



Australian Government

**Department of Agriculture
and Water Resources**

Pest Alert!

Do you have stowaways
on board?



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Be aware of biosecurity risks on board your vessel

The Australian Department of Agriculture and Water Resources, works closely with other governments, industry and the community to manage Australia's biosecurity system and reduce the risk of unwanted pests and diseases entering and establishing in Australia.

Thanks to our strong biosecurity system and relative isolation, Australia has remained free of many of the pests and diseases present in other parts of the world. We need to maintain a strong biosecurity system to protect our primary production industries and our unique natural environment from the severe and negative impacts of these unwanted pests and diseases.

As masters and crew of international vessels, you are in a good position to alert us to the presence of these pests, diseases and insects – before they come into Australia.

This guide is designed to help you identify pests most likely to stowaway on board.

The *Biosecurity Act 2015* requires persons in charge of goods that are subject to biosecurity control to notify the department of reportable biosecurity incidents such as live pests. Read more about reportable biosecurity incidents on our website at agriculture.gov.au/reportable-incident.

Do you have stowaways on board?

Be on the lookout for any indications of pests or disease, including:

- any live animal or insect
- pale furry lumps (egg masses) on any surface
- timber with holes or frass
- infested foodstuffs
- plants with unusual marks or damage.

If you encounter any stowaway insects or animals, please collect and contain them, where safe to do so, and report to the department as soon as possible.

Insects (other than bees) can be killed with a knock-down spray to ensure they will not escape.

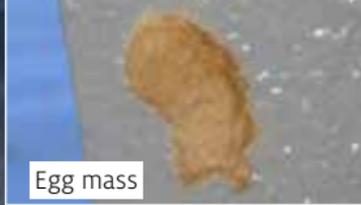
Call or email Department of Agriculture and Water Resources:

Within Australia 1300 004 605

Outside Australia +61 8 8201 6185

maritimeNCC@agriculture.gov.au

Visit agriculture.gov.au/biosecurity/avm/vessels for more information



Asian Gypsy moth

The Asian Gypsy moth is a major threat to Australia's horticulture and forestry industries, native forests and urban plants.

Adult moths are pale with black marks and have a wingspan of between 3 cm and 7 cm. Larvae are covered by tufts of long hair, and can be dispersed on the wind.

Egg masses are laid on surfaces near lights when vessels dock at temperate Asian ports (China, Taiwan, Japan, Korea and Russia) between May and October.

These masses contain up to 1200 eggs that are covered in yellow scales, and can remain viable for months.



Burnt Pine Longicorn beetle

Burnt Pine Longicorn beetles lay their eggs into pine and spruce trees where their larvae bore into the timber. This species is found in Europe, North Africa and New Zealand, and can fly aboard or can be brought in with cargo.

Burnt pine longicorn beetles shelter in crevices during daylight hours. They are active and attracted to lights on summer nights in New Zealand, generally between November and March.

Adults can be between 1 cm and 3 cm in length, are dark brown and have long antennae.



Khapra beetle and larva with rice grains



Adult Khapra beetle

Khapra beetle

Khapra beetles feed on dried plant and animal products with a preference for grain and stored products. This is a risk to Australia's grain industries and could jeopardise our export grain markets.

Larvae can survive dormant for two or more years in varied conditions.

Adult beetles are reddish-brown, oval in shape and are about 2 to 3 mm long.

Larvae are typically very hairy (with distinctive tufts over the body and a short tail), are pale yellow to golden-brown, and range in size up to 5 mm long.

They go through several moulting stages, leaving behind numerous cast skins which can indicate their presence.



Varroa mite on bee ©USDA



Wax comb

Honey bees

Exotic honey bees may be aggressive, and the parasites and diseases they carry pose a significant threat to Australia's honey and agricultural industries.

Bees are usually between 1 cm and 2 cm in length, and are hairy and often patterned with black and yellow/orange markings.

Wax combs or insects flying to and from a nest can indicate the presence of bees. Nests may be found underneath a structure or in hollow spaces.

If a colony or swarm of bees is discovered on board, do not disturb them. Bees require specialist treatment.



Adult



Wrigglers in water



Breeding site

Mosquitoes and mosquito wrigglers

Mosquito wrigglers are the life stage most likely to be found onboard vessels.

They live in pools of fresh or brackish water.

Adults often hide in dark, protected areas and lay their eggs (which look like black specks of pepper) where water pools.

Eggs can remain viable for up to a year.



Borer holes and frass



Pests on plant material (magnified)

Plant pests and borers

Plant pests can be found on any part of a plant, including roots, stems, leaves, flowers and seeds.

Some insects and mites on plants can be microscopic or hidden beneath a wax covering. Their presence may be indicated by leaves with webbing, marks or unusual growth.

Borers can live inside timber, stems or seeds, often leaving signs such as holes or frass (like sawdust).



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Brown marmorated stink bug

Brown marmorated stink bugs are an Asian agricultural pest that has recently invaded Europe and the USA.

They are highly invasive and feed on about 300 known host plants including many fruits and vegetables.

They seek shelter from cold weather, and can aggregate in or on shipping containers, motor vehicles, machinery, boats and other items which may be loaded onto vessels.

Adult bugs are up to 1.7 cm in length, and have a shield-shaped body which is mottled brown, with black and white banding around the rear margin.



Multicoloured Asian lady beetle

The multicoloured Asian lady beetle is another invasive insect which is rapidly spreading across overseas countries.

When seeking shelter from the cold, they can congregate on shipping containers and various other cargo items which may be loaded onto vessels.

These beetles are fairly circular and dome-shaped, and between 5 mm and 8 mm long. The colour may be yellow, orange, red or black, and they can have many, some or no spots.



Phil Lester, Victoria University of Wellington, New Zealand



Bob Taylor, CSIRO

Ants

Exotic ants may be aggressive and invasive, and if established in Australia could cause social, ecological and economic damage. Being social insects they are often found in groups or associated with a nest.

Ants can range in size from 1 mm to 30 mm in length. Each colony may contain ants with a variety of sizes, colours and forms, including winged individuals.

Fertilised queen ants which may have wings pose a high biosecurity risk, as they could start a new colony.



Adult giant African snail



Snail eggs and juveniles

Snails

Exotic snails and slugs can cause severe damage to Australian agricultural systems and natural areas, and can spread diseases which affect humans, animals and plants.

They are able to spread as eggs, juveniles or adults, and these can be attached to vessel structures, cargo, shipping containers, machinery or motor vehicles.

The giant African snail (often referred to by biosecurity officers as GAS) can have a shell length of up to 20 cm, and eggs which are about 5 mm wide.



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