

Year of the Rainbowfish

A monthly column about Rainbowfish by Derek Tustin



The Other Sahul Species

In the last three editions of this column, I have had the convenience of writing on one genus of fish each time. Each one had more than 9 species in it, and most people are relatively familiar with the general appearance of the different genera.

However, this month, I will be trying to address 22 species over seven different genera under two families. (Remember, Sahul refers to this historical continent that contained both present day Australia and present day New Guinea.)

With the exception of the *Pseudomugil* genus, the *Iriatherina* genus and possibly the *Rhadinocentrus* genus, most people will not be familiar with any of these genera. With the exception of some *Pseudomugil* species and *Iriatherina wernerii* (the sole species in the genus), they are not locally available, and many are not available in the hobby at all.

Members of the *Melanotaeniidae* family

Cairnsichthys

(1 species – *Cairnsichthys rhombosomoides*)

Literally “Cairns’ Fish” (Cairns = Cairns + ichthys = Latin “Fish”), this beautiful species is only found in several streams and rivers in the mountain ranges east of Cairns in northern Queensland, Australia. It is believed that the current distribution of the species is the remains of a much wider distribution that has been reduced over time due to environmental changes.

Due to the limited geographic distribution, this species has a restricted conservation status in Australia (“a species which is not presently in danger, but which occurs in restricted areas”) and is considered Vulnerable (“a species facing a high risk of extinction in the wild in the medium term future”) by C.A.R.E.S. This species is not available in North America, and as such no members of DRAS are keeping this species.



Iriatherina

(1 species – *Iriatherina wernerii*)

These beautiful fish are very often available locally, and are probably the most popular Rainbowfish in the aquarium hobby outside of *Melanotaenia*, *Chilatherina* and *Glossolepis*. First discovered in 1973, they are undoubtedly the most delicate appearing of all Rainbowfish.

They originate from both Australia (northern Queensland) and in New Guinea, but there are subtle differences between specimens originating in different locations. (Interestingly, Rainbowfish hobbyists usually insist on identifying the same species from different locations by adding the locality name after the species name, e.g. *Melanotaenia misoolensis* ‘Gam River’. This does not seem to be the case with *Iriatherina wernerii* even though there are differences between populations originating in different locations.)



While they are relatively easy to breed, raising the resulting fry can be difficult given their small and reticent nature. The main difficulty seems to be in the days immediately following hatching when it is difficult to get the fry sufficient live food. There are various suggestions on the internet, with one of the most recommended being green water.

They are not listed on the C.A.R.E.S. Conservation Priority Species at Risk List, many DRAS members have kept this species over the years, and they are often available both at monthly auctions and in local fish stores. For further information on this species, you may want to check out the dedicated website, www.iriatherina-weneri.com, written and designed by Bernd Jung, a hobbyist dedicated to this wonderful little fish.

Pelangia
(1 species – *Pelangia mbutaensis*)

Found only in Lake Mbuta (which is actually a swampy basin), this fish is the sole species of the most recently discovered and described genus of Rainbowfish. *Pelangia*, the genus name, is actually an Indonesian word for “rainbow”.

Pelangia share various common characteristics with the *Glossolepis* genus, but have enough differences to be considered a separate genus. No live specimens have ever been gathered for the aquarium hobby and not much is known about their status in the wild.



Rhadinocentrus
(1 species – *Rhadinocentrus ornatus*)

Ever find a picture of a fish that you would love to keep, but despair that you will never get the opportunity too? Well, I sometimes feel that way (even though I have had some success in getting *Melanotaenia oktediensis* – more on that in November), so to add to that, I present to you a truly gorgeous fish that we will probably never see outside of photographs.

While abundant in Australia and kept by many, many Australia aquarists in the southern Queensland and northern New South Wales areas, they are extremely rare in North America.

While only a single species, there are a wide variety of colour variations. Should you ever be lucky enough to find any at an auction, I would highly recommend you pick them up.



Member of the *Pseudomugilidae* family

Kiunga

(2 species – *Kiunga ballochi* and *Kiunga bleheri*)

The *Kiunga* genus contains only two species which are very similar, differing only slightly in scale and fin ray count. While only *K. ballochi* appears on the C.A.R.E.S. Conservation Priority Species at Risk List as Critically Endangered (“a species facing an extremely high risk of extinction in the wild in the immediate future”) it is likely that *K. bleheri* is also at risk. Interestingly, *K. ballochi* was lost to science for a period of time with 37 sites being sampled and no specimens being found. In 1994, while searching for *K. ballochi*, Charles Nishihira discovered *K. bleheri*. (*K. ballochi* has since been found once again.)



Both fish are from the Kiunga region of Papua New Guinea and are relatively small (about 3 centimetres in size). While both are available in the hobby, they are not available in North America.

Pseudomugil – The Blue-Eyed Rainbowfish

(15 species – see attached chart for details)

Of all the species of commonly kept Rainbowfish, the Blue-Eyes are the ones I am least qualified to present. Although they have the second highest number of species of all the Rainbowfish genera, I have never kept them, although several members of DRAS (George Banavage being one) have.



There are fifteen known species inhabiting a variety of habitats in both Australia and New Guinea.



They are found in freshwater as well as brackish conditions, and some are known to inhabit blackwater. Their native habitats tend to be defined by slow moving or still water. The name “Blue-Eye” derives from the distinctive colouration of the eye itself. They tend to be rather small with streamlined bodies, small mouths and (for the most part) colourful finnage. Unfortunately, their life span is short, averaging 3 years although some specimens have been known to live for 5 years. Therefore, if you do acquire them, you should initiate breeding attempts as soon as possible.

One species, *Pseudomugil mellis*, is

listed by C.A.R.E.S as endangered (a “species facing a high risk of extinction in the wild in the near future”). Unfortunately this species is not available in North America. Actually, very few species of *Pseudomugil* are to be found in Canada or the United States, although you may be able to find *Pseudomugil furcatus*, *P. gertrudae* or *P. signifier*.



They are a wonderful group of fish that are underappreciated in the hobby. If you do have the chance to keep them (and do your homework first) they are apparently a wonderful addition to any

Scaturiginichthys
(1 species – *Scaturiginichthys vermeilipinnis*)

While listed as Critically Endangered by C.A.R.E.S. (“a species facing an extremely high risk of extinction in the wild in the immediate future”) and not available in the hobby globally, this last species of fish is perhaps the most interesting of them all.

It is only found in a small number of artesian springs near a sheep and cattle property (Edgbaston Station) located in central Queensland. There are about 30 artesian springs located at Edgbaston Springs that have permanent water, with water depth ranging from 3 cm to 50 cm. These springs have created a wetland in the middle of an inhospitable area, but cover only about 8 square kilometers. In these small bodies of natural water, there are several species of endemic fish and invertebrates. One of these is *Scaturiginichthys vermeilipinnis*.



They were first discovered in 1990, and are Australia’s smallest freshwater fish (reaching a maximum size of 2.8 centimetres). Unfortunately, they are also Australia’s most endangered freshwater fish. Water has been harvested from the Great Artesian Basin, which is the source of water for the Edgbaston Springs. With the reduction in the water available from the basin, several springs have dried up and others are in danger as well. However, there are programs in place to restore the water in the basin by capping wells to ensure that artesian water pressure remains high, maintaining the springs.

Put then again... *Gambusia holbrooki*, or the mosquitofish, has been introduced in that area as well as other areas of Australia. For those of you not familiar, *G. holbrooki* is a small fish native to the southeastern United States. Somewhere in Australia’s past it was decided to import and release this fish in an ill-conceived notion to control mosquito populations. Unfortunately, they also became an invasive species resulting in the endangerment of various species of native Australian Rainbowfish. So even if they manage to stabilize and ensure the existence of *S. vermeilipinnis* native habitat, they still have to address *G. holbrooki*.

That’s All...

So that covers all the other fish of Sahul that are considered to be Rainbowfish. With the exception of the threadfin Rainbowfish (*Iriatherina wernerii*), *Rhadinocentrus ornatus*, and some species of *Pseudomugil*, they aren’t available to us as Canadian or North American aquatic hobbyists, but they are still beautiful little creatures, and knowledge of them helps round out knowledge of Rainbowfish in general.

Next Month...

In addition to the true Rainbowfish discussed so far, there are two additional species of fish that some also classify as Rainbowfish. These are the *Telmatherinidae* family of fish (native to Sulawesi) and the *Bedotia* genus of fish. Even though there is some division in opinion regarding their legitimacy of them being Rainbowfish, many in the hobby consider (or at least refer to them) as such, so they are worth a look.

Cairnsichthys

The Fish from Cairn's (Cairns = Carin's + ichtyhs = Latin "fish")

Species	Origin of Name	Year	Origin	Maximum Size		Water Temperature				pH		Availability in Canada
				cm	inch	°C		°F		Low	High	
<i>rhombosoides</i>	Rhombus Shaped (rhomboides = Latin "shaped like a rhombus")	1928	Australis	10	4.00	15	29	59	84	4.5	8.5	Unavailable

Iratherina

Iridescent Silverside (iris = Latin "iridescent" + atherina = Latin "silverside")

Species	Origin of Name	Year	Origin	Maximum Size		Water Temperature				pH		Availability in Canada
				cm	inch	°C		°F		Low	High	
<i>wernerii</i>	Dr. Arthur Werner (German ichthyologist)	1974	Australia & Papua New Guinea	5	2.00	22	30	72	86	5.2	7.5	Common

Pelangia

Indonesian word for "rainbow"

Species	Origin of Name	Year	Origin	Maximum Size		Water Temperature				pH		Availability in Canada
				cm	inch	°C		°F		Low	High	
<i>mbutaensis</i>	From Lake Mbuta (Mbuta + ensis = Latin "from")	1998	Papua New Guinea	6	2.25	22	28	72	82	6.8	7.8	Unavailable

Rhadinocentrus

Fragile Middle (rhadino = Latin "fragile" + centrus = Latin "middle")

Species	Origin of Name	Year	Origin	Maximum Size		Water Temperature				pH		Availability in Canada
				cm	inch	°C		°F		Low	High	
<i>ornatus</i>	Beautiful (ornatus = Latin "beautiful")	1914	Australia	8	3.00	8	32	47	90	3.9	6.8	Very Rare

Kiunga

From Kiunga, New Guinea

Species	Origin of Name	Year	Origin	Maximum Size		Water Temperature				pH		Availability in Canada
				cm	inch	°C		°F		Low	High	
<i>ballochi</i>	David Balloch (biologist with the Ok Tedi Mining Company)	1983	Papua New Guinea	3	1.25	24	26	75	79	7.0	8.0	Unavailable
<i>bleheri</i>	Heiko Bleher (German ichthyological explorer)	2004	Papua New Guinea	3	1.25	24	26	75	79	7.0	8.0	Unavailable

Scaturiginichthys

Spring Fish (scaturiginis = Latin "spring + ichtys = Latin "fish")

Species	Origin of Name	Year	Origin	Maximum Size		Water Temperature				pH		Availability in Canada
				cm	inch	°C		°F		Low	High	
<i>vermeilpinnis</i>	Red Fins (vermeil = old French "red" + pinnis = Latin "fins")	1991	Australia	3	1.25	14	30	57	86	7.8	8.0	Unavailable

Pseudomugil

False Mullet (pseudo = Latin "false" + mugil = Latin "mullet")

Species	Origin of Name	Year	Origin	Maximum Size		Water Temperature				pH		Availability in Canada
				cm	inch	°C		°F		Low	High	
<i>connieae</i>	Connie (Lagos Allen (wife of Australian ichthyologist Dr. Gerald Allen))	1981	Papua New Guinea	6	2.25	24	27	75	81	7.7	7.9	Unavailable
<i>cyanodorsalis</i>	Blue Back (cyan = Latin "blue" + "dorsal = Latin "back")	1983	Australia	4	1.50	22	31	72	88	7.5	8.0	Unavailable
<i>furcatus</i>	Forked (furcatus = Latin "forked")	1955	Papua New Guinea	6	2.25	24	28	75	82	7.0	8.0	Rare
<i>gertrudae</i>	Gertrude Merton (wife of German naturalist Dr. Hugo Merton)	1911	Australia & Papua New Guinea	4	1.50	25	30	77	86	6.0	6.5	Rare
<i>inconspicuous</i>	Inconspicuous (inconspicuous = Latin "inconspicuous")	1978	Australia & Papua New Guinea	4	1.50	22	27	72	81	5.2	6.7	Unavailable
<i>ivantsoffi</i>	Walter Ivantsoff (Australian ichthyologist)	1999	Papua New Guinea	3	1.25	24	28	75	82	6.7	7.8	Unavailable
<i>majusculus</i>	Somewhat Larger (majusculus = Latin "somewhat larger")	1984	Papua New Guinea	5	2.00	20	28	68	82	7.0	7.8	Unavailable
<i>mellis</i>	Honey (mellis = Latin "honey")	1982	Australia	4	1.50	22	30	72	86	4.4	6.8	Unavailable
<i>novaeguineae</i>	New Guinea (novae = Latin "new" + guineae = Guinea)	1908	Papua New Guinea	5	2.00	26	30	79	86	6.5	8.0	Unavailable
<i>paludicola</i>	Swamp Dweller (palus = Latin "swamp" + cola = Latin "inhabits")	1981	Papua New Guinea	5	2.00	26	30	79	86	7.0	8.0	Unavailable
<i>paskai</i>	John Paska (New Guinea Ministry of Fisheries employee)	1986	Papua New Guinea	3	1.25	22	26	72	79	6.0	6.5	Unavailable
<i>pellucidus</i>	Transparent (pellucidus = Latin "transparent")	1998	Papua New Guinea	4	1.50	24	28	75	82	6.7	7.8	Unavailable
<i>reticulatus</i>	Reticulated (reticulatus = Latin "reticulated" / "net-like")	1986	Papua New Guinea	4	1.50	24	28	75	82	7.0	8.0	Unavailable
<i>signifer</i>	Descriptor (signifer = Latin "sound or appearance used to define or identify something")	1966	Australia	7	2.75	23	28	73	82	5.5	7.8	Rare
<i>tenellus</i>	Delicate (tener = Latin "soft or delicate")	1964	Australia & Papua New Guinea	6	2.25	25	30	77	86	6.0	7.2	Unavailable

