

World Fish Migration Day, October 2020

Love flows in Africa

Kerry Brink (Reaching Rivers, WFMD) and Ruth Kabera (World Fish Migration Foundation)



World Fish Migration Day (WFMD) is a one day global event that happens every 2 years. In 2020 there were 362 events in 71 countries. In Africa we celebrated 36 events from 20 different countries. To connect with all these events, the African Swimway initiative (a partnership between World Fish Migration Foundation, Reaching Rivers, Mpumalanga University, SANParks, Oak Consultants and BOKU University) hosted an online streaming event. The hub was based in Kenya at the National Museum in Kenya. It was a full day of presentations and interviews, where we learnt more about migratory fish and rivers in Africa and what people are working on in their regions to save rivers and fish. There were four sessions, including a webinar on Kenyan swimways, where very important recommendations were highlighted! During the day, Dr Gordon O'Brien (Mpumalanga University) interviewed people working on projects in South Africa and Dr Kerry Brink (Reaching Rivers) connected with events from Nigeria, South Africa, South Korea, Benin, Democratic Republic of Congo, Tanzania, Gabon and USA.

Made possible by:



In this document we will detail the webinar and highlight some of the events from Africa (<https://www.youtube.com/channel/UCWaWbx8ZoU6Q0ExrO2M5H0w>). For more information visit: <https://worldfishmigrationdayfeedback.wordpress.com> and www.worldfishmigrationday.com

“When the people know the value of the systems, they will protect them” Prof Kitaka, Egerton University, Kenya webinar, WFMD2020

Session 1: Fish passage in Kenya

During this webinar we celebrated Kenya with six specialists giving us insights into the situation of rivers and fish populations in Kenya. The speakers from various NGOs, museums, universities, and government institutions spoke about the problems facing Kenya’s rivers and migratory fishes and what is being done about it. The exceptional value of the ecosystems was discussed with details about:

- the high biodiversity of fish in the region,
- the unique character of the ecosystems and
- the economic value of the river systems that is estimated to be in the billions.

Despite this, there are still continued impacts from poor fishing techniques, dam developments and pollution in many Kenyan rivers. During the talks we heard about the work that is being done to combat these issues and that more needs to be done. During the discussion forum, hosted by Prof Kitaka from Egerton University, all agreed that it is essential to engage with communities, public and stakeholders and make it fun!

Below we detail each of the presentations and the discussion.



*“Engage people as they have the ability to influence the leaders of our country”,
Dr Paula Kahumbu from WildlifeDirect, WFMD2020 Kenya Webinar*

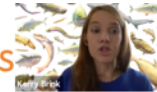
Presentations

Dr Kerry Brink, Reaching Rivers & WFMF, Netherlands

Theme: Saving Rivers in Africa for Migratory Fish and Species.

Dr. Brink opened the day with an introduction into what World Fish Migration Day is. She highlighted the global scale of WFMD and the extensive number of events and organisations that have participated this year. Dr Brink discussed the need for such events and showed how freshwater global migratory fish species have declined by 76% since the 1970's! She further pointed out about the importance of focusing on African migratory fish species, where we still know very little about. She introduced the African Swimway initiative and the ambition of this initiative to start a movement of people and organisations working together across Africa to save migratory fish and free flowing rivers.

Support & empower organisations across Africa



- **Create and drive a Swimway network:** provide platform to share knowledge and inspire one another;
- **Free products and information:** support the swimway network so that they can opening up and restore rivers for migratory fish and people;
- **Create awareness to influence policy:** Stimulate the Swimway network to create awareness in their local regions and inspire action to influence policy;
- **Start projects that open up rivers:** Help the Swimway network to start projects that open up and restore free flowing rivers for migratory fish and people.



Dr Paula Kahumbu, Wildlife Direct, Kenya

Theme: How Ecosystems benefit from Free Flowing Rivers.

She began by recommending the work being spearheaded by Herman Wanningen, WFMF director especially in the dam removal projects. Dr Kahumbu pointed out that:

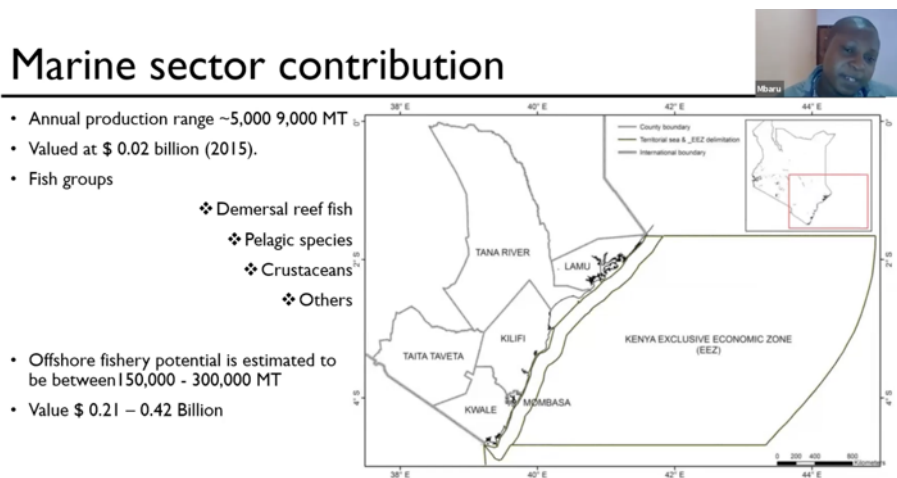
- 1% of earth's surface is water yet it contributes to 25% of the world's invertebrates.
- The economic value that fish stocks bring globally is huge with about 70 Billion dollars of revenue per annum.
- 82% of African fish species are endemic species in East Africa contributed by the Rift Valley Lakes.

However, the biggest developmental threats to fish stocks are dams and barriers which are being planned across Africa. She concluded that she would wish to film more about river systems and even maybe, in one of the episodes, ‘blow up a dam’.

Dr Emmanuel Mbaru, Kenya Marine and Fisheries Institute, Kenya

Theme: Fisheries Sector and Migratory Fishes: Just How Sticky are they?

Dr Mbaru walked us through the fisheries sector of migratory fishes in the marine environment. He showed that fisheries in Kenya is worth \$0.02 billion and that pelagic species contributes about 39% of the total fisheries. Dr Mbaru discussed some of the key marine migratory species including billfishes and tunas and the huge potential they have in marine fisheries. In closing Dr Mbaru had several recommendations including ensuring that areas where migratory fishes aggregate and nurseries are closed to fishing and that there is a massive potential for sport fishing of billfishes that should be further developed.



Dr Charles Kihia, Egerton University, Kenya

Theme: Anguillid’s Last Frontier: Discerning Threats critical to resource management; A Kenyan Preview.


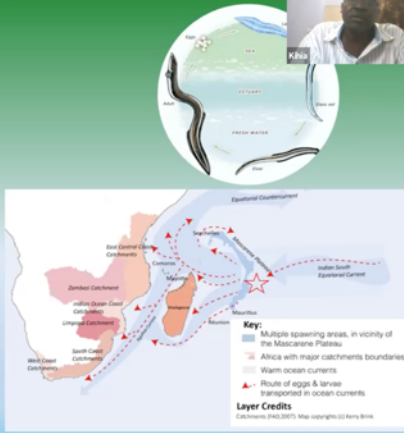
Dr. Kihia gave us an overview of freshwater eels in Kenya. He discussed the hyper-diversity of freshwater eels in Kenya (FOUR species) and how they connect marine, estuarine and riverine stages. He also discussed the major threats in detail and how they are exploited at all stages in their life cycle:

Habitat Destruction, Migration Barriers, Pollution, Climate Change, Overexploitation, Exotics and competition with eels

Dr Kihia detailed the WIOMSA project where the main objective is to look at the anguillid ecology, status and fisheries in Kenya, South Africa and Mozambique. He shared with us the methodology in determining the habitat assessment, bioecological assessment and impact assessment. The habitat use and migration of the eels will be assessed using tag and release methodology (juveniles-calcein and adults PIT tags).

Background

- Global connectivity; Marine, estuarine & riverine stages
- WIO hyperdiverse, data deficient, near threatened (Hanzen et al., 2019)
- *Anguilla bicolor*, *A. mossambica*, *A. marmorata* & *A. bengalensis*
- Multiple threats; Land, river, ocean & fishery
- Kenya; Unknown status (e.g. van Someren, 1959)

Dr Frank Masese, University of Eldoret, Kenya


Theme: Environmental Flows and Status of Migratory Fishes in the Lake Victoria Basin (LVB), Kenya.

Dr Masese gave us an overview of the river systems flowing into Lake Victoria from Kenya and how fishes are important for people and the environment. In the Lake Victoria Basin, there are around 75 fish species, of which 15 are potamodromous migratory species, including *Clarias gariepinus*, *Labeobarbus altianalis*, *Synodontis afrofisheri*, *Bagrus docmak*, *Labeo victorianus*, *Protopterus aethiopicus* and *Momyrus kannume*. These species move from the lake into influent rivers for breeding in the rainy season. Studies have shown that there are also potentially many more undescribed species, including the recently discovered *Labeobarbus bynni* that was recorded in the basin for the first time. Dr Masese discussed the threats migratory fishes encounter, including barriers caused by reduced water levels and organic pollution (poor water quality). He also talked about the importance of maintaining minimum flows in the rivers (what is called the “reserve”) for the environment after all abstractive uses have been accounted for. This is captured in Kenya’s Water Act 2016, which states ‘it is illegal for people to abstract water from river systems until there is no flow’. Dr Masese explained about the consequences of violating this ‘reserve’ in


rivers, especially given the increasing loads of organic matter and nutrients by livestock, large wildlife and the increasing human population. He showed how fish kills in the Mara are happening due to reduced water levels in the dry season. He went on to recommend some management options such as to address water quantity (flows) and quality. These include protection of riparian corridors along streams and rivers, reforestation of catchments with indigenous tree species, monitoring water abstractions and maintaining the reserve in rivers. Dr Masese also emphasized that these measures should also include community participation. Currently, Dr Masese is working with other scientists to develop a national rapid bioassessment protocol for streams and rivers at the national level.

Fishes of the LVB


- Around 75 species occurs in rivers of the LVB, Kenya
- Dominated by cyprinids (>20 species), followed by cichlids
- 9 introduced species
- Around 15 migratory species, including the species below




Clarias gariepinus




Labeo victorianus
Critically endangered




Labeobarbus altianalis




Protopterus aethiopicus




Synodontis afrofischeri



Bagrus docmak



Mormyrus kannume



Dr Wanja Nyingi, National Museums, Kenya

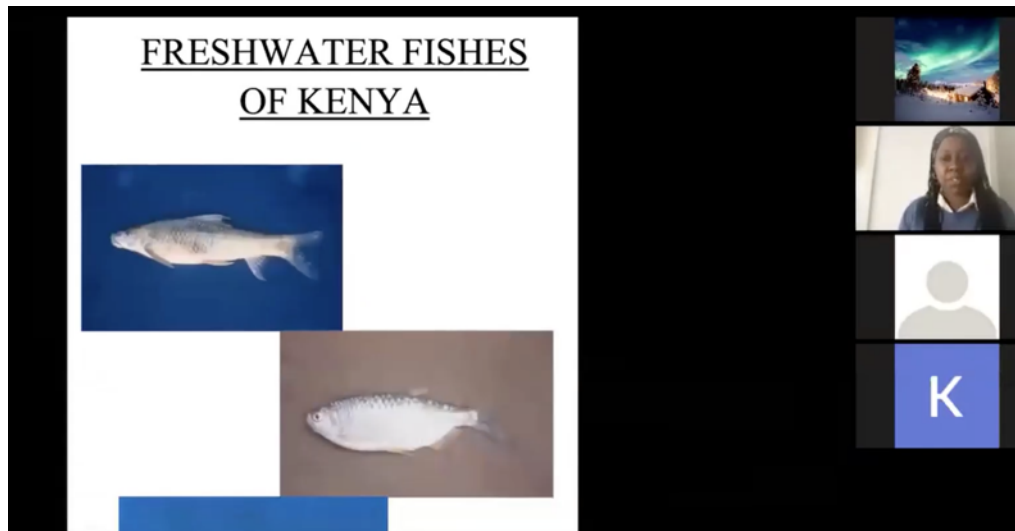
Theme: Freshwater Fishes of Kenya

In Kenya, there are about 300 known species of fish!

She indicated a newspaper article about the thousands of fish killed on River Tana in what experts called an environmental disaster. This happened after the Tana river community at Chara Village blocked a major brook, the Matomba brook. They blocked it to safeguard freshwater. There has been a lot of sea water intrusion into freshwater in the coast of Kenya. This is attributed to reduced water flow flowing from upstream due to agriculture, damming and climate change effects leading to drying of these rivers. This resulted in water that was too salty for the community to drink. The community became desperate and decided to block the sea water from river. The action killed so many fish.

Looking at this example, she suggested that the fish scientists need to look at the bigger picture in research. How do you help communities manage an ecosystem when they are fighting climate change and trying to survive?

Dr Nyngi is also the author of 'A guide to Common Freshwater Species in Kenya' which looks at freshwater fishes in Kenya.



Discussion Forum

This session involved answering some vital questions and coming up with a few recommendations for: 'where do we go from here? What measures can we employ to ensure action is taken?'

This session was led by the moderator, Prof. Kitaka from Egerton University, Kenya.



General Recommendations

1. Do a white paper to parliament with clear suggestions of what our river systems need, what threatens the biodiversity and river ecosystem integrity and the need to change the scenario. An open letter in the press that we want to prevent extinction by 2030. Also, to incorporate propositions about building dams? Despite the need to generate HEP by building dams, the government needs to understand the importance of ensuring the technical aspects of fish migration are incorporated and adhered to.
2. Engage the community in what is called Citizen Science. “When the people know the value of the systems, they will protect them” Prof Kitaka, Egerton University. Get the public excited and teach the communities about water quality and involve them in riparian management and conservation. The government looks at only the economic incentive that comes with building dams. Therefore, the community and all other stakeholders should be engaged so as to bring voice to the ecological impacts of these dams on their river systems.
3. Take advantage of Traditional Indigenous Knowledge (TEK). Kenya has rich Indigenous knowledge on conservation that needs to be tapped into. For example, some communities use frogs’ appearance and disappearance as weather change indicators.
4. Ensure management plans at the national level and at catchment scale. Manage water resources and minimize abstraction.
5. Ensure strict guidelines for damming of rivers. Present this to NEMA.
6. The media is extremely important in this quest for change. Short clips about fish should be made and shown on TV. People understand better with visuals. For example, show them what eels are. Moreover, tap into groups such as the Facebook Fish enthusiast group in order to gather more information and expand networks.
7. Address protected areas such as Muzima Springs in Kenya.
8. Experience from stakeholders involved in the webinars and seminars. Involvement from grassroots to county governance to discuss solutions is important. Dr Kihia says *“connecting science with social aspect would be key to achieving great results.”*
9. Embrace the “love for fish”, says Dr Kahumba. “Don’t talk about fish in a generic way. Use stories about real fish”. Tell people and share these stories in schools. Get the public excited enough. *“Engage people as they have the ability to influence the leaders of our country”*

Session 2: Love flows in Africa, live on Facebook

During this session, we connected live with the global WFMD hub, which was live-streamed on Facebook. From local to global! This session connected with events happening across Africa and continents to find out about their work, the event they were organizing and why this day was so important for them.

Herman Wanningen, World Fish Migration Foundation, Netherlands

Herman began by sharing a short video of Zeb Hogan, the USA World Fish Migration Day ambassador. WFMD is one of the flagship project of World Fish Migration Foundation. He discussed why WFMD is so important and highlighted a number of other exciting projects and products produced by WFMD, such as the Dam Removal Europe, From Sea to Source 2.0, Living Planet Index report for migratory fishes. Some highlights from 2020 included:

- >2000 participants attended the global swimway webinar marathon,
- >80 million people were reached through the LPI report media reach,
- >75 digital events/webinars/screenings were hosted in 2020
- 5-10 river openings celebrated
- >10,000 people are involved in the fish migration movement.

Patrick Maloum, African network of Young leaders for Peace and Sustainable Development, Cameroon

Patrick did a short Powerpoint presentation about their organization.

African Network of Young Leaders for Peace and Sustainable Development (ANYL4PSD) is a pan African Network of more than 300 OSCs and Networks working across the Africa and leading the New Deal for Nature and People Coalition (ND4NPC) in Africa.



In the frame of the celebration of WFMD, ANYL4PSD have empowered 50 NGOs members of the ND4NPC in the topics linked to water, pollution and conservation. On WFMD they organized local awareness campaigns through TV, radios shows and cartoons before launching a digital campaign via the hashtag #Save the fish

Furthermore, they have been developing a playful and educational software called "Save the fish". It aims at rebuilding and protecting the fish ecosystem.

<https://www.facebook.com/groups/303687547670070> and <https://www.anyl4psd.org>

Rebecca Kim, Korea Federation for Environmental Movements, South Korea

Rebecca, on behalf of Jenny Shin, the director of the Ecological Conservation division in the KFEM (Korean chapter of the Friends of the Earth), talked about what happens in Korea in terms of dam removal and river restoration efforts.

The Moon Jae-in government of Korea is more conscious about the environment and putting right the past wrong-doings committed by the previous governments. She says Korea has now a set of agencies and committees in watersheds, under the Ministry of Environment, and under President for decision-making whether or not to remove the dams and weirs in the 'Four Rivers'.

She says according to Jenny, they've had three achievements recently:

1. the institution mentioned above ruled that 3 dams in Geum River and 2 dams in Youngsan River must be removed or have all-time gate-opening.
2. they've been monitoring for some years now the opening of estuary banks on Han and Nakdong Rivers in Korea, and the Salmon fish returned after 30 years of their disappearance!
3. the government has answered the long-standing efforts of Korean civil society to remove small agricultural weirs by earmarking 2021 budget for the removal for 13 billion won.

When asked about what advice she would give to other countries with the same goals, she simply stated, 'Vote well! You have to have a good government first!'

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Wonne Afronelly, My Environment, My Wealth, Nigeria

My environment, My Wealth had their webinar on the 23rd October where their theme was, 'restoring the Delta Fisheries: A Wealthy Heritage for Global Impact'.

On the 24th, Wonne joined the online African webinar to share her video clip about the impact of plastics, solid waste and oil spill pollution in one of their rivers.

She further mentioned that a certain fish species was found dead recently on the shorelines but the causal problem is yet to be identified.

The biggest struggle trying to create awareness in Nigeria. According to Wonne, it is because very few people are willing to listen. Most are concerned with 'pay-offs'.

She however insisted that they will continue pushing forward persistently until change is realized.

<https://www.facebook.com/watchparty/2759814384259569>

Josea Dossou, Nature Tropicale ONG, Benin

Mr. Dossou and his colleagues organized a workshop at the museum where they invited a group of journalists from the local media. They had a short video depicting the situation of migratory fish species in Benin.

The government has become active in restoration measures especially when it comes to fishing methods since many people are known to use poor techniques in fishing at the lakes (the process is quite difficult). The main method is the use of mosquito nets and this is why they are trying to sensitize the people by also involving the media in the process.

There is a new law in place and Nature Tropicale ONG are working together with local people to educate them about this law. They have also put up enforcement measures to ensure the law is adhered to.

- TV reports with Nature Tropicale ONG (Benin): *“Faithful to its commitment to contribute significantly to the sustainable management of the biodiversity of wetland ecosystems, in addition to its actions in the field, Nature Tropicale ONG has Environmental Education Centers in Grand-Popo and Cotonou.”*

<https://www.youtube.com/watch?v=evSwCr7K44o>

Jeremy Shelton, Freshwater Research Centre, South Africa

Jeremy spoke to us about his relocation project of Sandfish, which would go on for about 2 weeks.

About 20-25 people were involved including school children, land owners, employees of conservation agencies and volunteers.

The goal of this project was to find, collect and then relocate the sandfish from a 15 km river stretch to 'sandfish sanctuaries' – farm dams where land owners have removed alien fish – to increase their survival.

Sandfish travel 10-20km upstream to mainly spawn.

According to Jeremy's research, this may be the biggest freshwater fish relocation project in Africa!

<https://www.fishwaterfilms.com/project/saving-sandfish>

Chris Bowser, Community Science Project, USA

Chris is extremely enthusiastic about American eels. He joined us from the Hudson River in New York State and told us about how eels migrate thousands of kilometers to spawn and how they connect river ecosystems and marine environments. One of his project includes a volunteer project where people catch, counting and releasing juvenile eels.

Marie Claire, The Nature Conservancy, Gabon

The Nature Conservancy was involved in removing pollution materials from the mangrove forest that is bordering the Ntsini river starting right in the town Libreville (Gabon).

About 30 to 70 people, including NGOs, national park agency, national media, government bodies, volunteers and citizens in the Ambowet fish market where the event started, took part on that day.

A flotilla of a dozen kayaks, canoes and pirogues paddled down the river through the mangrove forest. The purpose of the float was to observe and contrast environments with strong anthropogenic activities from the departure point all the way into the wider river where we could observe clean water. Through this process we managed to create awareness with the people involved and showed the importance of healthy,

unobstructed rivers becomes more evident and their impact on spawning grounds, and a healthy natural river ecosystem is essential for aquatic species.

The take home messages and actions for short medium- and long-term objectives from all stakeholders were to:

- a) Strengthening the regulatory and legislative framework for the protection of the mangrove ecosystem
- b) The implementation of a multi-sectoral consultation framework to define the issues involved in the management of natural river ecosystems, which are essential for aquatic species, and the search for appropriate solutions at the local level.
- c) Support the awareness and education of local populations and economic actors on preventive uses related to particular ecosystems, such as the installation of awareness panels and garbage cans along with environments with high anthropic activity.
- d) Set up local co-management frameworks for the sensitive ecosystem that will bring together all stakeholders.

They ended with a brilliant quote, *“If you take care of nature, nature will take care of you!”*

Session 3: Fish Passage in South Africa

Dr Gordon O’Brien from the University of Mpumalanga, South Africa, interviewed several specialists working in South Africa to hear what work they are doing around the theme fish migration.

Annerise Wolmarans from Stilbaai Tourism talked about eel conservation and how they are bringing awareness about the eels in their region (<https://www.youtube.com/watch?v=kQovZIQ4y7w>)

Dr Celine Hanzen from University of Kwazulu Natal told us about the status of eels in Southern Africa and the 50% decline in the distribution of long fin eels (<https://www.facebook.com/AER.UKZN>)

Prof Victor Wepener from North West University shared with us his research on the fascinating seasonal fish migrations between the lower Pongola river system and the pans that are created in the rainy season. (<https://www.facebook.com/NWUWRG>).

Dr Mathew Burnett from University of Kwazulu Natal explained to us how Fish Trac works to show real-time behavioral responses of fishes to inform management and conservation decisions

(<http://riversoflife.co.za/programme-highlights/fishtrac-2/>)

Robin Peterson and Eddie Riddel from SANParks talk about managing migratory fish in the Kruger National Park. Robin highlighted to us that we needed to manage the systems holistically to benefit the ecosystem and the people that depend on them.

Session 4: Connecting with events across Africa

David Ciza, Actions pour le Développement et la Citoyenneté, ADC, Democratic Republic of Congo (DRC)

David Ciza mentioned activities such as washing of clothes, leading to pollution in the rivers as one of the biggest barriers of fish migration in their country.

He asked people to join him in creating better awareness of the fisheries problem in their rivers.

According to him, World Fish Migration Day has really created a platform for him to create awareness and he hopes that more collaboration to save the fish will come out of such events in the future.



© David Ciza, WFMD 2020, DRC

Dr Excellence Akeredou, Department of Zoology, University of Lagos, Nigeria

The University of Lagos in conjunction with Nigerian Institute for Oceanography and Marine Research organized a virtual conference with about 77 people in attendance including government officials. They discussed issues facing migratory fish in Nigeria. Some of these are: Pollution (plastic and oil), abandoned dams especially in the South of Nigeria. The protection of fish in Nigeria was at the heart of the conversations. The major recommendation was to *create awareness amongst the locals*. The locals seem to know negative impacts that affect fish but their knowledge is limited to only the fish they consume. Unfortunately, the majority are not aware of those that migrate within the Nigerian territorial water bodies.



The webinar yielded commitments from the government officials, researchers and policymakers where they decided to have a monthly local hub meeting in which they would discuss strategies, do research, and create collaborations to ensure every stakeholder is represented with the aim of saving the fish in Nigerian water bodies.

Peter Limbu, The Nature Conservancy (TNC), Tanzania

The Nature Conservancy organized the WFMD event at Lake Tanganyika. Lake Tanganyika is the second deepest lake in the World and runs about 1,470m at the deepest point. It is riparian to four countries: Tanzania, Congo, Burundi, Zambia. It is endemic to approximately 253 species of fish!

TNC works with the government and local people to create local institutions that would help safeguard and protect the fisheries in the lake. The fish has great economic impact to the people and nature overall, especially the Lake Tanganyika Sardines (*Stolothrissa* and *Limnothrissa* species) and Perch commonly known as Mgebuka (*Lates starppersii*). Limbu asked for more collaboration between the government, local people, Regional and international bodies to support efforts towards protection and preservation of fish species in Lake Tanganyika.

Celebrations for the WFMD on lake Tanganyika started from 14th of October and involved more than 160 community people including 30 fishermen, 60 fish processors, over 30 primary school pupils, 30 Beach Management Units (BMUs) members and 13 drama group members participated.

The chairperson for the Buhingu village local community BMU (Mr. Richard Nkayamba), explained that they were creating awareness about the fish breeding sites of fish in order to safeguard them for this and the next generation!

They finished with a great dramatic dance by the local villagers who use their dances and songs to create awareness.



©Peter Limbu, TNC celebrating WFMD with fishermen in Tanzania

Overview of African events

There was a total of 36 events from 20 different countries in Africa, with the hub in Kenya, Nairobi. The countries which participated included Benin, Cameroon, Gabon, Egypt, Kenya, Malawi, Morocco, Namibia, Nigeria, Sierra Leone, South Africa, Tanzania, Tunisia, Uganda, Senegal, Ethiopia, DRC, Algeria, Mauritania and Guinea Bissau.

The types of events celebrated were: webinars, river visits, fish relocation projects, river clean ups, fish marathon, river match, documentary screening, kayaking and canoeing, aquarium visits, restoration projects, among others. All these events were celebrated with the aim of educating, inspiring and empowering local people, governments, policymakers and decision makers on the importance of having free flowing rivers and healthy fish populations globally. Some of the events were also covered by radio, television and social media networks. For more details visit:

<https://worldfishmigrationdayfeedback.wordpress.com> and www.worldfishmigrationday.com

Here are some quotes from the event organisers:

“The Yaboy is the most widely caught fish in Senegal and is overexploited as it is the most imported fish to Europe for livestock feed. If it disappears, it will affect the country's economy so we need to change our behaviour to have a better vision of the future and we need a clear fishing policy and a serious and rigorous application of the fishing code” Oceanium Dakar, Senegal

“ANYL4PSD celebrates for his first time the World Fish Migration Day this year. We raised awareness of the importance of migratory fish populations, and the threats they face during our various Leading the Change Regional webinars that gathered youth and civil society representatives coming from all African countries. The key message we highlighted is that the structure and functioning of the ecosystems results from the interactions and just reciprocal (retro action) between the organisms and the physico-chemical processes on the face of the earth” African Network of Young Leaders for Peace and Sustainable Development (ANYL4PSD), Cameroon

“Dams and weirs in Lake Tana sub-basin: A threat for the unique migratory Labeobarbus species of Lake Tana.’ Bahir University in collaboration with Addis Ababa University organized an event by inviting the key stakeholders for a visit and discussion at one of the river diversions made in the sub-basin. The purpose of this event is to create awareness on the impact of dams and weirs on free movement of fish so that coordinated actions for opening the pathways for fish migrations will be taken while utilizing rivers for development purposes. In general, it is meant for connecting fish, rivers and people.” Bahir Dar University, Ethiopia



© Juliet Kigongo Nattabi, Makerere University, showcasing fish in Uganda

Media

The events also reached the public media and social media networks. Here are some highlights:

- Radio interview with OELO organization (Gabon): *“OELO's nature clubs share an awareness message on the importance of keeping rivers clean and barrier-free for World Fish Migration Day”*
<https://www.facebook.com/OELOGabon/posts/1844323269059400>
- Radio interview with Actions pour le Développement et la Citoyenneté, ADC (DR Congo): *« Pollution of rivers owing to harmful human activities constitutes a non-negligible barrier for fishes movement and migration. Due to these problems, ADC contribute to the environment protection, and in education of people for citizenship relating to risks and consequences they facing to pollute these ecosystems”*
- TV reports with ONG Palmeirinha (Guinea Bissau): *“This global celebration aims to raise public awareness of the importance of maintaining healthy rivers, with a special focus on migratory fish and their needs. The students of Marine Sciences of the University LUSOFONA and the National Network of Radios for Food Security and Environmental Defense participated in this event”*
<https://www.facebook.com/watch/?v=729325674462790> &
<https://www.facebook.com/watch/?v=278579400005903>
- Oceanium Dakar (Senegal): *“The Yaboy is the most widely caught fish in Senegal and is overexploited as it is the most imported fish to Europe for livestock feed. If it disappears, it will affect the country's economy so we need to change our behaviour to have a better vision of the future and we need a clear fishing policy and a serious and rigorous application of the fishing code”*
<https://www.facebook.com/watch/?v=3438441049574063>
- CNRDPA (Algeria): importance of the eel in Algeria
<https://www.facebook.com/watch/?v=751381445446396>
- CREDI ONG (Benin): *“CREDI-ONG opens a curtain on fish migration in the Ouémé river in Benin.”*
<https://www.facebook.com/crediong.org/posts/2773568179631058>
- Nigerian Conservation Foundation (Nigeria): *“World Fish Migration Day is commemorated to raise awareness for the importance of free-flowing rivers and migratory fish. Migratory fishes support the livelihood of millions of people around the world. We must safeguard our rivers and ensure the survival of these fishes”* .<https://www.facebook.com/watch/?v=396681378164687>

About the Africa hub, National Museum, Kenya

The Africa hub was hosted at the Nairobi National Museum, Kenya with a team of 4: Ruth Kabera, Neloba, Solomon and Dr. Njagi.

According to the museum, about 200 hundred people visit the Museum everyday but since the Corona virus came in, fewer people feel free to move about. On this day, about 100 visitors came, majority being families with their children. Many came to see the Snake parks, Freshwater and Marine Aquariums, botanical gardens, the alligators or just eat at great restaurants! The team put up a stand at the main entrance of the Museum. The stand, beautifully done consisted of a Swimway banner, posters, flyers, stickers, a flag and Dorothy Nyingi's 'The Common Freshwater Species in Kenya' book. We received very many visitors at the table at different times. They began streaming in from about 11am-4pm EAT. The huge swimway banner and the cool t-shirts we wore were mostly what attracted their attention. At the table, they elicited their curiosity as to what the event was about. Various questions were asked with the most prevalent being:

1. What is this all about?
2. What is World Fish Migration Day?
3. What are you doing to help the bad situation of our rivers here in Kenya?
4. Are you also doing cleanups soon because I would like to participate?
5. How can I help change the situation?

It was fascinating to see people filled with interest and awe most especially as we delved into the impact of dams' construction in our river systems. This, they admitted was something completely new to them! We gave out t-shirts as rewards for those who expressed deep interest in learning more. One particular lady said she never knew rivers and fish were as important and that the day has actually shifted her perception of things.

Throughout the day we connected online during each session, During the morning webinar, we did a tour of the National Museum aquarium. Ruth showed us what fish were on display from lungfish to the threatened European eel and had interviews with some of the visitors at the aquarium. In later sessions, we chatted with Kerry Brink with updates of our event at the museum.

This event went beyond my expectation because I got to appreciate the lack of exposure people have when it comes to conservation in general and the deep interest they portray when this information is relayed! Moreover, I appreciated the fact that people are actually taking the time and effort to learn firsthand the beauty nature has to offer by investing their resources and time to visit the museum! Ruth Kabera, WFMF



Conclusions

The main outcomes of the African hub are that it created a platform for organizations to share what they are doing in their region with others across the globe. We all learnt about various projects taking place, how people were celebrating World Fish Migration Day and gained important insights into how we can save migratory fish species and engage with stakeholders, media and citizens. It was the first time that we have been able to truly connect with each other and share in the celebration of this special day.

This was the biggest World Fish Migration Day in Africa since 2014 with 38 registered events and 36 organized events!

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