

# THORNTREE IDB BIODIVERSITY ACTION PLAN

## 1. INTRODUCTION

Implementation of the Natural Environment and Rural Communities ACT 2006 means every Public Body has a duty to conserve biodiversity.

Internal Drainage boards were committed by Defra in its Implementation Plan of the IDB Review to produce their own Biodiversity Action Plans by April of 2010.

Many activities of an Internal Drainage Board have benefit for biodiversity, particularly through water level management and drainage ditch maintenance work.

The Biodiversity action Plan will help the biodiversity benefits from the Board's activities and demonstrate its contribution to the Government's UK Post-2010 framework targets.

## 2. WHAT IS BIODIVERSITY?

Biodiversity (which is an acronym for biological diversity) is simply the term given to the variety of life on earth. Biodiversity encompasses all life on the planet, from the smallest microorganisms to the largest animals and plants. It includes the marine, aquatic and terrestrial habitats that sustain all organisms, including humans. Biodiversity also includes the variation within and between ecosystems and habitats and genetic variation within individual species ([www.ukbap.org.uk](http://www.ukbap.org.uk)). Terms like 'wildlife' have subtly different meanings, often excluding human beings and domesticated species and the interactions they have with wildlife and concentrating only on the non-human natural world.

## 3. INTERNAL DRAINAGE BOARD BIODIVERSITY

The UK has a strategic plan to deliver biodiversity targets. The original UK BAP lists of priority species and habitats remain an important and valuable reference source. Notably, they have been used to help draw up statutory lists of priority species and habitats in England, as required under Section 41 (England) of the Natural Environment and Rural Communities (NERC) Act 2006.

The Plan will help integrate biodiversity into the Board's activities through its annual maintenance programme.

The Plan is a dynamic document that will be reviewed and updated regularly. The plan covers the Board's entire district as shown in Appendix 1 with particular relevance to Board maintained drains and the area of Rawcliffe, Snaith and Cowick Moors that fall within the Board boundary.

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Thorntree IDB has a very good record of preserving and improving biodiversity. Part of the board's area was surveyed for the BSBI (Botanical Society of Britain and Ireland) Atlas 2020 project showing a wide variety of flora within the boards maintained drains including 68 species of flora in Thorntree drain.

### 4. AIMS OF THE THORNTREE IDB BIODIVERSITY ACTION PLAN

To ensure habitat and species action targets from the UK BAP and Local East Riding of Yorkshire BAP are translated into effective action within the district and identify targets for other habitats and species of local importance. Raise awareness within the Board and locally, the need for biodiversity conservation as part of water level management. Ensure that opportunities for conservation and enhancement of biodiversity are considered throughout all Board operations. Monitor and report on progress in biodiversity conservation.

### 5. HABITAT ACTION PLAN

Eutrophic standing waters are highly productive because plant nutrients are plentiful, either naturally or as a result of artificial enrichment. These water bodies are characterised by having dense, long-term populations of algae in mid-summer, often making the water green. Their beds are covered by dark anaerobic mud, rich in organic matter. Many lowland water bodies in the UK are now heavily polluted, with high nutrient concentrations. Eutrophic waters are most typical of hard water areas of the lowlands of southern and eastern Britain. Most Board maintained watercourses fall into this habitat as they are slow moving with little flow.

Eutrophic waters have high biodiversity. Planktonic algae and zooplankton are abundant in the water column, submerged vegetation is diverse and numerous species of invertebrate and fish are present. Plant assemblages differ according to geographical area and nutrient concentration but fennel-leaved pondweed *Potamogeton pectinatus* and spiked water-milfoil *Myriophyllum spicatum* are characteristic throughout the UK. Common floating-leaved plants include yellow water lily *Nuphar lutea* and there is often a marginal fringe of reedswamp, which is an important component of the aquatic ecosystems.

Bottom-dwelling invertebrates such as snails, dragonflies and water beetles are abundant and calcareous sites may support large populations of the native freshwater crayfish *Austropotamobius pallipes*. Coarse fish such as roach *Rutilus rutilus*, tench *Tinca tinca* and pike *Esox lucius* are typical of eutrophic standing waters, but salmonids also occur naturally in some. Amphibians, including the protected great crested newt *Triturus cristatus*, are often present and the abundance of food can support internationally important bird populations.

In water bodies which are heavily enriched as a result of human activity, biodiversity is depressed because planktonic and filamentous algae (blanket-weed) increase rapidly at the expense of other aquatic organisms. Sensitive organisms, such as many of the pondweed *Potamogeton* and stonewort *Chara* species, then disappear and water bodies may reach a relatively stable but biologically impoverished state.

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Eutrophic standing waters are a favoured habitat for European eel (*Anguilla anguilla*)

### 6. TARGETS AND AIMS:

Thorntree IDB has agreed two targets for the Habitat Action Plan for Eutrophic Standing Waters. These are:

1. Maintain and enhance the existing habitat and species diversity of watercourses within the Thorntree IDB district.
2. Record stands of Invasive Non-Native Species on Board maintained watercourses. Actions the Board will take to achieve these 2 targets are:
  - i. Ensure the appropriate management of Thorntree IDB maintained watercourses through an Integrated Biodiversity Action Plan and Maintenance Regime by following best practice guidance and
  - ii. Monitor known non-native invasive plant and animal species on and/or adjacent to Board maintained watercourses. For the second target: the Board will record and monitor non-native invasive plant and animal species on and/or adjacent to IDB watercourses.

### 7. SPECIES ACTION PLAN

Thorntree IDB have identified two species highlighted in the East Yorkshire BAP of 2010 (version 1) that are present within the boards district and both are UK BAP priority species.

Large Heath Butterfly (*coenonympha tullia*)





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Found in the north of the British Isles, the Large Heath is unique in that it is more or less confined to boggy areas. The Large Heath lives on the British mainland in isolated colonies from central Wales in the south to Orkney in the north, and also in scattered colonies throughout Ireland

The adults always sit with their wings closed and can fly even in quite dull weather provided the air temperature is higher than 14B:C. The size of the underwing spots varies across its range; a heavily spotted form (*davus*) is found in lowland England, a virtually spotless race (*scotica*) in northern Scotland, and a range of intermediate races elsewhere (referred to as *polydama*).

The butterfly has declined seriously in England and Wales, but is still widespread in parts of Ireland and Scotland.

- **Conservation Status**
- Section 41 species of principal importance under the NERC Act in England
- Section 42 species of principal importance under the NERC Act in Wales
- Northern Ireland Priority Species
- Scottish Biodiversity List
- UK BAP status: Priority Species
- Butterfly Conservation priority: High
- European Status: Vulnerable
- Protected under Schedule 5 of the 1981 Wildlife and Countryside Act (for sale only)
- Fully protected under the 1985 Northern

The Board has two key targets for the Large Heath Butterfly:

- To ensure works carried out within the boards district are not detrimental to the habitat for the Large Heath butterfly within the areas of Rawcliffe Snaith and Cowick Moors SSSI that are within the boards area.
- To monitor and survey during active months and report survey results to Natural England

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### Adder (*Vipera berus*)



The Adder has a wide spread distribution throughout the UK. Usually associated with open heathland in the southern regions, it also often occurs in dense woodland and in particular open areas within wooded regions, where sunny patches occur.

The Adder is the UK's only native venomous snake. **Seeing an adder is no cause for alarm**, these snakes are very placid and retiring creatures. People are usually only bitten during attempts to catch or handle them.

The venom is rarely fatal, the bite should however be taken seriously, and one should **seek prompt medical attention** if bitten by an Adder. Symptoms such as dizziness, vomiting and painful swelling and loss of mobility of the affected limb are not uncommon within hours of the bite.

Adders are relatively common in areas of rough, open countryside and are often associated with woodland edge habitats. They are less inclined to disappear into the surrounding undergrowth when disturbed and so are probably the most frequently seen of the three British snakes. The best time to see them is in early spring when they emerge from their hibernation dens. By mid April, the males have shed their dull winter skin and are ready to mate. There is a lot of frenzied activity on warm days, with males looking for females and occasionally wrestling with other males for supremacy. The 'dance of the adders' was thought to be a mating display, but it is a larger male attempting to drive off a smaller one. The snakes writhe around each other in an impressive way, often covering the ground at great speed.

The Board has two targets for the Adder:

- To ensure that works carried out within the Board's district have no detrimental impacts.
- To monitor and survey populations within the board area and report annually to Natural England

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## References

1. UK POST-2010 BIODIVERSITY FRAMEWORK: IMPLEMENTATION PLAN, available at:

[http://jncc.defra.gov.uk/pdf/UKBioFwk\\_ImpPlan\\_November2013.pdf](http://jncc.defra.gov.uk/pdf/UKBioFwk_ImpPlan_November2013.pdf)

2 East Riding Of Yorkshire Biodiversity Action Plan Strategy (version 1.0 ) 2010

3 <https://butterfly-conservation.org/679-884/large-heath.html>

4 [www.herpetofauna.co.uk/adder.htm](http://www.herpetofauna.co.uk/adder.htm)

5 Louise Hill BSBI survey findings 2015

## 8. CERTIFICATION

Thorntree Internal Drainage Board agreed to adopt this Biodiversity Action Plan on the 23<sup>rd</sup> January 2018

By order of Thorntree Internal Drainage Board Certified by Michael J Townend - Clerk