Small Pearl-bordered Fritillary *Boloria selene*

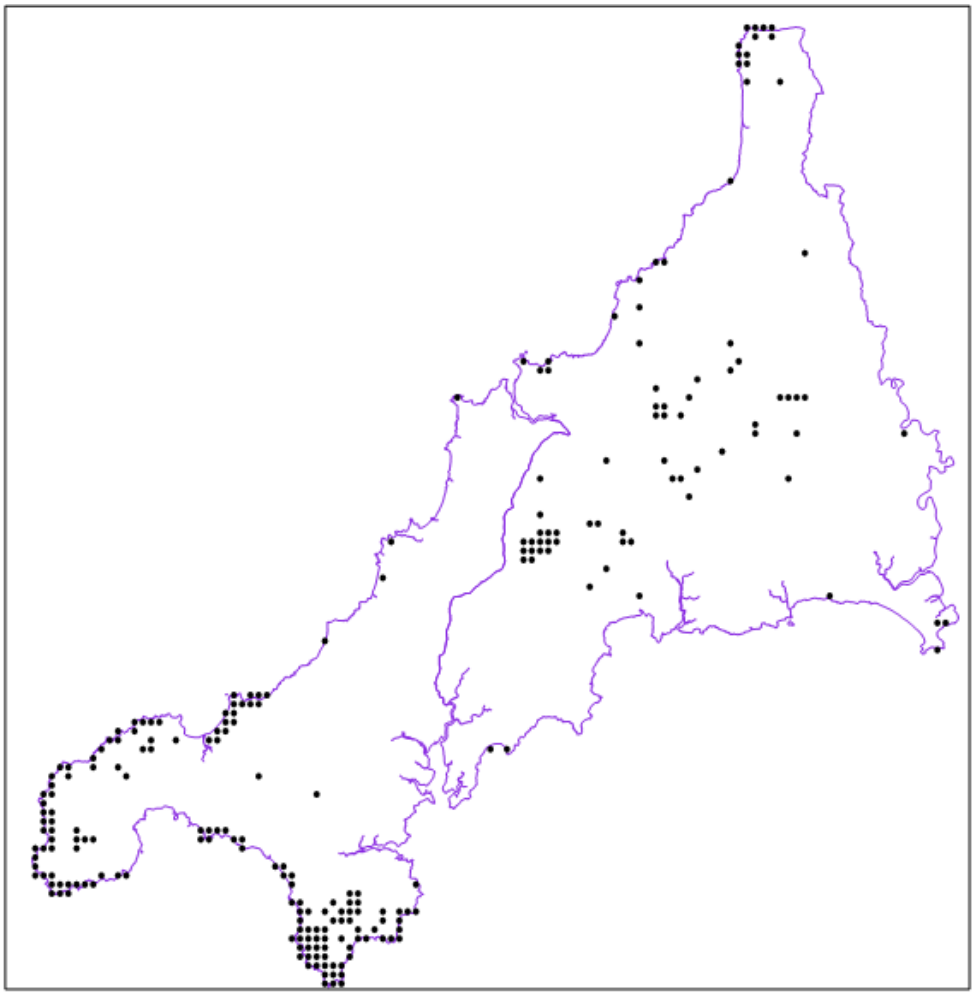
A summary compiled by Jerry Dennis, October 2022

The Small Pearl-bordered Fritillary is a Section 41 Species of Principal Importance with Vulnerable status on the 2022 UK Red List. Recent analysis of Cornish data indicates a significant 35% decline in occurrence in the last 20 years.

The butterfly lives in a variety of habitats and usually in small colonies. Key elements are the presence of host plant Common Dog-violet growing in grassy areas or heaths with gorse and/or bracken scrub. Marsh Violet can also be used in upland areas. Straw and shelter from the scrub give vital protection from adverse winter weather to hibernating larvae. Many colonies are coastal, particularly from Hudder Down to the Lizard. The butterfly can thrive in woodlands where sufficient light enters to sustain violets and in moorland sites in mid Cornwall and the Bodmin area.

The species urgently requires improved monitoring. Weekly surveying at the top sites is a priority. Frequent surveying at other important sites will be required. There is no currently identified conservation work for the species, but it will benefit from work being undertaken for the Pearl-bordered Fritillary where the two species co-exist.

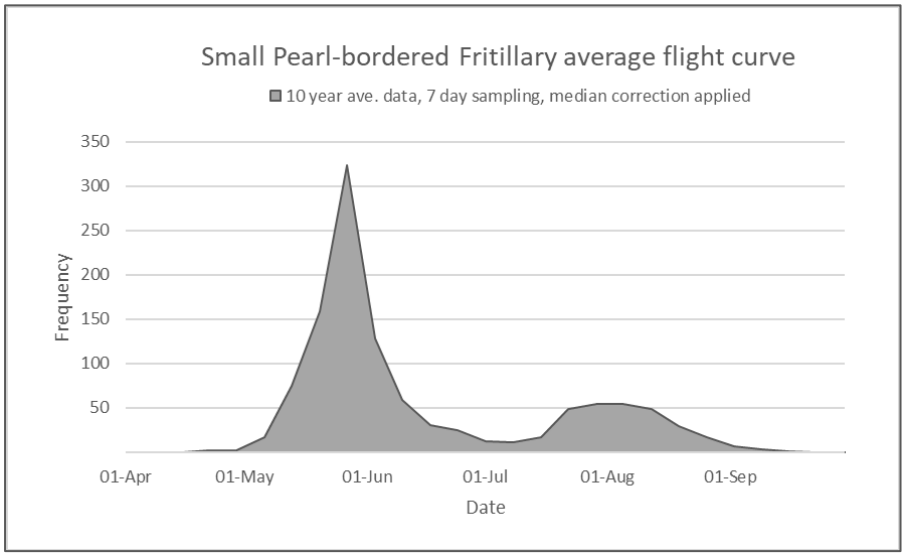
Recorded locations



The 1km squares (238) with records in the last ten years are highlighted. Occurrence is most widespread in the west. There are only sparse colonies along the north and south coasts.

Flight period

Average weekly totals are shown graphically for the last 10 years. The display is adjusted to align yearly median timings of the first brood to average median timing. The butterfly overwinters as a caterpillar and the first brood emerges in May and June which has a pronounced and short-lived peak in late May. This can be missed without frequent sampling. The emergence of late first brood individuals overlaps with the start of the partial second brood that appears in July and August. The second brood is best developed in west Cornwall. It is much reduced or absent in central areas.



Top Cornish sites

Top sites, 2018 - 2022	2018	2019	2020	2021	2022	5yr average
Hard Hills	133	393				263
Bunny's Hill, Cardingham	321	15	40			125
Tidna Valley	46	109	45	72	83	71
Porthgwarra	36	66	120	42	64	66
Hudder Down, Hell's Mouth	130	90	40	9	5	55
Pendrift Downs	10	41	162	15	23	50
Goonhilly Downs	44	21	34	47	82	46
Breney Common	122	1	50	15	38	45
Upton Towans	38	20	19	53	78	42
Cudden Point	32	15	76	44	3	34

The top two sites have monitoring issues with previously established surveying regimes no longer active. A transect at Hudder Down in 2018 has no recent records. Of the remaining top locations, three contain active transects, Tidna Valley, Porthgwarra and Upton Towans.

Cudden Point, surveyed weekly since 2020, experienced a major Small Pearl-bordered Fritillary population crash in 2022 with only 3 seen on weekly surveys. Winter pony grazing was introduced at the site 2021-22, and it is not yet clear if this was a factor.

Sites in 57 1km squares have data in the last five years where there were no records in the years 2000 - 2017. These include Tregurnow Cliff (SW4423) and Porthmeor Cove (SW4237).

There are 99 1km squares with no recent records. The most significant of these is Treskilling Downs (SX0357) and the site should be checked to see if colonies remain.