



IDENTIFYING PEARL-BORDERED AND SMALL PEARL-BORDERED FRITILLARIES

In order to ensure population estimates for the Pearl-bordered Fritillary are reasonably accurate, it is important to develop your field skills to positively identify as many small fritillaries as possible. Whilst experienced observers may be able to make an educated guess of a small fritillary in flight, it is better to positively identify a proportion of adults present and then to allocate the unidentified small fritillaries accordingly. For example, if 45 small fritillaries were seen and 5 Pearl-bordered and 8 Small Pearl-bordered Fritillary confirmed, then the remaining 32 unconfirmed can be divided up proportionately. This would give an estimated 12 Pearl-bordered and 20 Small Pearl-bordered, thus giving totals of 17 Pearl-bordered and 28 Small Pearl-bordered Fritillaries.

Some general points to note are:

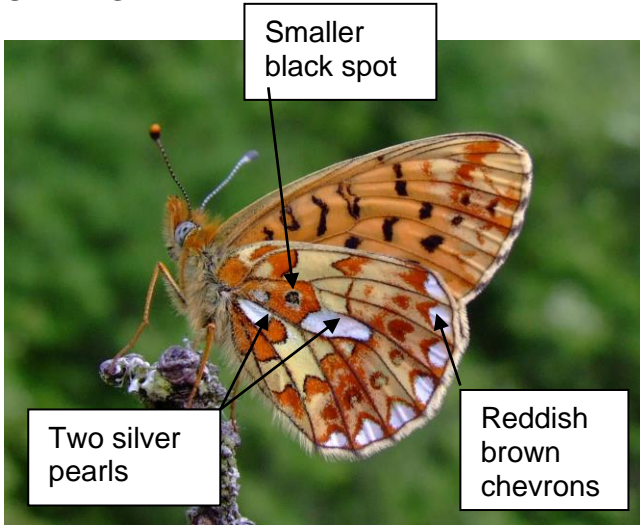
1. **Size:** on average Small Pearl-bordered Fritillaries are slightly smaller than Pearl-bordered Fritillaries, but the average size of a female Small Pearl-bordered Fritillary is the same as that of a male Pearl-bordered Fritillary.
2. **Flight period:** both species can be on the wing from late April until late July depending on latitude and habitat. However the Pearl-bordered Fritillary flies earlier than its congener, though both flight periods may overlap where both species occur on the same site. In southern England, the Pearl-bordered Fritillary flies throughout May whereas the Small Pearl-bordered Fritillary flies in late May and June.
3. **Habitat:** the Pearl-bordered Fritillary utilises woodland clearings, well-drained grassland/Bracken and/or scrub mosaics, as well as wood pasture in Scotland. The Small Pearl-bordered Fritillary also utilises these habitats as well as damp grassland and moorland and will use both Marsh Violet and Common Dog-violet as a larval foodplant whereas the Pearl-bordered Fritillary principally uses the latter. The key difference is that the Pearl-bordered Fritillary selects much warmer and dryer habitats for breeding than its congener and hence principally uses Common Dog-violet as a larval foodplant, whereas the Small Pearl-bordered Fritillary often feeds on Marsh Violet.

Whilst these features may assist the observer, they should never be used as a substitute for careful observation of the wing patterns of the adult butterfly. Positive identification is best confirmed in one of two ways:

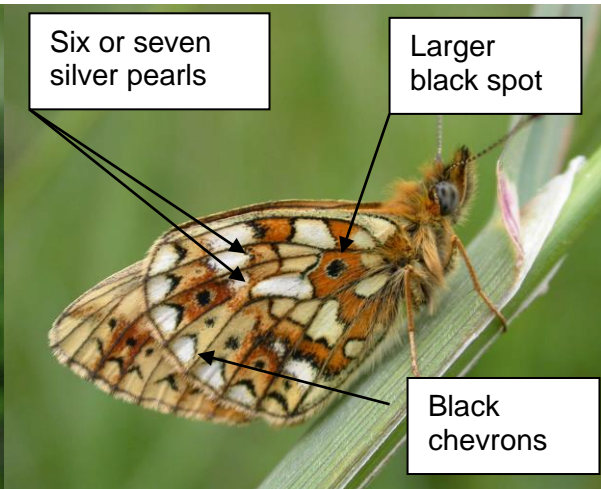
1. Observations of butterflies at rest or nectaring. Identification can be achieved with the naked eye but is greatly enhanced by the use of close focusing binoculars.
2. Capturing butterflies with a net. With practice this can be achieved through the net, but is more easily done by transferring the individual to a pot. However, this requires developing sufficient skill to undertake without damaging the insect.

There are several distinguishing features on both the underside and upperside:

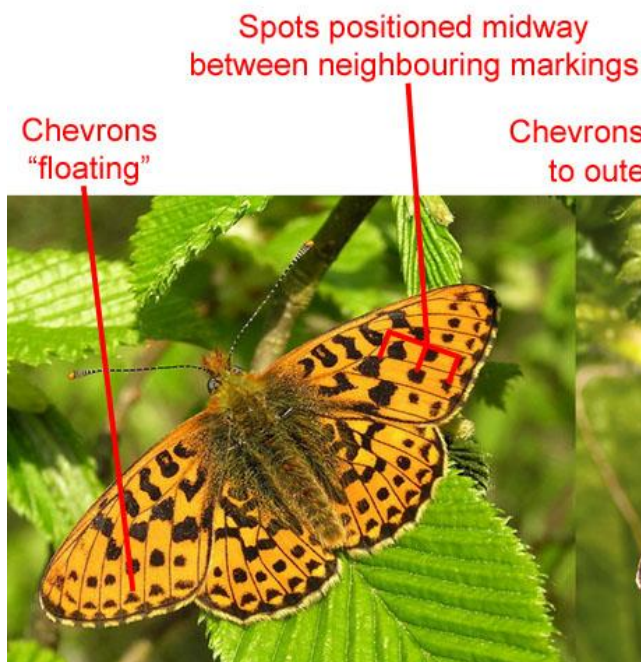
PEARL-BORDERED FRITILLARY UNDERSIDE



SMALL PEARL-BORDERED FRITILLARY UNDERSIDE



PEARL-BORDERED FRITILLARY UPPERSIDE



SMALL PEARL-BORDERED FRITILLARY UPPERSIDE

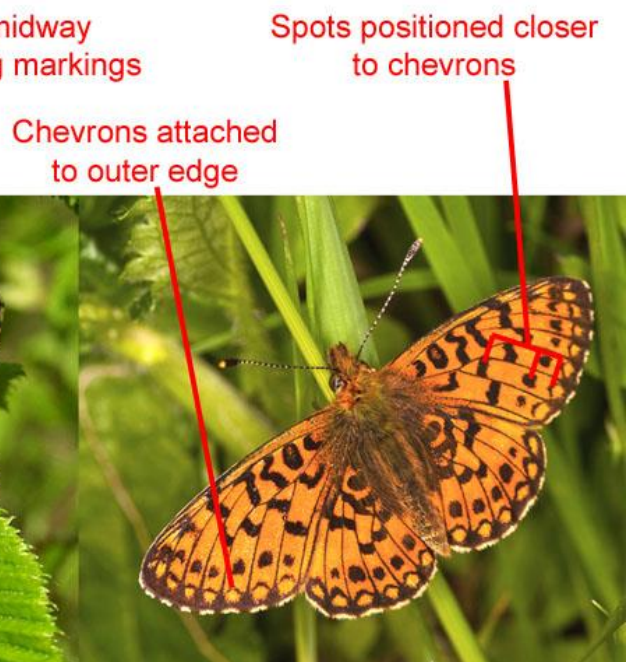


Diagram taken from www.ukbutterflies.co.uk

SEX DIFFERENCES IN SMALL FRITILLARIES

1. Male Pearl-bordered Fritillaries (average wingspan 44mm) are slightly smaller than females (average wingspan 47mm).
2. Male Small Pearl-bordered Fritillaries (average wingspan 41mm) are slightly smaller than females (average wingspan 44mm)
3. The fulvous ground colour is richer in the male of both species.
4. The enlarged black markings of the female of both species give it an overall darker appearance.
5. The marginal spots in the female are often pale yellow in contrast to the male whereas they are the same as the fulvous ground colour in the male. This feature is generally more apparent in the Small Pearl-bordered Fritillary.