



New records of *Rhacocleis* sp. (Orthoptera, Tettigoniidae) in Attiki and Korinthia, Sterea Ellas, Greece

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Abstract

New data on the distribution of *Rhacocleis* species from the east part of Sterea Ellas, Greece, is presented. The data expands the known distribution of *R. weneri* considerably, confirms *R. germanica* as a rare species within the study area, and shows *R. graeca* to be the most abundant species.

Keywords: bush-crickets, distribution, endemic species

Zusammenfassung

Es werden neue Daten zur Verbreitung von *Rhacocleis*-Arten aus dem östlichen Teil von Sterea Ellas, Griechenland, vorgestellt. Die Daten erweitern die bekannte Verbreitung von *R. weneri* erheblich, bestätigen *R. germanica* als seltene Art im Untersuchungsgebiet und zeigen, dass *R. graeca* die am häufigsten vorkommende Art ist.

Schlüsselwörter: endemische Art, Laubheuschrecken, Verbreitung

Background

Genus *Rhacocleis* Fieber, 1853 is an Eastern Mediterranean genus, with 16 species occurring in Greece, 14 of which are endemic (Willemse et al. 2018). We studied the genus in the area of Attiki and Korinthia (the part belonging to Sterea Ellas), which are prefectures of the eastern part of Sterea Ellas, Central Greece. Three species of *Rhacocleis* are known from this area: *R. graeca* Uvarov, 1942, *R. germanica* (Herrich-Schaeffer, 1840) and *R. weneri* Willemse, 1982 (Willemse 1984, Willemse et al. 2008).

Rhacocleis germanica is the most common and widely distributed *Rhacocleis* species in Greece (Willemse 1982, Willemse et al. 2018) but has not been commonly recorded in our study area so far. Only one record exists: Attiki, Paradhissea (Willemse 1984) without further details on the exact locality.

Rhacocleis weneri Willemse, 1982 is a Greek endemic. It was described from the large offshore island of Evvia (Willemse 1982) and subsequently found in Attiki by Willemse & Willemse (2008): Porto Rafti and Kapandriti. More records from Attiki were made by Lehmann et al. (2014) and Antonatos (2014) from Mt. Imittos and Mt. Parnitha, respectively.

Rhacocleis graeca Uvarov, 1942 is endemic to the SE Greek mainland: Evvia and Peloponnisos, Kithira isl. and Chrysi (Willemse 1982, Willemse et al. 2008, Kotitsa 2025). There are two records from our study area, both from Attiki: Athens (Willemse 1982) and Porto Rafti (Willemse et al. 2008).

Kontogiannis (2020) reported the genus from Mt. Penteli without being able to determine the species, speculating the presence of either *R. graeca* or *R. weneri*.

Our study is based on 35 specimens collected over a period of 12 years from 2013 to 2025. Specimens were collected by entomological nets, mostly at night with the use of flashlights when insects became more active, leaving their shelters in low, dense bushes. The most productive method of collecting was nocturnal road-crossing on quiet roads, detecting bush crickets crossing the roads or eating dead insects. Specimens are kept at the Korinthian Museum of Natural History (KMNH). All three *Rhacocleis* species of our study area, regardless of their sex, can readily be identified according to characters provided by Willemse (1982,1984).

New records

Rhacocleis germanica (Herrich-Schaeffer, 1840) (Fig. 1)

Attiki, Koropi, 8.2013, 1♀

Willemse (1982) states that aside from the record from Attiki, Paradhissea, mentioned above, there are three older records from Attiki made by Werner: Athinai ('Athens'), Rafina and Makronisi which he considers doubtful. After our new record, those three localities sound more plausible, suggesting that the species might be more widespread in the study area.

Rhacocleis graeca Uvarov, 1942 (Fig. 1, 2)

Attiki, Koropi, 8.2013, 1♀; Korinthia: Lake Vouliagmeni, on the road to Ireo, 26.8.2025, 4♂, 5♀; Mt. Gerania, on the road from Osios Patapios to Agios Gerasimos, 8♂, 10♀; Loutraki, Nea Politia, 16.8.2025, 1♂.

We found *R. graeca* to be the most common species in our study area. At least on Mt. Gerania and the foothills around it the species is very common, co-occurring at least with the rarer *R. weneri*. Six specimens, all female, are rather uniformly

light- brown, the rest more typically marbled. In all cases the solid black marking on the dorsoposterior end of the lateral pronotal lobe is present.

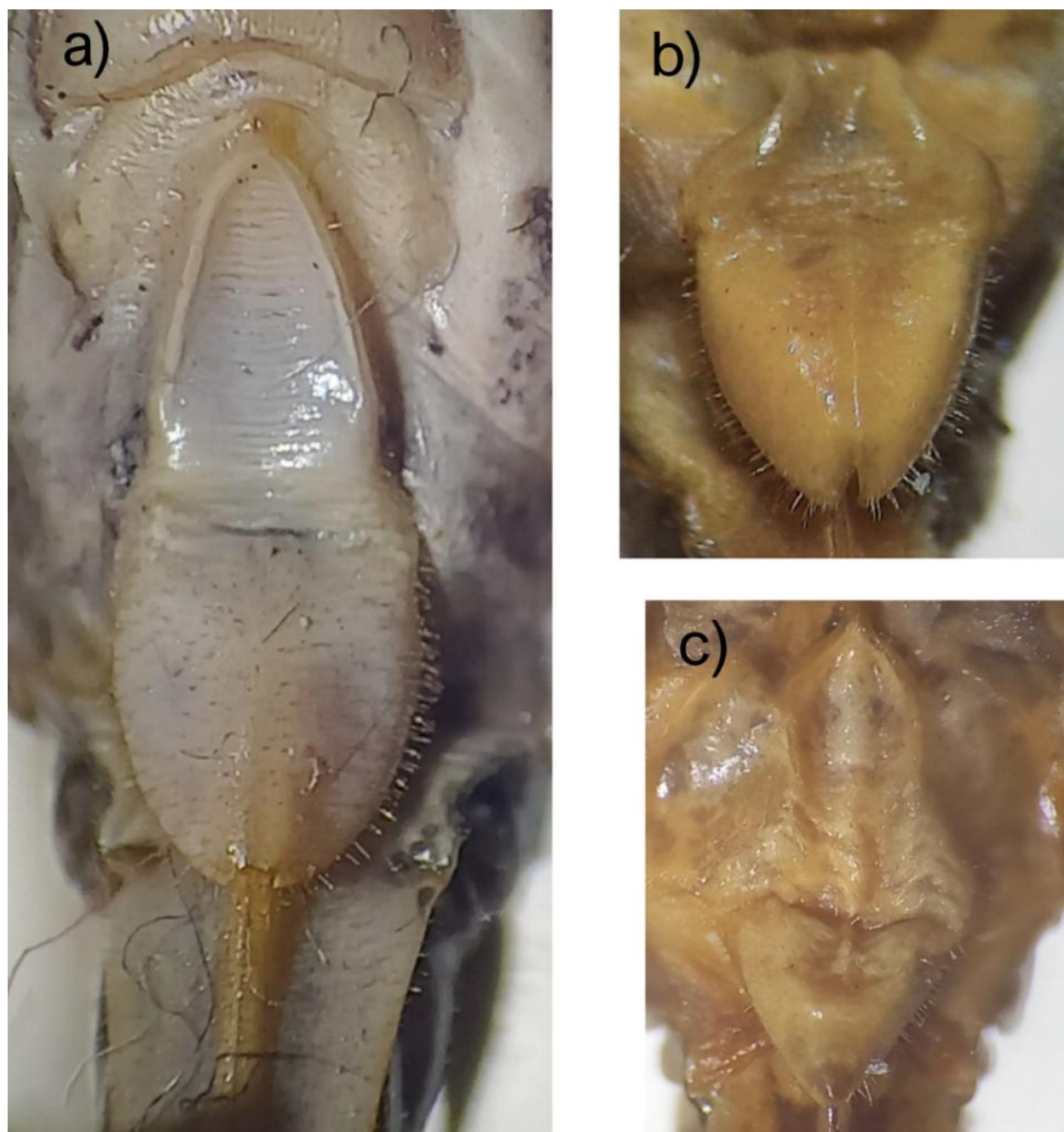


Fig. 1: *Rhacocleis* species, female, subgenital plate, ventral view: a) *R. graeca*, Attiki, Koropi (August 2013); b) *R. werner*, Attiki: Koropi (August 2015); c) *R. germanica*, Attiki, Koropi (August 2013).

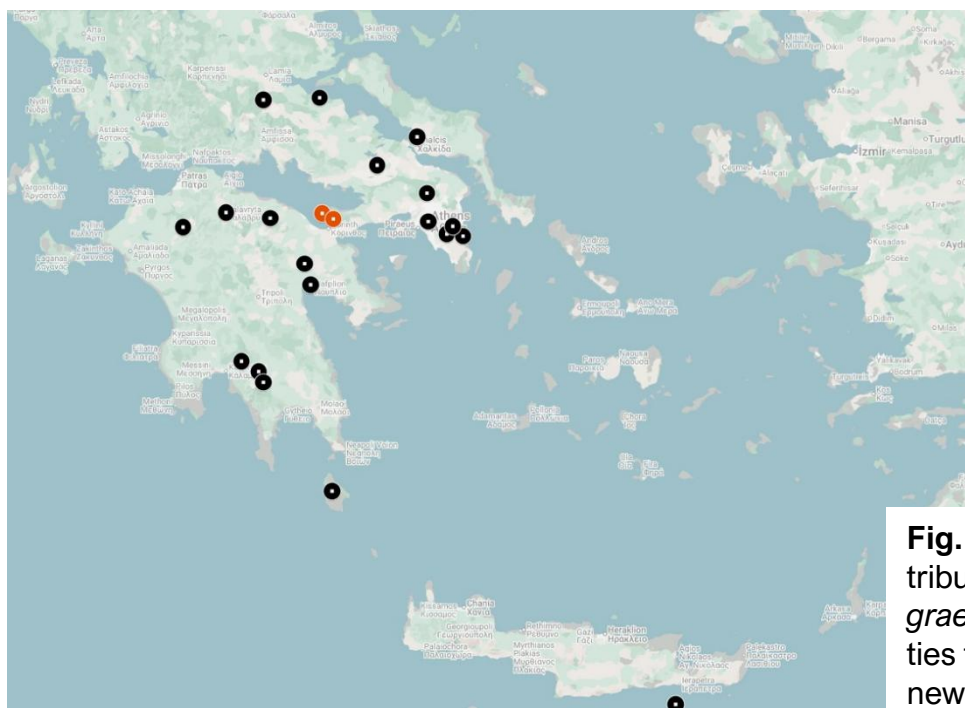


Fig. 2: Total known distribution of *Rhacocleis graeca* (black: localities from literature, red: new localities).

Rhacocleis werner Willemse, 1982 (Fig. 1, 3, 4)

Attiki: Koropi, 8.2015, 2♀; Mt. Imittos, 9.2014, 1♂; Korinthia, Lake Vouliagmeni, on the road to Ireo, 10.8.2025, 2♂.

Our record on Mt. Imittos confirms Lehmann et al. (2014). Two male specimens and one female are uniformly light-brown. All specimens are lacking the colour pattern of the pronotum of *R. graeca*.

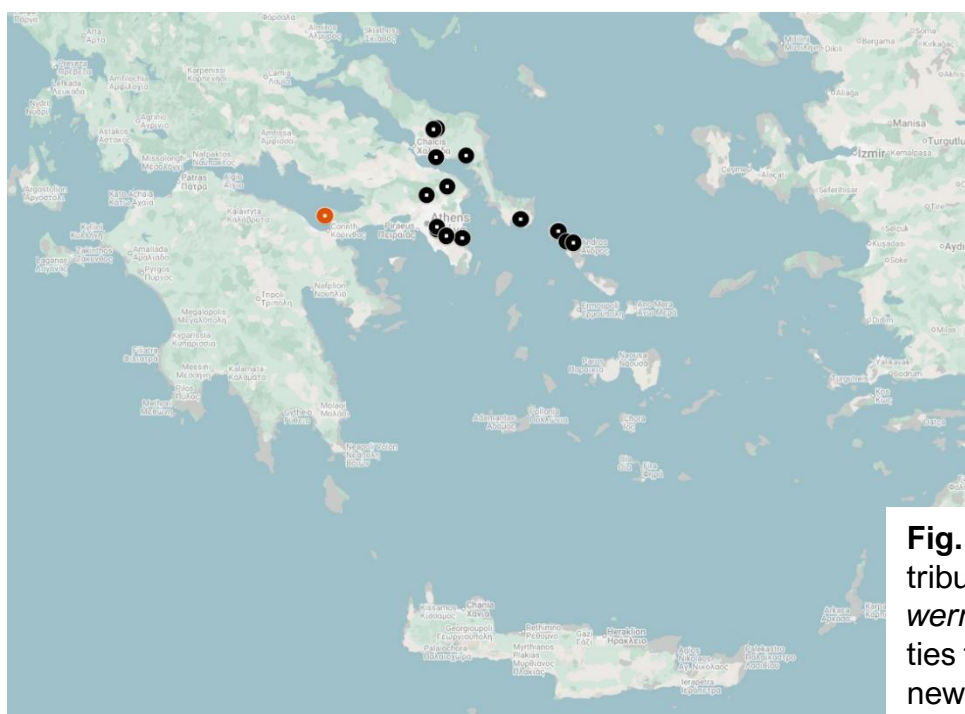


Fig. 3: Total known distribution of *Rhacocleis werner* (black: localities from literature, red: new localities).

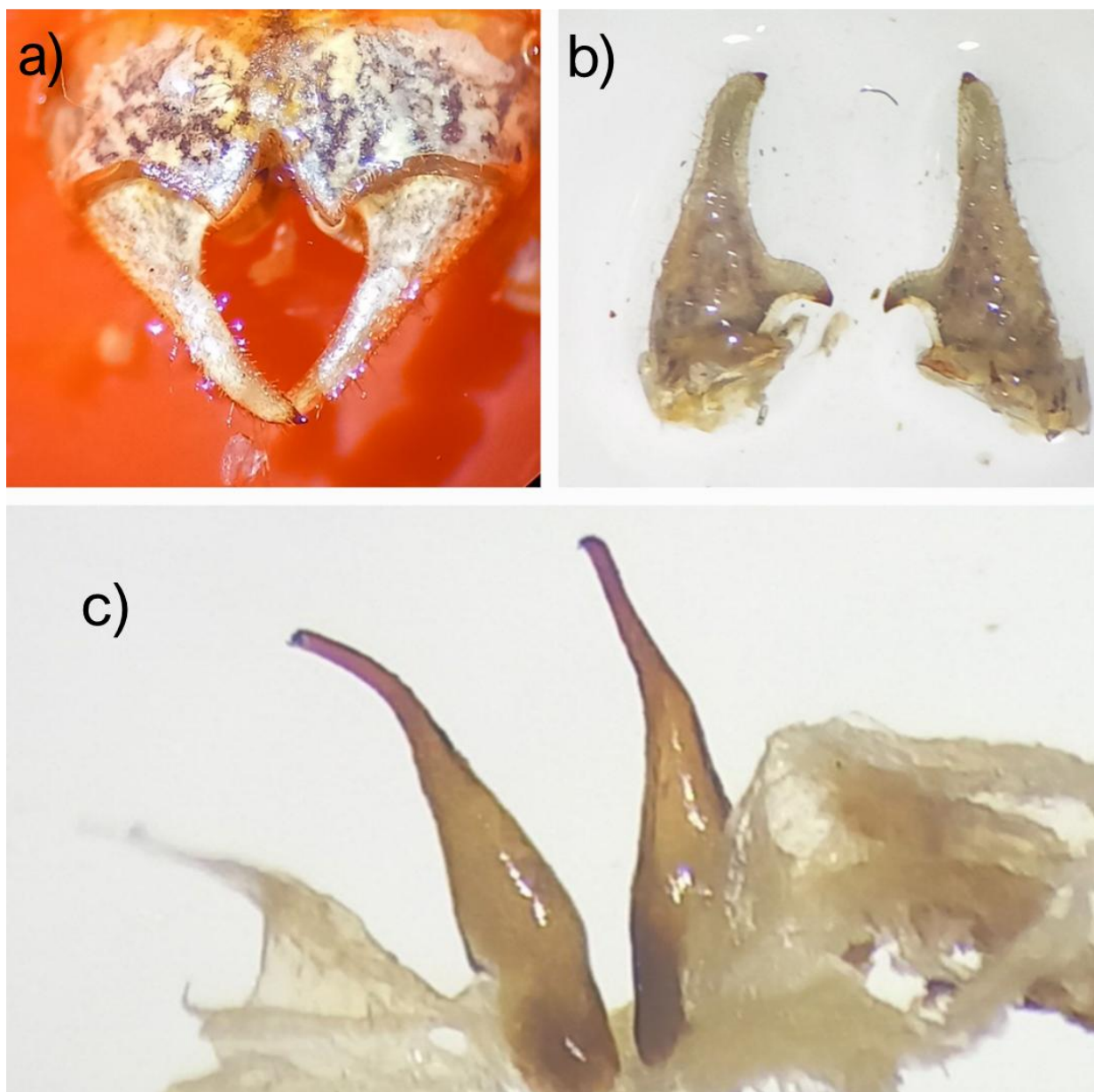


Fig. 4: *Rhacocleis wernerii*, male (Korinthia, Lake Vouliagmeni, on the road to Ireo; 10.08.2025): a) last abdominal tergite, dorsal view. b) cerci, dorsal view. c) epiphallus

The occurrence of three *Rhacocleis* species in the east part of Attiki (e.g., Koropi) is important from a conservation point of view because this area has suffered from environmental degradation over the last decades due to rapid expansion of the city of Athens, overpopulation, and severe urbanization. The persistence of insect populations in such areas might be indicative of the endurance of nature over human indifference or, alarmingly, we might be witnessing the last breath of previously more flourishing populations.

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