

COLLECTED NOTES ON THE BUMBLE-BEES OF THE ISLAND OF BUTE

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Introduction

For many years I have taken more than a passing interest in Bumble-Bees (Genus *Bombus*) and, in particular, have always kept notes about any bees I saw on Bute. Nothing has previously been published about bees in the Society's *Transactions*, so I hope these notes on distribution, collected casually over the past fifty years and fairly intensively during the past ten years, will be of interest to other observers. My notes on the closely-allied Cuckoo-Bees (Genus *Psithyrus*) appear as a separate contribution in the current *Transactions* (Gibson, 1990).

I realise that with this short paper I am breaking new ground in Buteshire natural history, and since I am not primarily an entomologist I trust I do not make too many blunders. Moreover, since I am genuinely interested in bees but am not an entomologist, I have had to devise some method to assist accurate identification, which I do not find easy for some species.

Identification Method

Identification is fairly straightforward for several of the larger and more common species of bees, but for the more unusual or smaller species the method I use for identification is to catch and imprison the bee for a short time in a clear plastic cup with a lid. This makes close and detailed examination easily possible, and identification, when immediately compared to a suitable key, usually reliable. It also avoids any real harm to the bee or danger to the observer. It makes good sense to take care when examining bees, since the sting of some species can be surprisingly severe, particularly if one has been previously stung and possibly sensitized.

For many years now I have been in the habit of carrying this small plastic cup with me whenever I am out on fieldwork of any kind, and it has considerably increased the information I have been able to gather on bee distribution; without this useful aid to identification I would unquestionably have been unable to identify many of the smaller or more unusual bees, and therefore many records would probably have been missed.

Identification Keys

The identification book I originally used was Edward Step's *Bees, Wasps, Ants and Allied Insects of the British Isles* (1932) which, appropriately enough, I actually purchased in a Rothesay book shop in

1937, and still value, but within recent years I have used Dr D.V. Alford's *Bumblebees* (1975), which has more detailed identification keys and illustrations, and also has the advantage of up to date classification and nomenclature. These two works have at least enabled me to identify nearly all the bees I have found on Bute.

Other Information on Distribution

The following notes on the distribution of bumble-bees on Bute are therefore entirely personal, but at least a start has been made, and it may be helpful to other observers to emphasise the large number of records which occur in association with brambles or thistles at shore-level, and with heather on the moors.

Where it is useful I give the relevant 10 km-squares, and to these personal notes I have added any additional information contained in the national 10 km-square publication, the *Atlas of the Bumblebees of the British Isles* (Alford, 1980), although without any knowledge as to the origin of the records. These instances are made clear in the text.

Needless to say, if any other naturalists know of any additional published or unpublished records I shall be most grateful to have these drawn to my attention.

English Names

With regard to the English names of bees it is apparently the practice nowadays not to use these in scientific work (Alford, 1975 and 1980), but as a boy just becoming interested in bees I learned these names from Edward Step's book and from the senior naturalists of my early days, so have continued to use them ever since in day-to-day description. Even although these English names may seem to be somewhat contrived, they have now been in use for generations and I am sure they are useful to the average naturalist, so the English names are also included in the Systematic List.

The original English name for the Genus *Bombus* was Humble-Bee. This was certainly the version commonly used up till the time of Step (1932), but by the 1940s the name Bumble-Bee appears to have been preferred, and has remained the name in general use ever since.

Systematic List

In the following Systematic List the arrangement and nomenclature follow Alford (1975).

BROKEN-BELTED BUMBLE-BEE *Bombus soroeensis*

Does occur, but I have found it to be distinctly uncommon. Only about a dozen records during the past fifty years. All in southern half of the island (NS06, NS05, NS15) and associated with brambles. Alford (1980) lists pre-1960 records for NS07, NS06 and NS05.

SMALL EARTH BUMBLE-BEE *Bombus lucorum*

One of the commonest species on Bute; in numbers and widespread distribution second only to *hortorum*; found from gardens to the moors. Found on Inchmarnock.

LARGE EARTH BUMBLE-BEE *Bombus magnus*

[At one time regarded as a variety of *lucorum*, but now considered to be a separate species (Alford, 1975). I have only one possible record, on brambles in Kilchattan Bay (NS15), May 1984, but identification is difficult and I could not be completely certain. Alford (1980) gives a pre-1960 record, also from NS15.]

BUFF-TAILED BUMBLE-BEE *Bombus terrestris*

Fairly common and widely distributed, although in numbers not nearly so abundant as *pratorum* or *lucorum*; probably about one *terrestris* to some twenty *pratorum*. Found more in the gardens and lower ground; rare on moorland.

HEATH BUMBLE-BEE *Bombus jonellus*

Fairly well distributed over the island, but virtually confined to the heather moors, as one might expect from the English name. In numbers, much the same as *terrestris*.

BILBERRY BUMBLE-BEE *Bombus lapponicus*

[I feel this should be present on Bute moorland, and several times have suspected *lapponicus* from the moors but have never been able to make a satisfactory identification. No record given by Alford (1980).]

EARLY BUMBLE-BEE *Bombus pratorum*

Fairly common and widely distributed, although not so common on the moors. Found on Inchmarnock.

LARGE RED-TAILED BUMBLE-BEE *Bombus lapidarius*

Not common, but certainly does occur. I have records extending back for fifty years, but virtually all very close to the shore-line; my records nearly all from thistles, and from NS05; one record from the north of the island (NR97).

SMALL GARDEN BUMBLE-BEE *Bombus hortorum*

Abundant and widely distributed in all areas, from shore to moors. By far the commonest species of bee on Bute. Common on Inchmarnock.

MOSS CARDER-BEE *Bombus muscorum*

Small numbers, but fairly evenly distributed, from shore (mainly thistles) to moors, where does occur but much less common.

COMMON CARDER-BEE *Bombus pascuorum*

Fairly common, and also fairly widely distributed. Most often seen in very warm weather, and not often found in very exposed situations.

Summary

Possibly eleven species of *Bombus* bees have been recorded for the Island of Bute, and I have seen at least nine of these species myself. By far the commonest are *hortorum*, *lucorum* and *pratorum* (in that order), which together comprise the vast majority of the entire Bute bee population. In my limited experience the other species are all comparatively uncommon, or rare, but this, of course, may simply be because they are difficult to identify or inconspicuous, and indeed I strongly suspect I would never have noticed some of these at all had I not developed the routine habit of trapping and examining any bee which seemed unusual.

It is hoped, therefore, that the publication of the above short species list may stimulate others to add to the known information about the distribution of bees on Bute.

References

- ALFORD, D.V. (1975). *Bumblebees*. London: Davis-Poynter.
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 GIBSON, J.A. (1990). Notes on the cuckoo-bees of the Island of Bute. *Transactions of the Buteshire Natural History Society*, 23: 51.
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NOTES ON THE CUCKOO-BEES
OF THE ISLAND OF BUTE

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Introduction

Most naturalists will be aware that there are two distinct types of bumble-bees, the working species (Genus *Bombus*), i.e. the true Bumble-Bees, and the non-working species (Genus *Psithyrus*), the so-called Cuckoo-Bees because of their inquiline or parasitic habits. The Cuckoo-Bees depend for their existence on the true Bumble-Bees, in whose nests they are reared.

In a companion paper in the current *Transactions* (Gibson, 1990) I give collected notes on the distribution of Bumble-Bees on the Island of Bute, and this short supplementary contribution lists what information I have been able to collect on the Cuckoo-Bees. All methods of working, identification, etc. are similar to those already detailed in the Bumble-Bee paper.

Systematic List

GIPSY CUCKOO-BEE *Psithyrus bohemicus*

Common and widely distributed. An inquiline of *Bombus lucorum*, whose distribution on Bute it follows.

BARBUT'S CUCKOO-BEE *Psithyrus barbutellus*

Fairly common and widely distributed. An inquiline of *Bombus hortorum*, the commonest bee on Bute, whose distribution it follows.

FIELD CUCKOO-BEE *Psithyrus campestris*

[An inquiline of *Bombus pascuorum*. I have no personal record, but Alford (1980) lists this for NS15, which may refer to Bute.]

FOUR-COLOURED CUCKOO-BEE *Psithyrus sylvestris*

An inquiline of *Bombus pratorum*. I have no personal record, but Alford (1980) lists a pre-1960 record for NS05.

References

- ALFORD, D.V. (Ed.) (1980). *Atlas of the Bumblebees of the British Isles*. London: International Bee Research Association; and Huntingdon: Biological Records Centre, Institute of Terrestrial Ecology.
 GIBSON, J.A. (1990). Collected notes on the bumble-bees of the Island of Bute. *Transactions of the Buteshire Natural History Society*, 23: 47-50.