

Tansy beetle

(*Chrysolina graminis*)



Left: *Chrysolina graminis* ; Right: *Chrysolina graminis* larva

The Tansy beetle is an iridescent green leaf-beetle, approximately 10 mm in length. The major population of the Tansy beetle in the UK occurs on the banks of the River Ouse near York, with a smaller population re-discovered in 2014 at Woodwalton Fen, Cambridgeshire. This highly restricted distribution is why the beetle is designated as 'endangered' according to IUCN criteria and is a UK Priority Species.

Life cycle

The beetles have an annual lifecycle. Adult beetles hibernate at the base of Tansy plants (*Tanacetum vulgare*) from October through to April. In April they emerge, feed, mate and lay eggs until June when the over-wintering adult generation begins to die off. The eggs are about 2 mm long and vary in colour from pale yellow to dark orange. They are laid in small batches on the underside of Tansy leaves or on surrounding plants. Once hatched, the larvae are yellowish-grey and soft-bodied. Larvae pupate in soil at the base of Tansy plants from June and a new generation of adults emerge in early August. These adults feed on Tansy until they hibernate in late September or October.

Distribution map

The Tansy beetle is currently found in York and Cambridgeshire.

It has always had a localised distribution throughout the British Isles. The two Tansy

beetle locations best known in Victorian times were Clifton

Ings (York) and

Wicken Fen

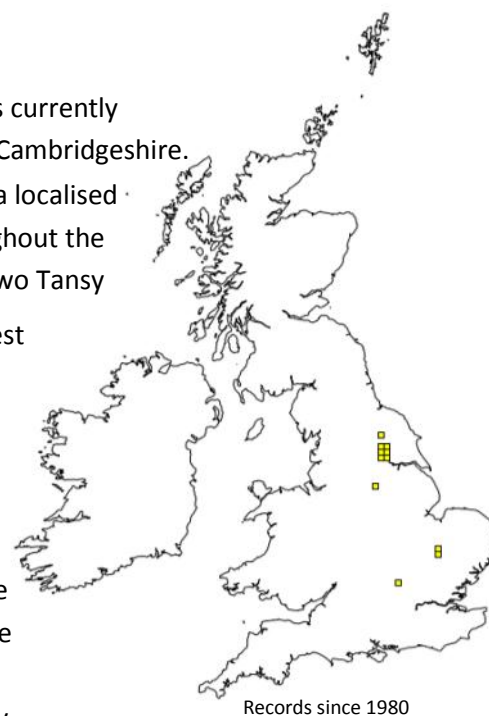
(Cambridgeshire).

Most beetles in the York population are found on discrete, unconnected Tansy

patches. This has resulted in semi-isolated sub-populations along the banks of the River Ouse.

Habitat

The Tansy beetle is associated with riparian and wetland habitats. Along the River Ouse they are most commonly found within a few metres of the riverbank edge, either on or around their food plant.





Tansy (*Tanacetum vulgare*)

The following advice relates to Tansy beetle populations in the York area.

Threats and causes of decline

- The loss of Tansy plants is detrimental to the beetle. Overshadowing by riparian trees or Himalayan balsam (*Impatiens glandulifera*), overgrazing, and the eradication of Tansy when mistaken for Ragwort (*Senecio jacobaea*) have all contributed to the decline in Tansy beetles.
- Beetles disperse by walking. Because of this Tansy patches need to be less than 150 metres apart to allow colonisation.
- Summer flooding is a major threat because, although adults can float for extended periods, larvae drown and eggs are destroyed.
- Mowing riverbanks at a time when larvae or newly emerged adults are above ground can damage individuals or destroy their food supply.

Habitat management

- The major objective is to maintain a network of patches of the Tansy plant. Trimming overgrown trees and the control of invasive plants can ensure a suitable open habitat.
- Plug planting or seeding is desirable in areas where stretches of the riverbank are devoid of Tansy.

- During more general re-seeding Tansy should be included in the seed mix.
- Management of riverbanks by mowing should be done late June—mid July while beetles are underground pupating, avoiding large Tansy patches. If possible delay mowing until late October when beetles are hibernating.
- The Tansy plant colonises disturbed ground. Some cattle or sheep poaching may be useful, but overgrazing should be avoided.
- High stocking levels can cause Tansy to be eaten. It may be beneficial to erect small enclosures (c. 6 x 3m) around extensive Tansy clumps. This can be done using post and rail fencing as it is strong and permeable to floodwater.
- Ensure that Tansy is not mistaken for Ragwort and eradicated.

Countryside Stewardship (CS) options

Under the new Countryside Stewardship scheme the Tansy Beetle is listed as a Priority Species for the Vale of York National Character Area. Below are options within the CS scheme which could benefit the Tansy beetle.

Mid Tier options

- Grassland: GS1, GS2, GS6
- Soil & Water: SW1, SW2, SW3, SW4, SW11

Higher Tier options

- Grassland: GS1, GS2, GS6, GS7, GS8, GS9, GS10, GS11, GS12, **GS13, GS14**, GS17
- Supplements: SP4, **SP9**
- Soil & Water: SW1, SW2, SW3, SW4, SW11, SW12

Options in bold relate to management of target or threatened species.

References:

This sheet can be accessed on the web at www.buglife.org.uk

More information on Countryside Stewardship can be found at www.gov.uk/government/collections/countryside-stewardship-get-paid-for-environmental-land-management

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Oxford, G. & Millington, M. (2013) Tansy Beetle conservation: Yorkshire data, national implications. *The Naturalist*, 138, 112—122.

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