



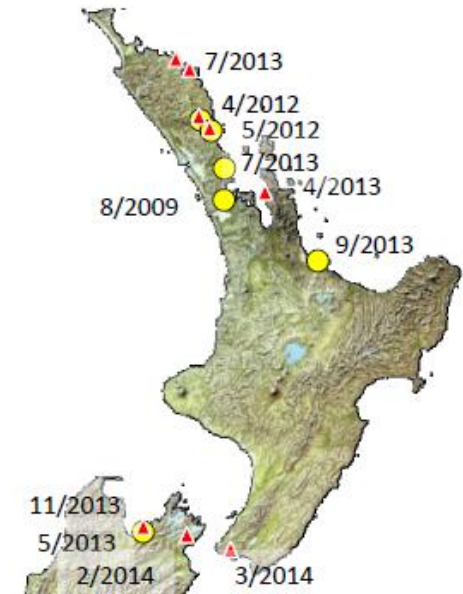
Northland marine surveillance and Pathways Plan

Putting Northland first

Why pathways management



Figure 82: Modelled mean annual recreational vessel movements to Opua. Model parameterized with 2002-2003 movement data.



New organisms will arrive in New Zealand



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Current known locations for marine pests



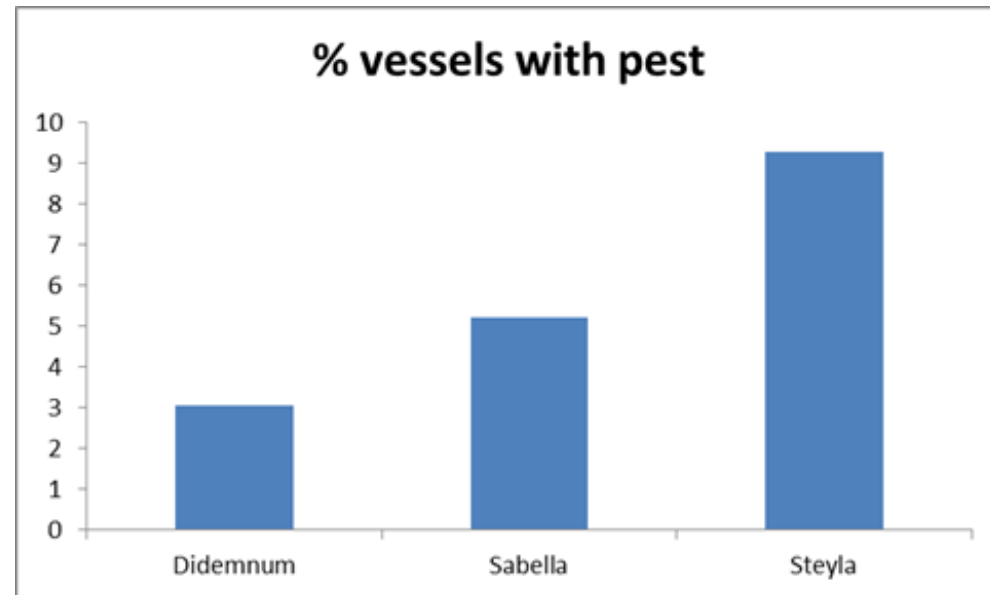
We will only find new incursions if we look



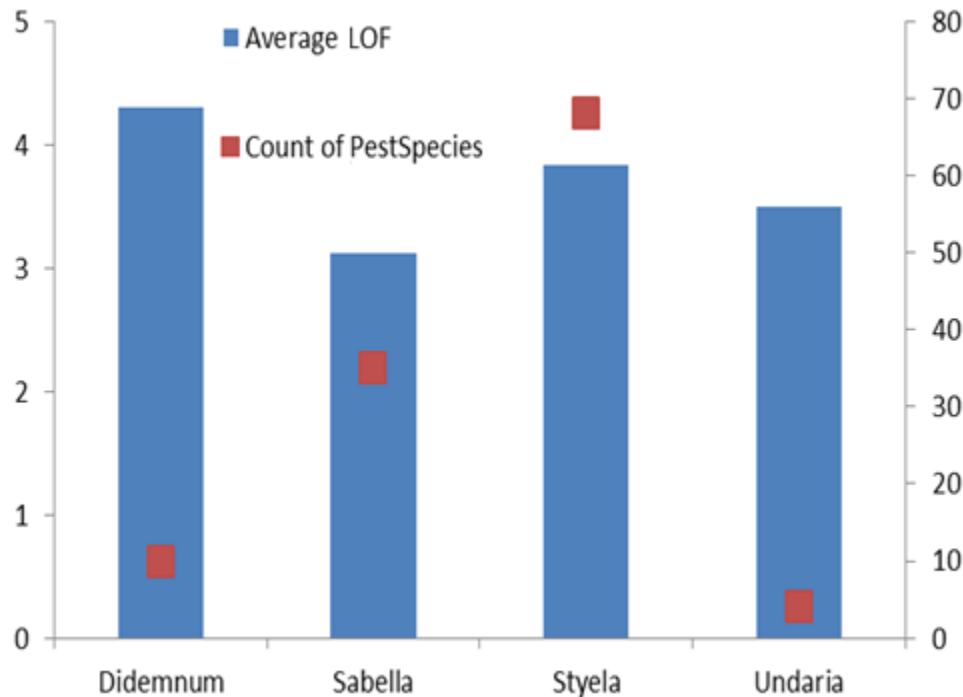
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Hull surveillance programme

- 2013 to 2014 just over 200 hulls checked by NRC divers
- 2014 to 2015 approx 300 hulls checked by NRC divers
- 2015-2016 contract divers checked 1009 hulls

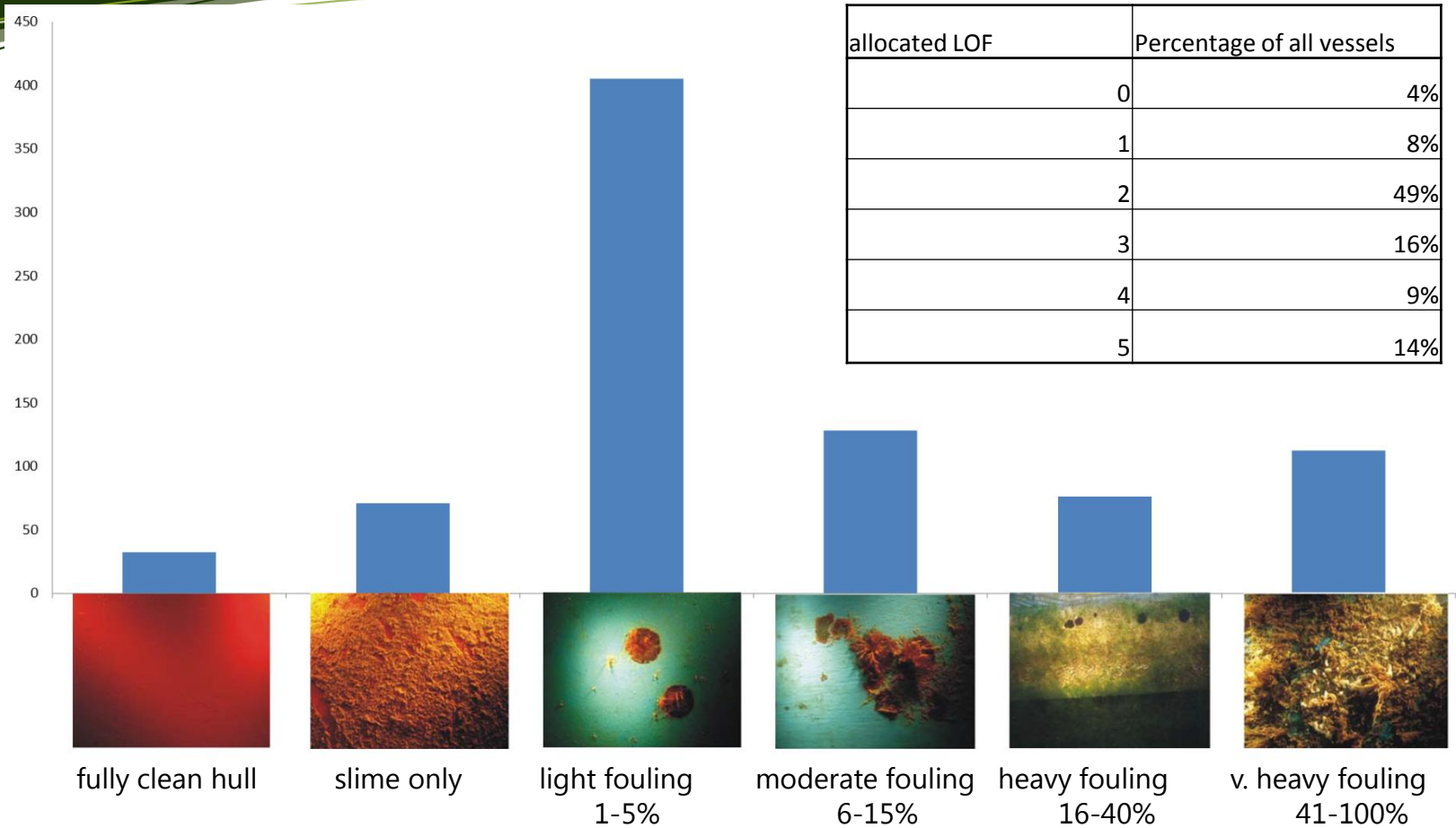


Hull surveillance programme



- Only way to know if something is arriving in our area is to be out there checking
- Over 1000 hulls checked since Dec 2015
- Compliance and information gathering

Hull surveillance programme



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Awareness increase

- 2014-2015:
 - Over 90% of the Auckland vessels were aware of fanworm
 - Only 40% of the Northland vessels were aware of fanworm
- 2015-2016:
 - 82% of ALL vessels aware of NRC marine pest rules

Visiting a Northland marina this summer?

To prevent the spread of marine pests, Northland marinas require visiting vessels to have been recently cleaned – that means:

Antifouled in the last *SIX* months

Prove it!
Haul-out receipts, paint receipts – check with the marina what proof is required. Some high-risk vessels may be subject to additional marina requirements.

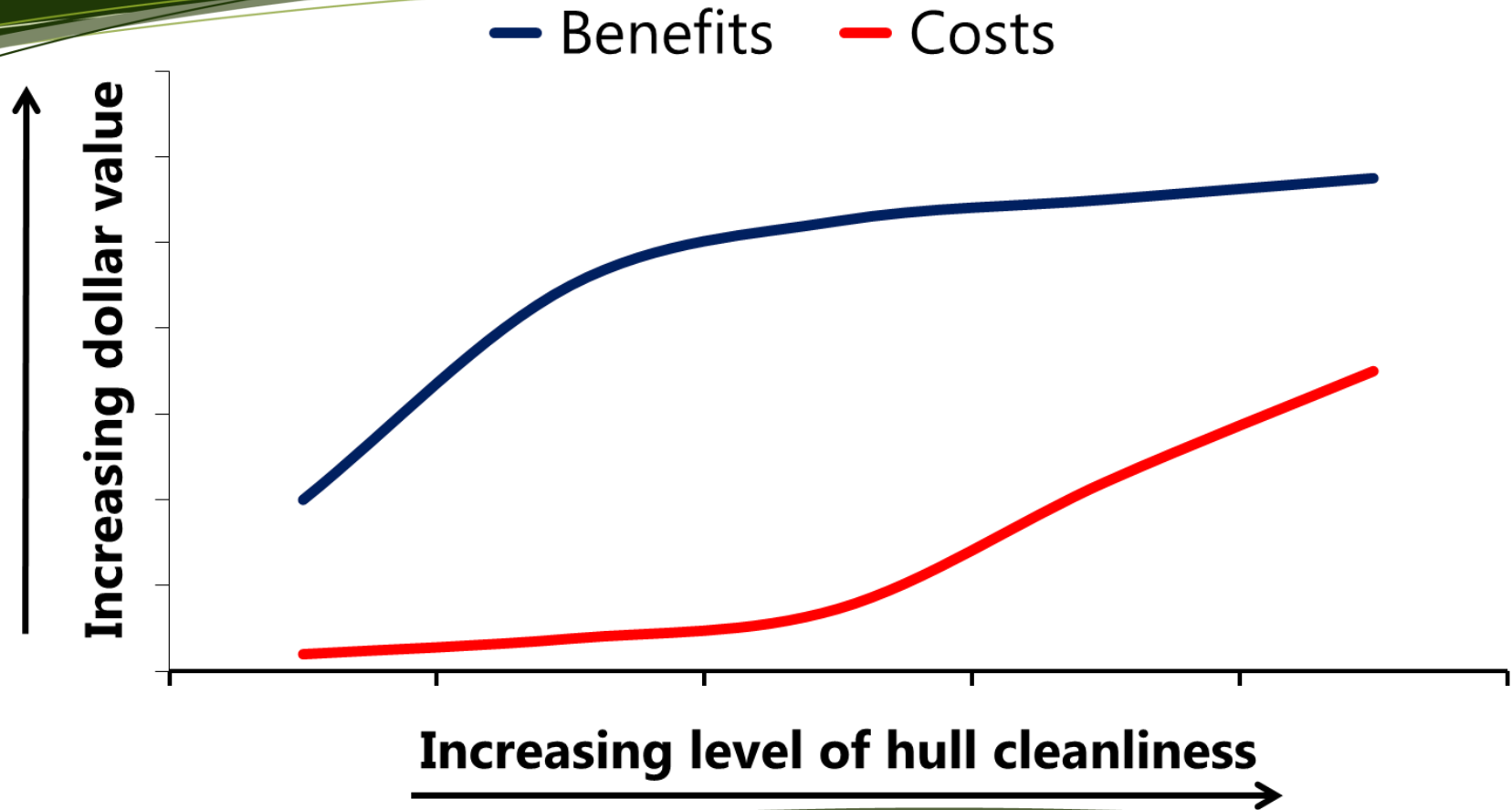
or

Lifted and washed in the last *one* month

Coming from the Auckland Region?
Beware of unwanted hitchhikers! Auckland is a high-risk area for Mediterranean fanworm, a highly invasive marine pest.

Contact Northland marinas for more information

What does this mean for pathways?



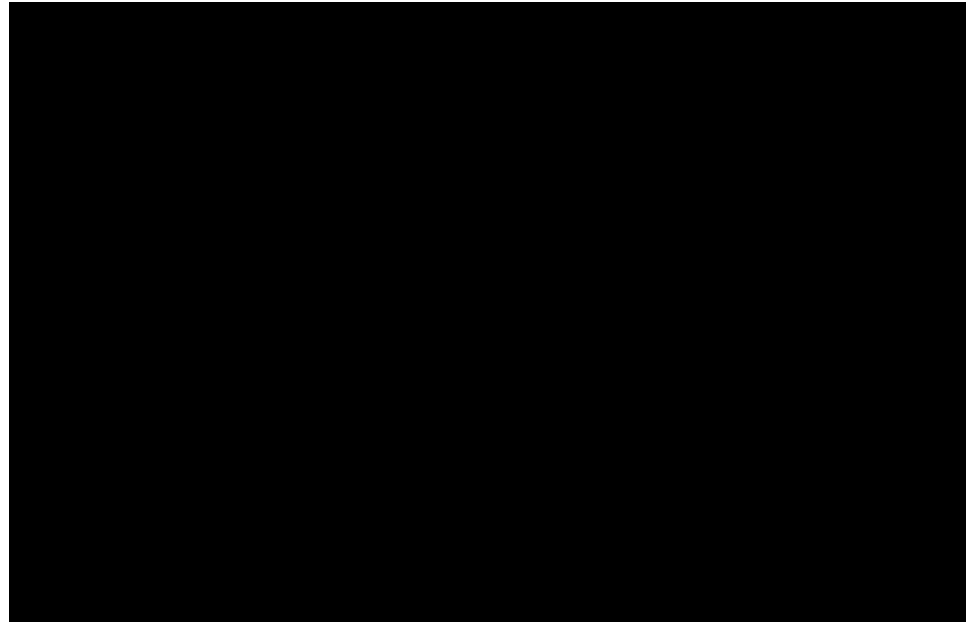
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Pathways management progress

- February 2017 out for consultation
- LOF or a description?
- Feedback from boat owners regarding costs to them
- Research proposal for the effectiveness of comms and compliance of new rules

Current research proposals to support pathways management

- Bubble diffuser - monumental plastics/cawthron- assist structure owners
- Underwater hull scanning device- lincoln agritech-
- Pile scourer- concept picked up by industry and in development



Research: Future Needs

- How long before marine pests grow back?
- Efficacy of chemical treatments
- Behavioural change and development of comms strategies for new rules
- Control tools need partners to fund development

Any questions?

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