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A CONTRIBUTION TO THE KNOWLEDGE OF THE ACRIDOIDEA OF CENTRAL ASIA (ORTHOPTERA)

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In May and June 1959 I visited, with a group of Czechoslovak entomologists, Central Asia. By the end of May 1959 we collected insects in South Tadzhikistan (near the Afghanistan frontier) in the sand desert and in the State Nature Reservation "Tigrovaya balka". In these interesting localities imagines of orthopteroid insects prevailed. In the first half of June we visited the mountains in the neighbourhood of Samarkand (Uzbekistan) and of Akh-Tash (near Tashkent) where, however, imagines were found in isolated cases only, whilst nymphs of the first instar prevailed the specific determination of which is practically impossible.

In this contribution I present a list of the identified species of grasshoppers and description of a new species of the genus *Conophyma*.

TETRIGIDAE

Tetriginae

Genus *Tetrix* Latreille 1802

T. tartara tartara (Bolivar 1887)

I collected this species on the banks of rivers on low plants: Aman Kutan 1300 m above sea level (Uzbek.), June 1—2, 1959 — 3 ♂♂; Botanic Garden in Tashkent (Uzbek.), June 4, 1959 — 2 ♀♀.

Geographical distribution: Central Asia.

Genus *Paratettix* Bolivar 1887

P. uvarovi Semenov 1915

This species lives on sandy banks of rivers. I collected it in the following localities: surroundings of Stalinabad (Tadzhik.), May 1951 — 1 ♂ and 2 ♀♀; Aman Kutan 1350 m above sea level (Uzbek.), June 1.—2. 1959 — 3 ♂♂, 5 ♀♀.

Geographical distribution: Transcaucasia, Central Asia, S. Kazakhstan and N. Iran.

ACRIDIDAE**Catantopinae**Genus **Tropidopola** Stål 1873**T. turanica turanica** Uvarov 1926

In May 1959 I found 1 ♀ in the State Nature Reservation "Tigrovaya balka" (S. W. Tadzhik.).

Geographical distribution: Transcaucasia, Central Asia, N. Iran and N. Afghanistan.

Genus: **Conophyma** Zubovskij 1898**C. jacobsoni jacobsoni** Uvarov 1925

Occurs frequently in the mountains in the neighbourhood of Akh-Tash (near Tashkent). I found there 68 ♂♂ and 58 ♀♀ on June 6, 1959.

Geographical distribution: S. E. Kazakhstan.

C. sogdianum Mistshenko 1950

It is frequently found in the mountains in the surroundings of Aman Kutan 1200—1500 m above sea level (Uzbek.). In this locality I found 70 ♂♂ and 70 ♀♀, June 1—2, 1959.

Geographical distribution: Uzbekistan (western promontories of the Zeravshanski mountains).

C. narzikulovi sp. n.

Male (Holotypus). A relatively large species. Body smooth with sparse tiny hairs. Head large, greatly extending forward. Occiput very slightly compressed dorso-ventrally, without the middle keel. Minimum width of vertex between the eyes 1,17 mm. Antennae thin, consisting of 20 segments. Pronotum short, moderately convex. First transverse sulcus vague, second and third sharp; median longitudinal keel weak but distinct throughout the whole length; lateral longitudinal keels vague. In the anterior part of pronotum they converge towards the median keel, in the middle part they diverge, in the posterior part of pronotum they are hardly visible. Lateral lobes of pronotum are almost quadrate. Mesonotum finely but densely punctured; median longitudinal keel almost invisible; lateral longitudinal keels absent. Metanotum more coarsely punctured, median keel as well as lateral longitudinal keels distinct. Hind femora thick, 2.3X longer than their maximum width. Hind tibiae with 10 spines on the outer margin, and 11 spines on the inner margin. Tarsal arolia small, reaching about half the length of the claws. First abdominal tergite delicately and densely punctured, median longitudinal keel sharp, lateral longitudinal keels weaker. Last abdominal tergite with two small rounded "projections" in the middle (Fig. 1). Supra-anal plate smooth, somewhat longer than its basal width, slightly dilated towards the apex. In the middle of the posterior margin of the supra-anal plate there is a small

triangular projection with a rounded top (Fig. 1); posterior angles of the supra-anal plate are rounded, slightly projecting laterally. Cerci narrow, slightly extending over the subgenital plate (Fig. 1). The first 2/3 almost straight, then moderately curved downwards and inwards (Fig. 1—2). Subgenital plate short, rounded (Fig. 1). For the most apical part of the male genitalia see Fig. 3. Epiphallus rectangular. Cornua of epiphallus short, narrow, with obtuse ends (Fig. 5). Arcus narrow, concave. Lobi papillati low, broad (in the middle about 3.5X broader than cornua of epiphallus), with rounded tops.

General coloration black. Lower part of head light brown. Antennae dark brown. Pronotum with two yellow longitudinal bands. The first 2 pairs of legs light brown. Hind femora yellow-brown. Hind tibia yellow. Abdomen with 3 longitudinal yellow bands. Sternum and abdominals sternits yellow.

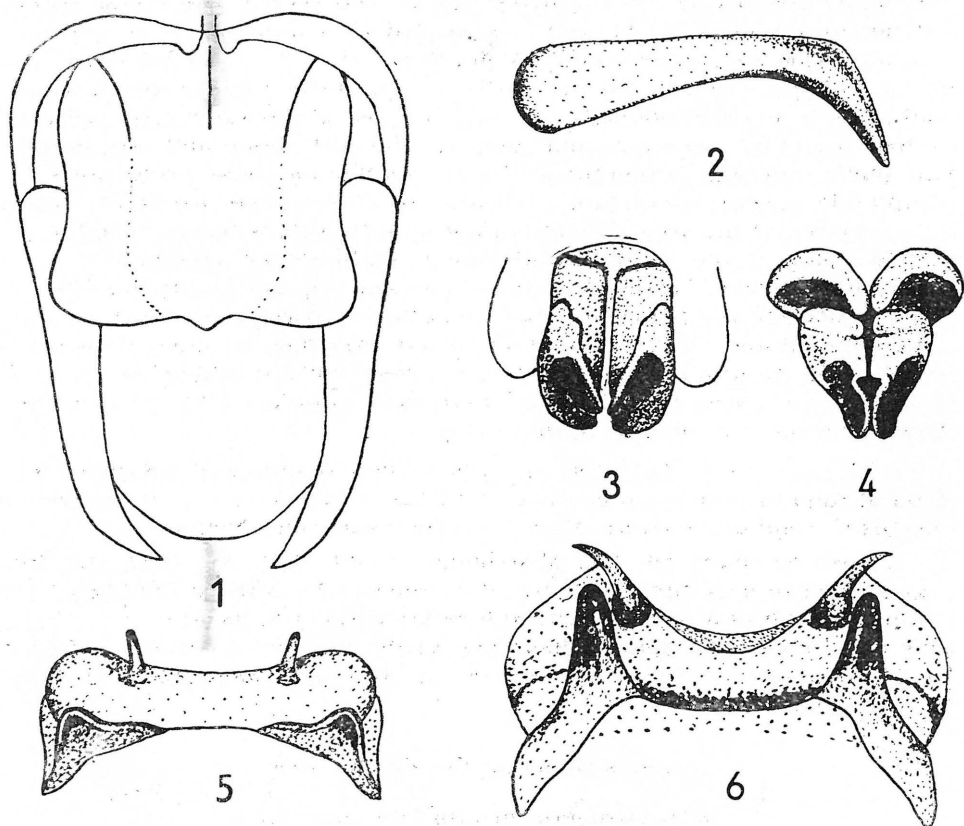


Fig. 1. Last tergite, supra-anal plate, cerci and subgenital plate of *Conophyma narzikulovi* sp. n. (Holotypus) from above. Fig. 2. Left cercus of *Conophyma narzikulovi* sp. n., lateral view. Fig. 3. Most apical part of male genitalia of *C. narzikulovi* sp. n., dorsal view. Fig. 4. Most apical part of male genitalia of *C. sogdianum* Mistsh., dorsal view. Fig. 5. Epiphallus of *C. narzikulovi* sp. n. Fig. 6. Epiphallus of *C. sogdianum* Mistsh.

Female unknown.

Dimensions in mm

Long. corp.	16,50 — 17,00
Long. pronot.	3,08 — 3,14
Long. fem. post.	8,90 — 9,00

Holotypus (♂) and paratypus (1 ♂) Uzbekistan, Aman Kutan, 1200—1400 m above sea level, June 1—2, 1959 (A. Čejchan leg.). Holotypus in the collections of the Regional Museum at Hradec Králové, paratypus in the collections of the Zoological Institute of the Academy of Sciences of USSR in Leningrad.

Conophyma narzikulovi sp. n. is a very near relative of the species *Conophyma sogdianum* Mistshenko, 1950. It is distinguished from the mentioned species by the following marks: the second transverse sulcus on the pronotum is sharp, well visible (in *C. sogdianum* it is not very distinct), the supra-anal plate is narrower than in *C. sogdianum*, the triangular projection in the middle of the posterior margin of the supra-anal plate is smaller, obtusely rounded (almost at the same level with the lateral angles of the supra-anal plate). The last abdominal tergite with two small rounded "projections" (in *C. sogdianum* these projections are completely absent), cerci are narrower, shorter, in the last third curved downwards and inwards. *C. narzikulovi* mainly differs from *C. sogdianum* by the shape of the male genital which is altogether smaller and quite differently shaped (for the most apical part see Fig. 3). Epiphallus (Fig. 5) is much smaller as compared with *C. sogdianum*, cornua are short, narrow, with rounded end (in *C. sogdianum* cornua are long, broader, with sharp ends). Lobi papillati (Fig. 5) are low, broad (in the middle about 3,5X broader than cornua). In *C. sogdianum* lobi papillati (Fig. 6) are high, narrow (about 2X broader than cornua).

Conophyma narzikulovi sp. n. lives in the mountains in the neighbourhood of Aman Kutan in an altitude of 1200—1400 m, along with its relative species *C. sogdianum*. Here, it is, however, much less frequent.

I wish to thank Dr. Leo Mistshenko, Cand. Biol. Sc., from the Zoological Institute of the Academy of Sciences of USSR in Leningrad for comparing the new species with the relative species, as well as for valuable comments. The species has been given its name in honour of Prof. Dr. M. Narzikulov, Director of the Zoological and Parasitological Institute in Stalinabad,

Genus **Bienkoa** Mistshenko 1950

B. fedtshenkoi ornata (Ramme 1931)

In May 1959 I found, in the mountains in the neighbourhood of Koktash (Tadzhik.), 4 ♂♂ and 9 ♀♀ (det. L. Mistshenko).

Geographical distribution: Tadzhikistan.

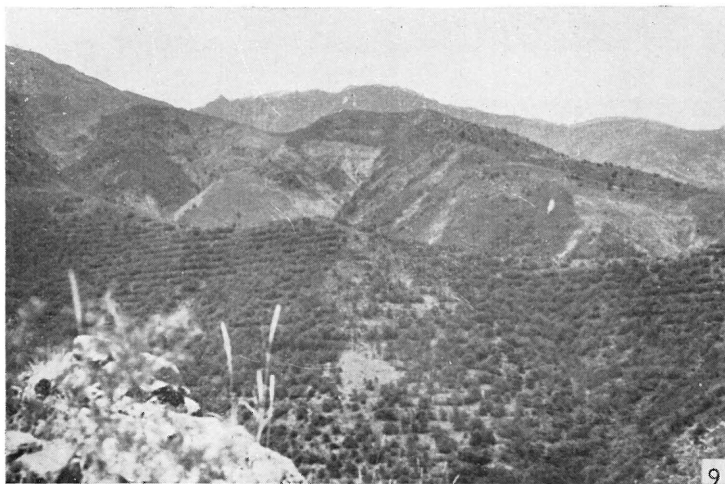


Fig. 7. Mountains in the neighbourhood of Aman Kutan in Uzbekistan (Photo A. Čejchan). Biotop for *Conophyma sogdianum*, *C. narzikulovi*, *Paracryptera microptera turanica*, *Chorthippus brunneus* etc. Fig. 8. Sand desert in S. W. Tadzhikistan (Photo A. Čejchan). Biotop for *Sphingonotus savignyi*, *Oedaleus senegalensis*, *Thrinchus tuberculosus*, *Truxalis nasuta* etc. Fig. 9. Mountains in the neighbourhood of Akh-Tash near Tashkent (Photo A. Čejchan). Biotop for *Conophyma jacobsoni*, *Paracryptera microptera turanica*, *Chorthippus brunneus* etc. Fig. 10. State Nature Reservation "Tigrovaya balka" in S. W. Tadzhikistan (Photo Čejchan). Biotop for *Duroniella gracilis* etc.

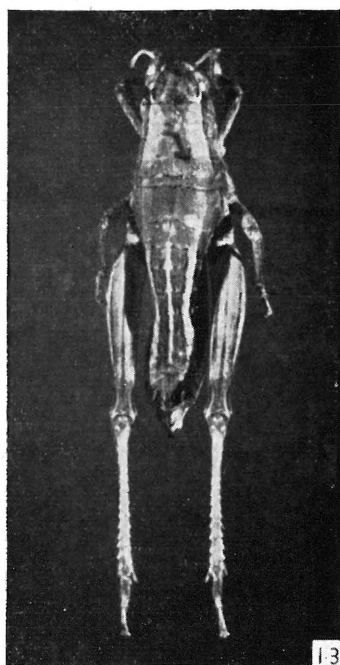
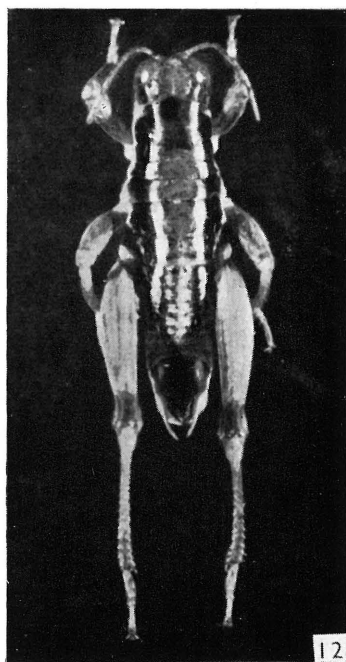
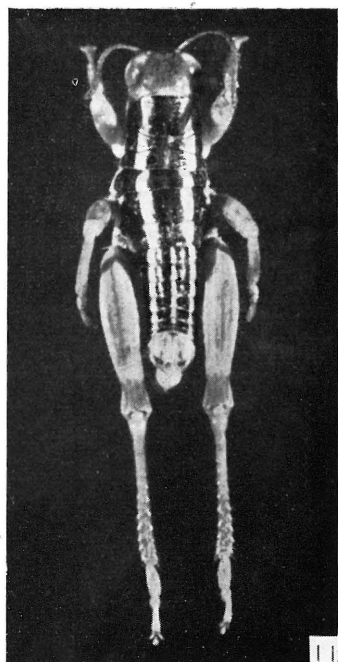


Fig. 11. *Conophyma jacobsoni* Uv., ♂ (Photo V. Máka). Fig. 12. *Conophyma sogdianum* Mistsh., ♂ (Photo V. Máka). Fig. 13. *Btenkoa fedtshenkoi ornata* (Rme), ♀ (Photo V. Máka).
 Fig. 14. *Pararcyptera microptera turanica* (Uv.) ♂ (Photo V. Máka).

Genus **Anacridium** Uvarov 1923**A. aegyptium aegyptium** (Linné 1764)

In May 1959 I found 1 ♀ in the neighbourhood of the town Kurgan Tjube (S. W. Tadzhik).

Geographical distribution: South of European part of USSR, Caucasus, S. Kazakhstan, Central Asia, North Africa, South of W. Europe, W. Asia, Iran and N. Afghanistan.

PyrgomorphinaeGenus **Pyrgomorpha** Serville 1839**P. conica deserti** Bey-Bienko 1951

I collected this subspecies in the following localities: State Nature Reservation "Tigrovaya balka" (S. W. Tadzhik.) in May 1959 — 3 ♂♂ and 6 ♀♀; Kara Tepe (Uzbek.), June 2, 1959 — 2 ♂♂.

Geographical distribution: Azerbaydzhan, Armenia, Central Asia, Kazakhstan, Iran and N. Afghanistan.

PamphaginaeGenus **Atrichotmethis** Uvarov 1943**A. semenovi** (Zubovskij 1899)

In May 1959 I found 1 ♂ in the sand desert near the State Nature Reservation "Tigrovaya balka" (S. W. Tadzhik.).

Geographical distribution: Turkmenistan, Uzbekistan, S. W. Tadzhikistan and N. Afghanistan.

Genus **Pezotmethis** Uvarov 1943**P. tartarus tartarus** (Saussure 1884)

In June 1959 I found 1 ♂ and 2 ♀♀ in the neighbourhood of Kara Tepe (Uzbek.).

Geographical distribution: Uzbekistan, S. Kazakhstan and Kara-Kalpakskaya ASSR.

Genus **Thrinchus** Fischer - Waldheim 1833**T. tuberculosus** Tarbinskij 1926

In May 1959 I found 6 ♂♂ and 2 ♀♀ in the desert near the State Nat. Reservation "Tigrovaya balka" (S. E. Tadzhik.). This species lives there in the sands along with the species *Oedaleus senegalensis* and *Sphingonotus savignyi*.

Geographical distribution: Tadzhikistan, S. Uzbekistan and E. Turkmenia.

AcridinaeGenus **Truxalis** Fabricius 1775**T. nasuta** (Linné 1758)

In May 1959 I found 2 ♂♂ and 2 ♀♀ in the sand desert near the State Nature Reservation "Tigrovaya balka" (S. W. Tadzhik.).

Geographical distribution: Transcaucasia, Central Asia, S. Europe, North Africa and S. W. Asia.

Genus **Duroniella** I. Bolivar 1908**D. kalmyka** (Adelung 1906)

In June 1959 I found 1 ♂ and 1 ♀ in the botanic garden in Tashkent (Uzbek.).

Geographical distribution: European part of USSR, Daghestan (?), Kazakhstan and Central Asia.

D. gracilis Uvarov 1926

I collected this species in May 1959 in the State Nature Reservation "Tigrovaya balka" (S. W. Tadzhik.) — 5 ♂♂ and 7 ♀♀.

Geographical distribution: Caucasus, S. Kazakhstan, Central Asia, N. Iran and N. Afghanistan.

Genus **Pararcyptera** Tarbinskij 1940**P. microptera turanica** (Uvarov 1927)

This subspecies was collected by me in the mountains near Akh-Tash (Uzbek.), June 6, 1959 — 2 ♂♂, and in the mountains near Aman Kutan (Uzbek.), June 1—2, 1959, — 23 ♂♂ and 23 ♀♀.

Geographical distribution: S. Kazakhstan and Central Asia.

Genus **Ramburiella** I. Bolivar 1906**R. turcomana** (Fischer-Waldheim 1883)

I collected this species on June 2, 1959 in the neighbourhood of Kara Tepe (Uzbek.) — 6 ♂♂ and 1 ♀.

Geographical distribution: European part of USSR, Transcaucasia, Crimea, Kazakhstan, Central Asia, S. E. of W. Europe and W. Asia.

Genus **Dociostaurus** Fieber 1853**D. maroccanus** (Thunberg 1815) *ph. solitaria*

Occurs in the neighbourhood of Kara Tepe (Uzbek.) together with *Ramburiella turcomana*: June 2, 1959 — 5 ♂♂ and 5 ♀♀.

Geographical distribution: European part of USSR, Caucasus, S. Kazakhstan, Central Asia, Canary Islands, Madeira, North Africa, S. Europe and W. Asia.

Genus **Stenobothrus** Fischer 1853**S. fischeri** (Eversman 1848)

One ♀ was found on June 6, 1959 in the mountains near Akh-Tash (Uzbek.).

Geographical distribution: South of European part of USSR, N. Caucasus, Kazakhstan, Central Asia, Siberia, W. Europe, Asia Minor and Mongolia.

Genus **Chorthippus** Fieber 1852**Ch. brunneus brunneus** (Thunberg 1815)

I collected this species in the following localities: Aman Kutan (Uzbek.), June 1—2, 1959 — 19 ♂♂ and 20 ♀♀; Tashkent (Uzbek.), on June 4, 1959 — 5 ♂♂ and 3 ♀♀; Akh-Tash (Uzbek.) on June 6, 1959 — 9 ♂♂ and 4 ♀♀.

Geographical distribution: European part of USSR, Caucasus, Siberia, Kazakhstan, Tachenia, North Africa, W. Europe, Asia Minor, Iraq, N. Iran, N. Mongolia and N. China.

Ch. biguttulus pamiricus (Ramme 1930)

One male was found in the mountains near Aman Kutan (Uzbek.) on June 2, 1959.

Geographical distribution: S. Uzbekistan, S. Kirghizia, Tadzhikistan and W. China.

OedipodinaeGenus **Aiolopus** Fieber 1853**A. thalassinus** (Fabricius 1781)

In May 1959 I collected this species in the surroundings of Kurgan Tjube (S. W. Tadzhik.) — 4 ♂♂ and 3 ♀♀, and on June 4, 1959 in the botanic garden in Tashkent (Uzbek.) — 23 ♂♂ and 15 ♀♀.

Geographical distribution: South of European part of USSR, Kazakhstan, South of W. Siberia, Central Asia, Transcaucasia, S. and C. Europe, North Africa, W. Asia and China.

Genus **Oedaleus** Fieber 1853**O. senegalensis** (Krauss 1853)

Occurs in the desert near the State Nature Reservation "Tigrovaya balka" (S. W. Tadzhik.). In May 1959 I found 9 ♂♂ and 9 ♀♀ in this locality.

Geographical distribution: Transcaucasia, Turkmenistan, Tadzhikistan, S. Uzbekistan, Kashmir, Punjab, W. Asia and Africa.

Genus **Pyrgodera** Fischer - Waldheim 1846**P. armata** Fischer - Waldheim 1846

In May 1959 1 ♀ was found in the desert near the State Nature Reservation "Tigrovaya balka" (S. W. Tadzhik.).

Geographical distribution: European part of USSR, Kazakhstan, Central Asia, Transcaucasia and W. Asia.

Genus **Acrotylus** Fieber 1853**A. insubricus inficitus** (Walker 1870)

I collected this subspecies in 2 localities in S. W. Tadzhikistan: Kurgan Tjube, May 1959 — 3 ♂♂ and 6 ♀♀; State Nature Reservation "Tigrovaya balka", May, 1959 — 1 ♂.

Geographical distribution: European part of USSR, S. Kazakhstan, Central Asia, W. Siberia, Iran, Arabia and North Africa.

Genus **Sphingonotus** Fieber 1852**S. savignyi** Saussure 1884

Occurs frequently in the desert near the State Nature Reservation "Tigrovaya balka" (S. W. Tadzhik.). In May 1959 I found there 32 ♂♂ and 16 ♀♀.

Geographical distribution: S. E. Kazakhstan, Central Asia, Azerbaijan, Georgia, Iran, Palestine, Arabia, Kashmir, W. Pakistan and N. Africa.

S. satrapes Saussure 1884

In May 1959 I found 2 ♂♂ in the desert in S. W. Tadzhikistan.

Geographical distribution: S. Kazakhstan, Central Asia, Transcaucasia, Iran, Iraq and Palestine.

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