

Silicon Valley Aquarium Society



Virtual Newsletter

June 2005

www.svas.info

Silicon Valley Aquarium Society

We meet on the 1st Saturday of each month at the

Round Table Pizza

4302 Moorpark Ave. San Jose, CA 95129
(Saratoga Ave. & Rt. 280)

Social hour is 6-7PM

Meetings start at 7PM

Each meeting features an expert speaker on various subjects that travels to San Jose to be educational and fun, and to add enjoyment and knowledge to your hobby.

After the program, the auction table is available for you to view upcoming items you may want to bid on; there are hundreds of aquarium fish, books, equipment and more.

Don't forget to visit the Bowl Show, and vote for your favorite entry, and feel free to ask about the types of fish on display.

To support the SVAS, and so we may continue to bring in the best speakers of any aquarium club in the U.S., often we fly them in from all over North America, please purchase RAFFLE tickets from Dennis, when your raffle number is called, you will have the choice of any item that is on the table of premium aquarium products. You may even win one of the 2 grand prizes.

During the auction, you will see many rare and unusual fish, great deals on aquariums and equipment. Please be generous on your bidding, because you know the tremendous value you are receiving, and you are supporting the SVAS, and all we do.

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The Silicon Valley Aquarium Society Board of Directors

Jay Rose	President
Chuck Rambo	Programs
Helen Holzgrafe	Secretary
Christine Bennett	Treasurer
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Sabrina Fullhart	Auction
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Elections for the BOD are in June and December.

The BOD meets at 5:30 on meeting nights, all SVAS members are encouraged to attend, get involved in the SVAS.

Please support these aquarium shops that support the SVAS

Aquatic Life Forms

1247 S. Mary Ave.
Sunnyvale
408-245-9600

Mainly Cichlids

3270 Keller St. Suite 103
Santa Clara
408-970-9188

Aquatic Variations

1774 Miramonte Ave.
Mountain View
650-961-3474

Natural Life Aquarium

305 Town Country Vill.
Sunnyvale
408-733-1399

Dolphin Pet Village

90 N San Tomas Aquino Rd.
Campbell
408-379-7600

The Fish Tank

1336 S. Mary Ave.,
Sunnyvale
408-736-7940

The Virtual Newsletter Editor – Jay Rose 408-506-3262

The Three Species of Rummy-Nose Tetras

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Randy Carey

Not all Rummy-Nose Tetras are created equally. Although the common name used by pet shops may say “Rummy-Nose,” be aware that three distinct species are sold as such. One week I found three distinct types at the same retailer and under the same common name. While the store was unaware and unconcerned of what it had, I gratefully added to my characin collection.

History

In 1924 an aquatic pioneer named Ahl described the original “Rummy-Nose” with the scientific name *Hemigrammus rhodostomus*. The specific name means “rose mouth” (from the Greek words *rhodon* + *stoma*). At first this species was seldom imported because of its frailty, breeding difficulty, and loss of red in captivity. It became more popular after World War II when aquarists realized it required pristine water with a low pH.

The second species was exported in 1956. It failed to attain a sizable place in the hobby since its red, though more permanent than that of *H. rhodostomus*, is neither more intense nor more extended. In 1964 French aquarists Géry ¹ and Boutiere described this indisputably distinct species as *Petitella georgiae*². It acquired the common name “False Rummy-Nose.”

As the fish export centers expanded and evolved, a newer “version” of *H. rhodostomus* became available. It was collected from farther inland than the previous Rummy-Nose. Not only is its red more intense and more permanent, but this rose color extends well past the gill. These exports bearing these new and improved features supplanted the demand for the previous two Rummy-Noses. Because of its superior color, this species is still the primary Rummy-Nose of pet stores.

In *Characoids of the World* ³ (1977), Géry illustrated the visual distinctions of the tail markings between the first two species. Elsewhere in this book he suggests that the new version of *H. rhodostomus* is actually a distinct species. For some time Géry was unable to formally describe this new form as a distinct species from *H. rhodostomus*. Lacking were the exact collecting locations as well as original *H. rhodostomus* specimens and materials. After Heiko Bleher conducted a thorough collecting expedition, Géry was able to establish that this new form was indeed a new species. As recently as 1986 and in the hobby publication TFH, Géry and Mahnert described *Hemigrammus bleheri*. The specific name was given in honor of Bleher to whom their research was indebted.

As an editorial comment to Géry’s and Mahnert’s description, TFH suggested the following common names for each of the three species: *P. georgiae* as the Black-fined Rummy-Nose, *H. rhodostomus* as the Banded Rummy-Nose, and *H. bleheri* as the Brilliant Rummy-Nose. Although these common names have been used, they have not attained wide circulation. Baensch still uses the older names: Rummy-Nose for *H. rhodostomus* and False Rummy-Nose for *P. georgiae*.

Confusion in Published Literature

Within much of the printed material used by hobbyists today, labels and references are erroneously attached to the wrong Rummy-Nose species. Part of the blame must reside with the exporting of *H. bleheri* as the commercial Rummy-Nose for twenty-some years before it was described. Aquarist and publishers assumed that their Rummy-Noses were *H. rhodostomus*. Even since the new description in 1986, many articles have failed to make the proper distinction. A word of warning: do not trust a Rummy-Nose photo with its caption.

A recent source that accurately portrays each of three Rummy-Noses is Baench's Aquarium Atlas (pgs. 273, 279, and 309). Compare its photos with the visual differences set forth later in this article.

Classification

Carey 98:] Since I wrote this article, the classification of tetras has undergone re-evaluation. I have been enlightened to some of the current issues involving the two subfamilies of the "Rummy-Noses," so this section "Classification" is my current rework of the topic.

While both *Hemigrammus* species are native to "black water" tributaries, *P. georgiae* is found in "clear water."^[7] *H. rhodostomus* is found well downstream of the Amazon and Orinoco river system. Conversely, the localities of *H. bleheri* and *P. georgiae* are confined to tributaries which are noticeably upstream off the Amazon. Note that *H. bleheri* (the fish described in 1986 and most commonly available in pet stores) is found at only one location—at the middle of Rio Negro.

In describing the third Rummy-Nose species, Géry assigned it as a *Hemigrammus* along with the original Rummy-Nose. According to Géry *Petitella georgiae* belongs not only to a different genus, but to a different subfamily. Of course this suggests that *P. georgia* has followed a noticeably different evolutionary path and coincidentally "happens" to look similar to the other two Rummy-Nose tetras. Such a conclusion should be questioned. ^[4]

I am not aware of any further study on the relationship of the three Rummy-Nose tetras with each other. The visual similarities are so striking that, for the time being, I believe they probably share a common ancestor unique to these three.

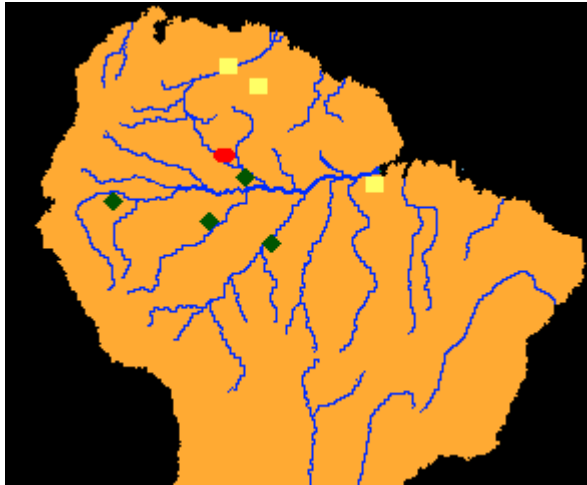
Indeed, the two *Hemigrammus* species are deemed "peripheral" to the genus.^[5] For instance, compared to *Hemigrammus*, the horizontal length of their anal fins is quite short and the number of anal hooks are low.^[6] So, perhaps the three don't belong to *Hemigrammus*, but wherever they ought to be classified, I suspect that the three belong together.

I later will discuss the visual distinctions. However, based on visual features, *H. rhodostomus* seems to be the middle species. In other words, in features where *H. bleheri* and *P. georgiae* differ, *rhodostomus* either shares those features with one or the other, or it shows a compromised marking between the two differences.

Given that Géry acknowledged that the two *Hemigrammus* are "unquestionably close," I would speculate that *P. georgiae* is a more primitive species and that *H. bleheri* recently speciated from *H. rhodostomus*.

Distribution

The following illustration displays the distribution of these three tetras. Apparently the natural habitat of each Rummy-Nose species does not overlap with the others.



P. georgiae
H. rhodostomus
H. bleheri

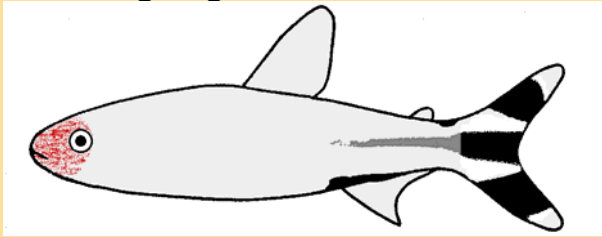
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A Fourth Rummy-Nose Tetra?

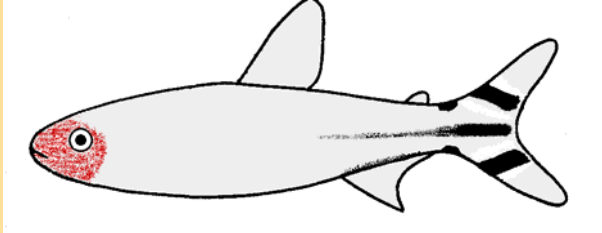
In their article[8] describing *H. bleheri*, Géry and Mahnert briefly discussed a few additional specimens. These came far upstream of the tributary system from which *H. bleheri* originates. These specimens were very close to *H. bleheri*. However, they considerably lacked the color of those specimens from the middle Rio Negro.

Furthermore, the authors say, a particular skull bone distinguished it from the two *Hemigrammus* species. Because not enough specimens and data were available, the authors refrained from any conclusion. They acknowledged that these specimens might be only a western population of the same species. This locality apparently is not a common source for pet store Rummy-Noses.

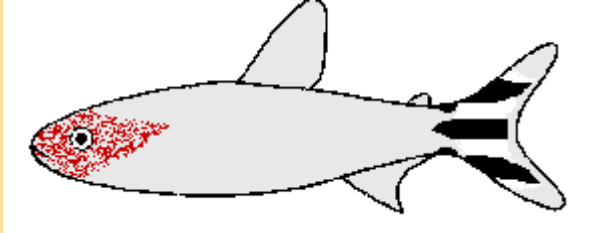
Petitella georgia



Hemigrammus rhodostomus



Hemigrammus bleheri



visual distinctions:

- **extent of red:** The red recedes well past the gill only on *H. bleheri*. However, this coloration is not permanent.
- **spots at caudal peduncle:** All three have a small black spot at the top of the caudal peduncle (the thinnest part before the tail), but only the two *Hemigrammus* species have one on the bottom.
- **black edging at base of anal fin:** It is dark on *P. georgiae*, light on *H. rhodostomus*, and absent on *H. bleheri*.
- **mid line leading into the caudal:** It is broad (and faint) on *P. georgiae*, narrower on *H. rhodostomus*, and virtually absent on *H. bleheri*.
- **bands on caudal:** Broad on *P. georgiae*, narrower on the *Hemigrammus* species. Least amount of white on *H. rhodostomus*.

The best scheme to differentiate the three species involves three features: the lower caudal peduncal mark, the extent of red, and the mid-body line leading into the center caudal bands. By observing the presence or absence of these three features, the aquarist should be able to determine the species. (Logically, only the first two features are needed, but the *extent of red* is too important to aquarist to omit from this chart.)

	lower caudal peduncle spot	mid- body line	red reaches well past gill
<i>Petitella georgiae</i>	absent	present	no
<i>Hemigrammus rhodostomus</i>	present	present	no
<i>Hemigrammus bleheri</i> (most commonly available)	present	absent	when in favorable water conditions

All three species bear a black spot on the upper edge of the caudal peduncle (see illustration). If a similar mark is missing on the lower edge, the species is *Petitella georgiae*. If the mark is present, check the coverage of the red.

If the red runs well past the eye and does not taper off until past the gill, then the species is *Hemigrammus bleheri*, the most commonly offered of the three. Unfortunately, if a *H. bleheri* is not in good condition, the red may recede toward the head, confusing it with *H. rhodostomus*. Thus, an additional feature is required for observation.

According to Gery, the black line on the posterior provides this distinction. Although not as dark as that on *P. georgiae*, the presence of this line signifies *H. rhodostomus*. In *H. bleheri* it is all but absent.

I would like to offer another observed distinction between the *Hemigrammus* species. *H. rhodostomus* exhibits thinner caudal bands—particularly the center one. If this center band has a width that could reasonably pass as a pencil’s line, then the specimen is probably *H. rhodostomus*.

These species exhibit other visual differences.^[9] An expert should be able to distinguish among the three by only the caudal markings. However, this requires memory of proportion and position. Furthermore *H. bleheri* differs from *H. rhodostomus* by having a more rounded “snout” and a slightly deeper body (not illustrated in the sketches).

Of course, many additional differences require closer examination, an option not readily available to the aquarist: Scale counts, dental configurations, jaw bones, et. al.

Spawning

According to the Baensch Aquarium Atlas, the spawning of *P. georgia* has not been described and is assumed to be difficult. The *Hemigrammus* species have been bred, but the task is considered difficult. All sources prescribe very soft water, a pH around 6, and the inclusion of “bushy” or “fine pinnate” plants. *H. rhodostomus* is reportedly easier to keep and breed. Still, the Rummy-Nose has the reputation of being a difficult spawner.

In a 1989 TFH article, Jiri Palicka offered a new element as he described his spawning success. He believed that aquarist were having difficulty because they assumed the Rummy-Nose spawned like most other Characidae. Rather than scatter their eggs, they “literally hang them up” on plants just below the surface. This is a similar behavior to that reported of some *Nannostomus* (Pencilfish). Furthermore, this species spawns after dusk.

Here is how that author repeatedly bred his Rummy-Nose Tetras: [\[10\]](#)

A 7 gallon tank is covered with black plastic on three sides and on the lower part of the fourth. A fern bunch is secured (securing is important) near the uncovered side. Demineralized water is treated with peat and carefully modified with sulfates and phosphoric acid. Calcium inhibited spawning and increased mortality among the fry.

Contrary to previous suggestions, Palicka lowered the pH to only 6.6-6.7 and the temperature was a quite low 68-72 degrees. At night time a 15 watt light scatters just enough light for the fish to see the plants but not enough to find the eggs after spawning.

The male begins his flirting about a half hour after dark and spawning continues all night long. The female deposits less than five adhesive eggs each time with a night's production of 450-500. Embryos develop in 18 hours at 75 degrees. The fry can eat newly hatched brine shrimp as first food.

My Specimens

I purchased eight *Petitella georgiae* and placed them in 10 gallon tank of about 80% reverse osmosis water and 20% water-softened water. I initially added black water extract, however this species is native clear water. The temperature is kept around 77 degrees, pH near 6.5. Within a couple of days four of the *P. georgiae* died, but I have lost none since. Judging from the size of the underbelly, I have two females and two males. With the current water conditions little or no red shows, but the fish are lively.

In the same tank are three specimens of what I assume to be *H. rhodostomus*. Their caudal markings perfectly match this species, but their posterior lines are too subdued to be classic examples. Perhaps they are the undefined *H. bleheri* aff. Two are females and the other a male.

None of these displayed much red when I first purchased them. I cannot explain it, but while one female still shows virtually no red, the other two display a solid red confined to the head. I recently used this pair in a spawning attempt. No eggs were found, but the watersprite was clearly disturbed.

All of these fish were timid at first. After a couple of weeks of acclimation, they now swim gregariously to the tank front to greet me when I come near. Perhaps it is in anticipation of my generous feedings of baby brine shrimp twice a day.

Of course I am keeping the common *H. bleheri*. They are kept in a 50 gallon community comprised of mostly characins. With water that is quite soft and slightly acid, these Rummy-Noses optimally display their colors of red, black, and white—textbook specimens. Perhaps these fish are younger than those of my other species, but I find them harder to distinguish between males and females.

[addendum '98:] I recently picked up a school of the common Rummy-Noses (*H. bleheri*) in a trade with a wholesaler. The red was so washed out that I thought they might be *rhodostomus*. The wholesaler said he was losing lots so he just gave them to me.

I put them in a tank with mostly r/o water and a pH around 6. I lost only one. Within a day they were swimming actively and sporting much more red. I suspect the problem most wholesalers and stores have with Rummy-Noses and many other “delicate” tetras is that they keep them in their tap water.

The pet industry has dubbed these fishes as “Crummy-Noses” since many die in transit. Were it not for their spectacular appearance and tight schooling formations, the stores would not bother to carry Rummy-Nose Tetras—or should I say *Hemigrammus bleheri*.

For some, a Rummy-Nose by any other name is still a Rummy-Nose. But as I said at first, not all Rummy-Noses are created equally.

Message from the President

Happy Birthday to Us!...

May 2005 is our 3rd Anniversary. We have accomplished so much, we have grown so much, but not too much to do the little things right that has gotten us here, like making new members and visitors welcome, like making sure the members get the best programs available, like adjusting the auction splits to accommodate our membership. We've never raised the membership prices, we made things easy by referring to your membership number, and standard annual renewals, where are you going to get as much hobby related entertainment for a dollar a month? **SVAS!**

Future Speakers

Confirmed speakers for 2005

July	Steve Lundblad Lake Malawi Cichlids
September	Phil Benes Austrailian Rainbows
October	no speaker MEGA AUCTION IV
December	Oliver Lucanus New fish in the hobby