## **Shropshire Biodiversity Action Plan**



# White-Faced Darter (Leucorrhinia dubia)



The Main text of this plan is in need of review, the text below is taken from the 2002 species action plan.

The white-faced darter is nationally scarce in Britain. It is primarily a northern species, the most numerous of the European Leucorrhinia species, and occurs in suitable habitat everywhere north of fifty degrees latitude. In southern Europe it tends to be found in mountain environments.

White-faced darters are small dragonflies that inhabit acidic pools on bogs and heaths. To complete their life-cycle they need: semi-submerged Sphagnum moss or other similar aquatic substrate for larval development; open heathland and woodland near breeding pools for maturation and roosting; and emergent vegetation, preferably cottongrass, for completion of metamorphosis.

#### 1.1 Objectives

- A. Protect and maintain the existing colony and range of the white-faced darter dragonfly, ensuring no loss or fragmentation.
- B. Increase the number of individuals at Fenn's, Whixall, Bettisfield, Wem and Cadney Mosses SSSI and elsewhere by enhancing additional areas of suitable habitat.
- C. Establish and maintain a comprehensive understanding of the distribution, status and ecological requirements of the white-faced darter through research, survey and monitoring.
- D. Promote communication, education and awareness of the status and needs of the white-faced darter.

#### 1.2 Targets

- Establish one further colony of white-faced darters by 2010
- Maintain population size.
- Carry out five targeted surveys of potentially suitable habitats in order to seek additional populations by 2010.
- Expand species range within Fenn's & Whixall Mosses SSSI by 2010

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## 2 Current Status

## 2.1 Importance

The population at Fenn's, Whixall, Bettisfield, Wem and Cadney Mosses SSSI is one of the most southerly in the British Isles. There is a considerable gap between this colony and the next site in Cheshire. The Shropshire colony is of national importance.

#### 2.2 Trends

Historically the white-faced darter probably occurred at other Shropshire sites until its specialised habit was destroyed by drainage, peat extraction and afforestation. The rehabilitation of the peat cuttings at Fenn's Moss have led to a recent dramatic increase in the population, and with this work continuing the population could expand further within this site and possibly to others.

## 2.3 Population and Distribution

The population is centred on Fenn's, Whixall, Bettisfield, Wem and Cadney Mosses SSSI. The species survived in peat cuttings and recently spread to additional areas within the site after rehabilitation works restored suitable hydrological conditions. The white-faced darter is common in the SSSI but as yet there is no estimation of population size.

## **3 Current Factors Affecting the Species**

- Loss of open water through natural succession. The white-faced darter needs a balance between open water and sphagnum bog.
- Pollution or deterioration of water quality in the pools.
- Increase of suitable conditions at Fenn's Moss due to restoration works is assisting the expansion of the population.
- Lack of additional suitable sites to colonise.

## **4 Current Action**

## 4.1 Policy and Protection

• The habitats of Fenn's, Whixall, Bettisfield, Wem and Cadney Mosses are protected as a Site of Special Scientific Interest (SSSI).

## 4.2 Management, Research and Survey

- Habitat management at Fenn's Moss by English Nature and the Countryside Council for Wales to increase the population is on-going.
- The population is monitored annually by English Nature and the Countryside Council for Wales.

# **5 Key Habitats**

Peat bogs

## **6 Complementary Plans**

Shropshire Peat Bogs HAP

# **Shropshire Biodiversity Action Plan**

## 5. Proposed Actions

| Habitat / | Action | Action text  | Location of      | Start | End date | Lead | Assisting |
|-----------|--------|--|------------------|-------|----------|------|-----------|
| Species   | code   |  | action           | date  |          |      |           |
| White-    | SHR    | Ensure that Fenn's & Whixall Mosses SSSI is            | Fenn's & Whixall | 2006  | -        | SWT  |           |
| faced     | WFD HS | appropriately managed to support the White-faced       | Mosses SSSI,     |       |          |      |           |
| Darter    | 03     | Darter   | Shropshire       |       |          |      |           |
| White-    | SHR    | Identify suitable areas that could be specifically     | Fenn's & Whixall | 2006  | 2010     | BDS  | SWT,      |
| faced     | WFD HC | managed to attract the White-faced Darter              | Mosses SSSI,     |       |          |      |           |
| Darter    | 01     |  | Shropshire       |       |          |      |           |
| White-    | SHR    | Continue to record transect data annually over known   | Fenn's & Whixall | 2006  | -        | BDS  | SWT       |
| faced     | WFD SU | existing population(s) to monitor changes in           | Mosses SSSI,     |       |          |      |           |
| Darter    | 01     | population size.                                       | Shropshire       |       |          |      |           |
| White-    | SHR    | Survey one potentially suitable site per year in order | Fenn's & Whixall | 2006  | 2010     | BDS  | SWT, SC   |
| faced     | WFD SU | to seek additional populations.                        | Mosses SSSI,     |       |          |      |           |
| Darter    | 02     |  | Shropshire       |       |          |      |           |
| White-    | SHR    | Encourage volunteer participation in Dragonfly         | Fenn's & Whixall | 2006  | -        | BDS  | SWT       |
| faced     | WFD SU | Recording Network.                                     | Mosses SSSI,     |       |          |      |           |
| Darter    | 03     |  | Shropshire       |       |          |      |           |

# **Key to organisations**

**CCW** Countryside Council for Wales

Shropshire Council

SWT Shropshire Wildlife Trust

BDS British Dragonfly Society

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