



Australian Museum
6 College St.
Sydney
NSW 2010
Australia

4 May 2015

Marine Pest Unit
Animal Biosecurity Branch
Department of Agriculture
GPO Box 858
Canberra, ACT 2601

Australian Museum Submission on the *Review of National Marine Pest Security – Discussion Paper*

The Australian Museum welcomes the opportunity to provide follow-up comment on the points discussed at the workshops on the *Review of National Marine Pest Security – Discussion Paper* held in Sydney on the 22 March 2015 at Department of Agriculture Premises, Roseberry.

The Australian Museum, the oldest natural history museum in Australia, has a long and active involvement in identifying and documenting marine pests. We have extensive expertise in the identification of native and introduced marine polychaete worms, molluscs and crustaceans, and have undertaken marine biosecurity programs in Australia and overseas. Further, we can demonstrate our long history of communicating our science through the development of identification tools such as the digital guide to invasive polychaete species (<http://polychaetes.australianmuseum.net.au/>). On the basis of our expertise in this field, we believe that we are well qualified to make responses to some of the issues raised by the *Discussion Paper*.

Two scientific experts from the Australian Museum, Drs Shane Ahyong and Pat Hutchings, attended the March 2015 workshops to provide comment on the *Discussion Paper*. Below they summarise key points they made during that workshop and also provide some further relevant information points.

1. We would like to reiterate the fundamental importance for correct identification of marine pest species. This includes the ability to accurately distinguish these pest species from endemic native species, including as yet undescribed native species.
2. Related to the preceding point, we stress the critical role that museums and herbariums play in correct species identification and wish to reiterate the importance that museums and herbariums be formally involved in verifying the reports of new invasions to ensure correct identification.

Further, that voucher specimens be lodged at a museum or herbarium ensuring long term custodianship and available comparative reference material.

3. We recommend a regular review of the trigger list of marine species given the strong potential for additional species to be introduced into Australian waters. The identification aspect of this recommendation directly relates to points 1 and 2 above and requires direct involvement of marine taxonomists.
4. We recommend selection of these species involve Australia's marine taxonomists, who largely reside within museums and herbariums. As most museums and herbariums are state funded, there is large mutual benefit from greater co-operation between State and Federal agencies.
5. Significant expertise related to all aspects of marine biosecurity science and management exists nationally but is widely dispersed through multiple agencies and institutions. This current ad hoc arrangement could substantially benefit from an overarching body of experts representing these skills as the coordinated sum of these skills is significant.
6. We strongly believe that management strategies and protocols must be designed and evaluated on the basis of empirical data. This will involve baseline research to determine which species occur in or are arriving in our ports, how often they are arriving (as a proxy for propagule pressure), and their likely ecological effects.
7. We recommend that risk abatement strategies be continually revised as more information becomes available re life cycles, survival rates. At present for most species we lack much of this information.
8. We would like to reinforce the recommendation that targeted regular surveys are carried out at high risk ports. Such regular surveys could be focussed on habitats within ports which seem to be susceptible to introduced species, such as artificial habitats and wharf piles.
9. We suggest that museums and herbariums be involved in developing and implementing these monitoring programs.
10. We thank you for the opportunity to provide our expertise to this Discussion Paper and look forward to continuing to be involved in the implementation of the national marine pest biosecurity system.

Prepared by:

Dr Shane Ahyong (Senior Research Scientist; shane.ahyong@austmus.gov.au)

Dr Pat Hutchings (Senior Principal Research Scientist; pat.hutchings@austmus.gov.au)