

Journal of Insect Conservation: Insect population trends and the IUCN Red List process

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Online Resource 1. UK butterfly species' 10-year population trends over six overlapping date periods. Shading indicates Red List classification against IUCN Criterion A2 (reduction in population size) thresholds: dark shading = Critically Endangered (population decrease $\geq 80\%$), intermediate shading = Endangered (population decrease $\geq 50\%$), light shading = Vulnerable (population decrease $\geq 30\%$). * indicates species that are common migrants in the UK.

Taxon name	Vernacular name	UKBMS 10-year population trend (% change)								
		2001-10	2002-11	2003-12	2004-13	2005-14	2006-15	1st quartile	Median	3rd quartile
<i>Aglais io</i>	Peacock	-9	-17	-30	-6	21	33	-15	-7.5	14.25
<i>Aglais urticae</i>	Small Tortoiseshell	-72	-75	-77	-28	146	216	-74.25	-50	102.5
<i>Anthocharis cardamines</i>	Orange-tip	19	36	59	32	59	66	33	47.5	59
<i>Apatura iris</i>	Purple Emperor	-15	-24	-55	-19	-35	-32	-34.25	-28	-20.25
<i>Aphantopus hyperantus</i>	Ringlet	51	38	14	38	72	64	38	44.5	60.75
<i>Argynnis adippe</i>	High Brown Fritillary	-69	-64	-81	-74	0	46	-72.75	-66.5	-16
<i>Argynnis aglaja</i>	Dark Green Fritillary	99	88	12	30	18	6	13.5	24	73.5
<i>Argynnis paphia</i>	Silver-washed Fritillary	137	80	-2	-3	6	8	0	7	62
<i>Aricia agestis</i>	Brown Argus	53	44	-35	-34	-11	8	-28.25	-1.5	35
<i>Aricia artaxerxes</i>	Northern Brown Argus	-44	-20	-27	-9	6	19	-25.25	-14.5	2.25
<i>Boloria euphrosyne</i>	Pearl-bordered Fritillary	-41	-11	10	23	45	87	-5.75	16.5	39.5
<i>Boloria selene</i>	Small Pearl-bordered Fritillary	16	40	17	6	3	5	5.25	11	16.75
<i>Callophrys rubi</i>	Green Hairstreak	-12	-15	-26	-40	-34	-2	-32	-20.5	-12.75
<i>Celastrina argiolus</i>	Holly Blue	-29	-28	-23	-60	-61	-31	-52.75	-30	-28.25
<i>Coenonympha pamphilus</i>	Small Heath	5	7	-22	0	18	27	1.25	6	15.25
<i>Coenonympha tullia</i>	Large Heath	171	130	-6	-60	-49	-56	-54.25	-27.5	96
<i>Colias croceus</i>	Clouded Yellow *	-59	-97	-98	-88	-57	-32	-94.75	-73.5	-57.5
<i>Cupido minimus</i>	Small Blue	37	83	0	-25	-27	-19	-23.5	-9.5	27.75
<i>Erebia aethiops</i>	Scotch Argus	-50	-44	-5	40	24	23	-34.25	9	23.75
<i>Erynnis tages</i>	Dingy Skipper	3	31	49	57	69	90	35.5	53	66

<i>Euphydryas aurinia</i>	Marsh Fritillary	4	42	-52	-66	-64	-62	-63.5	-57	-10
<i>Favonius quercus</i>	Purple Hairstreak	-9	-15	-8	-25	-10	-17	-16.5	-12.5	-9.25
<i>Gonepteryx rhamni</i>	Brimstone	3	-5	-30	-30	-1	37	-23.75	-3	2
<i>Hamearis lucina</i>	Duke of Burgundy	-71	-51	-58	24	67	80	-56.25	-13.5	56.25
<i>Hesperia comma</i>	Silver-spotted Skipper	-33	-19	-55	-23	12	53	-30.5	-21	4.25
<i>Hipparchia semele</i>	Grayling	26	43	18	25	10	-7	12	21.5	25.75
<i>Lasiommata megera</i>	Wall	-57	-62	-67	-56	-25	-17	-60.75	-56.5	-32.75
<i>Leptidea sinapis</i>	Wood White	-61	-55	-59	-56	-18	41	-58.25	-55.5	-27.25
<i>Limenitis camilla</i>	White Admiral	80	21	-44	-50	-45	-43	-44.75	-43.5	5
<i>Lycaena phlaeas</i>	Small Copper	42	30	-16	-19	-19	-46	-19	-17.5	18.5
<i>Maniola jurtina</i>	Meadow Brown	-23	-30	-31	-25	-15	13	-28.75	-24	-17
<i>Melanargia galathea</i>	Marbled White	-17	-16	-28	-16	25	62	-16.75	-16	14.75
<i>Melitaea athalia</i>	Heath Fritillary	-72	-72	-76	-82	-79	-84	-81.25	-77.5	-73
<i>Ochlodes sylvanus</i>	Large Skipper	-14	3	-18	-16	23	41	-15.5	-5.5	18
<i>Pararge aegeria</i>	Speckled Wood	33	12	-20	-9	4	-5	-8	-0.5	10
<i>Phengaris arion</i>	Large Blue	23	-7	4	-11	-20	25	-10	-1.5	18.25
<i>Pieris brassicae</i>	Large White	54	8	-40	-1	-28	-20	-26	-10.5	5.75
<i>Pieris napi</i>	Green-veined White	21	20	-16	26	72	38	20.25	23.5	35
<i>Pieris rapae</i>	Small White	-5	-14	-55	10	9	-1	-11.75	-3	6.5
<i>Plebejus argus</i>	Silver-studded Blue	-30	-15	-40	2	-9	-6	-26.25	-12	-6.75
<i>Polygonia c-album</i>	Comma	11	-6	-39	-25	-28	-26	-27.5	-25.5	-10.75
<i>Polyommatus bellargus</i>	Adonis Blue	99	-1	-46	-23	-43	-46	-45.25	-33	-6.5
<i>Polyommatus coridon</i>	Chalkhill Blue	21	15	13	77	55	66	16.5	38	63.25
<i>Polyommatus icarus</i>	Common Blue	16	-11	-52	-27	1	30	-23	-5	12.25
<i>Pyrgus malvae</i>	Grizzled Skipper	-11	23	63	12	0	-5	-3.75	6	20.25
<i>Pyronia tithonus</i>	Gatekeeper	-37	-46	-62	-67	-44	-6	-58	-45	-38.75
<i>Satyrrium pruni</i>	Black Hairstreak	334	319	-40	-89	-87	-78	-84.75	-59	229.25
<i>Satyrrium w-album</i>	White-letter Hairstreak	-26	-22	-69	-74	-77	-74	-74	-71.5	-36.75
<i>Thecla betulae</i>	Brown Hairstreak	-53	-50	-75	-75	-58	-5	-70.75	-55.5	-50.75

<i>Thymelicus acteon</i>	Lulworth Skipper	-93	-92	-88	-53	39	200	-91	-70.5	16
<i>Thymelicus lineola</i>	Essex Skipper	-90	-92	-91	-81	-66	16	-90.75	-85.5	-69.75
<i>Thymelicus sylvestris</i>	Small Skipper	-71	-66	-66	-31	27	121	-66	-48.5	12.5
<i>Vanessa atalanta</i>	Red Admiral *	-27	-13	-25	-14	-40	-45	-36.75	-26	-16.75
<i>Vanessa cardui</i>	Painted Lady *	-40	-84	-94	-89	-84	-88	-88.75	-86	-84