

Invertebrate Status Reviews

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STATUS REVIEWS

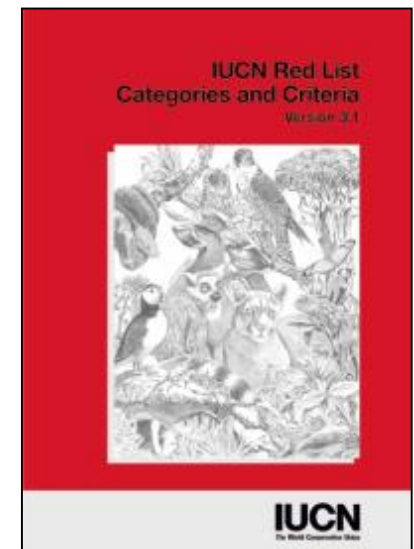


Up-to-date Status Reviews are
critical to invertebrate
conservation

STATUS REVIEWS: What is the point?

Up-to-date conservation status for species underpins everything I do.

1. Site quality based on presence of threatened and rare species (SSSI notifications and monitoring, development casework).
2. Flags up new species that may require resourcing.
3. Could be used for reporting on English/UK state of nature – Red List Index



What are in Invertebrate Status Reviews?

- Each encompasses a named taxonomic group e.g. ground beetles (Carabidae)



- Covers Great Britain: England, Scotland and Wales

- Based on agency su

| Name | Bembidion punctulatum |
|----------------|-----------------------|
| Location | Grimsthorpe Park |
| Grid reference | SK200100 |
| Data | 13/05/2013 |
| Recorder | S Perry |
| Determiner | K Alexander |

What do they analyse?

| | |
|--|---|
| 1 Threat of regional extinction (IUCN guidance) | Extinct (EX) Critically Endangered (CE) Endangered (EN) Vulnerable (VU) Near Threatened (NT) Least Concern (LC) Not Applicable (NA) non-natives etc |
| 2 Great Britain Rarity Status | Nationally Rare (16-100 hectads) Nationally Scarce (1-15 hectads) |

Also in a review:

- Status Sheets for species (IUCN Threatened Status)
- Lists non-native/migrant species
- Indicates presence in Scotland, England or Wales

1 Threat Status: IUCN Criteria for invertebrates



| Criteria | |
|---------------------------------------|------------------------------|
| A Population reduction | Butterflies and a few others |
| B Geographic range | Most invertebrates |
| C Small population size and decline | Butterflies and a few others |
| D Very small or restricted population | Most invertebrates |
| E Quantitative Analysis | na |

1 Some Problems when assessing threat

- IUCN uses tetrad as opposed to hectad as a standard 'dot on a map'. Calculation of Area of Occupancy requires tetrads.
- Difficulties arise due to limited recording and lack of data on population levels.
- Invertebrate habitat decline often not measured.



2 GB Rarity Status

| No. of Hectads recorded from | Rarity Status |
|------------------------------|------------------------|
| 1-15 | Nationally Rare (NR) |
| 16-100 | Nationally Scarce (NS) |



Cryptocephalus coryli.
5 hectads = NR



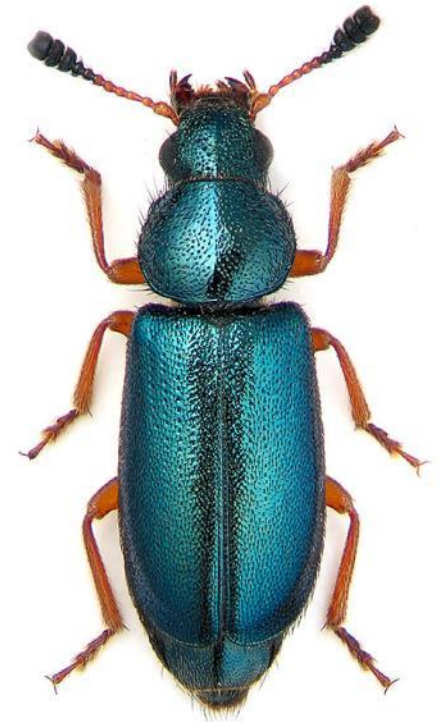
Osyphia bipunctata.
18 hectads = NS



Cantharis pellucida
529 hectads = no status

2 GB Rarity Status: Under-Recording

- Reliant on expert opinion of author, his peers and the agency staff
- E.g. *Necrobia violacea* Present in 50 hectads.
- 'A Cosmopolitan species of carrion and meat products - despite lack of records it is more than likely to be well distributed and not nationally scarce (NS – i.e. in over 100 hectads).'



Summary Info from Leaf beetle review

1 IUCN Threat Status

Of the 283 leaf beetles species in Great Britain:

- 3 extinct (1%)
- 42 'red listed': CR, EN, VU (14.5%)
- 18 non-native (6%)



2 Great Britain Rarity Status:

44 Nationally Rare

66 Nationally Scarce

Current Position - May 2016



| Completed reviews 2008-2015 | In prep by Natural England | To Do |
|--|---|---|
| <p>Dragonflies 2008 (by BDS)</p> <p>Butterflies 2010 (by BC)</p> <p>Water Beetles 2010 (ind)</p> <p>Soldier Beetles 2013</p> <p>Darkling Beetles 2013</p> <p>Molluscs 2014 (by NRW)</p> <p>Hoverflies 2014 (ind)</p> <p>Leaf Beetles 2014</p> <p>Grasshoppers 2015</p> <p>Stoneflies 2015</p> <p>Woodlice 2015</p> <p>Centipedes/Millipedes 2015</p> <p>Water bugs 2015</p> <p>Ground Beetles 2016</p> <p>Mayflies 2016</p> <p>Caddis flies 2016</p> <p>Shield Bugs 2016</p> | <p>Dolly flies</p> <p>Soldier flies</p> <p>Spiders (by NRW)</p> <p>Craneflies</p> <p>Plant bugs</p> <p>Plant hoppers</p> <p>Macro-moths</p> <p>Scarab Beetles</p> <p>Rove Beetles</p> <p>Clown Beetles</p> <p>Weevils</p> | <p>c. 2k beetles</p> <p>c. 3k flies</p> <p>c. 600 bees / wasps</p> <p>c. 500 sawflies</p> <p>c. 500 plant bugs</p> <p>c. 1.5k micro-moths</p> <p>c. 500 odds and sods</p> <p><i>Also non-inverts</i></p> <p>Mammals, herps, birds, plants, lichens, mushrooms.</p> |

Pros of undertaking a Status Review



| Taxa | Starting Records | Current Records |
|----------------|------------------|-----------------|
| Scarab beetles | 16,000 | 43,000 |
| Weevils | >5,000? | 207,000 |
| Plant bugs | 40,000 | 140,000 |
| Rove beetles | >50,000? | 435,000 |



British Wildlife Paper (August 2016)



Of the 3,770 reviewed...

395 (11%)

Under some threat of extinction

- Vulnerable
- Endangered
- Critically Endangered

1,486 (39%)

Nationally Scarce / Rare

£50-100

Per species



British Wildlife Paper (August 2016)



| | |
|--|---------------|
| Number of macro-invertebrates in GB | 37,000 |
|--|---------------|

| | |
|----------------------------|--------|
| Number that are reviewable | 14,000 |
|----------------------------|--------|

| | |
|----------------------------|-------|
| Number reviewed (Feb 2016) | 3,770 |
|----------------------------|-------|

| | |
|----------------------------|-------|
| Number reviewed (mid 2017) | 7,000 |
|----------------------------|-------|

| | |
|------------------------|--------|
| Number reviewed (2020) | 14,000 |
|------------------------|--------|





- These reviews would not be possible without the support and tireless work of the recording community
- Thanks for listening
- jon.webb@naturalengland.org.uk