



Derbyshire
Wildlife Trust



Beavers in Derbyshire

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Beaver Feasibility Officer - Derbyshire Wildlife Trust





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History of beavers in Britain



Busy beavers at Willington Wetland reserve

- Henry Richards - Trent Valley Living Landscapes Officer
- Kate Lemon - Regional Manager Erewash & Trent Valley



Vision for the future – wild beavers in Derbyshire

- Emma Datta - Beaver Feasibility Officer



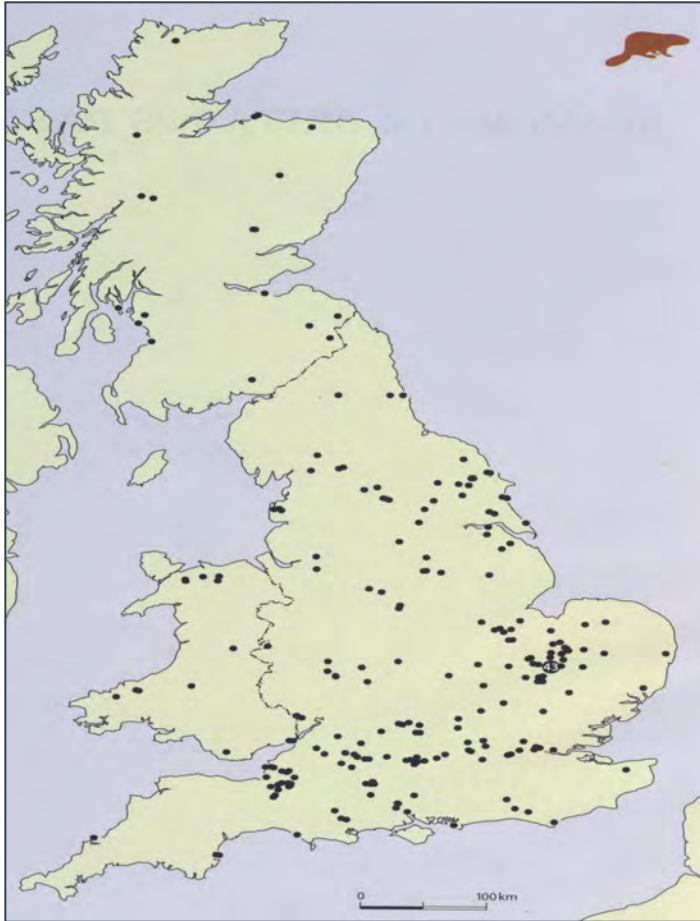
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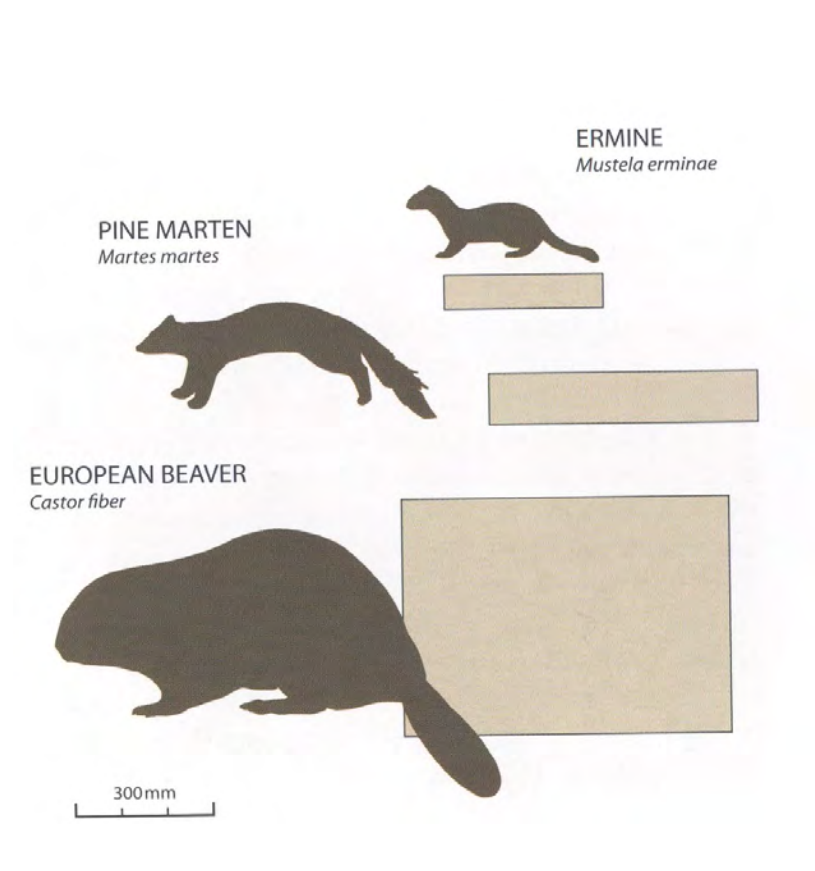
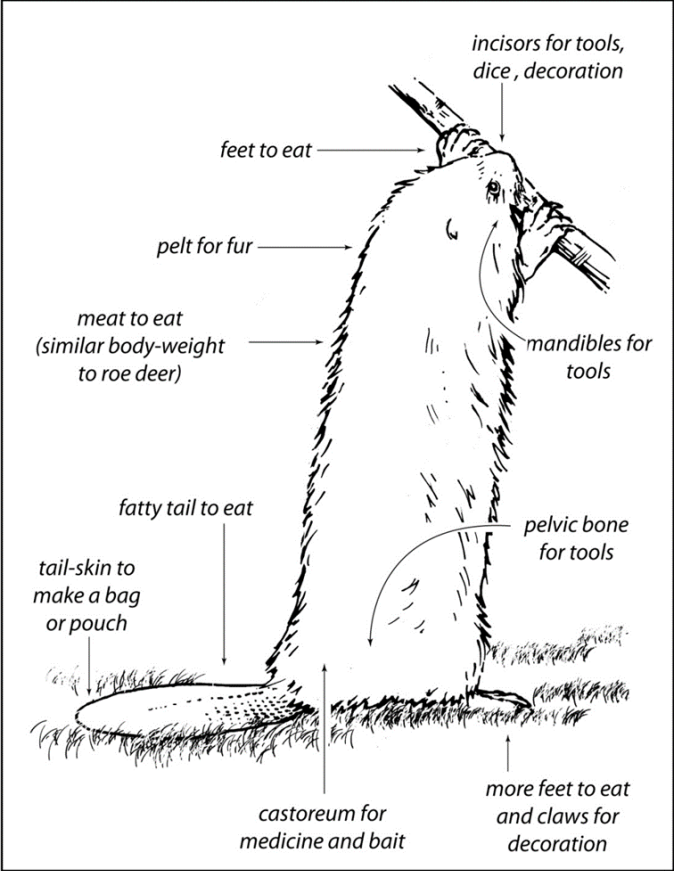
Beavers in Britain

- 🦫 Eurasian beaver, *Castor fiber*, species native to the UK
- 🦫 Herbivorous, semi-aquatic rodent <30kg and <1.5m
- 🦫 Extinct in UK in 1600s
- 🦫 Lost from Derbyshire around 800 years ago
- 🦫 Only 1200 left in Eurasia by turn of 20th Century
 - 27 European countries have reintroduced beavers since 1920's – current estimated population 1.5million (Beaver Trust, 2023)

Beaver finds in Britain since the last Ice Age



Hunted to Extinction



Beavers in Britain today



2001 – Wild beavers discovered in River Tay
2009 – Scottish Beaver Trial
2019 – Protected Native Species in Scotland
- Licence required for wild release



2013 – Wild beavers discovered in River Otter, Devon
2015 – River Otter Beaver Trial
2020 – Permitted to remain and expand naturally
2022 – Protected Native Species in England
- Wild release licensing policy **paused**



2023 – Natural Resources Wales currently considering a licence
to release ten pairs into the River Cowyn, Carmarthenshire

Arguments for Reintroduction



- 🐭 River ecosystems have changed beyond recognition in structure and function
- 🐭 Ecosystem engineers
- 🐭 Keystone species - biodiversity crisis
- 🐭 Nature-based solution
 - climate change emergency
 - improving water quality

A stream comes back to life

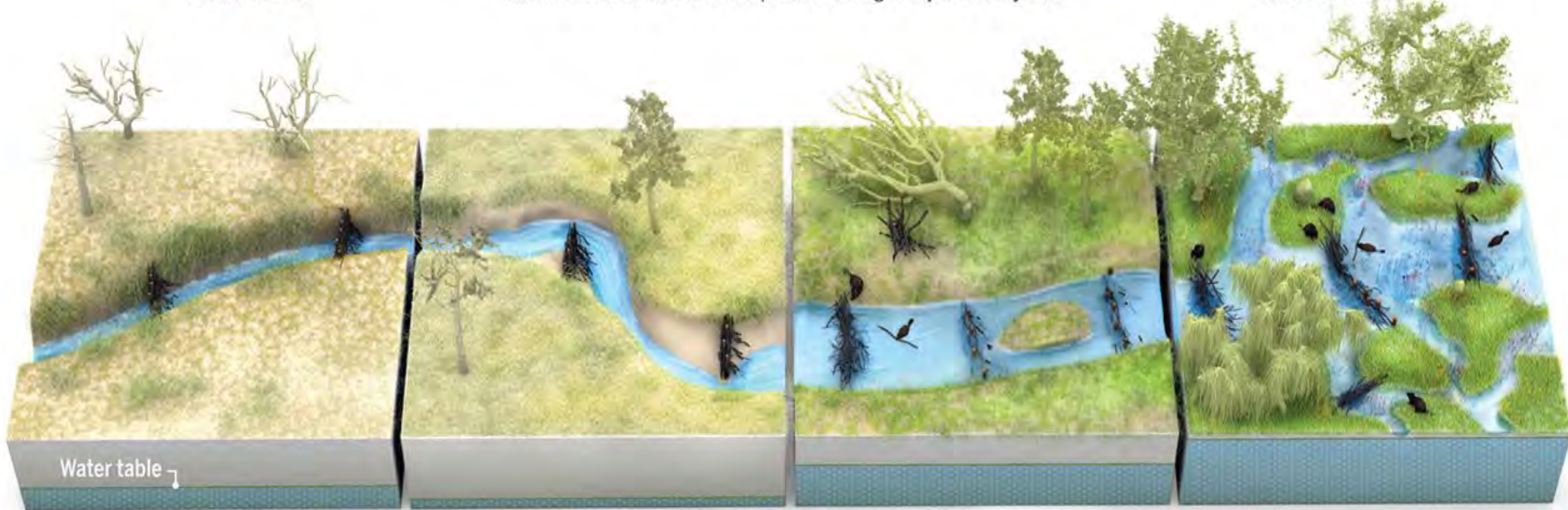
Across the U.S. West, scientists and land managers are using beaver dam analogs (BDAs) to heal damaged streams, re-establish beaver populations, and aid wildlife. In some cases, researchers have seen positive changes in just 1 to 3 years.



Incised stream



Restored stream



Adding dams

Beaver trapping and overgrazing have caused countless creeks to cut deep trenches and water tables to drop, drying floodplains. Installing BDAs can help.

Widening the trench

BDAs divert flows, causing streams to cut into banks, widening the incised channel, and creating a supply of sediment that helps raise the stream bed.

Beavers return

As BDAs trap sediment, the stream bed rebuilds and forces water onto the floodplain, recharging groundwater. Slower flows allow beavers to recolonize.

A complex haven

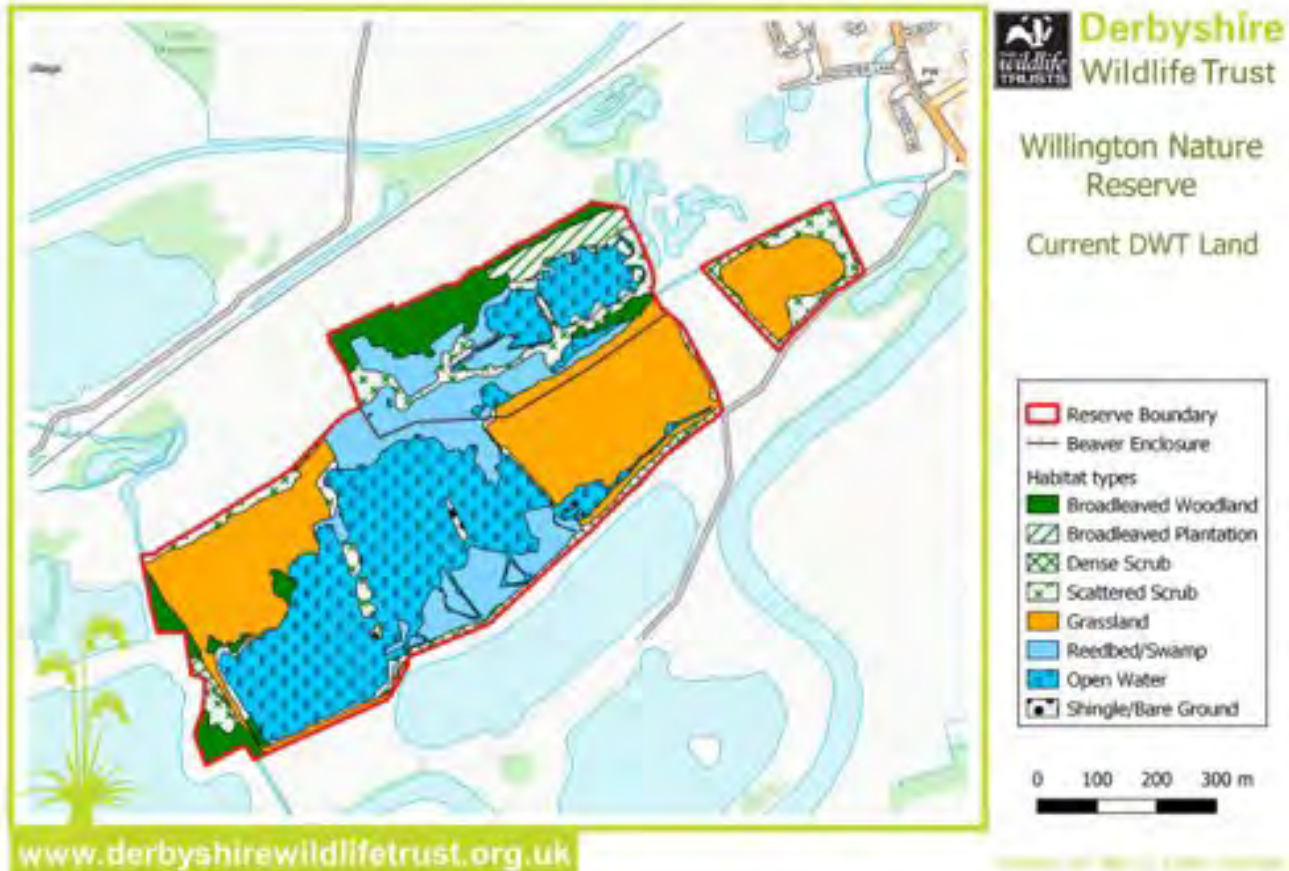
Re-established beavers raise water tables, irrigate new stands of willow and alder, and create a maze of pools and side channels for fish and wildlife.

Clinton Devon Estates

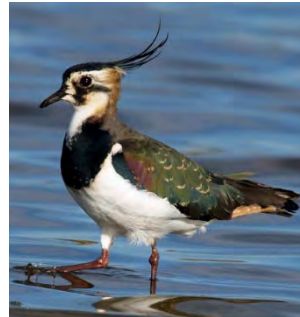


Photograph: Clinton Devon Estates *Guardian* (2022)

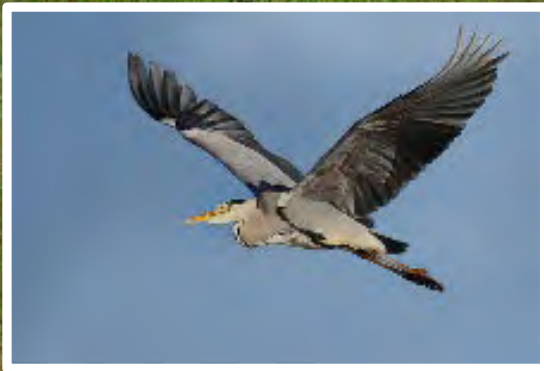
Willington Wetland Beavers



Open Water and Margins



Wet Grassland



Reedbed

