Project Piaba 2019 Annual Report and Mid-year 2020 Update Conservation via Beneficial Aquarium Fisheries Buy a Fish, Save a Tree



Overview:

Project Piaba is a nonprofit organization formed to both study and foster beneficial home aquarium fisheries in the Amazon Basin and in areas of biological importance worldwide. The home aquarium fishery based along Brazil's Rio Negro has been the focus of this work since the Project's inception and remained at the center of our efforts during 2019 (learn more about on our website Project Piaba).

This annual report will provide an overview of the Project's accomplishments and activity during 2019 and our mid-year 2020 update.

We continued in 2019 as a volunteer-staffed organization with specialists and team members contributing to projects and capacity building. We had planned to fund a paid staff position during 2020, but have delayed those plans to 2021 due to COVID.

We are grateful and proud of the accomplishments that Project Piaba made in 2019 and during the previous 25 years. Our relationships, visions, and strategic actions are now well underway with key stakeholders in the zoo and public aquarium community, the mainstream conservation and academic communities, and leaders in the pet trade. We are grateful to those who volunteered their time and to those to who were able to donate to support our important work.

Accomplishments During 2019:

Best Handling Practices Workshops and Cooperative Meetings:

During 2019 we were able to continue the implementation of Best Handling Practices (BHPs) with the Rio Negro fishery, and we successfully completed a follow up community workshops and implemented Best Handling Practices (BHP's) workshops with four Manaus exporters. This expands upon our workshops we began in 2016. We are grateful for the funding from donations which help us hold and continue to offer these Best Handling Practices workshops for rural fishers, transfer station operators and exporters in Manaus. Project Piaba's in-country volunteer trainers (all of whom have extensive ties to these fishing communities) lead these workshops and we gratefully acknowledge these trainers and team members: Arnold Lugo, Joely-Anna Mota, Aline Sousa, and Gabriel Russo for their hard work with coordinating and providing BHP Workshops.

The goal of these workshops is to help the fishery better compete in the global marketplace and to offset recent economic declines so that it can continue to provide sustainable livelihoods and continue to be the driver of preservation of forest and habitat for <u>IUCN Red listed</u> species. With the additional Best Handling Practices workshops, we have received feedback that the hobby industry has begun to see improvements in the health and quality of the fish coming out of the Rio Negro fishery. Historical benchmark data on fish health collected during past expeditions will allow us to validate these claims in the future. We know our work is not finished and constant improvements and development in best handling practices is necessary for the fishery to continue to better compete in the global marketplace.

In addition to Best Handling Workshops, the Project Piaba team in Brazil also held and participated in meetings with the fishers' cooperative (ORNAPESCA) and organizations supporting conservation and industries such as the fishery. More photos are on the Project Piaba website.

In January 2019, the Project Piaba Brazil based team (Projeto Piaba) joined the Expedition. In February Aline and Joely, joined a meeting with the piabeiros and piabeiras for a fishers' cooperative meeting (ORNAPESCA) to discuss the fishery, best handling practices and other challenges to overcome.

During June, July and August 2019, the Brazil team provided workshops best handling practices in aquarium fish with the following Manaus based exporters: Aquafish, Apistogram, Amazon fish and Kledison's.

In July 2019 the team completed a trip to the municipality of Santa Isabel for an agribusiness workshop, in partnership with Sebrae. Sebrae is a Brazil based governmental, business development organization which helps all types of businesses.

Photos of Best Handling Practices Workshops, ORNAPESCA and Sebrae Meetings During 2019

















Zoo and Aquarium Exhibits – Building Awareness through Outreach

More institutions opened or updated exhibits showcasing the beneficial wild-caught Rio Negro Fishery with an emphasis on home fishkeeping. During 2019, four institutions added Rio Negro fishery exhibits. As a result, the total reached 35 institutions which reach of 38.6 million visitors each year*. Visitors learn about the story of the Rio Negro fishery and are inspired to join the fishkeeping hobby because of the benefits to forest preservation and livelihoods. An additional 10 public aquariums (with 8.5 million visitors/year*) are at various stages of developing Rio Negro aquarium fish displays to tell this story at the time of this publication (Fall 2020).

*Zoos and Aquariums have been greatly impacted financially due to COVID during 2020 and we expect delayed updates in some cases. In other cases, many institutions used the pause in visitors to update their institution's exhibits.

Examples of Exhibits Updated and Opened during 2019



Buy a fish, save a tree!

That's the motto of Project Piaba, which works to preserve and improve sustainable collecting of Amazon fishes for export. For people in the Amazon, this provides income apart from farming, ranching and logging, all of which can destroy the forest.

Shedd experts have visited Brazil with Project Piaba to see how local people are sustainably collecting fishes for export.



hes...
to keep
habitat
s, for people—









Supply Chain Challenges:

The Rio Negro home aquarium fishery is a highly seasonal fishery due to the annual flooding pattern of the Amazon Basin; fish collectors are only able to collect these fish when water levels and conditions allow. This normally occurs September through June but varies depending on rainfall amounts and timing. Fortunately, rains held off during 2019 Fall and early 2020 Winter making for favorable for fish collection. Adding to this good news in the same period, demand for wild-caught Rio Negro Fish increased compared to previous years. Unfortunately, COVID caused a shutdown of the river ferries which bring fish down the rivers to Manaus for export and flight cancellations greatly impacted shipments beginning in March.

COVID has played a big impact in 2020 as things were improving during late 2019 and early 2020:

While in the past, air cargo routes and space for live tropical fish were challenging, during 2020 this has been a big problem that we hope to see improve in Fall 2020. Routes through San Paulo and Panama, although longer than a direct Manaus to Miami route, had been working for importers in the United States. Efforts continue to convince American Airlines to reinstate a regular live fish cargo route from Manaus to Miami. We will continue to interface with air carriers, Manaus-based exporters, and aquarium fish importers in the US to develop solutions for these supply chain impediments to the fishery. We are optimistic that during 2020 and early 2021, a positive side impact of decreased passenger air travel might result in an increase in air freight which would benefit the Rio Negro fishery's recovery.

Some good news with COVID:

Demand for fish and pets worldwide has increased dramatically as more people are staying home. Some retailers have said that they have made up for lost sales between March and June with huge increases since business and flights have started to resume during the Summer 2020.

One Key factor for success: Fish Going Out and Cash Going Into this Area of Biological Importance

Cash inputs to the fishers and the fish exports into the global marketplace are essential for the fishery to continue to provide the benefits of protecting habitat and forests from development and providing livelihoods for the fishers. This movement of cash and fish is key to protecting this area of biological importance [MOU2].

As the Rio Negro Aquarium Fishery recovers, people will be able to continue their jobs in the fishery and not have to move to destructive employment like mining and logging and moving into urban areas with resulting, overpopulation, unemployment and associated health issues in these municipalities. This is one of the key factors that we try to address during our continuing work with the fishery. This continues to be a primary focus of our efforts both in the region and globally.

Brazil Changes Species for Export List and Process:

Mari Balsan and Dr. Roberto Reis joined others during 2018 and 2019 in meetings with the Brazil Government to develop a process for converting Brazil's species export list.

Beginning May 1,2020, Brazil now has a list of species not allowed for export and process for adding species to that list which involve many stakeholders and a formalize process. Click on the link for details: http://www.in.gov.br/web/dou/-/instrucao-normativa-n-10-de-17-de-abril-de-2020-253136548

You can also view this Zoom call video of our Project Piaba team to learn more: https://www.youtube.com/watch?v=LmTVBK1UzU8&feature=share&fbclid=lwAR3fpc-gP1Dkw9DXc1iSEdu-Wf7xeJf_zChRurO5RG0TFVxbDEmmKW9CSE0

Retailers and aquarium fish importers expect to see an increase in fish species demand from the Rio Negro aquarium fishery as a result.

Expedition:

In January 2019, a group of 22 participants and three Project Piaba volunteers joined the Expedition to the Rio Negro to observe aspects of the aquarium fishery. Participants came from varied backgrounds in conservation, biology, fish health and the aquatics industry.

Before the Expedition began, the core Project Piaba team comprised of Brazilian and US experts met with Manaus based institutions such as: IBAMA (re: export lists) Veterinarian inspectors (re: schedules), INPA (re: fish populations), INDES (re: forest preservation) and the Manaus based exporters (re: cargo issues, best handling practices, communication improvements).

The team continued the assessments of fish health and the impact of the Best Handling Practices community workshops. In addition, work plans for fish populations modeling continued during this Expedition. We also continued to build on the Geographic Indication infrastructure and planning to find ways to best leverage differentiating wild fish collected in their home waters which provide employment and protect the forest from being developed.





Building Awareness – Publications 2019

In the News and Social Media:

Amazonas Magazine reported on the shift from White listed to Black listed species export rules. https://www.reef2rainforest.com/2020/04/28/brazils-fish-exports-are-opening-up/

Amazonas Magazine: Aqueon and Project Piaba launch Rio Negro Aquarium Tank: https://www.reef2rainforest.com/2019/12/20/video-aqueon-project-piaba-offer-rainforest-aquarium-kit/

Rack Cross and his River Life You Tube channel helped us gain awareness and coverage from "Fishtubers" who have some terrific YouTube Channels covering a number of topics. https://www.youtube.com/channel/UCBRueLHUUBKpNGP493hggFg

Rack is a great supporter and educator of Project Piaba and has held fund raisers including auctioning off a painting he completed during 2019.



Project Piaba's Facebook and Instagram pages as well as our YouTube Channel have been given an overhaul and are seeing increased content posts and significant increases in followers!

Facebook: https://www.facebook.com/Project-Piaba-332179033504804/

Instagram: https://www.instagram.com/p/CB4mxj1po-n/?igshid=wguac7azkbac YouTube: https://www.instagram.com/p/CB4mxj1po-n/?igshid=wguac7azkbac YouTube: https://www.youtube.com/channel/UColBkR8Xp-3JceosHjxsVrg

Science Publications:

2019, Hélio Beltrão, Jansen Zuanon, Efrem Ferreira Checklist of the ichthyofauna of the Rio Negro basin in the Brazilian Amazon

2019, Phang, Cooperman, Lynch, Steel, Elliott, Murchie, Cooke, Dowd, Cowx, Fishing for Conservation (April 2019)

A link to all the Project Piaba Publications can be found here

Building Awareness – Conventions and Outreach Team

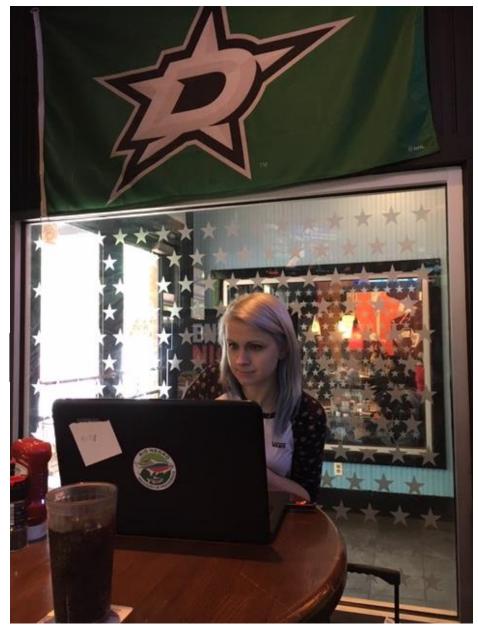
The Project Piaba outreach team was busy during 2019 and the beginning of 2020! Collectively we participated in FIVE conventions/trade shows and gave presentations at two of these. We spoke with thousands of interested fishkeepers in person and virtually as well as provided a well-received presentation to an aquarium society.

March 2019:

The <u>Northeast Council of Aquarium Societies</u> (NEC) meets every March. They hold a fundraiser for conservation efforts and last year the focus was on research on the aquarium fishery.

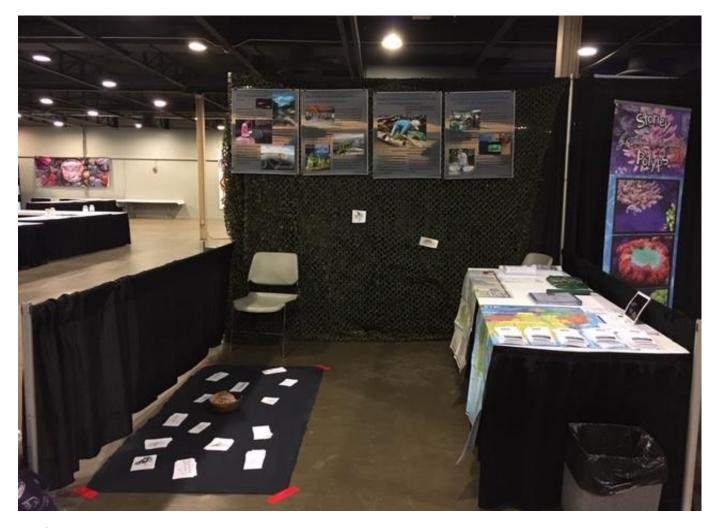
The APPA provided Project Piaba with show floor passes to Global Pet usually held each March. This show enables us to foster the Rio Negro Fishery by advocating about the beneficial fishery and the work that Project Piaba does to help the fishery.

The Project Piaba booth at Aquashella Dallas before the masses arrived!



In March 2019, Tori and Jackie traveled to

Dallas to attend the first ever Aguashella event. It was packed! There were lines of people out the door and the building was at capacity! We set up a booth and talked to people all day Saturday and Sunday. It was here that we first connected with FishTube, a group of YouTube creators with aquarium themed content. FishTube had a large presence at this show and was collecting donations for Project Piaba! We also made several interviews with FishTube creators for their channels and Jackie gave a presentation to interested Aquashella attendees in the seminar area on Saturday afternoon. Project Piaba was also chosen as a charity to receive the profits of the show-wide raffle.



April 2019:

Scott, Jackie and Tori traveled to Connecticut to attend the 2019 Northeast Council of Aquarium Societies Annual Conference. We set up a corner at the conservation silent auction table and talked to people all weekend about how Project Piaba fosters the conservation of biologically important areas. Scott and Jackie also introduced and commented on the speakers for the conservation portion of the presentations, introducing researchers Karen Alofs, Ph.D. and Hernán López-Fernández, Ph.D. who are working to explore and document fish communities in the Upper Mazaruni River.

July 2019:

Scott and Jackie traveled to Connecticut to the Central Pet Trade show to show off the Aqueon Rainforest Conservation Kit to attendees in the Aqueon Booth. We talked to pet store owners and product buyers about the work of Project Piaba and the kits that they could purchase and sell in their stores.





September 2019:



Tori and Jackie traveled to Chicago for Aquashella. At this show, they staffed a table in the FishTube booth and talked to thousands of people every day, collecting almost \$1000 in donations! FishTube had created t-shirts and were asking for a modest donation from Aquashella attendees. FishTube donated all of the money from the t-shirts to Project Piaba! We also conducted more interviews and meet ups with YouTube creators.

September 2019:

Jackie traveled to Washington DC to give a presentation to the Capital Valley Cichlid Association, an aquarium society in the capital area. The talk was titled "Project Piaba; How Home Aquarium Fish Can Conserve Rainforests and was very well received. The audience was active and engaged, with people reaching out to comment on how they enjoyed the talk.

October 2019:

Tori, Jackie, Clara and Deb traveled to New Jersey to attend the Aquatic Experience trade show. Helped by Sam and Kristen, they set up and operated a booth with a large Project Piaba tank and an Aqueon Rainforest Conservation Kit; set up with the help of the Aquatic Gardening Society and Easy Aquariums. The team was later joined by Dr. Tim Miller-Morgan and Colleen from the Hatfield Marine Science center, and together we reached out and talked to interested show attendees and vendors all weekend. We also conducted a contest via video interview, sponsored by the World Pet

Association (WPA). The WPA sent a deserving and interested show attendee and a guest of their choosing on the 2020 Project Piaba Expedition. After an extensive review process, a committee selected YouTube creator Alex Wenchel, who volunteered to create a brief documentary video of the fishery using his experience on the expedition. Jackie gave a scheduled presentation about the work of Project Piaba in one of the conference rooms.



May 2019:

Project Piaba volunteers at the Aquatic Experience showing off a Rainforest Conservation Kit

Aquarium and zoo professionals gather for seminars and learning each May at the <u>Regional Aquatics Workshop</u> (RAW). Scott Dowd is on the Freshwater Fishes Taxon Advisory Group of the Association of Zoos and Aquariums which meets before RAW.

Dr. Tim Miller-Morgan, the lead aquatic veterinarian of our efforts, attended AquaRealm and other international aquatic conferences and leads talks on aquatic animal health and provides updates on Project Piaba's work with the Rio Negro Fishery.

Financial Summary: 2019

Because we continue to work as a volunteer-staffed organization with just a small portion of funds for stipends, our budget, and the resulting impact is modest. During 2020, we had hoped to add a first time full-time staff member position to amplify our impact with this work but believe that is more likely to occur in 2021 primarily due to COVID.

See our tax filings for more details and please note, because the Expedition takes place each January, year to year variability is a result of timing of Expedition Participant Fees coming in and expenses for the Expedition being paid.

Financial Overview 2019:

Beginning Balance: \$14,269

Revenues: \$70,685

From sources such as: grants, donations, expedition participant fees

Spending: \$48,787

On activities such as: Best Handling workshops, outreach programs, expedition costs

Ending Balance: \$36,167

We welcome donations and grants for 2020 and beyond. Feel free to contact us directly or visit our <u>website</u> to make a donation towards our work. We hope to greatly expand our work and impact in 2021 with the addition of our first paid staff member.

Project Piaba is a Platinum Star level nonprofit on <u>Guidestar</u> and is a registered 501c(3) in the state of <u>Massachusetts</u> in good standing with compliance filings.



Thank You Donors:

Alex Tropicals (for Access and Benefit Sharing)

Andrew Helge

Aquashella

Aqueon / Central Garden and Pet

Boston Aquarium Society

Chicago Aquatic Plant Society

Corinne Puzio

Daniel Woitalla

Dave Winchester

Donate for Good

Flip Aquatics

Greater Cleveland Aquarium Society

Greater Pittsburgh Aquarium Society

Kevin Liu

Michael Peck

Moevus Antoine

Nick Zarlinga

Ornamental Fish Exporters Platform

Ornamental Fish International

Paypal Giving Fund

Rack Cross

Ryan McAndrews

Segrest Farms

Taylor Leese

Vancouver Aquarium Society

World Pet Association

Thanks 2019 Expedition Participants:

Forbes Adam

Hudson Adam

Tracy Crews

Nicholas Crews

Tara Dedolph

Katharine Hausmann

Dominic Dedolph

Mike Kelleher

Patrick Lee

Nicholas Brown

Aline Sousa

Jackie Anderson

Tim Onofryton

Katharine Onofryton

Alex Wenchel

Nick Kinser

Tim Emerson

Specer Emerson

Victor Elderton

Fernando Bresslau

Cathy Jenkins

Irene Yen

Dr. Tim Miller-Morgan

Our Team

Our team is comprised of people with specialties who have been providing expertise to the Rio Negro Fishery and aiding Project Piaba's work. None of the individuals work full-time on the project and most are contributing both their spare time and own funds to this conservation via beneficial aquariums work.

Several volunteers helped us during 2019 on various special projects and deserve recognition for their efforts: Izzy Hazard, Clara Rotger, Madison Dix, Sam Rutka and Kristen Taylor.

Advisers Team

Les Kaufman Dr. Tim Miller-Morgan

Sandy Moore Eric Rasmussen
Lonnie Ready Michael Tlusty
Mike Tuccinardi Dominic Whitmee

Volunteer Core Team:

Scott Dowd, M.Sc. Dr. Tim Miller-Morgan, DVM, CertAqV

Arnold Lugo, M.Sc. Joely-Anna Mota Mari Balsan, M.Sc Jackie Anderson

Aline Sousa Dr. Roberto Reis, Ph.D.

Dr. Nelson Ferreira Fontoura, Ph.D. Madison Dix Tori Babson Deb Joyce

A Look Ahead 2020 and Beyond

Addressing Supply Chain Challenges:

We have been in touch with the fishing communities. Manaus exporters and importers optimistic if flights can remain consistent that the fishery will see grown this year. One key piece is that demand for aquarium fish from COVID are UP between 30% and 200% according to some in the pet industry. Further, demand for wild-caught Rio Negro Fish has grown as more people hear about the benefits of the Rio Negro aquarium fishery and want to help. With the increase in the hobby because of COVID, this can be a key addition to the turn-around of the Rio Negro Fishery and something positive coming from this difficult time.

Best Handling Practices:

We plan to continue Best Handling Practices community workshops in the Rio Negro Fishery by the community-based trainers once we are able with improving COVID conditions.

Further, Manaus exporters collaborating with the Project Piaba Brazil based volunteers and an agency which assists in business building called Sebrae are going to be meeting at the end of September to work on a plan for sharing videos and stories about the Rio Negro Fishery to build demand by educating people about the fishery on social media.

We will to continue to gather feedback, analyze, and publish the impact our work (including Best Handling Practices trainings) has on fishery export quantities. Our annual growth goal is a modest 5% based on reports we receive from MAPA export reports and fish health studies with our OSU partnership as well as importers, retailers and zoos and aquariums feedback and partnership. Certainly, 2020 will be a different year for all of us.

Geographic Indication:

We put a plan in place to begin phase 1 of a traceability program to identify fish through the supply chain as soon as travel can resume again after COVID. This is an effort to specifically highlight piabeiras and piabeiros, transfer agents and exporters who have participated in our Best Handling Practices workshops and are part of the cooperative called ORNAPESCA.

This Fall, we had planned to have two aquatic veterinarians, Scott Dowd and two of our Brazil volunteers will be "escorting" shipments of fish from their point of collection, all the way through the supply chain. When they

are able to go in 2021, they will collect updated data and observations on handling practices, water quality, and fish health, to compare to Project Piaba's decades of historic data to measure improvements in the supply chain, and to identify areas for future improvements.

Grow number of exhibits and enhance current Zoo and Aquarium Exhibits:

During 2020, we had planned to increase the number of zoo and aquarium exhibits. However, COVID has greatly impacted the number of zoo and aquarium visitors so it is likely the number of exhibits will not expand. Instead, we are focusing on providing education materials virtually via our YouTube Channel, Instagram and Facebook. Our goal through these efforts are to expand the number of aquarium hobbyists interested in Rio Negro wild-caught fish.

Retailer and Consumer Education and Demand Generation:

We revitalized our consumer communications with the addition of our Youtube, Instagram and Facebook messaging, including the addition of "Wild-caught Wednesdays" video posts which Jackie Anderson has added with some excellent footage. With this weekly feature we are sharing both the counterintuitive aspects of this fishery which provides livelihoods, protects the natural forest and meets all 17 of the UN Sustainable Development Goals. [MOU3] The feature is also designed to help those consumers become aware of the more than 250 abundant and beautiful species available for the trade and emphasizing the "Buy a Fish, Save a Tree" message.

Materials such as signs for "Buy a Fish, Save a Tree" are in several retail stores and more will be added and available to supporting retailers.

Long and Short Documentaries:

Don McConnell who has been filming, editing and producing an excellent long documentary has completed his work. Project Piaba is encouraging and working with Don to get that documentary out and available to the world. Don sacrificed over the last several years his regular paid work for this documentary and we hope when Don launches it with Project Piaba's help that he can make some funds back in order to help him continue to film and share videos on the Rio Negro fishery in the future. Don has been sharing updates on his social media and you can follow here: Don McConnell

A Short Documentary effort began with Alex Wenchel's winning the WPA supported Expedition contest to appeal to a different audience. This effort has just begun and of course is impacted from a time table standpoint by COVID. Alex has been sharing updates on his social media and you can follow here: Alex Wenchel

Staffing – Amplifying Impact and Expanding Capacity:

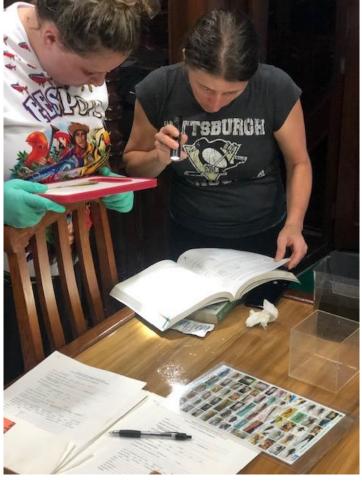
One thing we started in 2019 and plan to increase after COVID, is our capacity to accelerate the important work of Project Piaba. We are working on funding to bring Scott onto the project as a full-time staff member. This is a very big and exciting step for the project and the Rio Negro Aquarium Fishery. Up to this point, we have been limited on our accomplishments with only the spare-time we have available.

As you can see from our 2019 accomplishments, momentum continues to build and in 2020 and beyond even with COVID, the potential to do more to increase Conservation via Aquarium Fisheries is going to take effort and time.

Expedition 2020:

A Google Earth map of the 2020 Expedition showing GPS points where we stopped

At the end of



January, Jackie and Dr. Tim Miller-Morgan led a trip of 23 interested participants to the Rio Negro to investigate the aquarium fish fishery from where the fish are captured, to where they are exported and everything in between. Once in Brazil the team was joined by additional Project Piaba volunteers Joely and Aline. This expedition spanned approximately 450 km of the Rio Negro from Manaus to the Village of Daracua, with stops at significant and interesting spots along the way. In addition to people with a passion for

fish and environmental conservation, there was also a team of vet students on the expedition. The team sampled water chemistry at 20 different sites, and fish at 13 sites, plus some more that were caught opportunistically when they jumped into the boat! The students were looking at overall health conditions, parasites and other aspects of fish health, to compare the fish seen in the wild to fish that have gone through the supply chain. Samples like these help us to determine how effective best handling practices and other capture and holding stress reducing techniques are at improving the health and quality of fish that are exported. The team attended an Ornapesca meeting in Barcelos, which was moderated by Joely and Aline, and we listened to the concerns of the fishermen in the cooperative. While in Barcelos, we also attended the Ornamental Fish Festival. We recorded GPS coordinates at every location where we took pictures and video of fish with the goal of being able to have a better idea of the places where different species might come from, in addition to where they are already caught, to better unify the demand for certain speces with the supply of fish. We also provided hours and hours of wonderful videos and photos for use on Project Piaba's social media platforms, and for Alex, the recipient of the World Pet Association grant for the trip, to create a short documentary about the fishery.

Follow Us!

We hope that you'll read this report understanding the opportunities that partnership brings and the extent to which it will play a role in the environmental and social benefit brought by the recovery of the Rio Negro Aquarium Fishery and that you may want to play a role in helping the effort. Follow us on social media to see more recent updates and get more involved!