

BIOSECURITY ACT 2015

Discussion Paper: *Bonamia* and Winter Mortality in Oysters

December 2015

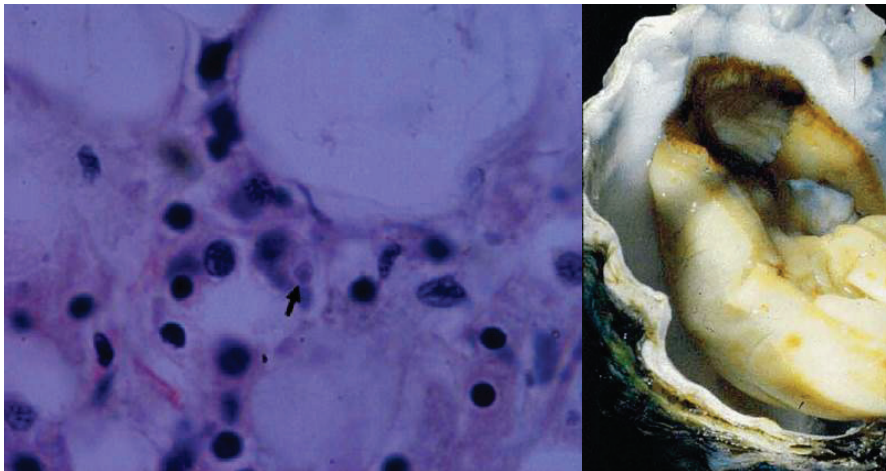


Photo: M. Heasman

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Comments on this Paper close on 12 February 2016

Email your comments to: submissions.biosecuritylegislation@dpi.nsw.gov.au

Post your comments to: Biosecurity Act 2015
NSW Department of Primary Industries
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For more information

See: www.dpi.nsw.gov.au/biosecurityact

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Summary

The *Biosecurity Act 2015* will repeal the parts of the *Fisheries Management Act 1994* (including *Part 6, Division 4 Diseased fish and marine vegetation* and *Schedule 6B Diseases affecting fish and marine vegetation*), which currently includes various regulatory controls and powers with respect to *Bonamia* and Winter Mortality.

Having considered existing management arrangements and the biosecurity risks associated with *Bonamia* and Winter Mortality, it is proposed to implement similar management arrangements under the *Biosecurity Act 2015*. Specifically the notification requirement for these diseases will be retained.

Background Information

What is the problem?

Bonamia and Winter Mortality are potentially serious diseases, but there is relatively little known about their identification, mechanisms and impacts.

BONAMIA

Bonamia is a nationally notifiable potential pathogen of oysters, the presence of which may restrict international and interstate market access for cultured oysters. The same or a similar organism is a known disease agent in other states of Australia and in other countries. For example *Bonamia exitiosa* is associated with mass mortalities in the New Zealand dredge oyster, *Ostrea chilensis*, but this pathogen is considered to be exotic to Australia.

A species of *Bonamia* has been found at low levels in large numbers of apparently healthy Native Oysters from southern NSW estuaries. However, no mortalities of wild or cultured Native Oysters have ever been associated with its presence.

Nevertheless, because of problems differentiating the species of *Bonamia*, access to interstate markets can be impacted by its presence.

Testing for *Bonamia* is included in the department's response to reports of oyster mortality, and notification by laboratories of confirmed cases is required. To date, there have been no significant mortality events in NSW attributable to the presence of *Bonamia*.

WINTER MORTALITY

This disease causes high oyster mortality during periods of low water temperature and high salinity. It has the potential to severely impact the Sydney Rock Oyster industry through both stock losses and restrictions on market access.

A species of *Mikrocytos* (subsequently renamed as a species of *Bonamia*) was historically thought to be the cause of the disease, but a definitive link between its presence and disease outbreaks has never been found. However, no other disease agent has been identified and as a result, some interstate markets still require freedom from *Bonamia* species.

The regulatory objective is notification of instances of high Winter Mortality. More information about the cause of the disease is needed to determine effective management.

Why is it important?

The NSW oyster industry is the state's most valuable aquaculture industry and an important contributor to the NSW economy, with \$31.8 million of Sydney Rock oysters and \$2.1 million of Pacific Oysters sold on the NSW and interstate market in 2013-14.

Oysters are farmed in 33 NSW estuaries between Eden in the south and the Tweed River in the north. There are about 2256 aquaculture leases, with a total area of approximately 2816 hectares.

What is the outcome we are seeking?

The desired outcome is to continue to manage these oyster diseases, to increase understanding of the causative agents and to protect market access.

Current management arrangements

Infection with *Bonamia* species continues to be listed in *Australia's National List of Reportable Diseases of Aquatic Animals* and both *Bonamia* and Winter Mortality are declared diseases in NSW in Schedule 6B of the FM Act. As a result:

- notification of a confirmed or suspected presence of the disease is required as soon as practicable;
- the sale of diseased oysters is prohibited;
- depositing diseased oysters in NSW waters is prohibited;
- the intentional or reckless communication of the disease is prohibited; and
- a confirmed or suspected presence of the disease can trigger the declaration of a quarantine area.

There are currently no Quarantine Orders or Fishing Closures in place on account of these diseases.

Clause 7E of the *Fisheries Management (Aquaculture) Regulation 2012* requires that oyster growers notify NSW Fisheries of all movements of oysters and oyster cultivation material between estuaries, as a condition of their aquaculture permit. They must also keep records of these movements in the Oyster Shipment Logbook or through the Oyster Shipment IVR System. This system allows for the rapid traceability of disease agents or pests in the event of an outbreak and will be retained.

Note that Part 7 Division 7 of the FM Act (*Protection of fish and marine vegetation from disease*), which prohibits the release of live fish and the importation of live exotic fish and marine vegetation, will be retained in the FM Act. Permits under this Part will remain the responsibility of Fisheries NSW.

Proposed Management under the NSW Biosecurity Act 2015

It is proposed to manage the risks of *Bonamia* and Winter Mortality under the General Biosecurity Duty (GBD) including a mandatory measure to notify that will be prescribed in the regulations.

The GBD requires any person dealing with biosecurity matter (e.g. oysters) or a carrier of biosecurity matter (e.g. cultivation equipment or a boat) and who knows or ought to know of the biosecurity risks associated with that activity to take measures to prevent, minimise or eliminate the risk as far as is reasonably practicable.

Aquaculture permit holders should know or ought to know of the biosecurity risks associated with oyster disease. If an oyster farmer detects diseased oysters, the farmer is subject to a GBD to prevent or minimise the spread of the disease. The oyster farmer can discharge his or her GBD by not moving stock to any other estuary and notifying NSW DPI of the situation.

A mandatory measure will require all aquaculture permit holders to notify NSW DPI of any suspected and confirmed outbreaks of *Bonamia* and Winter Mortality. Aquaculture permit holders will also have a duty to notify unexplained and significant mortality of oysters under

section 38 of the Act (i.e. biosecurity event - something that is likely to have a significant biosecurity impact such as a disease in oysters).

These notification obligations will enable NSW DPI to respond to any outbreak and will underpin increased understanding of these diseases for the development of management protocols as well as market access.

In the event of a suspected outbreak, an authorised officer (including a fisheries officer) may immediately issue a general biosecurity direction to an individual permit holder or all permit holders at risk in the estuary to halt the movement of potential carriers of the disease while samples are being analysed.

If oyster mortalities are found to be associated with *Bonamia* or Winter Mortality, a Control Order may be made to respond to the outbreak and restrict movements of oysters and infrastructure as required.

Clause 7E Clause of the *Fisheries Management (Aquaculture) Regulation 2012* will be retained as outlined above.

What do you think?

We value your comments on how we can improve our biosecurity system and look forward to receiving your input into this important process.

Please complete the following survey on '*Bonamia* and Winter Mortality in Oysters' at: <https://www.surveymonkey.com/r/bonamia>.

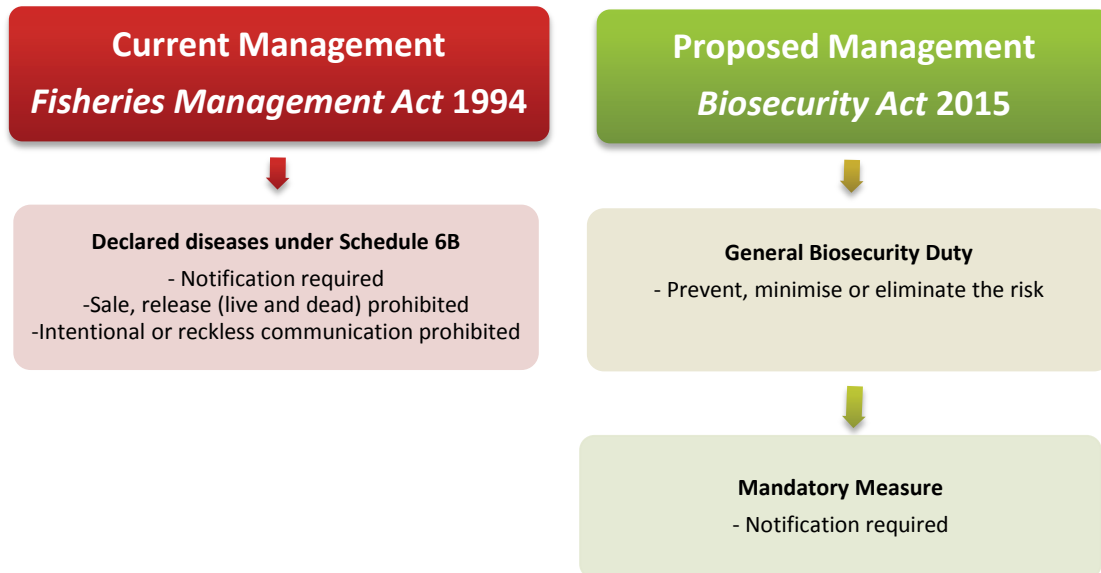
Alternatively, submit your feedback **by Friday, 12 February 2016** via [email](#) or post to:

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For more information about the *Biosecurity Act 2015* and regulatory framework, please visit www.dpi.nsw.gov.au/biosecurityact.

Appendix

Summary of current and proposed management of *Bonamia* and Winter Mortality



Note: Existing aquaculture management provisions under the *Fisheries Management (Aquaculture) Regulation 2012* will be retained (e.g. oyster shipment logbook system and other permit conditions relating to inter-estuarine movement, sale and cultivation etc).