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INSTITUTE OF TERRESTRIAL ECOLOGY
(NATURAL ENVIRONMENT RESEARCH COUNCIL)

THE INVERTEBRATE FAUNA OF THE MATURE TIMBER HABITAT SURVEY OF AREAS - SITE REPORTS - WALES

(NCC/NERC CONTRACT NO F3/03/77 : ITE PROJECT NO 405)

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THE INVERTEBRATE FAUNA OF THE MATURE TIMBER HABITAT

SURVEY OF AREAS - SITE REPORTS

WALES

The following collection of site reports is arranged by Nature Conservancy Council regions. The section of reports for each region is prefaced by a list of all the areas visited as part of the survey, with dates of visits and references to the site report numbers and/or area description.

Region	Section Number
Dyfed/Powys	11

THE INVERTEBRATE FAUNA OF THE MATURE TIMBER HABITAT

SURVEY OF AREAS

11. Dyfed/Powys (Wales) Region

The following areas have been visited as part of a national survey commissioned by N.C.C. from I.T.E. The background and sources of this survey are outlined in the contract report of March 1976. Some areas were reported on in detail. These reports are included herewith in numerical order according to the following list. The remaining areas have, for various reasons, not warranted detailed reports. Summary descriptions of them have been made and included in either of the contract reports (March 1976 or March 1977) where the descriptions appear in the numbered "Area Descriptions" section.

All visits were made by P.T. Harding, almost invariably with the prior permission of the owner or his agents (except in the case of public access areas). All opinions expressed are related to the conservation value and potential of a given area for the invertebrates of mature and overmature trees, dead wood and associated biotopes.

Area, County	Date visited	Report number/ Area Description
Dynevor Deer Park, Dyfed	September 1975	11.1/1976-45
Cwm Sere Woods, Powys	September 1975	1976-46
Erw Fawr, Corngafallt, Powys	September 1975	1976-47
Gregynog Park, Powys	September 1975	1976-48
Powis Castle Park, Powys	September 1975	11.2/1976-49

DYNEVOR DEER PARK

DYFED

National Grid reference : 22(SN)610225

Visited : 20 September 1975

Owner : Lord Dynevor, Birdshill Farm, Llandeilo, SA19 6SG

The park as a whole is now in multiple ownership. Only the deer park and a little surrounding grazing land in the north-western part are actually owned by Lord Dynevor. The castle, to the east of the deer park, and the surrounding gardens and pleasure grounds have recently been sold to a Mr. James. The remaining area is mainly part of the former Home Farm and the woodlands around the old castle are managed by the Economic Forestry Group.

Only the deer Park was examined in detail, but views of most of the rest of the park were obtained from various vantage points. Clearly the deer park seemed to be the area of prime importance.

Most of the woodland within the deer park is mixed aged oak, either as high forest, or as groups of broad crowned pollards. There is some beech, and a little sweet chestnut, lime and horse chestnut.

Oak

Some very large maiden trees exist in the eastern end of the Rookery, extending outside the deer park into the small area still owned by Lord Dynevor. The largest trees are about 5 metres breast height girth, the boles having no major branches for at least 15 metres. These oaks are mixed with beech of about 100-150 years and a few variously aged lime and sweet chestnut.

The remaining oaks are mixed aged pollard types, with a few maiden trees. There is some open canopy high forest in the Heronry. Many of the pollard oaks are hollow, with exposed interiors. Red heart rot is present, as dry flakey lumps, lacking in any obvious evidence of beetle activity. Red wood mould in the interiors is absent. The best group of old oaks is in area 1 (see map).

The Heronry, and the valley above it, is mainly mixed aged oak high forest between 100 and 200 years old, with a few elm and ash along the two streams. Some of the ash are decaying.

Area 2 : A young (10-15 years) mixed plantation

Area 3 : A plantation of beech, oak and ash (100-150 years)

Dead wood is plentiful and in most places, fallen dead wood seems to be left

undisturbed. Oak, followed by beech, is the commonest component of the dead wood, but some ash and elm is also present.

Hawthorns, the blossoms of which are important to many spring emerging Coleoptera and Diptera for feeding, are very scarce.

Dr. Francis Rose (1975) reports that the "Park Woods" are very rich for epiphytes and he records that more than 100 species of epiphytic lichens occur there.

The open areas are grassland which looks to be unimproved and rich in species. Within the woodland bracken and Holcus predominate, with small grassy areas in places, specially at the eastern end of the Rookery. The whole area is steeply undulating, with streams and small marshy areas.

The deer park is maintained to keep a herd of at least 50 fallow deer together with some red deer, Soay sheep and a small herd of British white cattle. Dynevor is a well known old white cattle site.

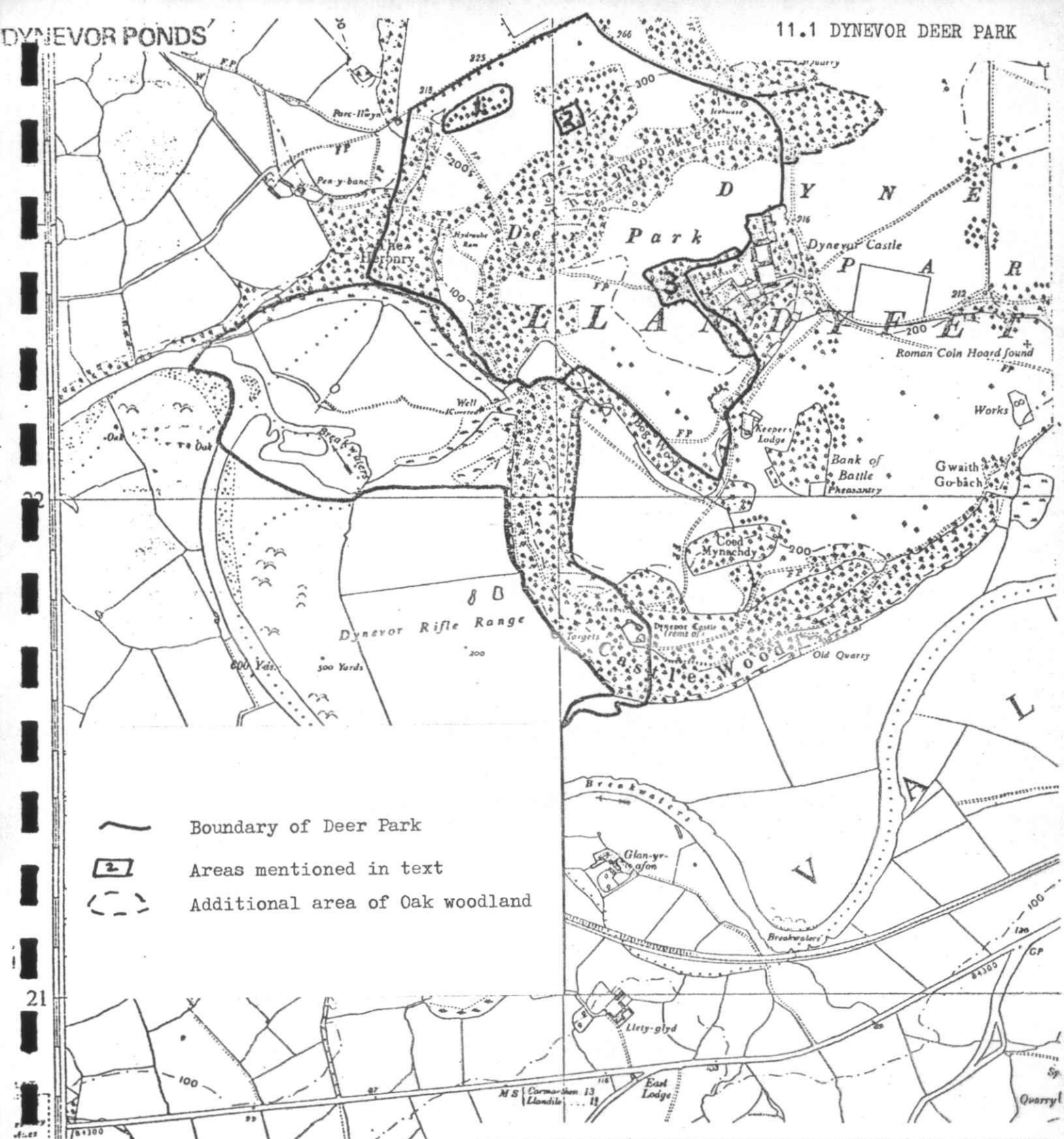
Summary

The deer park occupies the north-western corner of Dynevor Park, and was the only area surveyed. Much of the rest of the park was seen, but appeared to be of only slight interest, with large areas now arable farmland or open pasture. The deer park is densely wooded in places with mixed aged oak, in high forest or as groups of pollards. There are also some beech, sweet chestnut, lime and horse chestnut. Dead wood, both oak and beech, is plentiful and mostly seems to be undisturbed. Many of the pollard oaks are hollow and have exposed areas of dry heart rot, but not soft red mould. Succession prospects are good, but a new generation of oak is required in some areas of the deer park. The potential interest of this area for dead wood fauna must be high; it is also of considerable interest for its epiphytic lichen flora (Rose 1975).

Reference

Rose, F. (1975). The vegetation and flora of Tycanol Wood. Nature, Wales, 14, 178-185.

Paul T. Harding



THE NATURE CONSERVANCY

Site of Special Scientific Interest notified under Section 23 of the National Parks and Access to the Countryside Act 1949

Site shown thus ——	Drawn by JAG
Nat. grid ref. SN606222	acreage 69·3
Scale 6" to 1mile Date 5/10/72	Checked by R.F.

POWIS CASTLE PARK

POWYS

National Grid reference : 33/2106

Visited ; 18 September 1975

Owner : The Earl of Powis. Agent : P.L. Marriott.

The Powis Castle estate is extensive and includes a large amount of woodland along the ridge running south-west from Welshpool. This includes the deer park which lies between Welshpool town and Ladies Mount, as well as the Lower, Middle and Upper Parks. I was permitted to visit only the deer park around and to the north-east of Powis Castle. Little could be seen of the other areas from the surrounding public roads, but much of the woodland appears to have been replanted with conifers and mixtures. However, occasional large oaks and some beech were seen along the edges of the woodland and large oaks are common in pastures and hedges to the south of the Powis Castle parks and woods.

The Deer Park

The present deer park is smaller than the actual area named as such (see map) but the area of principal interest is limited mainly to the present deer park. A total of about 300 deer is kept, mainly red deer, but with a small herd of fallow. In addition, cattle are grazed in this area.

The deer park lies on undulating ground rising to nearly 200 m in the north-western corner. The geology is a complex of Ordovician and Silurian strata giving rather thin stony soils in places with, on the higher ground, vegetation dominated by bracken, Deschampsia and other coarse grasses. In places bracken reaches over 2 m in height. On the flatter eastern half of the park the grassland has been either ploughed and reseeded, or fertilised to give improved grazing for deer and cattle. On the flatter area and in valleys on the western side the vegetation is clearly cut regularly to control bracken.

Much of the park is open grazing land, especially on the eastern side, but trees are plentiful, mainly in groups, on the rocky outcrops, steep slopes and on the higher ground on the western side. Elsewhere they form screening belts and small plantations. Oaks (both native species) predominate, with considerable numbers of beech, some sweet chestnut and lime, sycamore, maples, elm, ash and various conifers. The park and the castle gardens are well known for their collections of exotic trees.

The oaks are almost all maiden trees. A few exhibit pollard type form, but this is probably due to natural causes (frost, wind or grazing damage). Many trees are over 5 m breast height girth, which from ring counts would suggest that they are over 250 years and probably over 300 years old. Almost all the oaks appear to be healthy for their age and no visible hollow trunks were seen. Many of these older trees appear to have had some careful tree surgery on them within the last 50 years, some cuts having calloused over completely. This generation of oaks is widespread throughout the park, but most plentiful in the western half. A second generation of younger trees (girths circa 2.5-3 m) is restricted to areas of late 18th or early 19th century plantation in areas 1 and 2 (see map), with occasional scattered trees elsewhere.

Beech are mainly 150+ years old, planted in groups in areas 2, 3 and 4. Although most are mature trees, few have lost limbs or are dying back, and there is little evidence of heart rot.

The other tree species occur in such low numbers that their relative importance must be slight. Many elms have been felled in recent years because of Dutch elm disease and few living elms remain in the park.

The deer park is kept tidy, even though public access is restricted to a small area near the castle. Fallen limbs and trees appear to be cut up and removed rapidly, although some of the more unmanageable elm boles were still lying about. Away from the metalled roads and in the remoter parts, small fallen timber is left to rot. Dead wood in the canopy of oak and beech is scarce because few trees are overmature.

Replanting is sparse. Some 20 specimen oak and copper beech were planted about 20 years ago along the roadway leading north from the castle, and elsewhere a few oak and beech have been planted.

Areas of woodland within the Deer Park

1. Closed canopy oak high forest, mixed Q. robur and Q. petraea of about 3 m girth.
2. Oak (Q. robur), beech and sweet chestnut plantation of about 150 years.
3. Oak and beech high forest with horse chestnut, elm and ash and some hawthorn understorey. Oak and beech less than 300 years old.
4. An almost closed canopy plantation of 200 year old beech and sweet chestnut.

The epiphyte flora looks reasonably rich and according to the Agent an

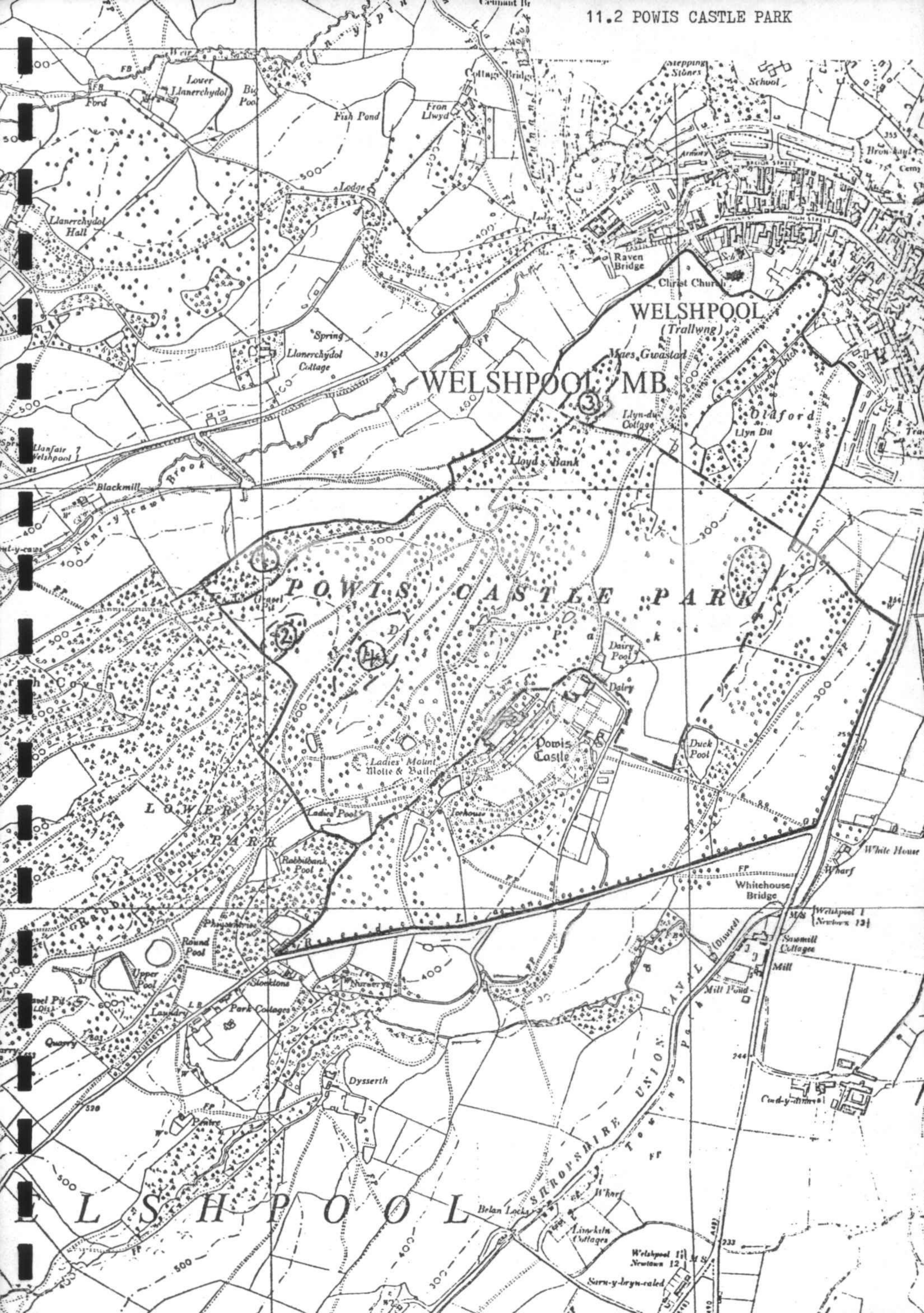
expert on lichens had visited the park a few weeks before me. I have been unable to trace who made this visit.

Powis Castle dates from at least the 13th century and may be on the site of an earlier fortification. The origin of the deer herd is not recorded by either of the old deer part treatises (Shirley, Whitaker) because they do not cover Wales. Whitehead (1950, Deer and their management in the Deer Parks of Great Britain and Ireland) makes no mention of the Powis herd. As a general principle, however, red deer herds are often ancient in origin.

Summary

The deer park surrounding the castle contains a considerable number of old oaks and trees of other species, especially beech. The best areas are to the west and north of the castle on steeply undulating ground. Almost all the oldest oaks are maidens of over 250 years old and are in excellent condition. Many have had extensive tree surgery in the last 50 years and dead wood in the crowns is uncommon. Younger oaks (100+ years) and beech of a similar age are planted in groups mainly in the extreme west. There are very few trees of 20th century origin. Fallen dead wood appears to be cleared rapidly. Hollow trees appear to be very rare although some of the older oaks clearly have heart rot. The area is potentially of interest although it is possibly too tidy to be very productive for dead wood fauna.

Paul T. Harding



POWIS CASTLE PARK
WELSHPOOL MB
WELSHPOOL
(Trallwng)
Powis Castle
Lower Llanerchydol
Llanerchydol Hall
Llanerchydol Cottage
Fish Pond
Lodge
Cottage Bridge
Fron Llwyd
Stepping Stones
School
Armoury
Raven Bridge
Christ Church
Maes Gwastad
Llyn-du Cottage
Oldford
Llyn Du
Lloyds Bank
Dairy Pool
Dairy
Duck Pool
Ladies Mount Motte & Bailey
Ladies Pool
Icehouse
Rabbitbank Pool
Round Pool
Upper Pool
Stocktons
Nursery
Park Cottages
Laundry
Quarry
Dysserth
Pentre
LOWER PARK
Blackmill
Nant-y-caws Brook
Whitehouse Bridge
White House
Wharf
Sawmill Cottages
Mill
Mill Pond
SHROPSHIRE UNION CANAL
Towing Path
Belan Locks
Lincoln Cottages
Sarn-y-bryn-caled
Welshpool 1 Newtown 13
Welshpool 1½ Newtown 12
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