

# Set-aside downy-back beetle

(*Ophonus laticollis*)



A weedy arable margin on the South Downs near Newhaven featuring light chalky soil

**The Set-aside downy-back is an 8-11mm long, metallic blue-green ground beetle with amber-orange antennae and legs and a fine coating of hairs (the “downy back”). It is seed-eating ground beetle, usually found on arable field margins and calcareous grassland. It declined by 88% between 1900-69 and 1970-2004 and is a Section 41 Conservation Priority Species.**

## Life cycle

Adult can be found in any month of the year; but are most commonly seen between April and October, peaking in May and June. Eggs are laid in spring and larvae develop through the summer, with new adults emerging from mid-July. Adults and larvae are thought to feed mainly on seeds, but they may also scavenge.

## Distribution map

In the 1900s, this species had a wide but very scattered distribution in southern England, from Cornwall to Kent and northwards to Northamptonshire, Nottinghamshire and Norfolk.

Since 1970, it has only been found in Hampshire, Oxfordshire, Buckinghamshire, Cambridgeshire, Norfolk and Suffolk.

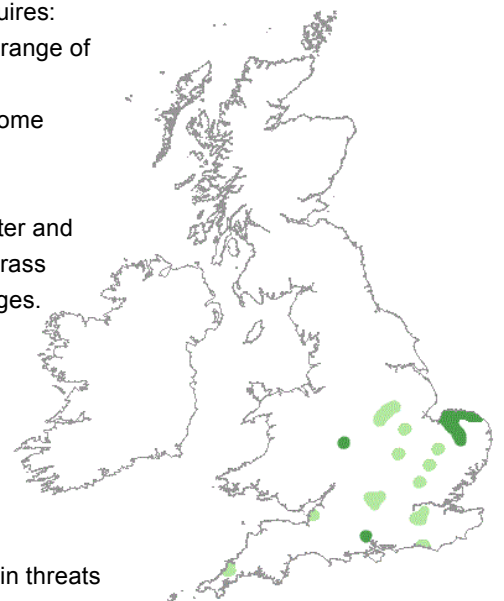
## Habitat

The Set-aside downy-back requires:

- (i) seeds in abundance, from a range of annual plants,
- (ii) light, dry, friable soils with some chalk or limestone content,
- (iii) open, sunny conditions,
- (iv) undisturbed places for shelter and hibernation such as tussocky grass margins or thick-bottomed hedges.

## Reasons for decline

The long-term decline of this species is the result of changes in agriculture towards larger, less weedy arable fields and fewer hedgerows. The main threats to current populations on arable margins are use of herbicides and lack of weedy arable margins. On calcareous grassland sites, the main threats are excessive grazing or, conversely, encroachment of scrub and coarse grassland through insufficient grazing.



Dark Green post 1980, light green pre 1980





A weedy arable margin at Fulbourn, near Cambridge featuring calcareous sandy soil.

### Habitat management

The most important requirements are:

- For arable sites regular (more-or-less annual) soil disturbance, by ploughing, grazing or other process, to maintain suitable habitat conditions
- On arable sites, leave unsprayed and unsown margins at least 6 metres wide to encourage abundant annual plants that produce the seeds required by the beetle.
- Uncultivated habitats at the edge of arable fields to provide overwintering sites and refuges from ploughing (some good sites for Set-aside downy-back are next to ancient thick-bottomed hedges or woodland)
- On calcareous grasslands sites, maintain some scrub and create weedy areas through patchy disturbance
- For grassland apply no more than light grazing in summer to allow weed plants to flower and set seed
- Restrict the use of pesticides around habitat created for the beetle by avoiding all pesticide use in key fields or by having at least a two metre buffer in place

### Environmental Stewardship options

Note other options may also be suitable depending on individual sites. These options are available in England, although Wales and Scotland have similar schemes in place.

#### HLS options

**HB11** - Management of hedgerows of very high environmental value (both sides)

**HC15-17** - Maintenance, restoration and creation of successional areas and scrub

**HC24** - Hedgerow tree buffer strips on cultivated land

**HE1-3** - Buffer strips on cultivated land

**HE10** - Floristically enhanced grass buffer strips (non-rotational)

**HF9** - Unfertilised cereal headlands

**HF10** - Unharvested cereal headlands (not sure about this one as it provides food over the winter which may not be necessary)

**HF14** - Unharvested, fertiliser-free conservation headland

**HK6-8** - Maintenance, restoration and creation of species-rich, semi natural grassland

**HK15-17** - Maintenance, restoration and creation of grassland for target features

**HR4** - Supplement for control of invasive plant species

**HR6** - Supplement for small fields

#### ELS options

**EB1** - Hedgerow management on both sides of a hedge

**EC24** - Hedgerow tree buffer strips on cultivated land

**EE1-3** - Buffer strips on cultivated land

**EF9** - Unfertilised cereal headlands

**EF10** - Unharvested cereal headlands

### References

This sheet can also be accessed on the web at [www.buglife.org.uk](http://www.buglife.org.uk)

JNCC (2010). UK Priority Species data collation: *Ophonus laticollis* version 2. Joint Nature Conservation Committee.  
[http://jncc.defra.gov.uk/\\_speciespages/355.pdf](http://jncc.defra.gov.uk/_speciespages/355.pdf)

Telfer, M.G. (2009). Monitoring *Ophonus laticollis* at Gallows Hill, Thetford. Norfolk Biodiversity Partnership.  
[http://www.norfolkbiodiversity.org/pdf/biodiversitysurveys/Monitoring%20Ophonus%20laticollis%20at%20Gallows%20Hill%20\\_Final%20Report%20-%20Mark%20Telfer%20Feb%202009\\_I.pdf](http://www.norfolkbiodiversity.org/pdf/biodiversitysurveys/Monitoring%20Ophonus%20laticollis%20at%20Gallows%20Hill%20_Final%20Report%20-%20Mark%20Telfer%20Feb%202009_I.pdf)

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