

The freshwater pearl mussel is in peril!

This ancient and internationally protected species cleans our rivers and can live for over 100 years, yet is now at critical risk of extinction.

How can we help?

West Cumbria Rivers Trust is responsible for delivering the PiP Project in England alongside partners United Utilities, Environment Agency and Lake District National Park. A range of projects, such as tree planting, fencing, bank stabilisation and community events, will take place within the River Ehen catchment to ensure that England's most important population of freshwater mussels gets the best chance of survival.



Fish survey



Tree planting with local school children



Bank stabilisation



For information about the project or to find out how to get involved contact the PiP Project Officer on 017687 44347 or visit:

www.westcumbriariverstrust.org

www.pearlsinperil.org

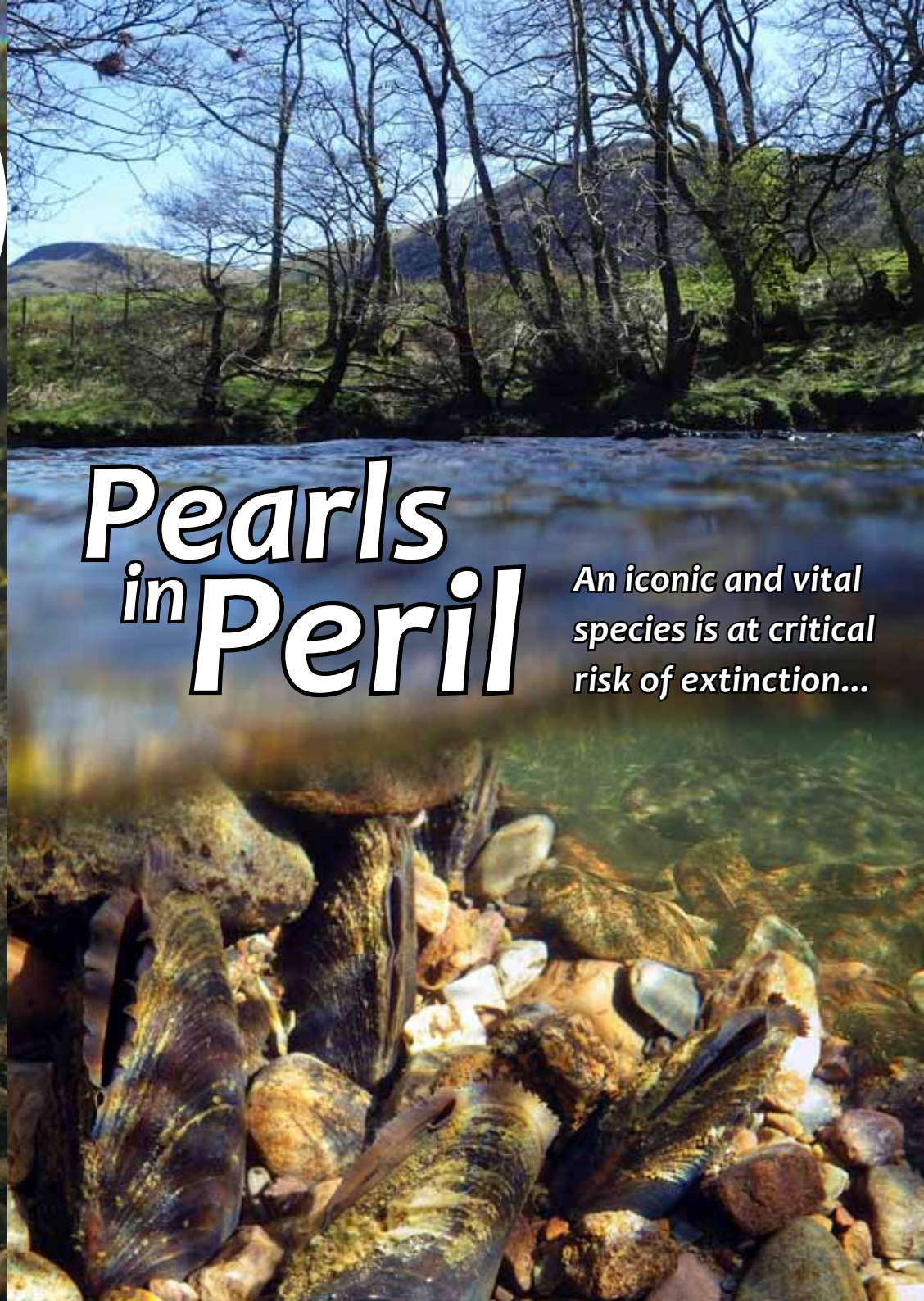
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Pearls in Peril

An iconic and vital species is at critical risk of extinction...



Mussel power!

The seemingly unassuming freshwater pearl mussel (*Margaritifera margaritifera*) is the cleaning technician of our rivers. Each day an adult mussel, which can grow to over 15cm, can filter more water than we use in an average shower.

A declining mussel population is an indication that the conditions in the river are deteriorating and the survival of this iconic species is under threat.

Freshwater mussels are rapidly declining across their whole range from the Arctic and temperate regions of western Russia, through Europe to north-eastern North America. Scotland is the stronghold of the remaining UK population. In England, the River Ehen in Cumbria supports the largest breeding population of mussels and as a result, the river has been designated as a Site of Special Scientific Interest and a Special Area of Conservation.

The River Ehen mussels are however under serious risk of extinction due to habitat degradation (e.g. excess silt) and declining water quality (e.g. faulty septic tanks). It is just one of 21 rivers included in a 4-year EU LIFE project, called 'Pearls in Peril' (PiP), coordinated by Scottish Natural Heritage. The aim of the project is to secure the future of freshwater pearl mussels in Great Britain.



A bed of freshwater pearl mussels ©SNH



River Ehen in spring



Mussel filtering the River Ehen



Mussel habitat on the River Ehen

Bizarre life cycle...

The life cycle of the mussel is extraordinary. They spend the first few months of their life growing on the gills of a young fish (Atlantic salmon or trout).

The adult mussel releases one to four million larvae in the summer. The larva looks like a tiny mussel, measuring a 10th of a millimetre long – that's less than the thickness of a piece of paper!

The tiny shells are held open until they are inhaled by the fish, then snap shut on the gill filaments. This association does not appear to harm the fish. The chances of a larva meeting a suitable fish are very low; only four in every million will do so. Nearly all are swept away by the river.

The larvae remain on the gills of the fish and grow in this oxygen-rich environment until the following spring, when they drop off. They must land and burrow into clean, sandy or gravelly substrates in order to survive; if they land in silt or mud they will suffocate.

Due to the essential role young fish play in the life of the mussel, the conservation of Atlantic salmon and trout is central to the survival of the freshwater pearl mussel.



A young fish and a pearl mussel



Mussel larvae attached to gills of a fish

