

SMALLHANGER (aka Hemerdon, Drakelands)

2017-2026: Possible Priority Site of National Importance

A complex of acidic ponds, flushes and mires in old clay workings (previously worked in 1939), resulting in the most diverse dragonfly community in Devon, until most of the site was re-worked for clay from around 2013. Successful breeding populations of Scarce Blue-tailed and Small Red Damselflies, plus several records of rare migrants. Following re-working, the most recent records refer to small residual mires in the south.

Last updated: 23/03/2025

Site: SMALLHANGER	1987-1996			1997-2006			2007-2016			2017-2026		
Grid ref.: SX575596	Breeding		Other	Breeding		Other	Breeding		Other	Breeding		Other
	Succ	Poss		Succ	Poss		Succ	Poss		Succ	Poss	
<u>Damselflies</u>												
Beautiful Demoiselle				A		C	B		B			
Banded Demoiselle												
Emerald Damselfly	C	B	E	D	D	E	C	B	E			
White-legged Damselfly												
Large Red Damselfly	C	C	D	B	B	E	E	D	D			
Blue-tailed Damselfly			C	+	B	D	A		D			B
Scarce Blue-t Damselfly	A	C	D	A	B	D	A	A	C			A
Common Blue Damselfly	C	C	E	D	D	E	C	C	E			A
Southern Damselfly												
Azure Damselfly			C	C	D	E	B		D			
Red-eyed Damselfly												
Small Red-eyed Damselfly												
Small Red Damselfly	D	C	E	B	D	E	D	C	D			B
<u>Dragonflies</u>												
Hairy Dragonfly												
Common Hawker	B	A	C	B	B	D	B	A	C			
Norfolk Hawker												
Brown Hawker												
Southern Hawker				B		B	A		B			
Migrant Hawker					A	B						
Emperor Dragonfly	A	A	C	B	A	D	B		C			B
Lesser Emperor						B			B			
Vagrant Emperor												
Golden-ringed Dragonfly	A	A	B	A	+	C	D		B			A
Downy Emerald												
Broad-bodied Chaser			B			C	A		C			
Scarce Chaser												
Four-spotted Chaser				B		C			B			
Keeled Skimmer	C	C	E	C	C	E	C	B	D			C
Black-tailed Skimmer			A	A	C	D	A		C			
Common Darter	B		C	C	C	E	D	B	D			A
Red-veined Darter						C			B			
Ruddy Darter												
Black Darter	C		D	C	C	E	B	B	D			
Yellow-winged Darter												
Scarlet Darter						A						
Total species in category:	11	9	15	17	15	22	17	9	20	0	0	8

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 – first records during 1978-80; 10+ on 27/7/94; 54 (including seven pairs *in cop.* and one ovipositing) on 9/7/95; 10 on 6/7/96 with one pair *in cop.* on 13/8/96; two (one ovipositing) on 8/8/98; 20 (two pairs *in cop.* and one ovipositing) on 22/7/01; maximum of only 7 reported during 2002-2005, with oviposition on 12/7/05; 29 (24 males) marked in study on 11/7/06 and 30 on reported on 17/7/06, with up to 14 on other dates between 17/6/06 and 9/8/06. Only 6 (4 males) were seen in sub-optimal weather conditions on 20/7/08; about 15 were seen on 27/6/10; about 20 (one ovipositing) on 25/7/10; and 1 on 2/8/10; 5 (3 males) were seen on 8/8/13; 3 (2 males) on 20/7/14; 4 (2 males and a pair *in cop.*) on 2/8/15; reported from 2-year-old sediment trap (on site of area 22?) below W end of angling lake (area 21) in 2019, with a male there on 5/8/19. Most were seen in areas 15 and 24.

Small Red Damselfly – first noted: 25 on 27/7/94; 170 counted (estimated to be >300 overall) on 9/7/95, when 12 pairs *in cop.*, 12 ovipositing and five newly emerged individuals; 10 on 6/7/96 and 30, with 6 pairs *in cop.*, on 13/8/96; 40 (10 pairs *in cop.*) on 8/8/98; 50 on 22/7/01 and 24/8/02; peaks of 221 (with 54 pairs *in cop.*, two ovipositing and five emerging) on 16/7/05 and 100+ on 6/8/06. c25 were seen in sub-optimal weather conditions on 20/7/08; 43 larvae found on 16/4/09 and 34 larvae on 12/10/09; D adults on several dates in 2010 and c50 on 8/8/13 with a further 37 (10 pairs *in cop.*) in area 20; D adults (C *in cop.*) on 20/7/14; C adults on 2/8/15; 6 males on 5/8/19 (4 in 'Old Southern Pit', area 20); 1 in area 20 on 17/6/21. Most have been seen in areas 2, 14 and 24, latterly mainly in area 20.

Other notable species

Lesser Emperor – two males on 10/8/03; two males and a female on 30/8/10.

Keeled Skimmer - 170 adults (including six *in cop.*, 10 ovipositing and 12 newly emerged) and five larvae on 9/7/95; no more than 100 until 2006, when a peak of 250 was reported on 6/8/06.

Red-veined Darter – small numbers of males in 2000, 2001, 2003, 2005 and 2006, with a maximum of nine on 11/8/03; maximum of four in June-July 2009; usually at ponds 9 and 26; no evidence of breeding.

Scarlet Darter – a male on 17/6/00 was the fourth record for Britain.

Habitat (from 1995 survey)

Abandoned clay workings with a very undulating terrain of small spoil heaps, cliffs and holes incorporating a variety of wet features: lakes, ponds, pools, streams, ditches, runnels and areas of acidic flush and mire. These are all set in a mosaic of dry lowland heathland, wet *Molinia*-dominated heath, gorse and other scrub and bracken. The area is extensively grazed by sheep and ponies. Target notes (refer to 1995 map below):

1. Pool dry at survey in 1995 - *Molinia*, *Juncus effusus*, *Sphagnum*. In 2005, only a damp depression.
- 1a. Deep (to 0.75m), narrow (0.3m) runnel, heathy sides, dry *Sphagnum* in base. Dry in 2005.
2. Shallow pond, bottom well-vegetated with algae and submerged vegetation (*Isoetes* especially). Margins 2-3m wide and boggy with *Sphagnum/Hypericum elodes* plus tall *Juncus* and *Molinia*. pH 6.3 (1995). Lost to reworking in 2013.
3. Upper part of runnel dry at survey in 1995, damp in 2005, with *J. effusus* and *Sphagnum*, becoming wetter nearer 4. Lost to reworking in 2013.
4. Runnel/tiny stream 'issues' at tiny pool, with tall *J. effusus*, blanketweed, *J. bulbosus*, *P. polygonifolius*, then continues with a mix of these and similar species, *H. elodes*, *Sphagnum*, rushy clumps (*J. acutiflorus*), etc. Little open water. Then widening to pool (0.75m deep, 5m wide) where 3 joins. Lost to reworking in 2013.
5. Pondweed-dominated pool. Runnels of 3 and 4 widen and become quite wet, with lots of tall rush (*J. effusus* and *J. acutiflorus*), *P. polygonifolius*, *H. elodes*, *R. flammula*, *Sphagnum*, *J. bulbosus* etc. Silty base unvegetated in places. A mosaic of tall and short vegetation, open water and boggy vegetation with slow-medium flow rates. pH 6.1 (1995).

6. Dense tall rush (*J. effusus* and *J. acutiflorus*) dominates this flush area. *Sphagnum* and *H. elodes* grow at the wet base of the rushes and there is a fair amount of scrub (*Salix* etc). Dry and overgrown with *Ulex europaeus* in 2005.
7. Streams seasonally dry in places, leaving mosaic of runnels and pools which vegetation similar to 5 in places.
8. Large area of seasonally dry, wet *Molinia* heath with 2 or 3 small ponds/pools remaining wet (not mapped).
9. Large pond with spoil 'cliff' to the west. Draw down in 1995 had left shallow bare beaches all round. Only one small patch of emergents (*J. effusus*). Lots of *Littorella* at edges and in shallows, although there is actually very little weed overall. Water appeared deep and murky in 1995 and 2005.
10. Very shallow peaty pond (0.3m deep in 1995). Sparse *Glyceria*, *Eleogiton fluitans*, *H. elodes* and *Potamogeton* throughout. *J. effusus* emergent in places. Inlet pipe in SW corner. Muddy edges caused, perhaps, by ponies drinking/grazing weed (4 seen). Heath and a little scrub on banks. pH 5.7. In 2005, a shallow rush-fringed pool had formed following a dam breach.
11. Seasonally dry drains with occasional wet patches, *J. effusus*, *J. bulbosus*, *Sphagnum*. Dry and overgrown with *Ulex europaeus* in 2005.
12. Grassy runnel - tall *Molinia* with some overhanging gorse and increasing *Sphagnum*, *J. effusus*, *P. polygonifolius* and *H. elodes* downstream. Dry and overgrown with scrubby willows in 2005.
13. Small, seasonally dry hollow with *Sphagnum* and *Molinia*. Dry and overgrown with scrubby willows in 2005.
14. Well vegetated pond fed by 12 and part of 6 and 5. The wide boggy margins merge into the tall rush of 6. Boggy margins are of *Sphagnum*, *H. elodes*, *Juncus*, *Molinia*, *Eleocharis* and *Eriophorum*. One-third of the open water surface was *Potamogeton* with some *Glyceria* in 1995. Water clear and >1 m deep, with much submerged vegetation. pH 6.0-6.1 (1995). Dry and overgrown with scrubby willows in 2005, when the western half of the pool had some running water and was well vegetated with *J. effusus*, *H. elodes* and *Sphagnum*.
15. Stream similar to 12, with overhanging willow scrub, tussocky *Molinia*, rushy patches, *Sphagnum* etc.
16. Stream similar to 15, 0.75-1m wide, wet influence supporting rich vegetation of *J. effusus*, small rushes, *H. elodes*, *Sphagnum*, *Eriophorum* and open water. Drying eastwards in 2005.
17. Smallhanger Brook – small channel, well incised and fast flowing in gorse/scrub-covered valley. Stony base, iron ochre in places. Open sunny stretches with areas of abundant mature gorse, and shady wooded stretches, especially to the south.
- 17a. Various works, including gabion dams, slowing and widening the watercourse.
18. Area of flushes, runnels and very shallow pools in 1995, with *P. polygonifolius*, *H. elodes*, *Sphagnum*/*Drosera*/*Molinia* and rushes amongst scrub. Some damp areas remained in 2005, but mostly willow scrub.
19. Shallow (15 cm) pond, well vegetated with grass, algae and abundant *J. bulbosus*, ie plentiful short emergents. Surrounded by mature gorse and heathland. In 2005, dominated by *Eleocharis*, with willow scrub at the southern end.
20. ('Old Southern Pit') Old clay pit with much bare spoil, starting to colonise. Wet flushes in many parts of the base, with a mosaic of shallow open pools, *P. polygonifolius*/*H. elodes*, *Sphagnum*, *Lycopodiella inundata* (on lower, bare slopes) and rushes. By 2005, *Ulex europaeus* had colonised much of the sides, and water depths were up to 20cm. On 15 February 2008, the pit had flooded to some depth, but was drier with mire vegetation and a large area of Marsh Clubmoss on 8/8/13. Even drier on 5/8/19 after dry summer; Rhododendrons more evident than in previous visits.
21. Angling lake with swims, fairly steep sides and bare earth/spoil at edges. Turbid water (presumably as a result of introduced fish) with few emergents (*J. effusus*, *Iris pseudacorus*) and planted exotics near top of drawdown zone. Occasional patches of *H. elodes*, *Sphagnum*, (planted) water lily, plus a little *Isoetes*. Beds of exotic water lilies and Fringed Water-lily in 2013.

22. Seasonally drying pond. *H. elodes*, *J. effusus* and *Eriophorum* around the edge, *Sphagnum* patches and *Isoetes* where a little water remains. Mud well poached.
 - 22a. Boggy runnel with *H. elodes* and *Sphagnum*.
 23. Fishing lake (no swim platforms in 1995). Water turbid. Very sparse and occasional *J. effusus* at margin. Bare spoil banks, shelving gently. A little *Potamogeton*, water lily, *Eleogiton fluitans*/*J. bulbosus* frequent near edges. A small patch of *Sphagnum*/*H. elodes* in easternmost corner.
 24. ('Old Northern Pit') Old clay pit with much bare spoil succeeding to heath on slopes. Base of pit very wet with mosaic of boggy *Sphagnum*/*Drosera*/*Molinia*/*E. tetralix* 'wet heath', rush tussocks, bare spoil with iron ochre in ruts (made by motor-cycles), open runnels, pools of *P. polygonifolius*/*H. elodes*, plus *Narthecium*, *Eriophorum* and some *Salix* scrub. pH 6.2 (1995). Substantial areas of bare slopes with *Lycopodiella inundata*. A little willow scrub.
 25. Small, shallow, seasonally dry pool with *Molinia*, *E. tetralix* and *Sphagnum*, plus some *Isoetes* and an area of *Lycopodiella inundata* on the south-east margin.
 26. Big pool (shrunk through drawdown in 1995) and, apparently, early succession to wet heath. *J. effusus* fringe at top of drawdown zone. Wide shallow open margins. Water peaty looking, with some *Isoetes* and *J. bulbosus* on the exposed shore, but very little aquatic vegetation in the remaining water (tiny patch of *Glyceria* at the south end). pH 5.7 (1995).
 27. Old drain/ditch in a gully, mostly dry with patches of wetland vegetation: abundant *J. effusus* and *Molinia* plus patches of *Sphagnum* and *Peplis portula*, but no open water.
- Note: areas 28-33 destroyed by re-working for clay in 2004.
28. Pond seasonally dried to 2 pools. Thick vegetation of *J. bulbosus*, *Fissidens* and *Polytrichum* mosses, plus a little *J. effusus*. pH 5.1 (1995).
 29. Seasonally dry pond with marginal *J. effusus*, *Eleogiton fluitans*, *Glyceria* and *P. polygonifolius* choking what water remained at southern end in 1995. pH 5.3 (1995).
 30. Seasonally dried pools with *J. effusus*, *Sphagnum*, *Eleocharis*, *J. bulbosus*.
 31. Dry pan is all that remains of this old pond.
 32. Very 'new' looking lake - bare spoil steep banks with some gorse on surrounding cliffs, but no other vegetation apparent. Water turquoise-green in 1995, appearing unsuitable for dragonflies.
 33. The only wetland vegetation apparent in here in 1995 was small patches of *J. effusus*.
 34. A muddy, poached pond used by stock for drinking. Hardly any vegetation (a little scrub/heath and *J. effusus*). Looked unsuitable for dragonflies in 1995.

Status

None.

Area

45 ha

Owner/tenant

Imerys (formerly English China Clays)/WBB Minerals.

Local Authority: South Hams DC

Potential threats

- Loss of habitat to re-working for clay, and associated hydrological changes.
- Tipping.
- Rhododendron and scrub encroachment, though succession is slow.
- Unofficial motor cycle scrambling and off-road 4x4 vehicles; however, at current levels [2006] the former helps to maintain open areas suitable for Scarce Blue-tailed Damselfly (and *Lycopodiella inundata*).

Management suggestions

- Create similar, wet areas on or off-site to compensate for losses due to re-working
- Maintain grazing at approximately current levels.
- Avoid 'tidying up'.

- Limited scrub control.
- As pools, runnels and flushes dry out through natural succession, create new ones.

Report from 8/8/2013:

As 2013 was the last summer in which access to Smallhanger was guaranteed, the site was visited before work began to mine tungsten on adjacent land at Hemerdon, which resulted in the loss of the normal access route. Two sections of the Priority Site have now been lost to reworking, including pond 2, where most of the species bred. The remainder of the site held 14 species, including c50 Small Red, 5 Scarce Blue-tailed and lots of Emerald Damselflies, 8 Common Hawkers, c30 Keeled and 3 Black-tailed Skimmers and c40 Black Darters. Good news from the isolated old clay pit (area 20) just south of the fishing lakes, where there were 37 Small Red Damselflies. The habitat looks good, including for Scarce Blue-tails, which have been seen here in the past, and for Marsh Clubmoss (present over roughly 80m x 20m). Provided the hydrology over the site is not badly affected by the reworking over the next decade or so, this pit should remain good for dragonflies, although it was looking rather dry after a very dry spring and summer; open water was sparse.

Report from 20/7/2014:

17 species were recorded in good weather. A small number of Scarce Blue-tailed (two males, one female) and about 10 Small Red Damselflies were found in area 20, some the latter *in cop.*; this area also held Large Red and Blue-tailed Damselflies, Golden-ringed dragonflies, Keeled Skimmers and Black and Common Darters.

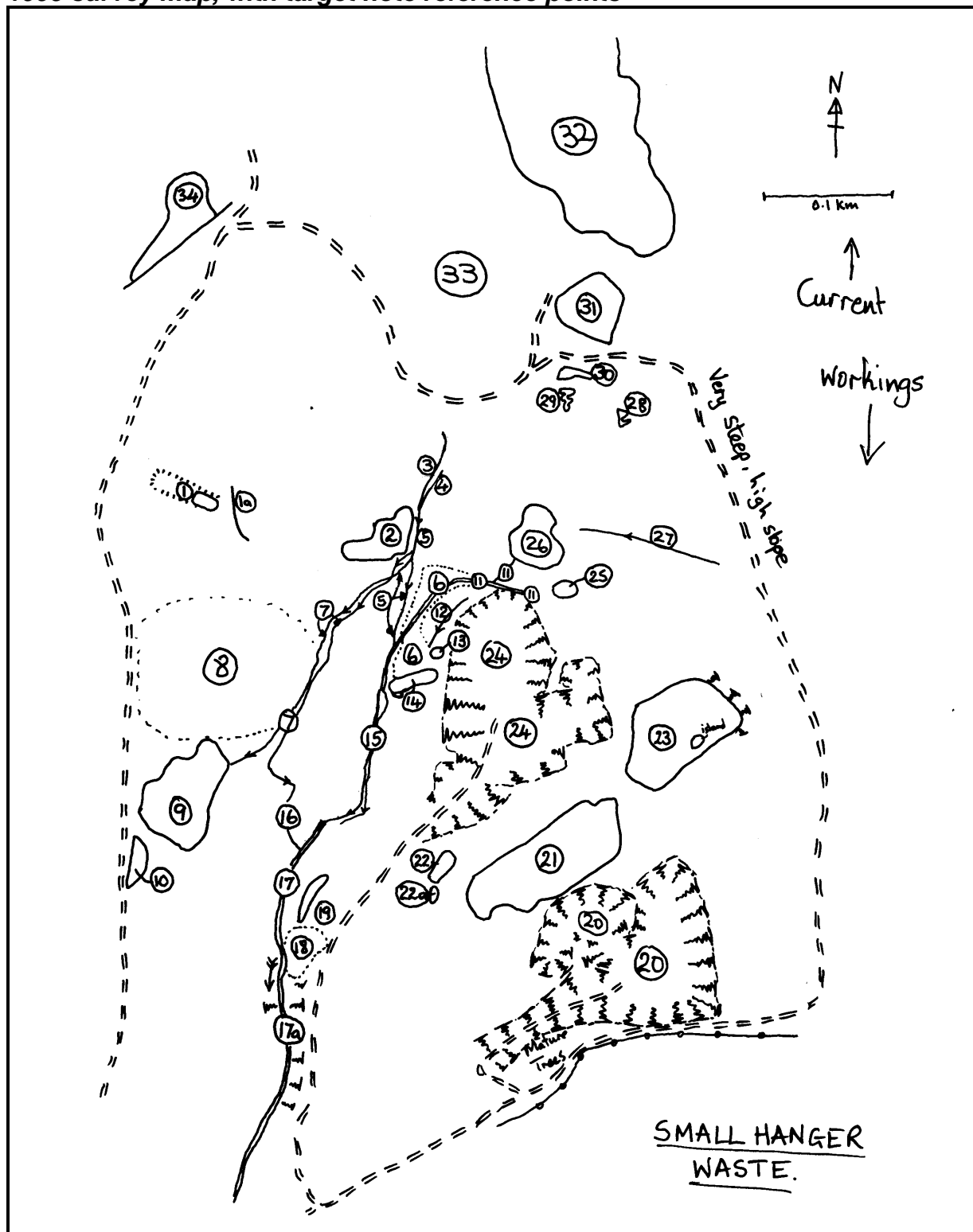
Report from 2/8/2015:

16 species were recorded, despite less than perfect weather. A third section is in the process of being destroyed and access over the site is now difficult; this will severely hamper future recording. The key species were still present, though in rather lower numbers than previous years. Small Red Damselflies, but not Scarce Blue-tailed, were still present in area 20.

Report from 5/8/19:

Site visit with reps from Devon CC (Ecologist Sarah Jennings), Hayden Torr and Jason Gillingham (HT Ecology) and John Vine (Imerys) to discuss the proposed reworking of the remaining section of the site (including area 20). Most of area 24 northwards is now being quarried. 8 species seen, including 6 Small Red Damselflies, mainly around area 20. [Note that compensatory habitat at Lee Moor, requested by Devon CC as a condition of permission under the Review of Minerals Permissions, has not been forthcoming.]

1995 survey map, with target note reference points



Smallhanger: Google airphoto (2024), showing quarried area.



OS map (late 2024)

