

A SURVEY OF TREES ON LUNDY

MRS. E. M. HUBBARD

With the exception of the Southeast tip, Lundy is about as far from being a wooded island as it is possible to be.

Yet it was probably not always so. The original vegetational type must remain a matter for conjecture though pollen analysis may shed some light on this. So far, only minute traces of pine, oak, alder, hazel and birch have been shown. Although brushwood is mentioned in some records I have found no record of hazel growing on the island. By the time Iron Age Man came to build his hut circles it would seem likely that trees were there, not only to provide the charcoal found in the hut floor but also to provide the framework for a roof. This was true probably from mediaeval times, both Widow's Tenement and St. Helen's Chapel would have needed a timber framework for their roofs.

A survey in 1274 states that there was no timber but there was brush wood. By 1620 it was stated that there were no trees left, except 'stinking alder'. By Georgian times the vegetation was sufficiently dense to prevent a visitor from penetrating to the North end of the island, although the account does not specifically mention trees. In 1775 Sir John Borlase Warren planted trees and two paintings of the island at this time, now hanging in the Cardiff Exchange, show these clearly. In 1776 the Reverend Thomas Martyn, a professor of Botany at Cambridge said those trees had withered and died and he was persuaded no trees had ever grown upon the island nor could be forced to grow. In 1787 a few willows about as high as brushwood were reported. The earliest photographs of Millcombe show St. John's Valley without trees. The Reverend H. G. Heaven planted trees in Millcombe and St. John's Valley, which are now mature. Mr. Martin Coles Harman also planted trees, in particular two thousand Japanese larch, in 1929. None of these larch remain.

The explanation for lack of trees probably lies in three factors. The first is that many sailing ships anchored in Lundy Roads used timber and brushwood for their galley fires—this has apparently been the reason for other off shore islands losing their trees. The second may lie in the increase of the human population in the nineteen hundreds and their needs for cooking and eating. The third and possibly the most important, must lie in the introduction of rabbit and goat and of these two animals the goat must take the greatest share of the blame. It is the goat which has made much of the Mediterranean Littoral a desert. When Tristan de Cunha was first discovered it was a wooded island. Twenty years after the Portugese introduced goat it was a barren rock. The goat will eat anything and will climb trees to reach any surviving vegetation. The rabbit is well known to feed on seedlings thus preventing natural regeneration. Some species of trees are rabbit-resistant, none repel the goat!

So many of the trees on Lundy were only introduced into Great Britain within historical times (e.g. sycamore in 1650) that we can be sure that if a tree is growing here it has been brought by man. When undertaking the Tree Survey on the island the first problem was one of definition. Did the twelve inch elder sapling qualify for inclusion while the rhododendron, with a trunk as thick as a thigh, merit exclusion? Decision was reached on the criterion of potential. The elder sapling could (though this was unlikely) in theory attain the undisputed status of a tree whereas the rhododendrons could not. And so the species of a plant determined its inclusion.

The total tree population is about 433 trees. This total is of necessity approximate as the terrain and the distortion of the trees make it difficult to be certain of counting every individual specimen.

SPECIES FOUND:

Turkey Oak *Quercus ilex* 94 specimens

Native of Southern Europe. Introduced into Britain in 1735. Some of those are in poor condition but they seem to stand the wind quite well, possibly because they have a strong tap root.

Sycamore *Acer Pseudoplatanus* 93 specimens

Native of Central Europe. Introduced into Britain in 1650.

One of the few introduced trees which has become really naturalised in Britain. It has a good root system and likes humus rich soil. It is the best deciduous tree for coastal regions. It grows easily from seed which is formed when the tree is about twenty years old. These trees are flourishing and show more signs of regeneration than any other species on Lundy.

Elder *Sanbucus nigra* 74 specimens

Native.

This is growing well in places where there is little soil. It seems possible that they are increasing in number.

**Goat Willow or Sallow *Salix caprea* } 41 specimens
Pussy Willow *Salix Atrocinerea* }**

Native.

These are small willows, sometimes little more than bushes, but all are misshapen and scarred so that they are difficult to identify without seeing the catkins. All are of the round leaf type. They continue to grow despite deformity and damage even where there is very little soil.

Ash *Fraxinus excelsior* 25 specimens

Native.

There are some signs of regeneration.

Eunonymus Japonica 16 specimens

Native of Japan.

This tree obviously likes the prevailing conditions.

Oak *Quercus robur* 12 specimens

Native.

These trees are all small and well sheltered. No signs of regeneration.

White Poplar *Populus alba* 7 specimens

Native of Central Europe. An early introduction into this country.

It stands sea air well and is sometimes used as a wind-break.

Common Hawthorn *Crataegus monogyna* 7 specimens

Native.

The seedlings are heavily prickled and often left by animals. It stands the wind well.

Alder *Alnus glutinosa* 6 specimens

Native.

This is growing vigorously by sheltered streams.

Monterey Pine *Pinus radiata* 7 specimens.

Native of Southern California. Introduced into Britain 1832.

Seed was sent to Veitch of Exeter soon after introduction and this may account for its planting on Lundy. It grows well in milder parts of Britain, especially in coastal areas.

Austrian Pine *Pinus nigra v. austriaca*; Corsican Pine *pinus nigra v. poiretiana*.

Natives of Austria, Hungary or Corisca. The Austrian Pine was introduced into Britain in 1835. The Corsican Pine was introduced in 1759.

Three specimens of *Pinus nigra* but it is difficult to determine the variety of each one in the absence of cones.

The Austrian Pine grows well in any soil that is not water-logged. It has a deep root system which makes it wind-firm.

The Corsican Pine grows well in exposed areas near the sea. It is not liked by rabbits.

Scots Pine *Pinus sylvestris* Single Specimen

Native.
Good root system and therefore wind-resistant.

Whitebeam *Sorbus aria* 5 specimens

Native.
It is a hardy tree and will withstand gales. These specimens are small but doing well.

Beech *Fagus sylvatica* 4 specimens

Native.
Growing well but no regeneration.

Holly *Ilex aquifolium* 4 specimens

Native.
Isolated specimens growing quite vigorously.

Holm Oak *Quercus ilex* 4 specimens (This needs verification)

Native of the Mediterranean region. Introduced into Britain circa 1540.
There are also four specimens of an evergreen oak with a more beech like leaf of which the variety has not yet been determined.

Silver Birch *Betula Verrucosa* Single Specimen

Native.
A tree of dry ground.

Sweet Chestnut *Castanea sativa* Single specimen

Native of Italy introduced to England before 1066 possibly by Romans.
Growing quite vigorously.

Wych Elm *Ulmus glabra* Single specimen

Native.
Well established specimen.

Acacia *Robinia pseudoacacia* Single specimen

Native of N.E. America. Introduced into Europe in the XVIIth century.
A tree of poor soils. This specimen was planted by Mr. Gade.

Horse Chestnut *Aesculus hippocastanum* Single specimen

Native of Asia Minor. Introduced into Britain about 1620.
Strong specimen.

Fruit Trees — Cultivated.

APPLE	<i>Malus</i>	16
PEAR	<i>Pyrus</i>	1
CHERRY	<i>Prunus</i>	2
FIG	<i>Ficus</i>	2
VINE		1

This summer (1970) three species of Pine, Beech and Sessile Oak were planted in memory of Mr. Albion Harman.

THE MAIN WOODED AREAS

These lie protected from the wind by higher ground to the west in valleys giving shelter to the north and south as well. Most have streams running through them. The trees are quite large but often badly formed and bent so that they offer little wind resistance. Many have dead branches protruding above the general curve of the canopy showing the devastation caused by the wind. Other problems facing trees on Lundy are the poverty of the soil, the salt and the ravages of animals.

1. Castle Copse

This is a small group of trees in a valley below the Castle sheltered by the mass of the island. It consists of elder, turkey oak and sycamore with the elders at the lower level, except for three just below the castle wall. There are also elders on the seaward side of the Beach Road at this point and a little higher up the road six turkey oaks in a deep cleft.

2. South Wood

The woods round Millcombe contain most of the trees to be found on the island and also have the greater variety. The South Wood occupies a steep slope stretching from near Brambles towards the wall between the hotel and Millcombe gardens. There are about 108 trees here interspersed with thickets of bramble, gorse and rhododendrons. Turkey oak and sycamore both have about forty specimens fairly evenly spread throughout the wood. There is one specimen of sycamore near the edge of Millcombe field which has variegated leaves and also along the field edge are beeches, some hawthorn, alder and white poplar. On the higher slopes there is a large sweet chestnut, another beech, a pinus nigra and a silver birch. At the Brambles end of the wood there are a number of evergreen oaks. The trees are all shaped to rise little above the level of the land to the west.

3. North Wood

This wood of 104 trees is sheltered by the high land of the Ugly and is bordered by the main path to Millcombe and the rear walls of the gardens. It continues round behind Millcombe towards the hotel wall. A feature of this area is the group of large Monterey pines with one Scots pine. These are intermingled with Turkey oaks and on the higher slopes a number of sycamores, some elder and a holly. Nearer the house are a number of evergreen trees, eighteen in all. These are *Euonymus japonica* and though they have a twisted shape are obviously very successful. To the east of the main path are five whitebeam, three English oaks which are doing very well among escallonia and blackthorn scrub. There is a further small group of trees adjacent to the wall of the hotel, consisting of sycamore, English oak and *Euonymus japonica*.

4. St. John's Copse

These trees, situated around the hair-pin bends of the Beach Road, include ash with a few sycamore and some white poplars at the lower level and sycamore and elder higher up.

5. Lower Millcombe

The sides of this valley are lined with Turkey oaks some of which are in a poor state. There is also a sycamore and some elder.

6. St. Helen's Copse

This copse of nineteen trees is surrounded by rhododendron thickets but is more easily reached since the path was opened last year. A large horse chestnut is growing just above the top of the cliff. Higher up the slope are a number of sycamore, two alders and some elder and, still higher, another good sized alder. Hidden among the rhododendron thickets are three oaks and a pine which I have not been able to get close enough to in order to identify further.

7. Quarter Wall Copse

A small group of trees situated low on the eastern slopes south of the Quarter Wall protected by the steep slope to the field level and with a small stream running alongside. There is a good sized ash at the lowest point and also a flourishing elm and two alders. The rest of the copse is made up of English oak and Turkey oak with a beech higher up the slope.

8. Quarries and Terraces

Each of the quarries contain a number of willows which are very twisted and distorted. They are very variable but consist of goat and pussy willow. There are also a number of elders.

The Terraces are occupied by elders and willows and one holly. The willows spread over large areas and it is difficult to trace the individual trees. They are interspersed with rhododendron.

At the foot of Millcombe garden there are a number of fruit trees, apple, pear, cherry and fig and the acacia planted by Mr. Gade with some sycamore and elder. The walled gardens also contain apple trees, a fig, a vine, some elder, seedling sycamore, willow and a pine. There is one sycamore growing in the hotel courtyard.

Clearly the island needs more trees which would increase the quality of the soil by leaf fall and checking erosion, enrich the environment by providing more variety of habitat for new species, provide shelter for cattle and birds by making wind breaks. They would also be a source of raw material for fires and rustic construction and add to the scenic beauty.

To achieve this end there would need to be a reduction of the rabbit population, elimination of the goats and control of the deer. There should be protection of existing trees from the depredations of some campers. The establishment of a nursery to rear seedlings of selected varieties on the island would be a good idea and encouragement of visitors to plant acorns etc. Control of a suitable planting policy would necessitate the keeping of periodic tree surveys in order to record the success of various species.

I would like to thank Mr. Warwick Dyer for his help in making this survey, my family for their patience, Mr. Colyear Dawkins for his help in identification, Mr. Colin Taylor for his cartography, and also for sending me specimens when necessary.

This survey was made during the summers of 1969 and 1970. I hope to augment the study in 1971.
January 1971.

FURTHER NOTES ON LUNDY FLORA. August 1970

MRS. ANN WESTCOTT

I have added to my list made in August 1968 and August 1969 and here are my additions, corrections and comments. I am still working within very strict limits, though I made some observations on Whit Monday 1970.

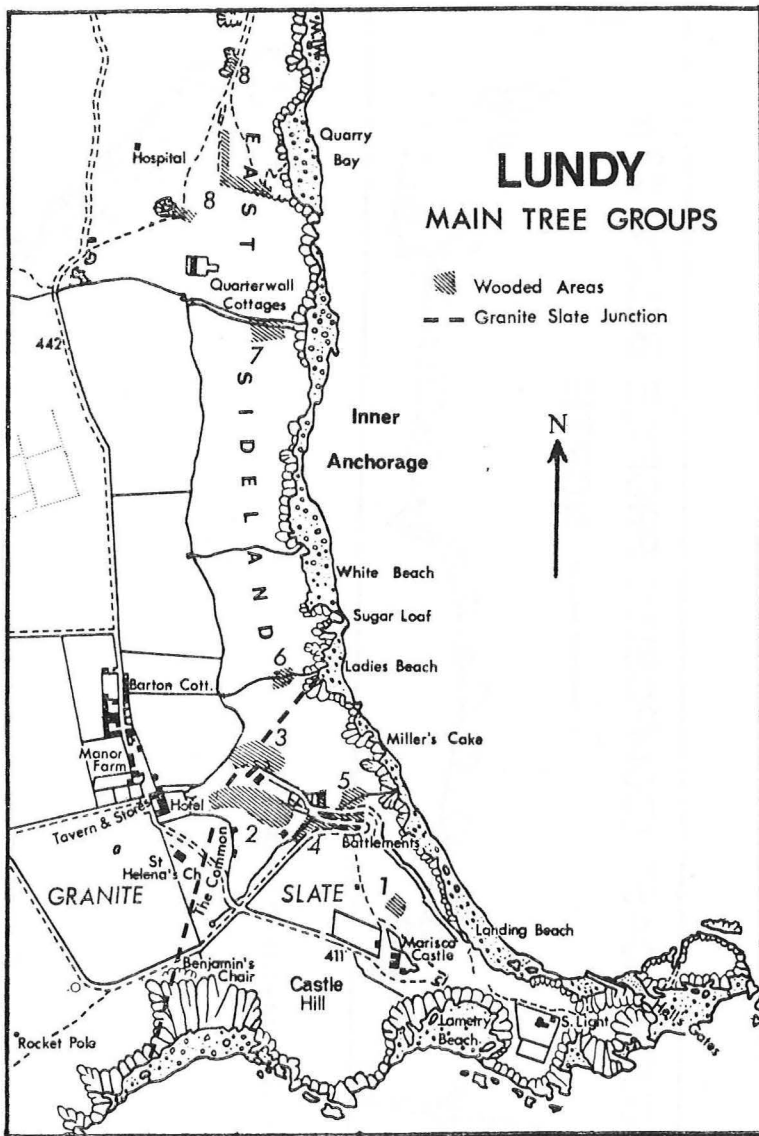
In addition to these observations, I have made a special note concerning Gosse's July 1852 visit and the flowers he listed as growing on the cliff path (see the first number of *The Illustrated Lundy News*).

L=In Langham's *Lundy*.

NL=Not in Langham's *Lundy*.

KM=Keble Martin's *Concise British Flora in Colour*.

CTW=Clapham, Tutin and Warburg's *Flora of the British Isles*.



C.G.Taylor, LUNDY, 1971.