



Aquatic Wildmeat in the Coastal Regions of Benin and Togo: A Study of Consumption and Drivers

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Abstract

The consumption of aquatic wildmeat – whales, dolphins, and sea turtles, as well as sitatunga and other small aquatic species – in West Africa is increasing. To understand the uses of aquatic wildmeat by communities throughout Benin and Togo a survey was recently conducted in three municipalities: Aguégus and Sèmè in Benin and Aneho in Togo. One hundred and twenty fishermen and -women aged 50 years or older were asked about their knowledge and different uses of aquatic wildmeat and the background to their decisions to consume and/or sell aquatic wildmeat.

Our preliminary research has established this group of respondents who have used aquatic wildmeat for over twenty years.

Difficulties surrounding marine and continental fishing have forced many fishermen and their families to migrate to countries such as Gabon, Congo, and Cameroon, as well as drastically change their food habits and normal way of life. Remaining fishermen are forced to undertake longer, more dangerous fishing trips but are increasingly returning to shore empty-handed and unable to recoup their operating costs which include money for fuel, ice and labour. Other fishermen have turned to illegal hunting of aquatic wildmeat species to supplement their income and provide adequate protein for their families. This has become an increasingly important source of income that is relied upon to support the needs of families.

Respondents catch endangered and protected aquatic species opportunistically. All catches are fully utilised. Depending on the current socio-economic situation, time period and needs of the fishers interviewed, meat derived from endangered and protected aquatic species is either sold, or

used for subsistence purpose. Generally, respondents tend to sell high quality meat (sea turtles, sitatungas or marsh bucks and African manatees) while low quality meat (crocodiles, West African Nile monitors) is consumed within their own households directly. In addition, some species (snakes and water birds) are preferably and traditionally used as medicine.

Many parts of marine animals, such as fat, skin, teeth, tail and scales are used in the composition of herbal teas for traditional medicines, further exacerbating the rate of hunting aquatic species.

Study Goals

The overall objective of the study was to collect preliminary data on the uses of aquatic wildmeat on the coastal region of Benin and Togo in order to produce a detailed report of overfishing and threats to aquatic wildmeat. Specifically, this study sought to:

- build on the existing data and further evaluate the uses of aquatic wildmeat on the West African coast from 1998 to present;
- determine whether specific aquatic species are traditionally captured and eaten, or illustrate the underlying use of new species;
- reveal driving forces behind the exponential use of aquatic wildmeat for various purposes.

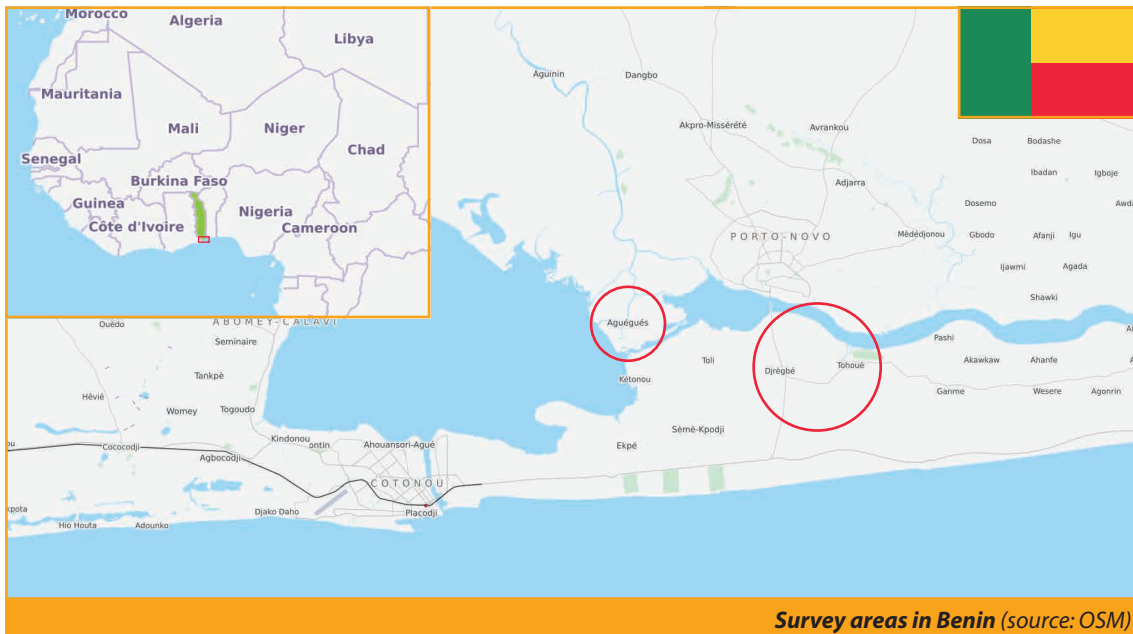
Study Location

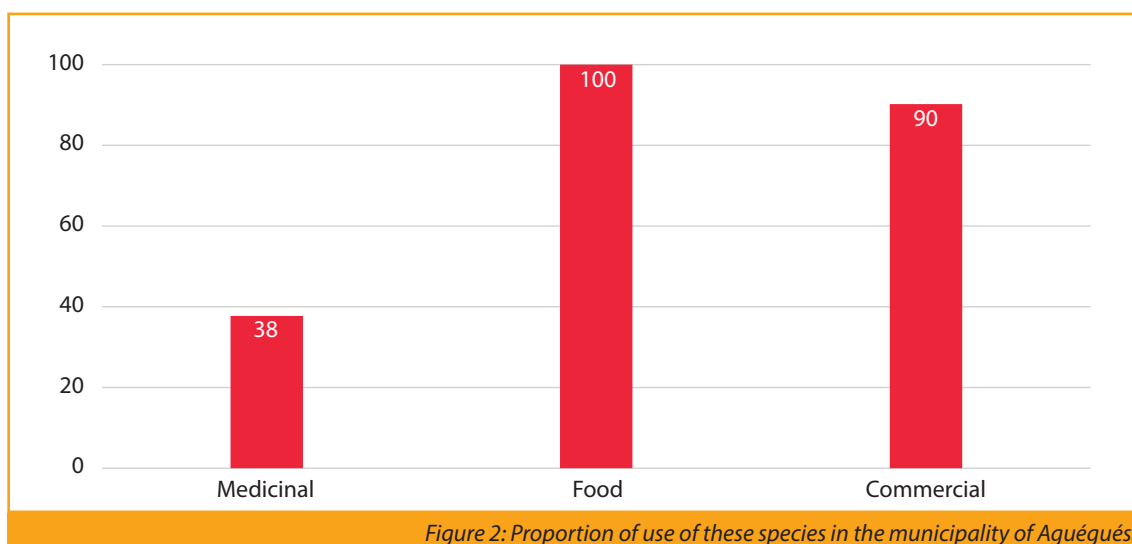
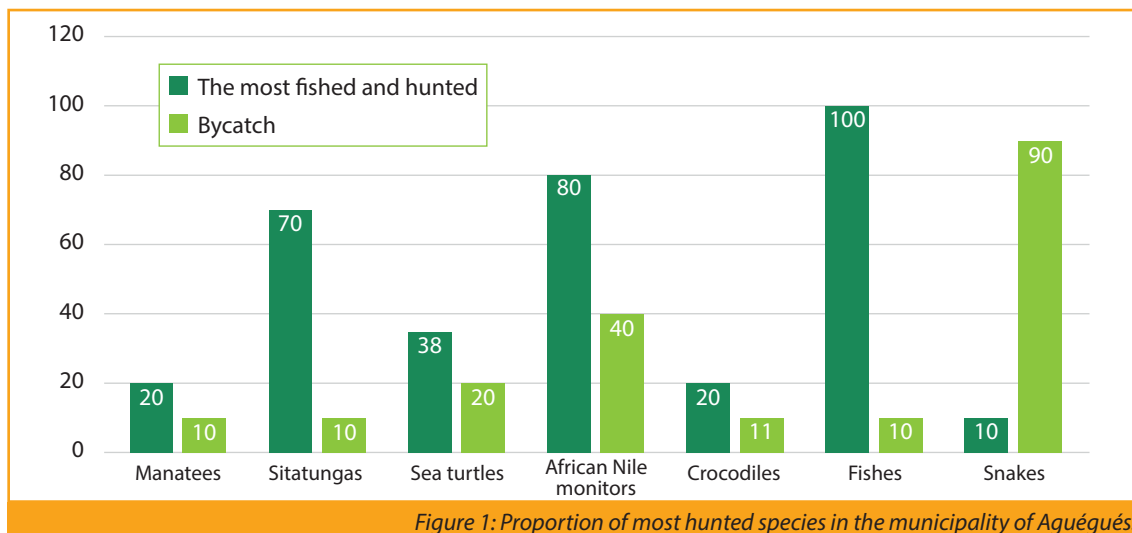
This work was carried out in the Ouémé Delta of Southern Benin in the Aguégus and Sèmè municipalities and in the most coastal municipality of Togo, Aneho.

Results and Discussion

The follow section provides details of the data collected from communities about the knowledge and use of aquatic wildmeat by local people.

Municipality of Aguégoués





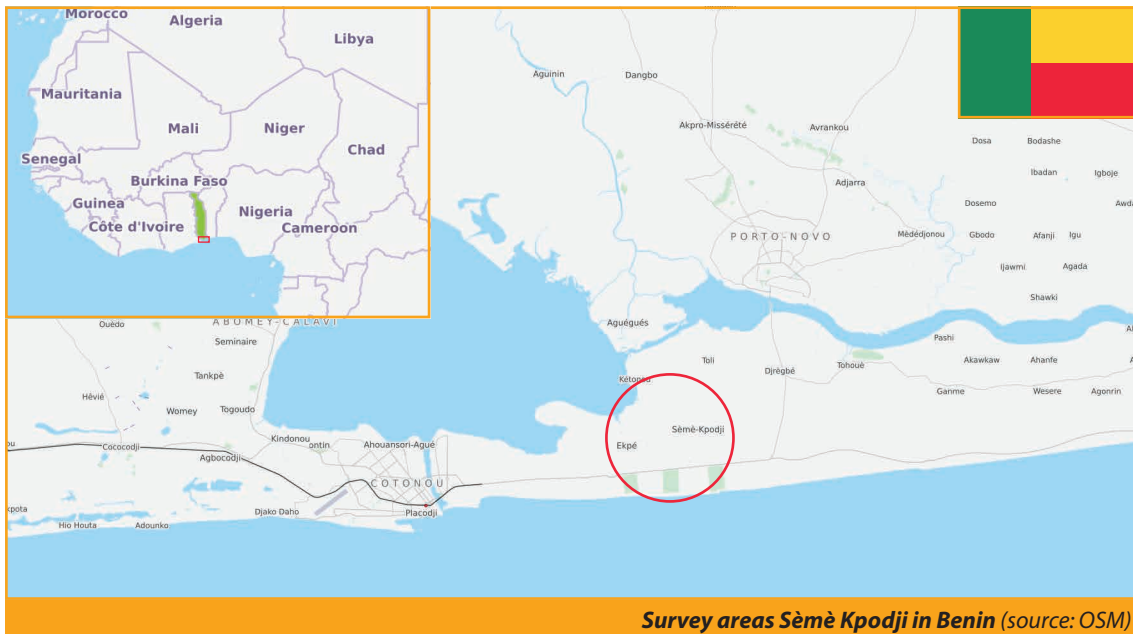
The people of Aguégúés highly value aquatic wildmeat and recognise its uses for food, medicinal and commercial purposes. (Refer to Figure 2.) These communities use to consume a full range of aquatic wildmeat, depending on the period, they sell up to 90 percent of their catches and may use 38 percent for traditional medicine. Historically, the community have preferred eating aquatic wildmeat as a supplement to fish because this important food source provides essential fatty acids necessary for brain and body development. Another compelling reason behind the consumption of most marine species is to obtain a direct source of protein. The remainder of products not consumed are sold at the marketplace at the pier. Sales are led by

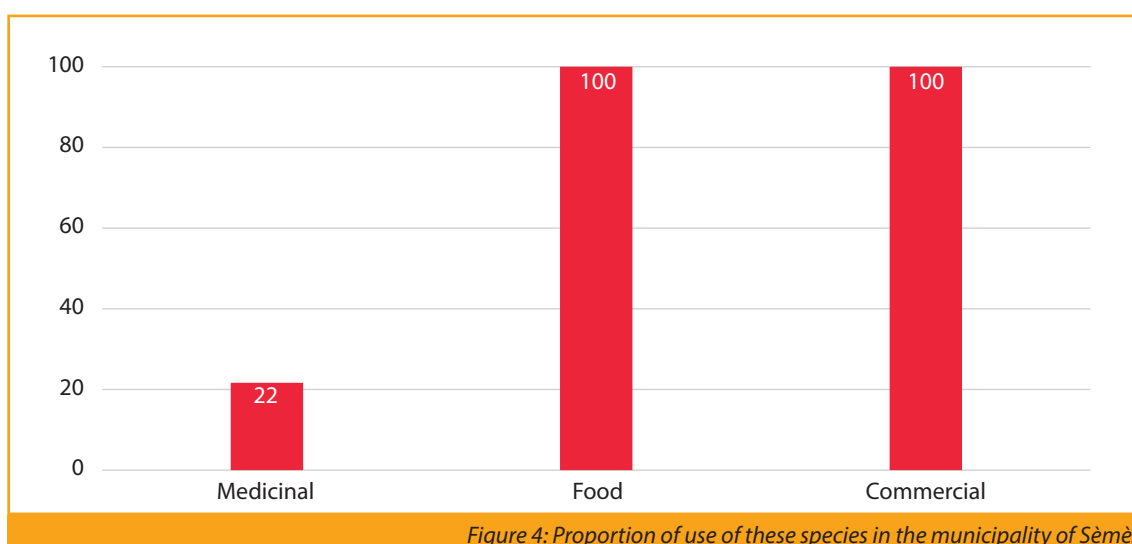
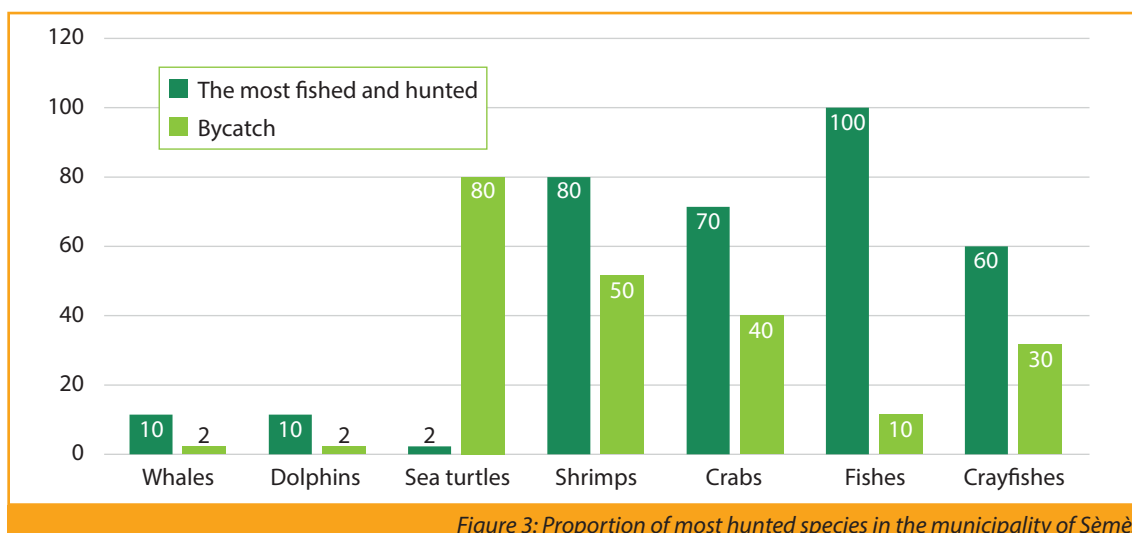
women who rely upon this second revenue generating activity.

These populations display strong endogenous values and rely on the use of many forms of wildmeat for medicinal purposes, such as extracting fat from snakes to remedy a drop in body temperature. Sitatunga, African Nile monitors and sea turtle species are heavily hunted, and snakes, African Nile monitors and turtle species are also the most frequently bycaught. (Refer to Figures 1 and 2.)

Our preliminary investigation has not assessed the sustainability of this hunting effort in Aguégúés, but broad knowledge of species declines through West Africa indicate many takes in the region are likely unsustainable.

Municipality of Sèmè





The people of Sèmè highly value aquatic wildmeat and recognise its uses for food, medicinal and commercial purposes. (Refer to Figure 4.)

These populations use to consume most of marine species and use 22 percent for traditional medicine. Because this town has a relatively stable income, the people largely consume staple foods such as rice, wheat, maize, beans and cassava, which represent the bulk of their energy and nutrient intake. However, they lack some essential nutrients such as iron, iodine, zinc, calcium, vitamin A and vitamin B, or their staple foods contain only small amounts of these. These micro-nutrients must be supplied by other sources such as aquatic wildmeat, which

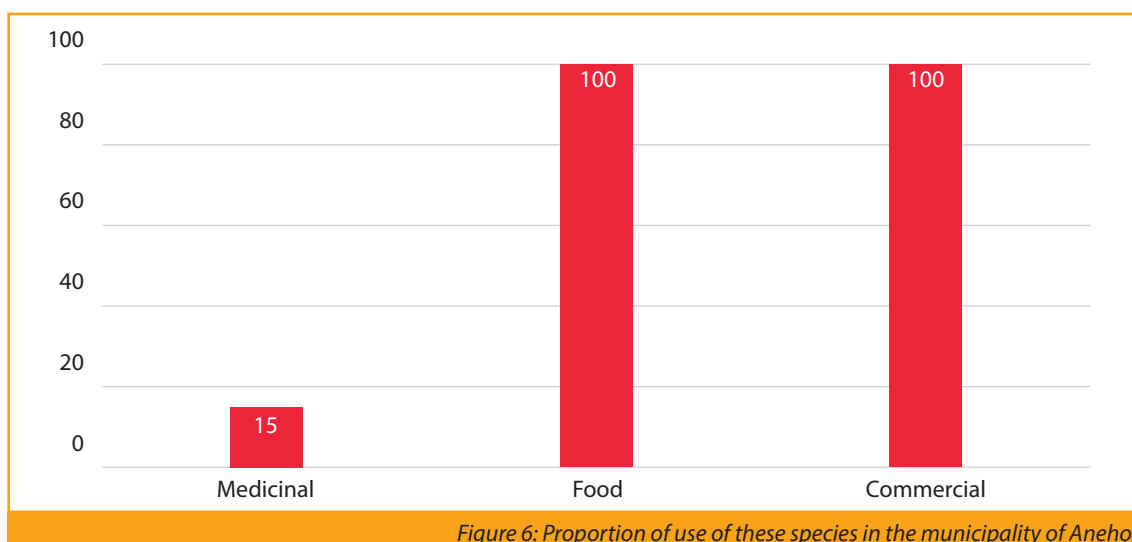
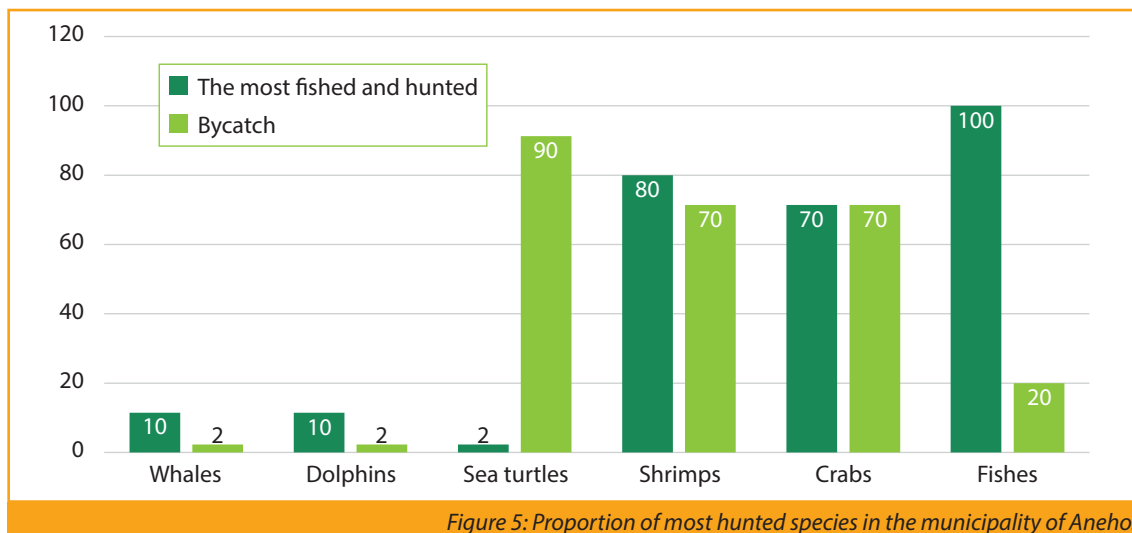
explains the increase in consumption of the latter. The sale and processing of aquatic wildmeat also represents an important new income for women.

Given the various uses of these meats, some species are more subject to hunting pressures than others (Refer to Figure 3), and some are also caught incidentally as bycatch. Thus, sea turtles are the most hunted; and are reported being the most accidentally caught.

Our preliminary investigation has not assessed the sustainability of this hunting effort in Sèmè, but broad knowledge of species declines through West Africa indicate many takes in the region are likely unsustainable.

Municipality of Aneho





The people of Aneho highly value aquatic wildmeat and recognise its uses for food, medicinal and commercial purposes. (Refer to Figure 6.)

Depending on the period, they either consume or sell all their catches of marine species and use 15 percent for traditional medicine. But in this municipality,

particularly at the fishing port, the focus is on sales of a high percentage of the catches.

Our preliminary investigation has not assessed the sustainability of this hunting effort in Aneho, but broad knowledge of species declines through West Africa indicate many takes in the region are likely unsustainable.

Discussion

Fishing communities from around the world fish at sea in order to cater for their family needs. Our preliminary interview survey in these three municipalities has revealed that medicinal use and consumption of aquatic wildmeat is not always a priority for the respondents, but they sometimes eat it due to a surplus resulting from poor sales. Selling is an organised activity with the fishermen's association.

It is also apparent that given the various uses of aquatic wildmeat across populations, some species are more subject to hunting and fishing pressure than others; including bycatch. In these three municipalities marine turtle species are the most frequently bycaught species.



There are parallels with traditional bird hunting in the region as well. For centuries, traditional bird hunting has been practiced by these local communities as a free source of meat to supplement diets as well as provided an income supplement from selling a small proportion of birds. Recreational bird hunting by professional hunters is carried out solely by foreigners from nearby Cotonou. Local communities have trapped water birds primarily for subsistence, but in recent decades trapping has become a source of income for many hunters (youths and adults) due to an increase of urban, and transborder demand originating mostly from Nigeria.

It is also important to recognise that many species caught as aquatic wildmeat hold a high value in Western African traditional medicine pharmacopoeia where they have been widely used. The use of a whole, parts or products of animal species for the treatment of a wide range of human ailments in Benin, Togo and Nigeria where there are several famous traditional markets managed largely by women, has been recorded. The trade in birds and turtles for traditional medicine has contributed considerably to the significant decline of those animals and also to several other aquatic wildmeat species.

Aquatic wildmeat contributes to cultural identity: in Aguégus and Sèmè, for any kind of traditional ceremony or festival, the most important meat consumed is the sitatunga (swamp-dwelling antelope). This cultural demand for wildmeat increases the price; creating a commodity desirable for status-seeking consumers. As fishing practices provide fishermen with less income, they increasingly rely on an income from hunting. Aside from rural areas where eating wildmeat is cultural, aquatic wildmeat is in high demand across cities which explains why people in Grand Popo (Benin) and Aneho (Togo) hunt marine turtles: the meat is highly sought in Lomé and Cotonou, and the shells can be sold in markets for use as traditional medicine.



It cannot be ignored that aquatic wildmeat income contributes to the food security of rural families to purchase other crucial

food supplements and to save money for their households. However, neither can it be ignored that ecosystems dynamics have changed for many of these communities.

Through our interviews with one hundred and twenty fishermen aged 50 years or older we learned that difficulties surrounding marine and continental fishing have forced many fishermen and their families to migrate to countries such as Gabon, Congo, and Cameroon, as well as drastically change their food habits and normal way of life. The Xwla, Xwéda and Mina communities in Benin have been known as masters of the oceans for centuries. This important cultural role, which bears a strong sense of pride in its distinctiveness and diversity, is passed from father to son, developing a positive cultural identity.

It was also apparent that in the last two decades, an increase of fishermen, the generalisation of prohibited fishing gear and the drastic reduction of coastal catches, likely driven by overharvest from offshore fishing fleets, have led these fishermen to become outlaws, turning to other sources of animal protein – the capture and sale of which is often prohibited by law – a behaviours that are illegal. For instance, to avoid being caught by authorities, fishermen dispose of illegally captured turtle carcasses out at sea, returning to shore with only the turtle meat. Part of the meat is consumed by family members and the other part sold discreetly within the community. More and more, this important source of income is relied upon to support the needs of families.

As a result of this shifting fishing effort, fishermen spend more time at sea (an average of a seven-day week as compared to a week of four days or fewer in the past) but increasingly return to shore empty-handed and unable to recoup their operating costs which include money for fuel, ice and labour. To gain a return on their investment, they are forced to venture further out to sea where

they face higher risks and catch endangered marine mammals. Aware that this activity seriously threatens their sustainability and undermines their identity as fishermen, most of them feel they have no option, other than to migrate.

Recommendations

- While the uses of aquatic wildmeat differ between the municipalities of Aguégues and Sèmè in Benin and Aneho in Togo, the harvest levels of many species are very likely unsustainable.
- A general awareness of the vulnerability of some aquatic mammals, reptiles and amphibians because of exploitation for wildmeat, can be a useful driver for diverting hunting efforts.
- More research and development is required in relation to the types of gear used in deep sea fishing practices with the aim of reducing bycatch of marine mammals, reptiles and amphibians.
- More research is also required to identify the causes of fisheries resources declines exacerbating aquatic wildmeat over-harvesting in the region, and measures taken to remove this pressure of these communities.
- These key investigations would benefit community's abilities in this region to use the ocean's resources sustainably.



