DISCOVERING PRIORITY HABITATS

FRESHWATER NATURALNESS ASSESSMENT

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INTRODUCTION

Rivers, streams, and lakes are freshwater ecosystems that provide dynamic habitat mosaics for rare and threatened species. The UK has some of the most nature-depleted waterways in Europe, and centuries of artificial modification has greatly damaged the natural function of our freshwater ecosystems. Without naturally functioning habitats, many important niches are lost and the resilience of our freshwater ecosystems is damaged.

Discovering Priority Habitats aims to assess the natural health of smaller waterbodies that are missed by statutory monitoring methods. Citizen scientists are trained to conduct 'naturalness assessments' and upload data to openly accessible maps hosted on Cartographer. These will be used by Natural England to periodically update the priority habitat designated sites in England. Refining priority habitat locations is vital to ensure we protect natural freshwater sites in current 'good' health and encourage restoration action in desirable locations.

NATURALNESS ASSESSMENT

The Freshwater Biological Association delivers training days to external organisations interested in monitoring freshwater naturalness. Citizen scientists are given guidance on how to conduct naturalness assessments. This broadly covers how to choose survey sites, feature identification, and uploading data.

The survey uses the four categories below to assess naturalness. Rivers/streams and lakes are evaluated using specific survey variations to accurately capture their unique features. Each category is given a score of naturalness alongside a confidence assessment as to whether this score accurately represents the feature.

SCORING METHOD

High Naturalness   Low Naturalness

1   2   3   4   5

Confidence rating

HIGH - MEDIUM - LOW

FEEDBACK

96% of attendees found training to be very clear

99% felt confident to undertake surveys independently
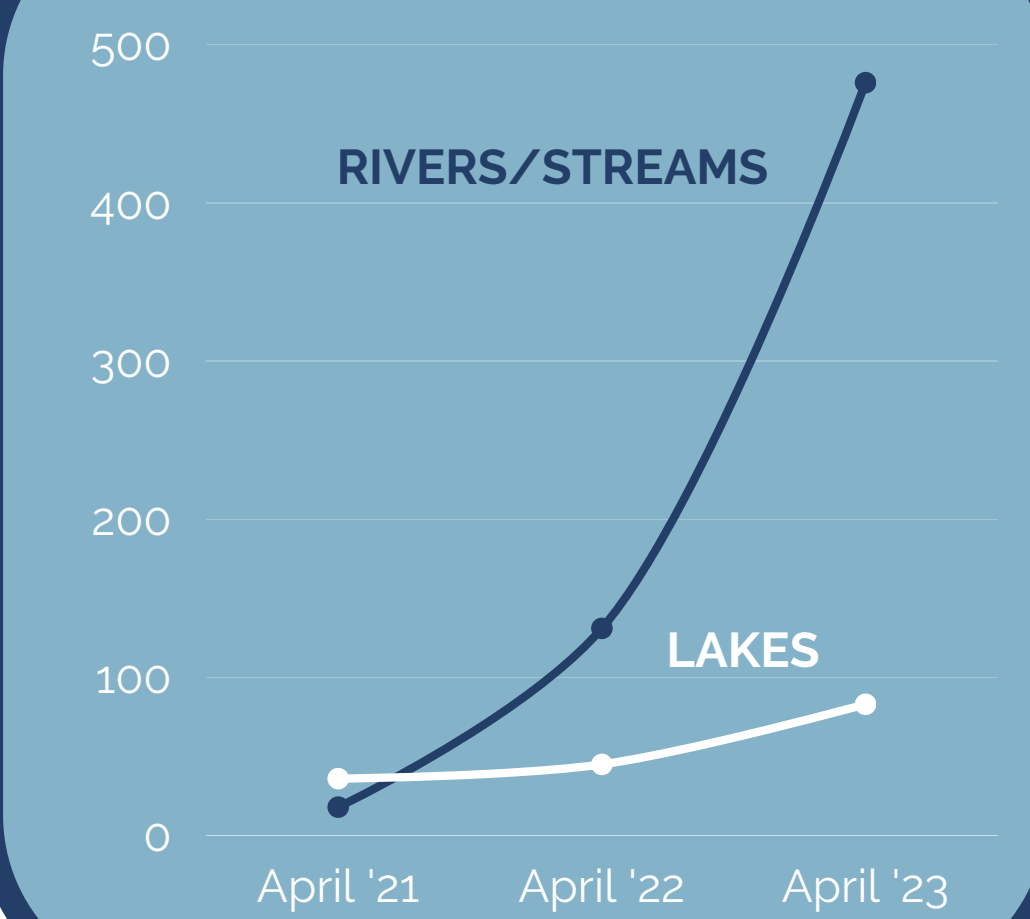
"Excellent handout & well delivered"

2022/23

Naturalness surveys completed to date

DATA COLLECTION

COMPLETED SURVEYS

RIVERS/STREAMS

LAKES

April '21   April '22   April '23

165 volunteers trained

11 training days delivered

87 total lake surveys

540 total river/stream surveys

RIVERS/STREAMS

1. Artificial channel

2. River weir

3. Sewage fungus

4. Himalayan balsam

CATEGORIES

1. PHYSICAL
Changes to the natural shape/form of the waterbody

2. HYDROLOGICAL
Modifications to the natural flow & fluctuations in water level

3. CHEMICAL
Visible signs of water pollution

4. BIOLOGICAL
Direct biological influences (non-native species)

LAKES

1. Artificial shoreline

2. Lake weir

3. Algal bloom

4. Parrot's feather