

Code of Practice to Prevent the Spread of Non-Indigenous Flatworms

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About this Code

This Code is a practical guide to help producers and traders of nursery stock detect and limit the spread of non-indigenous flatworms, notably the 'New Zealand' flatworm, *Arthurdendyus triangulatus*, and the 'Australian' flatworm, *Australoplana sanguinea*.

Under the Wildlife and Countryside Act 1981, it is an offence to release or allow to escape into the wild any animal which is included in Part I of Schedule 9 of the Act. This includes the New Zealand flatworm.

The Need for a Code

- Non-indigenous flatworms prey on earthworms and so pose a potential threat to our native earthworm populations.
- Further spread of non-indigenous flatworms could have an impact on wildlife species dependent on earthworms and could have a harmful effect locally on soil structure.
- Findings in some parts of the United Kingdom indicate that non-indigenous flatworms are becoming more widespread.
- The principal means of spread is considered to be through movement of plant material and soil. By following hygienic practices and inspecting stocks of plants carefully, nursery stock producers, garden centres and traders can help to limit the spread of flatworms.

In addition, because the New Zealand flatworm is known to occur in parts of the United Kingdom, certain countries which import UK planting material have expressed concern about the possibility of receiving flatworms in consignments of plants. By adhering to this Code which lays down monitoring and inspection practices, UK producers will be able to demonstrate that they are taking measures to avoid spreading the flatworm through trade in planting material both within and outside the U K. **Failure to prevent the spread of flatworms could threaten UK exports.**

Scope

This Code applies to plant producers, nurseries, wholesalers, garden centres and other retailers of plants and is directed at all stages of plant production and marketing.

The New Zealand flatworm



New Zealand Flatworm
with blackcurrant-like egg capsule (4 -11mm long) (inset)

The New Zealand flatworm was probably first introduced to the United Kingdom some 40-50 years ago, and in certain areas – particularly cool and wet regions – it has become locally abundant and widespread, particularly in domestic gardens. It has gradually spread, most notably in Northern Ireland, Scotland and northern England. In England, findings have been mainly in domestic gardens and allotments, predominantly in northern counties, such as Tyne & Wear, Durham, Cumbria, the Wirral, Cheshire, Greater Manchester and West Yorkshire. There have been relatively few sightings in central or southern England and similarly, there are only a small number of records from Wales.

<https://secure.fera.defra.gov.uk/nonnativespecies/factsheet/factsheet.cfm?speciesId=367>

<https://secure.fera.defra.gov.uk/nonnativespecies/downloadDocument.cfm?id=348>

The Australian flatworm



The Australian flatworm appears to be a more recent introduction than the New Zealand Flatworm, but is now quite widespread, particularly in South West and North West England. It was first recorded in the Isles of Scilly in 1980 and has since spread along the southern coast of Cornwall, Devon and Dorset, and into Hampshire. There is also a concentration of findings in north Wales and North West England (Clwyd, Merseyside, Cheshire and Greater Manchester). However, there have been very few findings from the east of the country and none from along the whole eastern coastline of England.

<https://secure.fera.defra.gov.uk/nonnativespecies/factsheet/factsheet.cfm?speciesId=437>

<https://secure.fera.defra.gov.uk/nonnativespecies/downloadDocument.cfm?id=349>

Flatworm egg capsules

Flatworm egg capsules appear in the summer and resemble shiny smooth slightly flattened blackcurrants. They are between 4-11 mm long and 3-8 mm wide. Juvenile flatworms emerge after about a month and are creamy white/pink in colour. Other creatures such as leeches or slow-worms have in the past been mistaken for flatworms, but careful examination should help avoid mistakes. There are also several native flatworms which are mostly small and inconspicuous (about 2cm). These pose no threat to the earthworm population and should be left alone.



Leech: tough body wall, with fine cross lines and a sucker at each end



Earthworm: thin, rounded, obviously segmented body

Kontikia – 2 small flatworm species

Two other non-native species, *Kontikia ventrolineata* and *K. andersoni*, are also present in GB . They are thought to be of Australasian origin, and probably increasing in numbers . They are much smaller than the Australian and New Zealand flatworms, measuring 1-2 cm in length.

<https://secure.fera.defra.gov.uk/nonnativespecies/downloadDocument.cfm?id=147>

There are two native land flatworms (*Microplana terrestris* and *Rhynchodemus sylvaticus*) that are similar in size and colouration to *Kontikia*. However, both of these lack the longitudinal dorsal stripe.



Recommended Measures

The following measures are recommended to reduce the risk of the flatworm being introduced into or spread from your premises:

- **Inspect incoming consignments of plants**

Inspect pots or trays carefully, particularly if they come from an area where findings of the flatworm have been reported.

- **Maintain good hygiene**

Always use fresh, sterile compost or other sterile growing medium when potting up plants, not material taken from places where flatworms might be hiding. For example, a container of compost or growing medium which has been opened and left lying on the ground may prove an attractive hiding place for flatworms.

Clear up spilt compost or other growing medium, disposing of or thoroughly cleaning used pots and other containers.

- **Check regularly under matting or pots standing directly on the ground for flatworms or their egg capsules**

Flatworms are found on the soil surface. They will seek damp places, such as under loose turves, plastic or other sheeting, rocks, flat stones, plant containers etc. for shelter during the day. Egg capsules can also be found in such areas.

Where containers stand on black polythene or capillary matting, frequently check, where possible, the underside of the polythene or matting for the flatworm.

Whenever pots are standing directly on the ground, check whether flatworms have hidden under the pot and are either still on the ground surface or have adhered to the underside of the pot.

- **Lift plants from their pots frequently to check for the presence of flatworms or their egg capsules**

Flatworms and their egg capsules can also be found inside plant containers between the root ball and the edge of the container.

- **Set traps**

One of the locations where flatworms are most frequently found is in private gardens. Where nursery or other premises are adjacent to private gardens, set 'traps' close to the boundary, consisting of a weighted down sheet of black plastic or plank of wood. Check the underside of these traps frequently for the presence of flatworms or their egg capsules.

- **Inspect all outgoing consignments of plants carefully whether or not they are for export**

Check planting material leaving the nursery or other premises carefully for the presence of flatworms whether or not it is for export.

Action on Discovering a Suspected Flatworm

If you suspect that you have found a New Zealand or Australian flatworm, or their egg capsule:

- **Do not touch it** as the mucus covering the flatworm can cause skin irritation.
- Use the identification sheets above to confirm the sighting.
- Destroy non-native flatworms by, for example, squashing them or by dropping them into hot or very salty water.
- Follow the recommended measures above.
- Thoroughly inspect all plant and soil material being removed from the property (remember that it is an offence to release these species to the wild or allow them to escape to the wild) and alert any recent recipients of material from the property to inspect that material for flatworms or eggs.