New data of Metaplastes (Ramme, 1939) from Greece (Orthopteroidea, Tettigoniidae, Phaneropterinae)

by

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ABSTRACT. — Three species of *Metaplastes* were described from Greece: *oertzeni* (Brunner von Wattenwyl, 1891), *ornatus* (Ramme, 1931) and *pandaceos* (Werner, 1938). The latter is now synonymized with *ornatus*. Systematics are discussed and new faunistic and biological data are added.

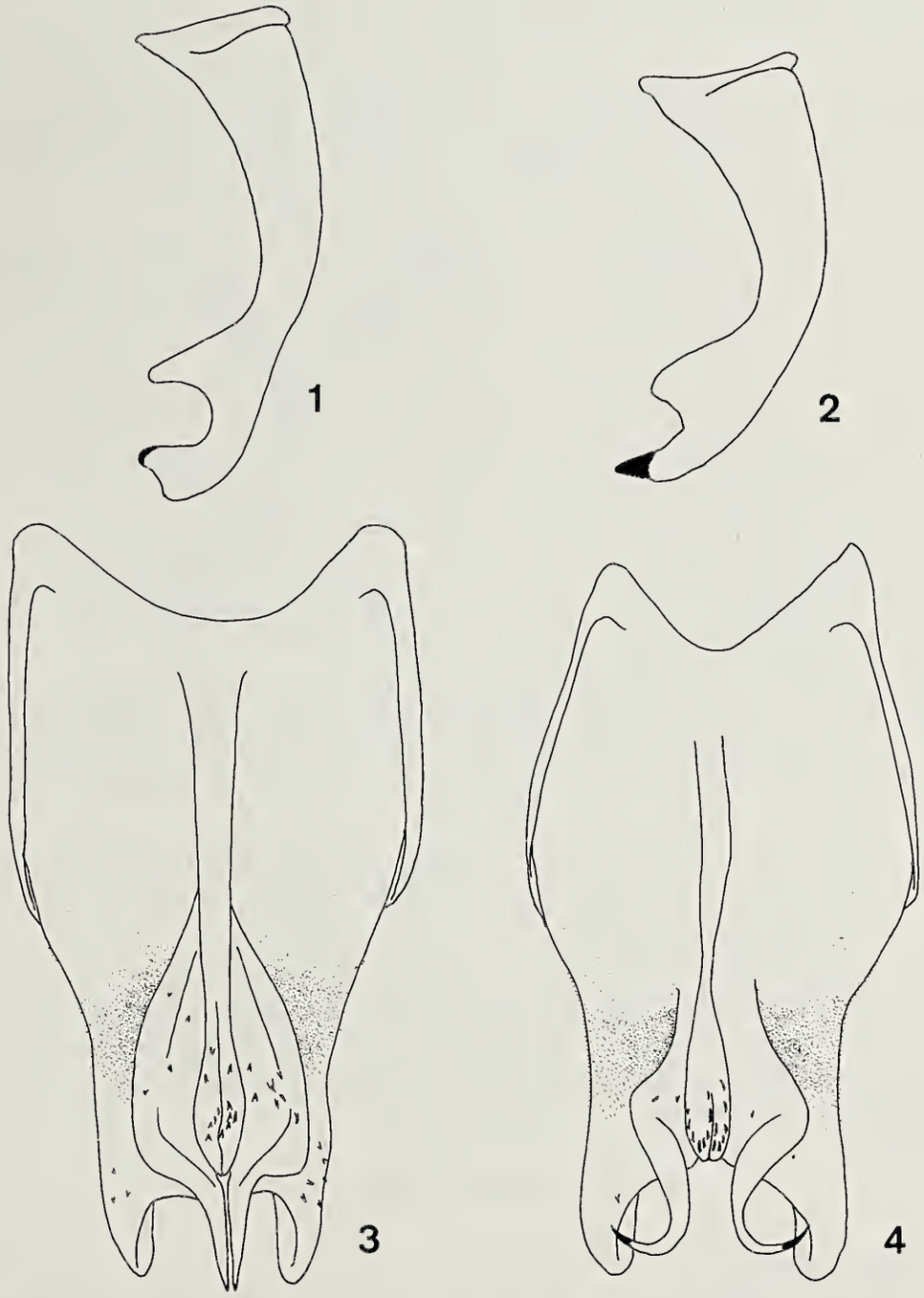

Fig. 1—4. *Metaplastes* species, male: 1—2, right cercus from above, (1) *oertzeni* (Brunner von Wattenwyl) (Aroania), (2) *ornatus* (Ramme) (Velventos-Katafigion); 3—4, subgenital plate from below, (3) *oertzeni* (Brunner von Wattenwyl) (Aroania), (4) *ornatus* (Ramme) (Velventos-Katafigion).

INTRODUCTION

In *Metaplastes* (Ramme, 1939) (formerly *Metaplasia* Ramme, 1931, nom. praeoc.) five species are currently recognized: *pulchripennis* (Costa, 1863) from Italy, Sardinia, Corsica and northwestern Spain, *ippolitoi* La Greca, 1948, from southern Italy and three species from Greece: the type-species *oertzeni* (Brunner von Wattenwyl, 1891), *ornatus* (Ramme, 1931) and *pandaceos* (Werner, 1938). Material from Greece was very scarce. Unless otherwise stated, studied material has been collected by the present author and his family and is deposited in his collection. References under the species concern records of original material only. The localities listed under the species are numbered as indicated in the distribution map.

Metaplastes oertzeni (Brunner von Wattenwyl, 1891)

Barbitistes oertzeni Brunner von Wattenwyl, 1891: 32.
Metaplasia oertzeni: Ramme, 1931: 174, fig. 2a.

Material studied: Greece, the Peloponnese: Mt. Erymanthos, Kalentzi, 1000 m, 3.VIII.1970 (1♂); Mt. Panachaikon, above Romanou, near Zastova, 1000 m, 16.VII.1974 (18♂, 11 ♀); Aroania, W. of Klitoria, 1000 m, 2.VIII.1970 (8♂, 11 ♀); Chrissovitsion, 5 km E., 1200 m, 12.VII.1974 (10♂, 15 ♀); Andritsena, 400 m, 14.VII.1974 (1♂).

This species was known only after the typical pair and an additional male recorded by Ramme. Among the rich material at hand, variation of the abdominal terminalia should be noted. The lateral processus of the male supra-anal plate varies in length. The tip of the male cercus (fig. 1) is from simply obtuse to, usually, distinctly bilobed; in the latter case, the proximal lobe is a short, obtuse tooth, always pointing ventrally. The apical spines of the male subgenital plate (fig. 3) are parallel, close together, basally down curved but apically strongly upcurved; in dry material the spines may cross each other, as in Ramme's figure. The lateral processus of the hind margin of the male subgenital plate are of a variable length. The elongate groove at the lateral side of the base of the ovipositor (fig. 5) is usually wide, sometimes narrower. The coloration of the male is strongly variegated, for the female the same usually holds, but unicolorous green females do occur. In variegated colored specimens, the rusty brown color of the dorsum of the elytra, the last abdominal tergites and the knees, and a yellow, median line over the pronotal dorsum are fairly constant.

Distribution. As far as known, the range of the species is confined to the Peloponnese (map).

Localities: 1. Olympia (type-locality, Brunner von Wattenwyl, 1891); 2. Kumani (Ramme, 1931); 3. Kalentzi, Mt. Erymanthos; 4. Zastova, Mt. Panachaikon; 5. Aroania; 6. Chrissovitsion; 7. Andritsena.

Discussion. The species is defined by the obtuse, usually slightly bilobed tip of the male cercus, the strongly upcurved apical spines of the male subgenital plate and the wide elongate lateral groove of the base of the ovipositor.

The habitat, as far as known to the present author, is the faunistically poor and unattractive „Phrygana", i.e. prickly shrubs growing on extremely dry, stony and sunny mountain slopes. The specimens are perfectly concealed and their coloration is well adapted to their environment of dark green leaves, especially of *Quercus coccifera* L. When not aware of this habitat, the species is likely overlooked by orthopterists.

Metaplastes ornatus (Ramme, 1931)

Metaplasia ornata Ramme, 1931: 174, fig. 2b.
Metaplastes ornata: Ramme, 1939: 50; Ebner, 1954: 554; Karaman, 1960: [1], fig. 1—5; Cejchan, 1963: 767; Harz, 1969: 79, figs. 40, 247, 251.
Metaplasia pandaceos Werner, 1938: 167, fig. 5. SYN. NOV.
Metaplastes pandaceos: Harz, 1969: 79, fig. 249.
Material studied: Greece: Agrinion Steind. 96, vermutlich Metaplasia Ramme det., Meta-

Distribution of *Metaplastes oertzeni* (Brunner von Wattenwyl) and *M. ornatus* (Ramme).

plastes oertzeni Br. W. ♀ det. K. Harz (1 ♀, Naturhistorisches Museum, Wien); Veluchi, 1896, Dr. Krüper (1♂, 2 ♀, Zoological Museum, University of Athens); Ramia - Livadion, 500 m, 25.VII.1976 (1 ♀); Plaka, 300 m, 25.VII.1976 (2♂, 3 ♀); 8 km N. of Kalentzion, 950 m, 22.VII.1976 (5♂, 1 ♀); Asfaka, 500 m, 26.VII.1976 (1♂, 1 ♀); Kallidea, S. of Konitsa, 500 m, 26.VII.1976 (1♂, 2 ♀); Or. Smolikas above Paraskevi, 1100-1500 m, 28.VII.1976 (1♂); Fourka, 1400 m, 27.VII.1976 (2♂, 1 ♀, 1 juv. ♀); Chrysomilea, 900-1200 m, 10.VII.1976 (1 juv. ♂); Mourykany, 350 m, 9.VII.1976 (6♂, 4 ♀); 10 km SW. of Deskati, 700 m, 9.VII.1976 (1♂, 3 ♀); Paraskevi (near Deskati), 600 m, 8.VII.1976 (2♂, 2 ♀); Litochoron - Stavros, 500 m, 25.VII.1974 (2♂, 3 ♀); Mt. Pieria, Velventos - Katafigion, 950-1400 m, 23.VII.1974 (2♂); Neapolis, 300 m, 31.VII.1976 (1♂).

This species was known only after the holotype and few specimens recorded from Levkas, Mt. Veluchi, Albania and Skoplje. The material at hand agrees completely with Ramme's descriptions and figure of *ornatus* (1931; 1939). Figures of the species by Karaman (1960) fit well, however, that of the male abdominal terminalia by Harz (1969: fig. 247) is misleading as to the shape of the hind margin of the subgenital plate.

Werner's *pandaceos* differs from *ornatus* in the shape of the hind margin of the male subgenital plate. According to the original description, Werner's taxon was based on a single male, deposited in the Museum of Athens. In this museum, visited by the present author 6.VII.1974, are three specimens of *Metaplastes*. These specimens, two females in a very bad and one male in a slightly less bad condition, are labelled „Veluchi (in Greek) 1896 Dr. Krüper". Identification labels are lacking, but the locality label, the measurements and abdominal terminalia of the male agree with Werner's data and figure. Most probably, this male (fig. 7) is the type of *pandaceos*. While the cercus and other parts of the abdominal terminalia agree completely with *ornatus*, it came out that the left and right lateral processus of the hind margin of the subgenital plate are broken off, which fits Werner's figure. Presumably Werner was unaware of the artificial difference with *ornatus*, which can be explained by the supposition that he studied and figured the specimen in Athens without proper magnifying equipment. Another male of similar origin is in the Vienna Museum and fits completely *ornatus* (Harz, 1969: 82). As there is no further support which justifies *pandaceos*, I propose to synonymize this taxon with *ornatus*.

Distribution. The range of *ornatus* reaches from the Ionian island Levkas all over the mainland of Greece, excluding the Peloponnese but extending into Albania and Yugoslavian Macedonia (map).

Localities: 1. Nidri, Insel Levkas (Ramme, 1939; Ebner, 1954); 2. Agrinion; 3. Veluchi [= Mt. Tymfrestos] (Werner, 1938; Harz, 1969); 4. Ramia - Livadion; 5. Plaka; 6. Kalentzion; 7. Janina [= Ioannina] und Meřovo (type-locality [sic], Ramme, 1931); 8. Asfaka; 9. Kallidea; 10. Mt. Smolikas; 11. Fourka; 12. Chrysomilea; 13. Mourykany; 14. Deskati; 15. Paraskevi; 16. Litochoron - Stavros; 17. Velventos - Katafigion; 18. Neapolis; 19. Iba unterhalb Krraba

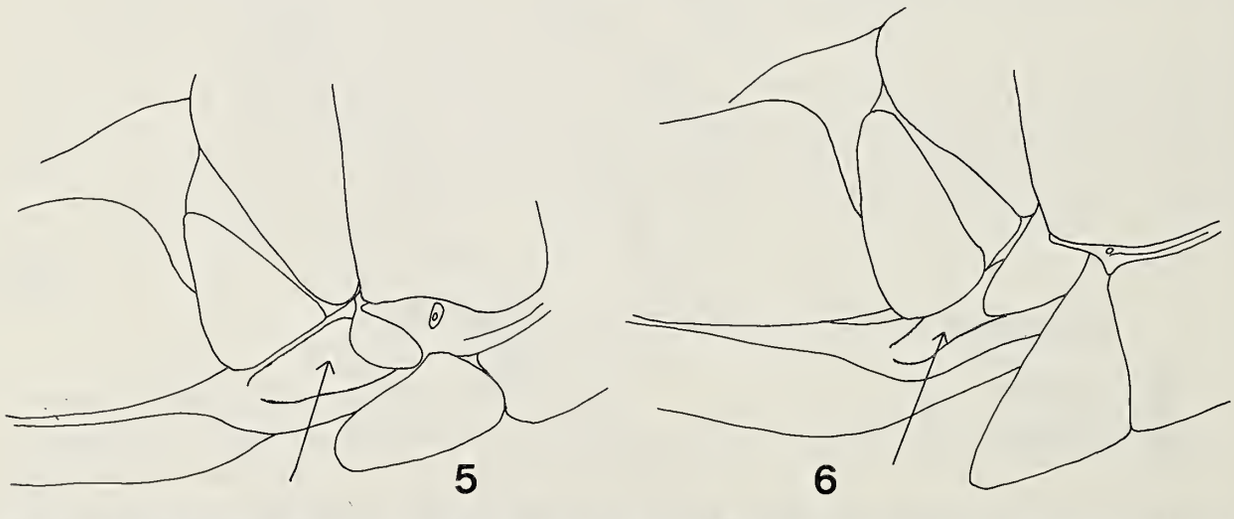

Fig. 5—6. *Metaplastes* species, female, lateral view of base of ovipositor, (5) *oertzeni* (Brunner von Wattenwyl) (Mt. Panachaikon), (6) *ornatus* (Ramme) (Litochoron-Stavros).

Fig. 7. *Metaplasia pandaceos* Werner, ♂ holotype (presumably).

(Cejchan, 1963); 20. Skopska Crna Gora: Ljubanci & Sv. Bogorodica (Karaman, 1960).

Discussion. This species resembles closely *oertzeni*. The distinction is found mainly in the tip of the male cercus, which is sharp and points medially in *ornatus* (fig. 2) instead of obtuse and pointing ventrally in *oertzeni* (fig. 1). Besides the apical spines of the hind margin of the male subgenital plate are distinctly outcurved in *ornatus* (fig. 4) and strongly upcurved in *oertzeni* (fig. 3). However, due to shrivelling in dry material, the interpretation of this feature may be difficult. In the female, distinction between the two species is difficult. The groove at the lateral side of the base of the ovipositor in *ornatus* (fig. 6) is usually narrower than in *oertzeni* (fig. 5), but due to variation, the difference is not always clear. Other reliable distinctive features could not be found, neither in the morphology of the tegminal stridulatory apparatus (present in both sexes) nor in the peculiar minute teeth and hair-like spines of the male subgenital plate.

Specimens of *ornatus* were found predominantly on *Quercus coccifera* L., but also on other *Quercus* species, *Laurus nobilis* L., *Sambucus ebulus* L., *Rubus* sp. and *Urtica* sp.

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THE GENETICS AND BIOLOGY OF DROSOPHILA; Edited by M. Ashburner and E. Novitski 1976. Vol 16 pp. 487-954. Author index 22 colums. Subject index 27 colums. Species index (except *D. melanogaster*) 3 colums. Index of genetic variations 16 colums. ISBN: 0 12 064902-0. Library of Congress Catalog Number 75-19614. Academic Press Inc. (London) Ltd. Price (Bound) £ 16.80.

This book is the second part of the first volume of a series of three volumes which have as objective to give "the state of the art in the mid nineteen seventies." Volume la has been reviewed previously (see Entomologische Berichten 37: 71, 1977).

In this issue the following topics are discussed: Compound chromosomes involving the X and Y chromosomes (Novitski and Childress). Ring chromosomes and radiation induced chromósome loss (Leigh). Compound autosomes (Holm). Genetic and cytogenetic aspects of altered segregation phenomena in *Drosophila* (Zimmering). Segregation distortion (Hartland and Hiraizumi). The genetics of the Y chromosome (Williamson). Recombination between the X and Y chromosome (Williamson and Parker). Genetic units of *Drosophila* - Simple cistrons (Finnerty). Genetic units of *Drosophila* - Complex loci (Judd). The bobbed locus (Ritossa). The proximal region of the X chromosome (Schalet and Lefevre). The fourth chromosome of *D. melanogaster* (Hochman). Mutable and mutator loci (Green). - G. G. M. Schulten.

TURIN, H., J. HAECK & H. HENGEVELD, ATLAS OF THE CARABID BEETLES OF THE NETHERLANDS. pp. 228, 372 kaarten. Noordhollandse Uitgeversmaatschappij, Amsterdam, 1977. Prijs (paperback) *f* 55,- (US $22.50).

De eerste atlas met verspreidingskaarten van Nederlandse insekten maakt een voortreffelijke indruk. De auteurs, geholpen door een staf van medewerkers, hebben een enorme hoeveelheid materiaal doorgewerkt om een zo nauwkeurig mogelijk overzicht te geven van wat in de periode 1900—1974 bekend geworden is over de verspreiding van de loopkevers in Nederland. In sommige opzichten is afgeweken van het Brits-Belgische systeem. Zo is niets aangegeven over de ouderdom van de gegevens, zodat de kaarten wat de huidige situatie betreft nogal eens een geflatteerde indruk zullen maken. Aan de andere kant bevatten de Nederlandse kaarten waardevolle gegevens, die op de buitenlandse niet voorkomen: histogramma van de imagines, indien mogelijk tijd van voorkomen van de larven, vleugelvorm van de kevers en overzichtskaartjes van het voorkomen in Europa en Noord-Afrika.

Ik vraag me wel af of het mogelijk en ook nodig is andere insektengroepen op dezelfde grondige wijze te behandelen. Het Brits-Belgische systeem werkt ongetwijfeld sneller en vermoedelijk ook goedkoper. Maar dat doet niets af aan de hoge kwaliteit van deze publicatie. Het boek vormt deel 68, tweede reeks, van de Koninklijke Nederlandse Akademie van Wetenschappen, afdeling Natuurkunde. — B. J. Lempke.