

the

cichlid

monthly

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Victorian Cichlid Society
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- Danny Genovese, Daryl Hutchins and
- John McCormick.

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FISHY BUSINESS

THE NEXT MEETING of the Society, sponsored by **Fishy Business**, will be held on the first Wednesday of the month at 8 pm sharp (the Trading Table opens earlier) in the Mitcham Scout Hall, Brunswick Road, Mitcham.

Visitors are very heartily encouraged to come along and join in.

Fish of the Day: Uaru's.

MAIN TALK: Ad Konings tour epilogue and Auction preparation.

DOOR PRIZES: Aqualife.

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1. \$60 Fishy Business Voucher.
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TABLE SHOWS: Details see page 6.

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COVER PICTURE:

Cynotilapia afra
 Cobwe -- David Green.

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Aims of the Society:

The Victorian Cichlid Society was formed by cichlidophiles in March 1972, thus becoming the first specialist aquarist group in Victoria. Its main aims are:

1. To promote the keeping of cichlids;
2. To gain and disseminate knowledge of cichlids, their habits and attributes through the use of slides, films, books, lectures, practical demonstrations, local and overseas magazines, articles by members and discussions with fellow members or experts in the field;
3. To assist, in any way possible, the establishment and/or maintenance of approved public aquaria;
4. To be involved in the education of the general public with regard to the benefits of fishkeeping (particularly cichlids), and the potentially harmful effects of animal mismanagement;
5. To promote fellowship between members;
6. To further the conservation of species and their natural habitats;
7. To further the identification, distribution, breeding, maintenance and enjoyment of species in the Family Cichlidae.


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NB: Please note that the opinions expressed in this publication are those of the authors, and are not necessarily those of the Editor of TCM or the Committee of the Victorian Cichlid Society Inc. You are encouraged to write to, or e-mail the Editor on any subject raised herein.

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REMINDER:
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 some serious
 consideration
 to participating
 in this year's
**Home
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 which will be
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Rowemin' 'round

Welcome back on board. I have been restricting flights due to increased mothball prices. However, I have finally negotiated a favourable deal with Moreteen, so this flight is the Moreteen Magic Carpet Ride and the slogan is "No frills, no spills, more fun, Moreteen".

Whilst we have been grounded there has not been an increase in invitations. Maybe due to authors going green from too many mothballs and preserving their reserves of ink cartridges. I do not believe they have been doing a Kev07 and composing an apology to their Editors for their inability to do the right thing and protect these forgotten people.

Our only stopover is in response to a triple invitation from Sunshine Coast AS through their June, July and August issues of 'Sunfish'. Stu Wools-Cobb has asked members how long is it since they kept and bred "The Kribensis". He explains how he keeps and breeds them and is the proud owner of a headache after attempting to count the 92 fry they produced.

We did receive some non-cichlid invitations but MoreTeen would not subsidise trips to dangerous territory (à la Cricket Australia and Pakistan):

- 'Finchat' Aquarium Soc of Victoria.. .July, Sept, Oct and Nov;
- 'Fishtales' Eastern Districts AS July, Sept, Oct and Jan;
- 'Sunfish' Sunshine Coast AS Apr, Sept, Oct, Nov and Feb;
- 'Aquarium World' Fed of New Zealand AS Aug and Nov.

The one area that was worthwhile was the Must-Read In-Flight Literature, or MRIFL for our regulars. There was so much of this that not even the speediest reader of our clientèle could have digested all the valuable information contained therein on such a brief journey.

MRIFL:

- 'Cichlid Evening Post' Great Lakes CS June, Aug, Sept, Oct and Jan;
- 'Perth CS Newsletter' Perth CS. July, Aug, Sept, Oct, Dec and Jan;
- 'Cichlid Circular' New South Wales CS Aug and Nov;
- 'Superfish' Queensland CG July-Sept and Oct-Dec;
- 'All Cichlids' Michigan CA. July, Aug, Sept, Oct, Nov and Dec.

I trust that all authors will put into practice what those apologies were meant to convey.

Until our next Magic Carpet Ride ... may the Angel and Devil and their cronies be with you.

Graham

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Table Show Calendar 2008

	<u>K Archibald Show</u>	<u>K Patford Show</u>
January	n/a	n/a
February	Any American	Any African
March	Any American	Any African
April	Any American	Any African
May	Any American	Any African
June	Dwarf Americans	Dwarf Africans
July	Any American	Any African
August	Pairs (American)	Pairs (African)
September	Any American	Any African
October	Any American	Any African
November	Any American	Any African
December	Any American	Any African

NOTE: Asian and Madagascan Cichlids may be entered any time, but must meet the special requirements in June (dwarfs) and August (pairs).

2008 VCS Calendar

Meeting	Committee	Home Show	Auction	Art & Photo	Dinner
January	No meeting	TBA			
February	6	15			
March	5	14			
April	21 (Sat)	11	21		
May	7	16	25 (Sun)		
June	4	13			
July	2	11			
August	6	15			?
September	3	12	VHS Deadline (12th)	3	
October	4 (Sat)	10	4		
November	5*	14			
December	3	Jan 09 (TBA)			

* Video Home Show results announced.

◀ A G M ▶

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Aquatic plants:

Java Moss

By Allen Jesson

Picture: Daryl Hutchins

A thick mat of Java Moss growing from a waterlily pot in the photographer's pond. Note emerging plants at the top which are firmly attached to the vertical surface.

Java Moss is a very popular aquarium plant since it will adapt to most conditions and require a minimal amount of maintenance. Its scientific name is *Vesicularia dubayana* and it comes from the waters of Java, Malaysia and India. Java Moss is a so-called sleeper moss and can be found in the family Hypnaceae. It

forms very small green leaves that rarely grow bigger than 4 millimetres. The leaves grow in pairs on each side of the stem.

Many fish species from all over the world like to spawn among Java Moss plants in the aquarium even when Java Moss can not be found in their native habitat. Java Moss

will also provide fry with an ideal hiding place where they can avoid being eaten by adult fish. Since infusoria appreciate Java Moss as a home, really small fry will have access to tiny food that they can feed on until they are large enough to eat bigger food types.

Java Moss does not have to be planted in the

substrate; you can simply tie it to a piece of aquarium decoration or leave it floating around in the aquarium. A free-floating piece of Java Moss can however be sucked into the filter, so most aquarists prefer to attach the Java Moss to something or plant it in the substrate. Java Moss can actually do well even above surface as long as the air is moist. It is therefore a great plant for open aquariums and paludariums.

When you attach the Java Moss to rock, wood or any other type of aquarium decoration you can for instance use fishing wire. Be careful not to use materials that can pollute the water, eg: copper wire. The Java Moss will start growing small roots (so-called rhizoids) and try to attach itself to

the surface. After a while, the fishing wire is no longer needed since the plant will be secured by the rhizoids.

Java Moss is a very fast growing plant, and when you have purchased one plant you can easily use it to create new plants for other parts of the aquarium. Java Moss can be propagated by simply splitting the plant and moving one of the parts to another place. The Java Moss will often propagate itself in the aquarium since small pieces will fall of the main plant and drift around in the water until they find a new place where they can attach themselves. The Java Moss will also form red-brown sporocarps.

Java Moss will endure a wide range of different water conditions and temperatures. It is native to

warm waters and the preferred temperature range is therefore 18°-30°C. It will also appreciate a pH between 5.8 and 8.0 but can sometimes adapt to more acidic conditions. Unlike many other tropical plants, Java Moss does not require strong light and it will actually do best in low or medium strong light. Algae can be a problem for the Java Moss since excessive algae growth on the leaves can harm and even kill the plant.

Article source - www.articles-hub.com.

About the Author:

Allen Jesson writes for several sites including two sites that specialise in saltwater and freshwater aquariums (www.saltwaterfreshwateraquarium.com) and the aquarium site (www.theaquarium-site.com) and Seapets.

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Those Were The Days

By Daryl Hutchins

In the Mini Auction at the February meeting I was the lucky bidder on a February 1944 copy of 'The Aquarium'. It makes fascinating reading 64 years on.

I was so impressed by some of the advertisements, I just had to share them here.

Check out this guy on the right ... he will fix your heater for a dollar and pay the return freight!

When I read the lower one, I even attempted to see if the Innes Publishing



Company still exists. If it does, it has not left a forwarding address ... and the Philadelphia Convention Centre now stands where Twelfth

Street used to cross Cherry.

Aaaah yes ... those certainly were the days my friends! 🐟

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IN RESPONSE to years of persistent requests we have decided to sell sets of prints of the color subjects appearing on the covers of THE AQUARIUM.

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Solution to Last Month's Crossword

Across

1. ACID
4. AULONOCARA NYASSAE
9. DORSAL
10. EGYPTIAN MOUTHBROODER
12. SCALES
13. GUAPOTE
16. FULU
19. PCS
20. TOP
21. DOLPHIN
22. ICH
23. HEATER
27. FLAKE
32. ANAL
33. LAETACARA CURVICEPS
35. FIN
36. HYBRID
38. TAIL
39. MIDAS
40. SHELL
41. SCAT
47. FINS
48. OIL
49. NSWCS
50. CYCLOPS
53. TEXAS
54. KRIB
55. SAND
58. DISCUS
59. ANGELFISH
63. HORNET
65. MBUNA
66. MALAWI
67. FILTER
69. CONVICT
73. HEMICHROMIS
74. TILAPIA
80. JAGUAR
81. NANDOPSIS FACETUS
85. BAY SNOOK
88. PUMP
89. FLY
92. AMAZON
93. CATFISH
94. ELECTRIC BLUE

95. CENTRAL

96. CYRTOCARA MOORII

Down

2. DIATOM
3. MULM
5. CAUDAL
6. SNAIL
7. BLACKBELT
8. CHROMIDE
11. GILLS
14. BUNTBARSCH
15. SPIRULINA
17. UARU
18. METRIACLIMA ESTHERAE
24. MELANOCHROMIS DIALEPTOS
25. ALGA
26. PELVICACHROMIS PULCHER
28. RED
29. NAUPLII
30. TUBIFEX
31. TELEOGRAMMA BRICHARDI
34. ALGAE
37. CICHLID
42. POND
43. CONGO
44. DWARF
45. OSCAR
46. VCS
47. FLAG
51. CHAMELEON
52. PIKE
56. TERROR
57. CICHLIDAE
60. GH
61. PERCH
62. BLACKWORMS
64. DAPHNIA
68. QCG
70. NET
71. RIO
72. PH
75. ACA
76. PTEROPHYLLUM
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Question: My Convict Cichlid's Name Is?

A New Monograph May Change Everything – Part I



By **Wayne S. Leibel**

Department of Biology, Lafayette College, Easton, PA 18042
• leibelw@mail.lafayette.edu

Photographs by **Rusty Wessel**



Thorichthys, like *Archocentrus*, was one of Miller's eight sections of "Cichlasoma".

Answer: The short answer to the title's question – *Amatitlania nigrofasciatus*. Maybe. Say what? (And if you are keeping Jack Dempseys, try – *Rocio octofasciata!* Huh? Say why?)

In a nutshell, a newly published monograph by Juan Schmitter-Soto (2007) suggests, among other things, the creation of new genera for each of these fish. If you do not want to read the complete, long (-winded) explanation, please skip immediately to the overview of these suggested nomenclatural/taxonomic changes at the end. But if you do, here is the long answer – at least the first part of it.

A Short History of the Genus *Cichlasoma* and its Current Status

Once upon a time in our great hobby (and science), they were ALL known as *Cichlasoma* ... including everyone's favourite, the Convict Cichlid (now ex-*Cichlasoma nigrofasciatum*). But in 1983, 25 five years ago, ichthyologist Sven Kullander restricted usage of the genus name *Cichlasoma* to a suite of 12 cichlids, the "Port" cichlids. Some of them – including THE Port Cichlid (*portalegrensis*), had been formerly placed in the genus *Acara* Heckel, 1840 by the original spe-

cies describer Hensel (1870), and later moved into the genus *Aequidens* Eigenmann and Bray 1894 when *Acara* was sunk. The type species for the genus *Cichlasoma* designated by its describer, Swainson, in 1839, had been *Labrus bimaculatus*, the "Black Acara", described initially by Linnaeus in 1758. The diagnostic differences between this fish, and *Acara* (*Aequidens*) *portalegrensis* Hensel, 1870, the "Port Cichlid", were minor, in particular four versus three spiny rays in the anal fin. Kullander (1983) correctly lumped these two and 10 other "Port" Cichlids, both already

known and several newly described, together. Since the description of *Cichlasoma* (*Labrus*) *bimaculatum* (Linnaeus, 1758) had historical precedence over *Aequidens* (*Acara*) *portalegrensis* (Hensel, 1870), the Port Cichlids all became *Cichlasoma* species. In so doing, Kullander redefined the genus *Cichlasoma* and restricted its usage only to the "Port" Cichlids. The fallout from this systematic and taxonomic rearrangement was that the rest of the very many species previously classified in the genus *Cichlasoma* Swainson, 1839 became nomenclatural orphans pending review of their

systematic relationships. However, this was slow to come (and still coming) and created some havoc in how we referred to these fish.

Initially, several noted cichlid ichthyologists, including Kullander himself and Melanie Stiassny at the American Museum of Natural History, advocated usage of the genus name "*Cichlasoma*" in quotes to designate their current unresolved and pending status. Others suggested usage of what subsequently became "oldest available" genus names like *Heros* Heckel, 1840 first, and then *Herichthys* Baird & Girard, 1854 and, for a while, many aquarists and

ichthyologists alike did so (see Loiselle, 1985, 'The Cichlid Aquarium', first edition, where he uses *Heros*). That is, until Kullander (1986) subsequently restricted the genus *Heros* to the South American "severums" and began describing and resurrecting or creating other genera for the South American ex-*Cichlasoma* (eg: *Caquetaia*, *Hoplarchus*, *Hypseleacara*, *Mesonauta*, more recently *Australoheros*, etc). 'TFH Magazine' issues and cichlid books of this period (eg: H. Axelrod, 'Lexicon of Cichlids') instead used *Herichthys*, the next "available" genus name. Still oth-



The Jack Dempsey, whose taxonomic history has been one of continued reclassification at the genus level, finally gets its own genus *Rocio* (*octofasciata*) in Schmitter-Soto's revision.

ers advocated suggestions made previously by, among others, ichthyologists C. Tate Regan (1905) and later Robert Rush Miller (1966), that acknowledged the inadequacy and artificiality of the original genus *Cichlasoma*. They both had advocated, pre-Kullander (1983), breaking *Cichlasoma* up into natural subgenera or "sections": respectively (eg: Miller's 8 Sections: *Amphilophus*, *Archocentrus*, *Herichthys*, *Nandopsis*, *Paraneotroplus*, *Theraps*, *Thorichthys*, and *C. incertae sedis* ["of uncertain position"]). (The second edition of Loiselle's book (1994) rightly abandoned *Heros*, after Kullander (1986),

for these more correct subgenera.) The original genus *Cichlasoma* Swainson 1839 had been based on a relatively small number of superficial and evolutionarily uninformative morphological characters (eg: more than three spiny anal fin rays for one, conical or cylindrical teeth for another) and as a result was a "catch all" for a diverse and relatively heterogeneous group of cichlids.

Most recently, Kullander (2003) incorporated many of these suggested "natural groups" into his checklist of cichlids. He recognises as distinct genera in the tribe Heroini (after *Heros*): *Amphilophus*, *Archocentrus*, *Herich-*

thys, *Herotilapia*, *Hypsophrys*, *Nandopsis*, *Neotroplus*, *Parachromis*, *Paraneotroplus*, *Petenia*, *Theraps*, *Thorichthys*, *Tomocichla*, *Vieja*, and '*Cichlasoma*' sp *incertae sedis*. Of these, the Firemouths, *Thorichthys* species, were among the better-defined "natural" groups. Our Convict Cichlid (*nigrofasciatum*) was quickly moved from *Cichlasoma* to *Archocentrus*. Our poor Jack Dempsey (*octofasciatum* or *biocellatum* depending on who you read), on the other hand, was of uncertain affinity and moved from group to group depending



This Convict Cichlid (female) has been placed in its own genus, *Amatitlania*, by Schmitter-Soto (2007).

on interpretation (eg: *Nandopsis*, *Parapetenia*, *Archocentrus*, and, of course, "*Cichlasoma incertae sedis*").

So What Does This All Mean?

It is all us humans' attempt to confer order on our world, to name and compartmentalise things, in this case, living things, more specifically, cichlid fish. So how is this done? Imagine you are a Martian visitor who lands on the shores of Lake Nicaragua and wonders what might be living in that vast lake-sea. You take out your seine and cast net, or the Martian equivalent of them, and, with another green, cat-eyed partner, start scooping

out all the living things you can catch and piling them on shore. What do you have? Well, among the many diverse organisms wriggling in the pile, you notice many of them have "blade-like" appendages and are scaly, so you pull all of those out and put them in their own pile because of these two shared features. You notice that among these finned and scaled organisms, they sort into ones with elongate bodies and ones with round bodies, so you put them into two distinct piles. The pile with the elongate organisms has individuals that are red or blue or yellow, and so you make three more sub-piles. You do the same with the round-

bodied ones, so now we have six piles.

What we have done is to sort this group of unknown organisms (fish) into groups based on visible characters that we have decided constitute important differences. Our choices of diagnostic characters defining the piles may or may not be good ones, and the finned, scaled organisms may not really be "related" in a way that reflects our subjective choice, but, nevertheless, we have conferred some order to this group we call "fish". We might even label the piles, giving the organisms within each pile a "name" (eg: elongate, finny, scaly things that are blue; round, finny, scaly things



This *Cryptoheros nanoluteus* from Panama is placed in the subgenus *Bussingius* by Schmitter-Soto (2007).

that are red, etc.) What we Martians have just done is to *classify* these organisms and to *name* them. In other words, we have practiced what biologists call *systematics* (ordering) and *taxonomy* (naming), both of which constitute *classification*. Among other things, this activity allows us to communicate with each other about particular organisms, assuming we can agree upon a unique name, and, if we have done our job correctly, our classification scheme (piles and names) reflect actual biological (perhaps evolutionary) relatedness, and suggest how this group of organisms might have

come to be so diverse and specialised over time from a single or few ancestors.

In the early days of ichthyological taxonomy and systematics, “species” could be described as distinct and accepted as such on the basis of one or few diagnostic characters, usually some aspect of their morphology, that made them different from all other species that had been previously “described”. These defining characters could be minimal and even not particularly accurate or helpful.

For example, Louis Agassiz described four new genera of cichlids from Lake Nicaragua

orally at the 6 October, 1858 meeting of the Boston Society of Natural History and the minutes of that meeting were published in a two-page summary that appeared in the Proceedings of the Society (1859). The Society’s secretary wrote :

“Of the four genera from Nicaragua, one, were it not for the interrupted lateral line, would resemble very closely *Dentex*; Prof Agassiz proposed to call it *Parachromis gulosus*. A second, resembling *Chrysophrys*, he called *Hypsophrys unimaculatus*. A third resembling Boops, he named *Baiodon fas-*



Cryptoheros septemfasciatus is found along with Convict Cichlids in the Atlantic slope of Costa Rica.

ciatus. The last he called *Amphilophus froebelii*, which is peculiar in not having the ordinary fleshy lips, but a large triangular lobe projecting above the upper and below the lower jaw like the nasal appendages of some bats. Though the form of these Chromids varies from the elongated shape of the Pickerel to the roundness of the Bream, there is one character common to all – the second dorsal fin and the anal fin are pointed backward, extending over the caudal. Though coming from the same lake, and belonging to the

same family, the distribution of the colours varies considerably; yet it is derived from one pattern. Prof. A. showed how from the simple vertical bands, and its fading above and below; and how in the *H. uni-*

maculatus a single spot was developed to the exclusion of the rest.”

According to Sven Kullander and Karsten Hartel (1997), who reviewed these descriptions and Agassiz’s “type” specimens (they could



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find only the one for *P. gulosus*), three of these (except *Baiodon*) are senior synonyms of valid species (*P. gulosus* = *P. managuensis*, *H. unimaculatus* = *H. nicaraguaensis*, *A. froebelii* = *A. labiatus*) and the descriptions are adequate. (However, given the obscurity of the Agassiz publication and the fact that subsequent ichthyologists seemed to have ignored these descriptions, Kullander and Hartel recommended suppressing the Agassiz names in favor of their more familiar and used junior synonyms.)

But simply naming a fish and providing a usable and distinctive diagnosis for it is not enough these days – the characters chosen for species diagnosis should be meaningful in an evolutionary sense. Classification should convey, if possible, a reasonable hypothetical evolutionary history (*phylogeny*). Modern systematists attempt to deduce relatedness based on what they believe are shared, derived evolutionary advanced characters (called *synapomorphies*), while avoiding the pitfalls of evolutionary convergence that can

mislead (called *hoinoplasies*). That is, rejecting those shared characters that are more likely the result of similar morphological solutions to similar environmental problems (eg: a particular tooth shape that has evolved several times independently in unrelated fish that all scrape algae from rocks – the design is optimal for this niche and is selection driven) and focusing on those which clearly indicate relatedness (ie: descent with modification from a common ancestor). This is much harder than it sounds! But this modern *cladistic* approach has become widely accepted amongst biologists as the way to diagnose and describe species, and to test the hypothetical (evolutionary) relationships among them.

Kullander (2003) and even others who have come before him (eg: Regan 1905, Miller 1966, etc) revisited Swainson's (1839) original description of the pile he called "*Cichlasoma*" and found that the species which had been sorted into it (about 100+) had been placed there based on a number of fairly superfi-

cial characters (eg: more than three anal fin spines, conical or cylindrical jaw teeth, less than 17 soft dorsal and anal fin rays, short ascending premaxillary processes, short and relatively few (6-15) gillrakers on the first gill arch (Kullander 1983)). In particular, anal fin spine number, the most important character used to define *Cichlasoma* pre-Kullander (versus three in *Aequidens*, *Apistogramma*, etc), is variable between individuals (there is a normal range), particularly in a geographic sense. So, while providing a distinct basis for sorting New World cichlids, it is a bad choice of character whose evolutionary significance is essentially naught. Likewise tooth shape, since this is driven more by trophic (feeding) niche and subject to evolutionary convergence (otherwise unrelated cichlids which scrape algae have remarkably similar teeth as a result of convergence, not common ancestry).

So, carving up of the *Cichlasoma* orphans (all the non-"Ports" from the original genus *Cichlasoma* pre-Kullander) into distinct "piles"

or groups or genera on the basis of other, more important and diagnostic characters has strong support. Our ex-*Cichlasoma* Convict Cichlid was placed with other similar mid-sized "Convict-like" species into the genus *Archocentrus*, and more recently the newly-described genus *Cryptoheros* by Allgayer (2001) (see Part II for a more complete discussion). Our ex-*Cichlasoma* Jack Dempsey,

in contrast, has been repeatedly placed into, and moved from, several genera including *Nandopsis*, *Parapetenia*, *Archocentrus*, and even "*Cichlasoma*" *incertae sedis*, in recognition of the difficulty of assigning it unambiguously to any one "pile".

Juan Schmitter-Soto (2007), in his newly released monograph, sees the "piles" a bit differently, based on a cladistic reinterpretation of the classical diagnostic criteria, along with some new characters (eg: gut coiling, life coloration). Among other conclusions, he restricts the genus *Archocentrus* to the species *centrarchus* (the type) and *spinossissimus*, and moves *multispinosa* here, thus sinking the monotypic genus *Herotilapia*. He redefines the genus *Cryptoheros* Allgayer 2001, establishing three subgenera (*Cryptoheros*, *Bussingius*, and *Panamius*), and moves the species *panamensis* (formerly in the genus *Neetroplus*, then *Archocentrus*) into it. The hobby convict cichlid is moved to its own new genus *Amatitlania*, and three new "Convict"

species are described and added to it. The genus *Rocio* is created for the hobby Jack Dempsey, and two new species are described and added to it in addition to *octofasciata*. *Neetroplus nematopus* is moved to the genus *Hypsophrys*, which contains the species *nicaraguaensis* (whose name is retained instead of the earlier *unimaculatus*), and the genus *Neetroplus* is abandoned. Some pretty drastic revisions!

So, is he right?

Should we now call the Convict Cichlid *Amatitlania nigrofasciata* and the Jack Dempsey *Rocio octofasciata*? Does formal publication of these changes mean acceptance and usage of these new names? We will attempt an answer to that in Part II of this article. Meanwhile, a more conservative approach is recommended for the time being. Your pick – *Archocentrus nigrofasciatus* (according to Kullander (2003)) or *Cryptoheros nigrofasciata* (according to Allgayer (2001) but rejected by Kullander). And maybe *Amatitlania nigrofasciata*.

Please stay tuned! →



Overview: Detailed

In his new revision, Schmitter-Soto (2007) restricts *Archocentrus* to the species *centrarchus* (type) and *spinossissimus* and moves *multispinosus* here, thus sinking the monotypic genus *Herotilapia*. He redefines the genus *Cryptoheros* Allgayer 2001, establishing three subgenera (*Cryptoheros*, *Bussingius*, and *Panamius*) and moving the species *panamensis* (formerly in the genus *Neetroplus*, then *Archo-centrus*) into it. The Hobby Convict cichlid is moved to its own new genus herein described, *Amatitlania*, and three new species are described and added. The genus *Rocio* is created for the hobby Jack Dempsey (*octofasciata*), and two new species are described and added to it. *Neetroplus nematopus* is moved to the genus *Hypsophrys*, which contains the species *nicaraguensis* (whose name is retained instead of the earlier *unimaculatus*), and the genus *Neetroplus* is abandoned.

Account

Genus: *Archocentrus* Gill (in Gill & Bransford 1877)

Type: *Heros* (*Archocentrus*) *centrarchus* Gill, 1877

Species (3):

• *centrarchus* (Gill, 1877)

Distribution: Pacific slope in tributaries of the Golfo de Fonseca, Honduras, and Nicaragua; Atlantic slope from Rio Matina of Costa Rica to Rio San Juan and associated drainages of Nicaragua, including the Great Lakes.

• *multispinosus* (Günther, 1867)

Distribution: Atlantic slope from Costa Rica (Rio Marina) through Great Lakes of Nicaragua to Honduras (Rio Patuca); Pacific slope from Costa Rica (Rio Tempisque) to Nicaragua (Rio Guasaule).

Note: The species *multispinosus* was originally placed in its own genus, *Herotilapia*, by Pellegrin in 1904 because of its novel, tricuspid teeth. This novelty is judged here

as insufficient to warrant retention of this monotypic genus.

• *spinossissimus* (Vaillant & Pellegrin, 1902)

Distribution: Rios Polochic, Dulce, and other rivers in Lago Izabal drainage, Caribbean versant of Guatemala.

Genus: *Cryptoheros* Allgayer 2001 (with three subgenera)

Type: *Heros spilurus* Günther, 1862 by designation

Diagnosis: One strict synapomorphy defines the genus: one to five short, acute interdigitations in the sutural connection between halves of the lower pharyngeal jaw. Seven of nine species have a twisted median loop in adult gut (except *myrnae* and *sajica*). Schmitter-Soto creates three new subgenera, and inserts *Archocentrus* (formerly *Neetroplus*) *panamensis* into one of them.

Subgenus: *Panamius* Schmitter-Soto 2007

Species (1):

Type: *Neetroplus panamensis* Meek & Hildebrand, 1913

Distribution: Atlantic drainages of Panama,

Lake Gatun, rivers Mandinga, Chagres, Ipeti, and others.

Note: The resemblance of *Cr panamensis* to *Neetroplus* is judged to be a convergence (homoplasy). *Cr panamensis* has a low anal fin spine count which is atypical.

Etymology: Named for its country of origin, Panama.

Subgenus: *Cryptoheros* Allgayer 2001

Note: No strict synapomorphies discovered linking all.

Species (3):

• *spilurus* (Günther, 1862)

Distribution: Endemic to rivers flowing into Lake Izabal. Not present in Mexico!

• *chetumalensis* Schmitter-Soto, 2007 (new species)

Distribution: Belize (Belize River) and Guatemalan Peten north to Quintana Roo, Mexico. **Etymology:** Type locality is circa 10 km upstream from the river mouth (Arroyo Aguadulce) near the city of Chetumal, Quintana Roo Mexico.

• *cutteri* (Fowler, 1932)

Note: Here resurrected from synonymy with *spilurus* (Miller 1966).

Distribution: Atlantic Honduras north to Guatemala.

Diagnosis: Bars on sides of body with alternating intensity, second much lighter than first and third.

Subgenus: *Bussingius* Schmitter-Soto 2007

Type: *Cichlasoma septemfasciatum* Regan, 1908

Etymology: Named after Costa Rican ichthyologist William Bussing.

Species (5):

• *altoflavus* Allgayer, 2001.

Distribution: Rio Canaveral, Panama, westward to Rio

Cricamola at Konllntu, Panama.

• *myrnae* (Loiselle, 1997)

Distribution: Atlantic Central America from Rio Guarumo Panama to Rio Estrella, Costa Rica.

Note: *Cr myrnae* replaced by *Cr septemfasciatus* north of Rio Estrella, Costa Rica.

• *nanoluteus* (Allgayer, 1994)

Distribution: Rios Guarumo and Pejebobo, Atlantic Panama.

• *sajica* (Bussing, 1974)

Distribution: Rio Parrita to Rio Coloradito, Pacific slope (versant) of Costa Rica.

Note: “maybe basal in *Bussingius*” (most primitive). Only species in this subgenus found on the

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Pacific slope. All the rest are Atlantic slope species.

• ***septemfasciatus* (Regan, 1908)**

Distribution: Atlantic Costa Rica, Rio Banano to Rio San Juan at the Nicaraguan border.

New Genus: *Amatitlania* Schmitter-Soto 2007

Type: *Heros nigrofasciatus* Günther, 1867

Distribution: From Panama Atlantic to Guatemala Atlantic and Pacific.

Diagnosis: Three strict synapomorphies (all colourational) – first bar on side of body, Y-shaped, well-marked, caudal arm discontinuous; bars from sides of body extending fully to the edge of dorsal and anal fins; medial intensifications on second and third bars, sometimes also on the first.

Etymology: Genus name derived from type locality of the type species, Lake Amatitlan, Guatemala, one of a series caught by Salvin. “Amatitlan” means a place abundant in *amate* (in Nahuatla, *amate* being a kind of rustic paper made

from the bark of *Ficus* trees.)

Species (4):

• ***nigrofasciata* (Günther, 1867)**

Distribution: Pacific slope from Rio Sucio, El Salvador to Rio Suchiate, Guatemala, and the Atlantic slope from Rio Patuca, Honduras to Rio Jutiapa, Guatemala.

Note: It does NOT get down to Panama, Costa Rica, or Nicaragua on either slope. Those found here are two of the three new species of *Amatitlania* newly described in this monograph.

• ***coatepeque n. sp.***

Distribution: Known only from its type locality, the north shore of island in Lake Coatepeque, El Salvador.

Etymology: *Coatepeque* is the name of the lake where it occurs.

Diagnosis: *Am. coatepeque* has much more intense bars on side of body than other *Amatitlania* species.

• ***kanna n. sp.***

Note: Found in Atlantic Panama (Rios Canaveral, Cricamola, Sixaola, and others).

Etymology: “*kanna*” meaning “a reed”, Rio Canaveral (- reed bed), the first locality where the species was detected. First recognised as distinct by Allgayer 2001 who called them *Cryptoheros cf nigrofasciatus*.

Diagnosis: Deepest bodied *Amatitlania* species.

• ***siquia n. sp.***

Distribution: Both coasts of Costa Rica to Nicaragua, including the Great Lakes; also north to Atlantic Honduras. Etymology: “*Siquia*” is the name of the river chosen as type locality (means “avocado”).

Diagnosis: Caudal blotch about 2/3 on peduncle and 1/3 on fin, versus completely on fin. Deep-bodied, but less so than *canna*.

New Genus: *Rocio* Schmitter-Soto 2007

Note: The taxonomic status of the “Jack Dempsey” has been one of relative confusion, including suggestions of a close relationship with the Convict Cichlids broadly defined (Regan 1908).

Type: *Heros octofasciatus* Regan, 1903

Diagnosis: Body oval in young, almost *Archocentrus-like*, more elongate in adults, almost *Parachromis-like*.

Etymology: *Rocio* is Schmitter-Soto’s wife’s name, in Spanish meaning “morning dew”, an image evoked by “the resplendent spots on cheek and sides of some species.”

Species (3):

• ***octofasciata* (Regan, 1903)**

Distribution: Rio Ulua, Honduras to tributaries of Rio Actopan, Veracruz, Mexico. The description of *Cichlosoma* (sic) *biocellatum*, Regan, 1909 was based on an aquarium specimen and is a synonym, type locality “Rio Negro at Manaos (sic: Manaus), Brazil” in error.

• ***ocotal n. sp.***

Distribution: Endemic to Laguna Ocotal, an isolated highland water body in the Lacantun-Usumacinta drainage, Chiapas, Mexico.

Etymology: From the Spanish “*ocotal*” meaning “an ocote forest”, ocote being a

species of *Pinus*, the name of the lake where the species lives.

Diagnosis: Distinguished from other *Rocio* species by abdomen reddish in life (versus whitish-greyish), spots on scales of body absent (versus present).

• ***gemmata* Contreras-Balderas & Schmitter-Soto, n. sp.**

Distribution: Endemic to cenotes and small inland lakes in northern Quintana Roo, eastern Yucatan Peninsula, Mexico.

Etymology: “*gemmata*” Latin for “bejeweled” in reference to large, bright green and blue cheek and opercle spots in life.

Diagnosis: Spots on sides, larger than scales and not clearly aligned (versus smaller than scales and rather well aligned); stripe from snout to eye interrupted (versus continuous); caudal ocellus blue in life (versus white). Large, iridescent, metallic green-blue speckles on cheek in life, six unordered rows of spots on sides, larger than scales, breast bronze blackish with blue-green tinge in life.

Dots on fins large, dark blue. Smallest species of the genus, largest examined was 70 mm SL.

Note: Joint authorship with S. Contreras-Balderas who independently collected and recognised it as distinct.

Genus: *Hypsophrys* Agassiz 1859

Type: *H. unimaculatus* Agassiz, 1859 = *Heros nicaraguensis* Günther, 1864

Note: Synonymisation of genus *Neetroplus* Günther 1867 with *Hypsophrys* supported by additional morphological study by Chakrabarty and Sparks (2007) and molecular phylogenies of Martin & Bermingham (1998), Hulsey et al. (2004), and Concheiro Peres et al. (2007).

Species (2):

• ***nicaraguensis* (Günther, 1859)**

Distribution: Rios Sapoa, Pisote, and Chirripo-Matina, Costa Rica, north to Lakes Managua and Nicaragua and Rio Coco, Nicaragua.

Diagnosis: strongly convex head and conspicuous rounded lateral blotch.

Note: For status of genus *Copora* Fernandez-Yepes, 1969, see Kullander and Hartel (1997) and Chakrabarty and Sparks (2007). Following Kullander and Hartel (1997) but contra Chakrabarty and Sparks (2007), Schmitter-Soto recommends usage of the junior synonym *nicaraguensis* over the senior synonym *unimaculatus* Agassiz, 1859, since no types exist for *unimaculatus*, and this name has been unused after 1899 (ICZN). He is petitioning International Conference on Zoological Nomenclature (ICZN) to conserve the younger species name, *nicaraguensis*.

• **nematopus** (Günther, 1867)

Distribution: Rio Santa Clara, Costa Rica, north to Lakes Nicaragua and Jiloa, Nicaragua.

Diagnosis: Incisor-like teeth, abrupt steep head profile, midlateral bar.

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Previously ... at a VCS Meeting

The February 2008 meeting opened at 8:20 pm with the newly re-elected President in the chair. He welcomed everyone to the first meeting of the year.

The members present had all received their copy of 'The Cichlid Monthly', therefore David Green moved and Dave Thorn seconded the motion that the Minutes of the December General Meeting be taken as read. This was accepted.

The President then presented new member Chris Johnson with his badge and Handbook as he welcomed him to the society. The membership assembled indicated their approval by acclamation.

The Treasurer then presented the 2007 Annual Report.

We have a balance of \$4160.02.

December-January transactions were as follows:

Payments:	TCM Printing and Postage	\$184.30
	Raffle Prizes	\$133.15
Receipts:	Library	\$7.00
	Membership Renewals	\$90.00
	Trading Table	\$385.00
	Mini Raffle	\$30.00
	Main Raffle	\$76.00

Received on a motion moved by Peter Robinson and seconded by Jeff Staude.

Correspondence: Bank December and January statements; Perth Cichlid Society Christmas card.

Accepted in a motion moved by Aussie Magnussen and seconded by Dave Thorn.

Dave Thorn asked that as the 2006 AGM minutes were unavailable at the 2007 AGM, they should be made available to members in March.

Tonight was the final date to register for the Ad Konings extravaganza and receive the \$20 VCS subsidy. Accordingly, the Treasurer found himself quite busy.

John McCormick then led a discussion on the African Lionhead Cichlid, *Steatocranus casuarius* and its close relatives. John thanked David Green for bringing in his pair and Daryl Hutchins for assembling the visual presentation. The members then moved a vote of thanks to John, David and Daryl by acclamation.

After a short break a brief mini auction was held. Thanks to donors John McCormick, Daryl Hutchins and Graham Rowe and the bidders for their support.

A brief summary was then given of the latest developments by Federal and State Government agencies in their attempts to update the Noxious Fish legislation.

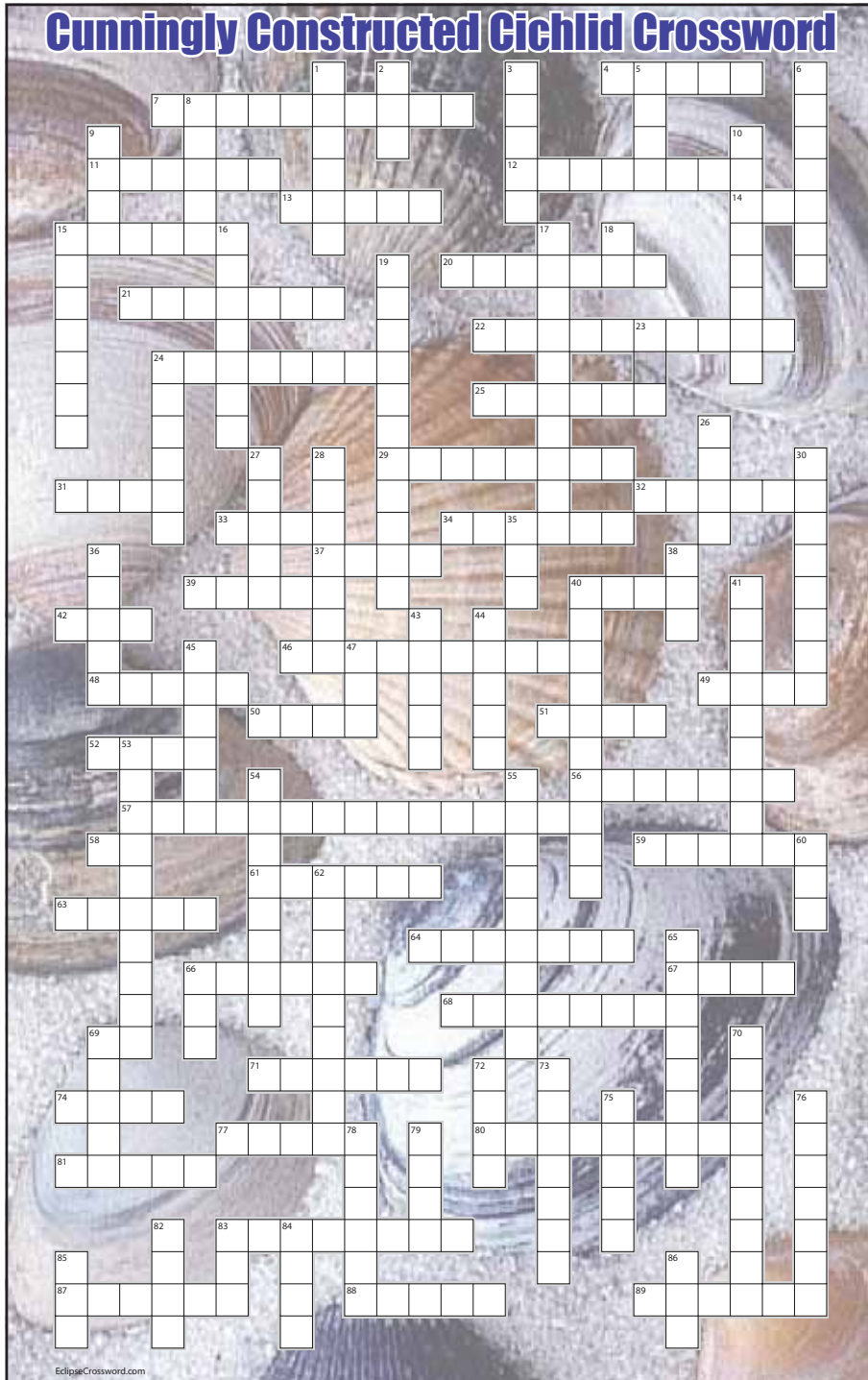
Thanks to our February sponsors, Cranbourne Aquarium, John McCormick won the Otto PF 200 Filter and Peter Robinson won the Sun Sun HJ1102 Pond Filter. Jeff Staude happily accepted the box of Chocolates.

Jeff Staude, David Green, Peter Robinson, Vien Nguyen, Kristy Paterson and Tony Ferguson took home White Crane foods, courtesy of Absolute Aquarium Products.

The President thanked everyone for attending and invited them to join him as he adjourned the meeting for supper at 10:28 pm.



Cunningly Constructed Cichlid Crossword



Across

4. Small cichlid (5).
7. *Nanostomus beckfordi* (10).
11. Temperature controller (6).
12. *Doryrhamphus dactylophorus* (8).
13. Mystery (5).
14. Whitespot (3).
15. Top fin (6).
20. *Rooseveltiella nattereri* (7).
21. Protein remover (7).
22. *Cyathopharynx furcifer* (10).
24. An Asian Cichlid (8).
25. Coarse substrate (6).
29. Small animals and plants that encrust hard substrates (8).
31. After, among, distal to, beyond, behind (prefix) (4).
32. African Rift Lake (6).
33. Triangle Cichlid (4).
34. Green (6).
37. *Aequidens portalegrensis* (4).
39. Home for small Tanganyikan (4).
40. The other bottom fin (4).
42. Tool for capturing fish (3).
46. *Rhodeus sericeus* amerus (10).
48. *Astronotus ocellatus* (5).
49. Low Ph (4).
50. Aerating device (4).
51. Half, partly (prefix) (4).
52. *Myleus rubripinnis rubripinnis* (4).
56. *Betta splendens* (7).
57. Dolphin Cichlid (9,6).
58. Hardness (2).
59. Water cleaner (6).
61. Unicellular marine or freshwater colonial alga (6).
63. Fish type; or where birds sit (5).
64. Composed of spines (7).
66. A southern constellation (6).

67. Chiefly aquatic, eukaryotic, photosynthetic organisms (4).
68. *Cichlasoma salvini* (8).
69. Carbonate hardness (2).
71. Undesirable cross between two species (6).
74. *Crenicichla lepidota* (4).
77. Cichlid group north of the border (5).
80. *Pseudosphromenus cupanus* (9).
81. *Xiphophorus maculatus* (5).
83. High pH (8).
87. *Parambassis ranga* (9).
88. The eggs of fishes (5).
89. *Tilapia buttikoferi* (6).

Down

1. *Ecsenius australianus* (6).
2. Median ..(3).
3. *Poecilia reticulata* (5).
5. *Parachromis dovii* (4).
6. *Aequidens itanyi* - Cichlid (7).
8. Outside, beyond (prefix) (5).
9. Current, flowing (prefix) (4).
10. *Loricaria parva* (8).
15. *Cichlasoma biocellatum* (7).
16. Fish with circular, suctorial mouth with horny teeth (7).
17. Home of Jurassic Cichlids (10).
18. Logarithm of the reciprocal of hydrogen ion concentration (2).
19. Guppies and Swortails are (11).
23. Long fish (3).
24. Tail fin (6).
26. Lake Victorian Haplochromines (4).
27. Fish food (5).
28. Brineshrimp's free-swimming first stage (7).
30. *Steatocranus casuarius* (8).
35. River (Spanish) (3).
36. *Hypostomus plecostomus* (5).
38. ... fisherman (3).
40. *Antennarius coccineus* (10).
41. *Theraps maculicauda* (9).
43. *Brachydanio rerio* (5).
44. Simple living aquatic organisms (5).
45. *Parapetenia managuense* (6).
47. Dorsal (3).
53. *Toxotes jaculator* (10).
54. *Carassius auratus* (8).
55. *Pelvicachromis pulcher* (9).
60. ... Devil (3).
62. Without oxygen (9).
65. *Paracheirodon axelrodi* (8).
66. Western cichlid group (3).
69. Small, shrimp-like crustaceans (5).
70. *Rasbora heteromorpha* (9).
72. Middle, intermediate (prefix) (4).
73. A fin that cichlids don't have (7).
75. North American Cichlid (5).
76. *Archocentrus nigrofasciatus* (7).
78. Hard, thin, overlapping structures (6).
79. Light fish (4).
82. Container for fish (4).
83. American Cichlid Group (3).
84. *Pelvicachromis pulcher* (4).
85. Northern cichlid group (3).
86. *Maccullochella peelii* (3).

The Last Word

Daryl Hutchins..

Pages 12-24 feature a very interesting article from the ACA's magazine, 'Buntbarsche Bulletin', about the latest brand new names for some of our favourite New World cichlids. Surprise, surprise, even scientists disagree sometimes.

It seems to me that there is an inordinate amount of "excitement" whenever a fish is reclassified. I have never really understood what all the fuss is about. Everything has to have a name, and if the name is found to be wrong, it should be changed.

I watched a little video on the internet (www.planetbob.asu.edu/) just recently.

Absolutely explains everything ... whatever you do, don't miss it!



Cichlid keepers are anti-social, right? They must be. The VCS used to organise social occasions of all sorts: cricket matches, bowling competitions, volleyball tournaments, fish house nights, shop crawls and annual dinners.

All have fallen by the wayside due to lack of participation. The last to drop off was the dinners. Annual dinners have had more goodbyes than Dame Nellie Melba.

Last year, I believe the committee decided to just ignore it and see if anyone notices. Did you notice? If you did, and feel the event should be revived, you should speak up and let the committee know that their time would not be wasted organising it.

I don't think the fact that it is usually only

the committee plus two or three others that attend is reason enough to cancel. If no-one else can fit a dinner into their busy schedules ... it's their loss.

Maybe the club could look at a small subsidy for the dinner. At least that way there would be some small advantage to being on the committee. Anyways, the subject is up there for discussion. 🍷



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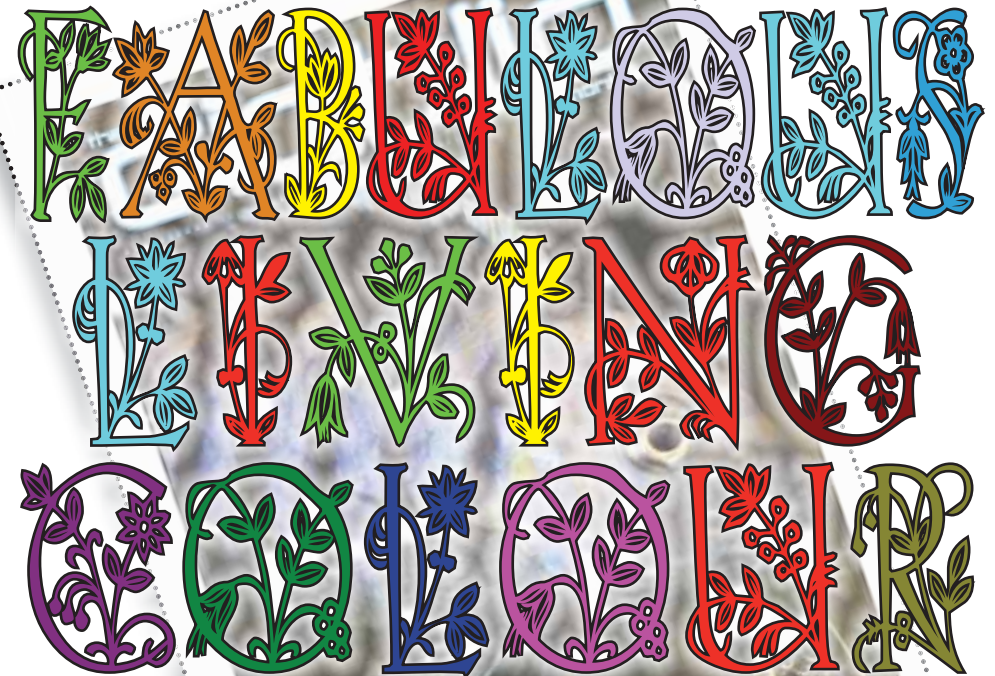
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