

# Species Action Plan

## Stepping Stones project

Last updated: January 2024

**Common name:** Dipper.

**Scientific name:** *Cinclus cinclus*.

**Conservation status:** Amber, Shropshire BAP

**Description:** Short-tailed, plump bird with a low, whirring flight. When perched on a rock the dipper habitually bobs up and down frequently cocking its tail. The white throat and breast contrasts with its dark body plumage.

**Habitat:** Favours upland regions, breeding and feeding near waterfalls and along the edges of clear, gravelly, fast-flowing streams and rivers.

**Feeding:** Dippers are able to walk underwater, their strong feet gripping on to rocks whilst using their wings as paddles. Food consists mainly of aquatic insects and crustaceans like mayfly nymphs, caddisfly larvae and freshwater shrimps. Worms and fish such as minnows may also be taken.

**Distribution and threats:** Found throughout the UK, although predominantly in the north and west of Britain in upland regions. They declined by 60% in England between 1995 & 2020.

Given their dependence on fast-flowing and clear waterways, dippers are vulnerable to changes in flow rate and water pollution.

Slower rates of flow and the drying up of streams in summer is reducing the quantity of aquatic invertebrates, the dipper's main food source. Siltation and eutrophication also affect food availability. Acidification of streams by acid rain and conifer plantations in catchment areas are a further threat. Acidification can result in thinning of eggshells and reduces the abundance of aquatic prey so that eggs are laid later and broods are smaller.

Predation is another pressure, with rats causing losses of up to 60% of eggs and nestlings in some areas. Feral mink and domestic cats will also take dipper eggs, nestlings and juveniles.



UK distribution of Dipper (*Cinclus cinclus*), NBN Atlas



Dipper  
*Cinclus cinclus*

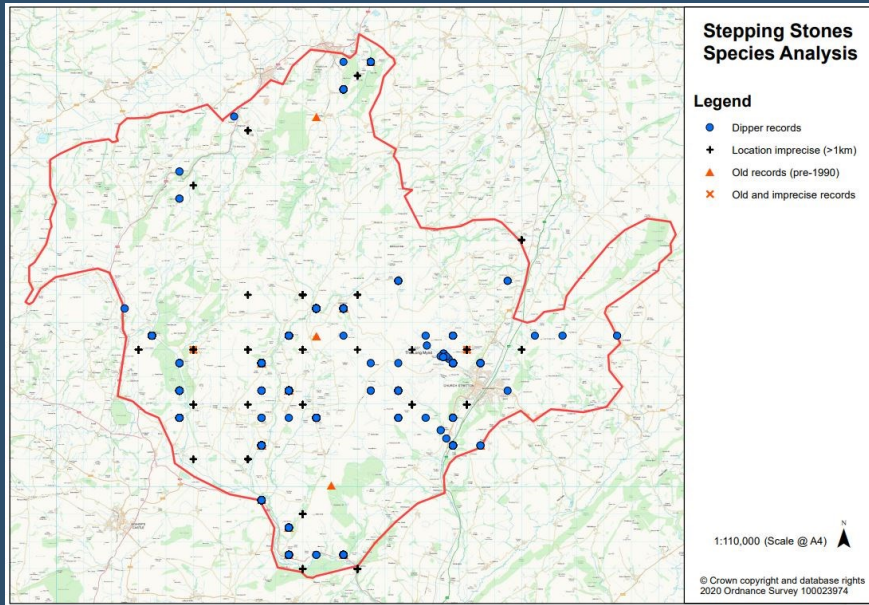


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# Dippers in the Stepping Stones Project area

Recording by community wildlife groups in the project area means that dipper distribution is well known. Waterfalls, rapids and streams running fast over gravelly beds in the East and West Onny rivers are the stronghold for dippers in the Stepping Stones area. On the Long Mynd most records are from Carding Mill Valley, but they are also found on the Upper Cound Brook. Although some nests are built each year in riverbanks dippers mostly nest under bridges in boxes installed by volunteers.



The main threats to dippers in the project area are high, or conversely low, flow rates and poor water quality. In recent years floods have destroyed suitable riverbank nest sites and washed away nest-boxes.

Agricultural waste and soil runoff from farmland results in pollution, siltation and excessive algal growth; worse in dry summers. These factors all impact on aquatic insect lifecycles. When heavy rainfall does occur, streams

and rivers turn brown with the run-off from farms and farmland, reducing visibility and making foraging difficult. An increase in eye infections observed in dippers could be due to silt entering the bird's sinuses, affecting their eyesight and therefore their food-finding ability.

Increasingly, the number of successful second broods has declined, which could be due to a decrease in caddisfly and mayfly diversity linked to factors outlined above. Dippers appear to be disappearing from the lower reaches of watercourses where water quality is worse, for example the Onny and the Cound Brook. Unseasonal cold weather episodes are directly impacting on the survival of chicks.

## Conservation for Dipper

BTO monitoring shows a substantial and ongoing decline in dippers from the late 1980s. However, the growth of community wildlife groups in Shropshire, mostly thanks to local ornithologist Leo Smith along with sympathetic farmers, dedicated local naturalists and ringers, has helped. The Upper Onny Community Wildlife Group, created in 2005, followed later by the Strettons Area Community Wildlife Group, have installed nest-boxes under bridges in the Stepping Stones project area and monitor breeding. Nest-boxes, located around 1km apart above fast-flowing water courses, have both increased the availability of suitable nest sites and resulted in more fledged young as predation pressure is reduced. Both juvenile and adult dippers are ringed in the spring and night-roosting dippers in the autumn, enabling good data collection on survival rate and dipper distribution. For example, in 2007 no successful dipper nests were found in the Upper Onny but since then around 8 productive nests are recorded annually. This is part of the larger project dippers in the Teme Catchment.

### Conservation actions for dipper include:

- Reduction in pollution entering watercourses;
- Improvement of flow rates, securing the quality and viability of stream habitats;
- Replacement of lost and damaged nest boxes;
- Work with river managers, Shropshire Council and Highway authorities when bridges need replacing, to ensure that construction incorporates ledges for nest boxes (modern, concrete box bridges are unsuitable as nesting sites unless designed with dippers in mind).

# Dipper *Cinclus cinclus*

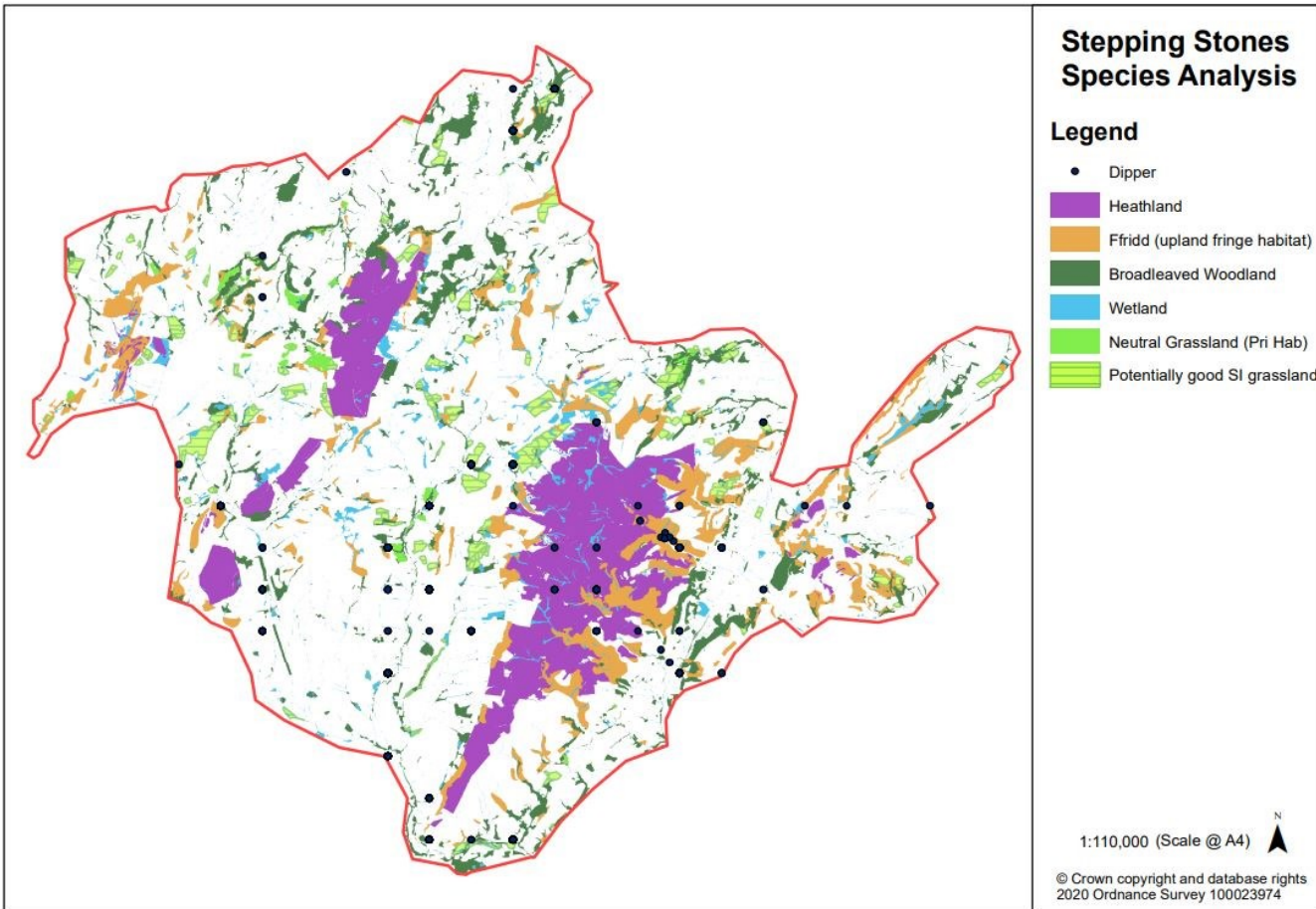


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# Dipper habitat opportunities in the Stepping Stones Project Area

The map below shows dipper records overlaid on broad habitat types: heathland, fridd, broad-leaved woodland, neutral grassland, semi-improved grassland and wetland.



Dippers occur wherever there are clear, clean, fast flowing streams over gravelly beds. Other habitat types do not appear to influence dipper occurrence. Opportunities exist for improving water quality in upland streams where dipper have disappeared.

## Conservation objectives for dipper

- Continue with regular recording of dipper populations to include ringing of chicks and adults to more fully understand their habits, range and distribution;
- Increase awareness amongst landowners of the needs of the dipper, offering practical management advice to reduce farm waste entering watercourses and seek nature-based solutions to regulate flow rate in streams and rivers;
- Support Community Wildlife Groups and other volunteers in their vital work with species recording and local nest-box schemes.



Dipper *Cinclus cinclus*



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# Conservation Actions for dipper

- By 2025 to contact all landowners in the project area with suitable stream habitats, regarding surveys, promoting awareness and an understanding of dipper needs. Provide management advice, offer practical support and direct them to funding streams where available;
- By 2025, working with the BTO, to ensure all streams in the Stepping Stones project area catchments are surveyed for dippers;
- By 2026 to ensure that every suitable bridge over a fast-flowing watercourse in the project area has a dipper nest-box, and work with Shropshire Council to ensure that new bridges are suitably constructed to accommodate dippers;
- Continue to support monitoring of dipper nest and roosting sites annually and local ringing programmes;
- By 2025 to set up monitoring systems for aquatic invertebrate populations and also water quality in areas where recent dipper records exist, with the help of Shropshire Wildlife Trust and Community Wildlife Group volunteers. Record acidity, flow rate and pollutant levels;
- By 2024 to obtain water quality data from the last 35 years from the Environment Agency which was recommended by Leo Smith in 2012 to attempt to establish a causal relationship between dipper decline and disappearance from some rivers and streams in the catchments;
- By 2025 to work with the Environment Agency and Severn Rivers Trust to improve water quality where dipper breeding may be impacted;
- By 2025 to ensure that the dipper is included in Section 41 of the NERC Act as a species of principal importance and included in the targeting statement for the Shropshire Hills as a priority species.

*Actions are to be reviewed and updated annually*

## Get further help and advice

Locally: Community Wildlife Groups - [shropscwgs.org.uk](http://shropscwgs.org.uk)

Nationally: RSPB Dipper webpage - [rspb.org.uk/birds-and-wildlife/wildlife-guides/bird-a-z/Dipper](http://rspb.org.uk/birds-and-wildlife/wildlife-guides/bird-a-z/Dipper)



## About Stepping Stones

Stepping Stones is an innovative landscape-scale conservation programme. The aim is to connect wildlife habitats by strengthening or creating 'stepping stones' and corridors of habitat between the Long Mynd and Stiperstones, and beyond. In practice, this means creating and linking areas of heathland, flower-rich grasslands and broadleaved woodland by a network of wildlife-rich hedgerows, road verges, hillsides and streamside wetlands.



Project website



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