



AUSTRALIA NEW GUINEA FISHES ASSOCIATION

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incorporated

P.O. 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>

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ANGFA COMMENTS ON “A STRATEGIC APPROACH TO THE MANAGEMENT OF ORNAMENTAL FISH IN AUSTRALIA”

Dear Richard,

I am writing to you on behalf of the members of the Australia New Guinea Fishes Association Incorporated regarding your consultation draft on ornamental fish within Australia.

The membership of ANGFA is predominately comprised of enthusiasts of the native fishes of Australia and New Guinea. The majority of members keep the fishes from both countries for the various reasons people put fish in aquaria and ponds. Members are also concerned about introductions, translocations and invasions of species that displace local aquatic life and interfere with the conservation of biodiversity in both Australia and New Guinea. See ANGFA Code of Conduct on URL <http://www.angfa.org.au>.

Your draft report concentrates on the ornamental trade, on control and the environmental threats that are posed by introduced fishes, but does not investigate the reasons why people keep fish. I will try to explain why people keep fish then offer an alternative approach to reducing the incidence of ornamental fish and fish disease introductions to natural waters.

The Philosophy of Keeping Fish

The keeping and exhibiting of fish in aquaria is an attempt by people to satisfy curiosity of what is hidden beneath the ocean, freshwater lakes and rivers. Stephen Spotte compares the exhibiting of fish in a public aquarium to staging a play giving the illusion of reality carefully staged so the audience concentrates on the subjects and not the background. (Spotte 1992). Private aquariums are kept for entertainment, the beauty of a living picture and for education purposes. Fish are mostly regarded as display animals with the occasional fish with character and the appearance of recognising its keeper being thought of as a pet.

Aquaria are used to teach young people responsibility with regard to the parents making sure the young person performs the routine maintenance tasks involved. Aquaria are used for entertainment and education. One large planted aquarium at the Territory Wildlife Park in the Northern Territory was

regularly used to demonstrate photosynthesis to students from visiting schools. The growing submerged aquatic vegetation was giving off oxygen bubbles from the surface of the leaves thus giving a visual display of photosynthesis in action.

The education of youth with regards to aquatic ecosystems today is very important. A young person can develop a love for things aquatic by keeping an aquarium. ANGFA urges youngsters to look in their local streams and keep the fishes from that location. Unfortunately that type of behaviour seems to be discouraged and there is an increasing amount of pressure on Governments from animal rights groups not to let anybody touch any wildlife. Flannery 1994 comments that fisheries regulations and protective species legislation are divorcing Australia's youth from appreciation of its wildlife.

The History of Keeping fish

The goldfish bowl was seen in Europe from as early as the 17th Century. It is said to come from China where the keeping of fish for food and ornamental purposes has a history that can be traced back to 2000 BC. It was not until about 1950 that the development of the modern aquarium started in England and Europe with metal framed glass aquariums with slate bottoms heated by a small gas flame. (Horst & Kippar 1986)

Aquariums in recent times

The aquarium hobby today is big business in populated areas where man has altered the landscape producing food, clothing and shelter for man's ever increasing numbers, mostly in big cities. The altering of the landscape has resulted in a huge loss of fish habitat mostly from silting, irrigation dams and eutrophication from farm nutrient runoff. It would appear that people in big cities require contact with things natural by producing gardens and putting plants and animals around them under their care. An aquarium can be a little glass bowl with some plastic fluorescent ornaments and one or more fish up to a living coral reef with an attached plant room that houses sophisticated equipment to maintain physical and biochemical conditions close to that of an outer part of a tropical barrier reef.

A survey conducted by the Pet Industry Association of Australia (PIAA) has indicated that about 1 in 6 of Australian households have one or more aquaria. Enthusiastic hobbyists have rooms dedicated to keeping and breeding the fishes they want to keep. Part of this hobby is the forming of clubs, study groups, associations and societies where fish are swapped and traded among members. It has been estimated by the Aquarium Industry for Alex McNee of the Bureau of Rural Sciences that there were more than 1180 species of aquarium and ornamental pond fishes moving around the country by various means in 2002.

Increasing Popularity of Aquariums, Ponds and Water Features

Aquariums, water features and ponds are becoming increasingly more popular every year. There is another very large pet shop just opened 30 November 2005 here in Darwin. These trends appear to be happening throughout Australia. Aquaria and ponds are popularised by television shows, local nurseries, pet shops, glossy magazines and the internet. Humans have a history of putting aquatic organisms in tanks that dates from the first record 2000 years BC (Horst & Kipper). There is still a basic urge in all to manipulate their close surroundings to produce suitable habitat. We bring plants and animals that we like into and around the place we live. A garden, lawn, a dog, a cat, some chooks, a pet parrot, an aquarium and a fish pond.

There are continuous reports from various media outlets that the keeping of fish is beneficial to stress levels and reducing the impact from the other worries of modern life. Animal therapy is a valid form of improving mental health especially with children and handicapped people. There is material written about people who suffer heart attacks stating they are much more likely to be alive one year after the event if they are pet owners. This includes aquaria, ponds and gardening. To lead to some science about this just put 'Animal Therapy' in your Google search engine on the inter-net and there are dozens of references that may or may not be valid.

New fish, plants and other aquatic life are known to the hobbyists almost immediately they are discovered but if you try to get something added to the allowable list you get a very expensive three year long process that if successful with DEH still does not guarantee that you will be allowed to import the fish. It is much easier to ignore bureaucrats and that is unfortunately what sometimes happens within the community.

Education not Prohibition

ANGFA encourages its members to use the aquatic animals in its care with respect, to promote appreciation of the natural environment and to promote humane treatment of all aquarium subjects by providing optimal care using best husbandry techniques available. It is hoped that the younger members of our community will gain an appreciation of the aquatic life through contact with our aquatic life.

The education of youth with regards to aquatic ecosystems today is very important. A young person can develop a love for things aquatic by keeping an aquarium. ANGFA urges youngsters to look in their local streams and keep the fishes from that location. Unfortunately that type of behaviour seems to be discouraged and there is an increasing amount of pressure on Governments from animal rights groups not to let anybody touch any wildlife. Flannery 1994 comments that fisheries regulations and protective species legislation are divorcing Australia's youth from appreciation of its wildlife. Yes that is the second time that has been written, but it is a very important point.

We live in a democracy and it is very unlikely that fish keeping can be regulated out of existence. The Pet Industry Association of Australia (PIAA) has kept figures from research statistics obtained from its members. 12,000,000 Australians are associated with pets. 64% of households have pets and 30 % of all pets are fish. The ANGFA membership would like to see more of our favourite New Guinea fishes available for aquarium use as they were before 1986 when the importation of live New Guinea fishes was stopped.

ANGFA is concerned that many of the current load of feral fishes (trout included) have been deliberate introductions by Government approved actions that at the time seemed to be sensible or as appears in WA that there was such pressure from the angling lobby that scientists were probably ordered to come up with a way that cod, yellowbelly and bass could be translocated to the west. Angling slogans like "I fish and I vote" and constant lobbying seem to be effective ways for anglers get what they want from government.

Pathways and examples for aquatic life escaping to the environment are;

1. Deliberate introduction or translocation for angling purposes.
2. Escape into Australian coastal waters from ship ballast water exhausted into an Australian harbour when ship is taking on cargo.
3. Deliberate release of *Gambusia* sp, (commonly known by the misnomer of mosquito fish) by Army in 1935 to natural freshwaters in mistaken belief that the species will control mosquitoes. *Gambusia* is the 'aquatic rabbit' and decimates young fry of native species. It has also been implicated in frog numbers declining.
4. Deliberate release by ill informed non-government individuals that believe *Gambusia* and guppies are good at controlling mosquito larvae.
5. Use of non-native fishes in insecure ponds in areas prone to high rainfall and flooding. White cloud minnows, goldfish down south and swordtails, guppies, platys, cichlids in tropical and subtropical areas.
6. Trash fish among anglers stocking species such as barred grunter within an Australian bass shipment from a Qld hatchery released into Northern Rivers of NSW.
7. Anglers moving Murray Cod into central eastern areas of the Northern Territory to have a species they can catch.
8. Anglers moving Cod, Yellowbelly and Australian bass to waterways in WA (recent).
9. State or Territory laws that don't allow aquarium keepers to return their fish to the shop from which they were bought. Some people will not kill a pet so are likely to put them in a place where they will survive.

Aquaria are safer than ponds for preventing disease and fishes from getting out. In a comprehensive review of quarantine policies and practices relating to living aquatic animals including ornamental fish, Humphrey (1995) concluded that the placement of imported ornamental fish in aquaria provided a high measure of quarantine security, compared with placement in ponds or locations which had immediate access to natural water bodies and that the holding of imported ornamental fish in aquaria presented a lower threat of disease incursion compared with fish held in non-aquarium situations.

ANGFA would like to put forward the idea that everybody be encouraged to join a club, society or study group where they can learn that when it comes to keeping fish and other aquatic life such as plants, crustaceans and snails that there are certain responsibilities. Youngsters and newer members could be taught about secure fish keeping practises, management of waste water, ponds and enclosures.

Comments on Draft

1. Need for national approach.

Agreed, there is too much confusion with regard to all the different jurisdictions. We need a uniform approach. A prime example is the recent intervention of BA into the DEH process where a Federal Minister makes a public announcement in the Government Gazette that Salmon Red Rainbowfish *Glossolepis incisus* is allowed to be imported then a public servant in another government office, Biosecurity Australia sends an email to the two major importers that this import will not be allowed after the importers have ordered the fish. The media or the Opposition spokesman for the Environment and/or Agriculture would have had a field day with that.

The Northern Territory Government did not accept the DEH findings and used its fisheries legislation to stop the last 6 species approved by DEH entering the NT. Is that Constitutional, restricting NT business from trade with those species?

Please get your act together first before coming to the aquarium hobbyists and general population with ideas on how to make things better. The rules need to be the same for each jurisdiction so the population can move between the states without unknowingly breaking the law. An example is the new large military bases in the NT, soldiers' families bringing their aquarium fish with them breaking the NT Fisheries legislation without realising.

2. Existing controls

The DEH process is possible to use but just look at the history from 1999 when the EPBC ACT first hit the ground. It took the first approved fish just on three years to go through the process. The other 10 a little longer and there is still differences of opinion going on over the Salmon Red Rainbowfish *Glossolepis incisus*. There needs to be a very quick, transparent and easy to use process that can be applied to all new fish because unless this is done all you are doing is encouraging the smugglers when the new discovery is available in USA and Europe almost immediately but not in Australia for two or three years. This gives the illegal smugglers an ideal opportunity to make plenty of money and risk our wild fish and aquaculture industry with unwanted disease introduction. The NT PIAA representative and I used the Bomford Glover risk assessment process on a few fish late 2005. Two mistakes were found on pages 61 and 62 so we called Mary Bomford on the phone and she agreed that they were typos. It was obvious that no one in the Government had used this risk assessment because she told us that we were the first to notice those errors. The Government should have already run all their grey list through the Bomford Glover system before publishing the consultation draft. Please lead by example.

Please get a quick easy to use assessment system and ask the Aquarium clubs, Aquarium industry and other stakeholders to help.

3. Noxious Species

These grey list fish should have all been run through the Bomford Glover risk assessment system before the consultation draft was published. The aquarium plants can not be easily separated from the pond and nursery trade. You can even buy aquarium useful live plants at the Asian markets in Darwin that are sold as food such as Buffalo Spinach *Limnophila aromatica* and Water Hyssop *Bacopa caroliniana* to name two, there are others. Plants need to be part of a whole approach that will bring everyone's garden into the light.

Live rock and corals are much more robust and renewable than most people imagine. Marine pests on live rock will never be a problem if the live rock and associated organisms are kept within an aquarium and no water is exhausted to a place where it can enter a natural marine environment. This is education once again.

4. Proposed regulatory framework.

See part one - get a uniform approach first. Please get agreement between the jurisdictions. Hobby licensing and regulation was tried in Qld and it resulted in a mass public campaign to the politicians as well as threats to release all unknown / banned fish into the rivers. If you try this on a national level it will most likely start a campaign like "I vote and I keep fish," concentrate on the education of people.

5. Management of Ornamental Pests and noxious species in Australia.

Trout have been implicated in the decline of many native species particularly galaxia but since these fish are only small they were not considered important by the Government of the day. Trout are still being stocked around the place. What are cod, bass and yellowbelly going to do to the other smaller species in WA. See part one – get a uniform approach first.

Encourage people who keep ornamental fish to find out about their fishes and the management of their water and diseases. I once saw a person using gold fish as live bait in Corrobooree Billabong, part of the Mary River in the NT. He did not know that it was not legal or wrong. He does now. Teach people to keep their fish secure. Mostly the ornamentals that get out are in areas of disturbed habitats near major population areas. You wont find any of the really valuable rare ornamental fish swimming around in ponds they are all in aquaria where they wont escape. There are community Gardens in the low-lying areas of Townsville where you can see large cichlids swimming around in large numbers. Townville is prone to cyclones and obviously flooding. Educate people to put non endemic fish in secure areas.

6 Communication Plan

See part one about getting a uniform approach. Look at the make up of your working group. It has all been about control and being in charge with very little about consultation. Even the timing of the consultation draft over the holiday period was a bit off considering most people take their holidays and would be unlikely to see the draft in enough time to make a reasonable comment.

Consultation in the dictionary means;

1. A discussion, especially in order to ascertain opinions or reach an agreement.
2. A meeting with an expert in a particular field to obtain advice
3. The process of discussing something either with experts or with other participants and asking their opinions or advice.
4. The act of referring to a person for information or advice.

If you look at the make up of your working group there was 17 Govt and 3 non-govt personnel. It hardly seems like an even discussion. Communication is a two way process.

It is very well known that people shouldn't dump their aquarium fish. If you try to lift a fish tank even with a very small amount of water left within, it is almost impossible at least it is very difficult. Those

cartoons with someone upending an aquarium in a creek are very pretty but not very realistic. Generally fish let themselves out when a pond overflows or is flooded. Education is required about fish security. Even the seat of Environmental learning in the Northern Territory, Charles Darwin University had a very large pond with an algae problem. The gardeners had a large volume of water passing through the pond every day and the spillway overflow had 80mm gaps resulting in a number of platys being inadvertently transferred from the pond to the drains adjacent a nearby creek that flowed from a small wetland draining half of Darwin. The university almost contributed to another feral outbreak. If it wasn't for a diligent young ANGFA member there would have been platys in Rapid Creek and aquarium keepers would have been blamed where it was actually professional University Ground Keeping staff responsible. That would have been another media field day if they had known. It took Fisheries three months of procrastination to poison the pond and the drain.

See part one and get the different jurisdictions agreeing first. It is even difficult to get the different departments of the same jurisdiction to agree about anything. A prime example is the debate about pasture grasses between weeds officers and graziers extension officers in the NT DPIFM. Is it a weed or is it necessary to promote fat cattle so we can all eat.

See part one about getting a uniform approach.

7 Next steps

See part one and get that part done before everything else.

Conclusion

ANGFA would like to have education of the fish keeping public as a priority rather than the current restriction of access to new species. Insecure ponds and ignorance are pathways to putting non native fish into the wrong place. If there is no system to allow the fish keeping public to get disease free new fish close to the release time then some will work out a way to do it themselves without any regard for quarantine.

ANGFA opposes smuggling with its attendant disease risks and offers access to the vast practical fish keeping and fish breeding experience of its nation-wide membership in order to achieve a safer and more equitable system of imports and controls.

Kind Regards

Dave Wilson
National President
AUSTRALIA NEW GUINEA FISHES ASSOCIATION Inc.

Information source:

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Humphrey, J.D. (1995). *Australian Quarantine Policies and Practices for Aquatic Animals and their Products: A Review for the Scientific Working Party on Aquatic Animal Quarantine*. Part 1. Review and Annexes; Part 2. Appendices. Bureau of Resource Sciences, Canberra.

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