

An explanatory note on a previous article of ours, population fluctuations of the imported *Cacyreus marshalli* in Greece, and an assessment of its being a potential threat through larval competition to native butterflies with *Geranium* feeding larvae (Lepidoptera: Lycaenidae)

John G. Coutsis, Hristos T. Anastassiou & Nikos Ghavalas

Abstract. A first record discrepancy for *C. marshalli* in Greece is explained, its population fluctuations in Athens and Spétses Island are presented, and its being a potential threat to native butterflies with *Geranium* feeding larvae is discussed.

Samenvatting. Bijkomende informatie aan het artikel over *Cacyreus marshalli* in Griekenland, populatiedynamiek en de mogelijke gevaren voor inheemse vlindersoorten waarvan de rupsen op *Geranium* leven (Lepidoptera: Lycaenidae)

Cacyreus marshalli was reeds eerder uit Korfoe gemeld, maar wij meldden de soort voor het eerst van het Griekse vasteland. In de stadsomgeving van Athene en op het eiland Spétses was de soort uitermate talrijk in mei-juni 2010, maar zij kon een lange, warme en droge periode blijkbaar niet overleven, want in september werd geen enkele vlinder meer gezien. De kans dat *C. marshalli* ooit een bedreiging vormt voor de inheemse dagvlinders waarvan de rupsen op *Geranium* leven is uitermate klein.

Résumé. Des informations additionnelles sur *Cacyreus marshalli* en Grèce, des fluctuations de sa présence et la possibilité que cette espèce devienne une menace pour les espèces indigènes dont les chenilles vivent sur *Geranium* (Lepidoptera: Lycaenidae)

Avant notre article, *Cacyreus marshalli* était déjà connu de l'île grecque de Corfou, mais nous l'avons mentionné pour la première fois de la Grèce même. En mai-juin 2010 l'espèce était très abondante dans les environs d'Athènes et sur l'île de Spétses. Après une longue période sèche et chaude, l'espèce semble avoir disparu parce qu'en septembre aucun papillon ne pouvait être trouvé. Le risque que *C. marshalli* devienne une menace pour les espèces indigènes dont les chenilles vivent sur *Geranium* est négligeable.

Key words: Lycaenidae – *Cacyreus marshalli* – Greece – Athens – Spétses Island – *Pelargonium* – *Geranium*.

Coutsis, J. G.: 4 Glykonos Street, GR-10675 Athens, Greece. kouts@otenet.gr.

Anastassiou, H. T.: 12 Periandrou Street, GR-15126 Athens (Maroússi), Greece. hristosa@esd.ece.ntua.gr.

Ghavalas, N.: 30 Karaoli-Dimitriou Street, GR-12461 Athens (Haidári), Greece. Vale98@otenet.gr.

An explanation

In Anastassiou, Ghavalas & Coutsis (2010) *Cacyreus marshalli* (Butler, 1898) is being reported as new to Greece. This was indeed the case when our joint paper was submitted to *Phegea*, since a photograph record from the Greek island of Kérkira = Corfu (Pamperis 2009) was then considered unofficial, because of its being provided by persons other than the author himself. However, the validity of our record as being new to Greece became untenable after our paper's publication, as in the meanwhile the occurrence of the species on Kérkira was

personally confirmed by Parker (2010). Our own record, therefore, should only be considered as new to mainland Greece, and in particular to the Athens basin, and not to Greece as a whole.

Range extension and population fluctuation

Within a year after the first appearance of *C. marshalli* in the northern suburbs of Athens the butterfly extended its range over the whole of the Athens basin, often flying in great numbers, especially in localities where *Pelargonium* plants, one of its larval host plants, were in abundance. By mid June to mid July 2010, it became, in fact, so numerous that it was even recorded on a daily basis nectaring from flowers grown in pots on the balcony of the first author's 5th floor apartment, located in the heart of Athens. In the period between mid July and end August 2010 Athens was subjected to a continuous heat wave (37°–41°C) and total absence of rainfall, during which time *C. marshalli* suddenly all but disappeared from the scene in the heart of Athens, probably implying its intolerance to extremely high temperatures and protracted dryness. At present (mid September 2010), with temperatures back to normal and with the occurrence of occasional rainfalls, the butterfly has resurfaced, albeit in small numbers. The same sequence of events was also observed in Spétses Island, located off the E coasts of Pelopónnisos = Peloponnese, where the butterfly made its first appearance in early June 2010.

Potential threat to native butterflies

In Greece *C. marshalli* has so far been recorded only in urban areas, where there exists a profusion of *Pelargonium* plants. We still have no evidence of its having invaded rural areas that support native *Geranium* plants (suspected of being a substitute larval host plant source), but are totally devoid of the imported *Pelargonium*. If this proves to be the rule, then there is no need to fear that *C. marshalli* will ever pose a threat to native butterflies with *Geranium* feeding larvae.

Note

The map of Crete in Anastassiou, Ghalvalas & Coutsis (2010) was created with DMAP for Windows, version 7.2.(<http://www.dmap.co.uk>).

References

- Anastassiou, H. T., Ghalvalas, N. & Coutsis, J. G. 2010. First record of *Cacyreus marshalli* in Greece, and comments on the potential occurrence of *Zizeeria karsandra* on the Greek island of Crete (Lepidoptera: Lycaenidae). — *Phegea* **38**(3): 85–92.
- Pamperis, L. N. 2009. *The Butterflies of Greece*. — Pamperis & KOAN, Athens. 766pp.
- Parker, R. 2010. *Cacyreus marshalli* Butler, 1898 (Lepidoptera, Lycaenidae) newly recorded for Corfu, with notes on other butterflies on the island in September 2008. — *Entomologist's Gazette* **61**: 40–42.