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To whom it may concern.

Please find below my responses to several of the questions raised in the quarantine and biosecurity review discussion paper. I have framed by responses around issues related to aquatic animal diseases, and in particular imports of live ornamental fishes. I single out the latter commodity as I believe that the import conditions currently permitted for this commodity represent a highly significant departure from what is considered Australia's usual ALOP. Indeed, research and literature analysis in recent years has demonstrated the existence of proven pathways of introduction of significant exotic disease agents with ornamental finfish. The fact that some of these disease agents may not have become established to date is mainly due to blind luck, and Australians and their environment deserve better than that.

It is now widely known that exotic disease agents can be detected on a regular basis in fish from retail premises after exiting quarantine (Chong and Whittington 1995, Corfield et al. 2007). The fact that some of the disease agents detected (e.g. iridoviruses from imported Gouramis) can be transmitted horizontally via the water to infect and cause fatal disease in native fishes (such as the threatened and iconic Murray cod), is surely a red flag indicating that quarantine regulations relating to ornamental fishes need to be urgently reviewed. I contend that given the information now available, any competent review would demonstrate that more stringent risk mitigation measures are required as soon as possible to eliminate these pathways. I suggest that this is done sooner rather than later, before we have a national disaster on our hands with already threatened populations of iconic native fishes succumbing to exotic pathogens bought into the country by ornamental fishes.

Sincerely,

Ben Diggles PhD.

**Refs cited:**

Chong R, Whittington R (2005). A Review of Australian Ornamental Fish Import Risk Management for the Period 1999 – 2004. A Report to the National Aquatic Animal Health Technical Working Group (NAAH-TWG) August 2005.

Corfield J et al. (2007). Draft final report for public comment to the Australian government Department of the Environment and Water Resources. Review of the impacts of introduced aquarium fish species that have established wild populations in Australia.

<http://www.environment.gov.au/biodiversity/invasive/publications/wild-aquarium-fish.html>

### Questions:

- **Are Australia's quarantine and biosecurity systems appropriate to maintain its ALOP (very low risk, but not zero)?**

In the case of ornamental fishes, the answer is a definite NO.

- **Is ALOP understood and applied in a consistent way? Is it achieved in a way that is not more trade restrictive than required?**

Again, in the case of ornamental fishes, the answer is a definite NO. The current quarantine arrangements are far too liberal and pathways for introduction of significant aquatic animal disease agents (particularly viruses) which would have catastrophic effects on native aquatic animals (including iconic threatened native fishes) have been unequivocally demonstrated. This would simply not be allowed in other commodities such as sheep, cattle or plants.

- **Should the wider implications – for exporters, consumers and the economy – be taken into account when developing quarantine and biosecurity arrangements, and if so, how?**

Yes, and either qualitative analysis or modelling may be the only way to do so in the face of significant uncertainties in many areas, particularly relating to diseases of aquatic animals.

- **Do Australia's risk assessments (including import risk analyses) competently and comprehensively assess risk and risk management issues when providing advice on market access requests and import applications? Are they sufficiently timely?**

The quality of the risk assessments is continually improving, but in the case of aquatic animal diseases, they are seldom timely and this suggests more resources need to be directed at this issue.

- **Are threats to Australia's marine environment and fisheries arising from bio-fouling on ships' hulls and organisms in ballast water best handled in a quarantine and biosecurity framework, or some other framework?**

They should be handled under a quarantine and biosecurity framework

- **Are risk analyses, import policy determinations and permit conditions sufficiently updated through monitoring of actual experience in the application of risk management measures? Do the appropriate feedback loops exist and are they effective?**

There are significant inadequacies when it comes to dealing with ornamental fishes. The feedback loops exist between scientists and BA, but BA does not seem to be listening and/or are overworked and/or are not in a position to respond. It appears to be all placed in the too hard basket at present.

- **Does AQIS implement risk management in a manner consistent with the advice/recommendations provided by Biosecurity Australia and the Director of Animal and Plant Quarantine (as outlined in the Import Risk Analysis Handbook)?**

Again, there are significant inadequacies with AQIS's performance in regard to this question when it comes to dealing with ornamental fishes.

- **Is there adequate auditing and verification of pre-border, border and post-border measures to ensure that policy determinations and permit conditions, including arrangements for co-regulation with industry, are in fact meeting the appropriate standard?**

When it comes to dealing with ornamental fishes, the answer is NO.

- **Are the arrangements for incursions with a principally environmental impact appropriate?**

In my opinion no. The threat of exotic incursions to natural processes is consistently underestimated in risk analyses, possibly due to the difficulty in putting economic value on ecosystem services.

- **Is the *Quarantine Act 1908*, as amended, relevant and effective to meet Australia's current quarantine and biosecurity needs? Should it be rewritten and modernised?**

It needs to be rewritten and modernised. A revamp about once a century would be the minimum you can get away with one would think.

- **Should the human health aspects of the Act be removed and placed into a separate (new) Act administered by the Department of Health and Ageing?**

No, but the acts should refer to each other when appropriate

- **Are the different elements of legislative systems (both different Commonwealth legislation, and the state and territory statutes) operating in an effective and complementary manner?**

No, co-ordination is difficult.

- **Does the Commonwealth need to consider drafting its legislation and framing its subordinate legislation in such a way as to ensure that any state, territory or local government action, which would have the effect of frustrating a Commonwealth decision or its actions to implement the SPS Agreement, would be over-ridden?**

Yes

- **Should an import permit be used to restrict a product from a particular region in Australia if it is determined on a scientific basis to be regionally free of a pest or disease, while still allowing general access to the Australian market?**

Yes, but only if the disease agent is present elsewhere in the country.

- **Are there other models (either domestic or international) for jurisdictional or legislative arrangements which could be more effective?**

New Zealand's arrangements are very effective, but difficult to implement in Australia due to extra layers of government here.

- **Should the current approach, which separates the roles and responsibilities of AQIS, Biosecurity Australia and the Product Integrity Animal and Plant Health Division, be integrated?**

Yes

- **Should the quarantine and biosecurity function be integrated within the Department of Agriculture, Fisheries and Forestry, or exist as a separate agency (statutory authority)?**

A statutory authority

- **Should the same regulatory agency deal with both exports and imports?**

Yes

- **Is it appropriate for the Director of Animal and Plant Quarantine to also be the Secretary of the Department of Agriculture, Fisheries and Forestry?**

no

- **Who should have the ultimate decision making power on risk policy and import permits – a Minister or an independent public servant or statutory authority?**

statutory authority

- **Is there sufficient priority given to monitoring and surveillance post-border? Who should provide these functions and resources?**

No, and a dedicated statutory body could do just this if adequately funded.

- **Does cost-recovery limit monitoring of pests and diseases at the border, for example where the product is treated or destroyed to minimise the costs to the importer?**

Yes, lots of useful information and aquatic animals (particularly ornamental fish) are needlessly wasted at the border when much could be learned by further monitoring.

- **Are the current import and export certification processes, the auditing of those processes in their application, and the surveillance of their operation, appropriate? Can the administration of import and export certification arrangements be streamlined?**

These arrangements work reasonably well in my experience, but theres always room for faster replies etc, but it comes down to resources.

- **Are the requisite skills and disciplines available to deliver optimal quarantine and biosecurity systems? If not, what are the highest priority areas? Is the education and training of personnel with these skills adequate? If not what are the highest priority areas?**

There are minimal skills available in identification of Aquatic animal diseases in the quarantine of ornamental fishes and this should be a priority area for education and training.

- **Is infrastructure such as diagnostic laboratories and containment facilities adequate to meet quarantine and biosecurity needs? If not what are the highest priority areas?**

There are minimal facilities available for identification of Aquatic animal diseases in the quarantine of ornamental fishes