of the remaining eighty-four per cent of fish transported from western Africa was exported in refrigerated containers. Container vessels are exempt from inspection and EU Regulation explicitly excludes container vessels from the scope of the definition of fishing vessels.<sup>[43]</sup>

With one hand the world community demands that indigenous and local communities control their bushmeat harvest, while the other hand robs these communities of their other crucial protein source.

## Failure to establish free, prior and informed consent

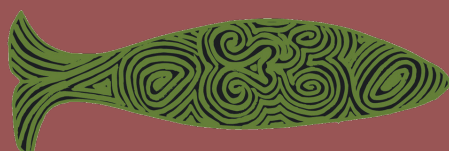
The past decade has focused a great deal of effort in promotion sustainable livelihoods for indigenous peoples and local communities, often with an emphasis on installing development programmes in rural people's lives, so that they can access new markets and new sources of income.<sup>[44, 45]</sup>

While there is merit in this approach, it fails to address the cause of the poverty and new pressures that are increasing poverty – removing people from their traditional lands, land and sea-grabs robbing communities of their traditional resources and eroding the ecosystem services that these communities have relied upon for generations.

'Free prior and informed consent' (FPIC), is a key principle in international law that a community has the right to give or withhold its consent to proposed projects that may affect the lands (and sea) they customarily own, occupy or otherwise use.

The right of FPIC is necessary to ensure a level playing field between communities, governments and powerful transnational companies.<sup>[46]</sup> FPIC operates as a state obligation and entails a genuine participation process, imply careful and participatory impact assessments, project design and benefit-sharing agreements be developed.<sup>[47, 48]</sup> FPIC is the focus of active discussion regarding forest lands and resources,<sup>[49-51]</sup> yet is rarely considered in distant water industrialised fishing activities, where fishing fleets gain access to coastal community fisheries resources.

Without FPIC on activities that will impact communities, efforts to create sustainable livelihoods for indigenous peoples and local communities will ultimately fail.



*In 2014 researchers estimated terrestrial bushmeat consumption had grown to around five million tonnes for the Congo Basin alone. Aquatic bushmeat consumption is likely growing at a proportionate rate.*



# International focus is not broad enough



Aquatic bushmeat can only be tackled by looking at the wider economic and institutional context within which the hunting occurs. The increased consumption of aquatic bushmeat can be attributed, in part, to ecological, demographic, technological and economic factors, but the greatest responsibility rests with institutional and governance factors, and mostly from beyond the region.

Despite this, the focus of international discussions has been on increasing local control through stricter local regulation and creating alternative livelihoods for people to reduce their reliance on bushmeat.

In 2008, the Conference of the Parties to the Convention on Biological Diversity (CBD) identified the unsustainable hunting of bushmeat, and its impacts on non-target species, as a priority to be addressed by Parties (Decision IX/5).

Based on Articles 10(c) on customary sustainable use rights, and 8(j) on traditional ecological knowledge, CBD sought to incorporate the cultural, nutritional, medicinal and economic values of bushmeat for indigenous people into local and regional strategies to reduce the ecological impact of hunting.

In October 2009, the CBD Liaison Group on Bushmeat elaborated *National and International Recommendations Towards the Sustainable Use of Bushmeat*, based on information contained in CBD Technical Series No. 33, *Conservation and Use of Wildlife-Based Resources: The Bushmeat Crisis*. This also contained a local focus.

The Collaborative Partnership on Sustainable Wildlife Management was established in 2012 by CBD, CMS, Convention on International Trade in Endangered

Species of Wild Fauna and Flora (CITES) and UN Food and Agricultural Organisation (FAO) as well as research and knowledge organisations. Most recently, CBD CoP12 (2014) endorsed a draft Action Plan and agreed to progress an analysis of the impacts of subsistence use of wildlife on the survival and regeneration of wild species.

The implication throughout these discussions and within each of these documents is that bushmeat is a local problem to be managed locally.

While progress has been steadily developing local conservation efforts for terrestrial bushmeat, discussions have failed to address the cause and effect relationship of distant water industrialised fishing. Nor has aquatic bushmeat been considered in the Collaborative Partnership on Sustainable Wildlife Management discussions.

**Rather than seeking to move people to new locations or install new livelihoods, participatory approaches for community based wildlife conservation should be allowed to redress some of the conflict small communities have with large scale extractive industries.**

**Community based wildlife conservation builds on common interest between conservationists and local people – a desire to limit uncontrolled exploitation by outsiders and safeguard the natural resource base for the future.**

**Successful community based wildlife conservation can, and should, maintain wildlife habitats and protect species. It can, and should, protect traditional practices and improve social and economic well-being of communities.**<sup>[4, 52]</sup>



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that governments  
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# Community based wildlife conservation

Indigenous peoples and local communities should be able to control their own lands and seas as well as their traditional activities.<sup>[53]</sup>

There is an enormous opportunity for community based wildlife conservation to transform currently unsustainable (and often illegal) harvesting of wildlife for food into well-managed, culturally and economically appropriate activities, which can buffer socio-economic and ecological shocks and are based on clear and enforceable rights.<sup>[54]</sup>

Initiatives in support of these aims should focus on community resource mapping, documentation of customary sustainable resource use, development of

community-based territorial management plans, and strengthening community institutions and decision-making mechanisms.

There should be recognition of land and resource rights with local and national authorities and free prior and informed consent should be sought for activities that relate to resources on their lands and coastal areas.

Most importantly, regions that import fisheries resources must recognise their responsibility for creating greater aquatic bushmeat demand, through their significant legal and illegal industrialised fisheries harvests.



## Recommendations

### **OceanCare recommends that governments:**

1. recognise the cause and effect of industrial fishing, mining, palm oil and forestry on local communities and aquatic bushmeat demand;
2. defend the rights of indigenous peoples and local communities to give 'free prior and informed consent' for all distant water industrialised fishing proposals that might impact on their sea resources;
3. facilitate the development of community based wildlife conservation to maintain wildlife habitats and protect species as well as traditional practices and the social and economic well-being of communities;
4. support governments in West and Central Africa, South and Southeast Asia, and Latin America to prohibit transshipments at sea and support government authorities to only allow transshipments under closely monitored conditions where reefers cannot be accommodated;
5. close all IUU container loopholes in international and regional regulations, and subject ships carrying containers to the same scrutiny and reporting requirements as reefers and fishing vessels; and
6. advocate for broadening the definition and discussion of bushmeat to formally encompass aquatic bushmeat and the impact of industrial fishing fleets in the Collaborative Partnership on Sustainable Wildlife Management, the Convention on Biological Diversity and the UN Food and Agricultural Organisation.





*Indigenous peoples and local communities should be able to control their own lands and their traditional activities.*

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