

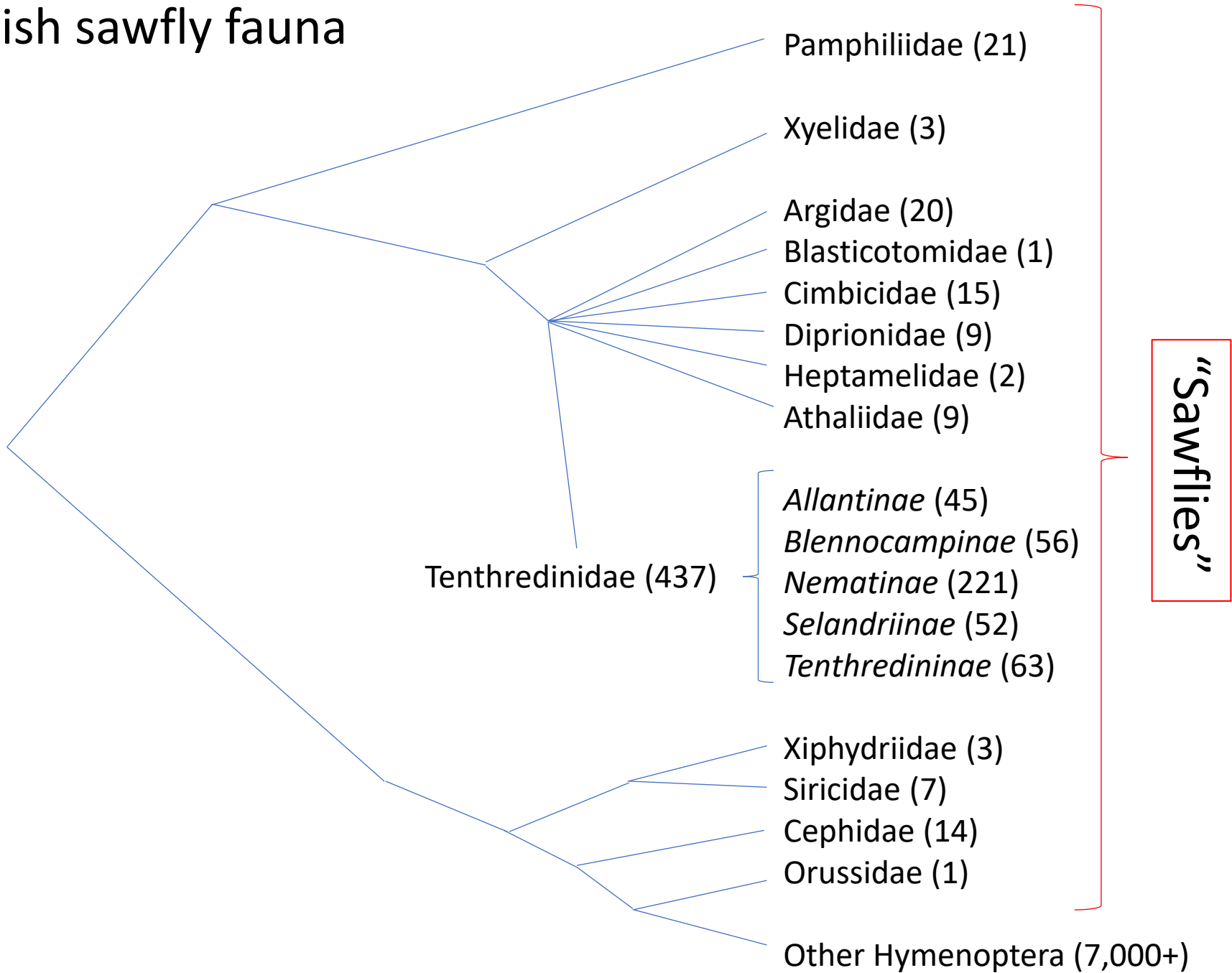
Sawflies

Perspectives on Red Listing



British sawfly fauna

HYMENOPTERA





The UK Government's 25 Year Environment Plan includes commitments to:

- take 'action to recover **threatened** ... species of animals, plants and fungi'
- 'where possible to prevent human-induced extinction or loss of known **threatened** species'
- 'improve the overall status of **declining** species groups'



A Green Future: Our 25 Year Plan to Improve the Environment



IUCN Red Listing



Guidelines for Using the IUCN Red List Categories and Criteria

Version 14
(August 2019)

Prepared by the Standards and Petitions Committee
of the IUCN Species Survival Commission.

Citation: IUCN Standards and Petitions Committee. 2019. Guidelines for Using the IUCN Red List Categories and Criteria. Version 14. Prepared by the Standards and Petitions Committee. Downloadable from <http://www.iucnredlist.org/documents/RedListGuidelines.pdf>

THE IUCN RED LIST OF THREATENED SPECIES™



IUCN RED LIST CATEGORIES AND CRITERIA

Version 3.1 Second edition



The IUCN Red List of Threatened Species™



GUIDELINES FOR APPLICATION OF IUCN RED LIST CRITERIA AT REGIONAL AND NATIONAL LEVELS

Version 4.0



The IUCN Red List of Threatened Species™



IUCN Red Listing

SUMMARY OF THE FIVE CRITERIA (A-E) USED TO EVALUATE IF A TAXON BELONGS IN AN IUCN RED LIST THREATENED CATEGORY (CRITICALLY ENDANGERED, ENDANGERED OR VULNERABLE).¹

A. Population size reduction. Population reduction (measured over the longer of 10 years or 3 generations) based on any of A1 to A4			
	Critically Endangered	Endangered	Vulnerable
A1	≥ 90%	≥ 70%	≥ 50%
A2, A3 & A4	≥ 80%	≥ 50%	≥ 30%
A1 Population reduction observed, estimated, inferred, or suspected in the past where the causes of the reduction are clearly reversible AND understood AND have ceased.		(a) direct observation [except A3] (b) an index of abundance appropriate to the taxon (c) a decline in area of occupancy (AOO), extent of occurrence (EOO) and/or habitat quality (d) actual or potential levels of exploitation (e) effects of introduced taxa, hybridization, pathogens, pollutants, competitors or parasites.	
(i) number of mature individuals; (ii) number of locations or subpopulations; (iii) number of mature individuals; (iv) number of locations or subpopulations; (v) number of mature individuals			
		Endangered	Vulnerable
		< 2,500	< 10,000
		in 5 years or 3 generations (whichever is longer)	10% in 10 years or 3 generations (whichever is longer)
		≤ 250	≤ 1,000
		5–100%	100%
		Endangered	Vulnerable
		< 250	D1. < 1,000
			D2. typically: AOO < 20 km ² or number of locations ≤ 5
a plausible future threat that could drive the taxon to CR or EX in a very short time.			
E. Quantitative Analysis			
	Critically Endangered	Endangered	Vulnerable
Indicating the probability of extinction in the wild to be:	≥ 50% in 10 years or 3 generations, whichever is longer (100 years max.)	≥ 20% in 20 years or 5 generations, whichever is longer (100 years max.)	≥ 10% in 100 years

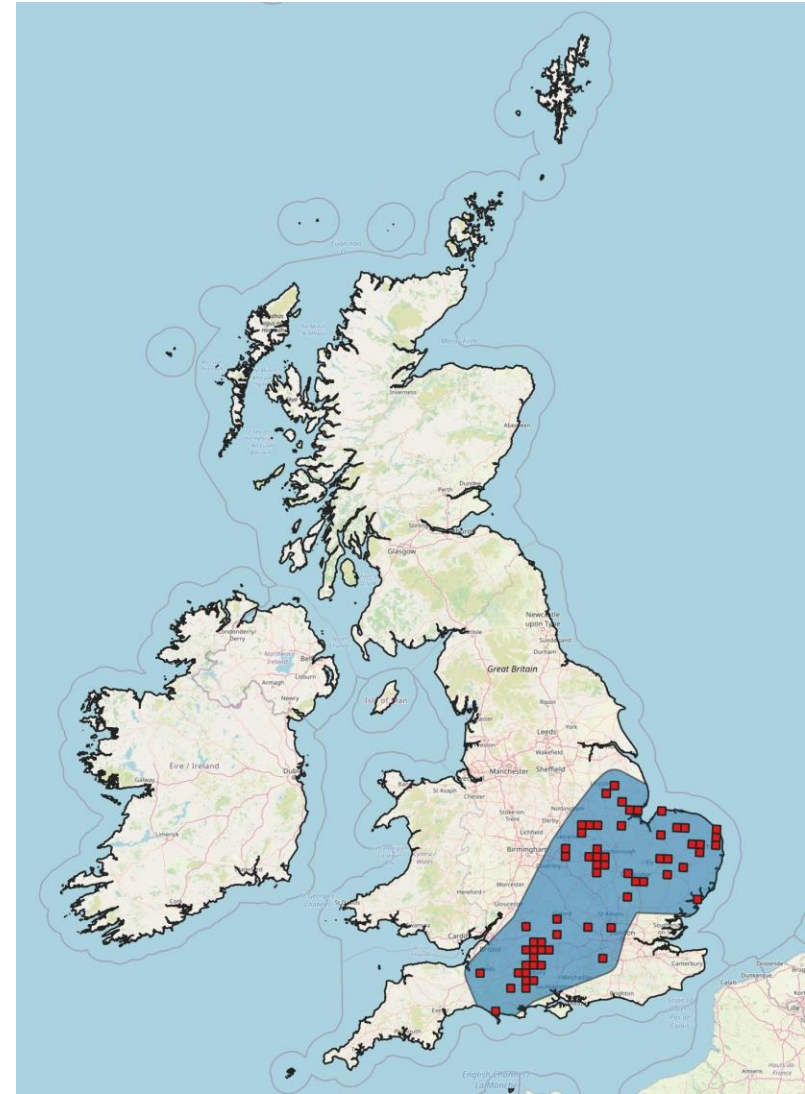
- Is a species declining?
- Does it have a small range (coupled with further risk factors?)
- Does it have a really small population?

- Species
- Location (to 2 x 2 km ideally)
- Date (to year) – last 30 years (BUT IDEALLY MORE)

¹ Use of this summary sheet requires full understanding of the IUCN Red List Categories and Criteria and Guidelines for Using the IUCN Red List Categories and Criteria. Please refer to both documents for explanations of terms and concepts used here.

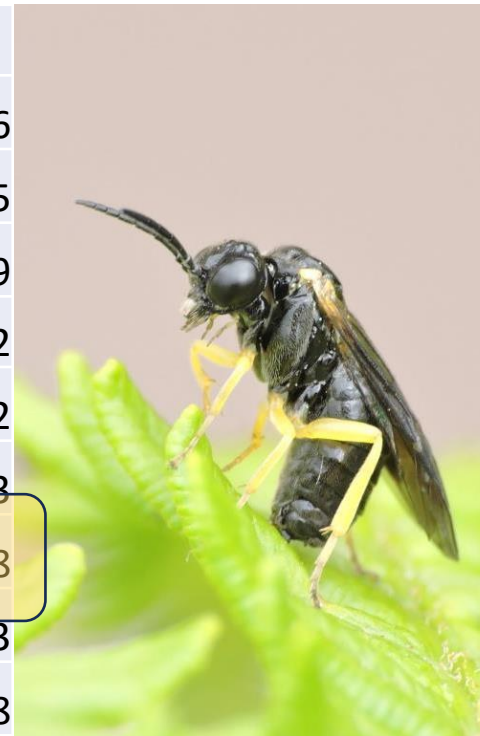
Steps required

1. Complete online training modules to confirm process fully understood
2. Collate data
3. Format and verify data
4. Produce summary statistics
5. Compare vs IUCN criteria
6. Consider whether the answers make sense



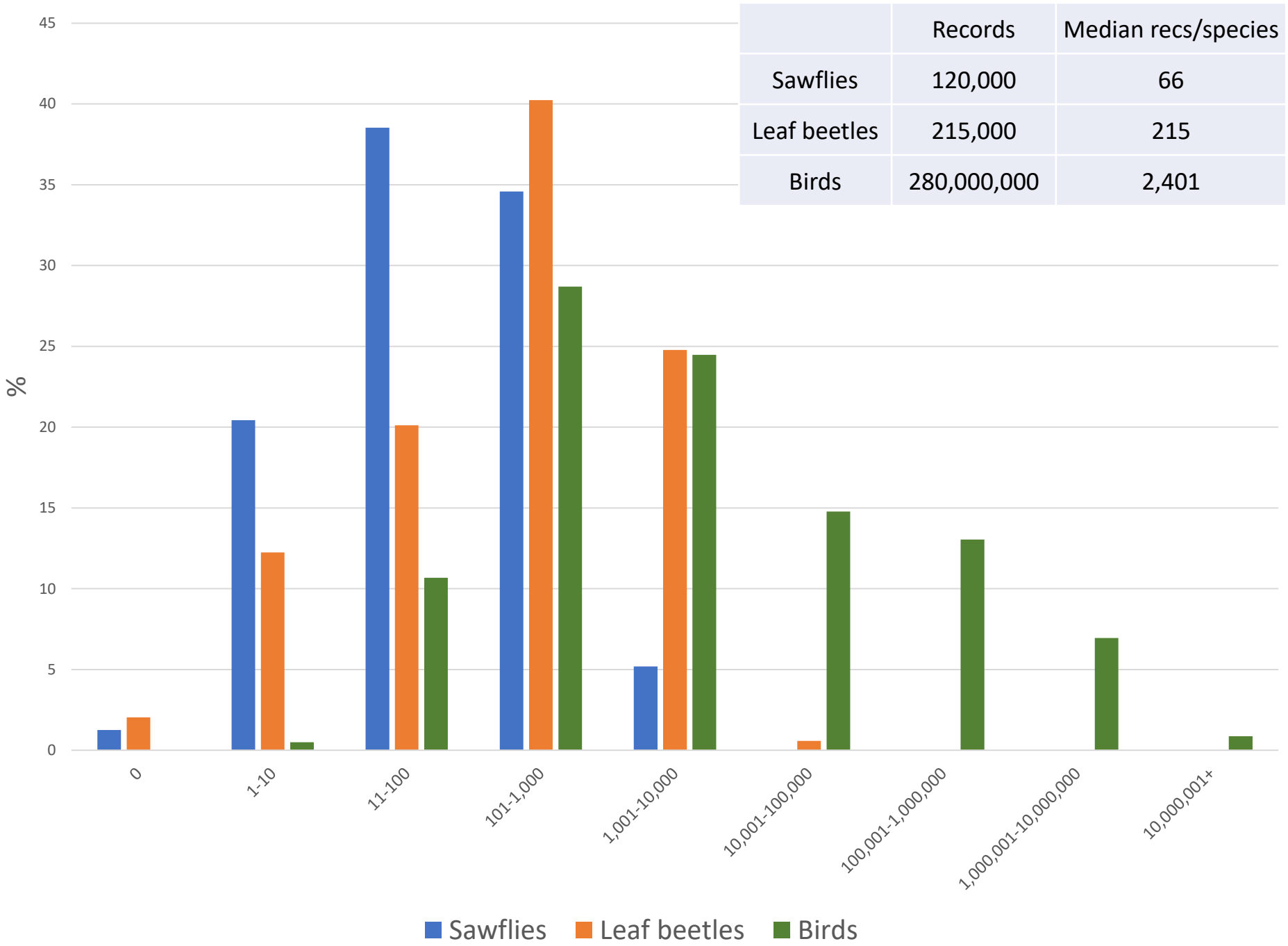
IUCN Red List of GB sawflies: Results

IUCN Red List Status	Phase 1	Phase 2	Phase 3 (*DRAFT*)	Combined
Least Concern	51	170	125	346
Near Threatened	8	9	8	25
Vulnerable	6	11	2	19
Endangered	3	6	3	12
Critically Endangered	3	5	4	12
Regionally Extinct	6	5	2	13
Data Deficient	16	16	66	98
Not Applicable	18	2	13	33
Total	111	224	223	558



How deficient is data deficient?

	Records	Median recs/species
Sawflies	120,000	66
Leaf beetles	215,000	215
Birds	280,000,000	2,401



When are your data deficient?

- If VERY few records
 - recent discoveries of apparent native species
 - those only known from more remote areas (and taxa not tackled by many recorders)
- If few records and those very biased
 - upland areas recorded only on sporadic expeditions
 - of time-limited focus because represent pest outbreaks in e.g. conifers, orchards
- But few records by themselves do not necessarily have to be considered DD
 - *Euura fuscomaculata* (LC) – 17 recs. Aspen feeder, inconspicuous but continues to be recorded on similar occasional basis as ever over similar wide range
 - *Euura moerens* (CR) – 43 recs. grass feeder, ID relatively straightforward, historic scattered records in unremarkable locations in south, but records now drying up
- Changes in taxonomy (or understanding of ID features)
 - Pulls the rug from most of your records. Strictly speaking, this is not so much casting doubt on the assessment as implying a need for reverifying the dataset. Numerous examples with sawflies!!

Final perspectives

- Messy (i.e. real but sparse) data requires thought and care to interpret. However, it's messy data so you're only ever going to get somewhat messy answers. Don't get bogged down seeking some unachievable perfection that the data just can't give you.
- For less well-understood groups, it's better to get something out there, as a spur to others to improve upon. Reviews can (and ideally should) be regularly updated every few years with new information.
- Carrying out a review can be time-consuming, but much of that relates to data collation, formatting and verification. A well-run recording scheme would have that in hand anyway.
- Where no such scheme exists, if national data flow issues were ever resolved, the job would be relatively trivial (except for the interpretative steps).
- Happy to discuss further with people if interested

Thanks to...

- All recorders who've ever submitted a sawfly record
- Andrew Green, Guy Knight, Andrew Halstead and other key sawfly folk
- Andrew Liston, Marko Prous, Marko Mutanen, Andreas Taeger
- The Local Environmental Records Centres
- The iRecord team at the Biological Records Centre
- BTO (bird data), Steve Lane (beetle data)
- Andy Brown, David Heaver at Natural England



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