

Hymenoptera: Aculeata Part 1 – Bees

A. NUMBER OF SPECIES IN UK: 318

B. NUMBER OF SPECIES IN SCOTLAND: 110 (4 thought to be extinct, 2 may be found – insufficient data)

C. EXPERT CONTACTS

Please contact scotland@buglife.org.uk for details.

D. SPECIES OF CONSERVATION CONCERN

Listed species

UK Biodiversity Action Plan Species known to occur in Scotland (the current list was published in August 2007):

<i>Andrena tarsata</i>	Tormentil mining bee
<i>Bombus distinguendus</i>	Great yellow bumblebee
<i>Bombus muscorum</i>	Moss (Large) carder bumblebee
<i>Bombus ruderarius</i>	Red-shanked (Red-tailed) carder bumblebee
<i>Colletes floralis</i>	Northern colletes
<i>Osmia inermis</i>	a mason bee
<i>Osmia parietina</i>	a mason bee
<i>Osmia uncinata</i>	a mason bee

Bombus distinguendus is also listed under the Species Action Framework of Scottish Natural Heritage, launched in 2007 (Category 1: Species for Conservation Action).

Other species

The Scottish Biodiversity List was published in 2005 and lists the additional species (arranged below by sub-family):

Andreninae

Andrena cineraria
Andrena helvola
Andrena marginata
*Andrena nitida*¹
Andrena ruficrus

Anthophorinae

Anthidium maniculatum
Anthophora furcata
Epeolus variegatus
Nomada fabriciana
Nomada leucophthalma
Nomada obtusifrons
Nomada robertjeotiana
Sphecodes gibbus

Apinae

Bombus monticola

Colletinae

Colletes daviesanus
Colletes fodiens
Hylaeus brevicornis

Halictinae

Lasioglossum fulvicorne
Lasioglossum smeathmanellum
Lasioglossum villosulum

Megachillinae

Osmia aurulenta
Osmia caruelescens
Osmia rufa
Stelis punctulatissim

¹ This species is not currently known to occur in Scotland.

E. LIST OF SPECIES KNOWN FROM SCOTLAND

(* indicates species that are restricted to Scotland in UK context)

Apidae

Andrena angustior
Andrena barbilabris
Andrena bicolor
Andrena carantonica
Andrena chrysosceles
Andrena cineraria
Andrena clarkella
Andrena coitana
Andrena denticulata
Andrena fucata
Andrena fuscipes
Andrena haemorrhoea
Andrena helvola
Andrena lapponica
Andrena marginata
Andrena minutula
Andrena nigriceps
Andrena nigroaenea
Andrena ruficrus
Andrena semilaevis
Andrena similis
Andrena subopaca
Andrena synadelpha
Andrena tarsata
Andrena wilkella
Anthidium manicatum
Anthophora furcata
Apis mellifera
Bombus barbutellus
Bombus bohemicus
Bombus campestris
Bombus cryptarum
*Bombus distinguendus**
Bombus hortorum
Bombus jonellus
*Bombus jonellus hebridensis**
*Bombus jonellus vogtii**
Bombus lapidarius
Bombus lucorum s.l.
Bombus lucorum s.s.
Bombus magnus
Bombus monticola
Bombus muscorum
*Bombus muscorum agricolae**

Bombus pascuorum
Bombus pratorum
Bombus ruderarius
Bombus soroeensis
[*Bombus sylvarum* – thought to be extinct in Scotland]
Bombus sylvestris
Bombus terrestris
Bombus vestalis
[*Chelostoma campanularum* – adventive, not established]
Coelioxys elongata
[*Coelioxys rufescens* – thought to be extinct in Scotland]
Colletes daviesanus
Colletes floralis
Colletes fodiens
Colletes succinctus
Epeolus variegatus
Halictus rubicundus
Halictus tumulorum
Hylaeus brevicornis
Hylaeus communis
Hylaeus confusus
Hylaeus hyalinatus
Lasioglossum albipes
Lasioglossum calceatum
Lasioglossum cupromicans
Lasioglossum fratellum
Lasioglossum fulvicorne
[*Lasioglossum leave* – may occur, insufficient data]
Lasioglossum leucopus
Lasioglossum morio
Lasioglossum nitidiusculum
Lasioglossum punctatissimum
Lasioglossum rufitarse
Lasioglossum smeathmanellum
Lasioglossum villosulum
Megachile centuncularis
Megachile circumcincta
Megachile versicolor
Megachile willughbiella
[*Melecta albifrons* – thought to be extinct in Scotland]
Melitta haemorrhoidalis
Nomada fabriciana
[*Nomada flava* – may occur, insufficient data]
Nomada flavoguttata
Nomada goodeniana
Nomada leucophthalma
Nomada marshamella
Nomada obtusifrons
Nomada panzeri
Nomada robertjeotiana
Nomada ruficornis

Nomada rufipes
Nomada striata
Osmia aurulenta
Osmia caerulescens
*Osmia inermis**
Osmia parietina
Osmia rufa
*Osmia uncinata**
[*Sphecodes ferruginatus* – thought to be extinct in Scotland]
Sphecodes geoffrellus
Sphecodes gibbus
Sphecodes hyalinatus
Sphecodes monilicornis
Sphecodes pellucidus
Stelis punctulatissima

F. DISTRIBUTION DATA

- i) Validated data collated by the Bees, Wasps and Ants Recording Society (BWARS) is available on the NBN Gateway.
- ii) Validated data collated by the Highland Biological Recording Group (HBRG) is available on the NBN Gateway.
- iii) Photographic records from the Bumblebee Conservation Trust online public recording scheme **BeeWatch** are validated by the BWARS.
- iv) Other datasets are available on the NBN and from Local Records Centres. However, useful as they are, these datasets are likely to contain errors and their validity cannot be guaranteed by the BWARS.
- v) A number of parts comprising the Provisional Atlas of the aculeate Hymenoptera of Britain and Ireland have been produced (BWARS Society and Biological Records Centre, NERC Centre for Ecology and Hydrology).
- vi) The BWARS, started in 1978, reports items of interest through a twice annual newsletter.

G. IDENTIFICATION GUIDES

- i) Bees, Wasps and Ants Recording Society. Test keys are available from www.bwars.com and the BWARS Forum is an active discussion/identification group.
- ii) Benton, T. 2006. *Bumblebees*. New Naturalist, Collins, London.
- iii) Bumblebee Conservation Trust. 2010. *What's that Bumblebee?* (laminated folding guide)
- iv) Edwards, M. and Williams, P.H. 2004. Where have all the bumblebees gone, and could they ever return? *British Wildlife* 15 (5), 305-312.
- v) Edwards, M. and Jenner, M. 2009. *Field Guide to the Bumblebees of Britain & Ireland* (revised edition). Formula Creative Consultants.
- vi) Falk, S. J. 1991. A Review of the Scarce & Threatened Bees, Wasps & Ants of Great Britain. *Research & Survey in Nature Conservation*, 35 Nature Conservancy Council
- vii) Fitzpatrick, U., Murray, T.E., Paxton, R.J. and Brown, M.J.F. 2006. *The State of Ireland's Bees*. Published by EHS & NPWS.

- viii) Goulson, D. 2010. *Bumblebees: behaviour, ecology and conservation* (second ed.). Oxford University Press.
- ix) International Bee Research Association. 1980. *Atlas of the Bumblebees of the British Isles*. Cambridge.
- x) Prŷs-Jones, O.E. & Corbet, S.A. 1991. *Bumblebees*. Naturalists' Handbooks Volume 6 (second ed.). Cambridge University Press.
- xi) Shirt, D. B. (ed.) 1987. British Red Data Books: 2. Insects. Nature Conservancy Council.
- xii) Wilmer, P. 1985. *Bees, Ants and Wasps - A Key to the Genera of the British Aculeates*. Field Studies Council.
-

H. OTHER INFORMATION

- a) Not all bee species are covered in the identification materials generally available, with some groups, e.g. bumblebees, receiving relatively more attention.
- b) Some additional information is available in: Baldock, D.W. 2008. *Bees of Surrey. Surrey Wildlife Atlas Series 11*. Surrey Wildlife Trust.
- c) It is hoped that a new publication will provide a comprehensive identification guide to the bees of Britain and Ireland.
- d) The species list in this document was produced with reference to the *Scottish Aculeate List* by Murdo Macdonald. The authors wish to thank Murdo Macdonald for the kind provision of these data. This list is available from Highland Biological Recording Group (HBRG) at: <http://www.hbrg.org.uk/SAL/index.html>
- e) The conservation of bees is of considerable interest. More information can be found at the websites of Hymettus Ltd, Buglife and the Bumblebee Conservation Trust:
- www.hymettus.org.uk
 - www.buglife.org.uk
 - www.bumblebeeconservation.org.uk
-

This document should be referenced as:

Dawson, R., Harrison, M., Cathrine, C and Macadam, C. 2011. *Scottish Invertebrate Species Knowledge Dossier: Hymenoptera: Aculeata Part 1 – Bees*. Buglife – The Invertebrate Conservation Trust.

This document provides information on species known to occur in Scotland at the time of publication. This document does not provide a definitive list of species occurring in Scotland. The list of species known to occur in Scotland may change as further information is gathered.

This species knowledge dossier was produced as part of the ‘Action for Scottish Invertebrates’ project. This project is grant-aided by Scottish Natural Heritage and delivered on behalf of the Initiative for Scottish Invertebrates (ISI) by Buglife – The Invertebrate Conservation Trust.



ISI
Initiative for
Scottish Invertebrates

