

Rediscovery of *Issoria lathonia* (Lepidoptera: Nymphalidae: Heliconiinae) in Cyprus

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Abstract. We report on the presence of *Issoria lathonia* (Linnaeus, 1758) (Lepidoptera: Nymphalidae: Heliconiinae) in the Troodos Mountains in Cyprus. Although a very common species in parts of Europe, *I. lathonia* was not recorded in Cyprus until 2016, when a singleton was seen. No further observations of this rare species in Cyprus were reported until April 2023, when further singletons were observed by two of the authors of this paper. It is hoped that by creating awareness of the rarity of *Issoria lathonia* in Cyprus, further reports might be forthcoming.

Samenvatting. We doen verslag van de aanwezigheid van *Issoria lathonia* (Linnaeus, 1758) (Lepidoptera: Nymphalidae: Heliconiinae) in het Troodosgebergte op Cyprus. Hoewel *I. lathonia* een zeer algemene soort is in delen van Europa, werd deze soort niet eerder waargenomen in Cyprus dan in 2016, toen een solitair exemplaar werd gezien. Er werden geen verdere waarnemingen van deze zeldzame soort in Cyprus gemeld tot april 2023, toen nog meer enkelingen werden waargenomen door twee van de auteurs van dit artikel. Het is te hopen dat door het creëren van bewustzijn over de zeldzaamheid van *Issoria lathonia* in Cyprus, er meer meldingen komen.

Résumé. Nous rapportons la présence d'*Issoria lathonia* (Linnaeus, 1758) (Lepidoptera : Nymphalidae: Heliconiinae) dans les montagnes du Troodos à Chypre. Bien qu'il s'agisse d'une espèce très commune dans certaines parties de l'Europe, *I. lathonia* n'avait pas été observé à Chypre jusqu'en 2016, lorsqu'un seul individu a été vu. Aucune autre observation de cette espèce rare à Chypre n'a été signalée jusqu'en avril 2023, lorsque d'autres exemplaires ont été observés par deux des auteurs de cet article. On espère que la sensibilisation à la rareté d'*Issoria lathonia* à Chypre permettra d'obtenir d'autres signalements.

Key words: Lepidoptera — Nymphalidae — *Issoria lathonia* — Queen of Spain Fritillary — Cyprus.

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Introduction

Issoria lathonia (Linnaeus, 1758) Type Locality: Sweden, widely known as the Queen of Spain Fritillary, ranges from Madeira and the Canary Islands, to northwestern Africa, throughout much of Europe and as far east as western China (Tennent 1996: 51; Tshikolovets 2011: 480). Van Swaay (2014), classified *I. lathonia* as being among a number of European species regarded as generalist butterflies, i.e., those that have a widespread distribution, are present in a wide variety of biotopes and adjust well to circumstances (Vervloet 2012).

For the purposes of this paper, it might be helpful to advise readers of the status of *I. lathonia* in areas of the Levant in the eastern Mediterranean. In the northern areas of the region, it is considered a common species in Hatay Province, Turkey (Atahan *et al.* 2018: 61) that lies to the north-east of Cyprus, although Hesselbarth, van Oorschot & Wagener (1995: Karte 334) showed only two locations in the entire province; in contrast, the same authors show the species to be present in numerous locations in the Turkish provinces of Mersin and Antalya immediately to the north of Cyprus. An early record from 'Marasch [Marash] in türkisch Nordsyrien' (Osthelder & Pfeiffer-München 1932) noted the presence of the species in Kahramanmaraş in the Mediterranean region of Turkey. Baytaş (2007: 140) described it as generally 'widespread and very common' in Turkey.

To the south, and reflecting the species generally greater presence at higher elevations, Zarikian & Ghrejjan (2018) observed 129 specimens of *I. lathonia* at 10 high-altitude locations in the Al-Lazzab reserve (1540–2600 m),

part of the Anti-Lebanon mountain range on the Lebanese-Syrian border. The species is considered rare in Mediterranean Syria, where it has been recorded in the Al-Anşariyyah coastal mountain range (Mudar Salimeh, pers. comm. to first author), the highest point of which (at 1562 m) is found east of Latakia, but *I. lathonia* was not even listed for the country by El-Hariri (1968). Further south in the Levant, Larsen (1974: 121) found *I. lathonia* 'Locally quite common at upper heights, especially in the Antilebanon and the northern Lebanon ...'. Nevertheless, and perhaps surprisingly, the species was unrecorded by Bálint, Yammine & Katona (2016) during fieldwork on Mount Lebanon in 2015 and 2016 or, earlier in Lebanon, by Mérit & Mérit (2004). Lebanon appears to be the source of occasional rare vagrancy into northern Israel (Benyamini 1993; Benyamini 2021: 130). It is clear from these reports that in the Levant, *I. lathonia* is common in northernmost areas and reaches its southern limits of distribution as an established resident species in the mountains of Lebanon, with occasional appearances further south. That said, this species is an extreme rarity in Cyprus, hence the wish to record details here, in the hope that further observations might be reported.

Field observations in Cyprus

Pamperis (2009), reported *I. lathonia* 'from sea level to 2750m' in Greece, whereas in Macedonia, Popović, Micevski & Verovnik (2021) detected a presence at mid and low elevations, qualified as within the range 689–1770 m, but with a highly significant increase in numbers at 1462–1616 m. In northern provinces of Iran, Tshikolo-



Figs 1. *Issoria lathonia* (Queen of Spain Fritillary), Troodos Mountains, 26 May 2016. © Yiannakis Makriyianni.

Fig. 2. *Issoria lathonia* (Queen of Spain Fritillary), Troodos Mountains, 26 April 2023. © Jordy Houkes.

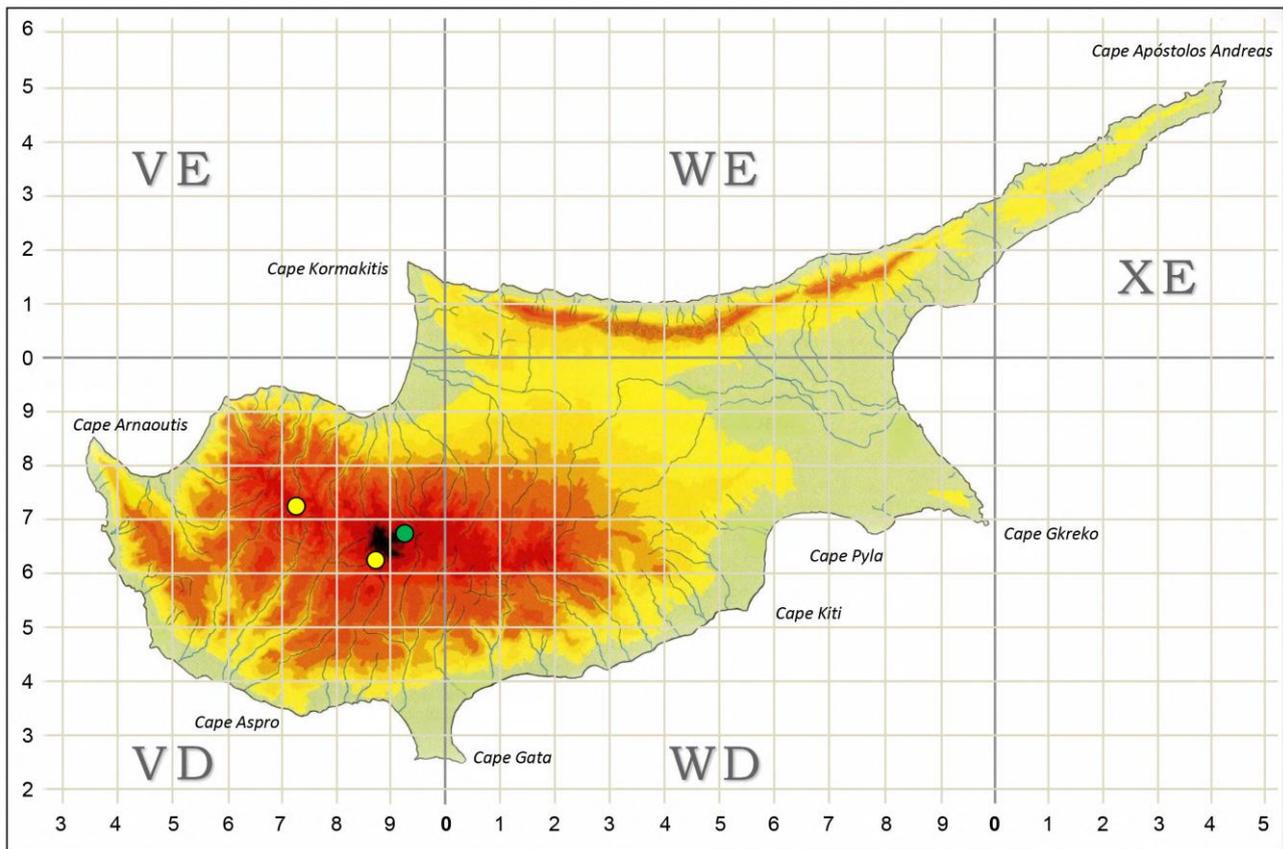


Fig. 3. *Issoria lathonia* (Queen of Spain Fritillary) distribution map showing 5x5 km square observations within 10x10 km UTM squares, with 2023 observations shown in yellow, 2016 in green. Map adapted from John & Makris 2023: 108. © Eddie John.

vets, Naderi & Eckweiler (2014: 331) listed locations to 3500 m, further demonstrating the species adaptability to varied altitudinal habitats. In Cyprus, *I. lathonia* was first observed and photographed at Pano Amiantos (ca. 1400 m) in the Troodos Mountain range on 26 May 2016 by a local nature photographer, Yiannakis Makriyianni (pers. comm. to first author) and documented in John & Makris

(2022: 259; 2023: 108). Just a single individual (Fig. 1), nectaring on *Clinopodium vulgare* L. (wild basil) (Lamiaceae) was seen, and although the significance of the heliconiid's presence was not appreciated by the non-lepidopterist photographer, fortuitously, he chose to enquire further. Seven years were to elapse before the species was again reported, broadly in the same region of

the Troodos Mountains and also of a singleton. The observation, by the second author of this paper, was north of Pano Platres (ca. 1480 m, WD86SE) on 24 April 2023 and, two days later, another singleton was photographed on 26 April 2023, by the third author (Fig. 2), at Cedar hiking path (ca. 1130 m, WD77SW). At the time of going to press, no other observations had been reported and none had appeared on the online reporting platforms iNaturalist and Observation.org., providing further evidence of the species rarity in Cyprus.

Migratory potential in the Levant

Although widely recognized as a migrant species (Larsen 1974: 122; Larsen 1975; Kotiaho *et al.* 2005), there appears little evidence of this activity in the Levant. Zobar & Genc (2008) stated that the migratory status of *I. lathonia* in Turkey was unknown. Zorkot (2016: 366) referred to the species as a migrant in Lebanon, but without providing any qualifying data. In Lebanon, Larsen (1974: 122) stated that the species occasionally ‘descends to 1000 metres on the west of the Lebanon or in the Beqaa, and this might represent individuals performing some sort of seasonal migration ...’. The same author wrote, ‘The species fluctuates considerably in numbers and is undoubtedly a migrant, although there are no actual observations. Early and late in the year, in April and November, it may be found down to 1000 m NN in the Beqaa Valley and on the western slopes, while it breeds only above 1500 m NN as far as has been observed. It probably migrates down to hibernate as [an] imago’ (Larsen 1975). Similarly, Larsen (1982) noted that in Lebanon, *I. lathonia*, in common with two other species of butterfly, move between breeding sites and hibernations sites, ‘... usually vertically up and down mountains’. The fluctuation in numbers might explain the absence of any observations in Lebanon by Mérit & Mérit (2004) and Bálint, Yammine & Katona (2016).

Concluding remarks

To judge from the foregoing, it would appear reasonable to conclude that migrant activity of *I. lathonia* in the Levant is restricted to relatively short distances,

seemingly rendering the possibility of a trans-Mediterranean crossing to Cyprus unlikely. However, *I. lathonia* is known to be capable of undertaking a sea crossing (Asher *et al.* 2001: 317), therefore the possibility of arrival in Cyprus from Turkey, Syria or Lebanon must remain a consideration, but it can be deduced from these remarks that much uncertainty remains over the reason for the appearance of the species in Cyprus.

The reporting of the 2023 observations in the Troodos Mountains, in areas not far distant from that first recorded in 2016 (see Fig. 3), together with the absence of reports from other parts of Cyprus, and with no conclusive evidence of reports of migration in Turkey or mainland countries to the east of Cyprus, leads to the alternative speculation that a small, rarely seen, population might have become established high in the Troodos range. However, the original source remains unknown.

Migration south into Cyprus of any butterfly species *in spring* (when all three observations occurred) appears to run contrary to the accepted seasonal migratory pattern in the Levant, including Cyprus, where a northerly or north-westerly migration is well recognized in species such as *Vanessa cardui* (Linnaeus, 1758), *Vanessa atalanta* (Linnaeus, 1758), *Catopsilia florella* (Fabricius, 1775) and *Danaus chrysippus* (Linnaeus, 1758) – see John, Sparrow & Sparrow (2015); John, Hawkes & Walliker (2019) and John, Hardman & Smith (2019).

In some ways, the unexpected appearance of *I. lathonia* resembles the even more surprising discovery of *Chazara persephone* (Hübner, [1805]) in the Kantara Mountains in the Pentadaktylos range in northern Cyprus in 2011 (John, Haines & Haines 2011), since when the species has not been seen again. Nevertheless, it remains puzzling that no records of *I. lathonia*, a highly distinctive, easily recognisable butterfly, were reported in the years between 2016 and 2023, or, indeed, have been reported since April 2023.

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