

## Cichlids of the Americas - The South American Cichlasomines

### Papagai - The Green Parrot With Fins

*By Wayne Leibel*

These days, the common name "parrot cichlid" is, unfortunately, applied to a man-made hybrid cichlid, the "red parrot" or "bloody parrot" or sometimes "parrot blood cichlid." This apparently artificial cross — one suggestion has been a red devil ("Cichlasoma" [Amphilophus] citrinellum) x gold severum (Heros severus) cross, originated some years ago in the Far East — is, at best, a morphologically challenged fabrication.

The twisted, egg-shaped body, the indented head and the raised gill covers spell "genetic incompatibility." They seem to have no movable, working lips and must "ram jet" feed by throwing themselves toward the food. I suppose they are "cute" to some people, but I'll fall out of my chair if they prove reproductively competent.

This fish shouldn't have been made, but they continue to remain popular with some segment of the hobby (fancy goldfish hobbyists?). There is even a special food marketed for them — Ever Nature's Red-Parrot Foods from Hai Feng Feeds, Inc — which claims to bring out the red in these unfortunate monsters.

The real parrot cichlid is a brilliantly cichlid with iridescent green/turquoise coloration and bright-red eyes from the blackwaters of Colombia and Brazil, and it is a rare and challenging fish indeed. *Hoplarchus psittacus*, formerly *Cichlasoma psittacum* (Sven Kullander suggested in 1983 the use of Kaup's [1860] original genus name for this fish), is referred to as "pa-pa-gai," (Portuguese for parrot) by the fishermen of Manaus because of their striking, gleaming green coloration. Obviously the specific name *psittacus* or *psittacum* reflects this common usage: parrots are psittacine birds. (Why that hybrid bloody parrot got its name I'll never understand.) The genus *Hoplarchus* is currently monotypic (one species).

The parrot cichlid is apparently rare in the wild and is imported only infrequently, usually as a contaminant of chocolate cichlid shipments from Colombia or Brazil. They are sometimes sold as "green" chocolates although Kullander (1986) has suggested that they are not closely related to members of the genus *Hypselecara* despite superficial similarity. They inhabit flooded brush and forest (varzea) regions, usually in blackwater (e.g., Rio Negro) or adjoining waters.

The nicest, most colorful specimens come from Brazil and have bright scarlet breasts and throats in addition to the beautiful iridescent green of the body. But, as is often the case with wild fish, the red doesn't seem to hold in captivity, despite feedings with carotene-rich foods like dried krill. (Perhaps the red parrot chow would work!)

The scarlet breast/throat flush fades to more of a light mahogany. I have also seen parrot cichlids of unknown provenance that were simply khaki — drab brown — particularly large (about 18 inches), older specimens.

Like the triangle cichlid or uaru (*Uaru amphiacanthoides*), a large brown cichlasomine derivative we will discuss in a later installment, parrot cichlids go through a colorational metamorphosis as they mature. Juveniles have a unique "camouflage" pattern of green splotches alternating with light-colored bands, which gradually, at 3 to 4 inches, change over to the adult solid iridescent green. Nevertheless, when frightened or when courting and spawning, adults express this characteristic juvenile pattern.

There is no apparent sexual dimorphism, although males tend to be larger and have a slightly more robust, rounded head, not unlike the nuchal swelling of male chocolate cichlids (*Hypselecara temporalis*). See Brunelle (1979) for accurate line drawings of both phases.

Parrot cichlids have proven very difficult to spawn in captivity. I personally know of just six aquarists in this country who have propagated them successfully in the aquarium over the past 15 years (myself, Tom DePiro, Milo Manden, Delores Schehr, Clarence Ludlow, and, according to Loiselle [1980], Bill and Shirley Fogler), and then only sporadically.

Juveniles, presumably tank-raised, have been offered on occasion by European exporters, and I have heard stories recently of a spawning pair in one of the major public aquariums (New Orleans) whose excess offspring have been offered regularly through a mail-order fish dealer (Anchor Bay). John Gerritson (1992) of England recently wrote about a successful spawning, as did I (Leibel 1994).

One of the problems with *Hoplarchus psittacus* is that they are big fish, growing between 14 to 18 inches in total length in the aquarium. And, at that size, they can be quite incompatible with each other and anything else in the tank unless the aquarium is huge.

Don Danko of Ohio, America's "Mr. *Cichlasoma*," who has probably had experience with more "*Cichlasoma*" species than anyone else in this country, has found them to be the most belligerent of the cichlasomines he has ever tried to work with. This is in direct contrast to the sociability of juveniles and young adults (6 inches or less), which live quite amicably as a community.

I currently have 20 5-inchers in a 4-foot, 80-gallon tank with no problems. On the other hand, every time the male of my breeding pair (male 14 inches, female 12

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Loiselle, P. V. 1980. The *Cichlasoma* Species of South America: Part One. FAMA 3(12):39-45 et seq. \_\_\_\_\_ inches) has kicked down the egg-crate divider separating them, he effectively de-scaled his consort. Luckily, she heals well — he's taken her down to a partial pink fillet (no kidding!) several times. And, the one time I purposefully removed the divider to allow them to spawn, they scraped each other's faces jaw-locking and then shredded each other's fins by orienting head-to-tail, grabbing each other's tails in their mouths and circling relentlessly for nearly an hour. They looked like "lawnmower" fish by the time they got around to laying eggs.

The other problem with parrot cichlids is that they are blackwater species. That is, the water they inhabit is very soft, very acid and is "blackened" by the presence of tannic and humic acids from decaying leaves and wood. They also seem to prefer high temperatures (e.g., 84 to 90 degrees Fahrenheit) and very clean, highly oxygenated water. Obviously, these are not fish for beginners.

About five years ago, at one of the American Cichlid Association's annual conventions, I obtained a dozen 1-inch parrot cichlids from my friend and ace breeder Delores Schehr (Wet Thumb Aquatics, New Baltimore, Michigan). She'd finally had a successful spawning, about 50 fry strong, and graciously shared some with me.

I initially housed them in a 30-gallon tank and began pampering them. They grew steadily on a diet of pelleted and frozen foods — they were not fussy as juveniles — and were transferred to ever larger tanks. When they were about 5 inches I hit a bad patch of (personal) life and let the tank slip: I promptly lost about two-thirds of these very sensitive fish to "neotropical bloat," also known as "dropsy."

The remaining four were placed in a 150-gallon tank with some geophagine cichlids and again were pampered for another year. The fish grew and it became clear that I had at least one female. Some minor league courtship commenced, but no signs of spawning — even after three years!

About this time I was preparing to go on a year-long sabbatical (I am a college professor), so I sold off some of the more common species that I could replace and placed the rare, more exotic stuff with competent friends. The parrot cichlids (now only two remaining, a presumed pair) went to Nini Schulz, of New Jersey, another one of those "incredible" aquarists who can spawn anything. She was delighted to board them for the year because she, too, had lusted after this species for a long time. I hoped she might even spawn them, and I would offer her the fry as payment for her graciousness and skill.

For starters, the once compatible pair "scaled" each other, and thereafter were kept in a 6-foot, 125-gallon tank separated by an egg-crate (plastic light diffuser panel) divider. Nini tried to simulate their blackwater habitat with nearly pure water prepared with an ion exchange system. She got eggs several times, the female laying near the divider and the male acting as though he was trying to fertilize them, but they never hatched. Were the "pair" infertile, two females or just young?

I picked the pair up, now four years old, in late autumn and returned them to Pennsylvania and a divided 80-gallon tank. They hated being back. They hid constantly in their respective flowerpots and refused to eat anything! They got thinner and thinner and so did I (the only positive aspect of this experience) worrying about losing them.

So I called my good friend, aquarist and photographer John O'Malley, and asked if he could house them "for a while." Eventually he relented and they traveled back to New Jersey and lived for nearly nine months in separate, but adjacent, 50-gallon tanks. John jump-started their appetites with live feeder fish and finally had them back onto freeze-dried krill after several months. I don't know what Nini spoiled them with, but they had never seen live food in my house!

By mid-summer, John had moved them to a newly installed and plumbed 125-gallon tank. This tank had an industrial-strength trickle filter and was filled with reverse osmosis (RO) water. The pair, again, were kept divided because they had scaled each other again when John attempted forced cohabitation. They were now over five years old.

Toward the end of this August (1993) John phoned and told me to get these "##\$%&@ fish out of here" because they were simply taking up too much space and food. I was then in the throes of constructing a new basement fish room, and was not yet done, but promised I would have the necessary 125 up and running for them in three weeks' time.

The next week he called to tell me that they had spawned! There were some 40 striped youngsters bouncing between the partitions. He wasn't so sure that he needed the space anymore. I assured him that he did and arranged to pick them up as scheduled.

His water measured pH 6.5 and about 25 parts per million (ppm) of dissolved solids (fairly "soft") and I figured that I'd need an RO system to spawn them in my Pennsylvania water, which clocks in at pH 7.2 and moderate hardness out of the tap.

I was wrong. Within two weeks of their relocation to my tank, again divided by egg-crate, the pair spawned about 300 eggs, only 40 of which actually hatched. Apparently my water chemistry was adequate.

Also apparently, so was Nini's (data unavailable) because, if anything, it was more like John's RO water. Nini had eggs, but no hatch, several times. The pair was then four years old. Both John and I had semi-viable spawns, the pair now being more than five years old.

Four weeks later, they spawned again. This time I was present and able to referee the interaction. I hesitantly removed the divider so that the male had direct access to the eggs. After nearly trashing each other in the first hour (their fins were in shreds, literally), the pair did spawn — another 300 to 400 eggs — and the male, unimpeded, "fertilized" the eggs. I put fertilized in quotes because, again, the yield was 90 fry even though I witnessed him making fertilization passes over them. Better, but still not the entire batch.

Whether the low fertility is a function of my "hard" water or the relative "immaturity" of the male is not yet clear. It is often the case that cichlid males mature slower than females and that their fertility improves dramatically with age (they often "shoot blanks" as young bucks).

I had two more spawns (as of January 1994) and the numbers did not improve. And, a year and a half later, they had not spawned again.

The trigger in John's case was RO water, and in mine, a rather massive cycle of water changes, temperature bouncing and peat filtration, assisted by a rather large storm front (see Leibel 1995). I probably need to get an RO system up and running.

The fry from all spawns seemed to require a day or so of small foods — in my case OSI's APR (encapsulated rotifers) — and then ate newly hatched Artemia with gusto. They grow fast and hit 1 inch in about two months on a diet of Hikari Micropellets, Tetra Spirulina flakes and frozen, chopped bloodworms.

Although reasonably good parents, the breeding adults — particularly the female — spooked about two weeks into broodcare all three times and the fry had to be removed. In one case, I did a water change that prompted the female to

freak out and begin eating her youngsters!

In a second case, I turned off the blower for about 15 minutes to cut in a new bank of tanks and upon restoring air the female once again spooked and began hunting fry. I now routinely remove them after two weeks.

I continue to maintain the breeding pair in a 125-gallon tank divided with egg crate. I use a combination of inside and outside power filters, including two Aquaclear 500s loaded with foam blocks and nylon bags with peat. I keep the tank at 86 to 88 degrees Fahrenheit and provide heavy aeration. (Milo Manden got his spawning during a hot spell when the air conditioner failed in the fish room and the air temperature hit 100 degrees Fahrenheit! Gerritson [1992] keeps his at 88 degrees Fahrenheit).

I try to do bimonthly 50-percent water changes and top off with raw tap water of the same temperature. I have about 3 inches of #3 epoxy-coated ("walnut") gravel on the bottom — more by accident than anything else — and both of the fish delight in excavating extensively. There are no "decorations" other than a flat piece of slate under and spanning the divider and a vertical slate leaning against the back just next to the divider.

All four spawnings have taken place on the leaning slate, and in only one case did I pull the divider and allow the pair to spawn naturally. The male is quite aggressive, and I find it in the best interest of both to keep them divided. The fry seem not to mind and travel back and forth between the parental compartments at will.

My adult and juvenile parrot cichlids are not shy and are quite responsive, much like oscars. As juveniles, they eat anything (flakes, pellets, freeze-dried krill, frozen bloodworms, earthworms) with gusto — they are large and messy eaters and require power filtration.

I find that my adults are very picky and light eaters, surprisingly so for such large fish. The female prefers large, floating dried krill, which she takes carefully, one by one, from the surface. The male prefers Spirulina Discs (Wardleys and others), which, as the name suggests, is Spirulina algae-based. These are large, quarter-size green discs that sink. I feed three to four a day of either per fish (they both get both foods alternately), and that is all they seem to want.

I have often thought that part of the difficulty of spawning certain cichlids is the varying ages at which they mature. For instance, the jurupari eartheater, *Satanoperca (Geophagus) leucosticta*, judged by many as "challenging," but which I have spawned several times with different pairs, may need a full 2 years plus to reach maturity.

The parrot cichlid seems to need a long period of maturation. When I called Delores Schehr, the grandmother of my "psittacum" brood, to compare notes, she remembered that her pair, too, were about five years old before they began spawning. So I'm neither mistaken nor crazy! Well, at least not about this observation or strain of parrots.

John Gerritson (1992), in contrast, reported fertile spawnings from his Colombian *H. psittacus* — which grew from 2 inches to 9 to 10 inches in 18 months — probably two years post-spawn. He notes that "quite a few (of the approximately 200 eggs) fungused, probably due to the inexperience of the parents."

In closing, the real parrot cichlid is a majestic cichlid of breathtaking beauty that I recommend to all advanced new world hobbyists — well worth the trouble and expense to acquire and the difficulty and patience necessary to maintain and breed. And, that other parrot cichlid?

I say dealers and hobbyists alike should protest the creation of this biologically challenged monster by avoiding them like the plague. I wish no harm to the poor creatures themselves — it is obviously not their fault — but we as a group should register our displeasure at the obnoxious attempt to "make a buck at all costs" by boycotting the sale of this fish and telling our dealers why.

From the more commonly encountered cichlasomines, the severums, festivums and chocolate cichlids, and the somewhat rarer parrot cichlid, we move on to a group of South American cichlids that is generally unknown to any but the more hard-core, advanced New World cichlid hobbyist. These are the "false basketmouths," the three somewhat obscure species of the genus *Caquetaia*, which we will meet in another installment of "Goin' South."