Issue Brief

AN OVERVIEW OF THE ILLEGAL HARVEST OF AQUATIC ENDANGERED, THREATENED OR PROTECTED (ETP) SPECIES IN WEST AFRICA

AQUATIC WILDMEN: THE PLIGHT OF THREATENED AQUATIC SPECIES

Throughout West Africa, declining fisheries resources and rising human populations have accelerated the displacement of many communities from their traditional food sources. This in turn is driving new forms of aquatic meat consumption, as well as the rise of illegal local and international trade aimed at revenue generation. As a consequence, this aquatic harvest is now seriously impacting large aquatic mammal, reptile and avian biodiversity in the region. This aquatic harvest is ‘falling through the cracks’ between environment and fisheries Ministries, agencies and international processes.

In West Africa, as worldwide, aquatic species have been harvested for decades by local populations. Some of the most famous human uses are (1) the trade of the hawksbill marine turtle’ shell (bekko) through Japanese networks, (2) the consumption of manatee’s or marine turtle’s meat by coastal populations and (3) the harvest of sharks for their fins for the Asian market (Miliken & Tokunaga 1987; Groombridge & Luxmoore 1989; Diop & Dossa 2011).

A WIDE VARIETY OF AQUATIC SPECIES ARE THREATENED

Over time, aquatic bushmeat consumption, increasing human populations and poorly enforced measures punishing the use or trade of these aquatic species, could threaten the survival of many aquatic species. Already today, according to the International Union for the Conservation of Nature (IUCN) some of the aquatic species targeted for consumption are of particular concern (e.g. critically endangered, endangered, near threatened or vulnerable) and some have been listed on the CITES and CMS Appendices.

WHAT IS AQUATIC BUSHMEAT?

Aquatic wild meat, sometimes referred to as aquatic bushmeat, is defined as the meat of aquatic species harvested and used by humans as food resources, medicines and/or cultural/traditional items (e.g. religious items). Aquatic wildmeat includes marine mammals such as manatees, cetaceans and hippopotamus, reptiles such as crocodiles and marine turtles, fish (sharks and rays), and aquatic birds (herons, pelicans and storks amongst others).
In West Africa, a number of aquatic mammals, chondrichthyan (sharks and rays), reptile and bird species are considered endangered, threatened or protected (ETP) – see chart below – and a number of these species are likely affected and/or threatened by illegal use and trade. These aquatic ETP species include 12 aquatic mammals, 14 chondrichthyan, 8 aquatic reptiles and 7 aquatic birds. They are dependent on freshwater and/or marine ecosystems for their existence and therefore depend almost exclusively on aquatic wildlife for food (e.g. herons and pelicans), and species that are much less directly linked to water but depend heavily on marine or freshwater and wetland ecosystems for survival (e.g. parrots, raptors and vultures).

**DRIVERS OF HARVESTING ACTIVITIES**

Harvesting of aquatic ETP species is driven by many factors, both at national and international levels, and is highly motivated by the current high profit – low risk context of the market which is under regulated, particularly in West Africa. Increases in both the ease of transport across international lines and the effectiveness of information and communication technologies, have without a doubt fueled the demand for illegal aquatic species and their by-products. One of the main drivers is the increasing demand for parts or by-products of these species on national and international markets. Some species whose populations are in decline are increasingly valuable, particularly on the black market.

**At the regional level, the main drivers contributing to illegal and excessive harvesting activities appear to be linked to:**

1. The increasing economic value and demand for these species on national and international markets;
2. The inadequate policies and institutional frameworks which favor a low risk-high profit context with unregulated and unreported fishing boats operating along the coasts;
3. The improvement of technology for communication, transportation and large-scale fishing fueling the demand for these by-products and
4. The increasing vulnerability of local communities to climatic and economic shocks that encourage them to explore alternative and sometimes illegal livelihood options.

**At the local level, communities collect aquatic ETP species for private use and/or income generation. The main reasons accounting for the practice may include:**

1. Lack of employment opportunities for local communities;
2. The reduction of their natural resources (e.g. fish stocks);
3. The reduced potential of their lands for sustainable agriculture and livestock populations.

Harvest trade and use of aquatic ETP species in West Africa are often a part of the cultural history of a population and may be associated with medicinal practices and/or traditional ceremonies. The cultural element of these practices is therefore non-negligible and needs to be taken into account.
## Aquatic Mammals

<table>
<thead>
<tr>
<th>IUCN Red List</th>
<th>CITES Appendix</th>
<th>CMS Appendix</th>
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<tbody>
<tr>
<td>Pygmy Hippopotamus (E)</td>
<td>Atlantic Humpback Dolphin (Appendix I)</td>
<td>Atlantic humpback, Clymene, Longbeaked, Common Bottlenose Dolphin, and the West African Manatee</td>
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<tr>
<td>Atlantic Humpback Dolphin (V)</td>
<td>Thirteen of these species (Appendix II)</td>
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<td>West African Manatee (V)</td>
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<td>Common Hippopotamus (V)</td>
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## Chondrichthyans

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<tr>
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<tbody>
<tr>
<td>Largetooth and Smalltooth Sawfish (CE)</td>
<td>Largetooth and Smalltooth Sawfish (Appendix I)</td>
<td>NOTE: Blackchin Guitarfish, Common Guitarfish and African WedgeFish are not listed on CITIES and CMS Appendices but are particular status according to the IUCN Red List since they are listed as “endangered.”</td>
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<tr>
<td>Luebert’s Blackchin and Common Guitarfish, African Wedgefish, and Great Hammerhead (E)</td>
<td>Nine species of sharks, hammerheads and devil rays (Appendix II)</td>
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<tr>
<td>Scalloped Hammerhead, Basking and Common Thresher shark; Reef manta, Lesser Guinean Devil and Sicklefin Devil Ray (V)</td>
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## Aquatic Reptiles

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<tbody>
<tr>
<td>African Slendersnouted crocodile and Hawksbill Turtle (CE)</td>
<td>All species are listed on the Cities Appendix I</td>
<td>The five marine turtle species are further listed on the CMS Appendix I and/or II.</td>
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<tr>
<td>Green and Loggerhead Marine Turtles (E)</td>
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<tr>
<td>African Dwarf Crocodile and Olive Ridley Turtle (V)</td>
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<td>Nile Crocodile (LC)</td>
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## Aquatic Birds

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<tr>
<td>Saker Falcon, Grey Parrot, Timneh Parrot, and Egyptian Eagle (E)</td>
<td>Peregrine Falcon, Grey and Timneh Parrot (Appendix I)</td>
<td>Peregrine Falcon, Saker Falcon and Egyptian Eagle (Appendix I and/or II)</td>
</tr>
<tr>
<td>Black Crowned-Crane (V)</td>
<td>Egyptian Eagle, Black Crowned Crane and Saker Falcon (Appendix II)</td>
<td>NOTE: African Skimmer is not listed on the CITIES or CMS Appendices</td>
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<tr>
<td>African Skimmer (T)</td>
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<td>Peregrine Falcon (LC)</td>
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CE: Critically Endangered; E: Endangered; V: Vulnerable; T: Threatened; LC: Least Concern

Consequently, many international fishing boats operate along the West African coastline without legal authorizations or consideration for international or national laws related to threatened aquatic species. Similarly, local fishers, often unaware of laws, collect and trade all species caught in their nets regardless of their protected status. Senegal, Mauritania, Liberia, Ghana and Sierra Leone are amongst the countries most hit by illegal, unreported and unregulated (IUU) fishing.

These behaviors have consequences for the aquatic ETP species populations and contribute to their decline. Decline in these species affects ecosystems (e.g. regulation of prey and aquatic plants, seed dispersal) and the people who rely on them. Local communities from West Africa are especially sensitive to modifications in their environment. If these environments are threatened by outside stresses, they may look for other ways to make a living. Without proper legal frameworks and enforcement, this may reinforce their interest in the high profit – low risks context of aquatic harvesting a for private use or consumption.
THREATS TO SPECIFIC AQUATIC ETP SPECIES

MAMMALS
Cetaceans are directly and incidentally caught mostly for their meat which is consumed or used as bait (Waere-beek et al. 2004; Van Waerebeek et al. 2000; Weir et al. 2014); Hippopotamuses are harvested for their meat and teeth (Ransom et al. 2015; IUCN/SSC HSC 2017); and Manatees are mainly harvested for their meat but also for their skin, bones and oil (Dodman et al. 2008; Keith Diagne 2015; Silva & Araújo 2001);

CHONDRICHTYANS
Sharks (i.e. real sharks and rays) are intentionally or incidentally caught for their meat, which is consumed, for their fins or body parts (e.g. skull) as part of traditional ceremonies or cultural beliefs (Robillard & Seret 2006; Fernandez-Carvalho et al. 2013; Diop & Dossa 2011; IUCN 2017);

REPTILES
Marine turtles are harvested on their nesting beaches (i.e. adult females and eggs) and foraging grounds (i.e. adults and juveniles) mostly for their meat or/and eggs (Antwi & Agyekumhene 2013; Wallace et al. 2011; Fretéy 2001; Formia et al. 2003); crocodiles are harvested for their meat and skin (Shirley 2014) and regulated and legal hunting of African slender-snouted crocodiles are reported in West Africa countries such Sierra Leone and Togo none of which seem to hold CITES export quotas for the species (Eaton 2010).;

BIRDS
The trade in certain aquatic birds is legal but quotas are rarely monitored and thus probably not respected (Williams et al. 2003; Martin et al. 2014); the direct consumption of chicks or the use of adults in traditional medicine are reported several African countries, as well as the use of live specimens for falconry or as pets through international trade networks (BirdLife International 2016; Clemmons 2002; Martin et al. 2014; White et al. 2013).

EXISTING LEGAL PROTECTIONS AND GLOBAL PARTNERS

Aquatic ETP species should benefit from protection measures resulting from their status in the IUCN Red List and their listing in CITES and / or CMS Appendices. Furthermore, in every country within their distribution range, these species are protected through national and international laws, memoranda and/or convention including:


study turtles developed by the IUCN SSC / Marine Turtle Specialist Group (1996); Multi-Species Action Plan to Conserve African-Eurasian Vultures; (Vulture MsAP).

3. Conventions such as The Abidjan Convention; Convention on Biological Diversity (CBD) and the Collaborative Partnership on Sustainable Wildlife (CPW); African Convention of the Conservation of Nature and Natural Resources.

Protection measures are further set up by international institutions and local NGOs working directly or indirectly to fight against the illegal use and trade of aquatic species. This includes international institutions such as OceanCare, NOAA, Born Free USA, EAGLE Network, the United States Fish and Wildlife Service, Wetlands International, the Turtle Foundation and the MAVA foundation. All are working to various extents on these issues or fund projects dealing with the topic.

Many local NGOs have also worked directly to reduce the harvesting of aquatic ETP species. These include, but are not limited to: the Nigerian Conservation Foundation, Nature Tropicale (Benin), ANCE Togo/TAFFL, CEM Côte d'Ivoire, Africa Chelonian Institute, Wildlife of Africa, BIOS.CV, Chelonee, Natura2000, Maio Biodiversity Foundation, Florida Gulf Coast University Board of Trustees, Sea Turtle Watch Foundation, Save My Future Foundation, African Aquatic Conservation Fund, Reptile and Amphibian Program – Sierra Leone, Biosfera, SOS Forêts (BirdLife Affiliate in Cote d’Ivoire), The Society for Conservation of Nature in Liberia (SCNL) (BirdLife Affiliate), Conservation Society of Sierra Leone (CSSL) (BirdLife Affiliate), and the Wildlife Conservation Society.

A COMPLEX MANAGEMENT CONTEXT

Globally speaking, data is scarce about the illegal trade and use of aquatic ETP species in West Africa. The scope and extent of related activities and trade remains difficult to estimate due to many different variables. This is especially the case for aquatic birds for instance, whereas marine turtles can be considered an exception given the number of available reports encountered. Despite existing laws prohibiting the illegal use and/or trade in aquatic ETP species, such practices occur regularly. However, these events are sparsely reported. This may be explained by several deficiencies including the lack of:

1. Law enforcement and strengthening;
2. Synergy and communication between conservation and enforcement personnel;
3. Adequate technical knowledge of conservation and enforcement personnel (e.g. identification of aquatic ETP species, recording of illegal activities, application of sanctions in case of illegal events etc.);
4. Available resources in the field dedicated to build local community capacities for developing alternatives to harvesting activities and;
5. Awareness and knowledge of local communities about various aspects of the protection of the targeted species.

CALL TO ACTION

Reducing the consumption of aquatic bushmeat will require work on several levels simultaneously. Consequently, interventions to mitigate or eliminate illegal use and/or trade of aquatic ETP species should focus on:

Increasing the knowledge around the aquatic ETP species and improving the understanding of

1. The biology of the targeted species;
2. The cultural, traditional and/or economic drivers leading to harvest;
3. The trade dynamics;
4. The reasons leading to poor law enforcement; and
5. Report and disseminate the facts to increase awareness.
Increasing the capacity of law enforcement to:

1. Enforce decisions made at the IUCN, CITES and CMS level (e.g. precautionary approaches for species being listed as data deficient and for population with unknown trend; enhance the CITES to consider domestic consumption and/or local use of these species);
2. Enhance the authorities’ involvement in law enforcement and their role in protection action;
3. Homogenize, reinforce and strengthen the legal frameworks for protection (e.g. ensure that migratory species benefit from the same protection level within their distribution range, ensure that the sanctions are consistent with the facts);
4. Enhance training of protection and enforcement personnel; and
5. Identify ways to render the by-products of the targeted species less attractive and harder to obtain;

Increasing regional and national synergy:
Actions should focus on enhancing communication between authorities, enforcement officers and NGOs for effective CITES and law implementation;

Increasing relevant resources available in the field: Actions should focus on

1. Enhancing the capacity of local populations to adapt their habits and to move towards alternatives to harvesting activities;
2. Supporting NGOs working in the field to combat illegal activities by enhancing collaborations between NGOs, universities and authorities. This should also include enhanced access to funding.

Increasing public awareness: Actions should be dedicated to make the populations (i.e. both urban and rural citizens) concerned by the protection and management of the targeted species as to ensure their understanding of the enforced laws.

CONCLUSION

The context for the illegal use and/or trade of aquatic ETP species remains complex and data is limited. Illegal harvesting activities remain largely unreported due to the illegal and/or unregulated nature of the practice and laws, where they exist, are not being effectively enforced. In addition, limited resources and other factors such as poor awareness of rural and urban populations, absence of communication and synergy between relevant actors lead to the persistence of the practice.

Priority interventions need to focus on enforcing the law, strengthening penalties, implementing regulatory actions and identifying alternative livelihood options that can strengthen coastal resilience at the ecosystem and human community levels. The creation of a partnership around issues related to aquatic ETPs by the Abidjan Convention and its partners is a welcome opportunity that needs to be sustained. Linking the existing working
group to a larger network of institutions would provide a greater body of knowledge, expertise and financial resources for the implementation of a regional action plan for protecting aquatic ETPs. Furthermore, such an idea would find greater merit if it succeeds in creating synergies, not just across institutions, but also across conventions such as the CITES, CMS, CBD and RAMSAR. Taking the message to delegates at the upcoming CMS COP12 would be a first step in achieving such a goal.

ABOUT WA BiCC

The West Africa Biodiversity and Climate Change (WA BiCC) program is a five-year program funded by the United States Agency for International Development (USAID) that aims to improve conservation and climate-resilient, low-emissions growth across West Africa. Although regional in scope and design, WA BiCC focuses on targeted geographical areas to improve governance and policy over critical natural and human systems. By working with core regional partners, Economic Communication of West African States (ECOWAS), Mano River Union (MRU), Abidjan Convention, and other key national and sub-national institutions, WA BiCC increases the capacity of institutions at all levels to address the three core WA BiCC components: (1) combating wildlife trafficking; (2) increasing coastal resilience to climate change; and (3) reducing deforestation, forest degradation, and biodiversity loss.

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ADDITIONAL RESOURCES


Miliken, T. & Tokunaga, H., 1987. The Japanese sea turtle trade, A special report prepared by TRAFFIC (Japan) and WWF.


