

## Life cycle

*D. kuriphilus* (common name: Oriental chestnut gall wasp) is a gall wasp which affects a number of *Castanea* (sweet chestnut) species by causing galls to form on the growth buds. Infested twigs and leaves can die, causing a reduction in growth and fruiting. Severe attacks may result in the decline and death of chestnut trees.

Reproduction is achieved from unfertilised eggs without mating, in a process called thelytokous parthenogenesis: male wasps have never been recorded.

The female wasp lays eggs in the tree's growth buds during the summer. The eggs hatch within 30 to 40 days. The early stages of the larvae then lie dormant in the bud over the winter. The larval activity resumes in the spring, which causes the formation of galls in early summer on young twigs, on leaf petioles (stalks) or on the midrib of leaves. These green or rose-coloured galls start between 5 and 20mm in diameter, and can develop up to 4cm in diameter as the leaf tries to form.

Adult wasps emerge during June and July, leaving exit holes in the galls. The galls turn woody, and can remain on the twig for two years or more, although many fall off with the leaves.

## Hosts

The main host species in the UK is *Castanea sativa* (European sweet chestnut), but *Dryocosmus kuriphilus* will also attack *Castanea dentata* (American sweet chestnut), *Castanea crenata* (Japanese chestnut), *Castanea mollissima* (Chinese chestnut), and any of their hybrids.



1. Adult *Dryocosmus kuriphilus*

Source: Phytosanitary Service of Piedmont,



2. Discolouration of bud caused by oviposition (egg laying). Source: Maspero, M and Boriani, M, presentation at BTSF 4-7/3/14

## Symptom Guide to *Dryocosmus kuriphilus*



3. Rose-coloured galls at the point of leaf flush.  
Source: Phytosanitary Service of Piedmont, Italy



4. Gall cut in half showing larvae in June.  
Source: Tree Health Team, FC England



5. Pupae at different stages of development  
Source: Maspero, M and Boriani, M,  
Presentation at BTSF 4-7/03/14



6. *D. kuriphilus* gall with emergence holes  
Source: Tree Health Team, FC England



7. *D. kuriphilus* gall with emergence hole.  
Source: Tree Health Team, FC England



8. Galls harden and turn woody, causing early leaf death, and can persist on the tree for 2 or more years.  
Source: Tree Health Team, FC England