

# **Detailed vegetation surveys of woodlands on the West coast of the Applecross peninsula. Vegetation surveys at Sand and Cuaig.**

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## **Introduction**

This report details vegetation surveys of flowering plants and some ferns carried out in the area from May 12 – 15 2002.

## **Methods**

The woodlands were mainly linear in shape. I had intended to survey 10 metre wide transects of each woodland. This turned out not always to be practicable as they were often on the side of steep hillsides and covering several narrow shelves or ledges of rock. Where this was the case I criss-crossed the areas going up and down where the terrain allowed.

Identification was mainly visual in the field. As time was limited I took samples of anything I was uncertain about and made a more detailed examination in the evening and checked them in the plant guides. Most of the plants were identified to species level and the rest to genus. Obviously a survey of this type is limited to the plants which are in evidence at the time of year. As these are deciduous woodlands however most of the flora is spring flowering. I estimated the frequency of each species of tree as a percentage of the total number of trees and the same for the understory plants. This was of necessity a rough estimate due to the constraints of the terrain and the time available.

I took photos of the general aspects and terrain of the woodlands and also some close ups of plants.

## **Locations**

The enclosed map sections show where the sites are. The woodlands surveyed were at the following locations:

May 12

1. Sgeir Shalach. NG 704 366 20-30m above sea level

In a narrow inland gully about half a mile long running approximately N-S. There was a rock face to the west with the flora on the eastern slope.

2. Toscaig 1. NG 707 370 20-40m above sea level

A strip of woodland about half a mile long, running N-S, parallel to the coast south of Toscaig. Facing east. It was generally quite wet with a central boggy area of grass and sphagnum mosses.

3. Toscaig 2. NG 705 377 20-30m above sea level

On the north-east hillside of a wide valley about a mile long running NW-SE inland, perpendicular to the Toscaig coast. This area was dry and very rocky and steep. Most of the flowering plants were on the lower part of the slope as there would be more soil here. Higher up there were mainly trees and mosses and lichens. There was no sphagnum present.

4. Toscaig 3. NG 707 377 30m above sea level

Wood adjoining Toscaig 2, running N-S for about half a mile, parallel to but away from Toscaig coast. This was dry at the southern end becoming wetter towards the north. It was on several levels of rock ledges facing east. Species poor compared to the other sites.

5. Toscaig 4. NG 708 377 20m above sea level

This wood is parallel to the previous one and adjoining Toscaig 2 at the southern end. It runs parallel to but not facing the coast. About half a mile long on rock ledges facing west.

May 13

6. Ardban NG 704 395 0-20m above sea level

Running roughly N-S for about half a mile. On a steep rocky slope with a rock face at the top and the sea at the bottom. Mainly dry with almost no sphagnum.

7. Coillegillie NG 702 387 20-50m above sea level

A T- shaped area of woodland. I surveyed the N-S part which was about a mile long and was fairly flat with a stream running through it and open grassy strips in the middle. The northern part was fairly dry but getting wetter further south.

8. Toscaig 5. NG 709 382 10-50m above sea level

About a mile long running SSW-NNE parallel to the road from Toscaig to the pier. There were some fairly large oaks here and some big hazels which looked as if they had been

coppiced some time ago. There was also an old tumbled down stone wall. The whole place felt very old. There was lichen on everything. The southern end of the wood was quite open and flattish with a stream and boggy area with sphagnum, then going down a steep gully towards the north to a more species rich boggy area at the bottom.

May 14

Sand

I surveyed several areas at Sand, identifying plants but not estimating percentages.

Sand. By the roadside just south of the car park . NG 683 491 0-10m above sea level

Sand. Boggy coastal meadow . NG 683 490 0-10m above sea level

Sand. Bank near car park, below rock shelter. NG 683 492 0-20m above sea level

Sand. Outside rock shelter. NG 683 492 10-20m above sea level

Sand. Near ruined house. NG 682 489 0-10m above sea level

Cuaig NG 703 585 0-20m above sea level

I did a brief survey of a small strip of woodland north of Cuaig, opposite Reaulay, which was on a steep slope parallel to and going down to the sea.

### **Number of species found and most common species in the woodlands.**

Toscaig 1	17 species; birch, bracken, bilberry
Toscaig 2	22 species; birch, bracken, bilberry, wood sorrel
Toscaig 3	14 species; birch, bracken, northern bilberry
Toscaig 4	16 species; birch, bracken, northern bilberry
Toscaig 5	29 species; birch, bracken, tormentil, bluebell
Sgeir Shalach	12 species; birch, bracken, wood sorrel, sweet vernal grass
Ardban	23 species; birch, bracken, wood sorrel
Coillegillie	16 species; birch, bracken, wood sorrel, bilberry

### **Comparison with previous documentation of Scottish woodlands.**

According to McVean and Ratcliffe in "Plant communities of the Scottish Highlands" (1962 HMSO London) most highland birchwoods fall into one of two categories: Betuletum Oxaletum-Vaccinetum ( Bilberry-rich birchwood) or Betula-herb nodum (Herb-rich birchwood). Obviously bilberry and wood sorrel are two of the main indicators of

the Betuletum Oxaletum-Vaccinetum type of woodland along with rowan, bracken, hard fern, tormentil etc. which are all present. Also they include Galium hercynicum, (which is now called Galium saxatile) or heath bedstraw as a constant, which I didn't find, but this may be because it doesn't appear until later in the season. The Betula-herb nodum differs from the above in the virtual absence of Vaccinium species and the appearance of Anemone nemorosa (wood anemone) and Conopodium majus (pignut) which were not in evidence. Wood anemone is a spring flowering plant, which would have been visible if it had been present. This all leads me to conclude that the woodlands I surveyed were of the Betuletum Oxaletum-Vaccinetum variety.

One noticeable feature of the woodlands was the lack of age structure. There were many mature trees and some quite large and old specimens and a lot of small seedlings in some areas, but almost no saplings or young trees. This could be due to grazing by deer. There were many trees with multiple trunks, which were probably created by coppicing sometime previously. There was no sign of recent management of any of the areas surveyed.

At Sand, which was without any trees there were several species growing which are normally associated with woodlands, such as bluebells, wood sorrel, dog violet, lesser celandine and primrose. This could mean that there was once woodland here. It is possible that there had been woodland all along the coast between Cuaig and Toscaig at some time in the past.

**Photos** These are available from Dr R.S.Shiel AFRD. Tel 6922.

T = Toscaig

1 Toscaig 1: Looking south (on the right)

2 Sgeir Shalach: Looking north

3 Sgeir Shalach: Looking south

4 T 1: Bilberry

5 T 2: Bracken

6 T 2: Wood sorrel

7 T 2: Oak tree, from base of slope

8 T 3: Looking north

9 T 4: Mature birches

10 T 4: Primroses & hard fern

11 Ardban: From the South end

- 12 Ardban: Mature birch & ferns
- 13 Ardban: Violets & bluebells
- 14 Coilegillie: Coppiced birches
- 15 Coilegillie: from the SE
- 16 T 5: Large oak
- 17 T 5: The old wall
- 18 T 5: An old birch
- 19 T 5: Coppiced hazel
- 20 Sand: bluebells near sea
- 21 Sand: View over ruined house
- 22 Sand: Bank below rock shelter
- 23 Sand: Bank leading up to rock shelter

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