SCOTTISH INVERTEBRATE SPECIES KNOWLEDGE DOSSIER

Lepidoptera Part 1 - Butterflies

- A. NUMBER OF SPECIES IN UK: 60
- B. NUMBER OF SPECIES IN SCOTLAND: 35

C. EXPERT CONTACTS

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

D. SPECIES OF CONSERVATION CONCERN

Listed species

Plebeius artaxerxes Vulnerableⁱ / UKBAP Priority speciesⁱⁱ / Scottish Biodiversity

Listⁱⁱⁱ / W&CA S.5(9.5a); S.5(9.5b)

The Northern brown argus is a widespread, though localised species in northern England and Scotland. This butterfly can be found in well-drained, unimproved grasslands. The food plant is Common rock-rose (*Helianthemum nummularium*).

Boloria euphrosyne Endangeredⁱ / UKBAP Priority speciesⁱⁱ / Scottish Biodiversity

Listⁱⁱⁱ / W&CA S.5(9.5a); S.5(9.5b)

The Pearl-bordered fritillary is a widespread but localised species, there are scattered records in England and Wales, however it is more widespread in Scotland. This butterfly can be found in woodland clearing and amongst bracken on hillsides. The food plant is Common dog-violet (*Viola riviniana*), although it will also use Marsh violet (*V. palustris*).

Boloria selene Near Threatenedⁱ / UKBAP Priority speciesⁱⁱ / W&CA

S.5(9.5a); S.5(9.5b)

The Small pearl-bordered fritillary is a widespread species that is often encountered in woodland glades and clearing, damp grassland and moorland. The food plant is Common dog-violet (*Viola raviniana*) and Marsh violet (*V. palustris*).

Carterocephalus palaemon Endangeredⁱ / UKBAP Priority speciesⁱⁱ / Scottish Biodiversity Listⁱⁱⁱ / W&CA S.5(9.5a); S.5(9.5b)

The distribution of the Chequered skipper is restricted to around ten populations in the Lochaber area. The food plant is Purple moor-grass (*Molinia caerulea*).

Coenonympha pamphilus Near Threatenedⁱ / UKBAP Priority speciesⁱⁱ
The Small heath is a widespread and common species that was listed as a UKBAP Priority species on the basis of its recent decline. The only action highlighted for this species was for research into the reasons for its decline.

Coenonympha tullia Vulnerableⁱ / UKBAP Priority speciesⁱⁱ / W&CA S.5(9.5a); S.5(9.5b)

The Large heath is a widespread though localised with scattered records in England and Wales. The majority of records occur in Scotland, Northern Ireland and northern England. This butterfly can be found on boggy habitats, in particular lowland raised bogs, upland blanket bogs and damp acidic moorland. The food plant is Hare's-tail cottongrass (*Eriophorum vaginatum*).

Cupido minimus Near Threatenedⁱ / UKBAP Priority speciesⁱⁱ / Scottish Biodiversity Listⁱⁱⁱ / W&CA S.5(9.5a); S.5(9.5b)

Despite being found throughout the UK the Small blue has a very localised distribution in Scotland. Populations can be found in Angus and on the Moray coast. This species occurs in dry, sheltered grasslands where its food plant, Kidney vetch (*Anthyllis vulneraria*) is grows.

Erebia epiphron Near Threatenedⁱ / UKBAP Priority speciesⁱⁱ / W&CA S.5(9.5a): S.5(9.5b)

The Mountain ringlet can be found in the English Lake District and in the Scottish Highlands. It typically occurs in open montane grassland at altitudes of over 350 metres. The food plant is Mat-grass (*Nardus stricta*).

Erynnis tages Vulnerableⁱ / UKBAP Priority speciesⁱⁱ / Scottish Biodiversity Listⁱⁱⁱ

The Dingy skipper is a widespread species that becomes increasingly localised towards the north of the UK. In Scotland this species can be found in Dumfries and Galloway and on the Moray coast. It prefers sunny habitats, with a preference for bare ground. In England it can be found on brownfield sites in urban areas. The food plant is usually Common birdsfoot trefoil (*Lotus corniculatus*).

Eurodryas aurinia Vulnerableⁱ / UKBAP Priority speciesⁱⁱ / Scottish Biodiversity

Listⁱⁱⁱ / /W&CA S.5(9.1); S.5(9.2); S.5(9.4c); S.5(9.5a); S.5(9.5b)^{iv} / Habitats Directive Annex 2^v / Bern Convention Appendix 2^{vi}

The Marsh fritillary is a localised species with a western bias to its distribution. It is found in south-west England, Wales, Ireland and Argyll. It prefers damp grasslands where its foodplant, Devil's-bit scabious (*Succisa pratensis*) is found.

Hipparchia semele Vulnerable / UKBAP Priority species

The Grayling is a widespread species whose distribution is associated with coastal areas. It can often be found on dunes, cliff tops and saltmarsh, however further inland it is also found on brownfield sites and heathland. The food plants are Sheep's-fescue (*Festuca ovina*), Red fescue (*F. rubra*), Bristle bent (*Agrostis curtisii*) and Early Hair-grass (*Aira praecox*).

Lasiommata megera Near Threatened / UKBAP Priority species ii

The Wall brown is a widespread and common species in England, Wales however in Scotland it has only be found in Dumfries and Galloway and the Scottish Borders. It can be found in short, open grassland with broken or stony turf and where its food plants Tor-grass (*Brachypodium pinnatum*), False brome (*B. sylvaticum*), Cock's-foot (*Dactylis glomerata*), Bents (*Agrostis* spp.), Wavy hair-grass (*Deschampsia flexuosa*), and Yorkshire-fog (*Holcus lanatus*) occur. It can often be found in dunes and also on brownfield sites.

Source: i) Fox, R., Warren, M.S., and Brereton, T.M. (2010). A new Red List of British Butterflies. Joint Nature Conservation Committee, Peterborough, UK.

- ii) http://www.ukbap.org.uk/NewPriorityList.aspx
- iii) http://www.snh.gov.uk/docs/B712601.pdf
- iv) http://www.jncc.gov.uk/page-1377
- v) http://www.jncc.gov.uk/page-1374
- vi) http://www.jncc.gov.uk/page-1364

E. LIST OF SPECIES KNOWN FROM SCOTLAND

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

Hesperiidae

Carterocephalus palaemon - Chequered Skipper Ochlodes sylvanus - Large Skipper Erynnis tages - Dingy Skipper

Pieridae

Colias croceus - Clouded Yellow Pieris brassicae - Large White Pieris rapae - Small White Pieris napi - Green-veined White Anthocharis cardamines - Orange Tip

Lycaenidae

Callophrys rubi - Green Hairstreak
Neozephyrus quercus - Purple Hairstreak
Lycaena phlaeas - Small Copper
Cupido minimus - Small Blue
Plebeius artaxerxes - Northern Brown Argus
Polyommatus icarus - Common Blue
Polyommatus bellargus - Adonis Blue
Celastrina argiolus - Holly Blue

Nymphalidae

Boloria selene - Small Pearl-bordered Fritillary Boloria euphrosyne - Pearl-bordered Fritillary Argynnis aglaja - Dark Green Fritillary Vanessa atalanta - Red Admiral Vanessa cardui - Painted Lady Aglais urticae - Small Tortoiseshell
Inachis io - Peacock
Polygonia c-album - Comma
Euphydryas aurinia - Marsh Fritillary
Pararge aegeria - Speckled Wood
Lasiommata megera - Wall Brown
Erebia epiphron - Mountain Ringlet
Erebia aethiops - Scotch Argus
Hipparchia semele - Grayling
Pyronia tithonus - Gatekeeper
Maniola jurtina - Meadow Brown
Aphantopus hyperantus - Ringlet
Coenonympha pamphilus - Small Heath
Coenonympha tullia - Large Heath

F. DISTRIBUTION DATA

- i) Data collated by Butterfly Conservation is available on the NBN Gateway. http://www.nbn.org.uk/
- ii) Asher, J., Warren, M. and Fox, R. 2001. *The Millennium Atlas of Butterflies in Britain and Ireland.* Oxford University Press.
- iii) Fox, R., Asher, J., Brereton, T., Roy, D. and Warren, M. 2006. *The State of Butterflies in Britain and Ireland.* NatureBureau.

G. IDENTIFICATION GUIDES

- i) http://www.butterfly-conservation.org/butterfly_identifier/17/identify_a_butterfly.html
- ii) Thomas, J. and Lewington, R. 2010. *The Butterflies of Britain and Ireland*. British Wildlife Publishing.
- iii) Porter, J. 2010. *The Colour Identification Guide to the Caterpillars of the British Isles*. Viking Books.

H. OTHER INFORMATION

a) The distribution of some species of butterflies is changing with a number of species moving northwards. This is likely to result in further species being added to the Scottish list in the future.

This document should be referenced as:

Macadam, C., and Kirkland, P. 2011. *Scottish Invertebrate Species Knowledge Dossier: Lepidoptera Part 1 - Butterflies.* 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.

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