# Pixton Park and woods lichen survey, 1987

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#### **PIXTON PARK and WOODS**

Visited 17/18 June 1987:	P.A. Wolseley, A. M. O'Dare
Visited 20 October 1987:	P. A. Wolseley, A. M. O'Dare, Dr Francis Rose,
	Rob Jarman (NT) and W Butcher (STNC)

## Topography

Pixton lies on a promontory hill between the rivers Exe and Barle, the land rising from 135 m to 237 m to the south of Pixton house.

The steep sloping sides are wooded and the higher plateau-like parts are either parkland or farmland - mainly pasture. The woodlands on the east side are bounded by the river Exe and on the west there is a strip of arable land between the river and the wood (former water meadows). The bedrock is of Devonian silt stones (?morte shales) and gives a red loam that in places is very deep.

For the EWS the woods are divided into the following compartments as shown on Map 1.

**Map 2**. Steart Wood (EWS1.1) An oak plantation Quercus robor visited by Francis Rose in 1986.On the south west side of the promontory. Not revisited in 1987.

Pixton Park Wood (EWS 2) This area is not separated from Pixton Park (EWS 4) and, as both areas have had a wood-pasture management routine, they are combined in this report. The predominantly 18<sup>th</sup>-century pasture parkland slopes gently towards two valleys which run down into a wetland area at the lower western boundary of the wood. The slope is steeper in the southern part of this compartment.

**Map 3**. North side Pixton Park (EWS 3) An area of extended parkland with mainly beech plantation.

Rook Wood (EWS 5). This wood forms the north and east boundary to Pixton and slopes fairly steeply to the Exe river on its east boundary.

Puzzlecombe Copse (EWS 6). An extensive area of mostly conifer woodland on the south east boundary of Pixton, the eastern boundary being the River Exe.







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#### Woodland history, structure, and management

Pixton is in the Domesday book and, at that date, included 20 acres of pasture and 3 acres of wood. There appears to be no reference to a park until 1892 (Joseph Whitaker) when the park is 168 acres and has 200 fallow deer. In the V.C.H., vol. II, (1911), Lord Carnarvon is mentioned as undertaking afforestation in the Dulverton area, but there is no mention of Pixton. There is no reference to an earlier park at Pixton although the structure of the Park, park woodlands and the lichen interest indicate that this area is ancient wood-pasture which may or may not have been enclosed parkland.

#### Woodland structure and management

Pixton Park and Park Wood EWS Compartments 2 and 4 have much evidence of management, yet have not lost the character of an ancient wood pasture with giant native trees of *Quercus petraea* and of *Fraxinus* with many open gladed areas within the wooded area EWS 2. This area is continuous with the open grazed parkland EWS 4 where there is a combination of ancient trees and 18<sup>th</sup>-century group planting. Both these areas have old established introductions of foreign trees, there being numerous turkey oaks that must be almost the age of *Quercus cerris* introduction to Britain in 1735. There are also large oriental plane trees and a variety of ornamental conifers. Sweet chestnuts and beech are abundant in both areas, both these trees being used extensively in the 18<sup>th</sup>-century park landscaping. At present these areas are used for shooting the pheasants being reared in the wood. To this end, a wide range of woodland conditions is maintained, with areas of ash and other regeneration, areas of scrubby thicket with ancient hawthorn and birch, and open areas with scattered ancient trees. The parkland is at present used for pasture and has been somewhat improved, there being considerable numbers of docks and thistles.

Compartment 3 is an area of mostly mature beeches extending north of the stable complex, some of this area having been recently thinned out.

Compartments 5 & 6 are managed for commercial forestry as well as a shoot.

In Rook Wood there were conifers on the lower slopes to the river and no large trees left along the river edge. However, there were a great variety of stands that have been recently planted including young oak, oak c. 80 years, turkey oaks with hornbeam. Some older trees were left along the upper boundary with the pasture.

Puzzlecombe Copse (EWS 6). An extensive area of woodland, the northern portion of which has been planted recently, and the southern portion planted with beech and larch (c. 30 years old) in stripes down to the river. There are small areas of hardwoods left, of oak along the upper south west boundary and of ash and holly following a small spring rising on the hill just west of the Weir House settlement; there is also a policy of leaving young regenerated ash along the lower margin of the stripes.

#### **Lichen interest**

There are still several small areas of woodland and parkland that have not been looked at on this survey, and Steart Wood was not revisited, so assessment of this wood is made from Francis Rose's lichen card made in 1986.

### **Steart Wood (EWS 1)**

Only 26 species were recorded in this wood, only 4 being old forest species. FR records 11 tree species present in this wood, the main oak stock being *Quercus robor*. The poverty of the lichen flora is probably due to the presence and sometimes dominance of rhododendron in the shrub layer. *Lobaria pulmonaria* was observed on 17 June 1987 in the upper fork of an ash tree c. 8 m from the ground.

#### Pixton Park Wood and Pixton Park (EWS 2 and EWS 4)

These areas of Pixton are of outstanding interest for their lichen flora, having 34 old forest. species, and habitats in which some of these species are found on a diversity of tree species and ages. Thus *Lobaria pulmonaria* occurs on two plane trees in sheets and abundantly on ash (a & b), frequently on beech (c), and occasionally on sycamore. *Lobaria scrobiculata* was found once on the parkland ash (b). *Lobaria pulmonaria* was not found on oak. Other species of the Lobarion that were found in this area included Sticta limbata, S. fuliginosa and S. sylvatica, Pannaria conoplea, *Parmeliella mediterranea, P. triptophylla, Leptogium lichenoides, Parmelia crinita, P. reddenda, Peltigera collina, P. horizontalis, Perina coralloidea, Opegrapha sorediifera, Acrocordia gemmata, Bacidia epizanthoides, Catillaria sphaeroides, Megalospora tuberculata. Moss species that are associated with this community included Metzgeria temperata, M. fruticulosa, Neckera complanata, Leucodon sciuroides, Zygodon baumgartneri.* 

At Pixton the *Lecanactidetum premnae* is also abundant on the ancient drier bark surfaces particularly in compartment 2. This association contains an unusually large number of old forest species such as *Lecanactis premnea*, *L. lyncea*, *L. subabietina*, *Opegrapha vermicellifera*, *O. ochrocheila*, *Enterographa crassa*, *Schismatomma niveum*, *S. virgineum* and *Cliostomum griffithii*. Other species that are of interest at Pixton in areas 2 and 4 include *Usnea articulata* which festoons an old hawthorn, together with abundant *Pseudevernia furfuracea* var, *furfuracea* at (1). This species was also found on a hawthorn in the park area to the west of the track.

The Xanthorion was present in the park but was not particularly rich, probably due to pasture improvement as many of the trunks were algae covered.

However, within the Physcietum several species were frequent: *Diploicia canescens*, *Physcia adscendens*, *P. aipolea*, *Buellia puctata*, *Pertusaria coccodes* and *Ramalina calicaris*, most of these being found on or in the region of (b).

Map 2 symbols a - 1 indicate the following:

(a) large ash in edge of Park Wood with Lobaria pulmonaria.

(b) large park ash with good Lobarion and Physcietum, see text.

(c) beech plantation above Park Wood with *Lobaria pulmonaria* on 4 trees and *Parmelia reddenda* present.

(d) Parmelia crinita on oak in area recently cleared of rhododendron.

(e) Lobaria pulmonaria on forked ash below path just into Steart Wood.

(f) area of conifer and beech.

(g) alder and willow carr

(h) area of thinning to give ash and alder standards, with some crooked trees left. it would be a site to monitor.

(i) large plane with abundant *Lobaria pulmonaria*, *Leptogium lichenoides* and *Peltigera horizontalis*.

(j) damp area just beyond large *Tilia cordata* in glade with *Trapelia corticola*, *Pannaria* mediterranea and *Opegrapha soredifera* on *Quercus petraea*.

(k) willow carr around artificial lake with Sticta spp.

(I) hawthorn with Usnea articulata and Pseudevernia furfuracea var furfuracea includes.

EWS 3. An area of large straight beech trees that have been thinned out recently. The smooth bark has a rather uninteresting lichen flora with abundant *Parmelia caperata* and crustose species such as *Thelotrema lepadinum*, *Lecanora chlarotera, Pertusaria albescens* and *Opegrapha* spp. *Usnea* spp. are also frequent including *U. ceratina* (area K on map 3). The rest of this area was not visited.

Puzzlecombe Copse (EWS 6) is on the tithe map, the northern part as broadleaved and conifer, and the southern end as timber and coppice. The area has since been felled and now consists of very young plantation at the northern end and older (c. 30 years) larch and beech plantation in stripes at the southern part. Within these areas there are several older ashes and hollies along a spring with a variety of lichens; *Arthonia tumidula* on hazel, *Stenocybe septata* on holly, *Thelotrema lepadinum* and *Phyllopsora rosei* (Area A). In the adjacent field (B), two isolated ash trees supported a diverse lichen flora including *Parmelia* spp., with *P. laciniatula*, *P. revoluta*, *P. exasperatula*, *Usnea articulata*, *U. ceratina*, *Dimerella lutea*, *Biatorina atropurpurea*, *Bacidia rubella*, *Cliostomum griffithii* and *Normandina pulchella*.

Area C is the larch/beech plantation that continues to the river edge; however, present management policy allows regenerated ashes to come on.

An old black poplar at (D) had a diverse Parmelietum, but nothing exceptional. Area of old coppice oak (E) with ancient oak c. 3 m across with *Arthonia vinosa*, *Cliostomum griffithii*, *Phlyctis argena* and *Schismatomma decolorans*.

Key to symbols on map 3:

- (A) ashes on boundary and small area of ash, holly, hazel.
- (B) ash trees in pasture field.
- (C) area of larch/beech plantation with invasive sycamore.
- (D) black poplars planted by sawmill.
- (E) old oak coppice, with ancient oak tree.

#### **Rook Wood (EWS5) and environs**

This area of plantation is obviously on previously old forest. This area is most conspicuously wooded on Greenwood's map 1822 (see Map 4) and as conifer and broadleaved on the tithe map. Today a few of the lichen species characteristic of the ancient woodlands have survived on isolated trees at P, G & H and sparsely along old standard Quercus petraea that are now heavily shaded by an overgrown beech hedge. Present management includes a young plantation of oak which already has a diverse crustose lichen community of the Graphidetum including *Thelotrema lepadinum* and *Stenocybe septata* on holly

Symbols on map:

(F) oak trees in field Park field with *Parmelia tiliacea*, *Cliostomum griffithii* and *Enterographa crassa*.

- (G) Acer platanus on edge of wood with Lobaria pulmonaria in rain track.
- (H) young Quercus in a stand.
- (I) dead wych elms.

(J) standard oaks c. 100 years, but shaded by overgrown beech hedge, therefore rather low in lichen diversity. Old hazel with *Tomasellia gelatinosa*.



#### **Summary of Pixton complex**

Although the whole Pixton promontory supports 125 epiphytic lichen species, including many that are associated with ancient woodlands, the latter are sparsely distributed and of a relic nature except in the Park and Park Wood EWS compartments 2 and 4. In these areas we have the combination of ancient trees in a wood pasture situation together with damp valleys and a diversity of epiphytic habitats that are maintained by the present management routine. In this situation introduced free species are sometimes also hosts for ancient woodland lichen species as *Lobaria pulmonaria* on plane trees and on beech trees. This combination of trees and habitats gives Pixton a great diversity of lichen flora, with 34 species associated with ancient woodlands.

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