

B&NES Priority species using Radstock Railway Land, recorded 1998 – 2007

Invertebrates of national conservation concern or importance on Radstock Railway Land.

Gibbs 2005:

50 scarce and RDB species (Appendix 3A, *Invertebrate Survey and Impact Assessment*)*

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Gibbs 1999, (for Wessex Ecological Consultancy) not found in 2005

10 species thought to still survive on the site – *Platyderus ruficollis*, *Phytoecia cylindrica*, *Andrena bucephala* (inferred by continued existence of host-specific cleptoparasitoid), *Andrena proxima* (inferred by continued existence of host-specific cleptoparasitoid), *Sphecodes reticulatus*, *Nomada lathburiana* (host still present), *Neopachygaster meromelas*, *Brachypalpus laphriformis*, and *Noeeta pupillata*.

Wardell Armstrong 2001/2 (Christopher Betts Environmental Biology)

Light-feathered Rustic; rare spider (if correctly identified)

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Conservation Consultancy 1998

Nysson dimidiatus, Nb (Scarce, Archer 2004/2005) and *Nysson trimaculatus* Nb (Widespread, Archer 2004/2005)

Other species

Dotted Bee-fly, *Bombylius discolor*, nationally scarce, observed ovipositing and 'dusting', 2006 (D. Porter)

6 UK BAP Priority Species - Grizzled Skipper, Dingy Skipper, Small Heath, Latticed Heath, The Cinnabar, *Bombus ruderarius* (some in 1999 EIA, others also recorded in 2005), all in decline

White-clawed Crayfish (2005 EIA)

* including several species that are becoming rarer and now qualify

† information from Environmental Assessment for 1999 Planning Application

†† information from Cam Valley Wildlife Group critique of the Wardell Armstrong Final Technical Report, November 2002 – please note that the report has not been made publicly available, so only those invertebrates that were picked up by amateurs as nationally important or of national conservation concern in the few days' viewing of the document and included in the critique are included. Further species (particularly lepidopterans) may well have been recorded that have been designated as UK BAP Priority species.

The national statuses of aculeates have been assessed by Archer in 2004 to 2007, accordingly:

Crossocerus distinguendus, N(a) – Widespread, Archer 2006
Andrena nitidiuscula, RDB3 – Scarce, Archer 2004/2005
Andrena proxima, RDB3 – Very rare, Archer 2004/2005
Andrena bucephala, Na, (Archer status to be looked up)
Andrena humilis, Nb (Archer status to be looked up)
Bombus rupestris, Nb (Archer status to be looked up)
Lasioglossum malachurum, N(b) – Restricted, Archer 2004/2005
Lasioglossum pauxillum, N(a) – Restricted, Archer 2005
Nomada conjugens, RDB2 – Very rare, Archer 2004/2005
Nomada hirtipes, RDB3 – Very rare, Archer 2004/2005
Nysson dimidiatus N(b), Scarce, Archer 2004/2005
Nysson trimaculatus N(b) – Widespread, Archer 2004/2005
Sphecodes crassus – Scarce, Archer 2004/2005
Sphecodes ferruginatus - Scarce, Archer 2004/2005, Widespread, Archer 2007
Sphecodes reticulatus – Scarce, Archer 2004/2005
Stelis ornatula, RDB3 – Rare, Archer 2004/2005
Caliadurgus fasciatellus – Scarce, Archer 2005/2006,
Gymnomerus laevipes - Scarce, Archer 2005/2006

It should be noted that the Archer Statuses have no official standing and have received some criticism.

A further 14 are thought to be less scarce than they were:

Conocephalus discolor, N(a)

Cryptocephalus aureolus N(b)?

Bombus rupestris, N(b)?

Osmia bicolor, N(b)?

Chorisops nagatomii, (Nationally scarce)?

Campiglossa absinthii, (Nationally scarce)

Oxya nebulosa, (RDB3)

Homoneura tesquae, (Nationally scarce)?

Homoneura thalhammeri, (Nationally scarce)

Trachysiphonella scutellata, (Nationally scarce)

Gymnochiromyia inermis, (Nationally scarce)

Botanophila lobata, (RDB3)

Cistogaster globosa (RDB1)

Zophomyia temula (Nationally scarce)

Although these species are thought to be less scarce than they were, many aculeates which seemed to be increasing in 2000 – 2005 have become scarce again, eg *Nomada lathburiana*. In addition, it is difficult to spot decreasing species, so it is possible that some of the important species on this site are less scarce than they were.

Good populations of *Ceratina cyanea*, the Blue Carpenter Bee, are found on the Radstock Railway Land site. This is highly significant. There are no records of good populations elsewhere in the South West region. The bee is only known from two other sites, both in B&NES and both small populations. One is to be destroyed by a major development in Bath and only one specimen was found at the other site, indicating a small and fragile population at best. The Radstock site is almost certainly playing a role in supporting small transient populations of this Red Data Book species elsewhere in the District. This particular species is, therefore, particularly important to Bath and North East Somerset, and the site that supports it of very high importance to the Region and, thereby, to the nation.

The likely loss of *Phytomyza rununculicola*, recorded only on this site in the UK is a potentially national loss, as so little is known about this species. It is a leaf miner of buttercup. Leaf miners have been collected for years and Colin Plant (who was responsible for the Invertebrate Data sheets for the EIA for the recent planning application), is a leaf miner expert. Although he claims that the leaf miner could be found elsewhere, it is strange indeed that this expert has not found it in such a common plant either in the local area or elsewhere. The invertebrate also appears to be rather scarce in Europe and is probably dependent on a particular ecotype, habitat or microclimate found at the Radstock Railway Land that could be rare elsewhere due to the varying nature of post-industrial land. The loss of any part of the site in which this invertebrate occurs could threaten the survival of the species on the site.

Loss of this invertebrate would be significant in a national context. The increasing loss of post-industrial sites and the rarity of the particular conditions found at Radstock Railway Land combined with the lack of knowledge of the exact requirements of this species puts it at risk of national extinction.

As data accrues it is becoming ever more apparent that so called brownfield sites are important refuges for biodiversity, including many rare species. As pressure on land from housing needs, agriculture etc increases, so such sites and their associated fauna become ever more valuable. In the absence of good evidence that the assemblage of invertebrates found at Radstock has a secure, long-term future elsewhere in the region, a precautionary approach would seem appropriate. It would, similarly, seem inappropriate to consider the importance of the land to be lessened due to what could be a temporary increase in occurrence of some of the species currently thought to be more common.

This section has been checked for accuracy by David Gibbs, professional entomologist and ecologist, Bristol, November 2007.

Other B&NES Priority species of invertebrate on Radstock Railway Land

Orange underwing (Avon BAP)
Beautiful demoiselle (Avon BAP)

11 Regional rarities, Gibbs, 2005 (taken from specific text and species accounts in 2005 report in Technical Appendix of ES)

Other B&NES Priority species

33/34 birds, (taken from Environmental Assessment for 1999 planning application and 2005 EIA)

Cuckoo (UK BAP)
Yellowhammer (UK BAP)
Linnet (UK BAP)
Songthrush (UK BAP)
Bullfinch (UK BAP)
Starling (UK BAP)
Marsh tit (UK BAP)
House sparrow (UK BAP)
Dipper (Avon BAP)
Buzzard (Avon BAP)
Kingfisher (Avon BAP)
Kestrel (Avon BAP)

Sparrowhawk (Avon BAP)
Greenfinch (Avon BAP)
Goldfinch (Avon BAP)
Redpoll (Avon BAP)
Trecreeper (Avon BAP)
Swallow (Avon BAP)
Pied wagtail (Avon BAP)
Grey wagtail (Avon BAP)
Coal tit (Avon BAP)
Blue tit (Avon BAP)
Great tit (Avon BAP)
Great-spotted woodpecker (Avon BAP)
Green woodpecker (Avon BAP)
Dunnock (Avon BAP)
Chiffchaff (Avon BAP)
Goldcrest (Avon BAP)
Balckcap (Avon BAP)
Whitethroat (Avon BAP)
Lesser Whitethroat (Avon BAP)
Wren (Avon BAP)
Robin (Avon BAP)
Nightingale (Avon BAP)

11 mammals (taken from 2005 EIA and 1999 ES, with one exception)

Otter (UK BAP)
Greater horseshoe bat (UK BAP)
Lesser horseshoe bat (UK BAP)*
Soprano Pipistrelle bat (UK BAP)
Brown long-eared bat (UK BAP)
Noctule bat (UK BAP)
Myotis bat - Brandt's or whiskered (Avon BAP)
Daubenton's bat (Avon BAP)
Pipistrelle bat (Avon BAP)
Serotine bat (Avon BAP)
Water shrew (Avon BAP)

* pers. com. Jacquie Warren/Geoff Billington

2 Reptiles (taken from 2005 EIA)

Common lizard (UK BAP)
Slow worm (UK BAP)

9 – 11 plants (taken from 2005 EIA, 1999 EA and Somerset Rare Plants Group/Cam Valley Wildlife Group plant list for the site)

Minuartia hybrida, Fine-leaved Sandwort (UK BAP, Red Data Book, Endangered)

Hypericum montanum, Pale St Johns wort (Red Data Book, Near-threatened)

Filago vulgaris (Red Data Book, near-threatened)

Vicia bithynica, Bithynian Vetch (Avon BAP, Red Data Book, Nationally scarce)

Hyacinthoides non-scripta, Bluebell(Schedule 8)

Rosa rubiginosa (Avon BAP)

Trifolium micranthum

Hieracium maculatum, Spotted Hawkweed

Ulmus glabra

Lysimachia vulgaris (Wardell Armstrong - dubious, but exciting if correct)

Pimpinella major (Wardell Armstrong - not found in the former Avon area since 1926, so perhaps dubious)

Note: UK BAP Priority species of moth, White Ermine and Buff Ermine have been recorded in adjacent valley and are still known to be present in that valley. It is highly likely that they are using the Railway Land as well.

Total about 140 (139 – 143/145), including at least 24 UK BAP Priority species and at least a further 65 species that are nationally scarce, rare or threatened.

This is the most up-to date analysis of the information available – further Priority species may become apparent if further analysis is conducted.

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Author: Deborah Porter, Conservation Officer, Cam Valley Wildlife Group,
18th November 2007.

Address: 59, Lower Whitelands, Radstock, BA3 3JP.

Tel: 01761 435563

Email: deborahwhitelands@googlemail.com