

LEE MOOR (including Shaugh Moor)

2017-2026: Possible Priority Site of National Importance

CURRENT STATUS UNCERTAIN

Formerly a large, successful breeding population of Scarce Blue-tailed Damselfly (still present in 2019). Former presence of Small Red Damselfly (2005).

Last updated: 15/03/2025

Site: LEE MOOR	1987-1996*			1997-2006			2007-2016			2017-2026		
Grid ref.: SX5661 etc.	Breeding		Other	Breeding		Other	Breeding		Other	Breeding		Other
	Succ	Poss		Succ	Poss		Succ	Poss		Succ	Poss	
<u>Damselflies</u>												
Beautiful Demoiselle			+			E						
Banded Demoiselle												
Emerald Damselfly	+		+			D			A			
<u>White-legged Damselfly</u>												
Large Red Damselfly	+		+	C	D	E				B		D
Blue-tailed Damselfly	+		+			D						B
<u>Scarce Blue-t Damselfly</u>	B**		C	A	D	E						B
Common Blue Damselfly			+	D	D	E						D
<u>Southern Damselfly</u>												
Azure Damselfly	+		+	D	D	E				A		B
<u>Red-eyed Damselfly</u>												
Small Red-eyed Damselfly												
<u>Small Red Damselfly</u>						B						
<u>Dragonflies</u>												
<u>Hairy Dragonfly</u>												
Common Hawker	+		+						A			
<u>Norfolk Hawker</u>												
Brown Hawker												
Southern Hawker			+			A						
Migrant Hawker			+									
Emperor Dragonfly	+		+	A		B		A	B			A
Lesser Emperor												
Vagrant Emperor												
Golden-ringed Dragonfly	+		+			D			A			B
<u>Downy Emerald</u>												
Broad-bodied Chaser			+			A						
<u>Scarce Chaser</u>												
Four-spotted Chaser	+		+									
Keeled Skimmer	+		+	C	B	E				B		C
Black-tailed Skimmer						B						A
Common Darter	+		+			A						C
Red-veined Darter												
<u>Ruddy Darter</u>												
Black Darter			+						B			B
Yellow-winged Darter												
Scarlet Darter												
Total species in category:	11	0	17	6	5	15	0	1	5	3	0	11

* 1987-96 records from "Lee Moor Estate – maximising wildlife benefit" (Peter J. Stevens for South Hams DC/ECC International Europe/Devon CC, 1998).

** present at four sites, ovipositing at two (P Stevens, pers. comm.)

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 – located at 4 sites in 1996 (Cholwichtown, Quick Settling Ponds, Tory Brook and Whitehill Corner). Four in old drain at Shaugh Moor around SX559642 on 29/6/19.

Small Red Damselfly – B (2-5) seen at both Big Pond and Whitehill Corner on 11 & 12/7/05, respectively.

Habitat (from 2005 survey)

Thirteen sites were surveyed in 2005 within the Imerys Lee Moor Estate, 12 of which were found to have had dragonfly interest in the wildlife survey carried out by Peter Stevens and Jason Heath in 1995-96.

1. Big Pond (SX575632) [NB outside the operational area and also covered under Blackabrook-Blackaton Cross area]

A large shallow pond, used as a water supply for the quarry (a tanker was filling up during survey) causing the water level to fluctuate. The pond is fed by a leat and there is a controlled outflow as well as an overflow leat. The pond is surrounded by soft rush both on the low steeply sloping banks and as emergent vegetation in some places. Submerged vegetation (presumably spring quillwort) is present around the pond on the shallow margins. There are a number of large boulders at the south-western edge. On the south-eastern edge there is an area of dense rushes between the pond and the steep bare slope of the quarry boundary. In this area there is a small pool, which is dominated by pond weed (*Potamogeton* sp). Common Blue damselflies were emerging and there were many exuviae on the rush stems. No key species were seen on the pond itself but 1 male and 1 dead female Scarce Blue-tailed Damselfly seen on the overflow leat. The overflow leat is a small, shallow ditch about 0.5m wide fringed with rushes and *Molinia*.

Threats and management suggestions

1997 recommendations included the suggestion that the pond edges and main areas of aquatic vegetation be left undisturbed as far as possible; only 25% of the pond area be cleared at any one time and that new pools be dug in the rushy area to the south. These recommendations should be reconsidered.

2. Wotter Tip (SX562622)

In 1997 this was a sheltered rushy flush, with some willow carr, now the willow carr has encroached onto the flush leaving only a small, very boggy area. This area has mats of vegetation over deep mud and water. No key species were seen.

Threats and management suggestions

The bog is in danger of being shaded out by encroaching willow carr so these trees could be cleared. The area is also under threat of tipping. It would be desirable to protect as much of the wetland area as possible.

3. Blackalder Tor (SX568615)

This site is a small stream flowing southwards beside a boundary wall. It is shaded by the trees and vegetation associated with the boundary. No dragonfly interest was noted either in 1997 or this year. The site was visited to see if the wildlife enhancements (impede drainage to create pools and boggy areas, and creation of a new pond) had been carried out and if these had been successful. These suggestions have not been implemented. Golden-ringed Dragonfly, Keeled Skimmer and Azure Damselfly were seen this year.

Threats and management suggestions

The stream is not under threat; suggest no management is carried out and drainage is not impeded.

4. Whitehill Corner (SX579622)

This is a small pond and stream between the base of a tip face and a relatively recently dug drainage ditch with milky water. The area has been reduced since the 1997 survey, with the digging of a new drainage ditch to the west and the removal of a hedgerow, but the dragonfly interest is still present, with both Scarce Blue-tailed and Small Red Damselflies being seen. There is an area of dry dominant soft rush between the drainage ditch and the pond. The small stream is bordered by soft rush, with a small area of sphagnum seepage to the north-east. The pond contains pondweed and marsh St. John's-wort. Ivy-leaved bellflower is present.

Threats and management suggestions

This is a small, marginal area, which is under pressure from the operational needs of the quarry. It should be maintained in the present form, if at all possible, and no new incursions made into the area.

5. Cholwichtown (SX582619)

Cholwichtown is an area of mixed semi-improved and unimproved acid grassland with abundant soft rush and willow scrub to the south. It is surrounded on three sides by trees and rhododendron and by the track to the farm on the north. The field is heavily sheep grazed. The flush described in the 1997 survey has dried and become no more than damp rushy pasture. Ivy-leaved bellflower was present. No key species were seen.

Threats and management suggestions

The threat seems to have been realised with the site drying out and scrubbing over. The bog plant species appear to have been lost (or at least the taller rushes have hidden them). Scrub control and regular cutting of the rushes may increase the wildlife value of this field once more.

6. Quick Settling Ponds (SX591610)

These are two settling ponds with no aquatic and very little emergent vegetation. They appeared to have been cleared and modified since the 1997 survey with the loss of some of the wildlife habitat. New access slopes into and new embankments extending partially across the ponds have been created. There was little milky water and much silt in the ponds. The 1997 main silted area for Scarce Blue-tailed damselfly has been dredged back to a steep edge with scrub and rhododendron and no Scarce Blue-tailed damselflies were seen. There is a shallow area with rushes in the northern pond to the west of the new embankment, which held a few Odonata, including Keeled Skimmers. The sheltered boggy area to the west of the ponds has also been extensively altered, with a new embankment pushed into the bog, a small new area of open water created and obviously, the planted conifers have grown considerably, shading the area out since 1997. The small boggy area that remains still has purple moor grass, bog pondweed and yellow iris and provides a good habitat for Odonata. 8 species (no key species) were recorded at the Quick Settling Ponds, which is 5 or 6 fewer than in 1997.

Threats and management suggestions

Since this is a working area and the ponds have to be cleared out regularly it is difficult to suggest that operations be carried out differently, however it may be possible to re-create the boggy area to the west by removing the screening conifers. If they were to be pulled out as suggested in the 1997 report the resulting pits would form small pools.

7. The Ruts (SX555615)

The Ruts are a series of small damp fields, grazed by horses and sheep, situated to the north of the old railway line and the Portworthy area. Although they are very interesting botanically

with areas of flushing, old hedgerows and a small stream, no key dragonfly species were recorded.

Threats and management suggestions

These fields may be under threat from over grazing, but the present regime seems acceptable. The 1997 recommendations included creation of small shallow pools at the far western end of the site in the boggy areas adjacent to taller vegetation for shelter, selective coppicing of birch and fencing to enable lighter grazing regime, also experimental introduction of Small Red damselfly from threatened sites. It may be these ideas could warrant further investigation. Any created pools should avoid areas of existing boggy ground.

8. Portworthy West (SX555609)

The site described in the 1997 survey has now been destroyed under a series of new settling ponds. This was an area of high wildlife value with camomile lawns, ivy-leaved bellflower and heath pearlwort. It was suggested that the stream could be diverted and a series of small ponds created. The present site is situated to the south and east of the track and to the north and west of planted screening trees around a large settling pond. Three small ditches, with steep 0.5m high banks, flow through a series of pipes into a small shallow pond. There is abundant soft rush to the west of the area and short sheep-grazed turf to the east. A small number of Scarce Blue-tailed Damselflies were recorded.

Threats and management suggestions

This small, marginal area is under threat of being destroyed by tipping or ground works. The only management suggestion is to maintain the small seepages in their present condition, probably by doing nothing.

9. Portworthy Farm (SX555601)

This small area is to the south of the Portworthy 'mica' dams and to the west of the Tory Brook. The northern part is elevated, having been disturbed by earthworks associated with the dam. This disturbed ground is now naturally re-vegetating. The slopes and the eastern part of the meadow below are dominated by bracken. The central part of the meadow is dominated by soft rush, with a boggy flush. To the west there is abundant Bracken and Pale Persicaria. The tall lush vegetation, water, deep mud and boggy conditions meant that access was rather restricted. In 1997 'Small numbers of Odonata spp were noted particularly in the 'rushy' area of the field including Keeled Skimmer'. Seven species were noted this year [2005], including paired and ovipositing Keeled Skimmers, but no key species.

Threats and management suggestions

The site may be threatened by becoming overgrown. Perhaps grazing could be introduced, although this may not be practical. The 1997 management suggestions were to create a new pond on the site of the boggy flush. I think that the flush is more important than an artificially created pond would be and that the site should be left to its own devices.

10. Tory Brook (SX560605)

This section of the Tory Brook has been straightened and has steep concrete banks, along most of its length. The channel is not managed and has much in the way of emergent and aquatic vegetation growing on the natural substrate. The length of bank that is not concreted has occasional bell heather amongst the abundant bramble and gorse. Below the bridge the brook becomes shadier, with less in-stream vegetation and the steep concrete banks become taller – to 4m. 5 Odonata species (no key species) were recorded associated with the brook. However there is a long, narrow, shallow stilling pond to the north of the Tory Brook and Scarce Blue-tailed Damselfly were recorded here in an area of soft rush associated with shallow water over the milky silt. There was a fringe of bare ground around the pool indicating the fluctuating water levels. (A dead female Bullfinch was found stuck in the clay banks of this pond.)

Threats and management suggestions

There is the threat of the stilling ponds being dredged and the marginal habitat destroyed. It is unlikely that any suggestions to change the operational method would be considered. However, if possible a new shallow pond could be created in an area to the north of the existing stilling pond. This perhaps would provide additional habitat for the Scarce Blue-tail damselfly and could be left outside normal operational working. The natural vegetation of the Tory Brook should be left unmanaged but the steep banks should be cleared in short alternate lengths so that the brook does not become too shady. It would also be advantageous if at least some of the concrete were to be removed and natural vegetation allowed to re-establish, but this is probably not practical.

11. Refinery Settling Pond (SX562613)

The Refinery Settling pond is surrounded by woodland, either natural or planted on three sides (to the west, south and east) and by the Wotter Brook and gorse and scrub to the north. It is a typical settling pond in the later stage of settling with areas of open water, silt and emergent vegetation. The track to the south and east was damp and had puddles along it adjacent to stands of dense soft rush. Here the largest colony of Scarce Blue-tailed Damselflies was recorded, with estimated numbers of 200-300, including approximately 50-75 pairs. This species was also found in smaller numbers in the Soft Rush around the pond and sheltering in the more scrubby vegetation on the northern bank.

Threats and management suggestions

This is a working settling pond and will be cleared in due course. It is suggested that the area of puddles on the track be maintained and some of the screening trees to the south be cleared to prevent overshadowing of the area. Perhaps a small, shallow pool could be dug to the south of the track to enable the Scarce Blue-tailed damselfly to colonise prior to clearance of the settling pond.

12. Wotter Brook (SX563612)

Wotter Brook is a clear fast-flowing stream with a gravel substrate and some floating and emergent vegetation. Soft rush, bracken and bramble dominate the banks. This presumably partly straightened stream is flowing in a small sheltered valley with planted screening trees to the south and the refinery to the north. Large pipes run on each side of the stream. Some areas of ivy-leaved bellflower were found on the banks.

Threats and management suggestions

The brook should be maintained in the present state.

13. Knowle Wood (SX577613)

There were no dragonflies present on the milky settling pond in a depression to the north. From here the Tory Brook runs through the top of the westerly-sloping, secondary woodland in an old leat. The watercourse is shaded, with little emergent or aquatic vegetation but there is an abundance of ferns, mosses and liverworts on the damp banks. The woodland consists of oak, with some birch, holly and rowan. The pond and seepages that were marked on the 1997 survey were completely dry with just a small amount of soft rush present. These depressions are in an area of old clay workings, now mainly scrub, gorse and some rabbit-grazed turf. 'A number of Odonata species were noted, including Keeled Skimmers' in 1997, 2 Keeled Skimmer were present this year.

Threats and management suggestions

The site may be under threat from tipping. 1997 management suggestions included fencing the woodland and restricting tipping to as small a part of the site as is considered possible. If the site is not to be used in such a way it may be beneficial to create some small pools.

These may be seasonal and only hold water temporarily, but would still be useful for a range of invertebrates.

Conclusion

Given that this is [in 2005] a working China Clay Pit, there are many constraints to maintain or enhance sites for their dragonfly interest. The conclusions and recommendations outlined in the 1997 report seem to have been ignored, possibly due to the change of ownership from ECCI to Imerys. Rather than repeat the recommendations from that report, it would be beneficial if the proposals were to be considered again.

However, in general the large settling ponds often have no habitat for dragonflies and the key species appear to exist in the small marginal areas at the base of tip banks; in puddles and damp areas alongside tracks or in the smaller, shallower stilling ponds that are perhaps less frequently disturbed. It is recommended that small, shallow pools be created where possible in adjacent areas to the larger settling ponds to enable colonies of these key Odonata species to thrive without disturbance from quarrying operations.

Status

None

Area

>500 ha

Local Authority: South Hams DC

Owner/tenant

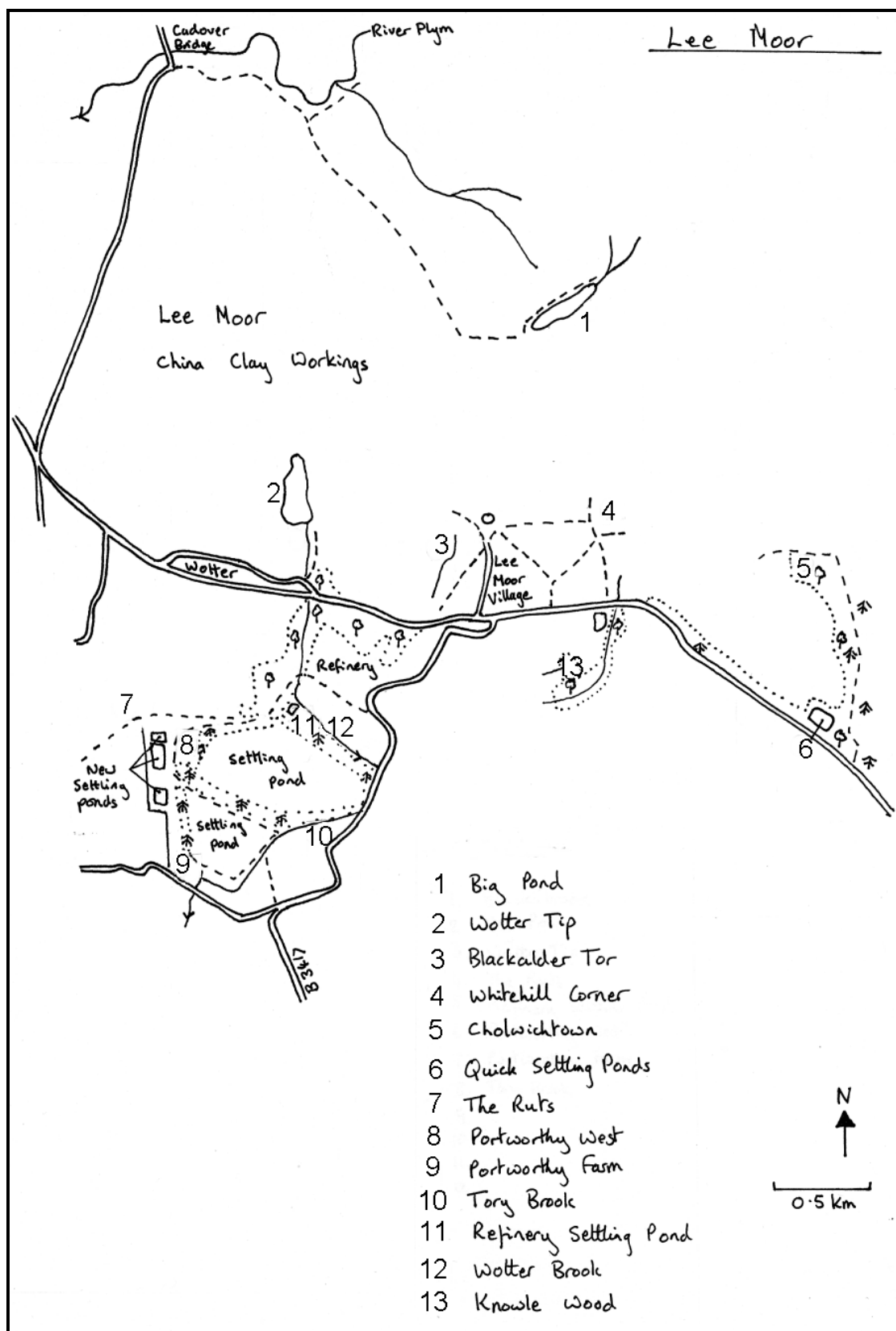
Imerys and Sibelco.

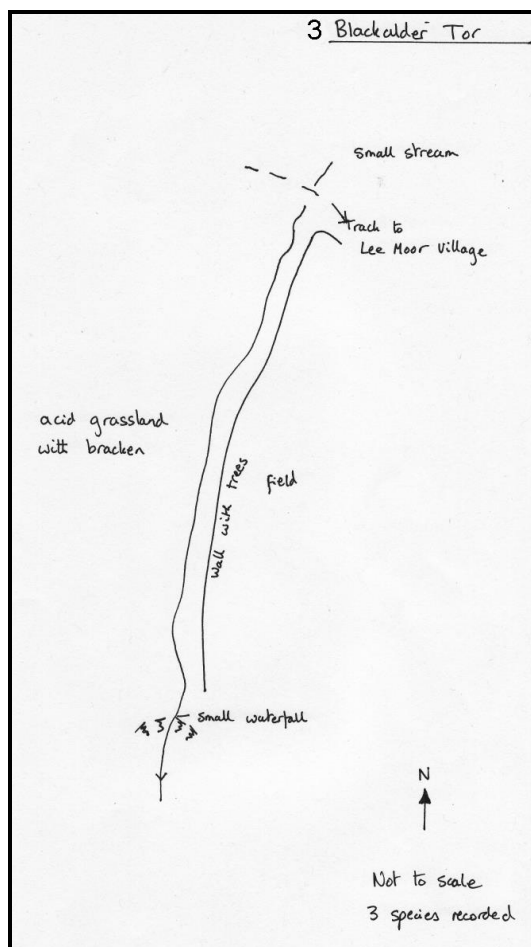
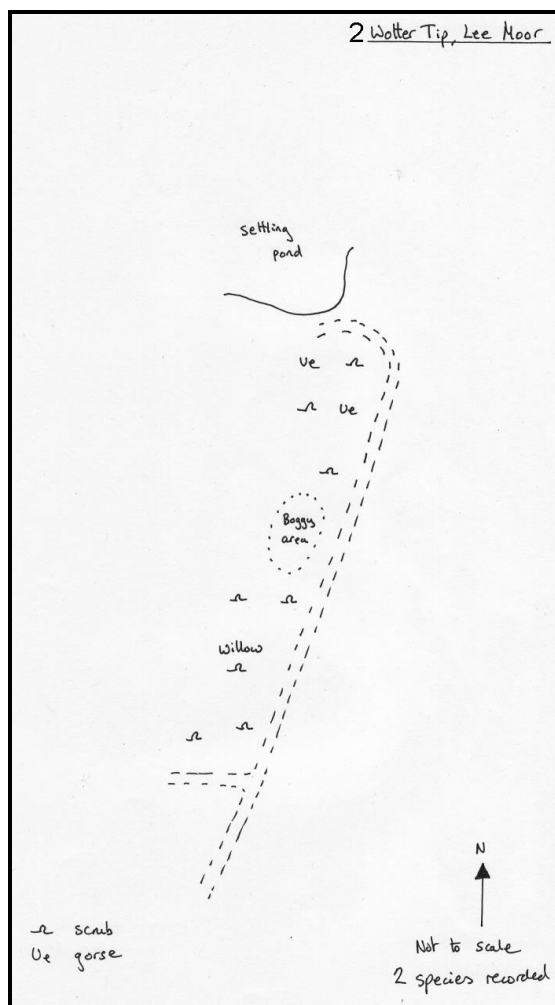
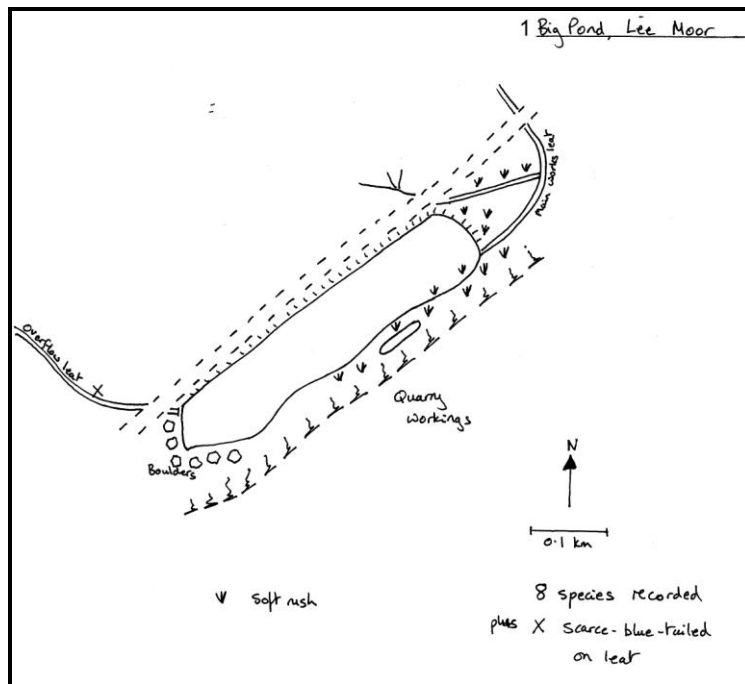
Threats

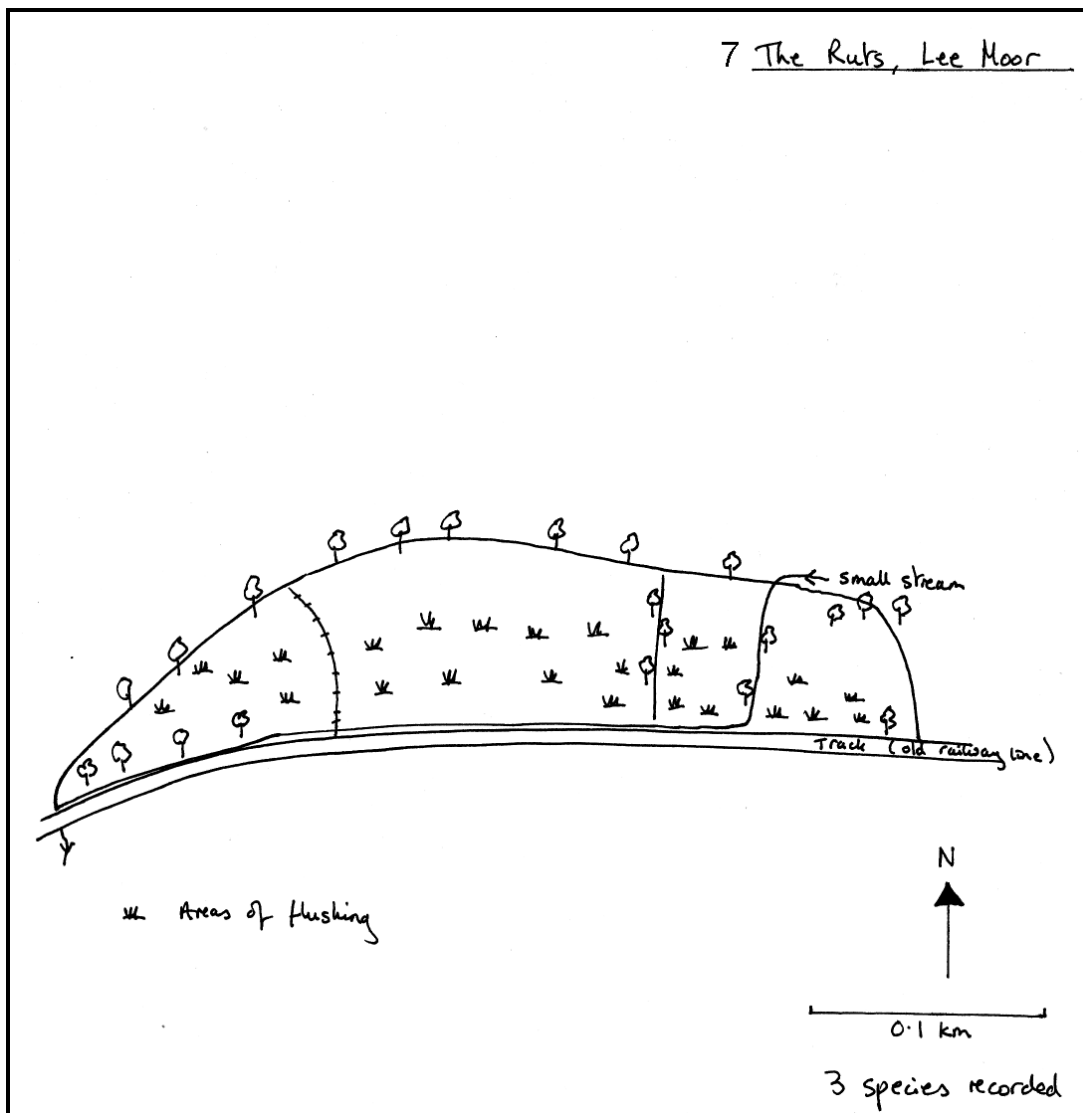
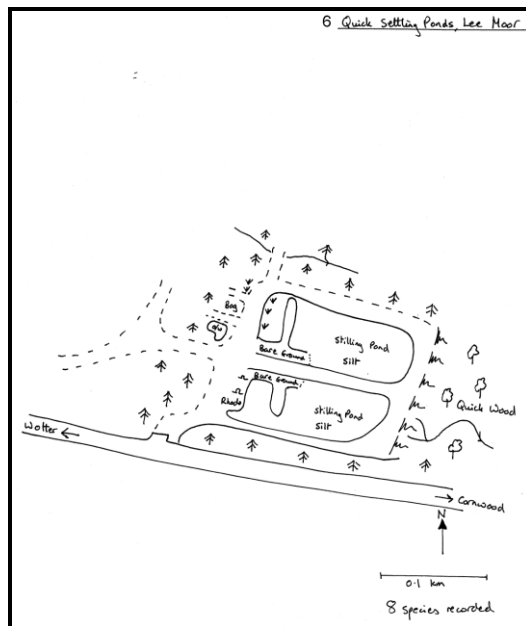
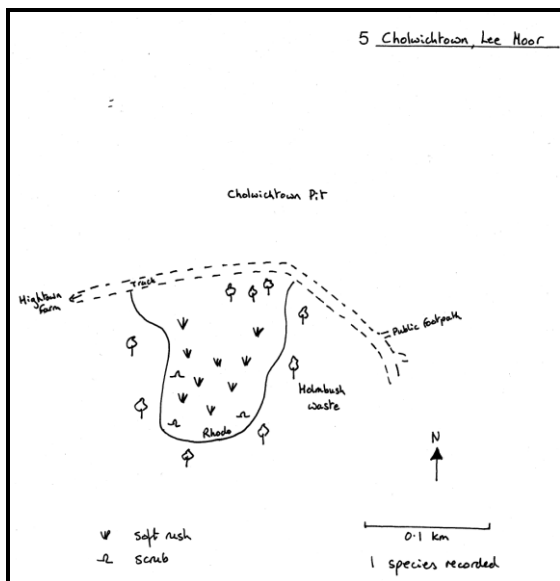
Natural succession and flooding due to cessation of clay working and pumping.

Management suggestions

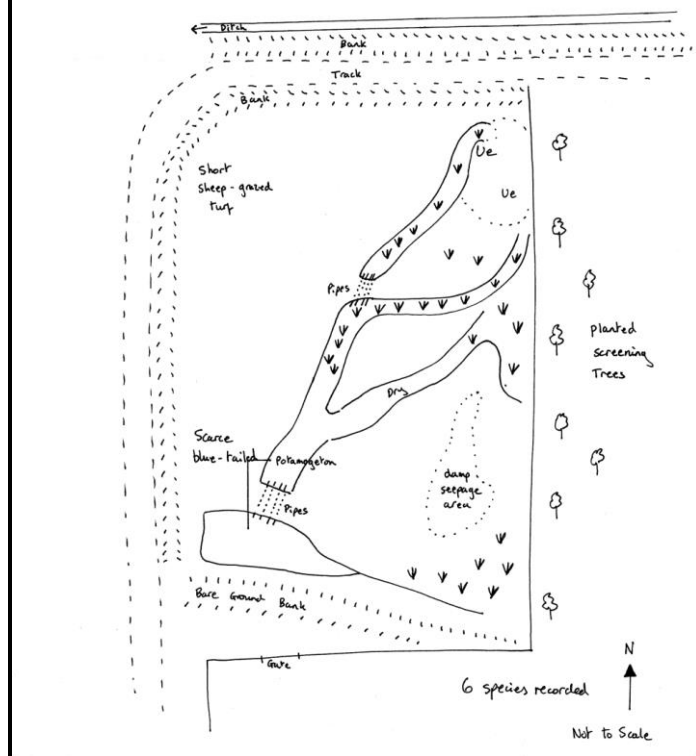
[None of the recommendations made in Stevens and Heath (1997) appear to have been carried out.]



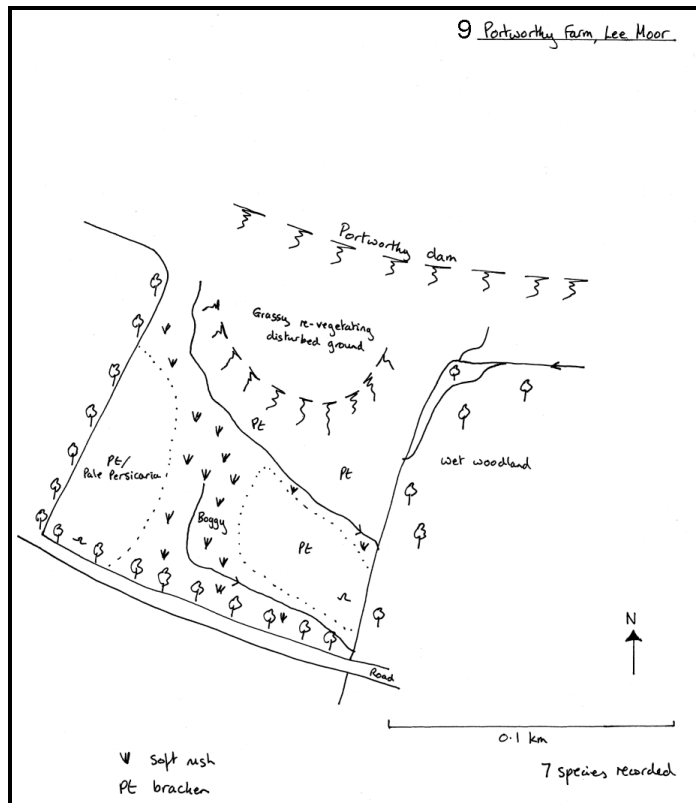




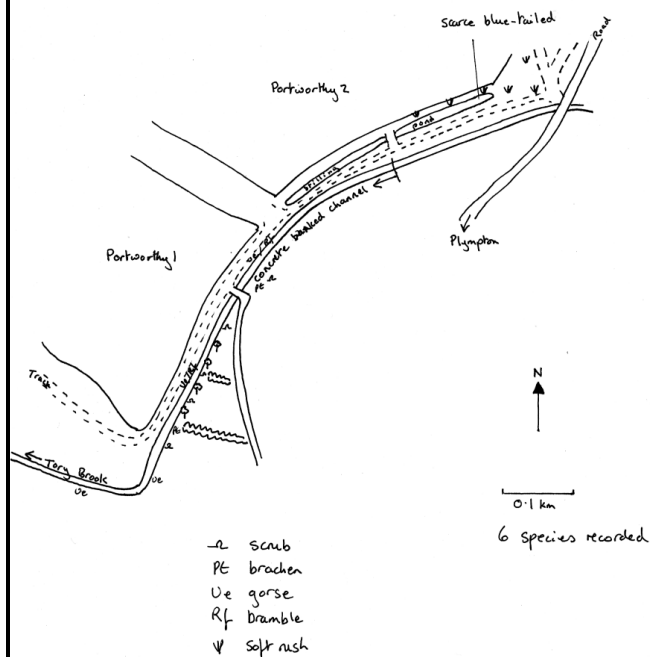
8 Portworthy West, Lee Moor



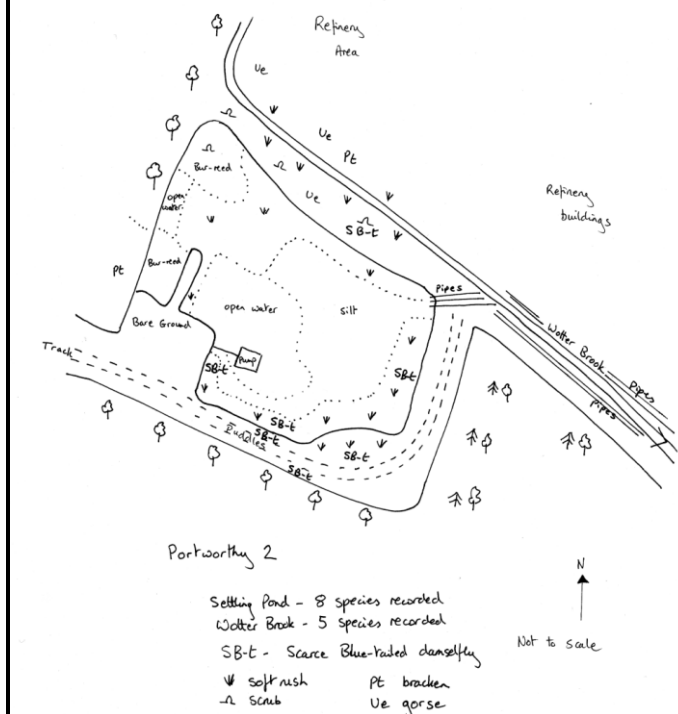
9 Portworthy Farm, Lee Moor



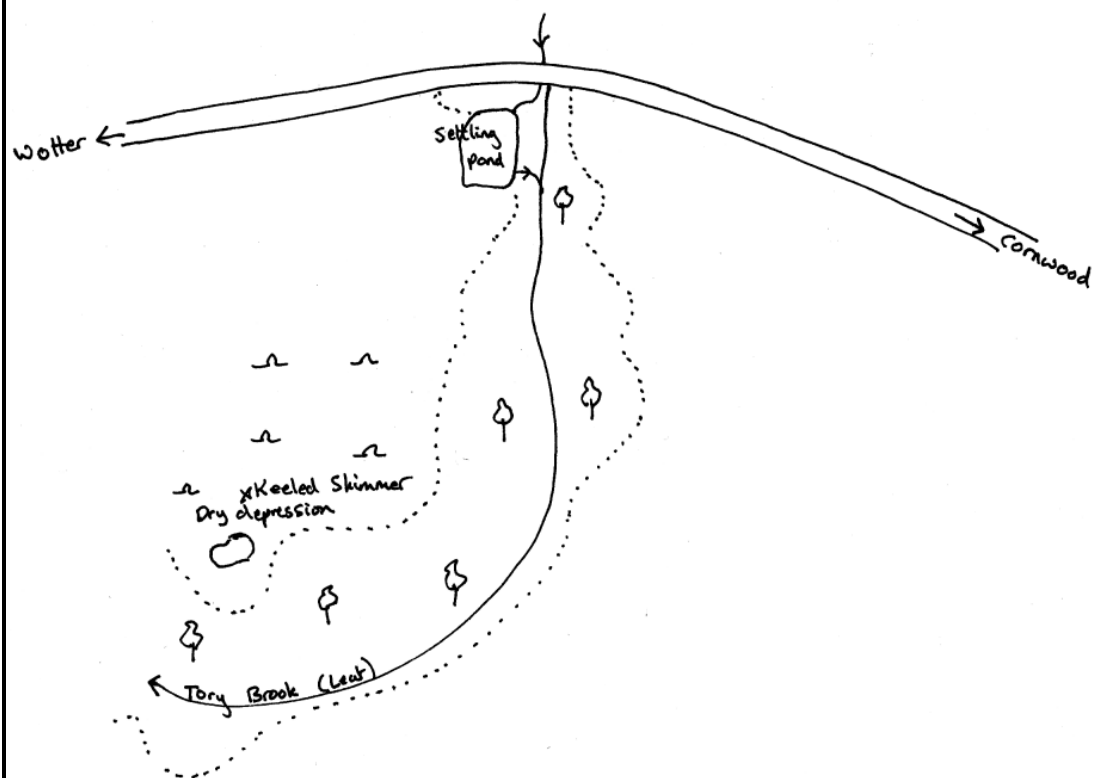
10 Tong Brook, Lee Moor



11 Refinery Settling Pond, Lee Moor 12 Water Brook



13 Knowle Wood



Not to scale
1 species recorded