



AQUAMOJO
THROWBACK THURSDAY

A few years back I received a treasure trove of historical aquatic hobby documents. Among them were well preserved articles from some of the leading trade magazines. With the permission of my friends at Tropical Fish Hobbyist Magazine, I will be posting these every Thursday until our well runs dry. Spoiler alert, many of the articles were about the Discus fish. However, each one is a glimpse back into a time when collecting and maintaining cichlids was in its infancy. They are intriguing and part of the fabric of the hobby we all love. Feel free to download and read...but also post your reactions.

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Mo Devlin
“Aquamajo”

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AQUAMOJO

"THE RED DISCUS"

by Col. Fernando Durval DeLacerda
Brazil

Our story is going to take you, friends, on a trip through the jungle in the central part of Brazil. You will not have to worry about great distances; you will not have to struggle with the mountains or have any other difficulties during the trip. Without thinking of time and space, you will follow the path of the sun and, after but a few moments, you will be in the middle of the jungle, where the white man is almost unknown. And this region, with its luxuriant tropical forests, as wild as it was when the first Portuguese conquerors landed in Brazil, will open up and show you some of its deepest secrets.

This trip really began when I was at the home of Mr. Cresio, the owner of a beautiful fish-breeding establishment. Besides the host, there were some friends of his there: Mr. Fernando Horta, an officer of the Bank of Brazil, and Commander Carlos Mals, a retired pilot of Panair do Brasil. Mr. Horta, for whom fishes had long been a hobby and whose success in breeding and raising tropical fishes had placed him in the ranks of professionals, had been looking for new specimens of different colors and shapes. Mr. Cresio's well-known ability in breeding rare species of fish inspires even the most inexperienced beginners. Eager for success in the rarer species, he has never lost sight of the value of the common varieties, and so he has a good stock of these at his house.

On the day of my visit, Mr. Cresio had received a large number of discus which had come from Central Brazil, deep in the Amazon Jungle, near a Brazilian Air Force base of Cachimbo (Pipe). These specimens were labeled "blue discus."

However, the principal reason for the meeting at Mr. Cresio's was the discovery of a new specimen in the lot which was completely different from all the others and which we all admired. It was a most astonishing sight: a red discus! Its fins were red with tones of pink exactly like the blue tones on the blue discus. No discussions or opinions enabled us to arrive at any conclusion about such a rare specimen, though we guessed every possibility. We only hoped we had discovered something new.

As an officer in the Brazilian Air Force, I have traveled all over Brazil, especially in the region from which these fish came. Cachimbo was built as a base for planes on the direct air route from Rio de Janeiro to Manaus. It is situated in an area still completely unknown to civilized man. It is south of the Amazonian rain forest, where the mighty Xingu and Coluene rivers flow along a great sandy (not muddy) river bottom.

Only Brazilian Air Force planes of the Military Air Mail fly to Cachimbo. There are no commercial airline planes. The construction of a base, in the heart of the jungle, was a remarkable feat of the Brazilian Air Force (FAB). There is still no overland route to Cachimbo and, even by optimistic calculations, I don't believe there will be one possible in less than 20 years. The construction of the base began when a Piper cub carrying two workmen landed in a previously chosen clearing. The workmen enlarged the clearing so that a Beechcraft, bringing more men, was able to land very shortly. The airport itself was the next step, all the material being brought in by air. Cachimbo is about 2 1/2 hours by C-47 from the nearest airfield (Xingu) and 4 1/2 hours from Manaus, the capital of the state of Amazonas, on the banks of the Negro river, the most important tributary of the Amazon river.

The first trips to Cachimbo were real adventures. There were no navigation charts, so some had to be made using the naked eye, almost by hunches. Later, we improved on these charts. There was no radio beacon to guide us, and those readers who are pilots or navigators will realize how difficult it was to fly, hour after hour, with no landmarks, over dense forests of trees more than 50 feet high. By means of a single precarious limited-range radio station, a message could be sent from the plane to our base when the plane was calculated to be within 10 or 20 minutes of the base. Upon receipt of the message, a large bonfire was prepared on the airfield, with green branches and leaves so as to produce smoke, the pilot's only indication that he was on the right route and near the base. We called this unheard of system of navigation "odromica bonfire". As one of the pioneers on these trips, I began to fall in love with the region. In Amazonia everything is big, only man is small. Many of its multiple secrets are still to be discovered! I know this because I have made the trip more than a dozen times and have come to feel that I am a part of it.

In those first days things happened which reminded us of story books and moving pictures. Near the base, we discovered a plantation of corn and peanuts abandoned by the Indians of that region who had run away when they saw the airplanes coming.

About 15-minutes' flying distance from the base, we discovered an Indian village still unknown, with a population estimated at 5,000. The unusual thing about this village was that its huts were completely different from those of the other Indian villages in Amazonia (spherical roofed). They had housetops (angular roofed) similar to all those where the civilized cablocos lived. Another of our interesting discoveries about their customs was the way they appeared when we were flying

over their huts. They came out holding bows and arrows in a hostile attitude, their bodies painted with a dark substance. This fact made us wonder about their origin. Were they real Indians or Negros, descendants of former slaves who had run away hundreds of years ago? If they were Indians, they might be daubed with urucum, a red pigment coming from the plant of the same name (extracted from its pulp), or with a black paint, which comes from the green fruit of the jenipapo, mixed with copaiba, andiroba or fish oil. Both men and women cover their bodies with these pigments. The black paint is only used, however, when they are at war, and a declaration of war would certainly not be justified by the flight of an old C-47 over their huts. We took aerial photos to be developed and studied later. The Indians never came into the airport camp, but we could see visible signs of their patrols every day. The movements of the workmen were limited. They could only go about in groups and well armed. An electric-power plant was built at an old waterfall, which gave good light to the camp. Domestic animals were brought by air: hens, horses, goats, cows, pigs, and dogs.

Yes, we had surprise after surprise in those first days. A non-commissioned officer from the local patrol tried to cross a stream on horseback, and the animal's legs were completely stripped of their flesh by the voracious piranhas. The horse had to be killed. A dead dog thrown into the stream was reduced to a skeleton in a few seconds. Some small rivers in the area are famous for the size and ferocity of their piranhas, which run to 14 inches long and weigh up to 3 pounds plus. In many waters where they occur, the piranhas are perfectly harmless. However, in some rivers, like the Xingu, to fall into the water means almost certain death unless rescuers are immediately at hand. In such rivers these gluttonous fish will swarm

over and quickly reduce to a skeleton any animal (human or otherwise). The usual procedure is for one brave piranha to take a bite from the victim. Once the scent of blood is in the water, all the others in the vicinity are driven into a fanatical frenzy of slashing and biting. No one knows why the piranhas in one river are relatively peaceful, while in another, perhaps only a few miles away, they are blood-thirsty killers. (In another small river, there were fish which swam so fast that the natives of the region had to urinate in spurts if they were in the water. If they urinated in a continuous stream this particular species would swim up the jet of urine, into the urinary tract, and penetrate the bladder, causing all kinds of terrible problems.)

But, I am straying far afield, let us return to the red discus, the subject of our story. When I observed that beautiful red specimen, I began (mentally) to plan an expedition to Cachimbo in order to discover where it had come from. I was afraid that the one specimen we had was a hybrid product, a trick that nature plays on us once in a while. In all probability we had a new species of discus, yet we could not be sure or even describe it adequately on the evidence of a single specimen.

Mr. Cresio told us that the lot of discus had been sent by a friend who had received it from two Indians. Could it really be a new species, this red specimen? It reminded me of the stories I had heard when the blue discus was discovered. My friend Dr. Herbert Axelrod would be very pleased if he were the first to have a real red discus in his collection. He had already played an important part in the discovery of the blue discus, near the city of Tefe, on the banks of Negro river, right in the middle of Amazonia.

On my annual vacation, I got travel permission for myself, Mr. Horta, and Mr. Cresio at the General Headquarters of the Brazilian Air Force Transport, as

well as the necessary passes for our expedition. We took off in an old C-47 from the Galeao Military Base in Rio de Janeiro. After flying for 2 days, we finally reached Cachimbo, stopping first at Belo Horizonte, Brasilia, Aragarças (to sleep) and Xingu. We landed at the base at sunset and, after having dinner, went to bed. *I couldn't sleep, I just thought, thought, thought.*

How often does it happen that an important plan or a pressing task cannot be carried out because a supposedly insignificant trifle has not been considered or understood? For example, some expeditions undertaken in the last century with the aim of exploring tropical countries never reached their goals because tiny mosquitoes infected the members of the expeditions with malaria. Or remember those pioneers who tried to explore remote and unknown countries by ship. They had food for more than a year on board, and their vessels were strong enough to resist weather and storms, but the lack of vitamin C caused the crew to perish from scurvy. Had we overlooked some small but important detail?

I finally went to sleep, dreaming about sharks, Indian attacks, snakes, crocodiles, and jaguars. But, at last, the first glimmer of dawn appeared on the horizon; the great day had arrived. Mr. Horta was in charge of the fishing material: plastic bags, oxygen tanks, etc. Our guns also were clean and ready for immediate use. We were going to explore an unknown region considered dangerous by the workers at the base. We would paddle, for more than half a day, in a canoe through territory inhabited by hostile tribes, in order to reach our goal. Two semi-civilized Indians, who worked at the base, would be our guides. In that same region, three English explorers were killed, in 1962, by the Cinta-largas, one of the most savage Indian tribes in that area!

Along the way, we saw alligators diving into the water while birds of beautiful plumage, terrified, flew up into the tops of enormous trees. Parrots flew overhead from treetop to treetop, and the highest trees were crowned with blue and white orchids. The blue of the water and the surrounding dense, brilliant green of the jungle against the red sky of a tropical sunset made a beautiful picture.

As we progressed, the scenery kept changing constantly. Water and forest revealed new plants, animals and, occasionally, new Indian tribes. Further on along the beach, the sharp teeth of the wild pigs made a rattling sound. Groups of ariranhas, the Brazilian giant otter, approached our canoes curiously, making a choking noise. Multicolored "macacos" (monkeys) of every color flew around us in the trees. From the forest, leaning over the river and blending with it, we heard unaccountable strange noises.

Sometimes canoes are lost, wrecked in the passage of dangerous rapids while the nightingale sings from the banks. In the dense forest, the inhambu chirped and the woodpecker called to its mate. In the canoe, rifle at hand, ready for any emergency, was Darcy, one of our Indian guides, while Paraguacu, the other guide, looked after the engine.

Further on, our passage became more and more blocked, because the river was full of curves and choked with the branches of trees which had fallen into the water. It was hard work, but at noon we reached the place where we were going to fish.

The wild beauty of this place impressed all of us. We landed on a beach and began to set up camp. Trees were cut down, the sound of the axes interrupting the stillness of the jungle. Monkeys fled in fright. The priprio, sentinel of the

wilderness, whistled a warning that intruders had appeared. Toucans, the clowns of the great natural circus, with their large, long beaks and their gorgeous plumage flashing in the sun, appeared on the scene.

We hadn't completely finished the building of our camp, when our guide gave a cry of warning. On the beach, a group of six Tukumarraes Indians, armed with spears and arrows, had landed from canoes made of large tree trunks. As a precaution, Darcy went to meet the chief, who greeted him in a friendly way, proving that they didn't think we had hostile intentions. They only wanted to exchange ornaments for gifts. Mr. Horta had foreseen this possibility, so he had brought a large stock of combs, fancy necklaces, fish hooks, pocket knives, mirrors and other trifles of which the Indians are fond. The chief gave me, in exchange for honey candies and a large knife, a jaguar skin which is now on the floor of my apartment in Rio. The chief also offered me a strange amulet, a small mummified bird and fragments of its nest. It is said that the bird brings men good luck and happiness, and that its nest placed by the women over their lover's head will make him faithful and passionate.

After the Indians went away, we finished the building of our camp and prepared the fishing material. The camp was set up in a clearing, not far from the river. On the banks, when night was falling, such clouds of mosquitoes flew over our heads that we had to wave them away with our hands to see each other. On such occasions, we proved the efficiency of our insect repellent.

Next morning, we began to explore the region around us. After a night's rest, our zest to collect fish had returned; we were excited by the realization that probably nobody before had ever sampled these rivers for a scientific survey of

their fishes. Upstream, well within the river bed, I spotted an isolated pond which seemed large and well suited for the seining type of fish-catching we were prepared for and with which we had plenty of experience. The pond lay near a sharp bend of the river and must have been scooped out by the swirling waters of an eddy during the past rainy season. We prepared the net and began to fish in the deepest part of the pool. The first cast brought us a real potpourri of common fishes and a couple of blue discus whose size impressed all of us (12 inches). I had never seen such big ones. We were not equipped to keep them alive, so we decided to prepare a nylon holding-trap, made with four sticks tied together to form a rectangle, and to leave it in the pool.

I know that fishes coming from typical jungle places, rather than those that are tank- or hatchery-bred, are very difficult to keep in the aquarium. I find that such "wild" discus need the following in the aquarium: high temperature, warm air with high humidity, insect food, tubifex, and soft, acid water rich in humic acids. In keeping this fish, if you do not pay attention to "all" of these factors, you will not be successful. And crowded containers can result in a total loss when you collect discus. It is desirable to bring back a large quantity of the pond water in which the fish can be kept until they can be gradually adjusted to local water.

We went on fishing, but we were unable to catch the fish we were looking for, the red discus. The quantity and quality of fish, however, surprised us more and more. This region is perhaps the most important tropical fish collecting area in the world. In a good spot, 2 hours of seining will result in many more discus than could possibly be kept in even the largest aquarium. There were so many that we chose only the most beautiful ones. We had fried discus for dinner, and I can assure

you that this Indian dish is very good. Soon the afternoon began to wane, the shadows to lengthen, and in the forest that skirts the river, the birds bid a melancholy farewell to the day. Then the frogs and toads tuned up for their evening concert. Night was approaching. Suddenly, to our ears accustomed to the songs of the birds, came absolute silence. The dusk arrives rapidly, like a curtain which closes, and the deep silence of the Brazilian night is broken only by the song of the curiango, a night-bird. Soon the jungle emerges from the darkness and is mirrored on the surface of the water, illuminated by the fireflies and the stars. We were now part of the vast stillness of the jungle at night.

The following day, we left our pool and set out for another arm of the river, another igarape, those little bays formed when the banks are low or when a small tributary joins the river. What bothered us most was the tree branches that had fallen into the water and ;made it difficult to cast and draw in our nets. Even so, in the spot we finally chose the discus appeared again, although smaller than those we had found the day before. The spot was a veritable paradise for lovers of tropical fish. It would be almost impossible to enumerate all the species we found there. We were able to identify a tremendous quantity and variety. We examined the whole catch and kept only the best specimens. At noon, we left the fishing grounds and went down-river as far as its juncture with the Xingu, a region which was always flooded, forming a gigantic bay. The victoria-regias (water lilies) were so enormous that three men could easily lie down and fit on one of their leaves at the same time.

On the right bank of the river, just before entering the bay, we came upon a village of Hialapitis Indians, a tribe which had already had some contacts with

civilization. Once again our Indian guides, Darcy and Paraguacu, were of great help. They belonged to the same tribe, though they were from different villages. Darcy made immediate contact with the tribe. After we had been introduced to the head men, the exchange of gifts began again. Fishing was over for that afternoon. The chief gave orders for a feast in our honor, and we remained in the village until nightfall. The program consisted of wrestling contests and dances. Brazilian Indian dances are primitive and their musical instruments rudimentary. In the wrestling, one of the contenders had to throw his opponent and place his shoulder on the ground, much the same as in modern wrestling. Mr. Horta, carrying a jar with a discus in formaldehyde, began to question the Indians, with Darcy as interpreter. The chief's son smiled at sight of the fish. Later, we found out that the Indian name for the discus was the same word as one of their words of belittlement. The boy pointed to an igararape where young naked Indian women were bathing, while others on the banks were daubing their bodies with urucum, which gave a vivid red coloring to their skins and the waters around them. There were urucum trees all around the igarape. Mr. Horta asked what the fishes' colors were, and the chief's son answered that it was changeable. When caught, it had one color and, later, the color changed. It was his primitive way of explaining the mimicry of fish. Yes, the implication that some red discus could be found was there.

We returned to our camp at night, lighting our way by torches. We were so excited that we could hardly sleep. I had a feeling that we were close to that which would revolutionize the world of fish-lovers. The discovery of the red discus would be a notable achievement.

Before sunrise the camp was a bedlam. Darcy already had the motor hot

and the nets, plastic bags, and collecting boxes were in the bottom of the canoe. We grabbed our guns and departed. An hour and a half later, we reached the Hialapitis village, but this time we didn't stop; we just waved to our hosts of the night before and went on to the bay 10 minutes down-river. The women were already taking their customary morning baths. We stopped at a spot free of branches and cast the net.

Everyone was tense. We could hardly wait. Mr. Horta's eyes looked as if they were popping from their sockets. Darcy and I hauled in the first catch. There were 15 discus of various sizes as well as many smaller fishes, but no red discus. We cast the net again and caught two discus with red fins! We had found the fish that could create furor among fish-lovers. Mr. Horta, in his eagerness to get them out of the water, jumped into the river, clothes and all. He almost drowned, but saved his precious red discus and his camera. The Indians, who had been watching with interest, howled with laughter at the sight.

The red discus were carefully placed in the nylon trap, thus remaining in their natural habitat. The other fish were thrown back into the river. The fishing went on the whole afternoon, and we caught four red specimens of various sizes. Mr. Horta looked after them as tenderly as if they had been his own children.

We put the discus in two bags and returned to camp. Mr. Horta took various samples of water in order to examine them later. The color of the water in the igarape in which we had been fishing was different from the water in others because of the great quantity of urucum, which came not only from the paint that the Indians used, but also from the large number of urucum trees in the area. Later, the discus were put into 7-gallon cardboard boxes with oxygenated plastic

bags. We put a dozen blue discus in each box of the same size as those we used for one of the red ones. After closing the boxes, we began the hardest part of the trip: the return, with the great responsibility of bringing the specimens back alive. That afternoon, the old C-47 landed at Cachimbo, returning from Manaus.

We took off at 2 P.M. and landed at 11 P.M. in Goiania, capital of the State of Goias, where we spent the night. The boxes remained in the airplane. The following day, we took off once again and, after stops at Uberlandia and Sao Paulo, landed at Galeao Air Base in Rio de Janeiro at sunset.

The discus were immediately taken to Cresio's tanks where they were left with vigorous aeration going. I observed that their color was fading, but I ascribed this to the tiring 2-day trip from the jungle to Rio. The following day, however, the situation hadn't changed, and the fish went on fading. The two smallest ones began showing blue tints in their fins. I called them urucum fish in honor of the place from which they had come.

Mr. Horta had a water analysis made, and armed with this knowledge he set about trying to hold the red coloration. We now know that no aquarium expert, even if he is a biologist, can ever exactly duplicate in a tank conditions as they are found in the wilds. There are just too many factors involved.

A week went by, and Mr. Horta had just about moved to Cresio's residence, so often was he working with the fish. Day by day we became more and more anxious. The blue became more fixed and the red, now pink, was growing paler and paler still.

Reality stared us in the face: the fish were red only in their natural habitat. Did the urucum affect their color? Only more specimens and meticulous research

could answer that question. Yet, we wouldn't give up, we would go on with our experiments with the fish, water, and plants. The mystery would have to be solved.

Some time later, I thought about the almost negative results of the expedition. Was it worth so much effort and sacrifice? Everything I had brought back could be held in one hand: an amulet of green stone, said to have been taken from the Amazonas, and the mummy of a bird, gifts from a friendly chief. It seemed to me very little in comparison with the dream I had had.

Yet, I had the keys of success in my hands: the iraquitan and the irapuru (stone and bird), good luck and love. More than ever, I felt that I had achieved something.