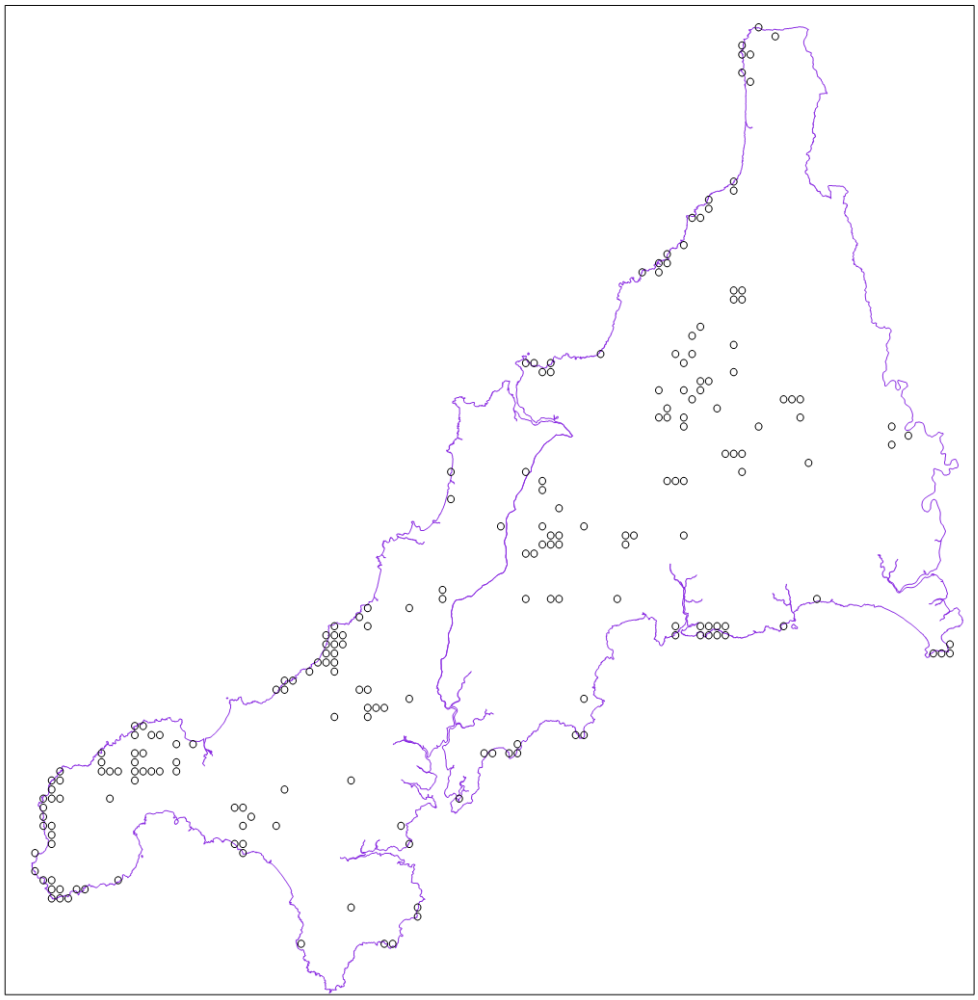
Green Hairstreak *Callophrys rubi*

Summary compiled by Jerry Dennis, April 2023

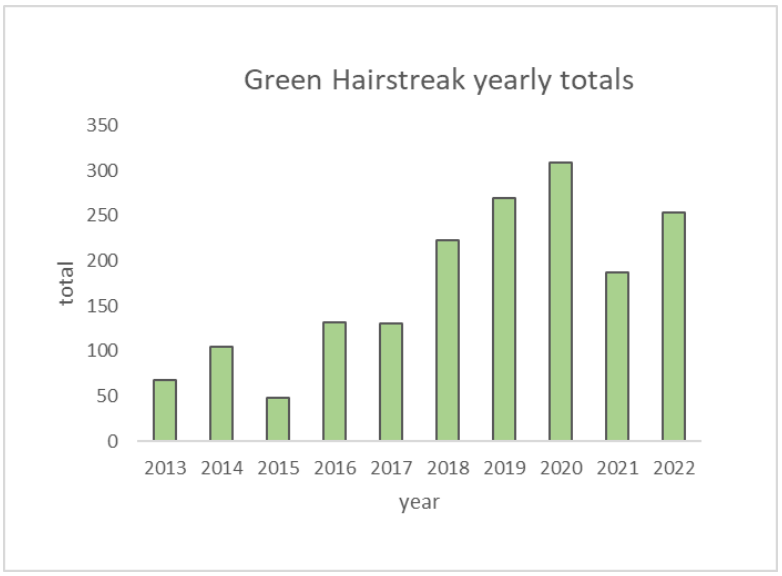
A small and unmistakable iridescent green butterfly that is localised throughout Cornwall. It is found in areas with gorse and bracken scrub and/or small shrubs that provide perches and wind-shelter. The larvae feed on very common plants including Gorse, Bird'-foot trefoil and Bramble. With the butterfly inhabiting a common Cornish habitat and requiring very common host plants, there is the prospect that the butterfly can be found anywhere thee habitat requirements are fulfilled. The butterfly is known to have a relationship with ants in the pupal stage and this may be an additional factor that limits distribution. Studies have shown that the common red ant *Myrmica sabuleti* can be induced to accept the pupa as its own species and protect it in the ant's nest during the winter months. The adult butterflies emerge from pupation after diapause and emerge in the late spring and early summer, the earliest British hairstreak to fly in the year. The species has one brood per year (univoltine).

<u>Recorded locations</u>

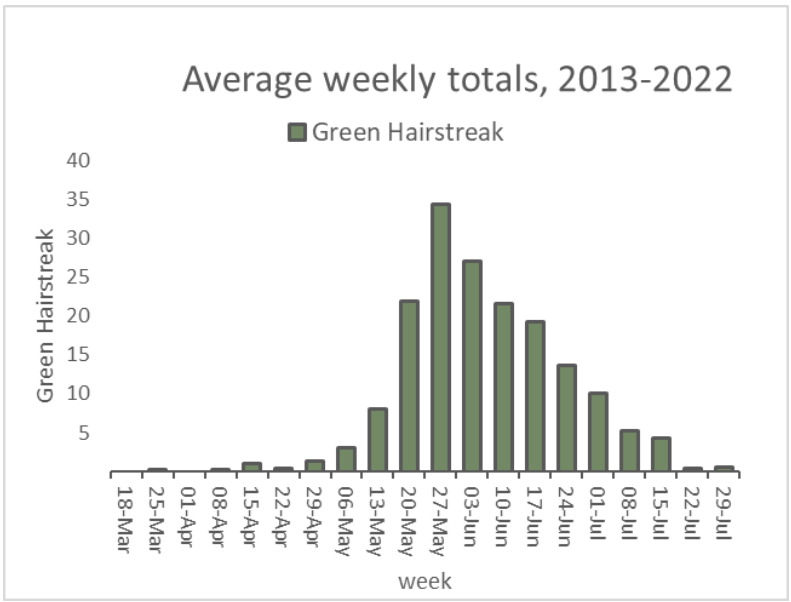
The 1km squares (321) with records in the last ten years are highlighted below.



Yearly totals in the last decade are shown graphically. Numbers have increased from 2018 due to increased weekly surveying of Porthgwarra colonies and resumption of walking the Roskestal West Cliff transect in that year. The best year in this decade occurred in 2020.



Flight period and phenology

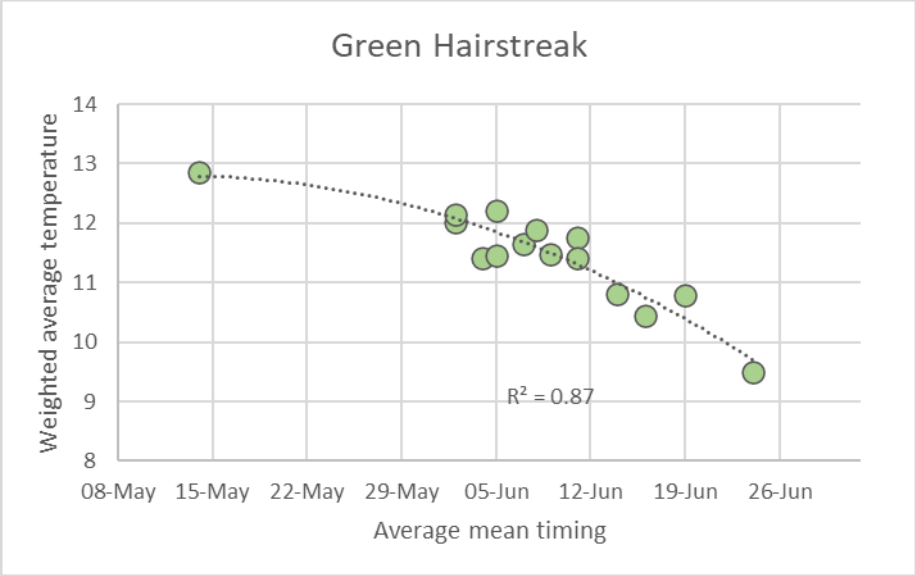


Average weekly totals for years 2013 to 2022 are shown graphically. First sightings may occur in early April and the peak usually occurs in late May. Numbers decline through June into early July.

Data for the species shows that the colonies at Porthgwarra emerge later than in other part of Cornwall. The exposed nature of this site is presumed to be a significant factor.

The mean brood timing is very sensitive to temperatures during pupation in the period February to May. A strong statistical relationship is found between the variation in yearly mean brood timings

and annual monthly temperatures in these months as summarised graphically below. The left-most point on the graph occurred in 2011 that had the warmest spring weather for twenty years. The right-most point was in 2013 that had the coldest spring weather in the last twenty years.



Green Hairstreak top Cornish sites, 2018-2022

Location	2018	2019	2020	2021	2022	5yr average
Porthgwarra	100	69	52	32	79	66
Chapel Porth	17	59	24	13	34	29
Treveal	13	13	27			18
Nare Head	15	19	14	2		12
Portreath		5	22	3	9	10
Garrow Tor, De Lank	8		12			10

The top six monitored sites, in terms of recorded numbers in the last five years, are shown above. Only the top two locations have surveys every year and only one, Porthgwarra, has weekly surveys in these years. The butterfly is therefore poorly recorded in the county. Prolific sites other than Porthgwarra and Chapel Porth have not yet been established by sufficient regular and frequent monitoring.