

Skippers, Butterflies and Burnet moths from the Greek island of Samothráki, in late June (Lepidoptera: Hesperioidea, Papilionoidea and Zygaenidae)

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Samenvatting. Dagvlinders en Zygaenidae van het Griekse eiland Samothráki einde juni (Lepidoptera: Hesperioidea, Papilionoidea en Zygaenidae).

Het Griekse eiland Samothráki ligt in het noorden van de Egeïsche Zee. De natuurlijke vegetatie is sterk bedreigd door overbegrazing door vooral geiten en schapen. De huidige lijst bevat 30 soorten dagvlinders en 1 soort Zygaenidae welke door de auteur tijdens vier dagen in de tweede helft van juni 2003 werden waargenomen. Daaronder bevinden zich 5 soorten dagvlinders die nooit eerder op dit eiland werden geobserveerd. Er wordt kort besproken welke soorten eventueel nog te verwachten zijn.

Résumé. Rhopalocères et Zygènes de l'île grecque de Samothráki fin juin (Lepidoptera: Hesperioidea, Papilionoidea et Zygaenidae).

L'île grecque de Samothráki se situe dans le nord de la mer égéenne. La végétation naturelle est très menacée par [paître, brouter] surtout par des chèvres et des moutons. La présente liste contient 30 espèces de papillons de jour et une espèce de Zygène qui furent observées par l'auteur pendant 4 jours dans la deuxième moitié du mois de juin 2003. Parmi elles se trouvent 5 espèces qui n'ont jamais été observées sur cet île. L'auteur discute brièvement quelques espèces qui pourraient être découvertes encore.

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Geography and Geology

The Greek island of Samothráki is located in the northern part of the Aegean Sea (GPS coordinates: N 45° 30', E 25° 31'). Its approximate area, length and maximum width are respectively 180 square km, 20km, and 12km and its maximum altitude is just over 1600m (Mt. Fengári). Its approximate closest distance from the Greek mainland to the north is 39km, from the Greek island of Thásos to the west, 60km and from the Turkish island of Ténédos to the southeast, 27km.

Samothráki is part of the Rodópi massif and is largely composed of Palaeozoic and volcanic rocks that extend over most of the island's central and south-eastern areas, leaving a narrow belt of flatlands along the northern, western, north-eastern, south-western and parts of the southern coastal zones.

Flora

The island is presently being inhabited by a little over 2000 people and by as many as 45000 free-moving goats, not to mention the sheep and cows that are also present there. Despite the ensuing severe damage (probably irreversible) to the plant ecosystem it is still possible to define certain plant zones. The northern, western and southern flatlands are basically being cultivated and support olive trees, cereals, vines and a few fruit trees. Amongst the natural vegetation here,

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one cannot escape noticing the presence of many *Paliurus spina-christi* Miller (Christ's thorn) bushes; these regions are all meticulously fenced in, in order to keep the goats out. Northern coastal areas, extending to the base of Mt. Fengári (alt. 100-150m) and being watered by numerous streams, are characterized by small forests of *Platanus orientalis* L. (Oriental plane), underneath which grows a rich association of ferns. To the south and at the base of Mt. Fengári, one may still run across forest remnants of *Pinus brutia* Ten. Ascending the northern side of Mt. Fengári and at altitudes between 100 and 650m, one goes through very dense maquis, composed to a great extent of *Arbutus unedo* L. (Strawberry tree). The central portions of this maquis are relatively safe due to their impenetrability, but their periphery is constantly being attacked by the goats, which have a habit of demolishing the bark of the *Arbutus* bushes, bringing about their final destruction, as well as contributing to the eventual contraction and degradation of the maquis zone as a whole. Above this zone and extending to an altitude of about 1000m, there exists a montane forest consisting mainly of tall *Quercus* (Oak) trees as well as some *Castanea sativa* Miller (Sweet Chestnut). In this zone the undergrowth is made up mainly of ferns. Above this altitude and all the way up to the summits, the landscape is treeless, but not having been able to reach this area, I am not in a position to mention anything relating to its flora.

Collecting history

The very first lepidoptera records from Samothráki are attributable to Rebel (1935), who based them on the captures of Prof. Dr. Franz Werner and Dr. Otto Wettstein-Westerheim, who were touring the Aegean islands on a botanical mission and who also collected Lepidoptera on Samothráki in early summer. The list includes 1 species of Hesperioidea, 7 Papilionoidea and 1 species of Zygaenidae.

The second reference to the island's lepidoptera is by Koutsaftikis (1970), who collected there in person during the summer. The inclusion, however, in this same work of dubious records from the Greek island of Thásos (*Colias phicomone* (Esper, 1780), *Colias hyale* (Linnaeus, 1758), *Lycaena hippothoe* (Linnaeus, 1761)) makes all of the Samothráki records untrustworthy. However I am including them on the basis that a good many of them have been confirmed by the present author and it is hoped that in time the rest of them will also be confirmed. The list includes 2 Hesperioidea and 29 Papilionoidea.

The third paper with Lepidoptera records from Samothráki is by Bernardi (1971). This work constitutes an overview and a compilation of all the up to that period published records on Lepidoptera relating to the whole of the Aegean islands. The records for Samothráki are actually a repetition of the ones given by Rebel (1935).

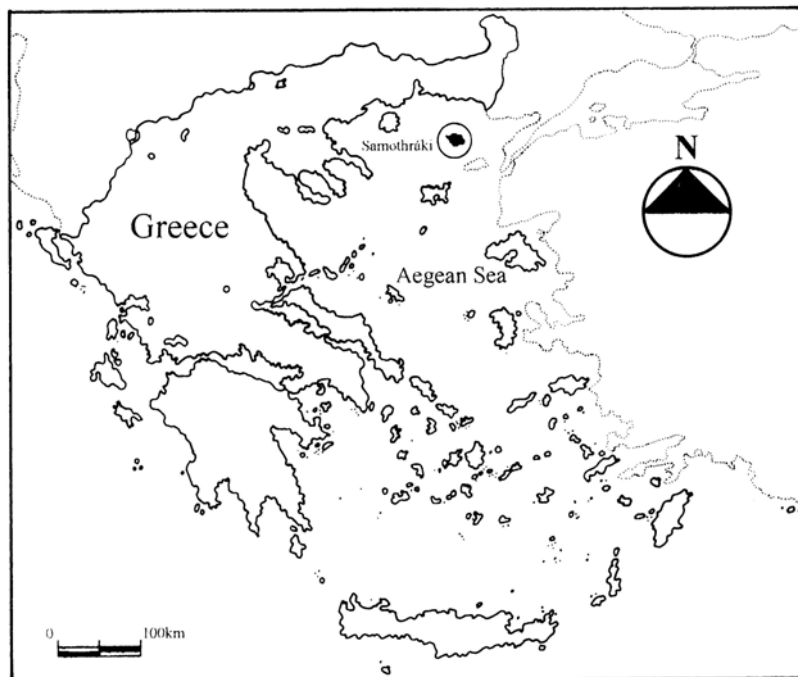


Figure 1: Map of Greece with the position of the Island of Samothráki in the north of the Aegean Sea.

The fourth and last published work on lepidoptera from Samothráki is by Fuchs (1994). The author visited the island in spring and recorded 1 species of Hesperioidea and 16 Papilionoidea.

List of recorded species

The list now being presented is based on personal records that were carried out in a four day period, during the second half of June 2003.

Hesperiidae

1. *Carcharodus alceae* (Esper, [1780]). Near Kamariótisa. Previously recorded by Koutsaftikis (1970) and by Fuchs (1994).

Papilionidae

2. *Papilio machaon* Linnaeus, 1758. Paleópoli; Kamariótisa. Previously Recorded by Koutsaftikis (1970).

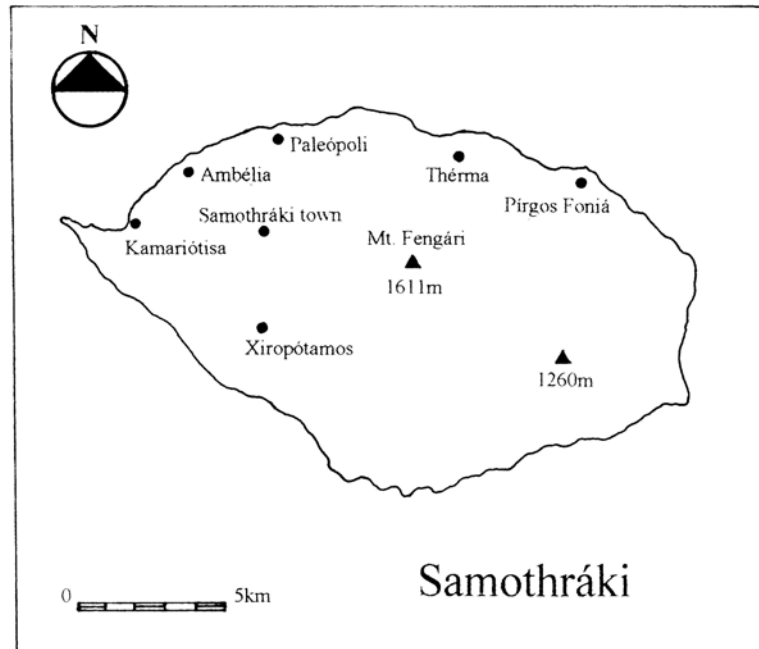


Figure 2: Map of the island of Samothráki, indicating the sampling localities.

3. *Iphiclides podalirius* (Linnaeus, 1758). Paleópoli; Kamariótisa; near Xiropótamos. Previously recorded by Koutsaftikis (1970) as *Papilio podalirius* L.

Pieridae

4. *Pieris brassicae* (Linnaeus, 1758). Paleópoli; Kamariótisa. Previously recorded by Koutsaftikis (1970) and by Fuchs (1994).

5. *Pieris rapae* (Linnaeus, 1758). Generally distributed, excluding the maquis zone. Previously recorded by Rebel (1935), by Koutsaftikis (1970) and by Fuchs (1994).

6. *Pieris napi* (Linnaeus, 1758). Paleópoli. Previously recorded by Fuchs (1994).

7. *Pontia edusa* (Fabricius, 1777). Paleópoli. Previously recorded by Rebel (1935) as *Pieris daplidice* L. and by Koutsaftikis (1970) as *Leucochloe (Pieris) daplidice* L.

8. *Colias crocea* (Fourcroy, 1785). Paleópoli. Previously recorded by Koutsaftikis (1970) as *Colias croceus (edusa)* FOURCH. and by Fuchs (1994).

Lycaenidae

9. *Favonius quercus* (Linnaeus, 1758). In oak forest, at 750-800m, in the montane zone of Mt. Fengári. **A first record for Samothráki.**

10. *Lycaena phlaeas* (Linnaeus, 1761). Paleópolis; Thérma. Previously recorded by Rebel (1935) as *Chrysophanus phlaeas eleus* F., by Koutsaftikis (1970) as *Chrysophanus phlaeas* L. and by Fuchs (1994).

11. *Lampides boeticus* (Linnaeus, 1767). Kamariótisa. **A first record for Samothráki.**

12. *Pseudophilotes vicrama* (Moore, 1865). Pírgos Foniá. Previously recorded by Koutsaftikis (1970) as *Lycaena baton* Bergstr.

13. *Celastrina argiolus* (Linnaeus, 1758). Oriental plane forest above Thérma. Previously recorded by Koutsaftikis (1970) as *Cyaniris argiolus* L. and by Fuchs (1994).

14. *Aricia agestis* ([Denis & Schiffermüller], 1775). Thérma. Previously recorded by Koutsaftikis (1970) as *Lycaena astrarchae* Bergstr. and by Fuchs (1994).

15. *Polyommatus icarus* (Rottemburg, 1775). Paleópolis. Previously Recorded by Rebel (1935) and by Koutsaftikis (1970), in both cases as *Lycaena icarus* Rott., and by Fuchs (1994).

Nymphalidae

16. *Melanargia larissa* (Geyer, [1828]). Northwestern and western coastal areas. Previously recorded by Rebel (1935) as *Melanargia lariss-larissa* H. G. and by Koutsaftikis (1970) as *Melanargia larissa* H. G.

17. *Pararge aegeria* (Linnaeus, 1758). Oriental plane forest above Thérma. Previously recorded by Koutsaftikis (1970).

18. *Lasiommata megera* (Linnaeus, 1758). Thérma. Previously Recorded by Rebel (1935) as *Pararge megaera lyssa* B.

19. *Kirinia roxelana* (Cramer, [1777]). To be found practically everywhere. Previously recorded by Koutsaftikis (1970) as *Pararge roxelana* Cr.

20. *Maniola jurtina* (Linnaeus, 1758). Paleópolis; Thérma; oak forest zone on Mt. Fengári. Confirmed by male genitalia. Previously recorded by Rebel (1935) and by Koutsaftikis (1970), in both cases as *Epinephele jurtina* L.

21. *Hipparchia syriaca* (Staudinger, 1871). Paleópolis; Thérma; Ambéla; oak forest zone on Mt. Fengári. Confirmed by genitalia. Previously recorded by Koutsaftikis (1970) as *Satyrus hermione* L.

22. *Limenitis reducta* Staudinger, 1901. Maquis fringes west of Thérma. **A first record for Samothráki.**

23. *Vanessa atalanta* (Linnaeus, 1758). Oak forest zone on Mt. Fengári. Previously recorded by Koutsaftikis (1970) as *Pyrameis atalanta* L. and by Fuchs (1994).

24. *Vanessa cardui* (Linnaeus, 1758). Generally distributed. Previously recorded by Koutsaftikis (1970) as *Pyrameis cardui* L. and by Fuchs (1994) as *Cynthia cardui* L.

25. *Nymphalis polychloros* (Linnaeus, 1758). 700–750m, within oak forest zone on Mt. Fengári. **A first record for Samothráki.**

26. *Nymphalis antiopa* (Linnaeus, 1758). 700-750m, within oak forest zone on Mt. Fengári. **A first record for Samothráki.**

27. *Polygonia egea* (Cramer, [1775]). Kamariótisa; Samothráki town. Previously recorded by Koutsaftikis (1970) and by Fuchs (1994).

28. *Argynnis paphia* (Linnaeus, 1758). Oriental plane forest above Thérma; oak forest zone on Mt. Fengári. Previously recorded by Koutsaftikis (1970).

29. *Argynnis pandora* ([Denis & Schiffermüller], 1775). Northern, well-watered seashore areas; flowery meadows near Paleópoli. **A first record for Samothráki.**

30. *Melitaea didyma* (Esper, [1778]). Flowery meadows near Paleópoli. Previously recorded by Rebel (1935) as *Melitaea didyma dalmatina* Stgr. and by Koutsaftikis (1970) as *Melithaea didyma* Ochs.

Zygaenidae

Zygaena punctum Ochseneheimer, 1808. Seashore area between Thérma and Pírgos Foniá. Previously recorded by Rebel (1935).

Discussion

The combined number of skippers and butterflies recorded by the present author on the Greek island of Samothráki amounts to 30, amongst which are included 6 new butterfly records for the island. The number of recorded Zygaenidae amounts to 1.

Species recorded by Rebel (1935), but not by the present author, amount to 1; namely, *Thymelicus acteon* (Rottemburg, 1775) (listed as *Adopaea actaeon* Rott.).

Species recorded by Koutsaftikis (1970), but not by the present author, nor by Rebel (1935), amount to 9; namely, *Thymelicus sylvestris* (Poda, 1761) (listed as *Adopaea flava* Brünn.), *Lycaena thersamon* (Esper, [1784]) (listed as *Chrysophanus thersamon* Esp.), *Tarucus balkanicus* (Freyer, [1844]) (listed as *Lampides balcanicus* Frr.), *Leptotes pirithous* (Linnaeus, 1767) (listed as *Lampides telicanus* Hbst.), *Scolitantides orion* (Pallas, 1771) (listed as *Lycaena orion* Pall.), *Coenonympha pamphilus* (Linnaeus, 1758), *Hyponephele lycaon* (Rottemburg, 1775) (listed as *Epinephele lycaon* Rott.), *Aglais urticae* (Linnaeus, 1758) (listed as *Vanessa urticae* L.) and *Argynnis aglaja* (Linnaeus, 1758) (listed as *Argynnis aglaia* L.).

Species recorded by Fuchs (1994), but not by the present author, nor by Rebel (1935) or by Koutsaftikis (1970) amount to 5; namely, *Euchloe ausonia* (Hübner, [1804]), *Leptidea duponcheli* (Staudinger, 1871), *Callophrys rubi* (Linnaeus, 1758), *Lasiommata maera* (Linnaeus, 1758) (listed as *Lasiommata maera* L.) and *Issoria lathonia* (Linnaeus, 1758).

The combined sum-total of the Hesperioidea and Papilionidaea thus far recorded from Samothráki amounts to 45 species, while that of the Zygaenidae amounts to 1 species. All recorded species are also to be met with on the Greek mainland, while none can be described as being strictly Asiatic.

An area that may harbor additional species (and perhaps even surprises) is the one on Mt. Fengári, between the tree line (ca. 1000m) and the summits (max. altitude just over 1600m). I certainly hope that the difficult endeavor of reaching these heights will be undertaken some day by younger entomologists.

It is of interest to note the absence of any *Gonepteryx* species, as well as that of *Hipparchia senthes* (Fruhstorfer, 1908).

Acknowledgments

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