



AUSTRALIA NEW GUINEA FISHES ASSOCIATION

ABN 67 773 290 845

INCORPORATED

PO BOX 673 RINGWOOD 3134 AUSTRALIA

Promoting the conservation, study, keeping and propagation of the native fish species of Australia and New Guinea. Please visit us at <http://www.angfa.org.au>

***Australia New Guinea Fishes Association
Incorporated***

Rainbowfish Group

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| Document Authors: | <i>John Cousins Tony Tucceri</i> |
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1. DOCUMENT PURPOSE

This is a record of the **Rainbowfish Group** of the Australia New Guinea Fishes Association (ANGFA). It is designed to document the Rainbowfish Group, its organisation, goals and rules for the use and understanding of ANGFA members and lovers of the native fishes of Australia and New Guinea. There have been past attempts by ANGFA to preserve the native fish species of Australia and New Guinea so we have decided to document and formalise in this document. The **Rainbowfish Group** maintains the essentials of the original concept, in the belief that a more organised approach as described in this document will be more enduring.

2. RAINBOWFISH GROUP

2.1. About the Australia New Guinea Fishes Association Incorporated

The Australia New Guinea Fishes Association Incorporated (ANGFA) is a not-for-profit incorporated body that was conceived in Australia in 1982 by a group of hobbyists, scientists and conservationists from around the world dedicated to freshwater fishes, plants and other aquatic life native to Australia and New Guinea. Our aim is to promote the aquarium keeping, conservation, study and propagation of the native fish species of Australia and New Guinea.

2.2. The need for the Rainbowfish Group

There is an ever increasing threat to the native fish species of Australia and New Guinea. Conservation resources are very limited and fish are neglected, with species potentially going extinct unnoticed. In spite of the conservation aspect gaining greater recent focus, habitat destruction continues to put immense pressure on the survival of our native wildlife. Not surprisingly, more fish are facing extinction or becoming endangered than ever before. Conservation is so important we believe there is an urgent need to preserve native fishes, or at least a representative example of fish species for future generations. It is increasingly apparent that the fish and related hobby industries will survive only to the extent that species are being successfully bred in captivity. A viable breeding program is needed. If this is to be a long term success, it will be necessary for aquarists and commercial establishments to breed fish in a manner that will maintain genetic diversity over decades and possibly centuries, and this necessity is the ultimate goal of our breeding programs.

2.3. About the Rainbowfish Group

To this end, ANGFA established a Rainbowfish Group that is a cooperative effort on the part of members of ANGFA to preserve a representative example of Rainbowfish for future generations. The intent is to create a collective of skilled aquarists to breed fish that are near to or have virtually disappeared from the hobby. Given limited resources, it is impractical to include all fish species in this program. Because of this, a core group of species, representing several genera, will be chosen for breeding. The core list is under constant review and will be enlarged or shortened as knowledge and experience is accumulated. All members of the ANGFA are asked to join in this effort and enjoy the companionship of others devoted to this special project.

2.4. About our capabilities

Our capability to undertake conservation work of this nature is based on the capability of our membership. This is a purely voluntary effort designed to engage hobbyists of varying levels of expertise to protect and preserve our fish species. Our members by and large have the knowledge, or the desire and know-how to acquire the knowledge. Our members have access to the resources and are best positioned to be able to care for and breed fish. Therefore, we are well placed to lead this effort on behalf of the wider community.

2.5. Keeping it simple

Our goals are straight forward. The Rainbowfish Group was conceived as a group of people working together to preserve a representative example of the fishes of Sahul for future generations, safe-guard fishes, build up their numbers and carefully spread them around the hobby to ensure survival of the fishes into the future. Our rules are easy to follow and it is assumed that members understand and accept them.

3. GOALS

3.1. Project Goal

The Rainbowfish Group was conceived as a group of people working together to preserve a representative example of the fishes of Sahul for future generations.

3.2. Priority of fish species

Every native fish species of Australia and New Guinea are candidates for conservation. It is a big decision to decide which fish to safe-guard so where to start? Our focus is on fish that need the most help. With our current limited resources, we have commenced with the more urgent requirement of safe guarding fish that are in the most danger. Our view is that we are focused on species that are difficult to find in the hobby or those with limited natural distribution or those from habitats under threat. Our interest is in preserving them not only for the future hobbyist, but also in conservation of these hard to find species on behalf of the wider community. ANGFA will nominate fish for particular focus; this will be collated into a list known as the "Priority List" for circulation to members.

In order to initiate this project, senior, experienced ANGFA members Glenn Briggs and John Cousins reviewed fish species to create our starting point. This was documented in the "Priority List" and that list has evolved and will continue to evolve over time as the conservation status of fish changes and as more knowledge is acquired, so member suggestions continue to be welcome.

See Appendix for information about the latest "Priority List".

3.3. Scope of fishes

Our scope is to keep as broad a range of the fishes of Sahul in the aquarium hobby as is legally possible.

3.4. Integrity by keeping fishes in species tanks

We consider the optimum way to safe-guard fish and ensure the species' integrity is to keep a single species in species-only tanks. The approach is to create a dedicated mini environment for a single species. By maintaining its own dedicated mini environment, this helps maintain a level of quality control over the population, eliminating potential for uncontrolled cross-breeding and/or hybridization. There can be multiple tanks, as long as there is only one species per tank. Many hobbyists agree that species tanks are an attractive way to highlight and maintain fish populations.

4. RULES

4.1. Species that can be kept

The object is to maintain and safe-guard as broad a range of the fishes of Sahul in the aquarium hobby as is legally possible. Fish that may be candidates for this project include legally available rainbows, blue eyes, gobies, gudgeons, black masts, catfish, flyspecks and pygmy perch.

4.2. Species tank

Fish are to be maintained in a 'species tank' (i.e. where there is only one type of rainbow in the tank) of their nominated fish. There should be a main species tank and a secondary species tank with the secondary tank being a potential backup should the main species tank encounter unforeseen problems.

4.3. Ideal number of fish at least 6 pairs

The main species tank should have 6 or more pairs of the fish. It is highly recommended that an additional couple of pairs be maintained in another tank as a potential means of recovery should the main species tank encounter unforeseen problems. Therefore, the ideal numbers are shown below.

4.3.1. Species tank

1 species tank containing 6 or more pairs of fish (at least 6 males plus 6 females = 12 fish).

4.3.2. Backup tank

1 backup tank containing 2 or more pairs (at least 2 males and 2 females = 4 fish) from which recovery may be possible in the event of catastrophe with the main species tank.

4.4. Eggs for sale or swap only from a species tank

Any eggs for sale or swap, or for growing on, must only be collected from fishes from a one-species-only tank. This rule applies to all eggs collected from any fishes.

4.5. The “Buddy” system

We consider the Buddy system to be the ideal way of sharing information, building skills, maintaining motivation and spreading the work load amongst more members. When pairing up with a “Buddy”, the intent is that both members work together to increase their collective knowledge and maintain an active on-going interest in the same species of fish. Work loads are shared. The “Buddy” is the first recipient offered off-spring. Adoption of the Buddy system facilitates like-minded hobbyists working together to maintain and successfully spread a relatively rare fish around the hobby ensuring it is safe-guarded because fish numbers are increased. The desired outcome is that members focus on a particular species and happily work as a team with their Buddy ensuring continued survival of the fish species for the future.

4.6. Annual sharing of fish and eggs

The commitment from members is to maintain at least 6 pure bred adult pairs of their fish. It is assumed the hobbyist has induced at least some of these pairs to breed during the year. The intent is that once a year, at the Annual General Meeting (AGM) of ANGFA, members swap 2 juvenile pairs with their Buddy. Where their Buddy is interstate, at least 20 eggs should be swapped by post annually or at least by the first Monday in September. International members may adopt a similar system, although it must be noted by all Australian members that laws preclude the importation of eggs into Australia.

4.7. Surplus fish

Once the annual obligation to swap with their Buddy is met, members are free to responsibly do as they like with the rest of the fish they breed; this is left to the member's discretion. It is recommended that surplus fish be made available to other ANGFA members, perhaps through the usual distribution channels such as for swap or sale on your local ANGFA Trade Table.

4.8. Active membership of the Rainbowfish Group means breeding healthy fish

Becoming part of this project brings the usual commitment from responsible hobbyists of safeguarding our fish. But becoming part of the Rainbowfish Group brings with it the added responsibility of actively becoming involved with breeding fish and making off-spring available to other members. By promoting this approach, an ever expanding number of fish becomes readily available to more and more responsible hobbyists and reduces the risk of isolated events affecting the species. For example, one hobbyist may be impacted by unforeseen circumstances, but the species continues to survive because it is in the hands of other caring and responsible hobbyists. However, there is no guarantee of propagation of the fish species unless at least one hobbyist continues to actively maintain the species. Therefore active membership of the Rainbowfish Group means that breeding is a key prerequisite for the responsible hobbyist.

4.9. Less active form of membership of the Rainbowfish group

There is scope for "Associate Membership" for those hobbyists who want to help the Rainbowfish Group, but who may not have all the facilities or perhaps lack the confidence to participate in a breeding program themselves. Participation by these hobbyists is possible by way of care and maintenance of a population of fish, without the pressure to breed. This is akin to placing fish in a "safe house" where they will be cared for and kept in good health for the rest of their lives. This form of membership, which we are calling "Associate Membership", does not require the responsibility or commitment to breed fish, but it still requires the hobbyist to care and maintain their fish. Therefore, the Associate Member is an additional source for safeguarding fish and ensuring the integrity and quality control of the fish population. From time to time, as other members participate in fish breeding, stocks will be sourced from "Associate Members" usually on a payment or swap basis. One of the benefits of becoming an Associate Member of the Rainbowfish Group is that Associate Members have priority when fish species become available.

4.10. Membership register for the Rainbowfish Group

A Register will be created and maintained that lists people with threatened fish and also lists the pair of members (at least 2 people one of which is the main fish keeper together with his/her Buddy), who are working together to take responsibility for each of the species to be safeguarded for the future.

4.11. The Convener

The "Convener" is the person in the role who is responsible for running the Rainbowfish Group. The convener is responsible for the Register and will from time to time advertise on the ANGFA website or its publications when there is a need for additional species to be placed on the register or if other nominated fish are available. In an attempt to keep to a minimum the usual project duties, we have adopted the "Buddy System" to spread the work load amongst many members. Past attempts by ANGFA have not met their potential partially because of the enormous work load that was required of a single person (the Convener). Adopting the "Buddy System" ensures the Convener has an oversight or management role, but it is individual members that agree to take on the responsibility for their fish and do the majority of work.

4.12.Appointment of the Convener

The Convener is appointed by ANGFA.

See Appendix for the name of the current Convener of the Rainbowfish Group.

4.13. Confidential records

Records are treated as confidential and access is restricted and will generally not be made available or published. The Convener and ANGFA committee members who are authorized from time to time by ANGFA are the only people to have access to the names of members and what fish they have or have had in their care, and any related correspondence.

See Appendix for list of authorized people.

4.14. Keeping member contact details up to date

The Convener will keep member contact details up to date (eg. when members change their address, change of e-mail, etc.). However, members are requested to promptly inform the Convener when their contact details change. There is a strict requirement that e-mail addresses be accurate at all times.

4.15. Obtaining fish

Requests for fish are to be directed to the Convener (we have a preference for those with e-mail capability so that requests can be communicated in writing in a timely manner). The Convener will liaise with the existing pool of Buddies to ascertain if the request can be satisfied. The Convener effectively identifies the Buddy best able to satisfy the request.

- If the request cannot be satisfied, the Convener will communicate to the requestor.
- If the request can be satisfied,
 - The Convener will pass the requester's email address to the Buddy identified as being the most able and willing to satisfy the request.
 - Having facilitated communication between the requestor and the Buddy, the Convener steps away from the process to allow the Buddy to respond directly to the requestor. The Buddy will communicate to the requestor.
 - The Buddy will contact the member directly to agree a mutually convenient time and location to pass on the fish requested.
 - Once agreed and the requested fish have been passed from Buddy to requestor, the Buddy will communicate this fact to the Convener.

The Convener enters details into the Register to keep it up to date and from time to time monitors or checks on progress.

4.16. Maximum number of fish species

A member may work with several different species at any time, upto a maximum of 5 different species of fishes at any one time. As there will be a Buddy for each species of fish, the maximum number of buddies is also 5. Therefore, one member may work with upto 5 fish and therefore upto 5 buddies.

4.17. Rainbowfish Group Membership

Members of ANGFA are responsible hobbyists who adhere to the ANGFA Code of Conduct. To ensure adherence to the code of conduct, membership of the Rainbowfish Group is open only to members of ANGFA Incorporated (ANGFA National).

4.18. Opt out of the Rainbowfish Group

It is recognized that from time to time members may no longer participate in the Rainbowfish Group. ANGFA appreciates and respects members who opt out of the Rainbowfish Group. We appreciate this is a voluntary effort so ANGFA requests the member communicate the desire to opt out to the Convener and allow sufficient time for the necessary arrangements to be made. The Convener assists in making necessary arrangements. Members who opt should note it is expected they pass on their 6 pairs of fish to another member. As this is not a profit making venture, it is further expected that a swap or token sale of no more than \$10 (Australian currency or equivalent) per pair be exchanged with another member to take that species on.

4.19. Communication with the Convener

We have a preference for those with e-mail capability so that requests can be communicated in writing in a timely manner. Therefore communication with the Convener is requested to be by e-mail.

See Appendix for Convener e-mail details.

5. ADDITIONAL THOUGHTS AND ACKNOWLEDGEMENT TO THE AKA

The American Killifish Association (AKA) undertook a similar project and created their own document entitled "*The Killifish Conservation Program - Revision A. 1998*". ANGFA would like to warmly acknowledge the inspiration provided by the AKA. Following are some important issues raised in the AKA report. References are to individual page numbers sourced directly from the report and which served as the basis for ANGFA's **Rainbowfish Group** project.

- The (AKA) objective is to maintain at least 20 pairs of each species of fish, having started with 6 unrelated pairs of initial breeders. (p.7)
- Participants should be presented with a Certificate of Appreciation (p11)
- There should be a 6-monthly publication of the names of those involved. (p.11)
- A hard copy of the records should be made every 6 months. (p.14)
- Members are asked to consider what should happen to their precious collection of fish genetic material on their death. (Possibly to go to their Buddy) (p.17)
- Research shows that the optimum ratios are equal numbers of males & females. Three males & five females have an effective breeding population equal to 8.4 individuals, whereas 5 males & 5 females equal 10 breeders! (p18)
- The discussion of variable alleles. (p18) also emphasised the importance of a wide breeding population.
- The minimum population for indefinite survival is 500 individuals of 50% male & 50% female (p19). Our opinion (not necessarily scientifically proven) is that killifish probably have more stable genes than rainbows!
- There must be no hybrids, nor mixing of sub-species. (p19)

- Every effort should be made to get some wild-caught stock into the gene pool (legally of course) (p20)
- Try to exchange stock from outside the Rainbow Group if you're sure of their purity.(p.21)
- Choose fry for the next generation of breeders randomly: don't go for size, colour, etc (pp22. 25)
- Try to get a spawning from all of your fish: set them up in pairs & alter the pair combinations, so that you have a large group of genes from which to randomly select the next generation. (p.22)
- E.O. Wilson "every scrap of biological diversity is priceless, to be learned & cherished & never to be surrendered without a struggle". (p.24)
- It's estimated that 27,000 species of flora & fauna become extinct every year! (p28)

Much of the extinction that is talked about in the AKA report is from tropical Rainforest areas, which is where many of our rainbow species are found.

6. APPENDICES

6.1. Appendix - List of authorized people

The Convener and ANGFA committee members who are authorized from time to time by ANGFA are the only people to have access to the names of members and what fish they have or have had in their care, and any related correspondence.

At the time of writing, those authorized by ANGFA are:

- Convener of the Rainbowfish Group
- President, Secretary and Treasurer of ANGFA Inc (ANGFA National)
- President of ANGFA VIC
- President of ANGFA QLD
- President of ANGFA NSW
- President of ANGFA WA
- President of SANFA

6.2. Appendix - Convener of the Rainbowfish Group

At the time of writing, the Convener appointed by ANGFA is Mr. John Cousins who can be contacted by email on jco22266@bigpond.net.au.

6.3. Appendix – List of Priority Fish

The list is not included in this document as it is an evolving list subject to on-going change. The Convener maintains the latest Priority List and shall communicate it from time to time as deemed appropriate. Apply to the Convener for more information.