

Member View

Conservation Spotlight

Project Piaba

Background: Project Piaba

Brazil's Rio Negro is among the largest tributaries of the Amazon and the world's largest "blackwater" river—named for its unique tea-colored, acidic waters. Despite the somewhat extreme conditions and nutrient-poor water, the river is home to at least 800 species of freshwater fishes, dozens of which are endemic. The surrounding—largely intact—forests are also home to thousands of other terrestrial species, including some of the Amazon Basin's most iconic fauna. This biodiverse region is the epicenter of Project Piaba's somewhat unorthodox conservation work, which is based on fostering environmental stewardship through one of the area's most important industries—the collection, transport and export of small live tropical fish for the home aquarium trade.

The municipality of Barcelos, with a land area roughly equivalent to that of New York State, is one of the key centers of this trade and has been "home base" for the project for its two-decade history. During that time, research on the fishery has continued to underscore that not only is it largely sustainable—with minimal impact to targeted species' populations—but also that the cash incomes provided by the fishery, in a region where little economic opportunity exists otherwise, can be a powerful driver of conservation outcomes. Fishers, relying on a locally abundant natural resource with a relatively high value, are less likely to engage in destructive practices for subsistence, which are so common in other parts of the Amazon Basin—activities like slash-and-burn agriculture, illegal commercial logging, clearing land for cattle ranching or gold mining. And because this resource—primarily, the vividly-colored cardinal tetra (*Paracheirodon axelrodi*)—relies on pristine waters and intact flooded-forest habitat, the fishermen and women of the region have a strong economic incentive to preserve and protect these aquatic and terrestrial ecosystems.

Scott Dowd, Project Piaba executive director, recently said, "For generations,



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since the 1950s, fishers and families have been capturing millions of small, colorful fish with high fecundity as the rivers recede each year with the seasonal droughts. Project Piaba didn't create this fishery; we simply have been observing it and fostering it because of the benefits the fishery provides in terms of livelihoods and protection of the forest and rivers."

A Conservation Challenge

The fishery on the Rio Negro is one of the most-studied aquarium fisheries in the world and has been touted as a model for resource use in Key Biodiversity Areas, which goes beyond sustainability—providing both critical environmental protection and socioeconomic benefits. But in recent years, Project Piaba has had to shift its mission from research and management to advocacy as the fishery has come under threat from numerous outside forces. Competition from aquacultured fish produced in countries like Indonesia and Vietnam has deeply impacted the fishery, along with other external factors such as high air freight rates and poor flight availability out of the chief exporting port, Manaus. The fishery is now teetering on the brink of collapse, and the consequences for the region, should it be allowed to do so, would be nothing short of catastrophic.

Leveraging Relationships for Conservation Outcomes

To avert this collapse, and preserve the key benefits the Rio Negro's home aquarium fishery provides, Project Piaba has taken a multi-stakeholder approach. We are currently working with major importers of aquarium fish in the U.S. to encourage more trade in fish from the Project's study area. To help improve the health and quality of the fish from the region, and ultimately make them more competitive on the global market, we recently completed a "train the trainer" program in Manaus, during which a team of international experts presented an intensive workshop for the Project Piaba team in Brazil, members of the trade and local stakeholders. This will be followed up in the coming months by on-site fisher training workshops designed to teach and reinforce Best Handling Practices (BHPs) developed specifically for the fishery. We are also actively partnering with Association of Zoos and Aquariums (AZA)-accredited facilities to exhibit and display Rio Negro species commonly found in home aquariums to educate visitors on the benefits of this fishery and, ultimately, to guide them toward a home aquarium hobby, which results in powerful conservation outcomes.

To learn more, visit www.projectpiaba.org.