

Ditches and snails – and how to look after them

Contents

Surveying the Waveney

Biodiversity

The big six

Conservation of
ditches – what to do and
what to avoid

CL14 Licences



WATER, MILLS
& MARSHES



Key

- Data points
- Broads National Park boundary
- Water

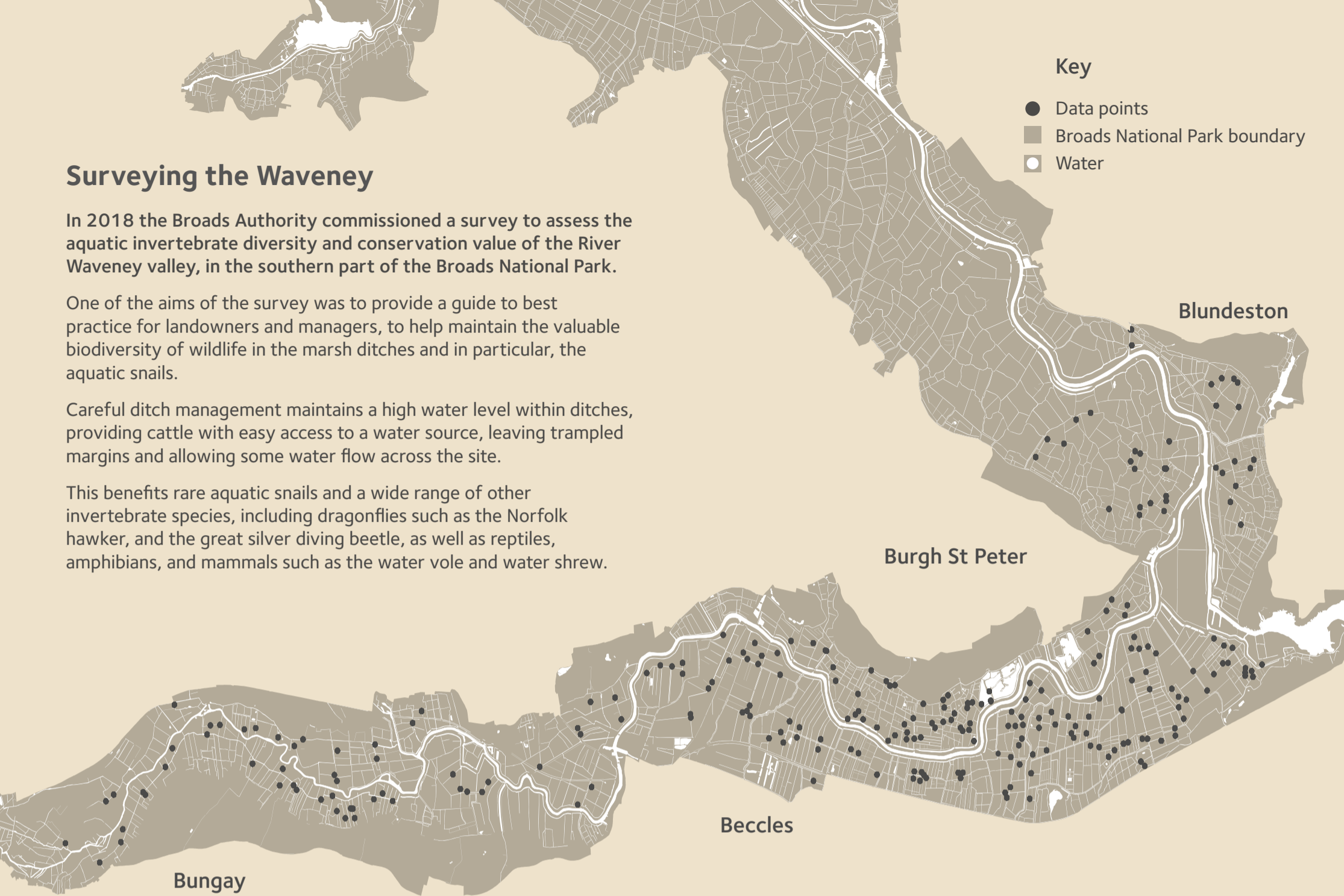
Surveying the Waveney

In 2018 the Broads Authority commissioned a survey to assess the aquatic invertebrate diversity and conservation value of the River Waveney valley, in the southern part of the Broads National Park.

One of the aims of the survey was to provide a guide to best practice for landowners and managers, to help maintain the valuable biodiversity of wildlife in the marsh ditches and in particular, the aquatic snails.

Careful ditch management maintains a high water level within ditches, providing cattle with easy access to a water source, leaving trampled margins and allowing some water flow across the site.

This benefits rare aquatic snails and a wide range of other invertebrate species, including dragonflies such as the Norfolk hawker, and the great silver diving beetle, as well as reptiles, amphibians, and mammals such as the water vole and water shrew.



Biodiversity

The survey looked at 274 ditches from Bungay to Burgh St Peter and Blundeston, and found good water quality supporting over 260 species of aquatic wildlife. The ditches have an average water width of 3.4m, water depth of 66cm and a silt depth of 0.5m. The average height from the water surface to the top of the bank is 45cm.

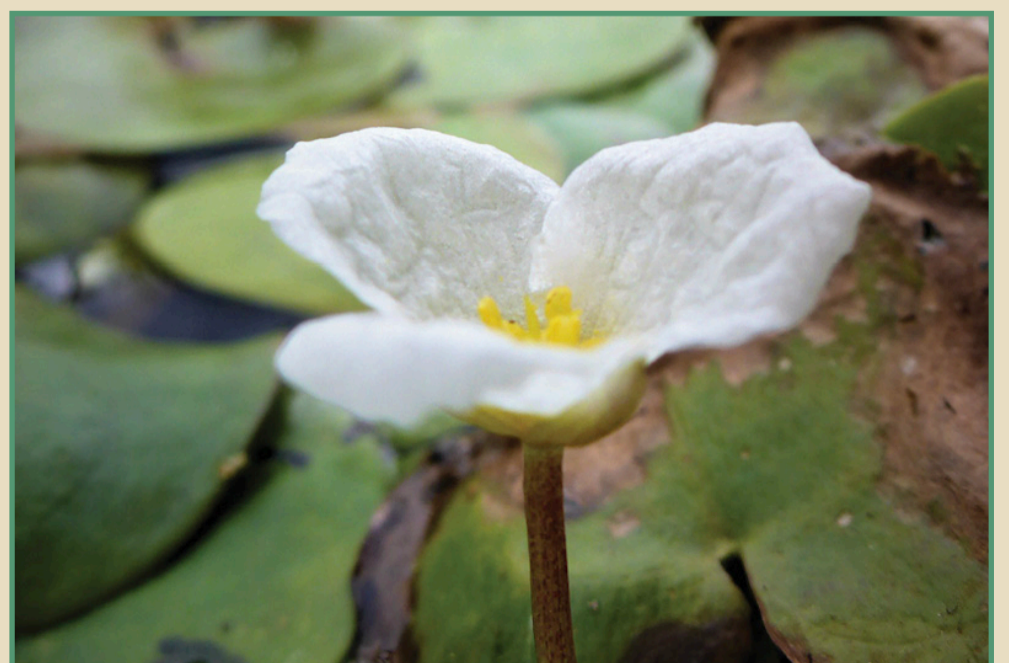
Invertebrates

Over 100 species of aquatic beetle were found, such as the great silver diving beetle.

Plants

Two hundred and sixty-five species were found in and on the margins of the ditches, including 33 aquatic plants, 69 wetland plants and 42 marginal plants. Nationally rare and scarce species included frogbit and tubular water dropwort.

Left: Bladderwort; below left: Great silver diving beetle; below right: Frogbit. Images by T Abrehart



The big six

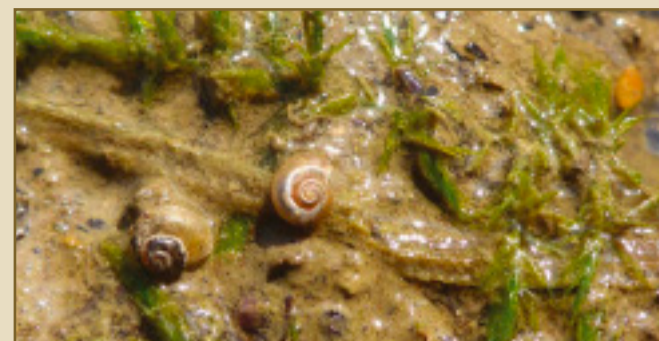
But the big story is the big six snails. These six rare aquatic snails have their UK stronghold in the Waveney valley marshes, especially the eastern part of the valley, with their best habitat at Aldeby, North Cove, Barnby, western Carlton and Burgh St Peter.



Little whirlpool ramshorn snail - *Anisus vorticulus* (3-7mm) It lives in floating and submerged vegetation in the summer and retreats to the margins in the winter. In the UK it is only found in three areas - the Waveney population is the largest.



Shining ramshorn snail - *Segmentina nitida* (4-7mm) It is found in good numbers in late successional ditches and at low density in ditches of varying age throughout the valley. It also lives along the edges of the ditches, within the poached margin.



Large-mouthed whorl snail - *Valvata macrostoma* (5mm wide) This snail is found in ditches with slow-moving, well vegetated waters. It is only found in the central part of the valley, mainly in marginal vegetation. It is in significant decline across its range. The Waveney is becoming a national stronghold.



Slender amber snail - *Oxyloma sarsii* This species lives in richly vegetated ditches, amongst floating vegetation such as ivy-leaved duckweed and frogbit. It is found throughout the valley in low numbers. It is always found at a low density and is rare across the UK.



False orb pea mussel - *Pisidium pseudosphaerium* This tiny bivalve lives in the sediments and on the lower parts of submerged macrophytes within a ditch. A nationally rare species, which is found frequently in the Waveney valley.



Desmoulin's whorl snail - *Vertigo moulinsiana* (3mm high) This semiaquatic snail is found in the vegetation on the banks of ditches. It prefers the dense sedges *Carex acutiformis* and *Carex riparia*. It can survive being flooded and can move on floating vegetation to new sites. Rarely found in the valley, but recorded as a by-catch of the sampling. Images by T Abrehart

Conservation of ditches

Ideal ditches for invertebrates and plants are those that follow best practice management.

The overall aim is to maintain a high water level within ditches, providing cattle with easy access to a water source, maintaining poached margins and allowing some water flow across the site.

What to do

- Protect water quality
- Maintain a high water level across marshes
- Manage ditch water levels appropriately
- Carry out management in the winter
- Clear ditches every five to seven years, in rotation, not all in one year – maybe not at a snail's pace, but the slow lane is best
- Clear from one side of a ditch only, concentrating on the middle of the ditch, and leaving the ditch sides as refuges for plants and invertebrates
- Carry out one-sided clearance along the full length of the ditch
- Control invasive non-native species such as parrot's feather and New Zealand pigmyweed www.nnnsi.org
- Reduce shading by pruning overhanging branches
- Allow grazing animals up to the ditch edge to create a trampled shallow water margin

What to avoid

- Don't fence ditch edges
- Don't increase the width or depth of ditches; don't overclear ditches

CL14 Licences

The little whirlpool ramshorn snail (*Anisus vorticulus*) is the only mollusc that is a European Protected Species (EPS), protected under Annex II of the Habitats Directive and under Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006). These snails are fully protected under UK and European legislation, making it an offence to intentionally or recklessly:

- kill, injure, or take them (or their eggs);
- possess, sell, transport or control them alive or dead or any part of them;
- damage or destroy any breeding or resting places;
- obstruct access to resting or shelter places.

When clearing out ditches supporting the little whirlpool ramshorn snail, every landowner needs to register for a CL14 Licence. An agent or qualified surveyor can also fill in the form.

Once the ditches have been cleared, you must complete an LR14 form, describing the ditches affected by the clearance.

www.gov.uk/government/publications/little-whirlpool-ramshorn-snail-licence-for-ditch-maintenance