

# CONSERVATION of the TANSY BEETLE on the RIVER OUSE



Tansy beetle (*Chrysolina graminis*)



[ 10mm ]  
Actual size of the Tansy beetle

Don't confuse the Tansy beetle with the more common Dock beetle - its size gives it away (picture to scale, Tansy beetle right).

## Background

The Tansy beetle is a beautiful, large (c.10 mm), iridescent green species, which is now found in Britain only on the banks of the River Ouse in North Yorkshire. The area around you has a good population of Tansy beetles. The beetle is endangered not only here but across its worldwide range.

This nationally rare beetle is a UK Biodiversity Action Plan (UKBAP) priority species, which public bodies have a duty to protect, together with its riverside habitat. The plight of the Tansy beetle highlights that of many other British invertebrates.

## Life as a Tansy Beetle



Eggs - These are laid on Tansy plant leaves between April and June.



Active beetles - The adults then resurface and become active again on Tansy plants from April to June, where they feed, mate and lay eggs.



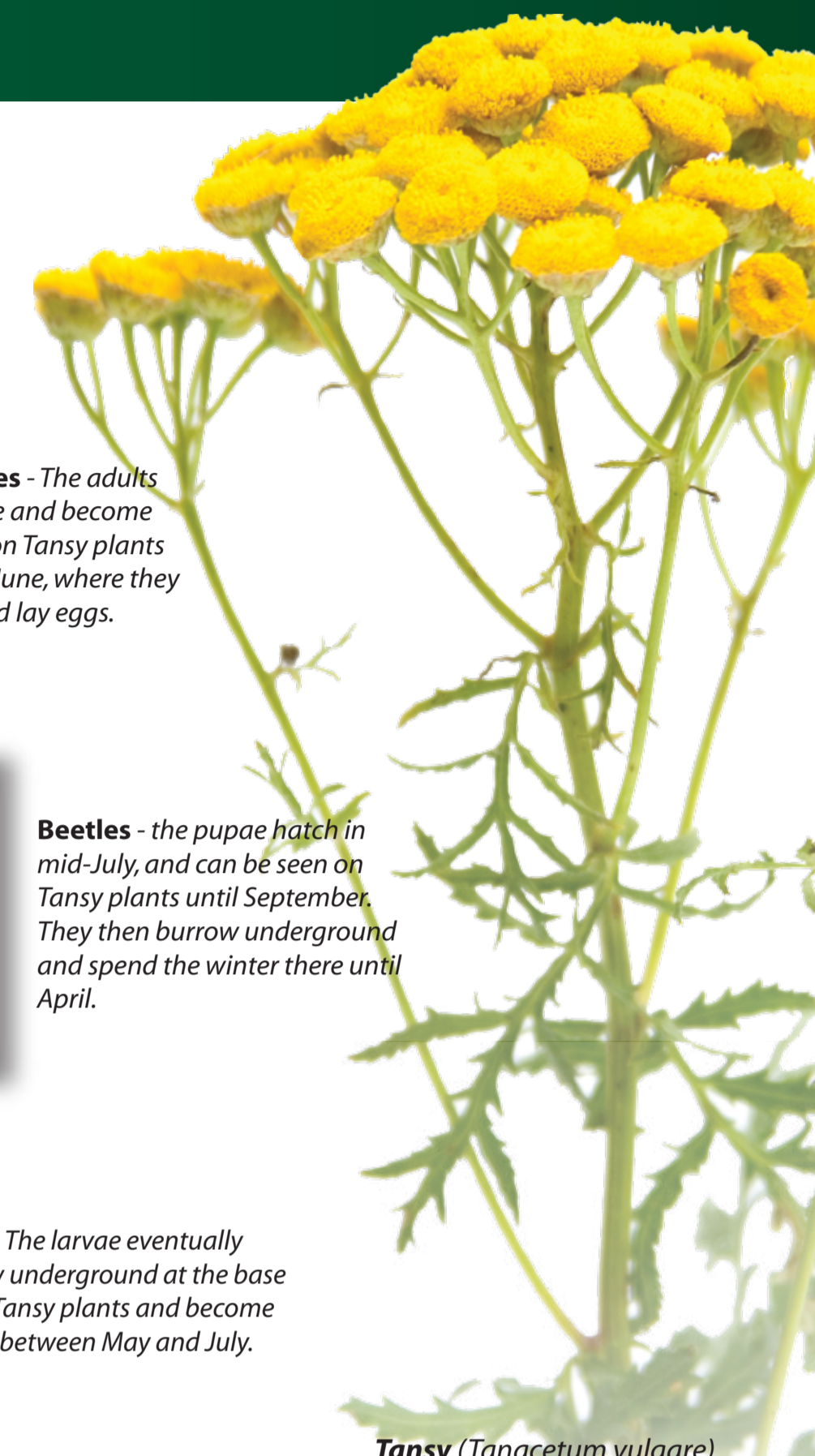
Beetles - the pupae hatch in mid-July, and can be seen on Tansy plants until September. They then burrow underground and spend the winter there until April.



Larva - The eggs hatch between May and July into larvae, which feed voraciously on Tansy leaves.

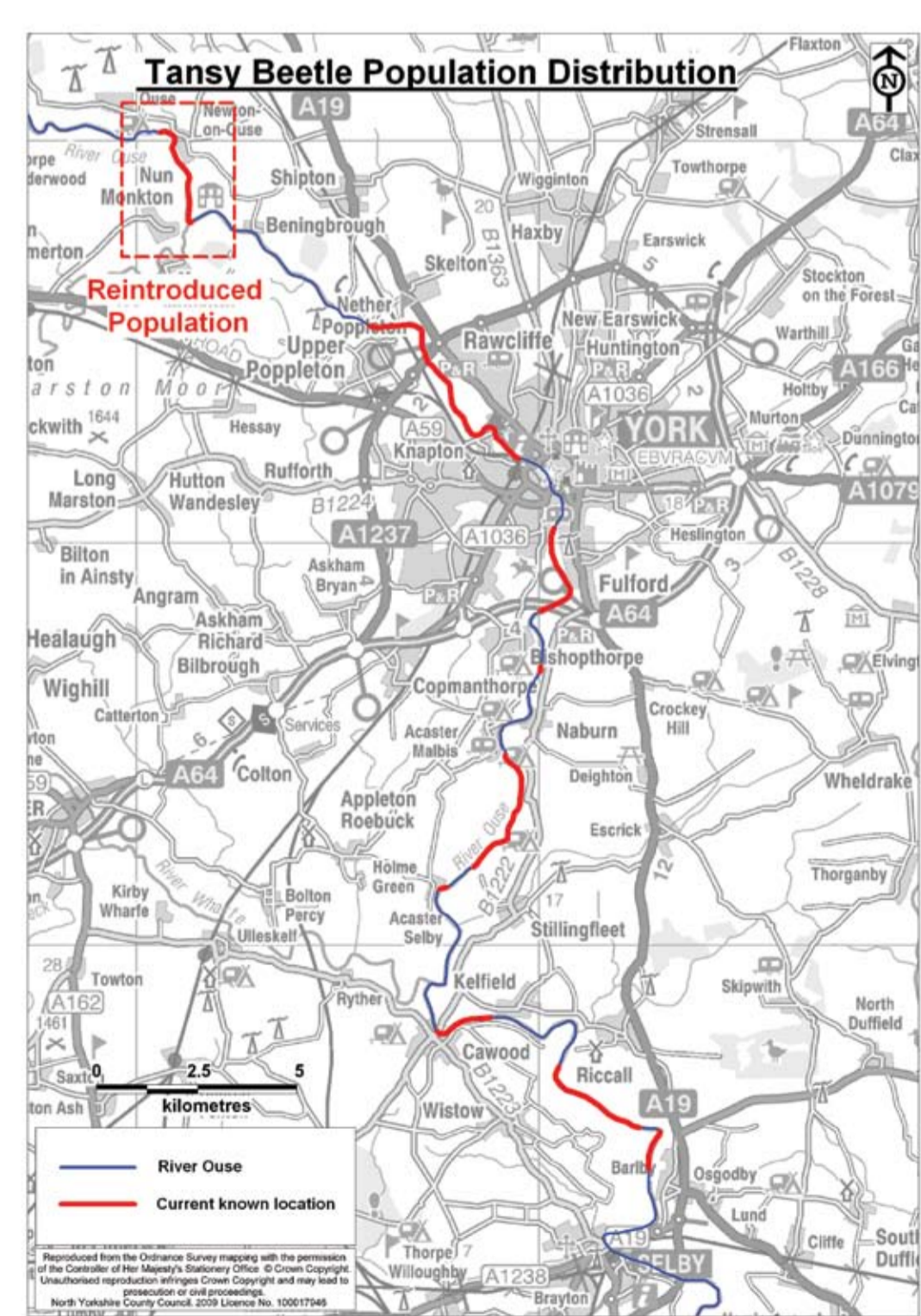


Pupa - The larvae eventually burrow underground at the base of the Tansy plants and become pupae between May and July.



Tansy (*Tanacetum vulgare*)

## Distribution of the species



Adult beetles are active on Tansy clumps in April/May and August/September, and are most obvious on warm, sunny days.

Tansy beetle populations are confined to a length of riverbank extending from about 8 km north to about 26 km south of York city centre.

Some stretches have yet to be surveyed because of access difficulties, explaining some of the gaps between beetle populations.



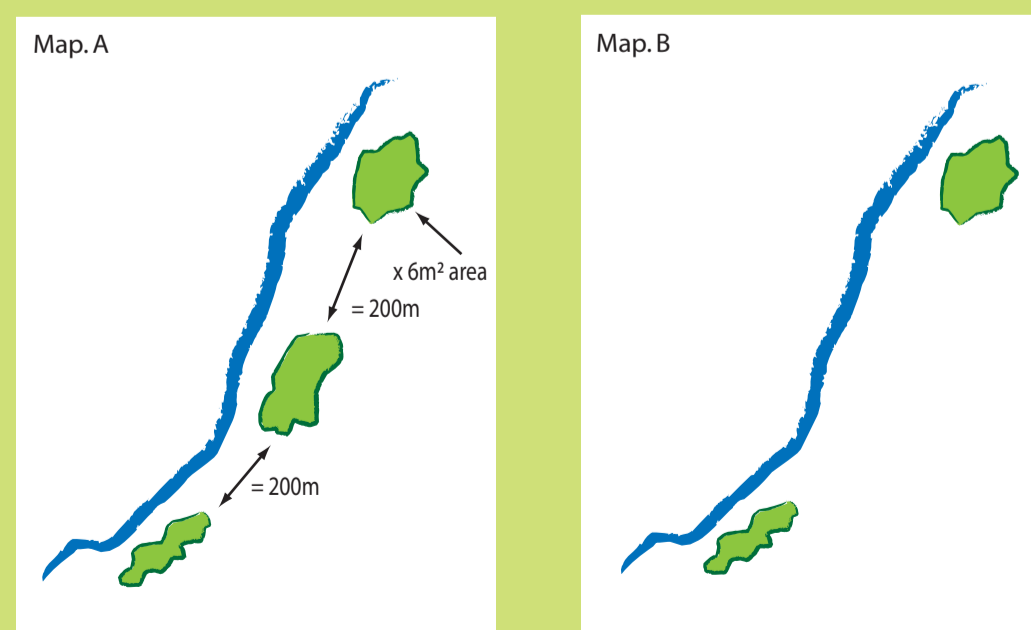
Tansy clumps in a wildflower meadow

## Why is the Tansy beetle declining?

Tansy Beetles are dependent on Tansy as their sole food source. If a Tansy clump disappears, the beetles have to walk to a new clump, as they cannot fly! Curiously, they cannot detect this very aromatic plant, even when they are very close. The University of York has discovered that the beetles only flourish when clumps are less than about 200 metres apart and relatively large (about 6 metres squared).

In Map A, if the beetles in the lower clump become extinct, the population can be re-established by animals walking from the middle clump. However, if the middle Tansy clump disappears (Map B), then beetle extinction from either of the remaining clumps makes re-colonisation very unlikely.

Whilst nationally Tansy is a very widespread plant, the persistence of the beetle around York, but not elsewhere, is likely to be due to the close proximity, size and number of tansy clumps along the River Ouse.



## What is being done about its decline?

The Tansy beetle has specific requirements, but managing the riverbank for this rare species will have positive effects for numerous other plants and animals. In 2009 funding was secured from the SITA Trust over three years to undertake a number of conservation measures, including:

- Removing riverside willow and Himalayan balsam (below), which reduce Tansy growth
- Planting Tansy clumps in large gaps (far right) to increase beetle movement
- Creating safe havens where beetle populations can be protected from summer floods, which cause high mortality (right)
- Reducing grazing pressure on Tansy by using short-term fencing and livestock management
- Ensuring that during Ragwort eradication work, riverside land owners know the difference between Tansy and Ragwort (below).



Himalayan balsam



Tansy (left) may be mistaken for the notifiable weed Ragwort (right)

## Tansy Beetle Action Group (TBAG)



The Tansy Beetle Action Group (TBAG), set up in 2008, comprises representatives from the North Yorkshire County Council, the City of York Council, the Environment Agency, the University of York and the National Trust. Its aim is to identify and implement conservation objectives that will stabilise the current beetle distributions and expand them on the River Ouse and possibly elsewhere.

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Tansy beetles suffering in the summer floods of August 2002



Tansy enclosure