

Structural modifications to shipping containers to manage biosecurity risk

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I begin today by acknowledging the Traditional Custodians of the land on which this work was carried out and the land on which we gather today. I pay my respects to their Elders past and present and extend that respect to any Aboriginal and Torres Strait Islander peoples here today. I recognise that sovereignty was never ceded and that this was, is, and always will be their country.

The rate of invasive species accumulation is associated with the value of global trade

Shipping containers have been identified as the source of incursions and invasions of key pest species including Khapra Beetle, the Giant African Snail, the Yellow Crazy Ant, the Tropical Fire Ant, and the Spongy Moth

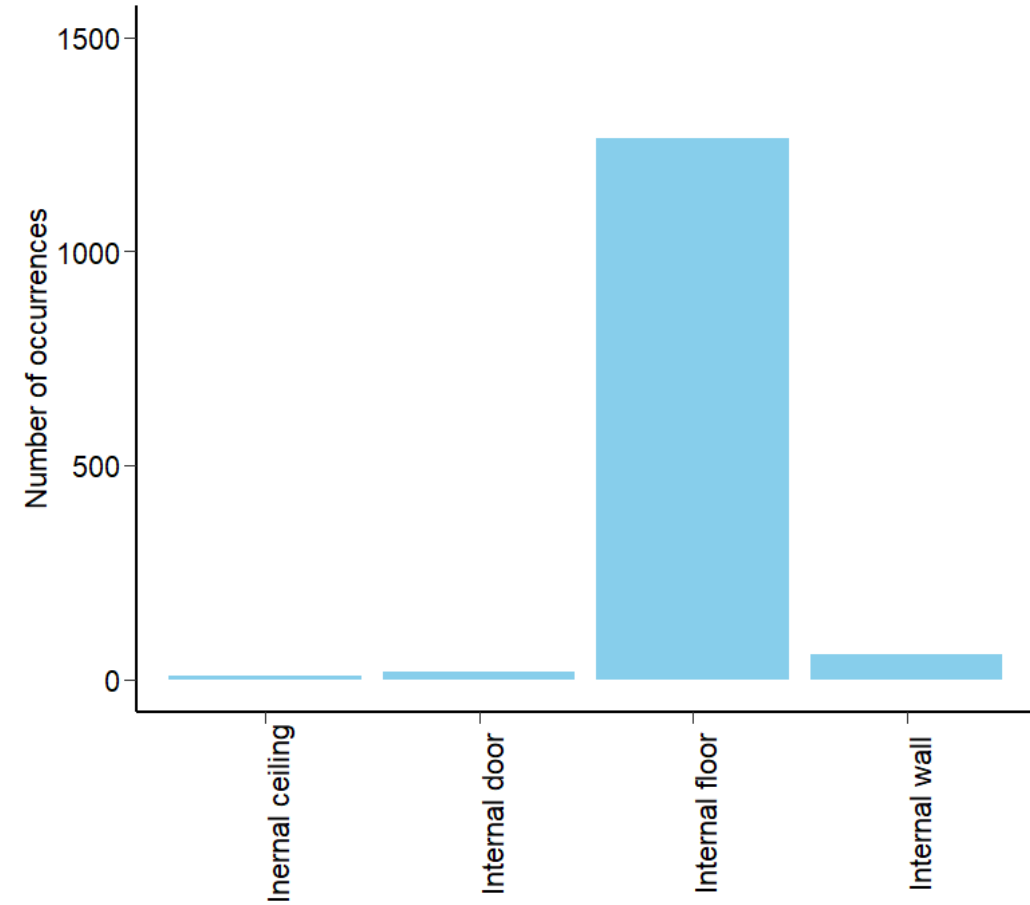
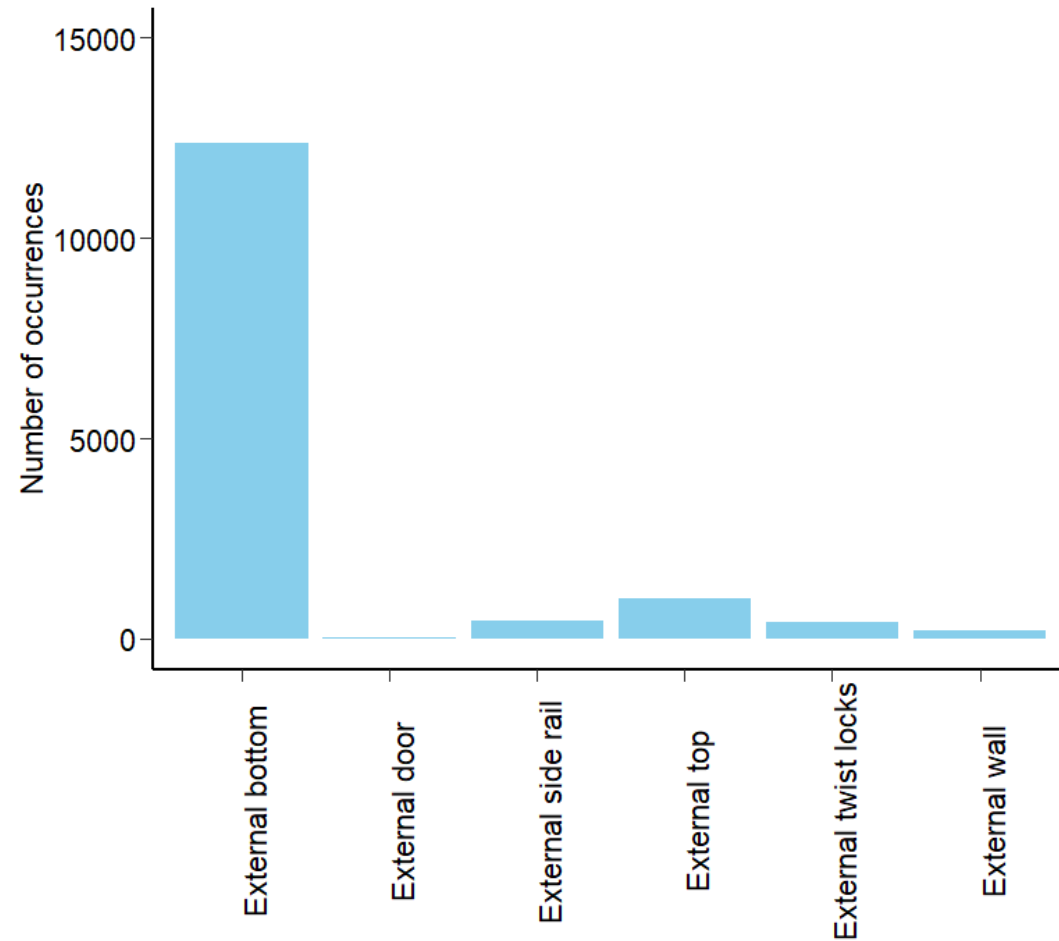


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Shipping containers have been identified as the source of incursions and invasions of key pest species including Khapra Beetle, the Giant African Snail, the Yellow Crazy Ant, the Tropical Fire Ant, and the Asian Gypsy Moth

Murdoch and DAFF are engaged in a project to identify structural elements of shipping containers associated with hitchhiker pests and assess potential structural modifications

External and internal floors are hotspots for contamination



Industry partners have established a new container design with four major modifications

Modification One: Side vents removed

Modification Two: Crossbeams removed

Modification Three: Timber boards replaced with steel floor

Modification Four: New containers are a uniform colour



Modification One: Side vents removed



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Modification Three: Timber boards replaced with steel floor



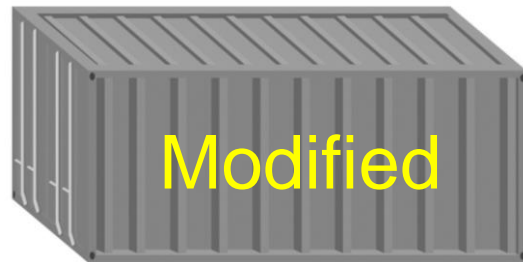
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Modifications tested in an active shipping route



Domestic Loop from Industry Partners

Record:

Contaminant locations

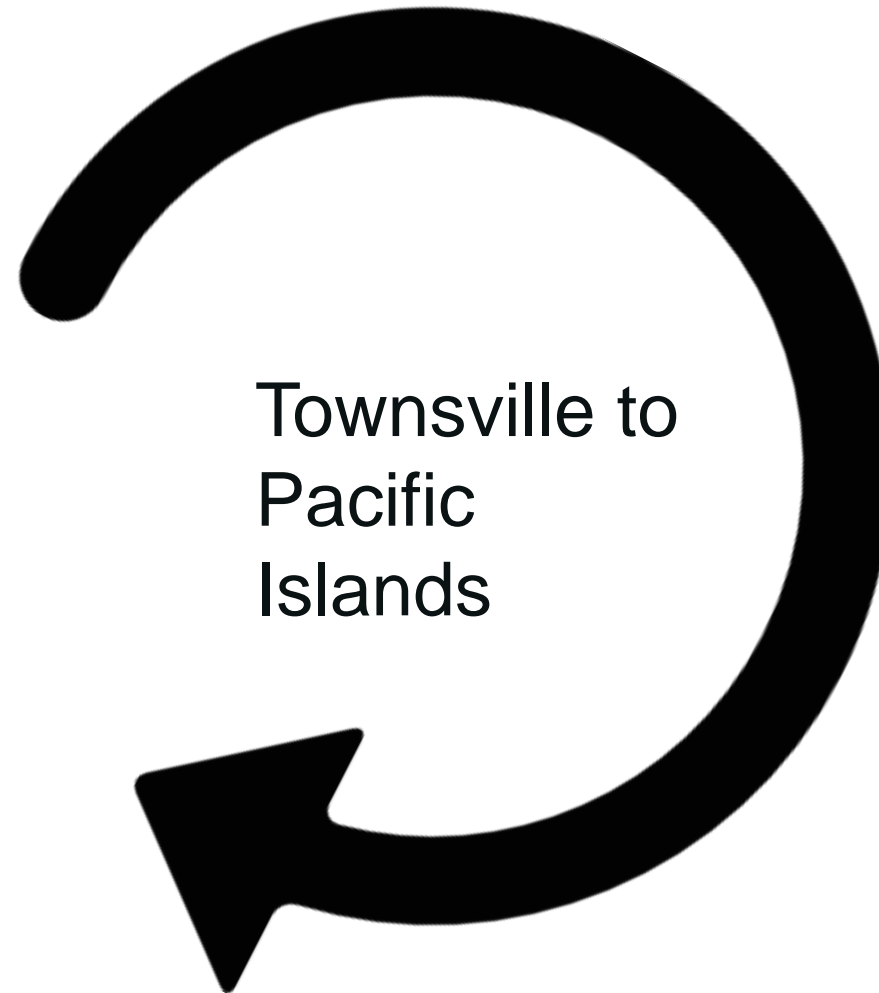
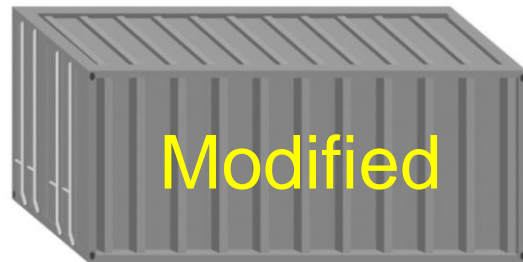
Contaminant type

Level of contamination

Inspection effort

Modifications need to be tested internationally

n = 15



Record:

Contaminant
locations

Contaminant type

Level of
contamination

Inspection effort

Major Outcomes:

- 1) Lower overall incidence of contamination on modified containers**
- 2) Underside of modified containers much less prone to contamination**
- 3) Reduced inspection times on modified containers**

Modifications should result in both
biosecurity and economic benefits



Thank you

Melissa Thomas and Simon McKirdy, Murdoch University

Rama Karri and Cindy Pretty, DAFF

Sea Container Working Group

Industry Collaborators

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Ngala kwop biddi.
Building a brighter
future, together.

