

ENGLAND Summary of changes table 2021. Summary of species abundance changes in England from 2020 to 2021 and long-term (over the entire time series; no. yrs max = 46) and short-term (last 10-years) changes. Significance of trends: * P < 0.05 (significant), ** P < 0.01 (highly significant), ***P < 0.001 (very highly significant). Red text has been used to highlight those species that had their worst year of the series in 2021, and blue text for those species that had their best year of the series in 2021.

Species	Start Year	No. years with Index in 2021	No. sites monitored in 2021	2021 rank	% change 2020-2021	Series trend (%)	10-year trend (%)
Swallowtail	1976	45	16	23	-24	30	45
Dingy Skipper	1976	46	637	13	-11	-1	11
Grizzled Skipper	1976	46	404	31	-17	-47***	1
Essex Skipper	1977	45	1078	29	0	-22	19
Small Skipper	1976	46	1918	39	-16	-74***	-12
Lulworth Skipper	1992	30	23	20	-13	-75**	-19
Silver-spotted Skipper	1979	43	74	16	-40	612***	36
Large Skipper	1976	46	1917	42	-29	-23	8
Wood White	1979	43	78	24	-16	-82***	167*
Orange-tip	1976	46	1736	9	-7	25	42
Large White	1976	46	2265	37	-34	-32	45
Small White	1976	46	2271	19	-32	-12	92
Green-veined White	1976	46	2163	42	-32	-21	-3
Clouded Yellow	1979	43	880	22	-65	676*	12
Brimstone	1976	46	1864	10	-5	28	69
Wall	1976	46	679	38	0	-88***	2
Speckled Wood	1976	46	2183	23	11	100***	9
Large Heath	N/A	N/A	8	N/A	N/A	N/A	N/A
Small Heath	1976	46	1602	27	-19	-50**	72
Mountain Ringlet	N/A	N/A	2	N/A	N/A	N/A	N/A
Scotch Argus	1995	27	12	19	40	-75***	-21
Ringlet	1976	46	2150	23	-4	335***	-11
Meadow Brown	1976	46	2273	26	-17	0	18
Gatekeeper	1976	46	2132	37	-11	-46***	40
Marbled White	1976	46	1365	7	-7	76**	57
Grayling	1976	46	261	37	-5	-58***	-5
Pearl-bordered Fritillary	1978	44	131	38	-18	-73***	2
Small Pearl-bordered Fritillary	1978	44	143	40	20	-62***	-38*
Silver-washed Fritillary	1976	46	1013	9	3	288***	36
Dark Green Fritillary	1976	46	663	1	10	532***	62
High Brown Fritillary	1978	44	49	27	-13	-64**	176
White Admiral	1976	46	405	44	-24	-62***	3
Purple Emperor	1979	43	124	9	45	136**	9
Red Admiral	1976	46	2250	4	38	288***	147
Painted Lady	1976	46	2007	17	408	97	469
Peacock	1976	46	2206	22	-29	4	7
Small Tortoiseshell	1976	46	2132	36	-29	-79***	-24
Comma	1976	46	2082	30	-18	186***	4
Marsh Fritillary	1982	40	148	28	16	-62*	49
Glanville Fritillary	1989	33	10	1	62	145	4808*
Heath Fritillary	1981	41	42	32	14	-91***	112*
Duke of Burgundy	1979	43	108	30	-34	-35*	38
Small Copper	1976	46	1850	32	-24	-34	63
Brown Hairstreak	1983	39	170	3	108	-1	88*
Purple Hairstreak	1976	46	666	30	-43	-29	143
Green Hairstreak	1976	46	686	42	-48	-38*	113
White-letter Hairstreak	1976	46	323	27	-17	-78***	202*
Black Hairstreak	1995	27	14	3	62	500**	4908**
Small Blue	1979	43	304	18	-11	-12	118*
Holly Blue	1976	46	1814	26	-50	134	142
Large Blue	N/A	N/A	4	N/A	N/A	N/A	N/A
Silver-studded Blue	1984	38	122	4	0	6	202***
Brown Argus	1976	46	1144	27	3	25	117
Northern Brown Argus	1979	43	47	28	0	-58**	21
Common Blue	1976	46	2011	38	-9	-17	36
Adonis Blue	1979	43	191	18	62	114*	-43
Chalk Hill Blue	1976	46	302	3	48	1	-24

SCOTLAND Summary of changes table 2021. Summary of species abundance changes in Scotland from 2020 to 2021 and long-term (over the entire time series; no. yrs max = 43) and short-term (last 10-years) changes. Significance of trends: * P < 0.05 (significant), ** P < 0.01 (highly significant), ***P < 0.001 (very highly significant). Red text has been used to highlight those species that had their worst year of the series in 2021, and blue text for those species that had their best year of the series in 2021.

Species	Start Year	No. years with Index in 2021	No. sites monitored in 2021	2021 rank	% change 2020-2021	Series trend (%)	10-year trend (%)
Dingy Skipper	N/A	N/A	6	N/A	N/A	N/A	N/A
Chequered Skipper	N/A	N/A	5	N/A	N/A	N/A	N/A
Small Skipper	N/A	N/A	25	N/A	N/A	N/A	N/A
Large Skipper	N/A	N/A	5	N/A	N/A	N/A	N/A
Orange-tip	1999	23	128	7	-17	2649***	383**
Large White	1979	43	145	14	74	295**	237
Small White	1979	43	155	18	5	239*	48
Green-veined White	1979	43	187	32	7	-3	-43
Clouded Yellow	N/A	N/A	6	N/A	N/A	N/A	N/A
Wall	1999	23	26	1	182	7918***	6182***
Speckled Wood	2001	21	63	3	20	379***	561***
Large Heath	N/A	N/A	27	N/A	N/A	N/A	N/A
Small Heath	1979	43	122	4	-9	595***	255**
Mountain Ringlet	N/A	N/A	3	N/A	N/A	N/A	N/A
Scotch Argus	1990	32	26	21	-6	10	-75**
Ringlet	1996	26	162	3	-2	1626***	97
Meadow Brown	1979	43	168	12	25	-6	101
Grayling	1990	32	20	26	91	-99***	-88**
Pearl-bordered Fritillary	2002	20	14	2	7	1218***	766***
Small Pearl-bordered Fritillary	1979	43	56	1	62	326***	678***
Dark Green Fritillary	1979	43	73	12	17	31	3
Red Admiral	1980	41	157	21	-71	812***	345
Painted Lady	1980	38	136	21	84	122	877
Peacock	1995	27	168	13	-48	1058***	473*
Small Tortoiseshell	1979	43	179	33	-46	-82***	-63
Comma	2006	16	55	11	-13	699*	650
Marsh Fritillary	2006	16	27	8	132	-92	-36
Small Copper	1979	43	128	36	19	-67*	-56
Purple Hairstreak	N/A	N/A	8	N/A	N/A	N/A	N/A
Green Hairstreak	1990	32	28	17	-4	46	77
Small Blue	N/A	N/A	13	N/A	N/A	N/A	N/A
Holly Blue	N/A	N/A	5	N/A	N/A	N/A	N/A
Northern Brown Argus	1981	41	20	6	-9	41	706***
Common Blue	1979	43	110	17	-5	127	17

WALES Summary of changes table 2021. Summary of species abundance changes in Wales from 2020 to 2021 and long-term (over the entire time series; no. yrs max = 46) and short-term (last 10-years) changes. Significance of trends: * P < 0.05 (significant), ** P < 0.01 (highly significant), ***P < 0.001 (very highly significant). Red text has been used to highlight those species that had their worst year of the series in 2021, and blue text for those species that had their best year of the series in 2021.

Species	Start Year	No. years with Index in 2021	No. sites monitored in 2021	2021 rank	% change 2020-2021	Series trend (%)	10-year trend (%)
Dingy Skipper	2004	18	25	18	-64	11	-50
Grizzled Skipper	N/A	N/A	7	N/A	N/A	N/A	N/A
Essex Skipper	N/A	N/A	7	N/A	N/A	N/A	N/A
Small Skipper	1984	38	67	37	-26	-1	-78*
Large Skipper	1977	45	59	39	-19	-61***	-21
Orange-tip	1978	44	50	6	12	376***	28
Large White	1976	46	83	28	-19	-8	15
Small White	1976	46	83	24	-39	-45*	29
Green-veined White	1976	46	72	30	-26	154**	-61
Clouded Yellow	N/A	N/A	24	N/A	N/A	N/A	N/A
Brimstone	1998	24	36	21	-66	77*	62
Wall	1976	46	51	35	117	-58***	-43
Speckled Wood	1978	44	81	16	5	241***	25
Large Heath	N/A	N/A	4	N/A	N/A	N/A	N/A
Small Heath	1976	46	55	14	82	0	-16
Ringlet	1983	39	75	18	-22	271***	-36
Meadow Brown	1976	46	84	31	-19	10	-31
Gatekeeper	1978	44	76	31	-2	31	-37
Marbled White	N/A	N/A	18	N/A	N/A	N/A	N/A
Grayling	1976	46	28	30	142	-95***	-57
Pearl-bordered Fritillary	N/A	N/A	14	N/A	N/A	N/A	N/A
Small Pearl-bordered Fritillary	1992	30	15	12	91	-74**	-30
Silver-washed Fritillary	1995	25	22	15	3	-55	35
Dark Green Fritillary	1979	43	36	22	23	-83***	47
High Brown Fritillary	N/A	N/A	7	N/A	N/A	N/A	N/A
Red Admiral	1976	46	80	15	-42	171*	267*
Painted Lady	1977	44	68	25	46	35	699
Peacock	1976	46	77	34	-57	-24	14
Small Tortoiseshell	1976	46	80	29	-52	-27	-22
Comma	1992	30	67	12	-2	252***	67
Marsh Fritillary	1990	32	16	18	76	-62	15
Small Copper	1976	46	65	28	29	-48*	35
Brown Hairstreak	2004	18	1	4	26	-28	4
Purple Hairstreak	2002	20	16	13	-55	-33	115
Green Hairstreak	1993	29	19	10	-45	417***	159
White-letter Hairstreak	N/A	N/A	9	N/A	N/A	N/A	N/A
Small Blue	N/A	N/A	8	N/A	N/A	N/A	N/A
Silver-studded Blue	N/A	N/A	8	N/A	N/A	N/A	N/A
Holly Blue	1999	23	44	12	-44	36	255*
Brown Argus	1997	25	18	7	118	65	71
Common Blue	1976	46	70	32	62	-28	-24

NORTHERN IRELAND Summary of changes table 2021. Summary of species abundance changes in Northern Ireland from 2020 to 2021 and long-term (over the entire time series; no. yrs max = 18) and short-term (last 10-years) changes. Significance of trends: * P < 0.05 (significant), ** P < 0.01 (highly significant), ***P < 0.001 (very highly significant). Red text has been used to highlight those species that had their worst year of the series in 2021, and blue text for those species that had their best year of the series in 2021.

Species	Start Year	No. years with Index in 2021	No. sites monitored in 2021	2021 rank	% change 2020-2021	Series trend (%)	10-year trend (%)
Dingy Skipper	N/A	N/A	2	N/A	N/A	N/A	N/A
Cryptic Wood White	2009	13	15	11	-47	25	3
Orange-tip	2007	15	29	13	-47	-13	74
Large White	2006	16	39	9	144	-56*	-52
Small White	2006	16	37	8	138	-64**	-4
Green-veined White	2005	17	43	10	60	9	-53
Clouded Yellow	N/A	N/A	4	N/A	N/A	N/A	N/A
Wall	N/A	N/A	2	N/A	N/A	N/A	N/A
Speckled Wood	2007	15	40	2	21	62	44
Large Heath	N/A	N/A	3	N/A	N/A	N/A	N/A
Small Heath	2004	18	20	9	29	-38	40
Ringlet	2006	16	43	10	28	54	-45
Meadow Brown	2009	13	43	10	-2	-40	-15
Grayling	N/A	N/A	6	N/A	N/A	N/A	N/A
Silver-washed Fritillary	N/A	N/A	9	N/A	N/A	N/A	N/A
Dark Green Fritillary	N/A	N/A	12	N/A	N/A	N/A	N/A
Red Admiral	N/A	N/A	37	N/A	N/A	N/A	N/A
Painted Lady	N/A	N/A	35	N/A	N/A	N/A	N/A
Peacock	2006	16	40	6	-25	35	869*
Small Tortoiseshell	2010	12	43	3	-57	46	189
Marsh Fritillary	2004	18	14	8	-15	89	234
Small Copper	2005	17	29	9	-26	-33	137
Purple Hairstreak	N/A	N/A	1	N/A	N/A	N/A	N/A
Green Hairstreak	N/A	N/A	3	N/A	N/A	N/A	N/A
Holly Blue	N/A	N/A	12	N/A	N/A	N/A	N/A
Common Blue	2005	17	23	10	-6	-25	-19