



The Australian Centre
for Agriculture and Law

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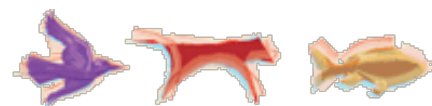
TO THE ENVIRONMENT AND COMMUNICATIONS REFERENCES COMMITTEE

SUBJECT: SUBMISSION ON ENVIRONMENTAL BIOSECURITY INSTITUTIONAL ISSUES

The adequacy of arrangements to prevent the entry and establishment of invasive species likely to harm Australia's natural environment.

The Australian Centre for Agriculture and Law (AgLaw Centre), based at the University of New England (NSW), provides this submission on institutional environmental biosecurity issues for invasive species likely to harm Australia's natural environment. We have conducted a number of studies concerned with legal and institutional issues concerned with Invasive Species (plants and animals); as follows (with links where appropriate) that are likely to be relevant to your investigations.

1. Paul Martin and Elodie Le Gal *Concepts for Industry Co-Regulation of Bio-fuel Weeds* IUCN Academy of Environmental Law eJournal, Vol 1, May 2010.p. 1-13
http://www.iucnael.org/en/component/docman/doc_download/499-martin-a-le-gal-iucn-academy-ejournal-article-final.html
 2. Burgman, M.A., Walshe, T., Godden, L. and Martin, P. 2009. *Designing regulation for conservation and biosecurity*. The Australasian Journal of Natural Resources Law and Policy 13, 93-112.
 3. Paul Martin *Cross pollination or cross-contamination? Directions for informing the management of invasives with market-economy concepts*. Keynote address, Proceedings of the 16th Australian Weeds Conference eds R.D. Van Klinken, V.A. Osten, F. D. Pancetta and J.C. Scanlan, May 2008, Queensland Weeds Society pp 6-13
 4. P. Martin *Weeds: new strategies for an old problem in Managing Weeds in a Changing Climate*, 15th Australian Weeds Conference proceedings, 24-28 September. pp. 118-121
 5. Paul Martin, Miriam Verbeek and others *Measuring the Impact of managing invasive species*. Report number K112-25, May 13 2013 for the Australian Government Department of Agriculture Forestry and Fisheries (contractor: Invasive Animals Limited, on behalf of the Invasive Animals CRC) (unpublished).
 6. Paul Martin, Miriam Verbeek, Sophie Riley, Robyn Bartel and Elodie Le Gal: *Innovations in institutions to improve weed funding, strategy and outcomes*, Proposals for a national weed institutions research agenda May 2012 RIRDC Publication RIRDC 12/091 ISBN: 978-1-74254-433-5, 113 pages at <https://rirdc.infoservices.com.au/items/12-091>
 7. Paul Martin and Miriam Verbeek "Australia" within "A comparative assessment of existing policies on invasive species"
- Professor Paul Martin, Programme Leader:
"Facilitating Effective Community Action"
<http://www.invasiveanimals.com>



Invasive Animals CRC



- species in the EU member states and in selected OECD countries” Bio Intelligence Service [Contract number: 070307/2010/577435/ETU/B2] September 2011, pp 369-400 at http://ec.europa.eu/environment/nature/invasivealien/docs/BIO_IASPolicies2011.pdf
8. Paul Martin, Miriam Verbeek, Sophie Thomson, Julie Martin *The Costs and Benefits of a Proposed Mandatory Invasive Species Labelling Scheme*, September 2005. ISBN 1 921031 00X http://awsassets.wwf.org.au/downloads/sp085_invasive_species_mandatory_labelling_scheme_1sep05.pdf
 9. Paul Martin, Darryl Low Choy and Elodie Le Gal *Reducing institutional impediments to community-based invasives control* 14th Vertebrate Pests Conference, Brisbane, May 2014.
 10. Paul Martin *Entrenching scientific continuous improvement in the human issues of invasives management* Keynote address, Weed Society of Victoria Annual Conference, Geelong Victoria, May 2014.

In particular we are working with the Invasive Animals Cooperative Research Centre, various public agencies and not-for profit environmental organisations, on the issue of facilitation of effective community action to control for invasive species (for further details, see <http://www.invasiveanimals.com/research/phase2/community-engagement/>). This work reflects the fundamental fact that effective biosecurity cannot occur other than with the substantial investment of effort and resources by the community, generally on a voluntary basis. It is clear that the implications of this fundamental fact have not been well understood by policy makers, and that particularly as government is now trying to withdraw from much frontline control work, a different approach to non-paid work by the community is essential if control is to be maintained or hopefully strengthened.

We canvass these issues in the report, ‘[A citizen-focused review of institutional arrangements for invasive animal control and management](#)’ which considers institutional impediments to more effective action by citizens throughout Australia. It is available at <https://www.dropbox.com/s/r6y42z80l3srnsp/Main%20report%20-%20Improving%20Australia%E2%80%99s%20invasives%20management%20institutions%20V1.1.pdf>. The supporting documents are available at <https://www.dropbox.com/sh/z6lj7ivqa99rby6/AADtp2PhbOOkQnhQxDCSff4na>.

Rather than repeat all the content in this document, we would like you to read this submission in conjunction with this work and the submission we have made on the issues paper by the Natural Resource Commission for the review of weed management in New South Wales to implement a biosecurity shared responsibility approach. This document is available at



<http://www.nrc.nsw.gov.au/content/documents/Submission%20-%20Prof%20Paul%20Martin%20-%20Weed%20Management%20Review.pdf>

Over the next 12 to 18 months our plan is to work closely with community groups to explore institutional reform proposals and innovation ideas for institutional arrangements, from the perspective of citizens involved in invasive species control, including biosecurity.

There are a few points we would like to emphasise.

1. The need for a whole-of system approach to governance issues of invasive species

Communities throughout Australia face similar institutional and capacity constraints upon their ability to tackle new and established invasive species. Poor institutional coordination, complex and fragmented institutional arrangements, decreasing public funds, regulatory enforcement and compliance issues are some of the key barriers to effective community engagement for effective invasive species control. These constraints impose high transaction costs. Tax-payers ultimately remain the final risk bearers for the costs related to policy failure. Focusing on how to prevent the entry and establishment of new invasive species without also embracing the adequacy of post-border institutional arrangements for managing established invasive species is not likely to result in coherent strategy, yet the signs are that governments at all levels are attempting to do precisely this, under the guise of saying that post-establishment control is no longer the priority for government investment. It is necessary to adopt a whole-of-systems approach to the institutional issues raised by both new and established invasive species.

2. Closing the risk accountability loop

Current biosecurity arrangements for invasive species control extensively rely on 'traditional' regulatory mechanisms such as bans against import and risk assessments, which mostly aim to protect Australian's agricultural values. Under the current national legislative and regulatory framework, the invasive species risk is ultimately borne by private landowners, without funding or other mechanisms to tie risk accountability back to risk creation. This results in a fundamental asymmetry of interests and capacity that undermines many aspects of biosecurity. We do not pretend that such innovations would be simple to create, but given the present and anticipated limits to government and to the capacity of the affected communities, radical innovation does need to be more actively explored.

3. More objective design of policing and prosecutorial strategies



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Compliance management is a recurrent concern in invasive species management. There is often a significant gap between what people (and policy-makers) think should be effective for controlling and managing invasive species and the reality of what happens on the ground. Between agencies in different states there are differing and strongly held beliefs about the effectiveness of policing and prosecution, but these do not seem to reflect objective analysis of what does work, why, and under what circumstances. This lack of collective scientific learning about what is effective in policing and prosecution, seems to be a significant institutional gap that could be addressed.

4. Applying behavioural science to interventions

Encouraging voluntary action (including compliance) by citizens is a behavioural issue. There is a great deal of scientific and applied knowledge about changing citizen behavior that might help to make behavioural change strategies more effective, but very little of that is applied in the “human dimensions” management of invasives. This seems to be an obvious area for improvement.

5. Scientific improvement in the human dimensions of invasive management

A great deal of structured scientific investigation has been invested in improving the technical (nonhuman) control methods for invasive plants and animals. The evidence is that significant performance improvements have been the result of a disciplined scientific method.

However, in relation to human aspects of the control invasive species, there has not been an equivalent structured scientific approach to continuous improvement. Indeed, there is little objective evidence about the effectiveness of communications, engagement, public relations, capacity development, and other investments, and as result there is a very limited basis upon which to determine how to improve this effectiveness.

This is a significant and easily remedied institutional failing, the remediation of which should result in continuing improvements in the effectiveness of all forms of biosecurity and invasive species management.

We trust that these comments are helpful and we look forward to the next iteration of the Senate approach to improve arrangements to prevent the entry and establishment of invasive species likely to harm Australia's natural environment.

Yours sincerely

Professor Paul Martin and Dr Elodie Le Gal