# CADOVER BRIDGE

# 2017-2026: Confirmed Priority Site of National Importance

A mosaic of acidic wetland habitats based on old clay workings and a sediment lagoon. Successful breeding population of Scarce Blue-tailed Damselfly.

		dated	28/03	/2025								
Site: CADOVER BRIDGE	1987-1996			1997-2006			2007-2016			2017-2026		
Grid ref.: SX555650	Breeding		Other	Breeding		Other	Breeding		Other	Breeding		Other
	Succ	Poss		Succ	Poss		Succ	Poss		Succ	Poss	
Damselflies												
Beautiful Demoiselle			С			В			В			С
Banded Demoiselle												
Emerald Damselfly			В		Α	С						
White-legged Damselfly												
Large Red Damselfly	Α	В	С	Α	+	С		В	С			В
Blue-tailed Damselfly	Α	С	D	+	+	D	В		D		С	E
Scarce Blue-t Damselfly	Α	В	D	Α	С	D		В	D	Α		D
Common Blue Damselfly	В	С	D	+	+	С		В	D			В
Southern Damselfly												
Azure Damselfly			С		+	С			+	А		D
Red-eyed Damselfly												
Small Red-eyed Damselfly												
Small Red Damselfly												
Dragonflies												
Hairy Dragonfly												
Common Hawker	А		В			Α						
Norfolk Hawker												
Brown Hawker												
Southern Hawker	Α		В			+			Α			
Migrant Hawker			Α									
Emperor Dragonfly	А		В						Α			
Lesser Emperor												
Vagrant Emperor												
Golden-ringed Dragonfly	Α		С			Α			Α			В
Downy Emerald												
Broad-bodied Chaser	А		С	+	+	В			Α			
Scarce Chaser												
Four-spotted Chaser			Α						В			С
Keeled Skimmer	А	В	С	+	+	С			В	Α		D
Black-tailed Skimmer			Α			Α			В			
Common Darter	В	В	D	В		В			В			С
Red-veined Darter												
Ruddy Darter												
Black Darter			E			A			В			Α
Yellow-winged Darter												
Scarlet Darter												
Total species in category:	11	6	18	7	8	15	1	3	15	3	1	12

#### Bold underlined = nationally important species Bold black = important species

Succ = Successful breeding (exuvia(e) and/or larva(e) and/or pre-flight emergent and/or oviposition); Poss = Possible breeding (copulating pair); Other = Adult(s) or unspecified.

Abundance codes: A=1; B=2-5; C=6-20; D=21-100; E=101-500; F=>500; + = no count.

#### **Priority Species History**

**Scarce Blue-tailed Damselfly** – sightings in several years during 1978-91. On 4/7/93, *ca.* 45 above Brisworthy Lagoon (35 at SX555649 and 10 at SX554650). In 1995 a maximum of ten individuals and five pairs were seen *in cop.*, scattered amongst various pools and flushes. 77 (12 *in cop.*) were counted on 22 July 2005, 51 (30 male, 21 female) were colour-marked on 6 July 2006, when 9 pairs were seen *in cop.* and 1 ovipositing; 25 on 15/7/18.

#### Other species of note

Common Hawker – reported in several years from 1978, with 1 ovipositing in 1995.

**Keeled Skimmer** – nine males in 1993; 24 individuals, two pairs *in cop*. and one pair ovipositing in 1995, on suitable flushes across the site; 21-100 on 25/6/18.

**Black Darter** – frequently reported in the area, with 101-500 in the 'Cadover Bridge area' (SX5564) in 1987 (undated), otherwise much smaller numbers reported.

#### Habitat

An area of wetland, unimproved acidic grassland and moorland centred around an old settlement lagoon ('Brisworthy'), next to Cadover Bridge on the River Plym. A mosaic of dry unimproved upland grassland, bracken, scrub especially gorse, rush pasture, rushy hollows, shallow pools, four flooded clay pits (part fished by local angling club), streams, runnels and flushes/bogs. Part of this area comprises reinstated clay works, hence adding to a rather structurally diverse landscape. Sheep grazed.

Target Notes refer to map (pH and conductivity readings are for 1995 unless stated otherwise):

- 0. Deeply incised 0.75-1.0m narrow drain. Much grass, *J. effusus*, *Ulex* and iron ochre.
- 1. 'Stream'- higher reaches well defined as densely rushy 'ditch' with a sparse row of small, stunted sallow. Area 1 then spreads out to become 2.
- 2. An area of flush with a main runnel and a wide wet area around it with a variety of wet vegetation: *Sphagnum/Molinia* tussocks, patches of tall rush, plus sedges and herbs. *Potamogeton polygonifolius, Hypericum elodes, Ranunculus flammula* and areas of still or flowing open water, with several inches of mud/silt beneath. *p*H about 6.7, but 6.0 W of the road (4/7/93). The water from 2 concentrates and flows into 3.
- 3. A shallow muddy pond with wide muddy and vegetated margins due to draw down. Probably used by stock. Some *Glyceria* in the water, marginal plants include *Sphagnum*, *R. flammula* and grasses, plus plenty of *J. effusus* and *Typha*. There is an outflow from 3:
- 4. Outflow ditch from 3. is a small ditch with some grass and sparse *J. effusus*. It passes through a culvert under the path/bank to apparently re-emerge as 4a: a densely rushy ditch. (Both 4 and 4a were rather dry at time of 1995 survey).
- 5. Shallow, muddy-bottomed pool with sparse to dense tall rushes emerging with low scrub and grass around margins. Conductivity 60  $\mu$ S/cm.
- 6. Tiny flush with runnels, *J. effusus*, *Hypericum elodes* and quite a lot of iron ochre.
- 7. Seasonally dry rush pasture with traces of *Sphagnum*, *Molinia*, *Hydrocotyle*, *Polytrichum*, *R. flammula* and various rushes. Short vegetation between the tall rushes.
- Scrubby 'fen' of tall rushes (*J. effusus*, *J. conglomeratus*, *J acutiflorus*), *Typha*, *Iris* and herbs like *Lychnis flos-cuculi* and *Angelica sylvestris*. Willow (*Salix*) scrub getting quite tall. Perhaps too dense at wet base of vegetation to attract many breeding Odonata. Conductivity 160 μS/cm. A narrow fast flowing stream, with some iron ochre and overhung with rush, separates 8 from 9.
- 9. An area of shorter rush/flush vegetation especially *H. elodes*. Heavily grazed.
- 10. The stream of 8/9 splits into 10 and 10a. 10 is fast flowing, gravelly with short grass up to the edges. Conductivity 50  $\mu$ S/cm. 10a is slower and choked with vegetation (*Peplis portula*?).
- 11. A shallow, muddy pool with a good scattering of *J. effusus*, low gorse etc creates a sheltered surround. *p*H 7.3. Conductivity 60 μS/cm. A little aquatic vegetation (*Peplis*, *R. flammula*).
- 12. The continuation of 10 south of the track. The stream is sunk in a little grassy, gorsy minivalley. It is fast flowing with a silty (to stony) base, lots of *J. effusus* and very occasional aquatic vegetation. Conductivity 50  $\mu$ S/cm.
- 13. A small, sunken well vegetated pond, seasonally drying, thick with *Potamogeton* polygonifolius, also Glyceria, Sphagnum and Juncus.

- 14. Rushy depression with seasonally dry Sphagnum at base.
- 15. River Plym very stony, exposed, fast flowing, very, very occasional vegetation mostly tall rush. Occasional slower, stiller ponds.

- 17. Seasonally drying pool or boggy hollow with tall rush, spike rush Eleocharis, P. polygonifolius and Sphagnum. Gorse and grass fringed.
- 18. Tall wetland vegetation mostly tall Juncus tussocks with areas of shorter, wetter vegetation between, mostly Sphagnum with some very wet areas supporting Potamogeton polygonifolius. (Also some Carex and Ranunculus hederaceus.) Very little truly open water. pH 6.0 (8/8/91); 6.5 (1995). Conductivity 120, 160 μS/cm.
- 19. Cluster of small hollows with rushes over seasonally dry Sphagnum. The larger (nearer the crossroads) more of a pool: rush-fringed with *Glyceria*, *Sphagnum*, *P. polygonifolius* etc. plus some open water (in late June).
- 20. Stream down from side of tip. Fast flow, gravelly, tall rush and bracken lined, much iron ochre. Conductivity 60 µS/cm.
- 21. Continuation of 20 on the other side of the road. Flow slow, slightly gravely base but with a variety of wetland herbs and plants bordering: J. effusus, Myosotis, Veronica beccabunga. Little or no iron ochre. Conductivity 60 µS/cm.
- 22. Ditch/stream slow flow, lots of iron ochre, lots of tall J. effusus. Conductivity 60 µS/cm.
- 23. Ditch practically dry at survey. Tall J. effusus.
- 24. Flush area, shaded by mature scrub in places, with a mix of short wet grassy vegetation, P. polygonifolius, Sphagnum and other flush vegetation plus some tall rushes. Iron ochre in places. Conductivity 60  $\mu$ S/cm.
- 25. Drain dry at most places at time of survey, with J. effusus, Sphagnum and a little open water.

Pond 1: Appears long established and well-vegetated, holding the most dragonfly interest. A boggy area immediately north of the pond develops into a series of runnels with Sphagnum. Drosera, Eleocharis feeding the pond. The relatively abundant flora of the pond includes emergent *Eleocharis*, submerged algae, several rafts of *Potamogeton* and scattered marginal Juncus tufts, and gorse bushes. The clear water reveals a gently shelving bottom. At the south end is an outflow to Pond 2. There are no obvious anglers 'swims', but discarded tackle was found here. pH 7.7-8.0 (23/6/95). Conductivity 70-80 µS/cm. (16/8/95).

Pond 2: Banks steep in many places, but areas of shallow water evidenced by Nymphoides peltata rafts. Much J. effusus at the margins and bare beach. Eastern lobe has a variety of emergents in some quantity. There is also some submerged weed. Inlet from Pond 1, outlet to tiny pond and thence to Pond 3. Much angling activity and large carp present. Water slightly cloudy. pH 7.5 (23/6/95). Conductivity 50 µS/cm. (16/8/95).

'Tiny Pond': Very rushy (J. effusus) small wetland strip with a variety of other weed plus an area of open water which had dried to wet mud by 16/8/95. pH 7.1 on 16/8/95.

Pond 3: Quite 'bleak'. Banks steeply shelving, much bare spoil 'beach'. Thin fringe of J. effusus round 25% of bank. Very small area of floating vegetation and some submerged weed. Littorella abundant round edges. Much angling activity. Fed by outflow from 'Tiny Pond'. Water cloudy 7.9-8.0 on 23/6/95. Conductivity 60 μS/cm. on 16/8/95.

Pond 4: This seems a very young lake with the water looking blue and much bare unvegetated clay spoil around the margins. Over half the banks were steep to near vertical with abundant gorse and topped by short acid grassland. Marginal vegetation is limited to a little J. effusus, there is a small raft of *Potamogeton* and some *Littorella* at the small northern beach. The water was cloudy, but gave the impression of depth and deeply shelving sides. No inlet or outlet. No evidence of fishing. pH 6.9 (4/7/93); 7.6 (23/6/95). Conductivity 50 μS/cm. (16/8/95).

Significant parts of areas 2 and 7 were invaded by Crassula helmsii from about 2000.

#### Status

Status	Area
DNP access land; PDCAC fishing ponds.	22 ha

#### Owner/tenant

Imerys/Plymouth D C Angling club.

<sup>16.</sup> As 14.

## Local Authority:

Dartmoor NP/West Devon DC

### Threats

- Invasion over open areas of the old lagoon by Crassula helmsii.
- Undergrazing could lead to overgrown watercourses.
- Overstocking with fish in ponds.

#### Management suggestions

Flushes and old settlement lagoon.

- Maintain approximately current grazing levels.
- Dig occasional new ponds to replace old ones as they dry out/succeed. Locate these in areas of low existing wildlife value.
- Control Crassula helmsii.

Pond 1:

- Do not introduce fish or increase levels of fishing.
- Do not remove weed.

Ponds 2 and 3:

• No improvements are likely while they remain as angling ponds.

Tiny Pond:

• Retain in present form.

Pond 4:

- Leave to follow natural succession.
- Do not introduce fish.



# Cadover Bridge area: 1995 survey map



