



Department
for Environment
Food & Rural Affairs

Plant Pest Factsheet

Cotton stringy scale insect

Takahashia japonica



Figure 1. *Takahashia japonica* mature adult females with their characteristic long, string-like, looped ovisacs, hanging from the bark, hence their common name 'Cotton stringy scale insects' © Matteo Maspero, Italy

Background

Takahashia japonica Cockerell is a scale insect (Hemiptera: Coccidae) native to East Asia, that was first detected in Europe in Italy in 2017. It is polyphagous, feeding on a wide range of deciduous trees including many that are commonly found in the UK. It was first recorded in the UK in December 2018 infesting a *Magnolia* that had been planted three years previously in a private garden. The insect was reported to the Royal Horticultural Society (RHS) who informed the Animal and Plant Health Agency (APHA) and a sample submitted to Fera Science Ltd for confirmation.



Figure 2 *Takahashia japonica* dead post-reproductive adult female, about 7 mm long © Fera Science Ltd.



Figure 3 *Takahashia japonica* looped ovisacs on hanging from a *Magnolia* twig in the UK © Fera Science Ltd.



Figure 4 *Takahashia japonica* mature females with ovisacs © Matteo Maspero, Italy



Figure 5 Large infestation of *Takahashia japonica* on *Albizia* © Matteo Maspero, Italy



Figure 6 *Takahashia japonica* overwintering second instar nymphs on *Magnolia* in the UK © Fera Science Ltd.



Figure 7 *Takahashia japonica* parasitized second instar nymph on *Magnolia* in the UK © Fera Science Ltd.

Geographical Distribution

Takahashia japonica is native to the Far East and has been recorded in China, India, Japan and South Korea. The first European record of the scale was in Italy, where it was found to be widely distributed in the Milano province in May 2017. The distribution and

high levels of infestation indicate that it had probably been present for several years before detection.

Host Plants

It is broadly polyphagous on deciduous woody plants, being recorded on 28 species in 17 families. Host genera commonly found in the UK include: *Acer*, *Albizia*, *Alnus*, *Citrus*, *Cornus*, *Cydonia*, *Juglans*, *Magnolia*, *Morus*, *Parthenocissus*, *Prunus*, *Pyrus*, *Robinia* and *Salix*.

Description

Adult females are pale brown, oblong, and up to 7 mm long and 4 mm wide. Mature adult females are dark brown with a deeply wrinkled dorsum (Fig. 2). Each female produces a long 'string-like' white waxy ovisac, up to 5 cm in length, that forms a loop below the scale insect (Figs 1 and 3). They are gregarious, and the wax loops are highly conspicuous (Figs 1, 3-5). The wax is relatively tough, and the ovisacs remain attached to the host long after the eggs have hatched.

Biology

There is little published information on the lifecycle of *T. japonica*. In Italy it appears to have one generation per year. Eggs hatch in June and the first instars crawl over the host plant or are locally dispersed by the wind. Nymphs feed on the lower leaf surface during the summer before moving onto the branches in autumn where they overwinter (Fig. 6). Several parasitoid wasps have been recorded attacking *T. japonica* and one immature scale in the UK was found to have been parasitized (Fig. 7).

Dispersal and Detection

The first instar nymphs or 'crawlers' are the main natural dispersal stage. They may actively crawl over the host plant or be carried in air currents or on other animals. Long distance dispersal is likely to be with infested plants being moved in trade.

The early instars and young females are small and inconspicuous. It is the conspicuous ovisacs that are most likely to be detected first and there are no other species of scale insect in the UK that produce white string-like loops.

Economic Impact

There are no reports of *T. japonica* damaging plants in Asia or to date in Italy. Heavy infestations may be unsightly, and cause a reduction in the aesthetic value of plants. However, it may be too early in the European outbreak to assess the impact of *T. japonica* and there is potential for its host range to expand in Europe and some hosts may be more susceptible to damage.

Advisory Information

Takahashia japonica was added to the UK plant health risk register shortly after it was first reported from Europe. At that time, a decision was made that statutory action be taken against interceptions on recently imported plants, but not against finds on established plants. This approach would reduce the risk of the pest being introduced to the UK and being spread rapidly through trade, but also reflected the relatively low threat the pest is thought to pose. It remains uncertain how well *T. japonica* may establish in the UK. To date, it has largely been recorded from geographical regions with hotter summers than in the UK and the climate here may prove to be marginal for the species, despite it apparently surviving for three years in the UK.

Any further records or suspected finds of *T. japonica* or any other non-native plant pest should be reported to the relevant authority:

For **England and Wales**, contact your local **APHA Plant Health and Seeds Inspector** or the **PHSI Headquarters**, Sand Hutton, York. Tel: 01904 405138
Email: planthealth.info@apha.gov.uk

For **Scotland**, contact the **Scottish Government's Horticulture and Marketing Unit**:
Email: hort.marketing@gov.scot

For **Northern Ireland**, contact the **DAERA Plant Health Inspection Branch**:
Tel: 0300 200 7847 Email: planthealth@daera-ni.gov.uk

For additional information on UK Plant Health please see:

<https://secure.fera.defra.gov.uk/phiw/riskRegister/>

<https://www.gov.uk/plant-health-controls>

<http://www.gov.scot/Topics/farmingrural/Agriculture/plant/PlantHealth/PlantDiseases>

<https://www.daera-ni.gov.uk>

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