Blue ground beetle

(Carabus intricatus)





This Blue ground beetle is a large distinctive species with metallic blue markings, long legs and sculptured wing-cases. Growing to over an inch long this is Britain's largest ground beetle. This rare species is restricted to ten sites in Devon and Cornwall, and for this reason is included in the UK Biodiversity Action Plan. The key to expanding the range of this species is to restore or create more areas of suitable habitat. The Blue ground beetle is wingless and cannot fly so active translocation may be required to introduce it to new sites.

Life cycle

The adult beetles are active from late March until June. Adults mate and lay eggs in the spring, the larvae develop through the summer with new adults emerging in the autumn. The adult beetles hibernate under moss-laden dead bark and are thought to live for 2 to 3 years. The adults and the larvae both feed on slugs, in particular the Tree slug (*Limax marginatus*) and the

Ash-black slug (*Limax cinereoniger*). Adults are most likely to be found climbing tree trunks at night in search of their prey.

Distribution map

This species has always had a restricted distribution in south-west England and has only been recorded from Devon and Cornwall (an historic record from the Somerset Levels is probably an error). It is globally threatened, being found locally across Europe.

Threats and causes of decline

Habitat loss and the decline in habitat quality restrict this species' distribution. At least one site is known to have been lost through clear felling and replanting with conifers.

Changes or removal of grazing from ancient oak or beech woodlands is a particular concern. The continuity of light grazing, presence of mature trees, abundant deadwood and a sparse understorey of vegetation are the prime factors in supporting the current populations of this beetle.



Dark green = recent records (after 1980) Light green = historic records (before 1980)



Blue ground beetle habitat

Habitat

The Blue ground beetle lives in moist deciduous woodlands of oak and beech, usually on south-facing slopes of river valleys. Most sites are ancient pasture woodlands with sparse ground vegetation, high humidity and an abundance of mosses. In Cornwall it has also been found in a young beech plantation adjacent to ancient oak woodlands containing a population of the beetle.

Habitat management

Maintain or re-establish light grazing regimes in ancient woodlands. There will be synergy with conservation of oak woodlands which are managed to control against invasive species (e.g. Sycamore and Rhododendron) or a dense understorey (e.g. Bramble) and to maintain a supply of deadwood within the habitat. In addition to leaving deadwood in situ some sections of fallen trunks may be "planted"

in the ground to simulate rotten tree stumps. These are less prone to desiccation than fallen timber left lying on the woodland floor.

Tree planting to expand the woodland on existing sites is a management option, but care must be taken to ensure the adjacent habitat does not support other rare species. For example the rare Kugelann's green clock beetle (*Poecilus kugelanni*) occurs on mixed-grazed heathlands adjacent to oak woodland on Dartmoor, which contains the largest population of Blue ground beetles in Britain.

Environmental stewardship options

HLS options

HC12 Maintenance of wood pasture and parkland

HC13 Restoration of wood pasture and parkland

HC14 Creation of wood pasture

HC7 Maintenance of woodland

HC8 Restoration of woodland

HC9 Creation of woodland in Severely

Disadvantaged Areas

HC10 Creation of woodland outside Severely

Disadvantaged Areas

HR1 Cattle grazing supplement

HR4 Supplement for control of invasive plant species

HR5 Bracken control supplement

The Forestry Commission's Woodland Grant Scheme may be explored for further support. www.forestry.gov.uk/ewgs

References

This sheet can be accessed on the web at www.buglife.org.uk

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