FOTAS

Fish Tales

Vol 5 Issue 4

The Future of the Federation of Texas Aquarium Societies

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Fish Tales Submission Guidelines

Articles:
Please submit all articles in electronic form. We can accept most popular software formats and fonts. Email to herpchat@yahoo.com. Photos and graphics are encouraged with your articles! Please remember to include the photo/graphic credits. Graphics and photo files may be submitted in any format, however uncompressed TIFF, JPEG or vector format is preferred, at the highest resolution/file size possible. If you need help with graphics files or your file is too large to email, please contact me for alternative submission info.

Art Submission:
Graphics and photo files may be submitted in any format. However, uncompressed TIFF, JPEG or vector formats are preferred. Please submit the highest resolution possible.

Next deadline……
January 15th 2016

The Future of the Federation of Texas Aquarium Societies

Group Photo from FOTAS 14 which featured a 70s theme.

Greg Steeves

I started maintaining haplochromine cichlids over 20 years ago and they remain my passion to this day. Collectively, the Steeves' have bred more that 150 species of fish, the majority being African cichlids. When I moved to Texas from Canada, I helped form the Hill Country Cichlid Club and in recent years, taken on the presidency of the Federation of Texas Aquarium Societies. I am fortunate to be invited to speak regularly at organizations across North America on Haplochromine cichlids and Texas Natives. I've written for many magazines around the world that have been translated into twelve different languages (I've been counting). I have written three books which I am very proud of. Lee Ann and I truly enjoy attending fish conventions and seeing old and new friends, the element that makes this hobby the best in the world!

I first relocated to Texas in 2002. Although I had been a life long aquarium hobbyist, I had never been to any kind of a show or convention. This does not mean that I was unaware of their existence, in fact, quite the opposite. I had subscribed to the classic aquatic magazines such as Tropical Fish Hobbyist, Aquarium Digest, Aquageo, and as a member of the American Cichlid Association, the Buntbarsche Bulletin. Reading these publications cover to cover, I was well aware that there was a thriving organized hobby in Texas; I just had to find it. As fate would have it, I was able to seek out fellow fish heads. This ultimately led to the formation of the Hill Country Cichlid Club and, my discovery of FOTAS.

Lee Ann (my wife) and I, in those early days, enjoyed taking an afternoon and driving to our favorite fish shop, an establishment called Amazonia in Austin Texas. The owner, a woman named Caroline Estes, befriended us early on and to this day has remained one of our closest friends in the hobby. This remarkable lady is part of the trio that makes up the Babes in the Cichlid Hobby but more on this in a future article. Caroline told us of the upcoming FOTAS convention that was being held south of Houston in Clear Lake (FOTAS 2003). The speaker lineup was fantastic with Heiko Bleher, Spencer Jack, Jeff Cardwell and Anita Nelson all presenting. We made plans and on Friday, September 12th, 2003, walked into the Hilton NASA and immediately seen people that I recognized for those earlier magazine subscriptions. Kathy and Marvin England were the first familiar faces (likely from Buntbarsche Bulletin pages) I happened to find but immediately, the ambient sound of chatter and laughter made us feel relaxed and welcomed. Shortly after that I met, for the very first time, the convention chairman and organizer, Charles Jones. Who would have thought that all these years later, Charles and I are still partners in crime? All in all it was

The Show Room at FOTAS 15 featuring dozens of species competing against each other.

a fantastic weekend and one I'll never forget for that convention is the reason I got hooked in organized aquatics. I could see the potential in a collective group of like minded people being able to create something that many would enjoy.

At the banquet n Clear Lake, Hal Collins gave a talk that touched on the history of FOTAS which was a real eye opener. FOTAS had been established in 1951 with the first "meeting" occurring in Corpus Christi in 1952. Although I listened intently, I had no idea of what my future involvement with FOTAS would be. In the years after that event in 2003, I helped form and grow the Hill Country Cichlid Club. We joined FOTAS in 2003 and I became a delegate (representative of my club). At that time we had two meetings a year, one at the annual convention and one at Texas A&M in College Station.

In the years after, a lull seemed to occur with regards to activity and FOTAS became known only as an annual convention. That is not to say there was no activity other than this. Dr. Keith Arnold diligently overseen the organizations finances and administered annual scholarships. I feel that with the evolution of the hobby (becoming more of a virtual community) FOTAS could have continued to be a figurehead for annual conventions and would have survived in this capacity for a long time.

I believe in most individual clubs, there are those that can be counted on; those that are clear leaders. These people stand out as the doers of their clubs. In recent years, it became evident to me that there were a lot of doers out there and if we could all get together, and work towards a common goal, FOTAS was in for a renaissance.

In 2012, FOTAS president Marvin England called me and asked me to consider running for his post at the next FOTAS convention. I was not expecting this at all. At first I had said 'no' as Marvin was a wonderful leader and a "go to" guy when anything was needed. He had explained that he wanted to see a new executive for FOTAS and also, that after many years, the FOTAS patriarch, Dr. Keith Arnold, was stepping down as treasurer. I thought on his proposition for several weeks and at the convention in San Antonio, hosted by my club, the HCCC. I accepted the nomination and voted in as president. In the years since, we've maintained much of the same executive with Kyle Osterholt as Vice President, Lisa Hufsetler as secretary and Ralph DeBoard as treasurer. Not

Some of the many auction goods available at the funny money auction at FOTAS 14

only has this board been extremely active, we've had the guidance of Dr. Arnold who oversees our academic awards, and Marvin England on club direction. Perhaps one of the biggest boosts that FOTAS has had in recent years is Gerald Griffin. Gerald has taken over the defunct publication "Fish Tales" and has turned it into one of the best aquatic publications in the country, and together with Mike Johnson, Chris Lewis, Charles Jones and others, is erecting a Breeders Awards Points and Horticultural Awards Points programs that will be available to all members of FOTAS clubs. There are a lot of great plans on the horizon. The right groups of people are involved and we are all able to work together with very little, if any, disagreement. Everyone should be feeling extremely optimistic for the future of FOTAS and it's resurrection into becoming the best regional aquarium society in the world.

The Peoples Choice Winner at FOTAS 15

In 2003 FOTAS contained three member clubs. These were the Brazos Valley Aquarium Society, The Houston Aquarium Society (the only surviving chartered member of FOTAS) and the Texas Cichlid Association. There was also the Fish Judges Registry of Texas which was a loose group of certified fish judges.

Clubs come and go however; growth in membership has been steady. Today, FOTAS consists of eight clubs. These include the Houston Aquarium Society, the Texas Cichlid Association, the Oklahoma Aquarium Association, Lone Star Bettas, the Hill Country Cichlid Club, the San Antonio Aquatic Plant Club, Oklahoma Betta Breeders and the South East Louisiana Aquarium Society. All representatives from these organizations are wonderful people who want to see FOTAS evolve. We are in a new age and new thinking is required to keep our society relevant. We have the people with the will power to do this in place. We willingly accept new member clubs are there to support any upstart clubs that might need our assistance.

Mike and Carla Johnson picking up one of their many awards from the FOTAS 15 Show.

The future for FOTAS is extremely encouraging. Our problem now is that we have so many things we want to do, it's tough to devote our focus to seeing one completely implemented before moving on. Again, Gerald Griffin has been instrumental in the erection of new programs. Fish Tales is up and running along with a Literary Awards program which will be presented for the first time at the 2016 convention in Schertz Texas. We will

People paying to get a view of one of the special FOTAS Aution items.

continue to present our scholar awards annually. The FOTAS Altruism Award is given to a deserving individual who has excellent in the area of aquatics. The Dr. Keith Arnold Award is presented to individual who manage to mingle aquatics with education in a positive manner. The Marvin England Award recognizes the individual who shows the most fish annually. Upcoming, we have intentions of creating a speakers registry so that clubs may seek out an individual who could present to their club. Clay Trachman is developing an article registry so that clubs with publications may use this as a resource.

Even the annual conventions have taken on a new flavor. Venues have changed and are regularly held at community centers as well has the classic hotels. Banquets are not quite the formal affairs they once were. Several have been "themed" such as the "70's" motif (a favorite). Instead of a banquet speaker, one of the highlights has become the quiz show and funny money auction (you have to be a part of it to appreciate it) but by in large, the biggest draw of a FOTAS convention is still the friendships and camaraderie. The Federation of Texas Aquarium Societies is made up of great people. If you are already part of it, you know. If you are not, what are you waiting for….join us!

Editors Notes: I have been a member of a number of aquarium groups for a long time now and despite there being more people in the hobby the actual attendance at events is actually decreasing. After comparing notes with the different regions of the United States one thing stands out as a common thread. The Internet has been both a boon and a curse. The great thing is that information is right at your fingertips, the worst thing is many people quit attending local functions and get their "Fish Geek Fix" online. Many have never had the experience of a "Fish Event" and have no clue what they are missing.

Ray "Kingfish" Lucas taught me the most important lesson in life when it comes to fish events. Speakers come and go and many won't remember the talks they attended however they never forget the people they meet and form friendships with. None of us know how long we have but as long as we have the memory of our fish friends they live on.

Marvin England, Gerald Griffin and Diane Tennison Judging at FOTAS 15.

What FOTAS Represents

Friends

Fish

Future

Federation of Texas Aquarium Societies

Breeders Award Program

I. STATEMENT OF PURPOSE

The purpose of the Breeders Award Program (BAP) is: to promote the keeping and breeding of aquarium animals, to recognize and motivate achievement in the hobby, to encourage research into the breeding of more difficult species, to share knowledge about different techniques, and to document accounts of breeding.

To further our purpose, various awards and titles are presented for achievements in breeding. These include: Individual Species Certificates, Class Completion Plaques, Target Species Certificates, Chair's Awards, and titles of achievement.

II. REQUIREMENTS FOR THE INDIVIDUAL SPECIES CERTIFICATE

Each time an individual breeds a different species, a certificate recognizing that account will be presented to the breeder upon the completion of the following requirements:

1. VERIFICATION: Because of the nature of this BAP program the FOTAS BAP Committee will require an article to be written on the spawning of the species in question. In addition the FOTAS BAP Committee would also like photographs of the species in question as well as pictures of the fry.

2. REPORT: A completed BAP Breeding Report must be submitted at the time of contribution. It is the breeder's responsibility to complete the form and to correctly identify the species. The scientific name (genus and species) must be spelled correctly. Individuals are strongly encouraged to make use of current scientific and hobby literature in order to identify species accurately. The BAP Chair and/or committee member(s) should be consulted if there is confusion as to the currently accepted scientific name. When the term "unidentified" is used in these rules, it refers to fauna unidentified in the scientific literature, not simply unidentified to the breeder.

3. CONTRIBUTION: The breeder must write an article about the event which will be submitted for publication. The article should cover and expand on items covered briefly in the Breeding Report, as well as interesting and useful information gained by the breeder's experience and information from literature (which must be referenced). Inadequate articles will be returned for revision.

III. GENERAL RULES FOR INDIVIDUAL SPECIES CERTIFICATES AND FOR PLAQUES

1. The Breeding Report must assign the fish/animal to the appropriate BAP Class. "Native" species must be endemic to the waters of the United States, not a species that has been introduced. If a fish/animal is eligible for inclusion in more than one Class, the Breeding Report must declare which Class is chosen by the breeder.

2. Credit will be awarded to the breeder only once for any species. Only distinct species will be recognized. Different collection locations, color, fin or other varieties, and albinos ARE the same species and will be considered to be such; credit will be given only once.

3. The breeding account must have occurred under the breeder's own care and the breeder must have full

jurisdiction over the fate of the parents and young.

4. Some species normally produce few young, or breed over an extended period. For such species, breeders may apply for credit with six young produced from more than one event. The BAP Committee will consider each case individually.

5. The BAP Committee has final authority to determine the identity of submitted species. Their decision will be based on recognized, published literature of recent copyright.

6. In the instance of distinct, but unidentified species, a certificate will be awarded for each only if reference can be made to a description and/or photograph in recognized literature. Alternatively, a recognizable photograph and the specific description may be submitted with the Breeding Report. In such cases, the certificate shall read as "unidentified" as depicted with notations such as "Whiptail Catfish, *Sturisoma* sp.", if the genus can be established.

7. Special problems in classifying fish for BAP credit include; "species complexes," synonymous species names, and different species impossible for the hobbyist to differentiate from each other. Credit will be given only once to each breeder.

Examples: A) Species complexes include groups of fish (such as the Lake Malawian 'peacock' cichlid) of which certain varieties are not (yet) recognized as distinct species. Photographic identification may be used to differentiate the species.

B) Synonymous species names are duplicate names used at various time for the same animal; e.g., *'Geophagus' steindachneri, 'Geophagus' hondae* and *'Geophagus' magdelena*, the first of which is currently recognized as correct.

C) *Cichlasoma bimaculatum* and *Cichlasoma portalegrense* are distinct species but impossible for the hobbyist to identify with certainty unless collecting locality is known. Likewise *Mogurnda mogurnda* and *Mogurnda adspersa.* * These groups are listed in the Point Groups (below) at the appropriate locations, marked with an asterisk and enclosed by brackets.

8. If a target species is bred repeatedly the target status of that species may be re-evaluated by the BAP Committee.

9. Under no circumstance will hybrids be recognized or accepted in the BAP.

10. The use of hormones to induce spawning is prohibited.

11. The term "Ornamental" is used in the BAP to denote a species of interest to the aquarium trade and is not considered a pest or live food e.g., hydra, gammarus.

IV. REQUIREMENT FOR CLASS PLAQUES AND AWARDS

With the exception of certain target species (see below), individual species certificates will be applied toward the completion of the appropriate Class and award of a Class Plaque. For this purpose all fauna are categorized into the following Classes, with the required number and type of events necessary to complete the Class as shown.

- Class 1: Livebearers – 6 species
- Class 2: Anabantoids – 5 species
- Class 3: Barbs – 5 species
- Class 4: Rainbowfish – 5 species
- Class 5: Rasboras and Minnows – 6 species (3 Rasboras and 3 Minnows)
- Class 6: Characins – 5 species
- Class 7: Cichlids – Old World – 6 species (3 mouthbrooding and 3 substrate)
- Class 8: Cichlids – New World – 6 species
- Class 9: Killifish – Mop Spawners – 6 species
- Class 10: Killifish – Soil Spawners – 3 species
- Class 11: Catfish – 4 species
- Class 12: Sharks, Eels, and Loaches – 1 species
- Class 13: Marine Fish – 1 species
- Class 14: All Other Fish – 2 species
- Class 15: Native Fish – 3 Species (1 livebearer and 2 egglayers)
- Class 16: Ornamental Freshwater and Saltwater Invertebrates – 4 species

V. TARGET SPECIES CERTIFICATE

To encourage BAP members to breed very difficult species, the BAP Committee will award a certificate for the breeding of any animal from the Target List. The certificate will be awarded following donation of six young for BAP auction, submission of a completed BAP Breeding Report and submission of an article about the event written for FOTAS Fish Tales publication.

Any member may propose another species as difficult to breed in addition to those listed as Target (below) and may petition the BAP Committee in writing so that it may be considered. The petition must be accompanied by written proof as to the difficulty of breeding, with references to published literature.

VI. THE CHAIR'S AWARD

The Chair's award may be presented for outstanding contribution to the goals of the Breeders Award Program. This is separate from and in addition to any other awards.

VII. SYSTEM OF POINTS FOR SPECIES SPAWNED

Within each Class, species are divided into point categories based upon the relative difficulty of breeding the animal and/or raising of the young. Species are assigned values of 5, 10, 15, or 20 points, with "Targets" being valued at 40 points. At the time a certificate is awarded, the breeder is automatically credited with the appropri-

ate number of points. Although eligible for only one plaque per Class, each breeder continues to receive certificates and points for additional species bred in that class.

Species that are maintained in captivity and recognized through published literature as being 'extinct in the wild,' will be awarded points 2X above their typical point category. See Attachment A for a listing of species known to be extinct in the wild and their point values. Species not listed in Attachment A but are thought to be extinct in the wild may qualify for the 2X bonus provided that published peer reviewed documentation is submitted. Extinct in the wild bonus points may equate to, but do not qualify for, Target Species status or Target Plaques. However, a combined total (base + bonus) worth 20 points may qualify toward the '20 pointer' requirements.

IX. ACHIEVEMENT TITLES

Achievement Titles will be given based on total points earned, Classes completed, the number of 20 pointers, and the number of Target Species spawned. The program is made up of six levels of achievement. The achievement titles are:

*One Star Breeder – Requires 100 points plus 1 completed Class

**Two Star Breeder – Requires 200 points plus 2 completed Classes

***Three Star Breeder – Requires 300 points plus 3 completed Classes

****Four Star Breeder – Requires 400 points plus 7 completed Classes and at least 1 species spawned from the Target group

Master Breeder – Requires 600 points plus 10 completed Classes and at least 9 species spawned from the 20 point groups and at least 2 species spawned from Target groups

Grand Master Breeder – Requires "Master Breeder" status and at least 5 species spawned from Target groups and must have completed all Classes.

X. THE BAP COMMITTEE

1. The BAP Committee is responsible for reviewing the ongoing program, assigning proper credit, and maintaining BAP records of members. All aspects of the program are subject to review by the BAP Committee and decisions of the committee are final.

2. The BAP Committee will maintain all records for individual members listing all species spawned, the Classes credited, and the points awarded.

3. Periodically, a roster of participating members with their cumulative record will be published. Upon the periodic publication of the BAP roster, it is the breeder's responsibility to see that their species records are correct and that appropriate points have been credited.

4. Any species not assigned in the Point Groups (below) will be assigned by the BAP Committee based upon published information relative that specific species or its genus.

5. The BAP Chair and the FOTAS President are responsible for signing individual species certificates prior to issuance to the breeder.

6. The BAP Committee will meet annually at the FOTAS Convention to discuss any changes for coming

FOTAS year which is defined as from the Current FOTAS Convention to the FOTAS Convention the following year.

XI. ADVANCED, SPECIALIST, AND EXPERT TITLES

Members who have gone well beyond the basic requirements in any of the BAP Classes will be awarded that title of Advanced, Specialist, or Expert Breeder in the Classes.

Members who have fulfilled the criteria below are responsible for notifying the BAP Chair. The Chair will verify the completion of the Title requirements, issue the appropriate certificates, and note the BAP records.

The criteria for each title are as follows:
1. Advanced Breeder in the Class. The member must have: a. bred a total of two times the number of species required for Class completion.

2. Specialist Breeder in the Class. The member must have: a. previously attained Advanced Breeder in the Class, and b. bred a total of three times the number of species required for Class completion, and c. Presented a program for FOTAS about a topic related to the Class, and d. completed at least two of the following: (1) bred a species, from the Class, that has not been bred by any FOTAS member within the past three years, (2) shown and placed (1st, 2nd, or 3rd) in at least three different shows with species from the Class, or (3) bred a total of six times the number of species required for Class completion.

3. Expert Breeder in the Class. The member must have: a. previously attained Specialist Breeder in the Class, and b. bred a total of four times the number of species normally required for the Class, and c. presented a program for FOTAS about a topic related to the Class, and d. completed at least three of the following: (1) written an article, related to the Class, which is published by a national journal or magazine, (2) presented a program related to the Class at an aquarium club other than FOTAS, (3) served as a judge for species from this Class at a show other than FOTAS, (4) shown and placed first with species from the Class in at least three different fish shows, (5) served as an Officer, Board Member, or Editor for a specialty club, (6) bred a total of ten times the number of species normally required for the Class, (7) bred two species from this Class that have not been previously bred by FOTAS members, or (8) bred one species from this Class that has not been previously bred and registered with the Federation of American Aquarium Societies (FAAS).

XII. CLASSES

Class 1: Livebearers (6 species)

· 5 points: *Brachyrhaphis rhabdophora, Heterandria sp., Gambusia sp., Poecilia* (guppy & molly types), *Xiphophorus* (swords, platys, and variatus), and All other Livebearers not listed in other point groups
· 10 points: All species in family Goodeidae, all species from genera *Ameca, Belonesox, Chapalichys*, and *Xenotocas*
· 15 points All livebearing halfbeaks plus all species with published brood records of less than 20 fry
· 20 points: *Ataeniobius toweri, Skiffia lermae,* and *S. multipunctata* plus All species with published brood records of less than 10 fry including: *Allodontichthys tamazulae, Brachyrhaphus holdridgei, Gambusia alvarezi, Poecilia melanazona, Poecilia turneri, Poeciliopsis prolifica,* and *P. turraburensis*.
· Target: *Anableps anableps, Jenysia lineata, Skiffia francesae, Hubbsina turneri.*

Class 2: Anabantoids (5 species)

· 5 points: *Macropodus opercularis* (paradise fish, all varieties), *Trichopodus trichopterus* (all varieties such as 3 spot, blue, gold, Cosby and opaline gouramis)
· 10 points: *Betta picta, Betta splendens, Trichopodus leeri* (pearl gourami), *Trichogaster* sp. (dwarf blue gouramis, neons, and giant gouramis).
· 15 points: All species from genus *Macropodus,* except those listed in other point groups. All species from the genera *Belontia* and *Trichopsis* (croaking gouramis). All wild Bettas such as *Betta smaragdina, Betta unimaculata* and all other Anabantoid species not listed in other point groups.
· 20 points: Bettas in the B. coccina complex (*B. coccina, B. tussyae, B. brownorum, B. livida, B. persephone, B. miniopinna, B. burdigala, B. rutilans*), *Helostoma temmincki* (kissing), and *Parosphromenus* sp. (licorice & related sp.).
· Targets: *Betta albimarginata, B. channoides and B. macrostoma, Ctenopoma* sp., *Sphaerichthys* sp. (chocolate gouramies),*Osphronemus goramy* (true goramy), and *Luciocephalus pulcher*.

Class 3: Barbs (5 species)

· 5 points: None
· 10 points: All barbs not listed in other point groups, including *Puntius sachsi* (gold barb), *Capoeta oligolepis* (checker barb), and *Capoeta tetrazona* (tiger barb).
· 15 points: *Barbodes everetti* (clown barb), *Puntius filamentosa, Capoeta arulius*
· 20 points: *Barbodes lateristriga* (spanner T barb), and Any African barb species such as *Barbodes fasciolatus, Barbodes macrops, Barbodes kerstenii,* and *Barbodes trispilos*
· Target: *Barbodes schwanenfeldii* (tinfoil barb)

Class 4: Rainbowfishes (5 species – any combination of blue-eyes or rainbowfish with at least one from each category)
· 5 points *Melanotaenia splendida* (including all subspecies such as *M. s. inornata* and *M. s. rubristriata*)
· 10 points All species of the genera *Glossolepis,* and *Pseudomugil, Bedotia geayi* (madagascar rainbow). All *Melanotaenias* sp. not listed elsewhere. *Telmatherina ladigesi* and *Chilatherina heikobleheri*
· 15 points All rainbowfishes not listed elsewhere
· 20 points *Pseudomugil tenellus*
· Target: *Iriatherina werneri* (featherfin rainbowfish)

Class 5: Rasboras and Minnows (3 Rasboras and 3 Minnows)
· 5 points: All minnows from genera *Danio* and *Devario, Tanichthys albonubes* (white clouds)
· 10 points: *Danionella*
· 15 points: All minnows not listed elsewhere, *Rasbora trilineata* (scissortail rasbora), and *Rasbora borapetensis* (redtailed rasbora)
· 20 points: All species of *Rasboras* not listed in other point groups Genera *Trigonostigma, Rasbora, Sundadanio, Microrasbora, Boraras, Inlecypris.*
· Target: *Rasbora heteromorpha* (harlequin) and *R. espei*

Class 6: Characins (5 species)
· 5 points: None
· 10 points: *Inpaichthys kerri* (royal tetra), *Nematobrycon lacortei* (rainbow tetra), and *Nematobrycon palmeri* (emperor tetra)
· 15 points: *Gymnocorymbus ternetzi* (black tetra) and All species not listed in other point groups.
· 20 points: *Exodon paradoxus* (buck toothed tetra), *Hyphessobrycon herbertaxelrodi* (black neon tetra), and All species of genera *Carnegiella* and *Gasteropelecus*

· Target: *Paracheirodon innesi* (neon tetra), *Cheirodon axelrodi* (cardinal tetra), *Micralestes interruptus* (Congo tetras) *Serrasalmidae* sp.(non-piranha), *Thoracocharax* sp. (hatchetfish) and all *Abramites* and *Anostomus.*

Class 7: Cichlids of the Old World (6 species: 3 mouthbrooding + 3 substrate spawning)

· 5 points: All mouthbrooders from genera *Sarotherodon, Hemihaplochromis, Tilapia,* plus *Haplochromis burtoni* and other closely related *Haplochromis* species
· 10 points: *Steatocranus casuarius*, all mouthbrooding species from Lake Malawi and Victoria, plus all substrate spawning African and Asian cichlids except those listed in other point groups
· 15 points: *Etroplus maculatus, Haplochromis moorii,* all species from genera: *Lamprologus,* and *Steatocranus,* (except those listed in other point groups), and all substrate spawning species from Lake Tanganyika
· 20 points: *Etroplus suratensis, Teleogramma* sp., (except those listed in other point groups), and all mouthbrooding species from Lake Tanganyika
· Targets: *Cyathopharynx* sp. and other Lake Tanganyika "featherfins"

Class 8: Cichlids of the New World (6 species: including at least one mouthbrooding species)

· 5 points: *Cryptoheros nigrofasciatus* (convicts), and *Herotilapia multispinosa* (rainbow cichlid)
· 10 points: *Pterophyllum scalare* (angelfish: all varieties) *'Geophagus' steindachneri, 'Geophagus' brasiliensis* and other brasiliensoids, *Gymnogeophagus balzanii, Parachromis managuensis, Thorichthys meeki, Rocio octofasciatum, Nannacara anomala, Neetroplus nematopus,* and all other substrate spawning Central, North, and South American cichlids except those listed in other point groups.
· 15 points: All species from genera *Astronotus, Acaronia, Amphilophus, Bujurquina, Caquetaia, Crenicara, Crenicichla* (unless noted elsewhere), *Dicrossus, Geophagus, 'Geophagus'* (unless noted elsewhere), *Gymnogeophagus, Heroina, Nannacara* (unless noted elsewhere), *Nandopsis, Parachromis* (unless noted elsewhere), and *Satanoperca* (unless noted elsewhere); *Archocentrus spinosissimus, Pterophyllum leopoldi,* plus all mouth brooding species of South American cichlids except those listed in other point groups.
· 20 points: All species from the following *Crenicichla* complexes: *lacustris, strigata,* and *vittata. Hoplarchus psittacus, Symphysodon aequifasciatus, Taeniacara candidi, Teleocichla* spp. and *Uaru amphiacanthoides*
· Targets: *Acarichthys heckelii, Biotodoma* spp., *Biotoecus* spp., *Chaetobranchopsis* spp., *Chaetobranchus* spp., *Cichla* spp., *Pterophyllum altum, Retroculus* spp., *Satanoperca acuticeps, Satanoperca daemon, Satanoperca lilith, Symphysodon discus, Uaru fernadezyepezi*, and *Uaru* sp. "Big Blotch".

Class 9: Killifish, Mop Spawners (6 species)

· 5 points *Fundulopanchax gardneri, Aplocheilus lineatus, Aplocheilus panchax, Epiplatys dageti, Pachypanchax playfairi, Oryzias latipes* (rice fish)
· 10 points *Aphyosemion cognatum, Aphyosemion christyi, Aphyosemion schoutedeni, Aphyosemion fallax, Aphyosemion gulare,* and *Aphyosemion australe* plus all mop-spawning species not listed in other point groups.
· 15 points All species from the *Aphyosemion diapteron* group including *Aphyosemion abacinum, Aphyosemion georgiae, Aphyosemion cyanostictum*, and *Aphyosemion fulgen* plus All species from the genus *Procatopus*.
· 20 points *Pseudepiplatys annulatus*, and *Kryptolebias marmaratus**
· Target: *Lamprichthys tanganicanus*
* *Kryptolebias marmoratus* can be BAPed under Native Fish

Class 10 : Killifish, Soil Spawners (3 species)

· 5 points: None
· 10 points: *Fundulopanchax sjoestedti* (Blue Gularis)
· 15 points: All soil-spawning species with PUBLISHED* incubation times of five months or less

20 points: All soil-spawning species with PUBLISHED* incubation times of six months or more
· Target: *Terranatos dolichopterus* (sabrefin killie), and *Nothobranchius rachovi*
* Proof of publication should be copied and added to the BAP Form

Class 11: Catfish (4 species)

· 5 points: None
· 10 points: None
· 15 points: *Corydoras aeneus* and *Corydoras paleatus* (including albino forms)
· 20 points: All species not listed in other point groups. *Corydoras hastatus, Corydoras pygmaeus, Hoplosternum pectorale* (dwarf hoplo), *Ancistrus sp. 3, "temmincki,"* and *"dolicopterus."*
· Target: Any species from the genus *Synodontis,* any species of "plecostomus" or "suckermouth" types (not otherwise mentioned), *Dianema urostriatum,* any of the "Wood Cats".

Class 12: Sharks, Loaches, and Eels (1 species)

· 5 points: None
· 10 points: None
· 15 points: None
· 20 points: *Misgurnus anguillicaudatus* (dojo or weather loach), *Acanthophthalmus* sp. (kuhli type loaches). All other species not listed in Target Group
· Target: *Epalzeorhynchos bicolour* (redtailed shark), *Botia macracantha* (clown loach), and *Mastocembelus* species (spiny eels)

Class 13: Marine Fish (1 Species)

· 5 points: None
· 10 points: None
· 15 points: None
· 20 points: None
· Target: All marine fishes.

Class 14: All Other Species (2 species)

· 5 points: None
· 10 points: All *Badis* and *Dario* species
· 15 points: *Carassius auratus auratus* (goldfish: all varieties) and *Chlamydogobius eremius* (desert goby)
· 20 points: Koi, Scats, *Mogurnda mogurnda*, all others not in other point groups
· Target: *Brachygobius xanthozona* (bumblebee goby), *Monodactylus sebae, Pantodon buchholzi* (butterfly fish), "mudskippers", and all gobies/gudgeons not listed elsewhere

Class 15: U.S. Natives (3 species: 1 livebearer + 2 egglayers)

· 5 points: *Gambusia affinis, Heterandria formosa, Poecilia latipinna* and all livebearing species native to the United States.
· 10 points: All *Cyprinodon* species (pupfish), *Elassoma evergladei* (pigmy sunfish), *Jordanella floridae* (Florida flag fish), and all other egg laying species native to the United States.
· 15 points: All "sunfish" except *Elassoma evergladei* and all "minnows"
· 20 points: None
· Target: All "Darters" and Sculpins

Class 16: Ornamental Invertebrates (4 species)

Class 16 is Broken into two parts, Freshwater and Saltwater. Only 4 species are needed total not 4 from each subgroup.

Class 16A: Ornamental Freshwater Invertebrates
· 5 points: All FW snails from the genera *Ampullaria, Vivipara, Campiloma, Pomacea* and *Marisa*.
· 10 points: All crayfish and shrimp that reproduce through direct development unless listed in other points groups.
· 15 points: All crayfish and shrimp that reproduce through primitive development and do not require saltwater for larvae developement
· 20 points: All shrimp and crayfish that reproduce by indirect development and require saltwater for larvae development.
· Target: All freshwater crabs, mussels, and clams.

Class 16B: Ornamental Saltwater Invertebrates
· 5 points: Bristleworms and all other highly opportunistic species.
· 10 points: Tubeworms and mushroom anemones.
· 15 points: All hermaphrodidic shrimp with direct development. All other anemones.
· 20 points: All crabs, lobsters, and other crustaceans not listed elsewhere.
· Target: None.

XIII. HISTORY

Released to FOTAS Clubs around 30 November 2015.

Apendix A: Extinct in the Wild Fishes

Scientific Name	Common Name	IUNC Status	Reference	Point Value
Ameca splendens	Butterfly Goodeid	IUCN Species Info	Red List	20
Cyprinodon alvarezi	Perrito de Potosi	IUCN Species Info	Red List	20
Cyprinodon longidorsalis		IUCN Species Info	Red List	20
Epalzeorhynchos bicolour	Red tail shark	IUCN Species Info	Red List	80
Haplochromis lividus		IUCN Species Info	Red List	10
Labrochromis ishmaeli		IUCN Species Info	Red List	10
Megupsilon aporus		IUCN Species Info	Red List	20
Platytaeniodus degeni		IUCN Species Info	Red List	10
Prognathochromis perrieri		IUCN Species Info	Red List	20
Skiffia francesae		IUCN Species Info	Red List	80
Yssichromis "argens"		IUCN Species Info	Red List	20
*Xiphophorus couchianus**		IUCN Species Info		10
Zoogoneticus tequila		Fish Ark; John Lyons		20
Aphyosemion elberti		IKCP ESP		20
Fundulopanchax oeseri		IKCP ESP		20
Fundulopanchax robertsoni		IKCP ESP		20
Fundulopanchax walkeri		IKCP ESP		20
Simpsonichthys marginatus		IKCP ESP		30

Federation of Texas Aquarium Societies

Horticulture Award Program

INTRODUCTION

PURPOSE: The purpose of the Horticultural Award Program (HAP) is to promote the keeping and propagation of aquatic plants, aid in the recognition of the species, encourage research, through the growth and propagation of different species, recognize achievements of individuals through awards, and disseminate information through The Federation of Texas Aquarium Societies Facebook Group, Fish Tales Magazine and through the FOTAS Convention.

AQUATIC PLANT DEFINED: An aquatic plant is one with a submerged or floating form, as a normal occurrence, at some time during the course of any one complete growing season.

THE HAP COMMITTEE: The HAP Chair shall be appointed by the FOTAS President, and the remaining members shall be appointed by the HAP Chair or by the Administration Team.

FUNCTION OF THE HAP COMMITTEE: To oversee and enforce all rules and regulations governing HAP, awarding points to qualifying members, maintaining records and presenting awards. The HAP rules and regulations shall be reviewed and revised when necessary.

HAP CHECKERS: Any person on the HAP committee may verify the species of a submitted plant and any flowerings or sexual propagation, with the HAP chair having final approval. *** The HAP Chair reserves the right to reject stunted, algae covered, or unhealthy plants. ***

NOXIOUS PLANTS: The following plants are listed under the Oklahoma and Texas Noxious Plants List and are hereby illegal to propagate or cultivate. In the following document, these plants are marked with an asterisk (*).

Azolla pinnata, Caulerpa taxifolia, Eichhornia azure, Hydrilla verticillata, Hygrophila polysperma, Ipomoea aquatica, Lagarosiphon major, Limnophila species, Lythrum salicaria, Marsilea quadrifolia, Marsilea mutica, Marsilea minuta, Melaleuca quinquenervia, Monochoria hastata, Ottellia alismoides, Sagittaria sagittifolia, Salvinia auriculata, Salvinia biloba, Salvinia herzogii, Salvinia molesta, Solanum tampicense, Sparganium erectum, Glossostigma diandrum

REQUIREMENTS FOR PROPAGATION

1) The propagation process must be completed in the manner described below:
a) About 1/2 cup (not including water) must be submitted. For plants such as Wolffia arrhiza and other similar species, at least one heaping tablespoonful must be submitted.
b) For bunch plants, the initial stem count shall be at least six stems, rooted or unrooted, and must be doubled as determined by the count of growing stems. * Exceptions are for larger stem plants such as *Alternanthera* species, *Gymnocoronis spilanthoides*, and *Hygrophilia* species including and similar to *H. corymbrosa*

c) Reproducing by the means of runners, shall be recognized when three or more healthy plants are produced, which are capable of living independently from the parent plant. The parent plant must be alive and healthy.
d) Flowering, when properly verified, shall be awarded extra points equal to the value of the asexual propagation of the particular plant species.
e) Sexual reproduction will be recognized for one or more plant reproducing by sexual means from the aquarists own stock. Sexual propagation will be awarded 1.5 times the value of asexual propagation. Seeds and reproduced plants must be from the members parent plant(s) and not obtained from a supplier or nursery. The reproduction of those plants propagating form spores i.e. (ferns) will be considered a sexual reproduction and shall be awarded 1.5 times the point value of the asexual propagation of the particular plant species.
f) Regrowth of a seasonal plant does not count as propagation, it is simply classified as a new growth. (Examples are the Aponogeton sp.)
g) For class G, growth that is simply continued growth of obtained plants does not count! Material turned in for HAP must be from side shoots, new stems after trimming, or runners.
2) To be recognized for propagation, a completed HAP form must be submitted along with one or all of the following:
a) Plant or plants donated to the HAP auction. (If a plant is not submitted for auction a cash donation (currently: $1.00) will be required to help defer the cost of certificates and awards. Amount to be set by the HAP Comm.)
b) A written article on the propagation of the species, submitted for publication in any OKAA publication.
c) A five- to ten-minute oral presentation on the propagation of the species. At least one month's prior notification to the HAP Chair is required before an oral presentation can be scheduled. (OPTIONAL* photos or slides would be helpful to other members).
d) Photos or slides will only be accepted to prove a new or unidentified Species. (See the section on New or Unidentified Species.)
Note: Completion of all the options for a species will result in an additional ten (10) points being awarded to the participant.

ELIGIBILITY

All members in good standing are eligible for HAP. If any member should not renew their membership, awarded points will be kept on an "inactive list" until such time that they renew their membership.

AWARDS

1) Plant Certificates will be awarded for each species successfully propagated.
2) Plaques will be given for the completion of each HAP Class.
3) Certificates will be given for the fulfillment of the requirements for the Levels of Accomplishment for Novice and Beginning Horticulturalist.
4) Plaques will be given for the fulfillment of the requirements for each Level of Accomplishment above Novice and Beginning Horticulturalist
5) A Special award will be given for the completion of all classes
6) Other special awards may be given at the discretion of the HAP Committee

LEVELS OF ACCOMPLISHMENT

Requirements for the levels of accomplishment are as follows:
- Novice Horticulturalist: a total of 5 to 100 points
- Beginning Aquatic Horticulturalist: a total of 100 points, plus one (1) completed class.
- Aquatic Horticulturist: a total of 200 points, plus one (1) completed class, and one flowering or sexual

reproduction.

•Senior Aquatic Horticulturist: a total of 300 points, plus completion of two (2) classes, and a total of three flowerings or sexual reproductions.

•Expert Aquatic Horticulturalist: a total of 500 points, plus completion of four (4) classes, and a total of five (5) flowerings or sexual reproductions.

•Master Aquatic Horticulturist: a total of 800 points, plus completion of six (6) classes, and a total of eight (8) flowerings or sexual reproductions.

•Grand Master Aquatic Horticulturist: a total of 1,000 points plus completion of all classes, and a total of eight (8) flowering or sexual reproduction.

AMENDMENTS: The HAP committee may make changes to these rules as they deem necessary, subject to the approval of the Board of Directors. Changes will be published to FOTAS members.

ACKNOWLEDGEMENT: The FOTAS HAP program rules were developed by the GPASI AHAP Committee consisting of Chair: Cavan Allen and Members: Tom Connors, Ted Neill. Modified by Gerald Griffin for FOTAS.

CLASSES

There are eleven (11) classes A-K. Classes "A" to "H and J-K" are determined by biological types, which are artificial keys to groups of aquatic plants. They include a combination of factors that include mode of reproduction, structure and scientific classification. Among marine alga, only macroalga forms will be eligible for inclusion in the program. Microalga forms will not be eligible for inclusion.

POINT VALUE: Plants are assigned a point value according to the following criteria - how difficult a plant is to grow and propagate according to the HAP committee, the reputed difficulty of a plant according to other aquatic gardners and aquarium literature, and how long propagation takes.

CLASS LISTINGS:

Class A - Most Small Surface & Near Surface Type Plants

Small plants that float on the surface of the water. They have some parts reduced (roots, stems, or leaves) and for nourishment they are dependent on dissolved matter in the water. They are free floating and do not root to any substrate. Include all species of: *Azolla* (floating fern) *caroliniana, Lemna minor, Limnobium stoloniferum, spongia, laevigatum, Riccia fluitans* (crystal wort), *Salvinia cucullata, rotundifolia Spirodella Wolffia arrhiza* (watermeal) To complete this class one must propagate five (5) species.

5 points: All species of *Lemna* and All species of *Salvinia* except *S. auriculata** & *S. cucullata*
10 points: All species not mentioned in other point groups
15 points: None
20 points: *Salvinia cucullata*
Target: None

Class B - Most Large Surface & Free Floating Type Plants

Class B is composed of larger floating plants. Some have floating leaves exposed to the air and others like *Ceratophyllum* stay submerged but do not form true roots. Include all species of *Aldrovanda vesiculosa, Ceratophyllum demersum*, (hornwort) *submersum, Eichhornia crassipes* (water hyacinth), *Ludwigia helminthorrhiza sediodes, Pistia stratiotes* (water lettuce), *Utricularia vulgaris* (common bladder wort) *aurea*. To complete this class one

must propagate five (5) species.

5 points: All *Ceratophyllum* species
10 points: All species not mentioned in other point groups
15 points: *Pistia stratiotes* and All *Eichhornia* species
20 points: All *Utricularia* species
Targets: All *Aldrovanda* species

Class C -All *Sagittaria* & *Vallisneria* Type Plants

These are submersed plants with long leaves which are thread-shaped or ribbon-shaped, creating a rosette. They root on the bottom and flower on the surface of the water with the exception of male *Vallisneria* flowers. *Blyxa auberti,i japonica, Cyperus helferi, Eleocharis acicularis* (dwarf hair grass), *parvula, vivipara, Sagittaria eatonii, graminea, subulata, v. subulata, Vallisneria americana,* (val) *gigantea,* (giant val) *natans*, (eel grass) *spiralis*, (large corkscrew val). To complete this class one must propagate five (5) species.

5 points: *Vallisneria spiralis*
10 points: All species not mentioned in other groups
15 points: *Subularia aquatica*
20 points: *Blyxa aubertii, Cyperus helferi*
Targets: *Blyxa japonica* and *novoguineensis*

Class D - All *Anubias, Aponogeton* & *Cryptocoryne* Type Plants

Rosette plants with their leaves submersed and with distinct petioles. All species except where noted *Anubias* species *barteri* var., *barteri barteri* var., *nana, lanceolata, Aponogeton* species (except *A. didistachyus* in Class F) *bernlerianus, boiviniaus, crispus, elongatus, longiplumulosis, madagascariensis, natans, rigidifolius, ulvaceus, Cryptocoryne* species *affinis, becketii, balansae, walkeri, wendtii, Lagenandra lancifolia, ovata, Ottelia ulvifolia.* To complete this class one must propagate six (6) species.

5 points: None
10 points: All species not mentioned in other groups
15 points: *Aponogeton ulvaceus, Aponogeton undulatus*, and All *Anubias* species, and most *Cryptocoryne* species
20 points: All *Aponogeton* species not mentioned in other point classes and All *Lagenandra* species
Targets: *Aponogeton berierianus,* and *A. madagascariensis, Ottelia species, Cryptocoryne nuri* and *auriculata*

Class E - All Amazon Sword and Crinum Plants

All species except where noted *Crinum aquatica, natans, thaianum*, (Thai onion plant) *Echinodorus* species, *amazonicus, blehri, brevipedicellatus, berteroi, cordifolius, horizontalis, latifolius,* (dwarf amazon sword) *osiris, parviflorus, subalatus, tenellus,* (pygmy sword) *Samolus parviflorus.* To complete this class one must propagate five (5) species.

5 points: none
10 points: All species not mentioned in other point classes
15 points: All *Echinodorus* species
20 points: *Samolus*
Targets: None

Class F - Water Lily Type Plants

Plants which root in the mud with the roots growing from a stout rootstock. The leaves have long petioles (stems) and they float on the surface of the water. The flowers are on the surface of the water, and the fruits sink after ripening. *Aponogeton distachyus*, (only one of this species in this group) *Barclaya longifolia, Brasenia schreberi, Nuphar japonicum,* (Japanese spatterdock) *lutea, Nymphaea alba,* (white water lily) *pubescens, lotus, Nymphoides aquatica* (banana plant) To complete this class one must propagate two (2) species.

5 points: *Aponogeton distachyus*
10 points: All species not mentioned in other groups
15 points: *Barclaya longifolia*, and All *Nupar* species, and All *Nymphaea* species
20 points: All *Orontium* species
Targets: All *Brasenia* species

Class G - Stem Plants

Biological types Plants with long stems with leaves which root in the mud. They are dependent on life in the water, but at the same time can have contact with the air. (floating leaves, immersed part of the stem and the blossoms). Many aquarium species belong to this group. *Alternanthera reineckii, Ammannia senegalensis, gracilis, Bacopa amplexicaulis, caroliniana, monnieri, Cabomba aquatica, caroliniana, furcata, Cardamine lyrata,* (bittercress) *Didiplis diandra,* (waterhedge) *Eichhornia diversifolia, Elodea canadensis,* (Anacharis) *Gymnocoronis spilanthoides, Egeria densa, Hottonia palustris,* (water violet) *inflata,* (tropical water violet) *Hygrophila corymbosa*, (giant hygrophilia) *difformis,* (water wisteria) *Heteranthera zosterifolia, Lagarosiphon major, Ludwigia arcuata, glandulosa, inclinata, repens, Lysimachia nummularia,* (loosetrife) *Lobelia cardinalis*, (water lobelia), *Myriophyllum mattogrossense, pinnatum, spicatum*, (milfoil), *Najas flexilis, guadalupensis, Potamogeton gayi, perfoliatus, Rotala macrandra, rotundifolia, wallichii, Shinnersia rivularis, Zosterella dubia.* To complete this class one must propagate six (6) species.

5 points: All *Elodea* species
10 points: All *Hygrophilia* species (except *H. polysperma**) and all species not mentioned in other groups.
15 points: All *Myriophyllum* species, *Ludwigia glandulosa, Cabomba caroliniana*
20 points: *Hottonia palustris, Eichhornia diversifolia, Ammania* species, *Nesaea pedicillata, Cabomba furcata* and *aquatica*
Targets: *Ludwigia inclinata, Eusteralis stellata, Rotala wallichi* and *macrandra, Nesaea* sp "red", *Blyxa alternifolia*

Class H - Most Bog Type Plants

Shore plants living only in the partly emerged and terrestrial phases. Strong stems tower above the water. They usually have a short submerged stage. The presence of water is necessary for their growth ie. Bog plants. *Acorus calamus, Alisma plantago, aquatica, gramineum, Canna* species, *Cyperus alternifolius, papyrus, Equisetum hyemale, Iris fulva, pseudacoris, versicolor, Limnacharis flava, Myriophyllum aquaticum*, (parrots feather) *Pontedaria cordata, Regnellidium diphyllum, Saururus cernuus,* (lizzard's tail) *Sparganium ramosum,* (burreed) *Typha latifolia, minima*. To complete this class one must propagate six (6) species.

5 points: *Sparganium* species
10 points: All species not mentioned in other groups
15 points: *Limnacharis flava*
20 points: None
Target: *Regnellidium diphyllum*

Class I Creeping Shoot Plants

This class includes low growing plants that spread by a creeping shoot bearing a new leaf at a regular interval. They are most frequently used as foreground plants in aquatic gardening. *Elatine triandra, Glossostigma elatinoides, Hydrocotyle leucocephala, vulgaris, verticillata, Lilaeopsis brasiliensis, mauritiana, novae-zealandiae, Marsilia crenata, drummondii, Pilularia globulifera, Ranunculus limosella, Sellaria radicans.* To complete this class, one must propagate four (4) species .

5 points: None
10 points: *Hydrocotyle leucocephala* and *verticillata*
15 points: All plants not mentioned in other groups
20 points: *Hydrocotyle vulgaris* and *sibthorpiodes, Marsilea* species, *Pilularia* species
Target: None

Class J Aquatic Ferns and Mosses

This class contains all aquatic ferns and mosses not listed in other categories. All species herein grow under water as a normal circumstance. *Bolbitis heudelotii, heteroclita, Ceratopteris cornuta, thalictroides, Fontinalis antipyretica, Isoetes lacustris, valeta, Microsorium pteropus,* (java fern) *Vesicularia dubyana,* (java moss) To complete this class, one must propagate 5 species.

5 points: *Vesicularia dubyana, Ceratopterus* species
10 points: *Microsorium* and *Bolbitis* species, all plants not mentioned in other groups
15 points: *Fontinalis antipyretica*, "Christmas moss"
20 points: None
Target: Isotes species

Class K - All Marine Plants

Marine Macroalgae (Green, Red & Brown) and Grasses. Alga - Most marine plants are types of alga. For our purpose the alga which will be considered for the HAP program are certain forms of green, red, & brown macroalga. Alga compose a collection of primitive plants characterized by a reproduction system that does not require the formation of flowers or seeds. Macroalga are generally anchored to the substrate by a root-like "holdfast" that performs the sole function of attachment; it does not extract nutrients from the environment, as do the roots of higher plants. These alga often have a vegetative portion which is divisible into stem-like blades and which may possess leaf-like branchlets. These macroalga are photosynthethetic. Macroalga are large enough to be easily seen and examined. Microalga include the many microscopic, mostly single-celled forms. Among marine alga only macroalga forms will be eligible for inclusion in the program; microalga forms are not be eligible for inclusion. Grasses - The higher marine plants included in the HAP are mostly flowering grasses. The higher marine plants possess true roots and use them to obtain nutrients. They also have true stem and leaf structures. They may reproduce vegetatively, but have true flowers as well. The flowers are pollinated to produce seeds and seedlings, a form of sexual reproduction.
To complete this class, one must propagate 6 species.

Class K. A – All species of Red Macroalga (Rhodophyta) *Acanthophora, Amphiroa, Anotrichum, Asparagopsis, Callithamnion, Centroceras, Ceraminum, Champia, Chondria, Coelothrix, Dasya, Dictyurus, Eupogodon, Galaxaura, Griffithsia, Haloplegma, Haliptilon, Subulatum*, All species of Red Macroalga (Rhodophyta) cont'd. *Halymenia, Helerosiphonia, Jania, Kallymenia, Liagora, Martensia, Spyridia, Trichogloea, Trichogloepsis, Wrangelia,* Plus all other species of: Red Macroalga.

5 points: None
10 points: *Galaxaura marginata*
15 points: *Galaxaura oblongata*
20 points: All species of red macroalga not included in other point classes
Targets: *Acanthophora spicifera, Anotrichum barbatum, Asparagopsis taxiformis, Callithamnion cordatum*, All *Chondria* species, All *Dasya* species, Dictyurus accidentalis, Griffithsia globulifera, All *Jania* species, *Martensia pavonia,* and *Trichogloepsis pedicellata.*

Class K. B – All species of: Green Macroalga (Chlorophyta) *Acetubularia, Adadyomene, Avrainvillea, Batophora, Bryopsis, Caulerpa crassifolia, cupressoides, lanuginosa, mexicana, prolifera, racemosa* var: *peltata, racemosa* var: *racemosa, serrulata, serularioides, verticillata, Chadtomorpha, Chamaedons, Cladocephalus, Codium, Cymopolia, Dasycladus, Dictyophaeria, Enteromorpha, Halimeda, Microdictyon, Neomeris, Penicillus capitatus,* (shaving brush) *Polyphysa, Rhipilea, Rhipocephalus, Udotea, Ulva, Ulvarua,* Plus all other species of Geen Macroalga.

5 points: *Caulerpa mexicana, C. prolifera, C. racemosa* var. *peltata, C. racemosa* var. *racemosa* & *C. serularioides*, and *Enteromorpha flexuosa*
10 points: All *Bryopsis* species, *Caulerpa crassifolia, C. lanuginosa, C. serrulata*, All *Chadtomorpha* species, *Cladophora prolifera*, and *Codium decorticatum.*
15 points: *Batophora oerstedii, Caulerpa cupressoides* & *C. verticillata,* All *Chadtomorpha* species, All *Cladocephalus* species, *Codium repens, Dasycladus vermicularis, Dictyophaeria cavernosa, Neomeris annulata,* All *Penicillus* species, All *Rhipilea* species, and All *Ulva* species
20 points: All species of green macroalga not mentioned in other point classes
Targets: All *Chamaedons* species, *Cymopolia barbarta, Halimeda lacrimosa* & *H. opuntia, Ulvarua oxysperma,*

Class K. C – All species of: Brown Macroalga (Phaeophyta) *Chnoospora, Colpomenia, Cystoseira, Dictyota, Hydroclathrus, Lobophora, Rosenvingea, Sargassum, Turbinaria,* Plus all other species of Brown Macroalga.

5 points: None
10 points: None
15 points: None
20 points: All species of brown macroalga not mentioned in other point classes
Targets: *Dictyota bartayresii, D. divaricata* & *D. linearis, Lobophora variegata, Rosenvingea intricata*, and All *Turbinaria* species

Class K. D – All species of marine flowering plants *Thalassia testudinim* (turtle grass) Plus all other species of marine plants not included in macroalga

5 points: None
10 points: All species of marine plants not mentioned in other point classes
15 points: *Halophila englemannii*
20 points: *Halophila decipiens*
Targets: Any species reproduced by sexual reproduction, producing: flowers, seeds & seedlings.

* Identified as a Noxious Weed by the States of Oklahoma and Texas

FOTAS

CARES!

As a new era of the Federation of Texas Aquarium Societies is clearly developing, changes are taking place. No longer will FOTAS be only a yearly gathering. FOTAS will be a year round, club and hobbyist, bee hive of activity. The FOTAS board has discussed many issues in detail. Whereas many clubs once ran an active Breeder Awards Points and a Horticultural Awards Points programs, only a few are currently active. We have decided to enact both of these programs under the FOTAS moniker (see info concerning both programs in the issue). These are not meant to replace any active program being enacted by a FOTAS society, just as a format to participate where one might not have access, or in addition to their club's program.

With this in mind, I feel it is the right time to begin the FOTAS CARES program as well. For those of you not familiar with the CARES program, I would encourage you to visit www.carespresevation.com. At this website you will find details about CARES including the people behind the scenes. You will also find the all important priority list. This is a list of species that CARES recognizes as unstable in their native habitat. In other words, these are the fish that need our help. Looking at the list, you might be surprised at some of the species included and may even be working with them already.

The FOTAS CARES program recognizes hobbyists who are maintaining priority listed fish. The goal is keep these fish for the long term, potentially breeding and passing them on to others. FOTAS CARES will incorporate a database of individuals who have registered their fish. If you decided to enter the FOTAS CARES program, you are expected to keep the chairman (myself) abreast of any changes and updates to your colony. We are incorporating the FOTAS CARES program in with the FOTAS BAP program. I believe there is a stipulation for being awarded additional point if the species is a CARES fish.

When you initially enter your fish to be recognized by FOTAS CARES, you may have to provide confirmation that your fish are indeed what they are supposed to be. This may seem redundant but once your fish are entered into FOTAS CARES, their offspring have known providence. This is where the CARES coordinators come in to play.

How do I enter my fish in the FOTAS CARES program?

At this time, you will send your intentions to me (Greg Steeves) at gasteeves@gmail.com. Please include as much information as you can about your colony. Details such as where you got them, the number of fish in your group, if they have spawned, photos (if possible) etc. will aid in having your colony registered quickly.

One item of great importance; please do not register any fish that you don't intend to work with for a long time. It is a waste of everyone's time to register a colony of fish just to sell or trade it a short time later. Each issue of Fish Tales will have an update of our CARES program that will include new fish, new participants, milestone entrants and BAP connections.

Make this international program a huge FOTAS success…participates!!!!

Greg Steeves

"No one can save them all but we all can save one!"

BAP Report

Spawning the Buffalohead

Article and Photos by Duc Nguyen

Duc Nguyen

Duc Nguyen is originally from Saigon, Viet Nam and his family immigrated to the United States due to the Viet Nam War in August of 1975. Growing up in Indiana, his interest (obsession) with tropical fish started at an early age. The interest in African cichlids started in college when he got his first pair of Pseudotropheus elongatus. They spawned and he's kept African cichlids since. The beginning were Malawians. Then it switched to Tanganyikans and Victorians…and currently, it's a combination of South Americans and West Africans.

Currently, he keeps: Altolamprologus calvus, Burjurquina vitiata, Steatocranus casuarius, and Cyprichromis leptosoma. He also has Betta simplex and has an obsession with tropical pitcher plants (Nepenthes sp. as well as his Cardigan Welsh Corgi (Ms Grace).

Before getting too far into this article, I wanted to bring up the following - one of the main reasons I got into the fish hobby was because of my interest in watching animal behavior. To me, it's extremely enjoyable in simply watching a bonded pair of any species guarding their offspring.

My history with *Steatocranus casuarius* (aka. Buffalo heads because of the nuchal hump common in most males) started back many years – in the 1990s. I had read an article in Buntbarsche Bulletin about them. The main species that caught my attention were *C. casuarius*. These fish are relatively easy to find but I had to go to a specialty store to find my first pair.

Both sexes have a dark to light brown color. The main characteristic with *S. casuarius* is the scale pattern; they have dark colored scales surrounded with a light border. Males can be distinguished from females quite easily starting from when they are about two inches. Males grow significantly larger (males grow to around 4.5 – 5 inches in length); the dorsal fin is more flowing and reaches a definite point. Females are much smaller in size (they reach around 2.5 – 3 inches) and their dorsal fin length will not pass the caudal fin and do not come to a point.

I have read that these fish prefer fast flowing water current and to try and replicate this in the aquarium; however, I have kept mine with just sponge filters for air flow and they were perfectly fine. I have also kept them with fast flowing currents from external filters and they were perfectly fine as well. Temperament wise, *S. casuarius* is a typical cichlid. In general, they are a great community fish but they do not handle conspecifics well at all. If you have an established pair, they will endlessly chase off any male or female *S. casuarius* so it's best to keep a species only tank for them. From the first several days of keeping my pair, they were fighting constantly and the male would chase the fe-

male endlessly around the tank. Eventually, the male killed the female. After this point, my experiences pretty much remained consistent; I would purchase others and they just killed each other off and I never saw any pair bond at all. This was all extremely frustrating to me, but I was persistent. I was so interested in these fish!

Finally, in December of 2014, I got a group of juveniles and I managed to get a pair and this time, they've spawned several times. If your intention is to keep these fish and getting them to spawn, this is really the best method of getting a pair. Obtain a group of about five to six juveniles and let nature take its course. Eventually, when you see two hanging out together and chasing off the others, then separate the pair and give them their own tank. I kept my pair in a 29 gallon with various cave structures with gravel substrate.

These fish tolerate a wide range in pH. I placed several pieces of driftwood in order to lower the pH and mine measured about 7.8. I have planted several Anubis barteri and luckily, these fish don't dig them up although they are notorious in excavating a pit by picking up pieces of gravel and placing them across the tank. Whenever I see this behavior, I know that spawning will be occurring soon. Additionally, I placed a group of six zebra danios with them mainly for dither fish and to help get the fish out of hiding. They tend to be pretty shy and were in hiding constantly but when I added the danios, they came out much more.

When my pair spawned, they have always chosen a cave. The spawns are usually 30 - 40 fry. The eggs are a light yellow color and the female does most of the guarding with the male patrolling the area surrounding the cave. I observed that it took about a week before I saw free swimming fry. I am sure this is dependent on temperature; I kept my tank at 78 F. The amount of care these fish provide for their fry is amazing! The pair guard the fry extremely well and won't let anything near them…including my hand! I had made the mistake of sticking my hand in when I was trying to move some caves around - both the male and female attacked my hand! Needless to say, I didn't do that again. Another neat aspect about these fish is that the parents won't drive away their spawn. There could potentially be multiple groups of fry of different ages and the parents will not drive any of them away. They pretty much stay together. I did eventually have to separate the group into a nursery tank.

In closing, *S. casuarius* will always be one of my favorite cichlid to keep. I must admit it took me a while to get them to spawn but all the effort was worth it. What they lack in color, they more than make up for with great personality and awesome brood care behavior! Give these guys a try!

A pair of Buffalohead Cichlids tending their egges.

GloFish

Article by Gerald Griffin

Love them or hate them, they are here to stay!

When the GloFish first hit the market in 2002 they were viewed with everything from monstrosity to the coolest thing that ever hit the pet fish trade. Many tried to have them banned outright from the pet trade while others heralded their arrival as a way of attracting new customers. It has now been 13 years since this fish's creation and it has found a place in the pet markets around the world.

So what is a GloFish? A GloFish is a modified Zebra Danio (*Brachydanio rerio*) that has had a gene from a jellyfish incorporated into its DNA to make it glow. H. J. Tsai, a professor at National Taiwan University first created fluorescent fish

to monitor embryological development. The first of these fish had fluorescent hearts however a few years into his research he had one develop that had the fluorescence gene in every cell creating a fish that literally glowed. He then developed this fish as a way to monitor polluted waterways. The idea is simple enough, release a number of these Zebra Danios into a polluted water source and count how many you see at night. The more danios found the safer the water. Professor Tsai later modified other Zebra Danios with fluorescent genes from coral to produce the red color. After its creation the people that market the Zebra Danio TK-1 have changed the name of the fish to GloFish. The GloFish Distributors are quite specific in the terms under which they sell this fish. Namely they own the patent on this organism and have stated that it is illegal to bred them for commercial sale to protect their own market.

Having seen the fluorescent fish, Willis Fang, the president of Taikong (a 20 year old aquarium supply company) saw great potential n the little glowing fish and obtained the rights to market these Genetically Modified Zebra Danios and gave them the designation of TK-1. Mr. Fang was definitely right as his "night pearls" TK-1s sold and attracted the attention of the entire world's pet suppliers. Within months of his release pet shops from around the world were trying to obtain the "little glowing fish from Taiwan". Within a few years the GloFish was being sold in most of the major commercial outlets. Demand for this fish had caused a number of people who were originally opposed to these fish to change their minds and carry them because of consumer demand.

The latest offering from Yorktown Technologies, Electric Green Tiger Barbs

There have been many arguments about allowing these Genetically Mutated Zebra Danios into various countries but Government officials have been assured of their safety. The first argument is the accidental or intentional release into waterways. Many in the aquatics industry point out that a fluorescent fish would be similar to a fishing lure and targeted by most predators from fish to birds. In the United States where Zebra Danios have been sold for over 50 years, there are no wild populations which would mean that release of GloFish would have no impact on the environment. Others point out the fluorescent proteins being eaten by fish. Since the glowing is made by a protein it would be digested like any other protein and the fish eating the GloFish in itself would not glow from it. The FDA cleared the GloFish for sale in the United States on December 9th of 2003.

However others see this as a first invasion of Genetically Modified pets and worry about what some aquaculturalists could be thinking of on the horizon. Some worry about the creation of fish that are bio-engineered to survive in cold weather and argue what if someone were to add this trait to a piranha. That might be an extremist view however with the advancement of scientific progress is not outside of the realm of possibility. This view has caused many to boycott "this monstrosity" of a fish.

The GloFish and any other small danio are very easy to keep in the aquarium and are very hardy fish. Danios also eat most prepared foods and can be kept in small desktop tanks to anything larger. Zebra Danios also reach a maximum size of about one and a half inches and can be kept with fish of a similar size. Danios are also not aggressive and therefore make a great addition to any community tank. Since they are a schooling fish they should be kept in groups of 6 or more. This gives them comfort and should eliminate one becoming nippy and biting a tank mates fins.

One of the first offerings of GloFish, the Sunburst Orange Zebrafish.

With the success of the GloFish other fish have been transformed by the same techniques. Now one can find Black Tetras, Angelfish, Glass Catfish, Tiger Barbs, Convict Cichlids and Parrot Cichlids have all been modifiied for these Glo Genes. I have also had a lab technician tell me that her lab had also placed these genes in a *Nothobranchus* killifish but they are not on the market as this was for research only.

In conclusion the zebra danio has always maintained a certain level of popularity since it was introduced into the pet trade over fifty years ago. The GloFish is just another step in the evolution of the pet trade and will probably ensure the zebra danios along with the other species that have been modified a place in the pet trade for many years to come.

Editors Notes:

The whole concept of Glofish has been a hot topic among aquarists. A number of purists hate them however these fish have become popular and are responsible for some people joining the Aquarium Hobby.

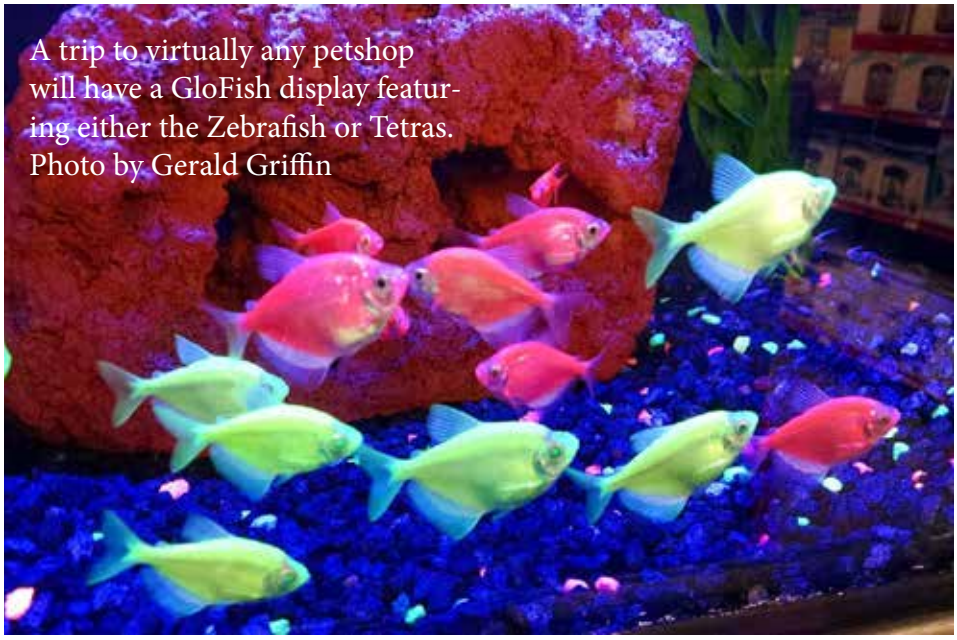
Although they were created for research it was obvious that they would eventually be destined to the Aquarium Trade. Personally I do disapprove of them because they are not dyed or latex injected like what has happened to the poor unfortunate Glass Fish just to make them more attractive.

There have been a number of Aquarists proclaim what if they got loose into an ecosystem. Well considering their needs they would probably only survive in a tropical environment and that glowing would make them a target for predatory species so personally I don't see a way they could become invasive. However some localities and countries have put an outright ban on these "Genetically Modified" species whereas the unmodified species are legal for sale.

As to the patent on this species Aquarists still not allowed to breed them nor sell them commercially. Some still argue whether a company should be allowed to patent a lifefore but the courts have ruled such patents legal.

All in all the reason these fish sell is that they fit into a niche in the Aquarium Market which is entirely consumer driven. If something does not sell then they are not sold and discontinued. So as long as consumers like these bizzare, flashy fish they will remain on the market.

A Special Thanks to Yorktown Technologies for the GloFish pictures which are used by permission.



A trip to virtually any petshop will have a GloFish display featuring either the Zebrafish or Tetras. Photo by Gerald Griffin

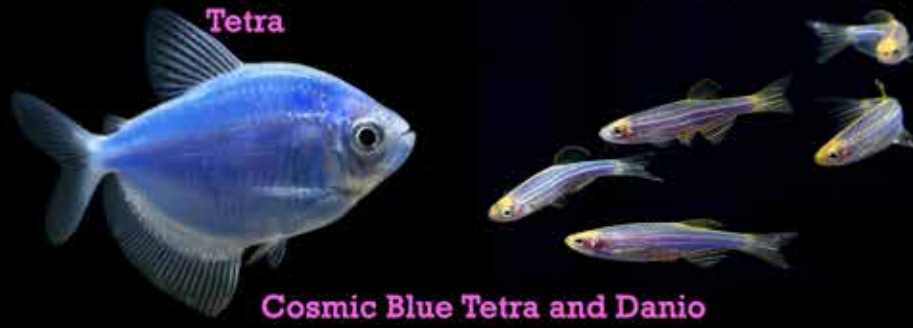
Meet the GloFish

Galactic Purple Tetra and Danio

Electric Green Tetra and Danio

Moonrise Pink Tetra

Starfire Red Danio



Cosmic Blue Tetra and Danio

Sunburst Orange Tetra and Danio

A listing of the various colors available of GloFish by Yorktown Technologies.

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For more information check out their website at www.GloFish.com

What the Heck is an ESU?

By

Leslie Dick

Leslie Dick is the current Chairman of the American Livebearer Association (ALA) and is a charter member of the North American Goodied Working Group (NAGWG), as well as a member of the NAGWG steering committee. She is the CARES for Individual Coordinator with the CARES Preservation Program. Leslie sits on the BOD of the Northeast Council of Aquarium Societies (NEC) and has been the chairman of the NEC's annual conventions for the past 6 years. She was awarded the Ray Massagli Award in 2010 for her dedication to her home club, the Danbury Area Aquarium Society (DAAS) and the aquarium hobby, and was the 2012 recipient of the NEC's Betty Mueller Memorial Award, a lifetime award for her dedication to the NEC and the aquarium hobby.

Leslie has been involved in the conservation of at risk in the wild goodeids for the past five years, ever since her introduction to them at an ALA convention auction. She maintains more than twenty distinct populations of goodeids in her fish room which are registered with the ALA's SMP program, with CARES, and with the NAGWG.

In November 2014, Leslie was fortunate to attend the International Symposium on Fishes in Morelia, Mexico, and the joint NAGWG and European GWG meeting. As part of that meeting, she visited the Fish Ark Mexico participating in several sampling trips.

The sub-family Goodeinae, comprised of some 40 species and about 80 distinct populations, is endemic to Mexico, and nearly are all at risk in the wild. Each of these distinct populations has been geographically separated from one another for, in some cases, thousands of years. As a result, each has likely evolved with its own unique set of genetic characteristics. Some species of goodeids have quite a few known distinct populations, and it is important to keep them separated in captive breeding programs to prevent possible hybridization. Should two distinct populations of the same species be housed together, hybridization could occur. The resulting offspring may lose the unique genetic characteristics of their parents, leaving what is known as "aquarium strain" fish.

This is where ESUs come into play. Dr. John Lyons, the Chairman of the North American Goodeid Working Group (NAGWG), received his Ph.D. in Zoology with an emphasis on fish ecology and ichthyology from the University of Wisconsin-Madison, and has been involved in conservation efforts of goodeids since 1986. At the second annual meeting of the NAGWG held at a recent American Livebearer Association convention, John introduced "Evolutionarily Significant Units" or ESUs, the technical term for genetically distinct populations of evolutionary and conservation significance, as a method to maintain and track known goodeid diversity.

Let's take a look at how ESUs work. Please note that the charts used in this article are abstracted from Lyons' spreadsheet; general information for each genus is in the yellow rows, while ESU numbers and location information for each population are in the blue rows. ESU codes are based on a formula that has the first three letters as an abbreviation of the genus name and the last two letters as an abbreviation of the species name, followed by a number for the particular species or ESU. For some species, there is only one known population. *Ameca splendens* is one of the most well-known goodeid species. The current species number is 13, the current ESU number is 20, and

the location information is identical for the species and the ESU.

Count	Genus	species	Code	Basin(s)	Waters
13	*Ameca*	*splendens*	Amesp0	Ameca, Magdelena, Sayula	Manantial and Rio Ameca, Presa La Vega, Manantial, Almoloya, Tangue El Molino, Cuyacapan, Sayula
20	*Ameca*	*splendens*	Amesp1	Ameca	Manantial and Rio Teuchitlan, Rio Ameca, Presa La Vega, Manantial Almoloya, Tanque El Molino, Cuyacapan, Sayula

With another popular goodeid, *Xenotoca eiseni*, there is 1 species with 5 distinct populations. Here, the current species number is 34, the current population ESUs are 62 through 66. Note that the population locations are unique to the ESUs.

Count	Genus	species	Code	Basin(s)	Waters
34	*Xenotoca*	*eiseni*	Xenei0	Santiago, Coahuayana, Armeria	See ESU's
62	*Xenotoca*	*eiseni*	Xenei1	Santiago	Manantial 6 de enero, Manantial el Sacristan, Rio Santiago
63	*Xenotoca*	*eiseni*	Xenei2	Compostela	Rio Compostela
64	*Xenotoca*	*eiseni*	Xenei3	Coahuayana	Rio Tamazula
65	*Xenotoca*	*eiseni*	Xenei4	Armeria	Rio Ayuquila
66	*Xenotoca*	*eiseni* (cf. *eiseni*)	Xenei5	Ameca, Magdalena	Rio San Marcos, Granja Sahuaripa, Etzatlan, Laguna Palo Verde, Manantial Almoloya, Manantial El Tanque, Rio Caliente

These species are quite straightforward. There are several goodeid species where there is 1 species number, in this case, number 16, and the genus name is the same, but the species names are different, such as with *Chapalichthys pardalis,* current ESU 23. *Chapalichthys pardalis* is only found in Manantial Tocumbo, while *C. peraticus*, current ESU 24, is only found in Presa San Juanico.

Count	Genus	species	Code	Basin(s)	Waters
16	*Chapalichthys*	*pardalis*	Chapa0	Balsas	See ESU's
23	*Chapalichthys*	*pardalis*	Chapa1	Balsas	Manantial Tocumbo
24	*Chapalichthys*	*pardalis (peraticus)*	Chapa2	Balsas	Presa San Juanico

If we look at *Characodon,* the information is even more complicated. We find there are 2 species (*Characodon audax* and *C. lateralis*) with current species number 17 and 9 known populations with current ESU numbers 25 through 33.

The *Characodon* known as "The Black Prince" is referred to as *Characodon audax* 'El Toboso' and is the only *C. audax* species recognized by Lyons. There are other populations known from a single location that some have also termed as *C. audax*, but Lyons feels that until the genus undergoes a detailed taxonomic revision, these populations should be called *C. lateralis*, for example *Characodon lateralis* 'Los Pinos" or *C. lateralis* 'Puente Pino Suarez'. Those with multiple locations with the same ESU numbers (looking at ESU 28 as an example) are similarly written as *C. lateralis* 'Guadalupe Aquilera' or *C. lateralis* 'Laguna Seca' based on the location where they have the largest abundance. Two populations that have always been referred to as *C. lateralis* (ESUs 32 and 33) are now also referred to as populations, such as *C. lateralis* 'Armado Nervo'.

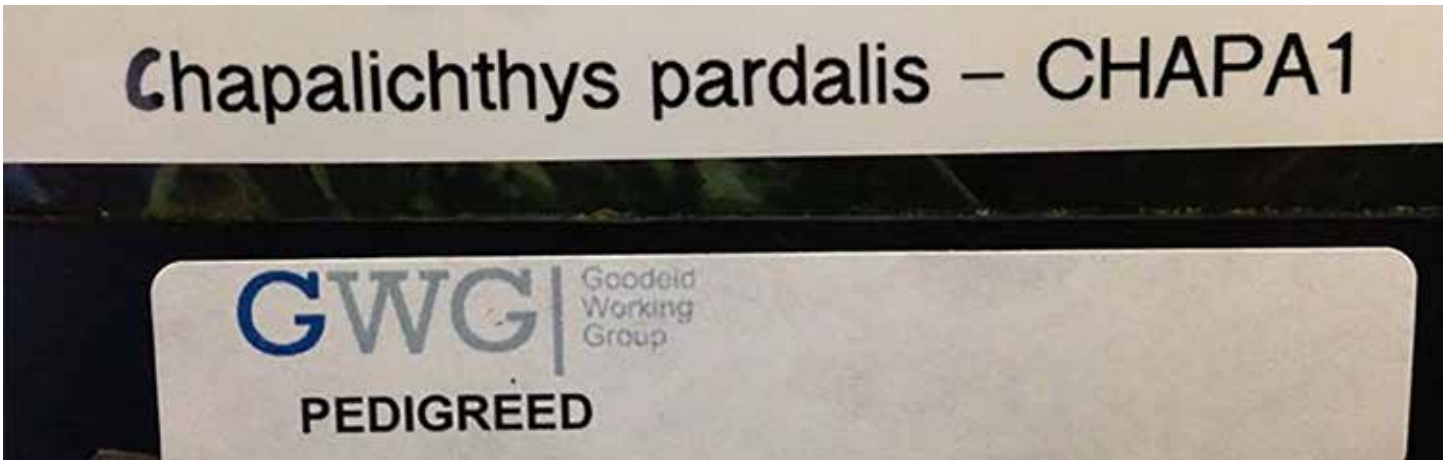
Count	Genus	species	Code	Basin(s)	Waters
17	*Characodon*	*audax*	Chrau0	Mezquital	El Toboso
25	*Characodon*	*audax*	Chrau1	Mezquital	El Toboso
18	*Characodon*	*lateralis*	Chrla0	Mezquital	See ESU's
26	*Characodon*	*lateralis (audax)*	Chrla1	Mezquital	Cerro Gordo, Manantial El Carmen, Arroyo San Rafael
27	*Characodon*	*lateralis (audax)*	Chrla2	Mezquital	Los Pinos
28	*Characodon*	*lateralis (audax)*	Chrla3	Mezquital	Presa Penon del Aguila, Rio Mezquital, Guadalupe Aquilera, Laguna Seca, Aguada de las Mujeres
29	*Characodon*	*lateralis (audax)*	Chrla4	Mezquital	Hot Springs, Presa Tunal, Rio Saceda, San Vincente de los Chupaderos
30	*Characodon*	*lateralis (audax)*	Chrla5	Mezquital	Abraham Gonzales, Ojo Garabato, 27 de Noviembre
31	*Characodon*	*lateralis (audax)*	Chrla6	Mezquital	Puente Pino Suarez
32	*Characodon*	*lateralis*	Chrla7	Mezquital	Ojo de Agua de San Juan, Los Berros, Ojo de Nombre de Dios, La Constancia
33	*Characodon*	*lateralis*	Chrla8	Mezquital	Amado Nervo

To further complicate issues, as new distinct populations of species are added to this comprehensive spreadsheet, the ESU numbers change. Remember that I referred to "current ESU number"? At one time, there were just 3 known populations of *Xenotoca eiseni* while now there are 5; there were once 5 known populations of *Characodon lateralis* and now there are 8 populations. When these new ESUs are added, they are added in numerical order, so those ESU numbers below these additions receive a new ESU number.

How is one to keep track of a specific population of a species if the ESU numbers don't remain the same? Fortunately, the answer is quite simple – the code associated with each population remains the same, so *Xenotoca eiseni* 'Rio Tamazula' will always be known as Xenei3 regardless of what is listed as its ESU number.

Count	Genus	Species	Code	Basin(s)	Waters
64	*Xenotoca*	*eiseni*	Xenei3	Coahuayana	Rio Tamazula

How do I keep track of known populations of goodeids? In my fish room, I label each tank of goodeids with the genus and species name, from whom and when I received each group, and label each tank with the species name and the associated code. I obtain goodeids from known breeders, usually fellow members of the NAGWG, who also maintain detailed records on their colonies. Below are examples of species and ESU code numbers for two of the goodeids under my care:



Should one purchase goodeids at either online or club auctions, look for specific information, such as population location and breeder's name. Without this information, the fish should be considered "aquarium strain" and maintained in their own aquarium until such time as you can backtrack through previous owners of these fish to determine if they came from a known population, and haven't been mixed with other populations while in captivity.

With the uncertain future of all species of goodeids in the wild, captive breeding programs such as those with members of the NAGWG, the ALA's Species Maintenance Program, and the CARES Priority List will help ensure their continued existence.

The detailed information contained in the ESU spreadsheet, if used appropriately, will help ensure that unique known populations of goodeids will be maintained with all their genetic diversity intact.

Editors Notes:

This is an interesting proposal that the American Livebearer Association and the Goodeid Working Group are using to keep track of their populations. I can see a time where other groups do similar things. The American Killifish Association is pretty head strong in using local data which is actually very important.

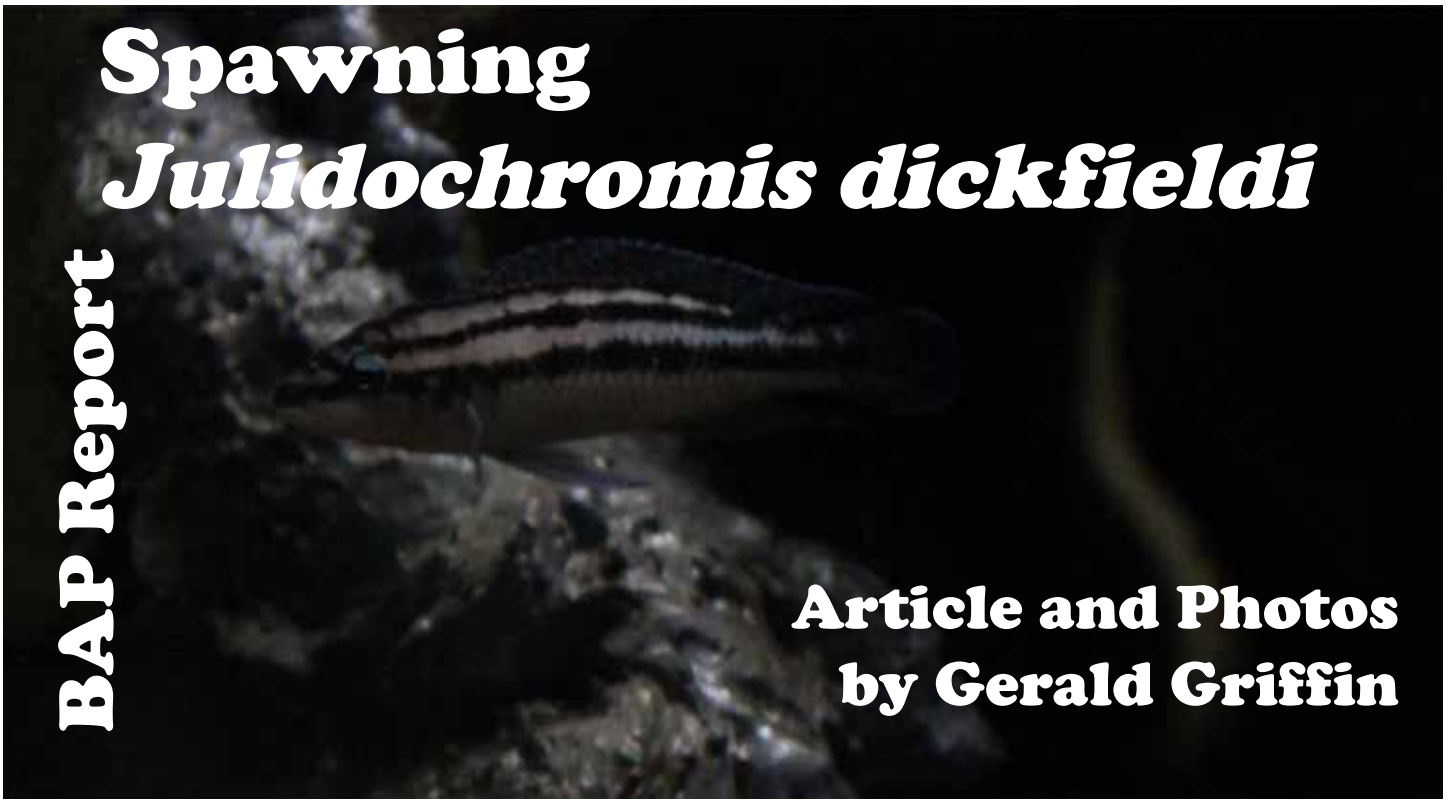
I plan on having several discussions with Dr. John Lyons to see how this could be adapted to wild Betta populations. In my time running the Species Maintenance Program for the International Betta Congress I have seen examples where species have been split where as if people were crossing those populations they would be inadvertantly creating hybrid populations.

Granted there have been some interesting new works on what a species is however we should do our best to preserve the localities as much as possible. When preserving localities is not an option then preserving the species will have to do.

I am happy that Leslie has shared this article with us and our readers will probably see this article reprinted many times. Hope you enjoyed it.

Spawning *Julidochromis dickfieldi*

BAP Report



Article and Photos by Gerald Griffin

Gerald Griffin

I am currently the President of the International Betta Congress as well as the chair of the Species Maintenance Program, Color Conservation Chair and Co-Chair of the Education Committee of the IBC. I am also involved in my Local Aquarium Association serving as the President and BAP chair of the Oklahoma Aquarium, the Treasurer for the American Labyrinth Fishes Association and also the President of the Oklahoma Betta Breeders Association.

I published my first article in FLARE! Magazine in 1986 and have been writing ever since and running small club publications and newsletters. I know that we still have a lot to learn about many species reproductive biology and firmly believe that the hobbiest can make a great impact on Species Conservation.

I am no stranger to spawning fish and have over the course of my 40 some years of breeding fish have spawned a few hundred species of fish. Although Anabantoids are among my favorite species I have dabbled in most species especially Cichlids. Within those Cichlids my favorites are the Shellies and Julies. With the Shellies I love their antics however the Julies are really cool because of their body shape and their parental ability. I first received my *Julidochromis dickfieldi* at an auction. The bag was six juveniles and I placed them in a tank with a lot of cave cover designed with broken flower pots. After a few months two of them had formed a pair bond and were harassing all of the other julies as they often do. This species is very highly noted for its extreme aggression towards conspecifics.

The pair was quickly moved to their own tank within the next water change I noticed fry. I did not get a good count but there were some 30 plus fry. I did nothing special and continued feeding the same flake I was feeding the parents except I crushed it up some. The fry took to the flake very quickly. In less than two weeks I was greeted to another batch of fry number some 40 plus and their older siblings. Within a few weeks I was again greeted by another batch of fry. Now I have a lot of Julies and I decided to set them up in a tank at work. A Tanganyikan Biotope with *Lamprologus multifasciatus*. I had finally done what I had wanted for years, to have a tank with Julies on one side and Multies on the other. The tank is a 55 gallon with 2 feet dedicated to the Multies and their shells and the other 2 feet has a cinder block with clay pots siliconed together with black pond foam for effect.

The pair did not take long and I had noticed the female was hiding behind the cinder block. I knew that

before long I would see fry. This time it took longer and we had left for fall break without seeing fry. Upon returning from the break there they were, the fry were coming out for the fish food. The spawn was only a small one but a spawn none the less. The pair was now spawning like clockwork and within 2 more weeks had another batch of fry laid in the same area behind the cinder block. Three weeks later the female surprised me by using the flower pots and laying a clutch almost where I could see them. The larger fry were swimming all around the structure as the newest babies emerged from the structure under the careful watch of mom and dad.

Babies beginning to explore their world under the watchful eyes of Mom!

So far the parents are good to stay on their sides of the tank but the babies of the Julies and the Multies like to explore and will swim into the territories of the other fish. As of now there are three sets of Multi enclaves with a dominant male and some females in shells, the rest of the multi area is filled with plants and some of the multi mothers take their fry out to munch on the java moss. Other mothers wait for the fish food to come into their territory and they bring flakes to their shell for the babies to munch. All of the fry are growing nicely.

In the wild *Julidochromis dickfieldi* are found in the rocky outcrops in shallow water of Lake Tanganyika. The waters are hard and high in pH measuring 8.6. The temperature in their habitat stays around 77 to 79 F. Their diet in the wild consists of crustaceans, insect larvae and mollusks found in the surface growth of algae which adhere to the rocky substrate and sandy bottom.

A young juvenile beginning to explore their tank.

Personally I have found that Julies are quite adaptable to water conditions and I do not modify my water to keep Africans. My water is around pH 7.6 with a hardness of 160 ppm carbonate and I find almost all of them are quite happy with my local water. I also find they do quite well on most flake foods and do relish frozen blood worms when offered. For those that have never tried Julies they really should give them a try, they are a great fish to watch for their behavior and will always be amoung one of my favorite types of cichlids.

Meet the San Antonio Aquatic Plant Club

Summer Meeting at Water Garden Gems Pond Store.

By Chris Lewis

Chris Lewis

My first aquarium was the quintessential community tank kept as a child in the late 70s. It contained clown puke gravel, bubbling divers, pirate chests, and one of every fish I could possibly squeeze in. Don't tell the hipster fish police, but we even had a goldfish bowl. Hopefully my aquarium skills have matured way beyond those first tanks. In the early 90s I was fresh out of high school and living on my one. I desperately wanted a saltwater tank, and wandered into a local fish store. However, I was instantly captivated by the large planted aquarium on the wall. Discus, Cardinal Tetras, Rummynose, and Hatchet fish swam amongst driftwood, amazon swords, vallisneria, and a few java ferns. I have been hooked on planted aquariums even since. Over the years I have kept a wide variety of fresh and saltwater tanks, but planted aquariums remain my passion. The bonus to this great hobby is all the wonderful people I have met over the years. I am a native Texan originally from East Texas, but raised in the Dallas area. Currently I reside in San Antonio, and love this unique section of Texas. Besides keeping fish I also enjoy fresh and saltwater fishing.

The San Antonio Aquatic Plant Club is an internet based group formed in early 2012. The club was started by two members of a large forum that wanted to bring together local planted aquarium hobbyist.

The original intent was to have an informal group where locals could swap plants, socialize and share information in a more relaxed environment.

The main platform of the club is our Facebook group located at www.facebook.com/groups.saapc.

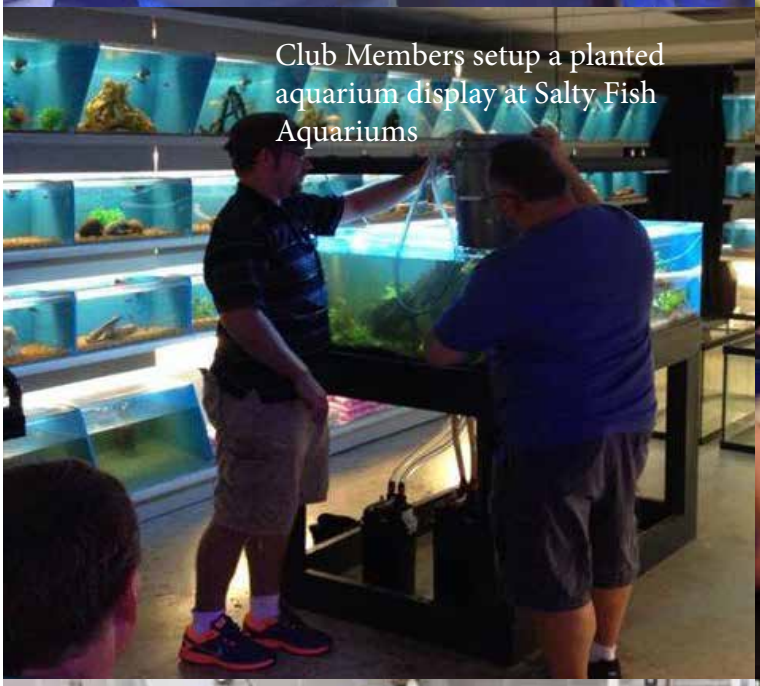
We also have three to four meetings per year, and a couple of field trips. During the meetings we have a social time, and then usually a topic of discussion. Then we conculde each meeting with a plant swap. With the goal of the plant swap to ensure new members, and new people to the hobby have healthy plants available for their tanks.

Although the club is comprised of mainly local members our Facebook group has members from all over the state, and the world. We find this to be a great resource in sharing information, and plants available in the hobby.

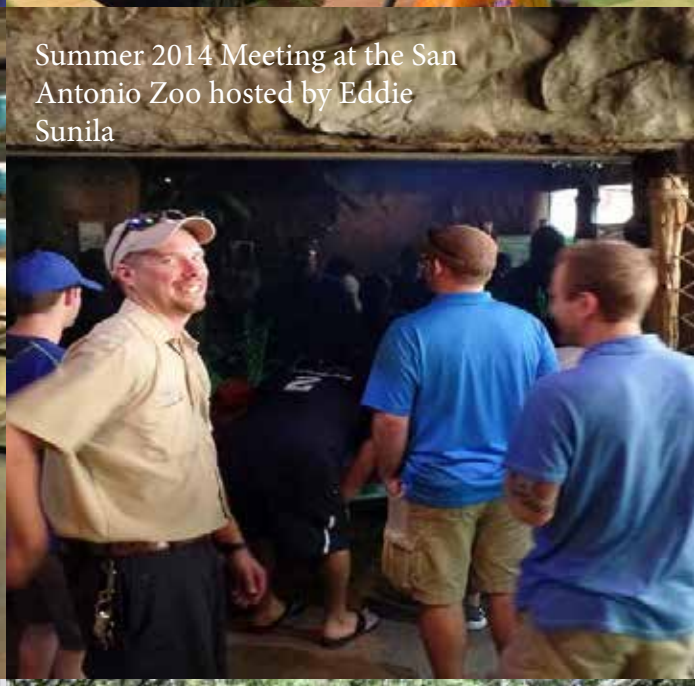
We do not elect officers, and do not charge dues since the main focous of the group is sharing information and plants.

Winter Meeting Plant Swap at Salty Fish Aquariums

Planted Aquarium set up demonstration at FOTAS 14



Club Members setup a planted aquarium display at Salty Fish Aquariums



Summer 2014 Meeting at the San Antonio Zoo hosted by Eddie Sunila

Filtration Room at the San Antonio Zoo for the African Cichlid Display

Bog plant area of Water Garden Gems.

Editor's Notes: Participating in the FOTAS BAP and HAP

Participation is totally voluntary and members are free to participate or not. Now the BAP and HAP are not replacements for your local clubs programs. They are in addition to and the idea is to foster some inter-club competitions to see which clubs can produce the most articles and points.

To participate in the BAP and HAP the participants must submit an article as well as a HAP or BAP form. All articles are to go to Gerald Griffin herpchat@yahoo.com. HAP forms are to go to Chris Lewis chrislewistx@gmail.com. Each Chair will keep the point tally and the records for publication in Fish Tales and for awards at the FOTAS Convention. Submission forms will be in the Federation of Texas Aquarium Societies Facebook Group or you can email the HAP or BAP chair to recieve the forms via email.

Awards are offered for the BAP Champion for the year and the HAP Champion for the year. There will also be awards for the best BAP Article of the Year and the best HAP Article for the Year. There will also be certificates for the top 5 placements in the BAP and HAP Programs.

Local Pet Shop Feature

The Fish Tales Committee decided to go ahead and feature a few pet shops each issue instead of all at once. These will be shops that support the local Aquarium Clubs with discounts as well in other means. If you have a pet shop you think should be featured let us know and we will get to your suggestion.

Writers Awards

The FOTAS Leadership Team has decided that there should be prizes and awards for Articles submitted to FOTAS Fish Tales. Each winner will receive an award that will be awarded at the FOTAS Convention and in addition will receive a cash prize.

The Awards are as follows
Article of the Year (From all submissions)
Best BAP Article
Best HAP Article
Best Feature Article non HAP or BAP
Best Club Article
Best Photograph
Most Club Submissions (total for FOTAS year)
Best Fish Article (Non BAP)
Best Plant Article (Non HAP)

There are a lot of exciting things coming up in the coming year in FOTAS. Next issue Greg Steeves will be discussing a review of the CARES Program and has indicated that our Regional CARES has numerous species kept by members. In additions there are bound to be a number of BAP and HAP entries as that competition gears up. Stay tuned for our next issue due out 30 January 2016.

Dave's Rare Aquarium Fish

San Antonio, Texas

5121 Crestway Drive #300, San Antonio, Tx
Hours and Days of Operation: Mon – Fri by Appointment Only
Phone: 210-599-9444
Website: www.davesfish.com
E-mail: daves@davesfish.com

You might never guess from the small storefront but Dave's Rare Aquarium Fish in San Antonio might just hold one of the largest selections of rare cichlids in the country.

As a child, Dave Schumacher had been fond of reptiles, namely lizards and turtles. At the age of 16, he scored a job at one of Houston's pet stores as the "reptile guy". The store he worked in was a cichlid specialist but also carried some other varieties of small animals. Dave realized his days were numbered if he didn't learn about the business' main focus, cichlids. The fascination with cichlids didn't take long to grow and he was especially fond of the Tanganyikan cichlids and took some Altolamprologus calvus as his first fish.

Dave attended Texas State University in San Marcos and worked towards achieving a degree in Aquatic Biology.

While attending TSU, Dave found a job with Armke's Rare Aquarium Fish in New Braunfels, well known for their quality cichlids. Dave quickly found himself with a reputation for his knowledge of the cichlids and customers sought out not only their fish but his advice. The Armke family not only sold fish but they also had several other business ventures in which they decided were more important. Dave was able to work a deal to purchase not only the business but the logo and moved his shop to San Antonio where he resides now with his wife Amanda and his two children.

Dave's Rare Aquarium Fish "specializes" in African Cichlids and Catfish, however you'll always find other odd fish from gobies, new world cichlids, tetras, livebearers, pleco's and many other types of fish. They can also order virtually any sort of fish from the most common to the hardest to find in the world.
You'll regularly see Dave's fish at many of the Texas club's auctions and he is a common sight at the ACA conventions as well.

Aquarium Oddballs

Tulsa, Oklahoma

6115 East 31st Street, Tulsa, OK
Hours and Days of Operation:
Mon – Wed 11am to 6pm Thu – Fri 11am to 7pm Sat 11 am to 6pm Sun 12 pm – 5pm
Phone: 918-831-0099

Aquarium Oddballs is what happens when a true hobbyist opens a fish shop. Scott has one of the most unique assortment of fish you can find in a pet shop and has Oklahoma's largest selection of Cichlids available. Oddballs also specializes in SPS Corals and many species of unique corals that cannot be found anywhere else in the state. Scott also prides himself of buying as many locally produced zooanthids as possible which not only keeps the prices down but protects the environment by not having to collect wild zooanthids but also helps insure that they will live in customers tanks.

Aquarium Oddballs also carries full line of dry goods and will order anything anyone wants.

What Scott likes best about the hobby is educating the public and he opens his store up to club meetings. He loves the excitement of new hobbyists when they see their inverts thrive or fish breed. Scott is against politics and states it should all be about the hobby and not who is doing what. Live and let live.

Scott would love to keep his business thriving so that he can pass on his legacy to his children. Aquarium Oddballs believes in getting high quality animals and has been doing so for five years now and soon will be having their fifth anniversary so watch for the sales to celebrate.

So if you are looking for Oddball fish at the best prices then look no more because here is your shop.
Aquarium Oddballs "treat people with respect and understanding, not everyone is educated about the hobby and it's our job to get them there."

Salty Fish Aquariums

5535 Brewster St. San Antonio, TX 78233
Hours and Days of Operation: Monday – Saturday 10am to 7pm and Sun 12 pm – 6pm
210-656-3474

San Antonio, Texas

It becomes cliché over time, but Salty Fish Aquariums is a true hobbyist store. They maybe the newest store in San Antonio, but it is an endeavor that has taken a lifetime. Owned and operated by Terry and Evelyn Pinner, Salty Fish Aquariums provides something for every hobbyist.
Far from being just a saltwater store they stock freshwater fish, inverts, and plants in addition to their large assortment of saltwater fish, inverts, and corals. Salty also has a nice collection of dry goods for both sides of the hobby.

Salty Fish Aquariums has been open a little over two years, opening in October 2013. However, they are already expanding. Terry and Evelyn have secured the space next door, and this will double their retail size. Plans for the expansion include more area for dry goods, including aquariums, and a larger variety of less common freshwater fish. The expansion will also offer room for a 750 gallon show tank, an area for terrarium plants, amphibians, and dwarf freshwater shrimp.

I think some of their success can be attributed to their support of the local hobby. You will more often find Terry chatting with customers than standing behind the cash register. This is a family owned and operated store, and it feels like home. Also Terry and Evelyn have been quick to support the local aquarium clubs by providing places for meetings, and also offering their store as a safe zone for trades and sales amongst hobbyist. Terry and Evelyn are constant fixtures on the local forums and Facebook groups. Some local stores think being active with local groups means posting your weekly new arrivals list, or an occasional sale. However, you will find them both answering questions, even those not related to a sale, an interacting with hobbyist. Likewise Terry shows up early to Hill Country Cichlid Club auctions and swap meets to purchase items for use in his personal aquariums and terrariums before having to open the store.

Getting back to the lifetime this store has been in the making, Evelyn told me when she first meet Terry he lived in a small apartment that resembled an aquarium store. Large and small tanks adorned every inch of space. Then it wasn't long before he moved in shelving and racks to be used in the store they would one day open together. Over the years they ended up with 4 storage rooms full of fixtures, tanks, and equipment for the store that would one day be Salty Fish Aquariums. Going back even further Terry and his mother had the requisite small community tank everyone must start with, but his first tank was a 75 gallon cichlid tank. He was instantly hooked on the hobby, and worked for two local landmark stores when he was young. Now after years in the private sector they have been able to open their dream store.

Salty Fish Aquariums, something for everyone, and just a nice place to be. If you are not already a regular take the time to stop in. You will not be disappointed.

The Hill Country Cichlid Club Presents
The 2016
Aquatic Rendezvous

A gathering of Aquarists for a day of fish and fun
February 6th 2016
Bluebonnet Hall
1400 Schertz Parkway
Schertz, Texas 78154

Huge Swap Meet 11:00 AM—2:00 PM
No Charge to attend, vendor tables only $10.00
To reserve a table contact gasteeves@gmail.com

Pizza Party 6:00 PM
with presentation by Ad Konings!

Tickets $10:00 payable at the door.

FOTAS 2016

October 21st-23rd, 2016

Blue Bonnet Hall

1400 Schertz Parkway

Schertz, Texas

This celebration of all things aquatic is sure to have something for everyone. Watch the FOTAS clubs go head to head in an aquarium build off, speakers and presentations, fish show, the infamous banquet with game show and no money auction. huge all species auction, photo contest, and much more.

Speakers include Dave Schumacher
Kyle Osterholt
Susan Robinson
Dr. Michael Kidd

For more information visit
https://www.facebook.com/HillCountryCichlidClubEvents/

The Federation of Texas Aquarium Societies include:
Houston Aquarium Society
Texas Cichlid Association
SouthEast Louisiana Aquarium Society
Oklahoma Betta Breeders Association
Hill Country Cichlid Club
San Antonio Aquatic Plant Club
Lone Star Bettas
Oklahoma Aquarium Association

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1966-2016

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Jenks, OK
918-296-7300

Room Rates 99.00 plus tax
Suits 109.00 plus tax
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Full Package $175

(Includes Aquarium Admission, Funny Money Auction and All new Betta Games plus IBC Convention T-Shirt and President's Reception and all IBC Member Meetings)

Meals only $130

Breakfast included with hotel room.
Dinner Thursday, Friday and Saturday Included.

Banquet only $75
Workshops only $50
Hospitality only $25

Class Sponsorships $20/Class
All Prices increase $10 after May 1st 2016
Payments can be sent to Kayla Griffin
Paypal at KaylaGriffin63@yahoo.com
Checks can be mailed to
Kayla Griffin
4849 S Darlington 7G
Tulsa, OK 74135

The American Livebearer Association

Celebrates its Annual Convention hosted by The Michiana Aquarium Society

Apr 29th-May 1st 2016
at the
Waterford Estates Lodge
South Bend, IN
Room rate is $85
please say that you're joining
us at the ALA Convention!

For Reservations Call
1-877-783-8496

For More Information:
2016 ALA Convention
Facebook Page

ALA website:
www.livebearers.org

ALA Convention website
www.alaconvention2016.com

Instead of seeing corn in Indiana, come and enjoy the gathering of livebearer fanatics. There's more than livebearers at the 2016 ALA Convention!

Featuring:
-Great Speakers
-Tours
-Room Sales
-20 Class Fish Show
-North American Goodeid Working Group Meeting
-Banquet & Hospitality
-Graduate Student Poster Session
-Vendor Room

Join us on Sunday for a
HUGE AUCTION
and
MUCH, MUCH MORE!!

Speaker Lineup

Ben Slocum | Pat Hartman | Mike Hellwig | Matt Bielski







Jeremy Phillips | Dr. John Lyons | Rick Borstein

Previous Issue of Fish Tales

What would you like to see in the next Fish Tales Magazine?

Contact the Editor if you have story ideas or would like to contribute to Fish Tales!