



# CCAHD-Streetwhale meeting 2024

Kribi, Cameroon

December 2-7<sup>th</sup>, 2024

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# 1 INTRODUCTION AND BACKGROUND

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The Consortium for the Conservation of the Atlantic Humpback Dolphin (CCAHD) has over 100 partners united in the mission to work towards the long-term sustainability of Atlantic humpback dolphin (*Sousa teuszii* or AHD) populations and their habitats through research, awareness, capacity-building and action. Partners include representatives of NGOs, national parks and government organisations in 18 of the 19 possible AHD range countries, as well as scientists and conservation organisations around the world with resources and expertise that can contribute to conservation efforts on the ground.

The CCAHD is recognized as a regional organisation that can help to implement the Convention on Migratory Species' recently adopted [Single Species Action Plan for the Atlantic humpback dolphin](#). Although the Consortium was formed in 2020, prior to this meeting partners had only met online, or through limited bilateral exchanges to discuss priorities and share expertise and experience.

A 2023 survey of CCAHD partners indicated a universal need for capacity building for stakeholders in AHD range countries, including technical capacity in survey methodology, stranding response and mapping, conservation planning, fundraising, and legal and regulatory protections. Although some of these skills can be augmented through online training sessions and webinars, internet connectivity poses a challenge in the region, and online interactions do not foster the same quality of knowledge exchange and collaboration. A face-to-face meeting was urgently needed to promote capacity building and exchange between range country partners.

Every year since 2020, CCAHD partners, the African Marine Mammal Conservation Organisation (AMMCO) have organised a 'Streetwhale' event, to bring together a wide range of stakeholders involved in marine and coastal conservation. Initially focusing on stakeholders in Cameroon, the event has grown each year to include conservation partners from the wider Central and West Africa region. The Event creates a unique blend of science, policy, sports, visual and performing arts as a way of raising awareness about coastal and marine conservation issues. Participants range from local fishers who participate in AMMCO's citizen science network to government policy makers from Cameroon and neighboring countries, as well as representatives of regional intergovernmental fora.

In 2024 AMMCO and CCAHD decided to collaborate, and to host a meeting of regional CCAHD partners in parallel with the annual Streetwhale event. Generous funding from the Dolphin Quest Foundation and the International Whaling Commission supported the costs of organizing the meeting, bringing regional partners to the meeting, and holding a 2-day pre-event training workshop on bycatch risk assessment. Additional in-kind support was provided by the Convention on Migratory Species (CMS) who covered the costs for their Aquatic Species Team members to attend the meeting and share information about CMS regional frameworks for marine conservation, and Law of the Wild, who covered their own costs to attend the meeting and led a plenary and working group session on legal and regulatory tools for marine conservation.

The CCAHD-Streetwhale Meeting took place over six days from Monday, December 2<sup>nd</sup>, to Saturday, December 7<sup>th</sup>. A full meeting agenda/programme is available in [Appendix 1](#). In brief, CCAHD participants gathered on December 2<sup>nd</sup>-3<sup>rd</sup> for an exclusive training workshop on Bycatch Risk assessment, and then participated in the full Street whale meeting from December 4-6<sup>th</sup>, finishing off with two more CCAHD focused sessions on the morning of December 7<sup>th</sup>. During the Full Streetwhale meeting, CCAHD participants attended plenary sessions of the wider meeting in the mornings, and CCAHD-specific capacity building sessions in the afternoons.

A total of 28 participants from 13 of the possible 19 Atlantic humpback dolphin range countries formed the core CCAHD group during the meeting, although other Streetwhale participants also contributed to various sessions organised by and for the CCAHD. The list of CCAHD participants can be found in [Appendix 2](#).

## 2 BYCATCH RISK ASSESSMENT (BYRA) TRAINING (2-3 DEC. 2024)

### 2.1 CONTEXT AND RATIONAL

It is widely believed that bycatch in artisanal fisheries presents the greatest single risk and source of mortality for Critically Endangered Atlantic humpback dolphins [1-3]. The species is found only in shallow nearshore habitats that are also used by small-scale artisanal fishers, who predominantly use non-selective drift, or anchored gillnets, gears known to be associated with high bycatch risk for dolphins and porpoises [4, 5]. To effectively address this threat, scientists and managers in the AHD range need to understand exactly where fisheries interactions are most likely to take place, and to work with fishers in those areas to develop strategies to eliminate or reduce bycatch risk.

The Bycatch Risk Assessment (ByRA) Toolbox [6, 7] is a mapping (GIS) based tool that was developed to allow users to intersect layers of data on dolphin (or turtle, or whale, or shark) distribution and fishing effort to identify the areas of high bycatch risk. It was designed to accommodate different levels of certainty, and different resolutions of data, and can also incorporate further layers of data such as (seasonal) environmental parameters that could influence bycatch risk.

Funding from the International Whaling Commission’s [Bycatch Mitigation Initiative](#) covered the costs for Professor Ellen Hines, a member of the IWC Expert Panel on Bycatch and lead developer of the ByRA toolbox, and Dr. Sarah Farinelli to lead a ByRA training workshop for the CCAHD. The IWC funding also covered the costs of two additional days of accommodation and meals for all CCAHD participants, simultaneous translation, visas, and round-trip transportation from Douala to Kribi.

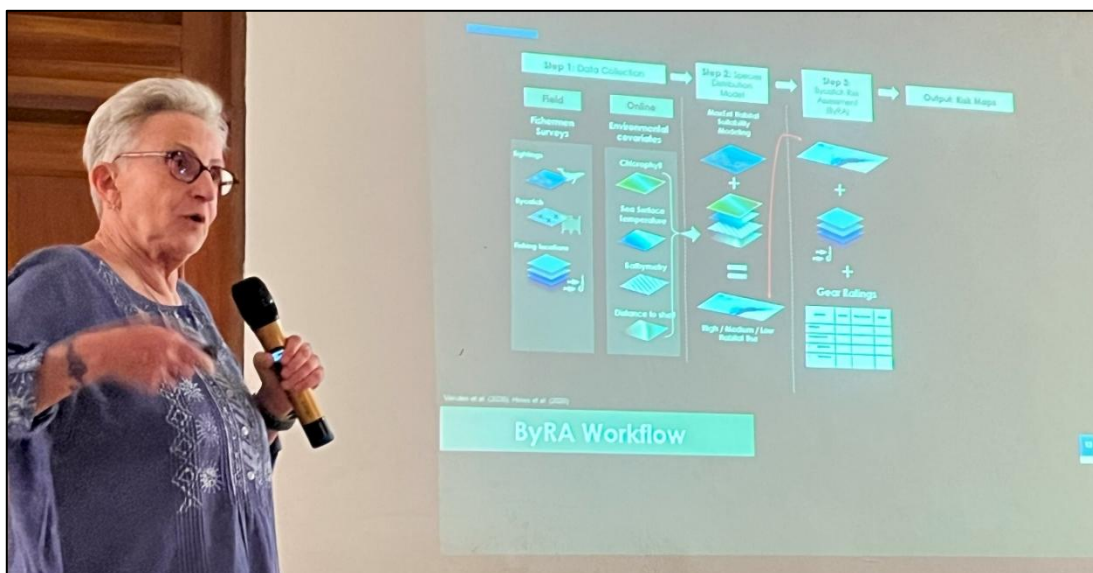


Figure 1: Prof. Ellen Hines presents the underlying principles of the Bycatch Risk Assessment (ByRA) toolbox.

## 2.2 SUMMARY OF FISHERIES AND CETACEAN DATA FROM PARTICIPATING COUNTRIES

The ByRA training involved 21 participants from 13 of the 19 possible AHD range countries, as well as two additional international participants. The first day of the training focused on introducing the ByRA methods and tools. Participants were given examples of where it had been applied with very different types of data on marine mammal distribution and fisheries in different locations around the world. Data inputs could range from long-term datasets with hundreds of marine mammal sightings collected during dedicated surveys that allow calculation of relative densities, to data gathered from fisheries interviews and representing fishers' perceptions of where animals are. Similarly, data on fishing effort can be based on detailed tracking data or direct observations during dedicated surveys, or on interviews and participatory mapping. The outputs of the ByRA model will reflect the levels of certainty (or uncertainty) associated with the different types of inputs.

Participants from AHD range countries each provided their own brief overviews of the data available on cetacean distribution and fishing effort from their locations, summarized briefly below:

### 2.2.1 Angola

After years of working on marine turtle research and conservation through the [Kitabanga](#) project, a joint team from The Faculty of Natural Sciences of the Agostinho Neto University and the [Kissama Foundation](#) has started the Wambi Project, which focuses on whales and dolphins along Angola's coast. The recently launched project has teams conducting mostly shore-based observation surveys from two sites in the north of Angola and one site in the south, as well as off the coast of Luanda. The cetacean surveys focus primarily on humpback whales, killer whales and Atlantic humpback dolphins. It is hoped that this newly started work will provide insight into cetacean distribution and inform conservation measures.

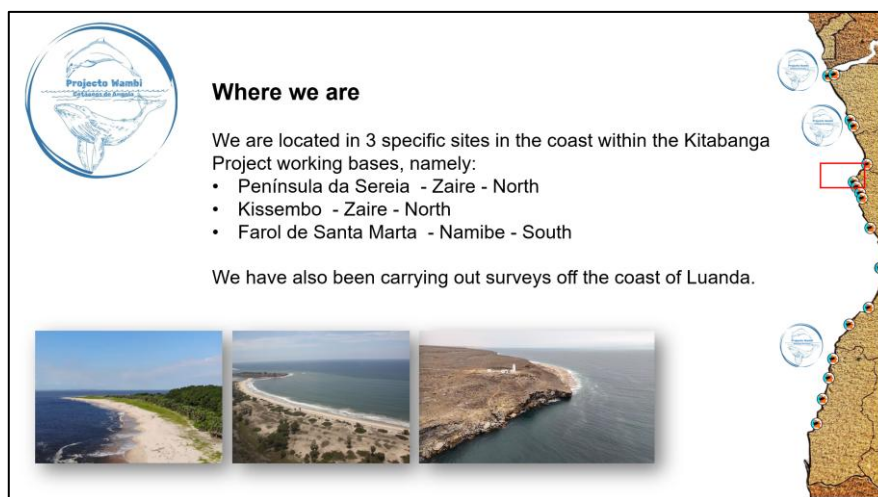


Figure 2: A new cetacean project in Angola focuses on shore-based observations in three main locations.

### 2.2.2 Benin

The Benin Environment and Education Society ([BEES](#)) team has been more focused on inland wetlands than marine waters. They have not recently documented any AHD sightings, and are not (yet) conducting any systematic beach or boat-based surveys focused on cetaceans. However, through their extensive interactions with coastal communities they have been able to identify the fisheries that pose the greatest bycatch risk to turtles, sharks and rays and dolphins in Benin. These fisheries include artisanal gillnets, beach seine nets, and trawlers targeting demersal species, although these tend to operate further offshore, and are more likely to impact turtles, sharks and rays than dolphins.

02. *Pêcheries à risque*

Pêche artisanale côtière

- Utilisation de filets maillants, de nasses et parfois de chaluts de plage
- Risque élevé de prises accessoires, car les pratiques sont souvent peu sélectives et les filets restent longtemps en mer.



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Joie Didier **Sossoukpe** Conservationist | Biodiversity | Protected and Conserved Areas Management

Figure 3: The BEES team has identified artisanal coastal gillnets and beach seine nets as those most likely to pose a bycatch risk to coastal dolphins in Benin.

### 2.2.3 Cameroon

Two CCAHD partners have been collecting data on cetaceans and fisheries in Cameroon. [AMMCO](#) (represented in the workshop by Cedrick Fogwan), has used their [SIREN citizen science app](#) to receive and store data on live sightings, strandings and bycatch of cetaceans and other marine species. As of November 2024, the App had yielded 309 records of 11 cetacean species, including two records of Atlantic humpback dolphins in the south of Cameroon where they had not been documented previously. This data has been mapped, and is also tied to fisheries effort, as the majority of records are reported by fishers on their fishing grounds. Cedrick and the AMMCO team are working on a peer-reviewed publication of this data.

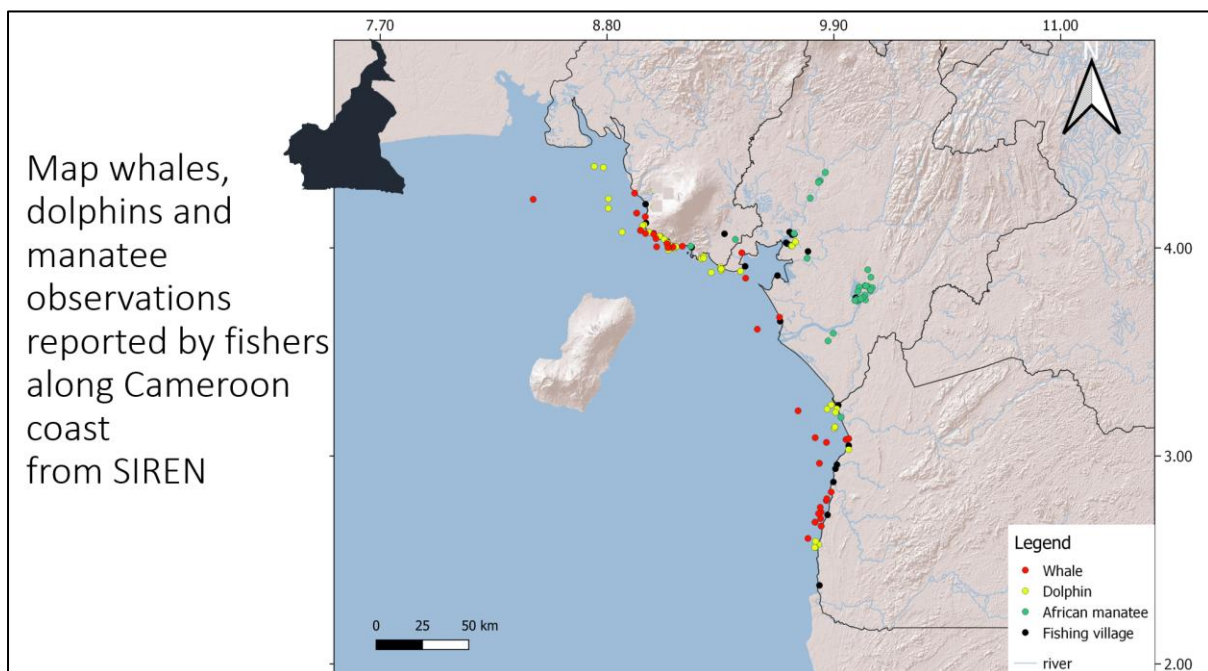


Figure 4: CCAHD partners AMMCO in Cameroon have been collecting Marine Mammal distribution data through the SIREN Smartphone App that allows fishers to report sightings, strandings and bycatch events.

In parallel, AMMCO and CCAHD's other partner in Cameroon, [Tube Awu](#) both participated in a hands-on training to conduct systematic boat-based cetacean surveys in May, 2024. Since that time, the Tube Awu team (Represented by Joel Wambi at the meeting) has been conducting [monthly boat surveys](#) using the [CCAHD boat-based survey protocols](#) in the waters of the Manyange Na Elombo Campo Marine Protected Area south of Kribi. During these surveys they document all cetacean and other marine megafauna observations, as well active fishing effort. Although it is early days, and no AHD sightings have been made yet, the team is already starting to see patterns of overlap between cetacean distribution and fishing effort, and fishers in their area have also documented cetacean bycatch through the SIREN app.

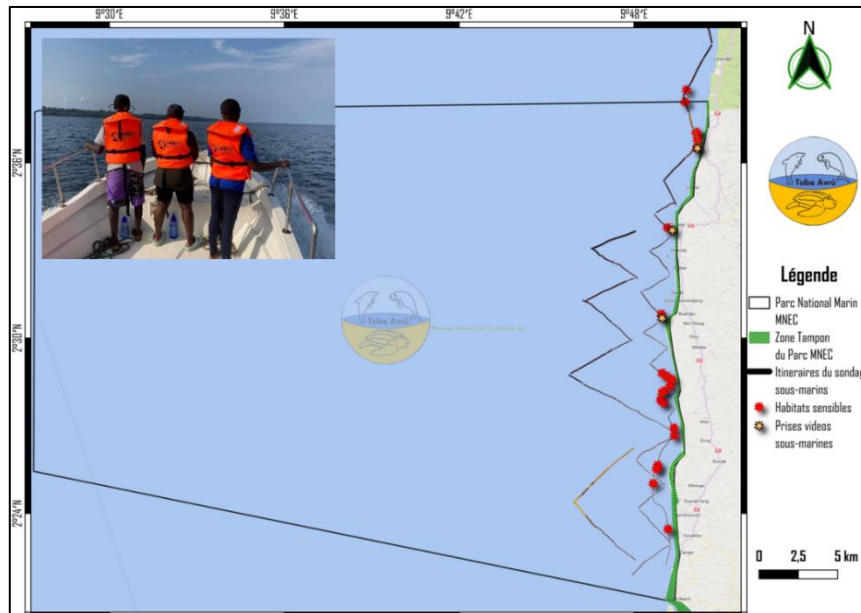


Figure 5: Since June 2024 CCAHD partners Tube Awu have been conducting regular boat-based surveys in the waters of the Manyange Na Elombo Campo Marine Protected Area south of Kribi.

#### 2.2.4 Congo

Two CCAHD partners from Congo were represented at the meeting. The [Renatura](#) team (represented by Hugo Baron and Quentin Bodiguel during the meeting) has been collecting data on cetaceans and fisheries through: 1) fisheries interview surveys (they were a partner on the [Society of Marine Mammalogy funded CCAHD project](#)); 2) systematic beach surveys in which teams conducting turtle nesting surveys regularly stop to scan the nearshore area for dolphins using methodology developed by Collins et al. [8]; 3) passive acoustic surveys, with CPODs deployed in nearshore waters where AHD are expected to occur, and where shore-based observers attempt to document AHD presence around the recording units; and 4) Systematic boat surveys during the humpback whale breeding season (June-October). These datasets have undergone preliminary analysis, and it is hoped that they can be prepared for submission in peer-reviewed journals.

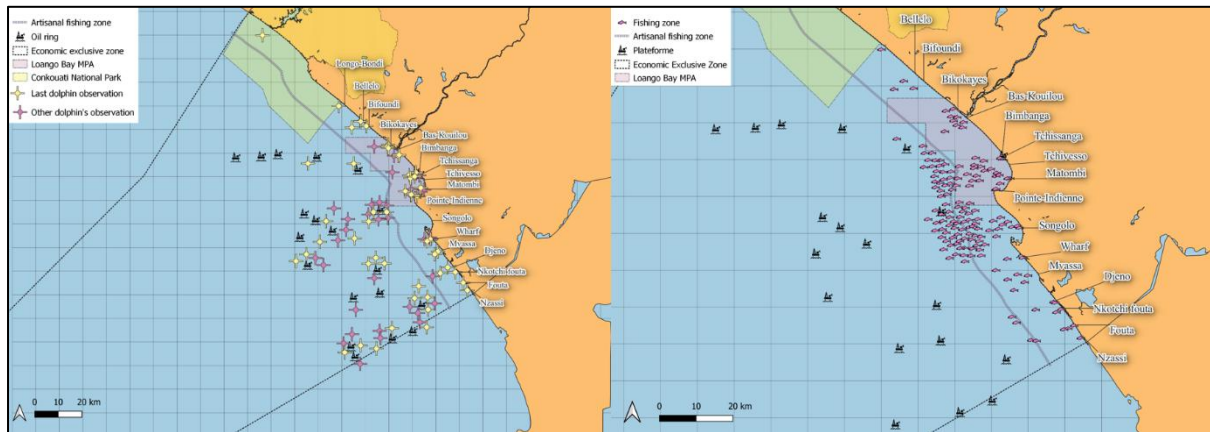


Figure 6: The Renatura team in Congo used fisheries interviews to collect data on fishers' observations of dolphins in relation to human activities.

[Noe Parks](#) (represented by Clemence Chamouton), took over management of the Conkouati-Douli National park in the north of Congo in 2021. In 2024 the team [recommenced a programme of systematic beach-based surveys](#) following the methodology used by Collins et al. [8] in the same location in 2008-2013. At the same time, the team recommenced boat-based patrols of the marine waters of the park to document all types of fisheries effort, but with a particular aim to document and discourage IUU Fishing in park waters.

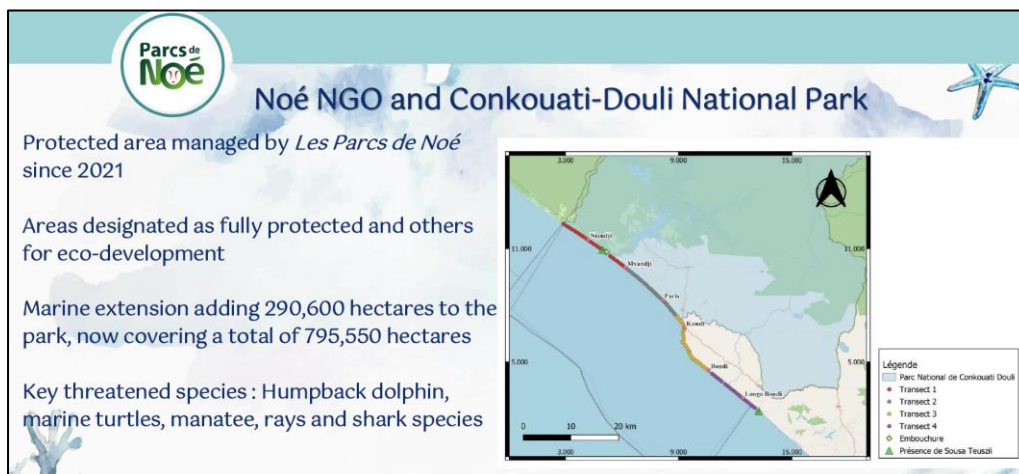


Figure 7: The Noe team in Congo conducts regular beach and boat patrols of the coastal and marine portions of the Conkouati-Douli National Park.

## 2.2.5 Gabon

Gabon is a country with regular AHD sightings dating back to the early 2000s [8, 9]. Since 2012, with the launch of a national 'Gabon Blue' Initiative, Gabon has placed a great deal of emphasis on collecting and collating cetacean distribution and fisheries data. CCAHD partner, Judicael Regis Kema Kema was officially representing the NGO he helped to found – [Aquatic Species ONG](#) during the meeting. However, as he pursues his PhD through La Rochelle University and Omar Bongo University, he has had access to and insight into multiple datasets, including thousands of cetacean sightings logged through systematic surveys conducted by WCS and WWF [10, 11] and the National Parks Agency (ANPN), Industrial fishing effort logged through AIS, and bycatch incidents reported by on-board observers. He hopes to conduct a ByRA analysis on data from 2016 and 2017.

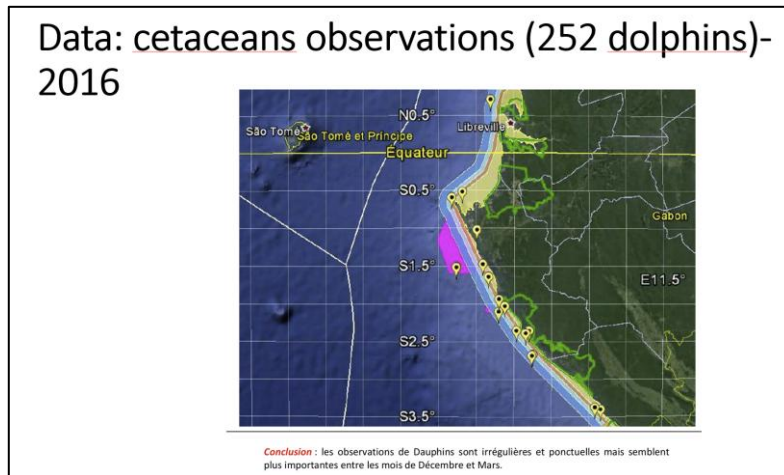


Figure 8: Gabon represents a data-rich region for cetacean and fisheries effort. There are extensive datasets that could be analysed.

### 2.2.6 Ghana

A collaborative project conducted by the [Cape Coast University](#) (represented by Dr. Isaak Okyere at the meeting) and Friends of the Nation in Ghana has focused on the collection of data on cetacean bycatch and strandings at fish landing sites all along Ghana’s coastline. Over the twelve-month period (April 2022 to March 2023), the project documented a total of 254 individual cetaceans from 18 species [12]. In the following year between April 2023 – March 2024, a total of 332 individual cetaceans were reported with the most frequently occurring species being the Clymene dolphin (*Stenella clymene*), (35.3%) and the Pantropical spotted dolphin (*Stenella attenuata*) (21%) [13]. The lack of humpback dolphins in this dataset may reflect a local extirpation of the species, or the fact that most of the fisheries responsible for this bycatch are drift gillnet fisheries operating further offshore than AHD would be expected to occur. One of the project team members from Cape Coast University, Elizabeth Agyekumwaa, has secured funding to pursue a PhD project that intends to map fishing effort and use a ByRA approach to mapping and then mitigating bycatch risk in the near future.

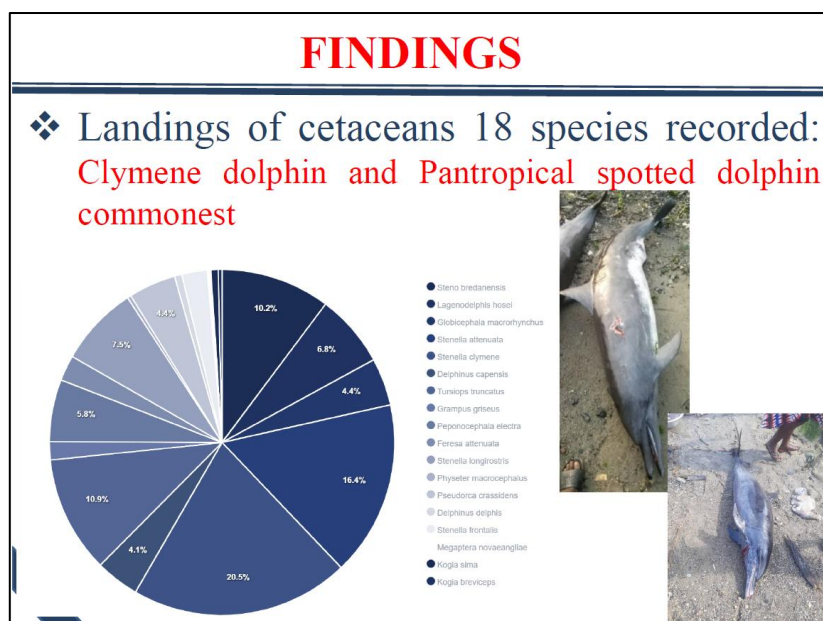


Figure 9: Proportions of cetacean species landed in Ghana in 2023. Atlantic humpback dolphins have not been recorded, but the majority of landings have been from drift gillnet fisheries operating further offshore, beyond expected humpback dolphin habitat.

### 2.2.7 Guinea

A [2.5-year long collaborative project in Guinea](#) built on previous studies [e.g. 14, 15] conducted in the Kamsar and Tristao Islands area to document Atlantic humpback dolphin occurrence and human activities along Guinea's coastline. The boat surveys conducted in 2022-2024 indicated that the Kamsar and Tristao Islands are still important habitat for Atlantic humpback and common dolphins [16], and that artisanal fisheries using small motorized vessels and gillnets are common in the same areas where dolphins occur. Fisheries interviews indicate that humpback and/or bottlenose are also likely found in the southern part of the country around Forecariah (Biotope Guinea and CCAHD, unpublished data). The interview survey results also indicate that while bycatch does occur, coastal development related to a growing mining industry, and the construction of ports is potentially a bigger threat to AHD in this country than fisheries bycatch. The Project has led to the improvement of stranding response and data collection and storage in a national database. Project partners Biotope Guinea and the Centre National Des Sciences Halieautiques Boussara (CNSHB) were represented by Mamadou Sangare and Yamoussa Salifa Camara respectively.

### 2.2.8 Guinea Bissau

The Biodiversity and Protected Areas Institute (Bissau Instituto da Biodiversidade e das Áreas Protegidas - [IBAP](#), represented by Emanuel Dias at the meeting) is the government agency responsible for wildlife research and management in Guinea Bissau. At the national level, there are still no systematic monitoring activities linked to cetaceans. This is due primarily to a lack of trained staff in the field of monitoring and collecting data on cetaceans, as well as a lack of financial resources earmarked for this purpose. However, there is renewed interest for Atlantic humpback dolphin research in the country in conjunction with the PRCM's [Blue Bijagos programme](#), which includes a wide range of research and conservation activities in the Bijagos Archipelago, an area where AHD have been documented in the past [9, 17].

The National Institute for Fisheries Research and Oceanography (INIPO), who are based in the main fishing harbours do collect data on fish landings, which can include bycatch.

### 2.2.9 Ivory Coast

The NGO, Conservation des Espèces Marines ([CEM](#)) in the Ivory Coast (represented by Alexandre Dah at the meeting) has focused on marine turtle research and conservation for many years. In 2024, a new project to assess turtle, shark and ray bycatch at fish landing sites also began to document high levels of cetacean bycatch. A modest emergency grant from the CCAHD has allowed the team to start systematically documenting cetacean bycatch using CCAHD data collection from carcass protocols. As with the Ghanaian landing site data, the lack of AHD records to date may indicate that the species is not present in the country, or it may reflect the nature of the fisheries represented at the landing sites that operate further offshore.



Figure 10: Still image from a video sent to CCAHD partners CEM in the Ivory Coast by one of a growing number of fishermen who are reporting bycatch events.

### 2.2.10 Mauritania

In Mauritania, scientists from the Institut Mauritanien de Recherches Océanographiques et des Pêches ([IMROP](#) – represented by Abdehallahi Samba Bilal at the meeting) collaborate with those from the Banc D’Arguin National Park to collect data on cetaceans. Data are collected on strandings, and rangers in the park collect data on cetacean sightings during their boat-based patrols, but a recent inventory of all cetacean data from the country [18] calls for systematic surveys to be conducted in the Banc D’Arguin National Park, which was believed to provide habitat to Atlantic humpback dolphins in the past, but where recent records have been dominated by confirmed sightings of bottlenose dolphins.

### 2.2.11 Nigeria

The Biodiversity Preservation Center ([BPC](#)) in Uyo, Nigeria (represented by Prof. Edem Eniang at the meeting), traditionally focused on terrestrial wildlife and manatees, but has been increasingly engaged in outreach with coastal communities in areas of known or suspected AHD habitat, thanks to a grant from the New England Aquarium. During interview survey and community outreach work, the team was able to form a team of community-based Dolphin Guardians, who report cases of marine megafauna bycatch. A supplementary emergency grant from CCAHD, intended to equip BPC team members with the means to travel to, and collect data from reported incidents of cetacean bycatch or hunting, has created more capacity for response, but also highlighted the extreme difficulties of doing this type of research in Nigeria. Communities generally kill and eat all forms of marine megafauna bycatch, and often become hostile when any attempts are made to inspect or collect data from carcasses.

### 2.2.12 Senegal

CCAHD partner, the African Aquatic Conservation Fund ([AACF](#)- represented by Diana Seck at the meeting), commenced a dedicated dolphin survey project in the Delta Saloum, Senegal, in July 2021. Small boat surveys of the entire delta and offshore area, replicating transects designed by C. Weir in 2015 [19] have been conducted annually from 2021 onward using the CCAHD protocols for [boat-based field surveys](#), and have involved a strong element of capacity building for Senegalese team members and other scientists from AHD range countries [e.g. 20]. In addition to collecting dolphin distribution and photo-identification data, the boat surveys have documented all active fishing effort, providing

effort-corrected data on the relative density of both dolphins and fishing effort. The team also has access to wider scale fisheries data, and conducts regular stranding surveys of the entire Senegalese coastline.

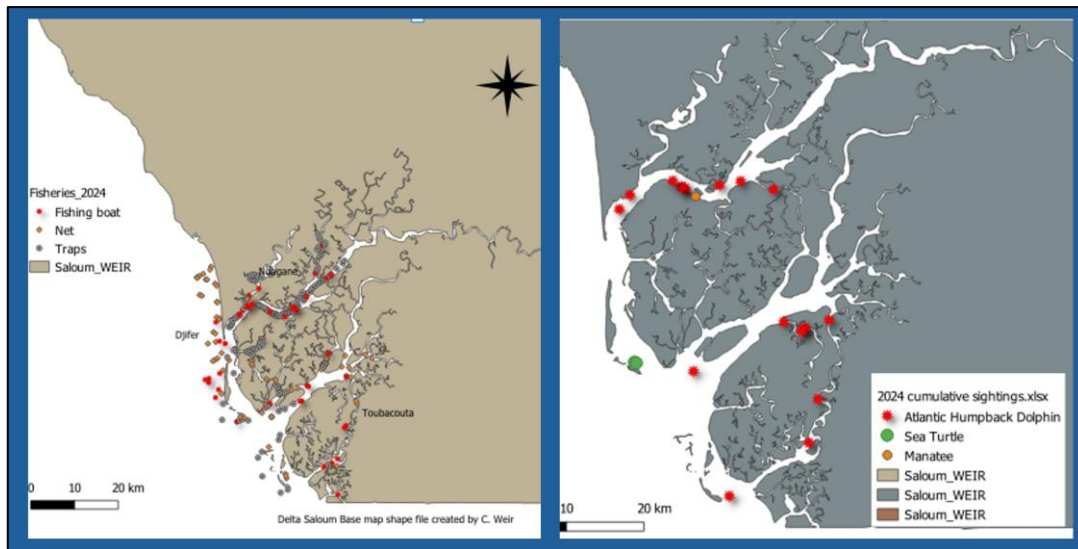


Figure 11: Figures showing the locations of observed fishing effort and dolphin, turtle and manatee sightings during small boat surveys conducted in the Delta Saloum in February 2024.

### 2.2.13 The Gambia

The Gambian Marine and Environmental Conservation Initiative ([GMECI](#) – represented by Yandeh Sallah-Muhammed at the meeting) actively monitors cetacean distribution, bycatch, and the fishing practices of artisanal fisheries using a range of innovative methods. Over the past nine years projects have included fisheries surveys, participatory activities, and specialized training programs focused on marine conservation, sustainable fishing practices, and promoting awareness of cetaceans and marine megafauna such as the Atlantic humpback dolphin. The team also works collaboratively with local government bodies and the Department of Parks and Wildlife Management with an aim to ensure that conservation efforts are rooted in community participation and long-term sustainability.

Despite these efforts, there is limited data on bycatch in the Gambia. It is believed that Artisanal fisheries account for over 80% of fish processing exports and that the use of cheap, non-biodegradable monofilament gillnets leads to a high rate of ghost fishing and capture of non-target species.

GMECI is also a member of the Gambian Stranding Network, serving as a key contact for reporting stranded cetaceans, conducting necropsy sampling, species identification, and detailed assessments. These efforts are supported by training and guidance from the AACF in Senegal.

## State of Fisheries (at a glance!)

- Industrial Trawl Fisheries:**
  - These are a significant source of bycatch, especially in cases where inappropriate fishing zones are used or nets entangle non-target species. Industrial catches → exported to Senegal / EU = limited tracking/monitoring
- Gillnets in Artisanal Fisheries:**
  - Artisanal fisheries over 80% of fish processing exports.
  - Use of cheap, non-biodegradable monofilament gillnets → ghost fishing and the “accidental” capture of non-target species.
- Illegal Practices:**
  - Non-regulated mesh sizes, leading to the capture of juvenile and non-target species + weak enforcement of & lack of seasonal/targeted closures.
- Limited Data and Monitoring:**
  - Poor or no tracking of bycatch rates depending on area and inadequate species identification tools hinder efforts to quantify and address bycatch issues effectively



Figure 12: Overview of fisheries known or suspected to cause bycatch in the Gambia

### 2.3 PRACTICAL EXERCISE RESULTS AND DATA OUTPUT

Participants were divided into 4 groups, ensuring that each group had at least one member experienced in GIS. Groups were invited to use either the standard dataset provided by the trainers (a dataset from Kuching, Sarawak, Malaysia), or data from one of the group members. One of the four groups used the training data, while other groups used data from Gabon, Congo, and Senegal.

- The team using the training data was able to successfully work through all of the steps presented in the training and described clearly in the full training manual to generate maps that represented the overlap between Irrawaddy dolphin distribution and fishing effort and high bycatch risk in Kuching Bay, Malaysia.
- The team using data from Gabon encountered glitches associated with running the tool in the open source QGIS rather than ArcGIS, which is licensed and can be expensive and require users to be online while using it. This highlighted the need for CCAHD to support members either in obtaining ArcGIS licenses, or to work with the ByRA and QGIS teams to try and overcome the barriers preventing ByRA from working well in the open-source platform.
- The team that used the Senegal data was able to run a full ByRA analysis and generate maps representing high bycatch risk areas. This was extremely satisfying, as the Saloum Delta fieldwork has followed the [CCAHD boat-based survey protocols](#) to collect data on dolphin distribution and fishing effort from July 2021 onward (these protocols were actually adapted from the surveys conducted in Malaysia that were used to test the initial versions of the ByRA toolbox). Other CCAHD partners who are already using the CCAHD boat-based survey protocols, or who are thinking about using them in the near future were able to see how well these could be applied to practical assessments of bycatch risk.



Figure 13: Participants to the Bycatch Risk Assessment Workshop collaborated in working groups to apply the toolkit to data from the region with guidance from the trainers, Prof. Ellen Hines and Dr Sarah Farinelli.

### 3 STREETWHALE PLENARY SESSIONS: ATLANTIC HUMPBACK DOLPHINS IN THE WIDER CONTEXT OF REGIONAL MARINE AND COSTAL CONSERVATION (DEC 4-6, 2024)

On Wednesday, December 4<sup>th</sup>, the Streetwhale festival opened with an impressive array of cultural dances and displays. Over the following 3 days, in the mornings the symposium component of Streetwhale included a series of plenary presentations addressed issues ranging from participatory mapping, to management of marine protected areas, and regional collaboration (see [Appendix 1](#) for more details). Participation to this wider marine and coastal conservation forum included many different categories of stakeholders from Cameroon, including fishers, NGOs, government representatives, and HRM Dr. Molive Molungu Otto, Chief of Batoke village. The symposium also had an international character, with over 350 participants from 20 countries in the wider central and west African region, including representatives from regional fora such as the Regional Partnership for Coastal Conservation (Le Partenariat Régional pour la Conservation de la zone côtière et Marine - [PRCM](#)) and the Regional Network for Marine Protected Areas in West Africa (Réseau régional d'Aires Marines Protégées en Afrique de l'Ouest [RAMPAO](#)). Plenary presentations and panels were followed by lively discussions with insightful input from several different perspectives.



Figure 14: The Streetwhale Seminar was officially opened with a vibrant cultural display of traditional dance. Right: Plenary presentations and panels catalysed questions and debate.

Plenary presentations that were arranged through the CCAHD participation to Streetwhale included:

### 3.1 PARTICIPATORY MAPPING TO ASSESS RISK TO MARINE WILDLIFE



Prof. Ellen Hines challenged the audience’s perception of what a map can be, providing many examples of traditional maps used by indigenous peoples around the globe, and described a range of projects around the world in which scientists collaborated with coastal communities to map their perceived distribution of marine and coastal wildlife, as well as their fishing effort. These participatory maps can inform more systematic research efforts, and can form the building blocks for truly collaborative

conservation management efforts that include community stakeholders.

### 3.2 LEGAL AND REGULATORY MEASURES TO SUPPORT MARINE CONSERVATION



Catherine Pruett, of [Law of the Wild](#) provided a brief introduction to Law of the Wild’s scope of work which includes supporting governments in their evaluation of legal and regulatory mechanisms for conservation and ways to strengthen them. She also provided a synopsis of relevant international, regional, and domestic regimes that play a role in marine conservation; and an introduction to Law of the Wild’s National Legislation Survey of domestic legislation for

17 Atlantic humpback dolphin Range States that was included as an Appendix in the CMS [Single Species Action Plan for the Atlantic Humpback Dolphin](#) .



Figure 15: Overview of International and regional frameworks that provide legal and regulatory protections for marine organisms and habitats.

### 3.3 CMS REGIONAL FRAMEWORKS FOR MARINE MEGA-FAUNA CONSERVATION:



Heidrun Frisch-Nwakanma, discussed the suite of Convention on Migratory Species' regional and international initiatives relevant to marine and coastal conservation in Central and West Africa. These include the Memorandum of Understanding concerning Conservation Measures for Marine Turtles of the Atlantic Coast of Africa ([Atlantic Turtle MoU](#)), The Memorandum of Understanding concerning the Conservation of the Manatee and Small Cetaceans of Western Africa and Macaronesia ([Western African Aquatic Mammals MOU](#)), the [Single Species Action Plan for the Atlantic Humpback Dolphin](#), an [Action Plan to Address Aquatic Wild Meat Harvests in West Africa](#), as well as support for regional initiatives for sharks and rays. A meeting held in Saly, Senegal in September 2023, titled '[CMS Marine Megafauna Week: Atlantic Coast of Africa](#)' brought together CMS focal points and key conservation actors from most of the countries on the Atlantic coast of Africa to discuss and agree on the details of these important initiatives.

### 3.4 REGIONAL FRAMEWORKS FOR DOLPHIN CONSERVATION: THE CONSORTIUM FOR THE CONSERVATION OF THE ATLANTIC HUMPBACK DOLPHIN (CCAHD)



Gianna Minton, [CCAHD](#) General Secretary, described how the CCAHD's nearly 100 partners in 18 of the 19 possible range countries of the Critically Endangered Atlantic humpback dolphin and beyond collaborate to improve understanding and protection for the species. Recognised by the CMS and the International Whaling Commission as an important partner to implement the SSAP for Atlantic humpback dolphins (see above), the CCAHD also collaborates closely with the IUCN and range-country partners on several collaborative ongoing research [projects](#). Partners contribute to research and conservation efforts through working groups that develop and disseminate outreach and education tools and [resources](#) for scientists and conservation organisations. The CCAHD also looks for fund-raising opportunities and either applies directly for regional-level grants, or provides technical support to range-country partners to apply for single-country/location

funding opportunities. The CCAHD prioritises [capacity building and exchange of experience and expertise](#) between range country partners, offering support for those seeking opportunities to achieve higher academic degrees, attend international meetings, or publish research results.

### 3.5 SURVEILLANCE AND ENFORCEMENT TO CONTROL FISHING COMBINED WITH DATA COLLECTION IN MPAS

Clémence Chamouton, Noé Congo described how the Noé team that took on management of the Conkuati-Duoali National Park in Congo has set up a system of protocols for beach and boat-based surveillance missions that also allow teams comprised of Congolese Masters students and park rangers to collect valuable data on biodiversity in the park. The team uses the [SMART Collect application](#) to allow teams to collect data while in the field, with the ability to automatically archive data and generate reports. The team has been able to document and exclude IUU Fishing vessels from the marine portions of the park, with benefits to local fishers and communities.

### 3.6 SIREN, A MOBILE APP AND A FISHER NETWORK TO ADDRESS DATA GAPS IN MARINE WILDLIFE IN CAMEROON

Cedrick Fogwan, of the host organisation AMMCO, shared the story of how SIREN was originally created to address challenges in documenting manatees in Lake Ossa, Cameroon. Dr. Aristide Takoukam, AMMCO's President, observed that local fishermen possessed valuable knowledge about the timing and signs of manatee presence. Initially, AMMCO provided the fishermen with paper sheets to collect data, but this proved unsuitable for the wet environment and raised concerns about accuracy in recording time and location. To overcome these issues, SIREN—a digital tool—was developed to facilitate the collection of data, including species distribution and relative abundance of marine mammals and other aquatic species, to inform conservation decisions. Since its inception, the SIREN app and its network of fishers have documented over 30,000 observations, including 309 marine mammals records comprising 11 species, [including two Atlantic humpback dolphin bycatch events](#). The data collected through SIREN has significantly contributed to conservation efforts, including prompting Cameroon to officially protect four cetacean species and educating over 10,000 students. The tool's impact was recognized globally when it received the "Science on a Shoestring" award at the recent Society for Marine Mammalogy conference in Australia. Currently deployed in 10 African countries, SIREN's future plans include incorporating artificial intelligence, enhancing user capacities, and fostering stronger synergies within the growing SIREN community.



Figure 16: AMMCO's Siren citizen science app allows fishers and other marine and coastal stakeholders to report live sightings, strandings or bycatch of marine megafauna.

## 4 CCAHD-SPECIFIC CAPACITY BUILDING SESSIONS

A 2023 survey of range-country CCAHD partners revealed a number capacity building priorities, including how to write funding proposals, how to engage in conservation management/planning, stranding response, boat survey methodology, and GIS/mapping skills. While not all of these different areas could be covered during the joint CCAHD-Streetwhale meeting, an attempt was made to arrange sessions and facilitators that could address some of the most 'popular' requests. Many of the power point presentations delivered during these sessions are available upon request, although they cannot be distributed publicly due to copyright restrictions on particular images or content. Please contact [the CCAHD](#) to request more information.

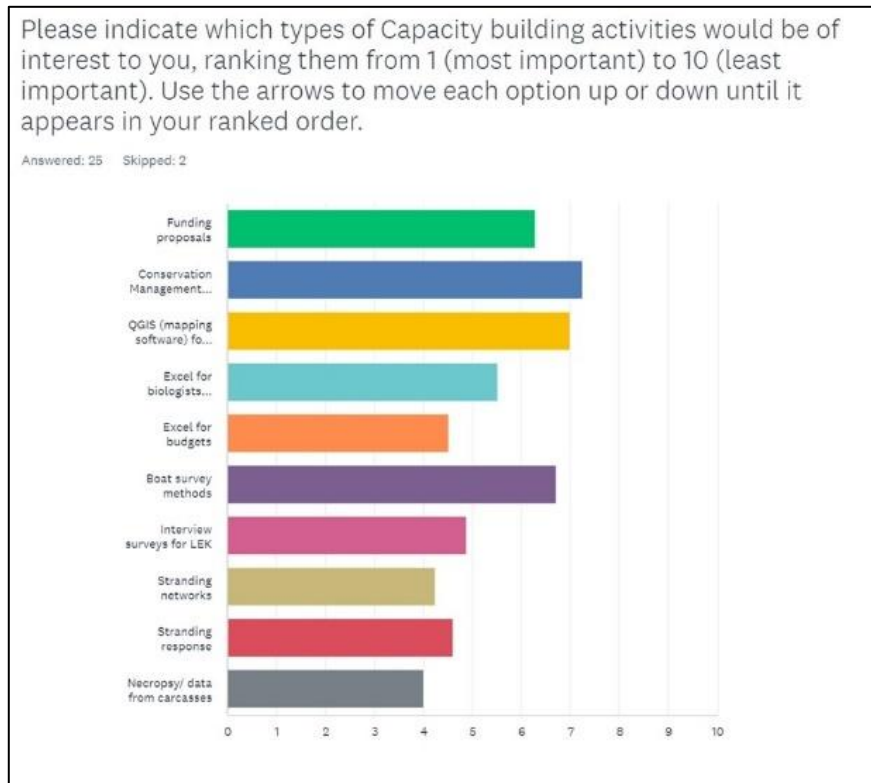


Figure 17: Results of a 2023 survey of AHD range country CCAHD partners and their capacity building wishes.

#### 4.1 CETACEAN STRANDING RESPONSE AND DATA COLLECTION

This workshop was spread over two sessions. The first session involved two recorded presentations – one by Emma Neave-Webb, the International Whaling Commission ([IWC Strandings Initiative Coordinator](#)) one by Dr. Andrew Brownlow, Chair of the International Whaling Commission’s ([IWC Stranding Expert Panel](#)). Combined, the presentations provided an overview of the support that the IWC can provide for governments and scientists in the field responding to strandings. Dr. Brownlow also provided an extensive review of the many types of useful data that can be collected from dead cetaceans, and the ways in which this can improve understanding of the species present in an area and the threats they face. From the most basic levels of data including photos to confirm species identifications, to organs and tissue samples for genetic and pollutant analyses, strandings provide a low-cost, non-invasive, low tech means of improving knowledge even in areas that are remote and/or where there is a lack of resources or personnel to undertake at-sea research.

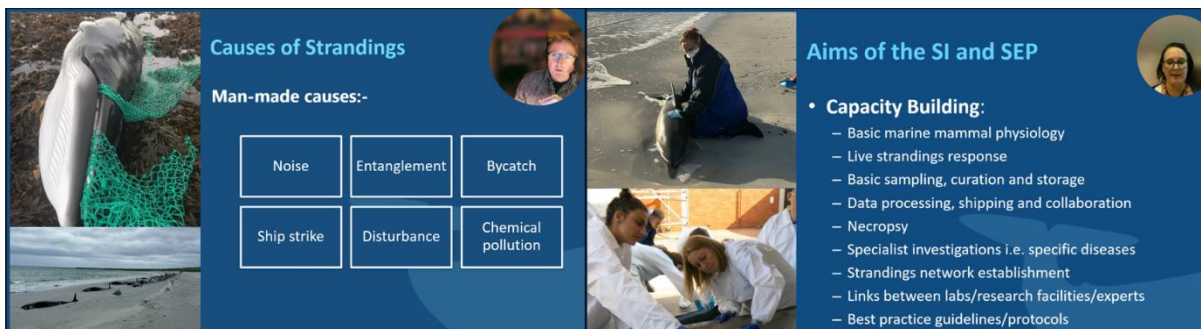


Figure 18: Presentations by Dr. Andrew Brownlow and Emma Neave-Webb emphasised the value of collecting data from strandings and the support that the International Whaling Commission can provide.

This first session ended with a menti-meter poll and an invitation to participants to complete a more extensive online survey of their training needs/wishes with respect to stranding response. Training in how to respond to live strandings and how to collect data from dead strandings were the two highest priorities, followed by training in full autopsy/necropsy procedures. The results of these surveys will guide future fund-raising and capacity building efforts in the region.

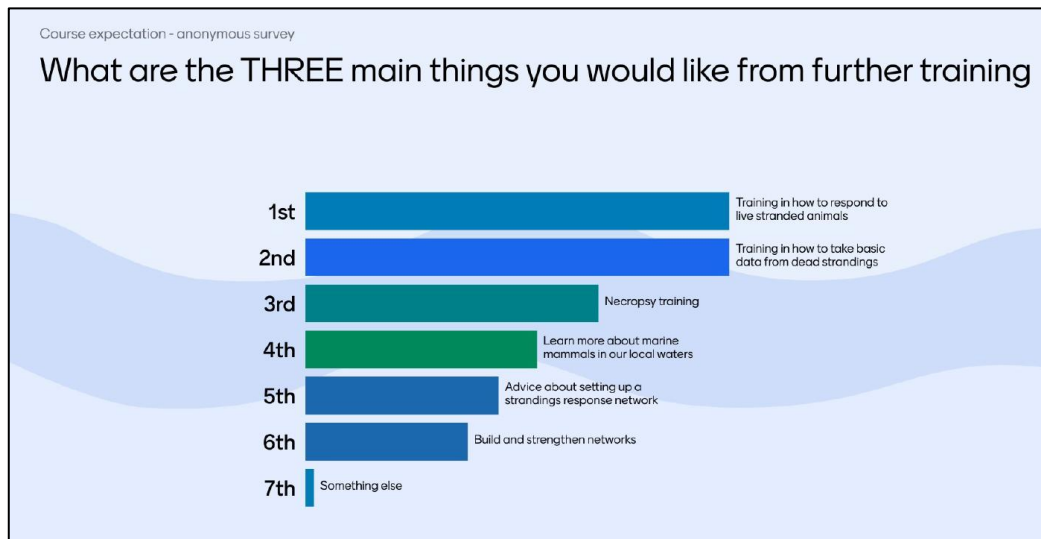


Figure 19: CCAHD participant responses to their perceived training needs. Training in how to respond to live strandings and how to collect data from dead strandings were the two highest priorities.

The second Stranding session was led by Dr. Gianna Minton, and started with a power point presentation to review the basic [protocols designed for CCAHD to guide CCAHD](#) partners and their extended networks in the most basic level of data collection from stranded cetaceans. This protocol/guide was developed in collaboration with Dr. Frances Gulland of the US Marine Mammal Commission, and refined through multiple rounds of feedback with the CCAHD’s Stranding and Health Working Group. The presentation addressed practical aspects, like what to have in a stranding response toolkit, how to respond to reports of dead/stranded cetaceans (e.g. how to ask the right question of the person making a report to ensure a ‘call-out is well justified), and how to store samples and engage in collaborations for sample analysis. The presentation was followed with role-play and hands-on practice in stranding response, using an inflatable dolphin to practice taking photographs and measurements, clip-boards and standard [data sheets](#) to practice recording data, and a ripe papaya to practice taking skin and tissue samples. Thanks to a generous donation of equipment and supplies from the [US Marine Mammal Commission](#), and funding from the US [National Marine Mammal Foundation](#) for printing, all participants received basic sampling kits and water-proof guides to take home with them for future stranding response.



Figure 20: Top - stranding kits and printed manuals were donated by the US Marine Mammal Commission and the National Marine Mammal Foundation. Bottom: Participants used their phones and an inflatable dolphin to practice taking photos and measurements and data.

## 4.2 BOAT-BASED CETACEAN SURVEY METHODOLOGY

One of the most popular requests for capacity building in the region was support for boat-based cetacean surveys (See fig. 17 above). This workshop was also spread over two sessions, with the first entailing a presentation focusing on the practical aspects of the [Boat-based survey protocol](#) developed by CCAHD teams working in Senegal and Guinea, and refined by the CCAHD’s working group on Fieldwork. Participants were reminded that what was covered in the presentation is also available in detail in the protocol available on the [resources section](#) CCAHD website. The presentation (and protocol) include practical information on how to identify the right kind of boat, safety measures, defining survey objectives, planning transects, navigating transects, and collecting data – ranging from sea conditions to cetacean observations and photographs. The presentation included information on identifying cetaceans at sea, and how to navigate a vessel around whales or dolphins to minimise disturbance and maximise opportunities for photographs and behavioural observations.

During a second session, participants were again able to role play, using a make-shift ‘boat’ and designating a crew that faced a power-point presentation that simulated what teams might see while navigating survey transects. As with the stranding training, the role-play exercise revealed practical questions and important points of clarification that might not otherwise have been raised.



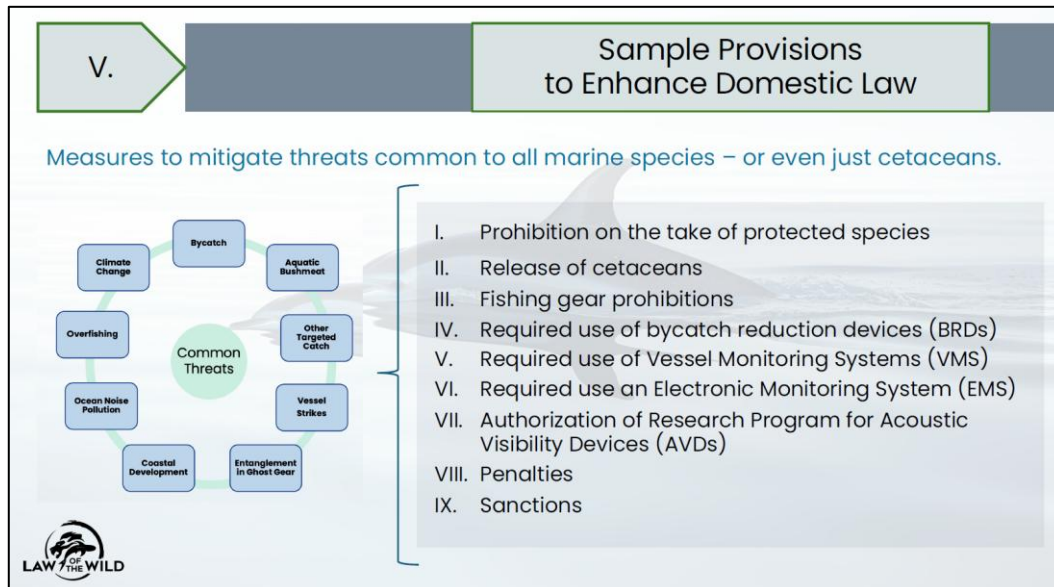



Figure 22: Examples of legal provisions that can be built into domestic law to provide protection for cetaceans.

#### 4.4 CONSERVATION COMMUNICATION


Yandeh Sallah-Muhammed, of the Gambia Marine Environmental Conservation Initiative ([GMECI](#)), invited CCAHD and wider Streetwhale participants to think about their role as communicators, and provided practical advice on how to more effectively influence different target audiences who may be needed to implement and/or support conservation action. Yandeh presented the results of a 2023 communications survey of Indigenous Peoples Caucus, to whom she provided online trainings. This provided insight into the need to be more inclusive and consider accessibility and representativeness of communication campaigns. Yandeh provided vivid examples of effective social media, billboard campaigns, as well as a list of events and online resources that CCAHD partners and other marine conservation communicators can attend and/or use as platforms to share their conservation messages.



### Marine Conservation Communications 101

- The key to conservation communications is developing the understanding for your audience that there is a complete connection between themselves and the environment. That without the wellbeing of the natural world – (in this case, the marine world) –human survival is impossible.
- Think of yourself as an advertising agent for the ocean – the product is the wellness and survival of the marine world or if you are focused on a specific species, it will be that. What will need to be done by the public to ensure the status of healthy wellbeing of your "product"?
- This is where you need to get creative and decide. The route you take is completely dependent on your organization and its questions & goals for the project.

Pictured: Babacar Thiaw, collaborator for Sustainable Recreation WG for GMECI in radio interview with RI for ocean advocacy & MMF protection through surfing camp



7

Figure 23: Yandeh Sallah-Muhammed from the Gambia provided guidance on how marine conservation stakeholders can become more effective communicators.

#### 4.5 LOW-COST, LOW TECH METHODS FOR DOLPHIN BYCATCH REDUCTION

CCAHD partners and representatives of local Cameroonian and regional fisheries were also treated to demonstrations of low-cost, low-tech methods to reduce cetacean bycatch in gillnet fisheries using empty plastic drinks bottles. This technique was demonstrated by Dr. Federico Sucunza and fisherman Nene, who travelled all the way from Brazil to share their experience, courtesy of the [Nuremberg Zoo](#), who have been long-term supporters of the CCAHD and also sponsor dolphin conservation work on the other side of the Atlantic Ocean.

The technique, which has been demonstrated to successfully reduce bycatch of franciscana dolphins in Brazil [21], involves attaching empty 250ml plastic bottles to nets. Following less successful trials with glass bottles in Zanzibar and Peru, this technique was refined by Nene and his fellow-fishermen, who developed a special method to tie the bottles onto the nets, and to deploy them with relatively little work for fishers. In trials involving over 250 sets, dolphin bycatch was significantly reduced, but target fish catch increased (although not at a statistically significant rate) [21].

Federico and Nene were able to share their experience with fishers on the beach in Kribi, and with both fishers and scientists/conservationists during formal sessions during the Streetwhale meeting. Local fishers were amazed and excited by the rope splicing techniques that allow bottles to be attached without risk of loss in the water.



Figure 24: Funding from Nuremberg Zoo allowed Dr. Federico Sucunza and fisherman Valtamir Mattos Dos Santos (called 'Nene') to travel from Brazil and demonstrate their low-cost technique for reducing dolphin bycatch.

#### 4.6 FUND-RAISING AND GRANT APPLICATIONS

Professor Ellen Hines and Dr. Sarah Farinelli facilitated a session titled 'Fundraising for Conservation: Tips and Resources', addressing another high priority area for capacity building in the region. This session included very practical advice on how to identify potential funders, and tailor funding proposals to the priorities of funding bodies. The session provided participants with links [to guides for proposal writing](#) and [grant directories](#). The session generated a great deal of discussion, ideas and exchanges.

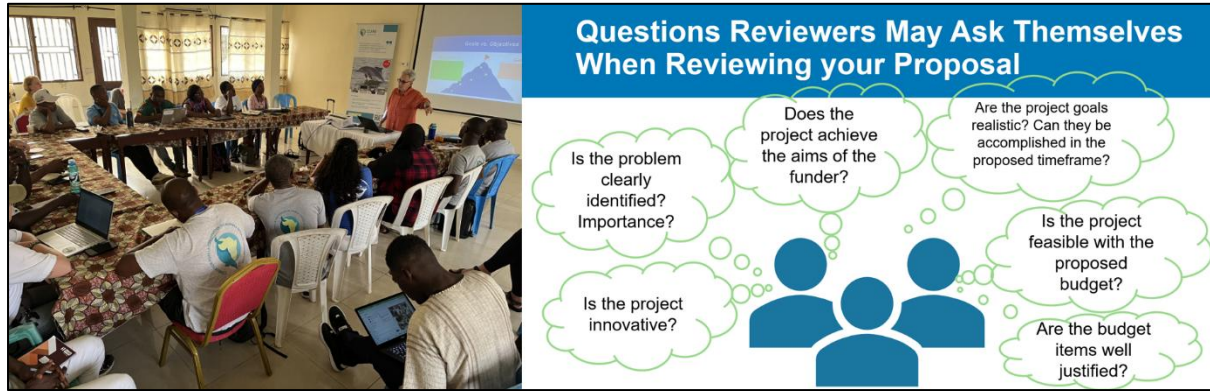


Figure 25: A session on fund raising for conservation included practical tips on grant proposal writing.

## 5 CCAHD TEAM BUILDING AND PLANNING FOR THE FUTURE

In addition to the scheduled presentations and capacity building activities, the first in-person meeting of CCAHD range country partners had the enormous benefit of fostering personal and professional connections that will facilitate future collaborations. Some of these connections were made between CCAHD partners and streetwhale participants from the same country (e.g. partners from Renatura and Noe in Congo, or between the Cape Coast University and the Keta Ramsar office in Ghana), while others were made between neighbouring countries. Participants took full advantage of the opportunities to informally socialise over meals and share perspectives on challenges and opportunities for dolphin conservation. A WhatsApp group created to facilitate communication over logistics and transportation during the meeting was also used to express gratefulness, solidarity, and friendship in the days following the meeting.



Figure 26: Top left: CCAHD Streetwhale participants enjoy a final lunch in a scenic location. Top Right: Participants from Guinea and Mauritania share an evening meal together. Bottom Left: Participants from Gambia, Senegal and Angola pose for a Selfie. Bottom Right: CCAHD Participants from Guinea and Cote D'Ivoire discuss coastal conservation with a government representative from Gabon.

## 5.1 REFLECTIONS AND APPRECIATION

In a final wrap-up session on the morning of December 7<sup>th</sup>, CCAHD participants gathered to discuss their perspectives of the Consortium, what was going well, what could be improved, and how range country partners could contribute more to regional collaborations. Recognising that due to budget and scheduling constraints, the meeting could not include all range country CCAHD partners, it was hoped that this discussion could foster ideas and initiatives that would benefit and involve wider consortium in subsequent activities and meetings. In a somewhat open-ended discussion, the following points were raised:

- Participants seemed unanimously grateful for the opportunity to participate in the meeting, and felt that they had gained valuable new skills, knowledge, and connections essential to their continued work to conserve Atlantic humpback dolphins and other coastal and marine species. Many participants found the Bycatch Risk Assessment training particularly useful, as a means of clarifying conservation priorities, motivating continued data collection on dolphins and fisheries, and understanding how this data can be applied practically to influence policy and conservation action.
- Participants felt that participating in the CCAHD gave them a sense of solidarity, and helped to raise the profile of dolphin conservation in their countries. Many partners have been able to use AHD as a keystone species to draw attention to marine and coastal conservation issues.
- Participants greatly appreciated all of the resources developed by the CCAHD to support research and outreach – especially the research protocols and the [Keita and the Dolphin](#)

[Children's book](#) and [accompanying classroom resources](#). One participant urged others to make more use of these and to get out and get engaged with communities as soon as possible, rather than waiting for the CCAHD to provide funding for additional printing of materials etc. It was suggested that the Secretariat and/or the Working Group on outreach and capacity building send an email to all CCAHD partners with a detailed list of all the materials that are available on the [resources section](#) of the CCAHD website.

- Participants felt that the frequency and content of social media posts and email communications from the CCAHD to the wider network strikes the right balance between keeping partners up to date and sharing important information without overloading people's inboxes. It was agreed that email through the established Google Group mailing list should remain the main communication tool within the network, rather than creating a CCAHD-wide WhatsApp group that could quickly become overwhelming.

## 5.2 STRENGTHENING COLLABORATION AND SUPPORT

When discussing what the CCAHD could do to improve its support for range country partners, participants agreed on the following, with several participants volunteering to help coordinate the suggested activities:

- The drafting and dissemination of a **quarterly, or trimesterly newsletter** that consolidates news and information already posted in social media or on the website into one easily digestible summary (similar to AMMCO's Atlantic Waves newsletter). Joie Dider Soussoupeke from the BEES NGO in Benin offered to coordinate this effort on a volunteer basis.
- The organisation of **monthly, or bi-monthly webinars** to promote capacity building and information exchange between members. One of the first topics could be the use of passive acoustic monitoring for cetaceans. Subsequent topics could be alternative between capacity building and information sharing (e.g. 'meet the partners' and/or presentation of ongoing projects and preliminary results). BEES offered to help coordinate this effort as well, with support from the CCAHD Secretariat and several other CCAHD partners. One issue that has complicated previous efforts to organise webinars is that of language accessibility. It was agreed that the only way to adequately make the webinars accessible to all CCAHD partners is to provide professional simultaneous interpretation. The CCAHD now has a modest budget that can be used to support this.
- Better opportunities for range country partners to **participate in CCAHD working groups**. It was agreed that the next email communication to partners should include an invitation to join working groups and a better explanation of what each working group does. As with webinars, it will be important to ensure that each meeting is accessible to both French and English speakers. The Secretariat will look into affordable simultaneous interpretation options.
- Organisation of **online capacity building workshops** – for example, online training courses in GIS and/or 'R', or Excel for biologists.
- Organisation of **more in-person meetings** to foster collaboration and build capacity. Participants hoped that another in-person meeting could be organised soon to build on the connections and skills that were fostered during the 2024 Streetwhale meeting. It is hoped that future meetings can be even more inclusive, and address new topics of interest for CCAHD partners.

Although funds for core CCAHD operations, including communications and coordination of these types of outreach and capacity building activities are limited (in 2024, the General Secretary was



compensated for 1.5 days a week for coordination of the Consortium and partners AMMCO were compensated for only 2 days a month for social media and website support), the CCAHD will strive to raise more funds to support these core activities needed to strengthen collaborations and empower range country partners. In the meantime, the offers of volunteer support during the meeting (and in the weeks following the meeting), will boost the CCAHD's profile (which will hopefully help to raise more funds), and provide excellent opportunities for continued collaboration and exchange.

# APPENDIX 1: MEETING AGENDA/PROGRAMME

Monday 02-Dec		Tuesday 03-Dec		Wednesday 4-Dec			Thursday 5-Dec			Friday 6-Dec			Saturday 7-Dec	
Hall B		Hall B		Hall B			Hall B			Hall B			Hall B	
Hall A		Hall A		Hall A			Hall A			Hall A			Hall A	
Registration 08:00-17:00		Registration 08:00-17:00		Registration 08:00-17:00			Registration 08:00-17:00			Registration 08:00-17:00			Registration 08:00-17:00	
CCAHD WORKSHOP PART: GIS AND CETACEAN BYCATCH AND RISK ASSESSMENT		CCAHD WORKSHOP PART: GIS AND CETACEAN BYCATCH AND RISK ASSESSMENT		CCAHD WORKSHOP PART: GIS AND CETACEAN BYCATCH AND RISK ASSESSMENT			CCAHD WORKSHOP PART: GIS AND CETACEAN BYCATCH AND RISK ASSESSMENT			CCAHD WORKSHOP PART: GIS AND CETACEAN BYCATCH AND RISK ASSESSMENT			CCAHD WORKSHOP PART: GIS AND CETACEAN BYCATCH AND RISK ASSESSMENT	
Breakfast		Breakfast		Breakfast			Breakfast			Breakfast			Breakfast	
Plenary 8:00 - 10:00 Hall A		Plenary 8:00 - 10:00 Hall A		Plenary 8:00 - 10:00 Hall A			Plenary 8:00 - 10:00 Hall A			Plenary 8:00 - 10:00 Hall A			Plenary 8:00 - 10:00 Hall A	
Break		Break		Break			Break			Break			Break	
Oral talks Ecology and Conservation of Marine Biodiversity		Oral talks Ecology and Conservation of Marine Biodiversity		Oral talks Blue Economy and Fisheries			Oral talks Marine Pollution and Management of Marine Protected Areas			Oral talks Marine Pollution and Management of Marine Protected Areas			Oral talks Marine Pollution and Management of Marine Protected Areas	
Round table The role of local communities in the governance of MPA and OECM		Round table The role of local communities in the governance of MPA and OECM		Round table How blue economy can contribute to Cameroon economic growth			Round table Barriers and opportunities to improved fishery governance			Round table The role of art and story telling in marine and coastal conservation			Round table How far can we go together? The pressing need for a regional networking in marine conservation in Central Africa	
CCAHD specific topic- Standing response and data collection Part I: CCAHD guidelines and practical exercises		CCAHD specific topic- Standing response and data collection Part I: CCAHD guidelines and practical exercises		SIREN Symposium Current status of community engagement and the use of SIREN mobile App in West and Central Africa			CCAHD- Practical explorations of legal tools for cetacean conservation CCAHD			SIREN Symposium Capacity building for future SIREN focal points in Cameroon			CCAHD Support for boat-based cetacean survey methodology Part II	
Coffee break		Coffee break		Coffee break			Coffee break			Coffee break			Coffee break	
Poster session		Poster session		Training of Cameroon fishers on Bycatch mitigation techniques by the Brazilian fishermen			Support for boat-based cetacean survey methodology Part I			Sea turtle network			SIREN Symposium Training of fishers	
Film screening Hall A		Film screening Hall A		Photography contest results Hall A			Closing remarks			Closing remarks			Closing remarks	
Funtime 19:30 - 21:00 outside Hall A		Funtime 19:30 - 21:00 outside Hall A		Funtime 19:30 - 21:00 outside Hall A			Funtime 19:30 - 21:00 outside Hall A			Funtime 19:30 - 21:00 outside Hall A			Funtime 19:30 - 21:00 outside Hall A	
Welcome ceremony (18:30 - 20:30) Hall B		Welcome ceremony (18:30 - 20:30) Hall B		Welcome ceremony (18:30 - 20:30) Hall B			Welcome ceremony (18:30 - 20:30) Hall B			Welcome ceremony (18:30 - 20:30) Hall B			Welcome ceremony (18:30 - 20:30) Hall B	
Final Concert		Final Concert		Final Concert			Final Concert			Final Concert			Final Concert	
CAMNET GENERAL ASSEMBLY		CAMNET GENERAL ASSEMBLY		CAMNET GENERAL ASSEMBLY			CAMNET GENERAL ASSEMBLY			CAMNET GENERAL ASSEMBLY			CAMNET GENERAL ASSEMBLY	
Brainstorming on a regional strategy for ocean conservation and governance in Central Africa		Brainstorming on a regional strategy for ocean conservation and governance in Central Africa		Brainstorming on a regional strategy for ocean conservation and governance in Central Africa			Brainstorming on a regional strategy for ocean conservation and governance in Central Africa			Brainstorming on a regional strategy for ocean conservation and governance in Central Africa			Brainstorming on a regional strategy for ocean conservation and governance in Central Africa	
Wrap-up- Future work and collaboration		Wrap-up- Future work and collaboration		Wrap-up- Future work and collaboration			Wrap-up- Future work and collaboration			Wrap-up- Future work and collaboration			Wrap-up- Future work and collaboration	
CCAHD Fundraising session		CCAHD Fundraising session		CCAHD Fundraising session			CCAHD Fundraising session			CCAHD Fundraising session			CCAHD Fundraising session	

## APPENDIX 2: CCAHD PARTICIPANT LIST

	Name	Country	Organisation/Affiliation
1	Debora Carvalho	Angola	Project Wambi/
2	Joie Didier Sossoukpe	Benin	BEES
3	Aristide Takoukam	Cameroon	AMMCO
4	Cedrick Fogwan	Cameroon	AMMCO
5	Clinton Factheu	Cameroon	AMMCO
6	Joel Wamba	Cameroon	Tube Awu
7	Marlene Djoumessi	Cameroon	Tube Awu
8	Hugo Baron	Congo	Renatura
9	Clemence Chamouton	Congo	Noe Parks
10	Quentin Bodiguel	Congo	Renatura
11	Alexandre Dah	Côte d'Ivoire	CEM
12	Judicael Regis Kema Kema	Gabon	Aquatic Species ONG and Omar Bongo University
13	Isaac Okyere	Ghana	Cape Coast University
14	Yamoussa Salifou Camara	Guinea	Centre National des Sciences Halieutiques de Boussoura (CNSHB)
15	Mamoudou Sangaré	Guinea	Biotope Guinea
16	Emanuel Dias	Guinea-Bissau	IBAP
17	Abdellahi Samba	Mauritania	Mauritania
18	Edem Eniang	Nigeria	Biodiversity Preservation Center, BPC
19	Diana Seck	Senegal	African Aquatic Conservation Fund
20	Yandeh Sallah-Muhammed	The Gambia	GEMCI
21	Gianna Minton	International	CCAHD
22	Ellen Hines	International	San Francisco State University
23	Sarah Farinelli	International	Clearwater Aquarium, Florida
24	Heidi Frisch-Nakamwa	International	Convention on Migratory Species
25	Catherine Pruet	International	Law of the Wild
26	Brett Sommamayer	International	Law of the Wild
27	Federico Sucunza	International	GEMARS_IA
28	Valtamir Mattos Dos Santos (called Nene)	International	

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