Grayling *Hipparchia semele*

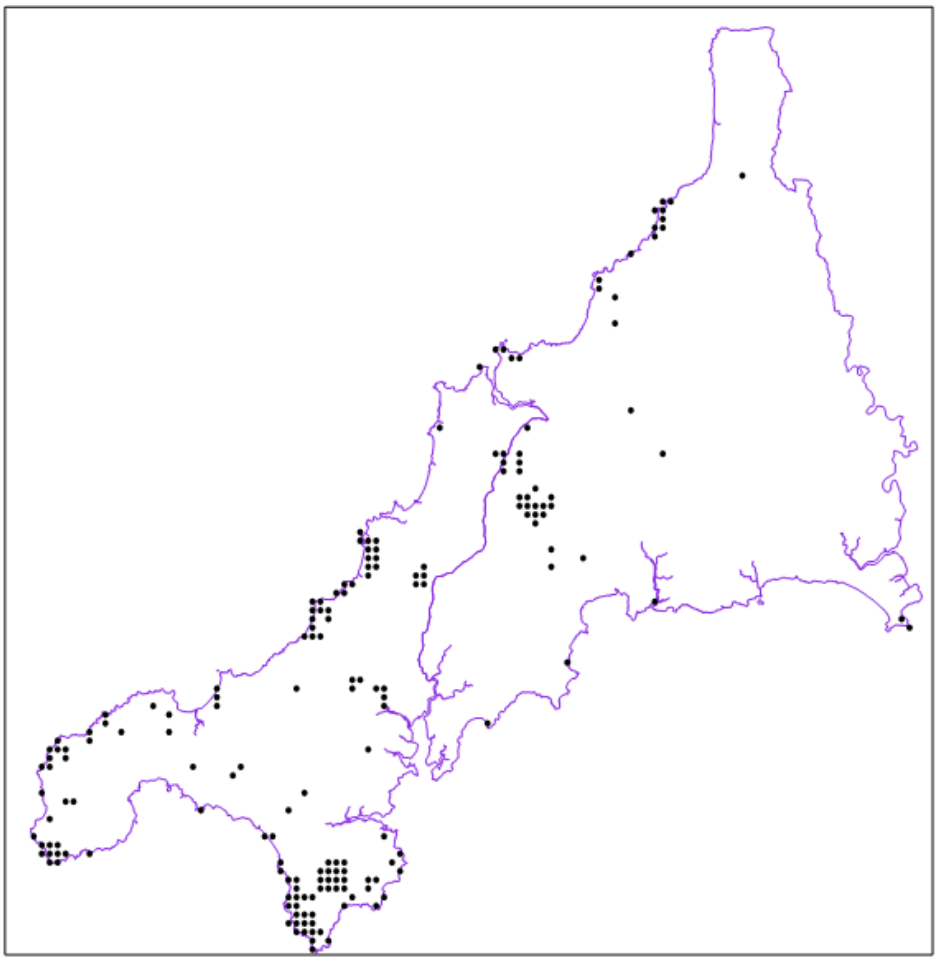
A summary compiled by Jerry Dennis, October 2022

The Grayling is a Section 41 Species of Principal Importance with Endangered status on the 2022 UK Red List. Recent analysis of Cornish data indicates no significant change in the occurrence of the Grayling in the last 20 years.

It lives in grassy heathland where short sward is maintained by ambient environmental conditions and/or grazing. Survival in each of its stages is particularly geared towards non-detection by potential predators. Larval feeding patterns are nocturnal, pupation is underground, and the excellent camouflage of the adult butterfly and its closed wing thermoregulation make the butterfly difficult to see when at rest. The larvae feed on fine-leaved grasses such as Sheep's Fescue and Bristle Bent and they live for up to eight months on these plants. Areas of bare soil, stony path or rock outcrop are very important in the habitat as they provide sites for sun-basking and courtship.

Monitoring has been stepped up over the last five years and this momentum should continue. Cattle and pony grazing is essential for maintenance of habitat at most of the principal sites.

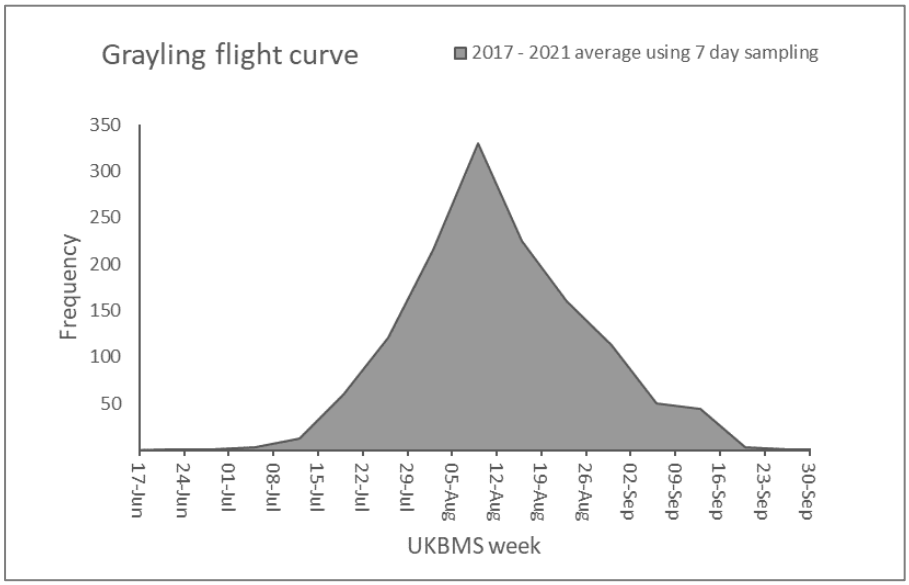
<u>Recorded locations</u>



The 1km squares (184) with records in the last ten years are highlighted. Occurrence is most widespread on the heaths of the Lizard peninsula. Coastal colonies occur in west Penwith and intermittently along the north coast from near St Agnes to north of Boscastle. Good colonies are located on heathland sites south-west of Wadebridge.

Flight period

Average weekly totals are shown graphically for the last 5 years. The display has been adjusted to align yearly median timings of the brood to average median timing. The butterfly overwinters as a caterpillar and the single brood begins to emerge in late June or early July, depending on yearly weather patterns. Numbers increase gradually from late July to a peak in early August. The tail of the population also declines gradually and extends into September.



Top Cornish sites

Top sites, 2018 - 2022	2018	2019	2020	2021	2022	5yr ave.
Goonhilly Downs	264	165	333	1370	1670	760
Porthgwarra	196	475	1012	404	176	453
Rosenannon Downs		104	299	625	482	378
Trelow Downs			265	135	287	229
Predannack - Kynance Cove	71	9	25	65	79	50
Newlyn Downs	9	16	85	37	43	38

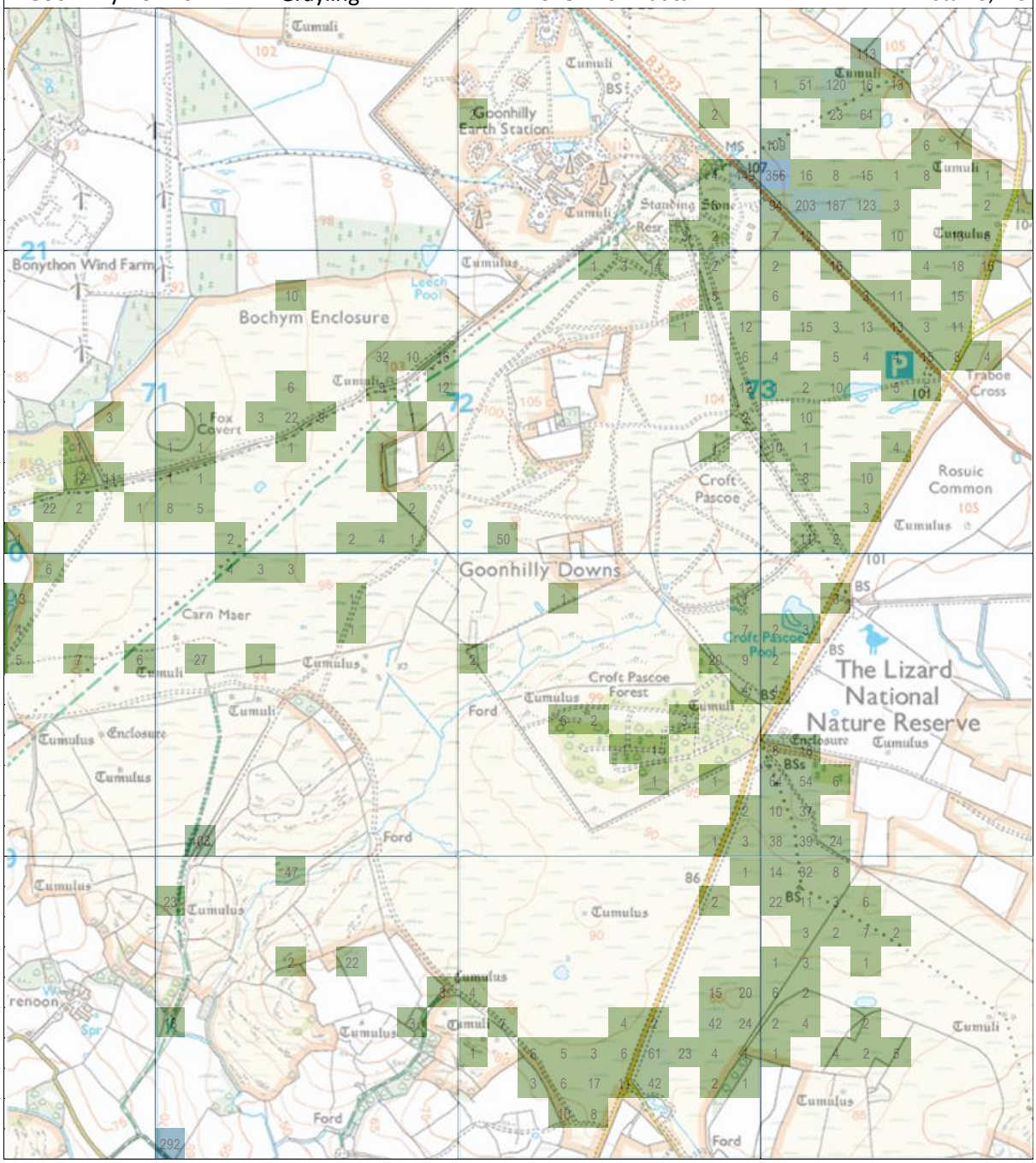
The top sites tabulated are based on recording in the last 5 years. The 2022 totals are provisional. Three of the sites, Porthgwarra, Predannack to Kynance Cove and Goonhilly Downs, are sites containing an active transect with weekly surveying. A second informal transect has been active in Goonhilly Downs (North Goonhilly Loop) in 2021 and 2022, providing a second location with weekly surveys there. A detailed distribution of five year Grayling totals at this site is shown overpage.

Counts at Rosenannon Downs and Trelow Downs, both situated SW of Wadebridge, were carried out from 2020 onwards. Weekly surveying is a goal for these two prolific sites. More systematic future surveying of the coastal section from Predannack to Kynance Cove will be informative.

The Grayling colonies in the Porthgwarra to Pordenack Point SSSI reached a high point in 2020, a year in which they were surveyed weekly throughout the site. The population crashed in 2021 after poor spring weather conditions and transect numbers were even lower in 2022.

There are 96 1km squares without Grayling records in the last five years for which there were sightings in 2000 to 2017. Most significant of these are Carloggas Downs (SX0156) and Treslea Downs (SX1368). These sites should be visited to see if Grayling colonies are still present.

Goonhilly Downs	Grayling	2018 - 2022 data	Total 3,773



Systematic surveying for the Grayling took place in 2021 and 2022 after a high count (71) was made on 8th September 2020 in the North Goonhilly compartment. Graylings have been found in every part of the heathland that has been surveyed, and there are several parts of the site yet to be walked. A risked estimate of c. 14,500 of the 2021 Goonhilly Downs total Grayling population was made with the data available.