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## The Orthoptera of Hatay Province, S. Turkey

With 13 figures

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### Abstract

A full list of Orthoptera recorded from Hatay province in S. Turkey is given. Two species, *Leptophyes karanae* sp. n. and *Isophya splendida* sp. n., are described as new; two species, *Morphacris fasciata* (THUNGB.) and *Conocephalus kisis gaukleri* HARZ are recorded from Turkey for the first time, and eight additional species are new to the province.

### Zusammenfassung

Eine komplette Liste der Orthoptera aus der Provinz Hatay in S. Türkei ist aufgeführt. Zwei Arten, *Leptophyes karanae* sp. n. und *Isophya splendida* sp. n., werden als neu beschrieben; zwei Arten, *Morphacris fasciata* (THUNGB.) und *Conocephalus kisis gaukleri* HARZ werden erstmalig aus der Türkei und acht zusätzliche Arten erstmalig aus dieser Provinz stammend verzeichnet.

### Introduction

The following paper presents an updated list of the Orthoptera recorded from Hatay province in southern Turkey (Outer Anatolia). In addition to the data from the literature it includes a list of more than 1200 specimens collected by us in the last decade of June 1993. Some specimens, being immature and not determinable with certainty, are not listed (many Tettigoniinae, especially genera *Phytodrymadusa*, *Anadrymadusa*, *Bucephaloptera* and *Rhacocleis*). The same problem applies to some Gryllidae, which, although adult, could not be determined. These specimens probably represent new taxa that shall be described shortly. We have also incorporated data included in the unpublished doctoral dissertation of Dr. H.V. GÜNES, who worked on faunas of provinces Konya, Mersin, Adana, Nigde, Maras and Hatay. Although one of the smallest provinces in the country, having an area of 5402 sq. km, Hatay

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has a great diversity of biotopes. The climate of the province is of humid and subhumid Mediterranean type, with annual precipitation ranging between 570 and 1200 mm, and mean maximum temperature of the hottest month (August) between 30° and 36°C. It is situated in Thermo-Mediterranean and Eu-Mediterranean vegetation zones, and the main plant alliances present there are Quercion calliprini and Oleo-Ceratonion of the class Quercetea illicis (AKMAN and KETENGOLU 1986). In total, 110 species of Orthoptera s. str. have been recorded from the Hatay province, excluding two or three, probably new to science, species of Gryllidae. It is, however, very likely that more species will be discovered there if more extensive collecting is undertaken, especially in the Amanos Mts. range. It is interesting to note the fact that the province, as WEIDNER (1969) pointed out, is a natural pathway used by afro-eremial faunistic elements to move into Anatolia. Our discovery of a typical Afrotropical species, *Morphacris fasciata* (THUNG.) further supports this hypothesis. Other species probably of African origin are *Conocephalus conocephalus* (L.), *Schistocerca gregaria* (FORSK.) and *Anacridium aegyptium* (L.). Two species, *Scotodrymadusa amani* RAMME and *Prionosthenus guleni* KARABAG, are apparently endemic to that area. Also the two new species of Phaneropterinae described below should be, at least tentatively, considered endemic. Most of the remaining species are typical Mediterranean elements, recorded from most countries of the region, and some species are known from almost the whole Palearctic.

The geographic coordinates for the listed localities are as follows: Amanos Mts. = Nur Daglari 36°09'N, 36°20'E; Belen 36°32'N, 36°10'E; Dörtyol 36°52'N, 36°12'E; Kuzuculu 36°55'N, 36°12'E; Magaracik 36°09'N, 35°54'E.

Most of the listed specimens, including holo- and allotypes of newly described species, are deposited in the collection of Centre for Entomological Studies, Ankara; paratypes are deposited in the Department of Ecology and Evolutionary Biology, University of Connecticut, Storrs, USA and Department of Animal Taxonomy and Ecology, A. MICKIEWICZ University, Poznan, Poland.

## List of Species

### Tettigoniidae

#### Phaneropterinae

##### *Phaneroptera nana nana* FIEBER, 1853

(*Phaneroptera nana* FIEBER, F., 1853, Lotos 3: 173)

Material Studied: Magaracik n. Samandag, 22 June 1993 - 1 male, 3 females, 3 juv.; Dörtyol, 20-25 June 1993 - 2 males, 1 female.

Distribution of this species covers most of the western part of the Palearctic, in Hatay Province recorded from Iskenderun (KARABAG 1958, GÜNES 1984) and Dörtyol (GÜNES 1984).

##### *Tylopsis lilifolia* (FABRICIUS, 1793)

(*Locusta lilifolia* FABRICIUS, J. CH., 1793, Ent. syst. II, p. 36)

Material Studied: Belen, 23 June 1993 - 5 juv.; 10 km E Dörtyol, 21 June 1993 - 3 juv.;

Dörtyol, 20-25 June 1993 - 6 juv.; Magaracik n. Samandag, 22 June 1993 - 1 juv.

Known from the whole Mediterranean region, north to S Tirol and east to Iran. In Hatay collected in Iskenderun (KARABAG 1958), Soguksu mevki (KARABAG et al. 1974), Dörtyol and Belen (GÜNES 1984);

*Acrometopa syriaca* BRUNNER VON WATTENWYL, 1878

(*Acrometopa syriaca* BRUNNER VON WATTENWYL, C., 1878, Monographie der Phaneropteriden, pp. 85, 87)

Material Studied: Belen, 23 June 1993 - 4 juv.; Kuzuculu n. Dörtyol, 1000-1200 m, 25 June 1993 - 3 juv.; Magaracik n. Samandag, 22 June 1993 - 3 males.

Distribution of this species covers Egypt, Israel, Lebanon, Syria, Iraq, Anatolia, Cyprus Aegean Islands and northern mainland Greece. Recorded from Dörtyol by RAMME (1951).

*Leptophyes karanae* spec. nov.

(figs. 1-6)

Diagnosis. Size large as for the genus; head large, wider than pronotum; both sexes brachypterous, tegmina free, not covered by pronotum. Male cercus regularly incurved, tapered to sharp spine; ovipositor broad, strongly compressed laterally, with its lower margin more curved than upper one. Overall colouration rusty brown.

Description.

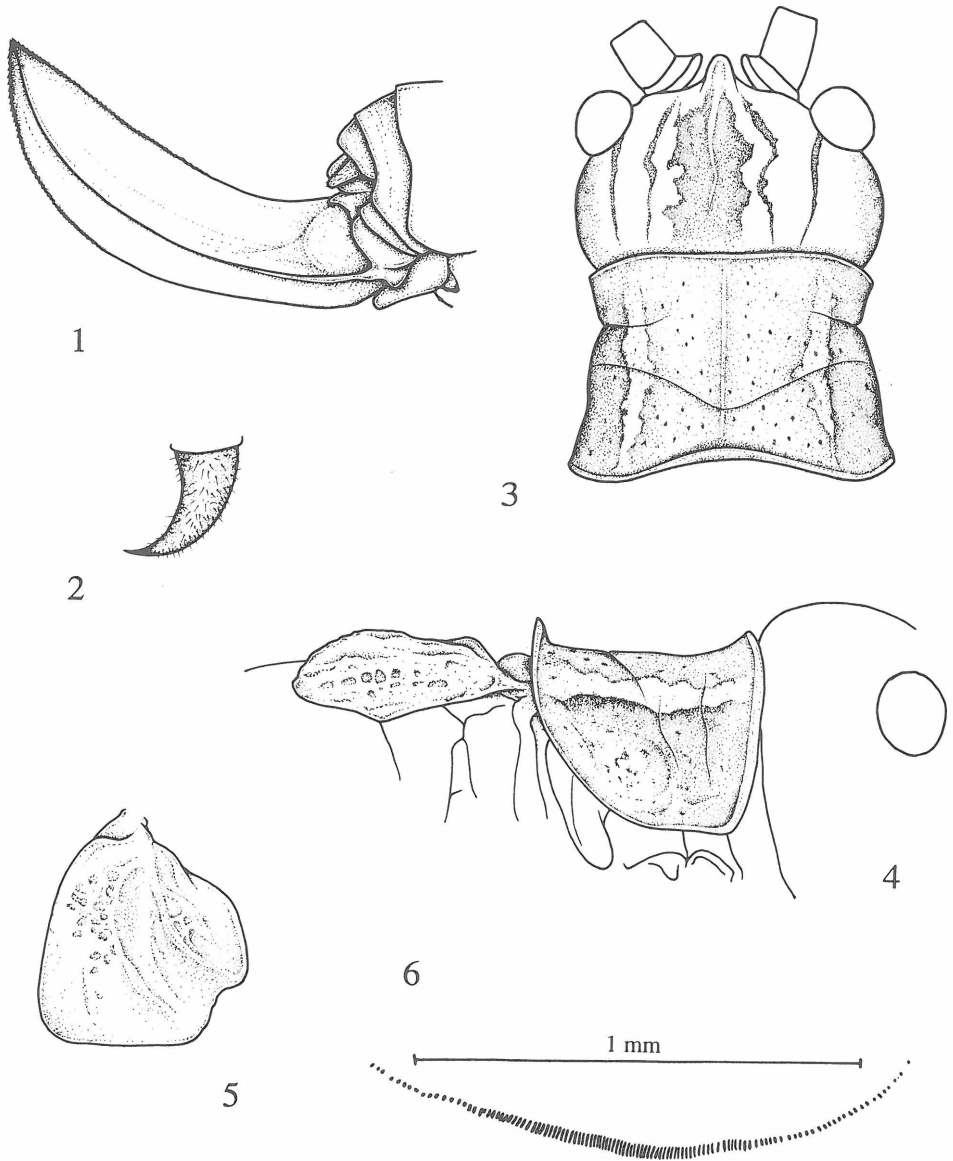
Head. Head relatively large, distinctly wider than pronotum; fastigium of vertex small, about 3 times narrower than antennal scapus (fig. 3); fastigia of frons and vertex separated; antennal sockets weakly produced internally; antennae very long, at least 3.5-4 times longer than body; 3rd antennal segment narrower than distance between antennal sockets; eyes small, almost circular, distinctly projecting; face flat.

Thorax. Pronotum short, when seen from above distinctly wider than long; median sulcus in posterior third (fig. 3); pronotum in lateral view saddle shaped, its posterior margin sharply upcurved; lateral lobe slightly wider than deep (fig. 4), vertical when seen in front; both anterior and posterior margins of pronotum straight. Tegmina in both sexes free, strongly shortened, lobiform but always overlapping; outer margin of male left tegmen weakly convex, its inner margin moderately produced in region of stridulatory file (fig. 5); file regularly curved, narrow, with 110-120 lamelliform teeth (fig. 6); length of file 1.3 mm; male tegmen about as long as pronotum (fig. 4), in female tegmen as long as two thirds of pronotum; wings in both sexes rudimentary.

Legs. All legs long and slender; ratio fore femur/pronotum 1.6-2.1. Ventral margin of hind femur with several small spines.

Male abdomen. Dorsal surface of abdomen smooth and shining. Supra anal plate transverse; cercus stout, regularly incurved and tapering to sharp apical spine (fig. 2); subgenital plate broad and short, narrowed towards apex, which can have shallow emargination. Typically for the subfamily internal genitalia lack sclerotized elements.

Female abdomen. Dorsal surface as for male. Supra anal plate small, roughly triangular; cercus



**Figs. 1-6.** *Leptophyes karanae* sp. nov.: (1) male pronotum and tegmen, lateral view; (2) male head and pronotum, dorsal view; (3) ovipositor; (4) male left tegmen; (5) male right cercus; (6) male stridulatory file.

conical, stout, with blunt apex; subgenital plate narrowly triangular, with distinct longitudinal furrow (which, however, may be the effect of shrinkage). Ovipositor relatively long as for the genus, its distal part somewhat wider than proximal (basal) part (fig. 1); ratio hind femur/ovipositor 1.8; lower margin of ovipositor regularly upcurved, upper margin straight or almost straight; both margins with fine serration extending from apex to about half of their length; upper valves distinctly inflated basally, lower valves with prominent lateral processes at their bases; gonangulum flat.

Colour. Overall colouration rusty brown, with numerous dark spots; legs sometimes green, and more often so in females than males. Occiput with two dark brown stripes separated by narrow white stripe; white stripe behind eye continuous with that on lateral lobe of pronotum; lateral lobes sometimes with longitudinal dark spot parallel to white stripe. Femora usually brownish, but sometimes green; their ventral margins often darkened; dorsal side of abdomen rusty brown but sometimes greenish in females. Ovipositor green, with dark apex. Nymphs are generally more green than imagines.

Measurements. Body (excl. ovipositor): male 18-19, female 19.5-20; pronotum: male 3-3.5, female 3.8-4; tegmen: male 3-3.1, female 2.5-2.7; hind femur: male 16-16.5, female 17-18.5; ovipositor 9.5-10 mm.

Material Studied: Turkey, Hatay Province, Amanos Mts., Kuzuculu near Dörtöyl, elev. 1000-1200 m, 25 June 1993 - 1 male (holotype), 1 female, 6 males (paratypes), 8 nymphs; Magaracik near Samandag, 22 June 1993 - 1 female (paratype).

**Etiology:** This new species is named in honour of Ms. KARAN SCHNUELLE, a talented herpetologist and naturalist from the Auburn University, Alabama, USA.

**Remarks.** This species seems to be most closely related to *Leptophyes peneri* HARZ from Israel but differs in body size, shape of male cercus, tegmina and subgenital plate, lack of lateral sclerites at the base of ovipositor and colouration. From *L. festae* Giglio-Tos, a rather poorly described and illustrated species from Lebanon, it differs mainly in the shape of pronotum, overall colouration, body size and relative length of tegmina in female. However, the colouration of the occiput and lateral lobes of pronotum are similar in both species. *L. karanae* sp. n. clearly belongs to BEI-BIENKO's (1954) group *L. punctatissima* BOSC. which is characterized by having 3rd antennal segment narrower than the distance between antennal sockets, short pronotum with vertical lateral lobes, free tegmina, male left tegmen with undulate inner margin and ovipositor widened distally.

***Poecilimon syriacus* BRUNNER VON WATTENWYL, 1891**

(*Poecilimon syriacus* BRUNNER VON WATTENWYL, C., 1891, Verh. Zool.-Bot. Ges. Wien 41: 29)

This species is widely distributed from eastern and southern Anatolia to Lebanon and Israel, there is also a doubtful record from Samos (WILLEMSE 1984). Collected in Belen by GÜNES (1984).

***Isophya savignyi* BRUNNER VON WATTENWYL, 1878**

(*Isophya savignyi* BRUNNER VON WATTENWYL, C., 1878, Monographie der Phaneropteriden, p. 70)

Material Studied: Belen, 23 June 1993 - 1 female.

The range of this species covers Jordania, Lebanon, Israel and Turkey. The type locality of *I. savignyi*, Antakya (= Antiochia), is the only record of this species from Hatay (BRUNNER VON WATTENWYL 1878).

***Isophya rodsjankoi* I. BOLIVAR, 1899**

(*Isophya rodsjankoi* BOLIVAR, I., 1899, Ann. Soc. entomol. Belg. 43: 599)

Known only from SE Anatolia. Recorded from Hatay, Merkez by KARABAG et al. (1971) and from Amanos Mts. (Alman Mts., Gavur Mts.) by BEI-BIENKO (1954).

***Isophya major* BRUNNER VON WATTENWYL, 1878**

(*Isophya major* BRUNNER VON WATTENWYL, C., 1878, Monographie der Phaneropteriden, pp. 70-71)

Distribution of this species covers central and southern Anatolia, from Hatay recorded only from Kirikhan (GÜNES 1984).

***Isophya splendida* sp. n.**

(figs. 7-11)

Diagnosis. Body of average size as for the genus; tegmina in both sexes relatively long, in male always longer, in females as long as or slightly shorter than pronotum; male cercus slender, bent in apical fourth; ovipositor short, about as long as half of hind femur.

**Description.**

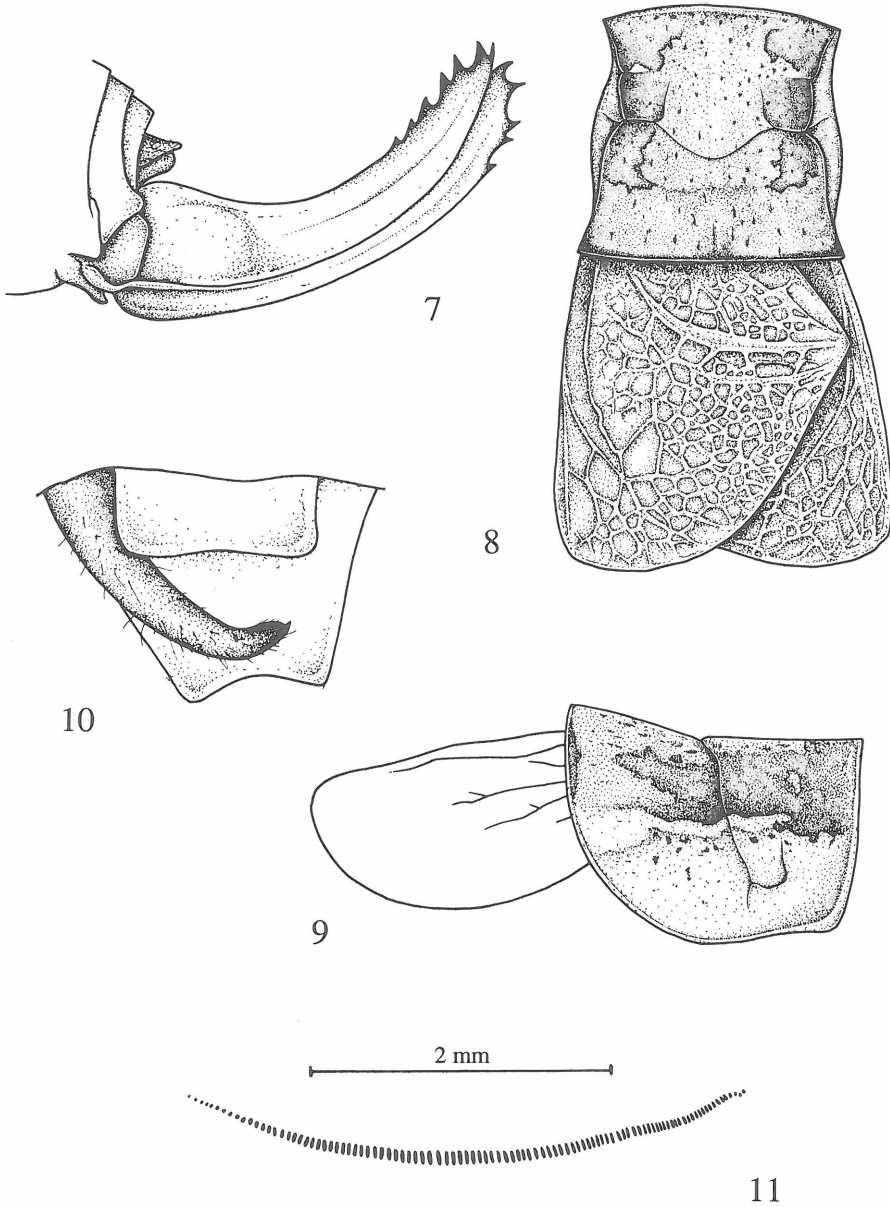
Head. Fastigium of vertex moderately projecting, about half as wide as antennal scapus; antennae less than twice body length; eyes small, circular, moderately projecting.

Thorax. Pronotum, when seen from above, constricted in the middle, equally or only slightly less widened in front than behind; anterior margin straight or weakly emarginated, posterior one straight or weakly convex; median sulcus behind middle of pronotal disc (fig. 8); in lateral view pronotum in both sexes weakly concave (fig. 9), although sometimes in males metazona more raised; lateral lobe distinctly longer than wide. Tegmina in both sexes free, shortened; in males 1.3-1.5 times longer than pronotum, in females as long as or somewhat shorter than pronotum, broadly overlapping; inner margin of male left tegmen moderately produced in region of stridulatory file, not protruding beyond outer margin of pronotum (fig. 8); file weakly curved, narrow, with about 100 lamelliform teeth (fig. 11); length of file 3.8 mm; not even rudiments of hind wings present.

Legs. Legs long and slender; ratio fore femur/pronotum: males 1.4-1.7, females 1.2-1.4. Ventral margin of hind femur unarmed.

Male abdomen. Dorsal surface of abdomen smooth and shining. Supra anal plate transverse, almost twice as wide as long; cercus slender, weakly incurved and more abruptly bent in apical fourth; its apex armed with a minute tooth; subgenital plate comparatively broad, about 1.5 times longer than wide, narrowed towards apex which bears shallow emargination (fig. 10).

Female abdomen. Dorsal surface smooth but usually not as shiny as in males. Supra anal plate small, roughly triangular; cercus conical, hardly reaching apex of supra anal plate; subgenital plate small, triangular. Ovipositor slender, regularly upcurved; lower valve with 5-6 and upper



**Figs. 7-11.** *Isophya splendida* sp. nov.: (7) ovipositor; (8) male pronotum and tegmina, dorsal view; (9) female pronotum and tegmen, lateral view; (10) male end of abdomen, dorsal view; (11) male stridulatory file.

valve with 6-8 apical teeth; upper valves distinctly inflated basally (fig. 7); gonangulum flat; ratio hind femur/ovipositor: 2.4-2.6.

Colour. Colouration very variable, ranging from plain green to almost black with yellow stripes. The following is the most common pattern: face yellow, occiput brownish or green, with narrow white stripe bordered with black behind eye; disc of pronotum black with yellow spot of variable size and shape, metazona reddish; tegmina yellow or yellow-green, their marginal fields white or yellow; dorsal surface of abdomen brown or black with median, very narrow yellow stripe, bordered with black, and two lateral yellow stripes; sides of abdomen brownish or green, its ventral surface yellow; all femora green, tibiae green or brownish. This pattern varies in intensity among individuals, the plain green form was present only among females.

Measurements. Body (excl. ovipositor): male 22.5-26, female 25-26; pronotum: male 4-5, female 5.2-5.7; tegmen: male 5.5-6.5, female 5-5.5; hind femur: male 15.1-18.2, female 19.5-20.5; ovipositor 9.5-10.5 mm.

Material Studied: Turkey, Hatay Province, Amanos Mts., 15 km W Dörtyol, elev. 1500 m, on *Rubus* sp. (Rosaceae), 19 June 1993 - 1 male (holotype), 1 female (allotype), 21 males, 7 females (paratypes); Kuzuculu near Dörtyol, elev. 1000-1200 m, 25 June 1993 - 1 male, 1 female (paratypes).

Etymology: The specific epithet refers to the beautiful, striking colour pattern observed in most specimens of the new species.

Remarks. This new species in many respects resembles *Isophya gracilis* Miram from Caucasus, differing mainly in body size, shape of pronotum, length of female tegmina and shape of male cercus. Similar cerci are also present in *I. rodsjankoi* I. BOLIVAR and *I. savignyi* BR.-WATT. but in these two species female tegmina are relatively much shorter than in the species described above.

### *Isophya* sp.

KARABAG et al. (1971) lists an unidentified species of *Isophya* from Yayladag yolu, Samandag yolu, Karaçayir mevkli.

## Conocephalinae

### *Conocephalus (Conocephalus) conocephalus* (LINNAEUS, 1767)

(*Gryllus Tettigonia conocephalus* LINNAEUS, C., 1767, Syst. Nat. (ed. 12) 1(2), p. 696, n. 19)

Known from whole Afrotropical region, in Palaearctic recorded from southernmost Europe and Anatolia. In Hatay Province collected in Dörtyol (KARABAG 1958).

### *Conocephalus (Xiphidion) discolor* THUNBERG, 1815

(*Conocephalus discolor* THUNBERG, C. P., 1815, Mem. Acad. Sc. St.-Petersburg V, p. 275)

The species has a wide range from the British Isles throughout Europe extending far into Palaearctic Asia. Recorded from Antakya by KARABAG (1958) (as *C. fuscus* (FABR.)).



***Conocephalus (Xiphidion) hastatus* (CHARPENTIER, 1825)**  
(*Locusta hastata* CHARPENTIER, T., 1825, Hor. Ent., p. 113)

This species is known from Romania, Bulgaria, Serbia, Greece, Turkey and Syria. Reported from Hatay by GÜNES (1984), however, his drawing of male titillators agree rather with those of *C. kisis gaukleri* HARZ than *C. hastatus*.

***Conocephalus (Xiphidion) kisi gaukleri* HARZ, 1969**  
(*Conocephalus (Xiphidion) kisi gaukleri* HARZ, K., 1969, Ber. Naturwiss. Ges. Bayreuth 13: 114, figs. 71-73)

Material Studied: Magaracik n. Samandag, 22 June 1993 - 4 males, 5 females, 5 juv.  
So far, the subspecies has been known only from the type locality: Latakia (W Syria). This is the first record of this subspecies from Turkey.

**Saginae**

***Saga natoliae* SERVILLE, 1839**  
(*Saga natoliae* SERVILLE, J.G., 1839, Hist. Nat. Ins., Orthopt., p. 541)

The range of the species covers S Dalmatia, Albania, Macedonia, NE Greece, Bulgaria, Thrakia, Anatolia, Syria and Lebanon. Recorded from Hatay by KALTENBACH (1967).

***Saga ephippigera ephippigera* FISCHER DE WALDHEIM, 1846**  
(*Saga ephippigera* FISCHER DE WALDHEIM, G., 1846, Entomogr. Russie 4 (Orthopt.), p. 185, pl. 30, figs. 1-2)

Known from Israel, Syria, E Anatolia, Armenia, Caucasus and NW Iran. Recorded from Iskenderun by KALTENBACH (1967).

***Saga beieri* KALTENBACH, 1967**  
(*Saga beieri* KALTENBACH, A., 1967, Beitr. Ent., Berlin 17: 39, 51, 52, 78, figs. 25, 42, 43, 67, 92, 108, 159-162, 174)

Material Studied: Magaracik n. Samandag, 22 June 1993 - 1 female.

Known from E Anatolia and Syria. In Hatay recorded from Iskenderun and Ersin n. Dörtüyol (type locality) (KALTENBACH 1967).

**Tettigoniinae**  
Tettigoniini

***Tettigonia viridissima* LINNAEUS, 1758**  
(*Gryllus Tettigonia viridissima* LINNAEUS, C., 1758, Syst. Nat. (ed. 10), 1, p. 430)

Material Studied: Belen, 23 June 1993 - 1 male.

Distribution of this species covers the whole Palaearctic region, in Hatay collected in Dörtyol (RAMME 1951) and Belen (GÜNES 1984).

***Decticus albifrons* (FABRICIUS, 1793)**

(*Locusta albifrons* FABRICIUS, J. CH., 1793, Syst. Ent., p. 286)

The range covers Mediterranean region and SW Asia. Recorded from Antakya-Reyhanli, Beylikçayir (KARABAG 1958).

***Anadrymadusa recticauda* (WERNER, 1903)**

(*Drymadusa recticauda* WERNER, F., 1903, Zool. Anz. 26: 530)

Known from S Turkey and N Syria, in Hatay collected in Yayladagi, Yukari Tingir koyu (KARABAG 1958).

***Drymadusa limbata grandis* KARABAG, 1961**

(*Drymadusa limbata grandis* KARABAG, T., 1961, Bull. Br. Mus. (N. H.), ent., 11(1): 11, figs. 9, 12, 15, 18, 20, 23)

Known from S Anatolia, in Hatay collected in Yayladagi, Yenicekoy (KARABAG 1958, KARABAG 1961) and Antakya (KARABAG 1964).

***Anadrymadusa spinicercis* (KARABAG, 1956)**

(*Drymadusa spinicercis* KARABAG, T., 1956, Comm. Fac. Sci. Ankara, ser. C, 5: 7, figs. 24-28)

Known from S Anatolia, in Hatay collected in Yayladagi, Yukari Tingir koyu (KARABAG 1955, KARABAG 1958).

***Anadrymadusa brevipennis* (BRUNNER VON WATTENWYL, 1882)**

(*Drymadusa brevipennis* BRUNNER VON WATTENWYL, C., 1882, Prodrömus der europäischen Orthopteren, pp. 314, 315)

Known from islands of Kikladhes and Northern Sporadhes, there is also a single record from Hatay - Belen, Giciköyü (KARABAG et al. 1974).

***Scotodrymadusa amani* RAMME, 1951**

(*Scotodrymadusa amani* RAMME, W., 1951, Mitt. zool. Mus. Berlin 27(1950): 362, pl. 21, fig. 6)

Known only from the type locality - Amanos (near Dörtyol) (RAMME 1951).

***Phytodrymadusa expugnata* (UVAROV, 1916)**

(*Paradrymadusa expugnata* UVAROV, B. P., 1916, Bull. Mus. Caucasae, X: 287)

This species is known from central and southern Anatolia, in Hatay recorded from Hortum yaylasi (KARABAG 1958).

***Phytodrymadusa harzi* KARABAG, 1975**

(*Phytodrymadusa harzi* KARABAG, T., 1975, J. nat. Hist. 9: 348-350, figs. 62-66)

Known only from Hatay (Belen, Hortum) and Maras Provinces (KARABAG 1975).

Platycleidini

***Eupholidoptera sevketi* (RAMME, 1933)**

(*Pholidoptera sevketi* RAMME, W., 1933, Mitt. zool. Mus. Berlin 16: 417)

Material Studied: Numerous nymphs probably belonging to this species collected in Dörtyol and its vicinities.

So far known only from Adana and Hatay - Dörtyol (RAMME 1951, RAMME 1933), Dörtyol, Yesilkent, Yukari içmeler (SALMAN 1983).

***Eupholidoptera weneri* RAMME, 1951**

(*Eupholidoptera weneri* RAMME, W., 1951, Mitt. zool. Mus. Berlin 27 (1950): 201, figs. 44-46, 48, 50)

Material Studied: Magaracik n. Samandag, 22 June 1993 - 2 males, 6 juv.

Known from Syria and Hatay in S Anatolia: Iskenderun, Uluçinar (SALMAN 1983), Belen (GÜNES 1984).

***Eupholidoptera annulipes* (BRUNNER VON WATTENWYL, 1882)**

(*Thamnotrizon annulipes* BRUNNER VON WATTENWYL, C., 1882, Prodrömus der europäischen Orthopteren, p. 336)

Known from central and southern Anatolia; there is one record from Hatay (KARABAG 1964).

***Parapholidoptera signata* (BRUNNER VON WATTENWYL, 1861)**

(*Thamnotrizon signatus* BRUNNER VON WATTENWYL, C., 1861: Verh. Zool.-Bot. Ges. Wien 9: 295)

Material Studied: Belen, 23 June 1993 - 1 female.

Known from SE Anatolia, Cyprus and Syria. In Hatay collected in Erzincan (KARABAG 1958), Kirikhan (KARABAG et al. 1974) and Belen (GÜNES 1984).

***Parapholidoptera syriaca* (RAMME, 1930)**

(*Pholidoptera syriaca* RAMME, W., 1930, Mitt. zool. Mus. Berlin 16: 807-808, pl.10, figs. 2a-2c)

Known from Syria and S Anatolia. Recorded from Hatay by KARABAG (1964).

***Platycleis (Platycleis) escaleraei* I BOLIVAR, 1889**

(*Platycleis escaleraei* BOLIVAR, I., 1889, Ann. Soc. Ent. Belg. 43: 603)

This species is distributed throughout SE Europe and W Asia. Recorded from Dörtyol by RAMME 1951.

*Platycleis (Platycleis) intermedia intermedia* (SERVILLE, 1839)  
(*Decticus inetrmedius* SERVILLE, J.G., 1839, Ins. Orth., p. 488)

Material Studied: Belen, 23 June 1993 - 1 male, 6 females.

The nominative subspecies is distributed all over the Mediterranean region, reaching to Central Europe and as far as China to the East. New to Hatay Province.

*Platycleis (Incertana) incerta* BRUNNER VON WATTENWYL, 1882  
(*Platycleis incerta* BRUNNER VON WATTENWYL, C., 1882, Prodrömus der europäischen Orthopteren, p. 352)

Material Studied: Dörtöyol, 20-25 June 1993 - 1 male.

The range of this species covers Macedonia, Greece, Romania, Bulgaria, Turkey and Syria. Collected in Dörtöyol by RAMME (1951).

*Platycleis (Squamiana) sp.*

One female of an unidentified species probably belonging in this subgenus was collected in Belen, 23 June 1993. Specimens of *Squamiana* have never been collected in Hatay Province.

*Bucephaloptera bucephala* (BRUNNER VON WATTENWYL, 1882)  
(*Thamnotrizon bucephalus* BRUNNER VON WATTENWYL, C., 1882, Prodrömus der europäischen Orthopteren, p. 338)

This species occurs in Romania, Macedonia, Greece and Turkey. Recorded from Antakya by KARABAG (1958) and from Dörtöyol by RAMME (1951).

**Gryllidae**  
**Gryllinae**

*Gryllus bimaculatus* DE GEER, 1773  
(*Gryllus bimaculatus* DE GEER, C., 1773, Mem. Ins. 3: 521, pl. 43, fig. 4)

Very widely distributed in S Europe, Africa and Asia. Recorded from Dörtöyol (KARABAG 1958).

*Tartarogryllus ferdinandi* (BOLIVAR, 1899)  
(*Gryllodes ferdinandi* BOLIVAR, I., 1899, Ann. Soc. ent. Belg. 43: 606)

This species was described from a single female collected in Iskenderun (= Alexandrette); known also from Turkestan.

*Melanogryllus desertus* (PALLAS, 1771)  
(*Gryllus desertus* PALLAS, 1771, Reise Russ. Reich. 1: 468)

The range of this species covers S Europe, N Africa and Palaeartic Asia. Collected in Belen by GÜNES (1984).

***Modicogryllus frontalis* (FIEBER, 1845)**

(*Acheta frontalis* FIEBER, F., 1845, Ent. Monogr. Prag, p. 127, pl. 10, fig. 11)

Distributed from central and eastern Europe to western Asia. Recorded from Iskenderun (BOLIVAR 1899) and Belen (GÜNES 1984).

***Modicogryllus algerius* (SAUSSURE, 1877)**

(*Gryllus algericus* SAUSSURE, H., 1877, Mem. Soc. Geneve 25: 191, pl. 12, fig. 11(5))

Known from Algeria, Tunis, S Spain and Turkey. Recorded from Iskenderun by BOLIVAR (1899).

**Gryllotalpinae**

***Gryllotalpa* sp.**

Material Studied: Magaracik n. Samandag, 22 June 1993 - 1 male.

There are several cryptic species of the genus in Palaearctic that differ in their karyotypes. Kushnir (1952) found in Alexandretta (= Iskenderun) a species ("race") with the male karyotype  $2n = 14$  (X-Y) and most probably our specimen also belongs to such a population. Identical karyotypes were found in specimens from SW Anatolia, Romania and Greece. However, there is also a species with the male karyotype  $2n = 19$  (X-0) known from Israel.

**Oecanthinae**

***Oecanthus pellucens* (SCOPOLI, 1763)**

(*Gryllus pellucens* SCOPOLI, J. A., 1763, Ent. Carniol., p. 32)

Material Studied: Magaracik n. Samandag, 22 June 1993 - 19 males, 25 females, 8 juv.; Dörtyol, 20-25 June 1993 - 7 males, 6 females; 10 km E Dörtyol, 21 June 1993 - 1 female.

Widely distributed from central Europe, throughout Mediterranean region to N Africa. Recorded from Dörtyol, Iskenderun and Belen (GÜNES 1984).

**Trigonidiinae**

***Trigonidium cicindeloides* RAMBUR, 1839**

(*Trigonidium cicindeloides* RAMBUR, P., 1839, Faune de l'Andal. 2:39)

Recorded from Dörtyol by KARABAG (1958).

### Nemobiinae

#### *Pteronemobius (Pteronemobius) heydeni* (FISCHER, 1853)

(*Gryllus heydeni* FISCHER, L. H., 1853, Orthopt. Europ., p. 185)

The range of this species covers central and southern Europe and most of Mediterranean region, including N Africa. Reported from Belen (GÜNES 1984).

#### *Stenonemobius gracilis* (JAKOVLEV, 1871)

(*Gryllus gracilis* JAKOVLEV, W., 1871, Hor. Soc. Ent. Ross. 6: 20, pl. 1, figs. 3, 3a)

Known from SE and SW Europe, Caucasus, Anatolia, Israel, Iraq, Iran, Afghanistan and N Africa. Recorded from Belen (GÜNES 1984).

### Tridactylidae

#### Tridactylinae

#### *Xya variegata* LATREILLE, 1809

(*Xya variegata* LATREILLE, P.A., 1809, Gen. Crust. Ins. 4: 383)

Distribution of this species covers most of central and southern Europe, N Africa, and southern part of Palearctic Asia. Reported from Iskenderun, Enyüksek dag (BOLIVAR 1899).

#### *Xya pfaendleri* (HARZ, 1970)

(*Tridactylus pfaendleri* HARZ, K., 1970, Nachrbl. Bayer. Ent. 19: 56-59, 10 figs.)

Material Studied: Dörtüyl, 20-25 June 1993; 10 km E Dörtüyl, 21 June 1993 - more than 300 specimens.

The range of this species covers central and southern Europe, Anatolia, Lebanon, Israel, known also from N Africa and India. Collected in Belen by GÜNES (1984).

#### Dentridactylinae

#### *Bruntridactylus irremipes* (UVAROV, 1934)

(*Tridactylus irremipes* UVAROV, B. P., 1934, EOS 10: 43)

Material Studied: Dörtüyl, 20-25 June 1993 - 2 females, 1 juv.

We collected this apparently rare species by small pools in seasonally inundated plains along a drying river. Other species present at the site were *X. pfaendleri*, which outnumbered *B. irremipes* by hundreds, two so far unidentified species of crickets (*Modicogryllus* sp. and cf. *Dianemobius*), and three species of Tetrigidae. This is the farthest to the East locality of *B. irremipes* since previously it has been known only from few localities in W Turkey (Izmir Province) and Greece.

## Tetrigidae

### *Tetrix (Tetrix) subulata* (LINNAEUS, 1761)

(*Gryllus Bulla subulatus* LINNAEUS, C., 1761, Syst. Nat. (ed. 10), 1: 428)

Very widely distributed in Holarctic. Reported from Iskenderun (BOLIVAR 1899).

### *Tetrix (Tetraterix) tenuicornis* SAHLBERG, 1893

(*Tetrix (Tetraterix) tenuicornis* SAHLBERG, 1893, Medd. Soc. Faun. Flor. Fenn. XIX, p. 47)

Material Studied: Dörtyol, 20-25 June 1993 - 2 males, 4 females.

Distributed in most of Europe and part of Palaearctic Asia. New to Hatay Province.

### *Dasyleurotettix (?) depressus* (BRISOUT, 1848)

(*Acrydium depressum* BRISOUT DE BARNEVILLE, L., 1848, Ann. Soc. ent. France (2)6: 424)

Material Studied: Dörtyol, 20-25 June 1993 - 1 male, 1 female, 5 juv.; 10 km E Dörtyol, 21 June 1993 - 2 males, 11 females, 23 juv.; 20 km NW Dörtyol, Amanos Mts., ca. 1500 m, 19 June 1993 - 3 females.

The range of this species covers the Mediterranean region and part of Palaearctic Asia. New to Hatay Province.

### *Paratettix meridionalis* (RAMBUR, 1838)

(*Tetrix meridionalis* RAMBUR, P., 1838, Faune de l'Andal. 2: 65-66)

Material Studied: Dörtyol, 20-25 June 1993 - 45 males, 25 females, 31 juv.; 10 km E Dörtyol, 21 June 1993 - 1 male.

Distributed over the entire Mediterranean region, known also from W Asia and Madagascar. Collected in Belen by GÜNES (1984).

## Pamphagidae

### Pamphaginae

### *Paranocarodes sulcatus* (BOLIVAR, 1912)

(*Nocarodes straubei* var. *sulcatus* BOLIVAR, I., 1912, Trab. Mus. Cien. Madrid 6, p. 28)

Material Studied: 20 km NW Dörtyol, Amanos Mts., ca. 1500 m, 19 June 1993 - 3 males, 2 females, 1 juv.; Belen, 23 June 1993 - 3 males, 2 females.

Known from Syria, Iraq and S Anatolia. Collected in Belen (GÜNES 1984) and Dörtyol (DEMIRSOY 1973, DEMIRSOY 1977).

***Prionosthenus guleni* KARABAG, 1956**

(*Prionosthenus guleni* KARABAG, T., 1956, EOS 32: 128-130, figs. 7-10)

Material Studied: Antakya-Harbiye, ca. 500 m, 19 May 1977 (coll. A.Ö. KOÇAK) - 1 male, 1 female.

Except from the above listed record known only from the following localities in Hatay Province: Yayladagi-Hisarcik (KARABAG 1956, DEMIRSOY 1973), Yayladag yolu (KARABAG et al. 1971) and Antakya (KARABAG 1963).

***Acinipe davisii* (UVAROV, 1949)**

(*Orchamus davisii* UVAROV, B. P., 1949, Bull. Soc. Fouad Ier Ent. 33: 8)

Known from N Israel, Syria and S Turkey. Recorded from Iskenderun by WEIDNER (1969).

***Orchamus yersini* (BRUNNER VON WATTENWYL, 1882)**

(*Pamphagus yersini* BRUNNER VON WATTENWYL, C., 1882, Prodromus der europäischen Orthopteren, p. 200)

Material Studied: Magaracik n. Samandag, 22 June 1993 - 2 males, 3 females, 7 juv.; Kuzuculu n. Dörtyol, 1000-1200 m, 25 June 1993 - 1 female, 1 juv.; 20 km NW Dörtyol, Amanos Mts., ca. 1500 m, 19 June 1993 - 1 juv.

Known from Syria, Lebanon, Israel and S Turkey (Adana Prov.) (GÜNES 1984). First record from Hatay Prov.

**Pyrgomorphidae**

**Pyrgomorphinae**

***Pyrgomorpha guentheri* (BURR, 1899)**

(*Pyrgomorpha grylloides* LATR. var. nov. *guentheri* BURR, M., 1899, J. Linn. Soc. Lond. (zool.) 27: 417)

This species is known from S Turkmenistan, N Iran, Caucasus, Anatolia, Syria and N Israel. Recorded from Reyhanli in Hatay Province (as *P. ozeki* KARABAG) by KARABAG (1958).

***Pyrgomorphula turcica* (KARABAG, 1961)**

(*Pyrgomorphella turcica* KARABAG, T., 1961, Proc. R. ent. Soc. Lond. (B) 30(1-2): 26-27, figs. 1-3)

Known from SE Anatolia, recorded from Belen by GÜNES (1984).

**Acrididae**

**Tropidopolinae**

***Tropidopola graeca graeca* UVAROV, 1926**

(*Tropidopola longicornis graeca* UVAROV, B.P., 1926, EOS 2: 173-175)



Material Studied: Dörtyol, 20-25 June 1993 - 3 males, 2 females.

Known from Greece, western and southern Anatolia and Cyprus. Reported from Iskenderun and Dörtyol (KARABAG 1958, RAMME 1951, KARABAG 1963).

### Catantopinae

#### *Sphenophyma rugulosa* (STÅL, 1876)

(*Platyphyma rugulosa* STÅL, C., 1876, K. svenska VetenskAkad. Handl. 4(5): 18)

Material Studied: Belen, 23 June 1993 - 2 males, 5 females; Magaracik n. Samandag, 22 June 1993 - 3 males, 2 females.

Known from Syria, Lebanon, Israel and S Anatolia. Recorded from Dörtyol (BOLIVAR 1899), Amanos n. Dörtyol (WEIDNER 1969) and Belen (GÜNES 1984).

#### *Pezotettix anatolica* UVAROV, 1934

(*Pezotettix anatolica* UVAROV, B.P., 1934, EOS 10: 112-113, fig. 34)

Material Studied: Magaracik n. Samandag, 22 June 1993 - 2 males, 1 female, 28 juv.; Belen, 23 June 1993 - 5 juv.

Known from western and southern Anatolia as well as from Lesvos Isl. In Hatay recorded from Soguksu mevkii (KARABAG et al. 1974), Reyhanli (WEIDNER 1969, WEIDNER 1979), Dörtyol, Belen (GÜNES 1984) and Magaracik (WEIDNER 1969).

#### *Pezotettix platycera* (STÅL, 1876)

(*Platyphyma platycera* STÅL, C., 1876, Bihang Svensk. Akad. Handl. IV (5): 17)

Known from Syria and S Anatolia. Recorded from Antakya, Reyhanli (WEIDNER 1979, DEMIRSOY 1977, DEMIRSOY 1979).

### Calliptaminae

#### *Calliptamus tenuicercis* TARBINSKII, 1930

(*Calliptamus tenuicercis* TARBINSKII, S.P., 1930, Bull. Sci. SSSR., Cl. Sci. phys.-math., pp. 180, 183, figs. 2, 7)

Known from SW Asia, Turkey, Syria, Israel, Aegean islands and Macedonia. Reported from Hatay (JAGO 1963) and Belen (GÜNES 1984).

#### *Calliptamus barbarus barbarus* (COSTA, 1836)

(*Acridium barbarum* Costa, A., 1836, Fauna Regno. Nap. Ortott., p. 13, pl. 2, figs. 1A-D)

Material Studied: Dörtyol, 20-25 June 1993 - 1 male, 11 juv.

This species has a wide distribution covering Mediterranean region and SW Asia. Reported from Hatay (JAGO 1963) and Iskenderun (WEIDNER 1969). In our collection there are also numerous nymphs of *Calliptamus* sp. collected at various localities.

### Cyrtacanthacridinae

#### *Schistocerca gregaria* (FORSKAL, 1775)

(*Gryllus gregarius* FORSKAL, P., 1775, Descr. anim. itin. orient., p. 81)

Very widely distributed in Africa and SW Asia. Reported from Hatay by KARABAG (1958).

#### *Anacridium aegyptium* (LINNAEUS, 1764)

*Gryllus Locusta aegyptius* LINNAEUS, C., 1764, Mus. Ludov. Ulric. Reg., p. 138.

Material Studied: Dörtyol, 20-25 June 1993 - 1 female, 8 juv.; Kuzuculu n. Dörtyol, 1000 to 1200 m, 25 June 1993 - 2 males, 6 females; Magaracik n. Samandag, 22 June 1993 - 3 females, 3 juv.

The range of this species covers S Europe, Mediterranean region, NE Africa and large parts of W Asia. Never reported from Hatay Province.

### Eyrepocnemidinae

#### *Eyrepocnemis plorans* (CHARPENTIER, 1825)

(*Gryllus plorans* CHARPENTIER, T., 1825, Hor. Ent., p. 134)

Material Studied: Magaracik n. Samandag, 22 June 1993 - 37 juv.; Dörtyol, 20-25 June 1993 - 10 juv.; 10 km E Dörtyol, 21 June 1993 - 4 juv.

The species is distributed in N Africa, S Europe SW Asia. Recorded from Dörtyol (RAMME 1951), Antakya-Reyhanli (KARABAG 1958, WEIDNER 1969), Hassa (KARABAG et al. 1974), Belen (GÜNES 1984) and Antakya-Harbiye (WEIDNER 1969).

### Gomphocerinae

#### *Truxalis robusta* (UVAROV, 1916)

(*Acrida robusta* UVAROV, B. P., 1916, Russk. Ent. obozr. 16: 8, 11, fig. 4)

Material Studied: 10 km E Dörtyol, 21 June 1993 - 8 males, 9 females, 4 juv.; Magaracik n. Samandag, 22 June 1993 - 2 males, 3 females, 5 juv.; Belen, 23 June 1993 - 1 male; Dörtyol, 20-25 June 1993 - 8 juv.

This species is known from Caucasus, Turkey, Syria, Iran and Iraq. Recorded from Dörtyol (RAMME 1951), Iskenderun (KARABAG 1958) and Belen (GÜNES 1984).

***Ochrlidia pruinosa* BRUNNER VON WATTENWYL, 1882**

(*Ochrlidia pruinosa* BRUNNER VON WATTENWYL, C., 1882, Prodrömus der europäisohen Orthopteren, p. 92)

Material Studied: Magaracik n. Samandag, 22 June 1993 - 1 male, 2 females.

There is some confusion regarding the separate specific status of *O. pruinosa*. It had been considered a synonym of *O. tibialis* (FIEBER) by JAGO (1977) but MISTSHENKO (1986) rejected the synonymy and gave a list of morphological characters that separate both species. On the basis of those characters our specimens are assigned to *O. pruinosa*. Nevertheless, to solve such problems the genus certainly requires more detailed studies with the application of bioacoustic or molecular techniques. There are records of *O. pruinosa* from Rhodos, Crete, Aegean Islands, Cyprus, Turkey and Israel. In Hatay it was reported from Yakacik (= Payas), Dörtöyol (RAMME 1951).

***Dociostaurus (Kazakia) genei* (OCSKAY, 1832)**

(*Gryllus genei* OCSKAY, DE O.F., 1832, Acta Ac. Leop. Carol. 16(2): 961)

Material Studied: Dörtöyol, 20-25 June 1993 - 5 males, 13 females, 7 juv.

Known from most of S Europe (Mediterranean region), Cyprus, Anatolia and N Africa. In Hatay recorded from Antakya (KARABAG 1958) and Belen (GÜNES 1984).

***Dociostaurus (Kazakia) brevicollis brevicollis* (EVERSMANN, 1848)**

(*Oedipoda brevicollis* EVERSMANN, E., 1848, Addit. quaedam levia ad Fischeri de Waldheim Orth. Ross. 11, pl. A, fig. 4)

Material Studied: Belen, 23 June 1993 - 1 female.

Widely distributed from central Europe, throughout Balkans to Palaeartic Asia. Collected in Kirikhan by GÜNES (1984).

***Dociostaurus (Dociostaurus) salmani* DEMIRSOY, 1977**

(*Dociostaurus (Dociostaurus) salmani* DEMIRSOY, A., 1977, Türkiye Faunasi ser. 8, 4(12), p. 195)

Material Studied: Belen, 23 June 1993 - 2 females.

This species has been reported from several provinces in E Anatolia. New to Hatay Province.

***Dociostaurus (Dociostaurus) maroccanus* (THUNBERG, 1815)**

(*Gryllus maroccanus* THUNBERG, C. P., 1815, Mem. Ac. Sci. Petersburg 5: 244)

Widely distributed in western Palaeartic, in Hatay Province recorded only from Hassa (KARABAG, 1958).

*Doclostaurus (Stauronotulus) hauensteini hauensteini* (BOLIVAR, 1893)  
(*Stauronotus hauensteini* BOLIVAR, I., 1893. Rev. Biol. Nord. France 5: 480)

The range of the nominative subspecies covers Transcaucasia, Anatolia, Syria, Israel and N Iran. In Hatay recorded from Kirikhan, Belen (GÜNES 1984).

*Doclostaurus (Notostaurus) anatolicus* (KRAUSS, 1896)  
(*Stauronotus anatolicus* KRAUSS, H., 1896, Zool. Jahrb. Syst. 9: 560, pl. 8, fig. 1)

Material Studied: Belen, 23 June 1993 - 7 males, 3 females, 6 juv.; f. *castaneopicta*: same locality - 7 males, 5 females, 7 juv.

Distributed from Macedonia, through Anatolia into Iran and Israel. Recorded from Dörtüol (KARABAG 1958) and Belen (GÜNES 1984).

*Dasyhippus escalerae* (BOLIVAR, 1899)  
(*Gomphocerus escalerae* BOLIVAR, I., 1899, Ann. Soc. Ent. Belg. 43: 590)

Known only from Anatolia, listed from Hatay Prov. in GÜNES (1984).

*Chorthippus (Chorthippus) albomarginatus* (DE GEER, 1773)  
(*Acrydium albomarginatum* DE GEER, C., 1773, Mem. Ins. 3: 480)

Distributed throughout Europe and large parts of Palaearctic Asia. Recorded from Belen (GÜNES 1984).

*Chorthippus (Glyptobothrus) brunneus brunneus* (THUNBERG, 1815)  
(*Gryllus brunneus* THUNBERG, C. P., 1815, Mem. Ac. Sci. Petersburg 5: 249)

Material Studied: Belen, 23 June 1993 - 2 male, 4 females, 2 juv.; Magaracik n. Samandag, 22 June 1993 - 1 male, 2 female, 2 juv.; 20 km NW Dörtüol, Amanos Mts., ca. 1500 m, 19 June 1993 - 1 male.

The nominate subspecies is widely distributed in Europe and Palaearctic Asia. Recorded from Iskenderun (BOLIVAR 1899).

*Chorthippus (Glyptobothrus) biguttulus* (LINNAEUS, 1758)  
(*Gryllus biguttulus* LINNAEUS, C., 1758, Syst. Nat. (ed. 10) 1: 433)

GÜNES (1984) reports this species from Dörtüol and Belen in Hatay Prov. It is not clear if he refers to the nominate subspecies, which has never been reported from S Anatolia.

*Chorthippus (Glyptobothrus) mollis* (CHARPENTIER, 1825)  
(*Gryllus mollis* CHARPENTIER, T., 1825, Horae Ent., p. 164)

The range of this species probably extends from N Europe to Palaearctic Asia. Recorded from Dörtüol (GÜNES 1984).

*Chorthippus (Glyptobothrus) macrocerus macrocerus* (FISCHER-WALDHEIM, 1846)  
(*Oedipoda macrocera* FISCHER-WALDHEIM, G., 1846, Entom. Imp. Ross.IV. Orth. Imp. Ross. M., p. 331)

The nominate subspecies is known from Caucasus, Anatolia, Iraq and N Iran. Reported (as *Stauroderus daganus*) from Amanus dagi-Gökeag (= Gök Dag) by RAMME (1926).

*Chorthippus (Glyptobothrus) binotatus* (CHARPENTIER, 1825)  
(*Gryllus binotatus* CHARPENTIER, T., 1825, Horae Ent., p. 158)

GÜNES (1984) lists a very doubtful record of this typically western European species - Hatay: Belen.

*Chorthippus (Glyptobothrus) cf. ilkazi*

Material Studied: Kuzuculu n. Dörtyol, 1000-1200 m, 25 June 1993 - 10 males, 3 females, 4 juv.; 20 km NW Dörtyol, Amanos Mts., ca. 1500 m, 19 June 1993 - 5 males, 6 females, 4 juv.

The specimens we collected in many respects resemble *Chorthippus ilkazi* Uvarov described from N Anatolia. Tegmina of a male hardly reach the end of the abdomen and have distinctly attenuated apices. They differ from *Ch. ilkazi* in having shorter precostal field, more expanded costal field and median field reaching only to the half of the tegmen. In general appearance they resemble *Ch. apricarius*, but the medial field of the tegmen is not as greatly expanded as in the latter. It is possible that they represent a new species, however, this very large and complex genus certainly requires a detailed revision before any new taxa are to be described.

*Chorthippus* sp.

KARABAG et al. (1974) list an unidentified species of *Chorthippus* from the following localities in Hatay Province: Kirikhan, Muratpasa köyü and Soguksu mevki.

*Xerochippus azami* (BOLIVAR, 1901)  
(*Stenobothrus azami* BOLIVAR, I., 1901, Bull. Soc. ent. France 1901: 189)

This species is probably endemic to Cyprus and a record from Iskenderun (GÜNES 1984) is very doubtful. It may be *X. alkani* KARABAG known from Antalya Province.

*Ramburiella turcomana* (FISCHER-WALDHEIM, 1833)  
(*Oedipoda turcomana* FISCHER-WALDHEIM, G., 1833, Bull. Soc. Nat. Mosk. 6: 351)

This species is widely distributed from S Europe, through Anatolia and Caucasus far into SW and central Asia. Collected in Belen by GÜNES (1984).

*Eremippus simplex* (EVERSMANN, 1859)  
(*Stenobothrus simplex* EVERSMANN, E., 1859, Bull. Soc. Nat. Mosc. 32(1): 133)

The range of this species extends from European Russia into W China. Reported from Hatay Prov. by BOLIVAR (1899).

### Oedipodinae

#### *Acrida bicolor* (THUNBERG, 1815)

(THUNBERG, C.P., 1815, Mem. Acad. Sc. St.-Petersburg V.: III)

There are still many doubts as to the specific status of Turkish *Acrida*. Specimens referred to as *A. bicolor* (or *A. bicolor anatolica* Dirsh) were recorded from the following localities in Hatay Prov.: Antakya, Iskenderun (KARABAG 1958, WEIDNER 1969); Hassa; Soguksu mevki (KARABAG et al. 1974); Belen (GÜNES 1984). In our collection there are also numerous nymphs of an unidentified species of this genus.

#### *Duroniella fracta* (KRAUSS, 1890)

(*Duronia fracta* KRAUSS, H., 1890, Verh. zool.-bot. Ges. Wien 40: 260)

Distributed in N Africa and SW Asia, known also from Greece. Recorded from Dörtyol (Sevket) (RAMME 1951) and Hatay (WERNER 1901).

#### *Duroniella laticornis* (KRAUSS, 1909)

(*Duronia laticornis* KRAUSS, H., 1909, Verh. Naturwiss. Ver. Karlsruhe 21: 118-119, figs. 11-12)

Known from Anatolia and Israel. Collected in Kirikhan, Belen (GÜNES 1984).

#### *Aiolopus thalassinus thalassinus* (FABRICIUS, 1781)

(*Gryllus thalassinus* FABRICIUS, J. CH., 1781, Spec. Ins. 1: 367)

Material Studied: Dörtyol, 20-25 June 1993 - 3 males, 7 females, 8 juv.; 10 km E Dörtyol, 21 June 1993 - 2 males, 5 juv.; Magaracik n. Samandag, 22 June 1993 - 1 female.

The range of the nominate subspecies covers central and southern Europe, SW Asia and whole Africa. In Hatay recorded from Dörtyol (BOLIVAR 1899), Kirikhan, Muratpasa köyü (KARABAG et al. 1974), Belen (GÜNES 1984) and Iskenderun (WEIDNER 1969).

#### *Aiolopus strepens* (LATREILLE, 1804)

(*Acrydium strepens* LATREILLE, P.A., 1804, Hist Nat. Crust. Ins. 12: 154)

Material Studied: 10 km E Dörtyol, 21 June 1993 - 1 male, 2 females, 3 juv.

The range of this species covers the whole Mediterranean region and part of SW Asia. Recorded from Iskenderun (BOLIVAR 1899, WEIDNER 1969) and Belen (GÜNES 1984).

#### *Aiolopus simulatrix simulatrix* (WALKER, 1870)

(*Epacromia simulatrix* WALKER, F., 1870, Cat. Derm. Salt. Brit. Mus. 4: 773)

The range of this species extends from Anatolia into S Asia and central and eastern Africa. In Hatay recorded from Dörtyol (RAMME 1951), Kirikhan, Muratpasa köyü (KARABAG et al. 1974) and Iskenderun (WEIDNER 1969, WEIDNER 1979).

***Locusta migratoria* LINNAEUS, 1758**

(*Gryllus Locusta migratorius* LINNAEUS, C., 1758, Syst. Nat. (ed. 10) 1: 432)

Material Studied: 10 km E Dörtyol, 21 June 1993 - 1 male, 10 juv.; Magaracik n. Samandag, 22 June 1993 - 1 male, 1 juv.; Dörtyol, 20-25 June 1993 - 1 male, 15 juv.

The range of this species covers central and southern Europe, southern Asia and the whole Africa. In Hatay recorded from Dörtyol (RAMME 1951), Magaracik koyu, Iskenderun (KARABAG 1958, WEIDNER 1969) and Antakya (WEIDNER 1969).

***Oedaleus decorus decorus* (GERMAR, 1826)**

(*Acrydium decorum* GERMAR, E. F., 1826, Fauna Ins. Europ., fasc. 12, pl. 17)

The range of this species covers S Europe, N Africa and SW Asia. In Hatay collected in Dörtyol (RAMME 1951), Reyhanli (KARABAG 1958) and Belen (GÜNES 1984).

***Scintharista notabilis miramae* UVAROV, 1941**

(*Scintharista notabilis miramae* UVAROV, B. P., 1941, Proc. ent. Soc. Lond. (B) 10: 96)

Known from Caucasus and Dörtyol in Hatay Prov. (RAMME 1951).

***Oedipoda aurea* UVAROV, 1923**

(*Oedipoda aurea* UVAROV, B.P., 1923, Entomologist's Monthly Mag. (3)11: 32)

Material Studied: Belen, 23 June 1993 - 2 males, 3 juv.

Known from Israel, Syria, Lebanon, Anatolia and Greek Aegean islands of Samos and Lesvos. In Hatay Prov. recorded from Reyhanli (KARABAG 1958), Soguksu mevkii (KARABAG et al. 1974) and Belen (GÜNES 1984).

***Oedipoda miniata* (PALLAS, 1771)**

(*Gryllus miniatus* PALLAS, 1771, Reise Russ. Reiches I, Anh. p. 467)

Material Studied: Dörtyol, 20-25 June 1993 - 3 males, 2 females; Belen, 23 June 1993 - 8 males, 11 females, 10 juv.

The range of this species extends from S Europe into N Africa and Palaearctic Asia. Collected in Soguksu mevkii (KARABAG et al. 1974), Belen, Iskenderun (GÜNES 1984, WEIDNER 1969) and Antakya-See (WEIDNER 1969).

***Oedipoda caerulescens* (LINNAEUS, 1758)**

(*Gryllus Locusta caerulescens* LINNAEUS, C., 1758, Syst. Nat. (ed. 10) 1: 432)

Widely distributed over entire Europe and large parts of N Africa and W Asia. Recorded from Dörtyol and Belen (RAMME 1933).

*Acrotylus insubricus insubricus* (SCOPOLI, 1788)

(*Gryllus insubricus* SCOPOLI, J.A., 1786, *Deliciae faunae et florum insubricae* 1, p. 64, pl. 24, fig. e)

The range of this species extends from central Europe into Africa and Asia. Recorded from Iskenderun (KARABAG 1958, WEIDNER 1969), Soguksu mevkii (KARABAG et al. 1974), Dörtyol and Belen (GÜNES 1984).

*Acrotylus patruelis* (HERRICH-SCHÄFFER, 1838)

(*Oedipoda patruelis* HERRICH-SCHÄFFER, G.A.W., 1838, *Ins. Germ. fasc. 157*, pl. 18)

Material Studied: Magaracik n. Samandag, 22 June 1993 - 3 males, 1 female; Belen, 23 June 1993 - 1 female; 10 km E Dörtyol, 21 June 1993 - 10 males, 9 females; Dörtyol, 20-25 June 1993 - 6 males, 1 female.

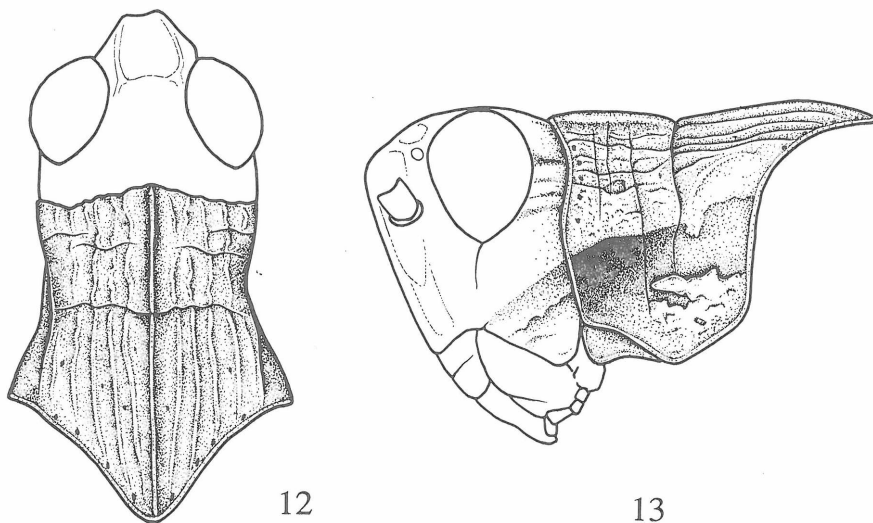
The range of this species covers Mediterranean Region, SW Asia and most of Africa. In Hatay Prov. recorded from Dörtyol (RAMME 1951, GÜNES 1984), Iskenderun (RAMME 1951, GÜNES 1984), Belen and Bedirge (GÜNES 1984).

*Morphacris fasciata* (THUNBERG, 1815)

(figs. 12-13)

(*Gryllus fasciatus* THUNBERG, C. P., 1815, *Mem. Acad. Sc. St.-Petersb. V*, p. 230)

Material Studied: Magaracik n. Samandag, 22 June 1993 - 1 male, 1 female juv.



Figs. 12-13. *Morphacris fasciata* (THUNBERG): (12) male head and pronotum, dorsal view; (13) ditto, lateral view.



This species, which is here recorded from Turkey for the first time, is a typical Afrotropical element in the otherwise largely Mediterranean fauna of the province. It has been reported from most African countries, as well as from Israel, Syria and southernmost Spain in Europe. It can be easily recognized by the presence of numerous parallel ridges on pronotum, which are lower than a very distinct median carina (fig. 12). Moreover, it has a characteristic shiny black spot on lateral lobe of pronotum, accompanied by a smaller, longitudinal white spot (fig. 13). The body is rather slender, in size and general proportions resembling that of *Aiolopus strepens* (Latreille). Overall colouration usually brown or blackish-brown, often mottled with numerous small black spots. Fore margin of elytra often darkened, basal part of hind wings yellow, yellowish-orange, orange-red or brick-red; apical part of wings colourless or slightly infumated. *M. fasciata* occurs in dry, open habitats.

***Heliopteryx humeralis* (KUTHY, 1907)**

(*Sphingonotus humeralis* KUTHY, D., 1907, Ann. Mus. Hist. Nat. Hung. 5: 431)

The range of this species covers Azerbejdzan, Armenia, Iran and Anatolia. In Hatay known from Iskenderun (KARABAG 1958).

***Sphingonotus (Sphingonotus) rubescens* (WALKER, 1870)**

(*Oedipoda rubescens* WALKER, F., 1870, Zoologist (2)5: 2301)

Material Studied: Dörtöyol, 20-25 June 1993 - 30 males, 15 females; 10 km E Dörtöyol, 21 June 1993 - 3 males, 1 female; Magaracik n. Samandag, 22 June 1993 - 1 male.

Widely distributed in northern and eastern Africa, SW Asia and S Europe. Recorded from Iskenderun (KARABAG 1958), Dörtöyol (KARABAG 1958, GÜNES 1984) and Kirikhan (GÜNES 1984).

***Sphingonotus (Sphingoderus) carinatus* (SAUSSURE, 1888)**

(*Sphingonotus caerulans* var. *carinatus* SAUSSURE, H., 1888, Mem. Soc. Geneve 30: 79)

Known from S Europe, Anatolia, large parts of Palaearctic Asia and N Africa. Recorded from Hatay by WEIDNER (1969).

***Asphingoderus uvarovites uvarovites* (MISTSHENKO, 1936)**

(*Sphingonotus uvarovites* MISTSHENKO, L., 1936, EOS 12: 226-229, figs. 83-85)

Known only from Anatolia. In Hatay recorded from Yakacik (= Payas) (RAMME 1951) (as *Sphingonotus carinatus eshrewi* RAMME) and Sariseki (DEMIRSOY 1979).

***Asphingoderus uvarovites similis* BEI-BIENKO, 1951**

(*Asphingoderus uvarovites similis* BEI-BIENKO, G.YA., 1951, Saranc. fauny SSSR II, p. 635)

Known from N Iran and Anatolia. Recorded from Dörtöyol by DEMIRSOY (1979).

*Mioscirtus wagneri* (EVERSMANN, 1859)*(Oedipoda wagneri* EVERSMANN, E., 1859, Bull. soc. i. Nat. 32: 145, pl. 1, fig. 3)

The nominative subspecies is distributed in S Ukraine, Caucasus and China. However, the specimens from Bedirge in Hatay Prov. collected by GÜNES (1984) probably belong to *M. wagneri rogenhoferi* (SAUSS.) known from Caucasus, Anatolia, Iran, Afghanistan and Israel.

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