

SPIXIANA	24	2	147–155	München, 01. Juli 2001	ISSN 0341-8391
----------	----	---	---------	------------------------	----------------

Tetrigidae from Nepal in the Zoologische Staatssammlung München

(Insecta, Orthoptera, Tetrigidae)

Sigfrid Ingrisch

Ingrisch, S. (2001): Tetrigidae from Nepal in the Zoologische Staatssammlung München (Insecta, Orthoptera, Tetrigidae). – Spixiana 24/2: 147-155

A list of 20 species of Tetrigidae from Nepal mainly collected during the expeditions of Dr. Dierl, Dr. Forster, and Dr. Schacht in 1964, 1967, and 1973 is given together with some own material. Two species are described as new: *Coptotettix muglingi*, spec. nov. and *Ergatettix minutus*, spec. nov. The material of the Dierl-expeditions and the types of the new species are deposited in the Zoologische Staatssammlung München.

Dr. Sigfrid Ingrisch, Eichendorffweg 4, D-34385 Bad Karlshafen, Germany;
e-mail: sigfrid.ingrisch@planet-interkom.de

Introduction

Some years ago, I studied the Orthoptera collected during the expeditions of Dr. Dierl, Dr. Forster, and Dr. Schacht to Nepal in 1964, 1967, and 1973 (Ingrisch 1990). The Tetrigidae had to be excluded as there were no reliable tools for identification. The Tetriginae s. str. that represent the majority of the specimens at hand are not included in the works of Günther (1938a, b, 1939). Some authors even thought it impossible to identify Tetrigidae of several genera with accuracy (Kevan 1966, see also Blackith 1988). The taxonomic situation of the Tetrigidae of the Oriental Region is still in a desolate state. Numerous of the classical taxa described by Bolívar (1887), Walker (1871), or Hancock (1904, 1907, 1909, 1910, 1912, 1913, 1915) have never been re-examined and from the descriptions alone it is often impossible to be certain about their identity. A taxonomic revision of the Oriental Tetrigidae based on multivariate analysis of numerous characters that was projected by Blackith & Blackith (1987) did not appear. But meanwhile comprehensive works on the Tetrigidae of North India (Shishodia 1991) and China (Liang & Zheng 1998) are published, and there seems to be some agreement on the identity of the common species.

The present paper gives a list of species of Tetrigidae collected during the Dierl-Expeditions to Nepal. Moreover, I use the opportunity to revise some of the Tetrigidae collected during an own excursion to Nepal (Ingrisch 1987).

The Tetrigidae of the Dierl-Expeditions were collected at light and are all long-winged species. They are often widespread in North India but several of the species were not yet reported from Nepal. Information on the collection sites can be found in Dierl (1966). The own collection contained two undescribed species. All specimens of the Dierl-Expeditions and the types of the new species are deposited in the Zoologische Staatssammlung München (ZSM); few other specimens are in my own collection (CI).

List of species

Distribution according to Blackith (1992) with supplements by Shishodia (1991), type localities according to Blackith (1992) and Otte (1997). Measurements as described in Ingrisch (in press).

Scelimeninae

Eucriotettix annandalei (Hancock, 1915)

Distribution: West Bengal.

Type locality: India: West Bengal, Paresnath, 1100 m.

Locality: 1♂, Province Bagmati, Kathmandu Valley, Godavari, 1600-1800, 8.VI.1967, Dierl-Forster-Schacht (ZSM).

Loxilobus assamus Hancock, 1907

Distribution: North East India. Already recorded for Nepal by Chopard & Dreux (1966).

Type locality: India: Assam, Khasi Hills, Cherrapunji.

Locality: 1♂, 1♀, Province Sagarmatha, Jubing, 1600 m, 5.V.1964, Dierl-Forster-Schacht. Both specimens are macropronotal forms (ZSM).

Hebarditettix quadratus (Hancock, 1915)

Distribution: India (Darjeeling, Sikkim, Arunachal Pradesh).

Type locality: India: Singla, Darjeeling, 450 m.

Locality: 1♀, Syaklung (Sarka Bhanjyang), 700-1000 m, river bed, 23.X.1983, S. Ingrisch (CI), reported as *Systolederus greeni* Bolívar, 1892 in Ingrisch (1987).

Discussion. Shishodia (1991) considers that *H. quadratus* might be a synonym of *H. lobatus* (Hancock, 1912), as both taxa differ only in the length of the pronotum.

Metrodorinae

Bolivaritettix dubius (Hancock, 1912) [= syn. of *Bolivaritettix javanicus* (Bolívar, 1909) sensu Blackith 1992]

Distribution: North East India.

Type localities: of *Mazarredia dubia* Hancock, 1912 = India: Bengal, Lebong; of *Mazarredia javanica* Bolívar, 1909 = Java.

Locality: 1♂, Province Bagmati, Kathmandu Valley, Godavari, 1600-1800, 31.VII.1967, Dierl-Forster-Schacht (ZSM); 1♀, Kapurgaon – Baglungpani, 1550-2000 m, shrub rich slopes, 21.X.1983, S. Ingrisch (CI), the latter specimen reported as *Bolivaritettix lativertex* (Brunner v. W. 1893) in Ingrisch (1987).

Discussion. *Bolivaritettix dubius* (Hancock, 1912) is regarded to be a doubtful synonym of *Bolivaritettix javanicus* (Bolívar, 1909) by Günther (1939), listed as a synonym of the latter species in Blackith (1992) and Otte (1997), and treated as a separate species in Steinmann (1970) and Shishodia (1991). But so far nobody compared the types of both taxa.

Tetriginae

Teredorus carmichaeli Hancock, 1915

Distribution: North East India. Already recorded for Nepal by Bei-Bienko (1968).

Type locality: India: Darjeeling Dist., Singla.

Locality: 1♀, Province Narayani, Rapti Valley, Monahari Khola, Belwa, 350 m, 9.V.1967, Dierl-Forster-Schacht (ZSM).

Discussion. Günther (1939) restricts the genus *Teredorus* Hancock, 1906 (Type species: *Teredorus stenofrons* Hancock, 1906 from Peru) to American species and includes the Asian species described under *Teredorus* in *Systolederus* Bolívar, 1887, while recent authors follow Hancock (1915) and include also Asian species in *Teredorus* (Shishodia 1991, Blackith 1992, Otte 1997, Liang & Zheng 1998). However the taxonomic relations of both genera are still unresolved.

Teredorus frontalis Hancock, 1915

Distribution: North East India.

Type locality: Himalaya: Dharampur, Simla Hills, 1200 m.

Localities: 1♂, Syaklun (Sarka Bhanjyang), 700-1000 m, river bed, 23.X.1983, S. Ingrisch; 1♀, Trisuli between Fishling – Mugling Bazar, river bed, 26.X.1983, S. Ingrisch (CI), both specimens reported as *Systolederus gravelyi* Günther, 1939 in Ingrisch (1987).

Hedotettix attenuatus Hancock, 1904

Distribution: India, Sri Lanka.

Type locality: Sri Lanka: Kesbewa, Colombo.

Localities: 17♂♂, 16♀♀, Province Narayani, Rapti Valley, Jhavani, 200 m, 15.-18.V.1967, Dierl-Forster-Schacht; 1♂, 1♀, Province Narayani, Rapti Valley, Monahari Khola, Belwa, 350 m, 10.-11.V.1967, Dierl-Forster-Schacht; 1♂, Province Bagmati, Kathmandu – Chauni, 1400 m, 16.IV.1967, Dierl-Forster-Schacht (all ZSM).

Hedotettix costatus Hancock, 1912

Distribution: India, Bangladesh, Nepal, Sulawesi.

Type locality: India: Bengal, Pusa.

Localities: 6♂♂, 9♀♀, Province Narayani, Rapti Valley, Jhavani, 200 m, 15.-18.V.1967, Dierl-Forster-Schacht; 5♂♂, 4♀♀, Province Narayani, Rapti Valley, Monahari Khola, Belwa, 350 m, 10.-11.V.1967, Dierl-Forster-Schacht (all ZSM).

Hedotettix spec. (near *H. attenuatus* Hancock, 1904 and *H. costatus* Hancock, 1912)

Localities: 1♀, east of Pokhara, 700 m, wasteland within rice fields, 13.-14.X.1983, S. Ingrisch; 2♂, north of Ghanpokhara, 2000-2300 m, meadows, 20.X.1983; 1♂, south of Ghanpokhara, 2000 m, meadows, 20.X.1983, S. Ingrisch; 1♀, Ghanpokhara – Kapurgaon, 2000 m, shrub rich cultural land, 21.X.1983, S. Ingrisch; 3♂♂, 5♀♀, Baglungpani, 1550 m, meadows, 21.X.1983, S. Ingrisch (all CI).

Discussion. A *Hedotettix* species lives on subalpine meadows in the Annapurna area of western Nepal that cannot be assigned with certainty to any of the named species. It was reported as *H. costatus* in Ingrisch (1987), but it differs from specimens of *H. costatus* collected in the Rapti Valley as well as from *H. attenuatus* to which it is also similar. It occurs in the macroponal and brachypronotal morph as well as in intermediate forms. Additional material should be evaluated before the status of those populations can be settled with certainty.

Hedotettix gracilis (de Haan, 1843)

Distribution: Sulawesi, Sunda, Java, Sumatra, Bangladesh, India, Myanmar, Sri Lanka, Taiwan, Thailand, Vietnam.

Type locality: Java.

Localities: 1♂, Province Narayani, Rapti Valley, Monahari Khola, Belwa, 350 m, 10.V.1967, Dierl-Forster-Schacht; 1♀, Province Narayani, Rapti Valley, Jhavani, 200 m, 15.V.1967, Dierl-Forster-Schacht (all ZSM).

Hedotettix grossus Hancock, 1915

Distribution: North East India.

Type locality: Himalaya: Singla, Darjeeling.

Locality: 1♀, Province Narayani, Rapti Valley, Monahari Khola, Belwa, 350 m, 10.V.1967, Dierl-Forster-Schacht (ZSM).

Coptotettix conspersus Hancock, 1915

Distribution: North East India, Sri Lanka.

Type locality: India: Bengal, Siliguri.

Localities: 1♂, 2♀♀, Province Narayani, Rapti Valley, Jhavani, 200 m, 15.V.1967, Dierl-Forster-Schacht; 1♂, 4♀♀, Province Narayani, Rapti Valley, Monahari Khola, Belwa, 350 m, 6.-11.V.1967, Dierl-Forster-Schacht; 1♀, Province Bagmati, Kathmandu Valley, Godavari, 1600-1800, 31.VII.1967, Dierl-Forster-Schacht (all ZSM).

Coptotettix annandalei Hancock, 1915

Distribution: North East India, North Myanmar, Nepal.

Type locality: India: Darjeeling, Singla.

Localities: 1♂, east of Pokhara, 700 m, river bed and wasteland within rice fields, 13.-14.X.1983, S. Ingrisch; 1♀, Trisuli, Jugedee, river bed and cultural land, 27.-28.X.1983, S. Ingrisch; 1♂, Terai: Chitawan, Gaida-Camp, river bed, savannah, evergreen forest, 28.-29.X.1983, S. Ingrisch (all CI).

Discussion. Recorded already under the same name in Ingrisch (1987), the specimens from Mugling Bazar however represent a new species (see below). It is possible that this taxon is a mixture of morphologically similar, sibling species as already Hancock (1915) in the original diagnosis and later Shishodia (1991) describe some geographic variation. If so, the specimens at hand might represent an undescribed species, but the material is not enough to solve the problem. The specimens at hand agree with the descriptions in Hancock (1915) and Shishodia (1991) except for the following points: The vertex is not even slightly narrowing anteriorly and is $1.4 \times$ wider than one eye in the female and of equal width with one eye in the males ($1.0\text{--}1.1 \times$ as wide as one eye) instead of narrower than one eye. Since no exact values are given in the previous descriptions the relative width of both organs was probably guessed not measured. The anterior margin of the pronotum is truncate in the male from Chitawan which agrees with the original diagnosis, while it is a little convex in the male from Pokhara and in the female. The pronotum bears tubercles between the shoulders which are not very striking in the male from Chitawan and in the female, but rather striking in the male from Pokhara. The frontal costa differs somewhat between the three specimens at hand: It is widening ventrad but rather wide throughout in the male from Chitawan, widening ventrad but rather narrow except at the medial ocellus in the male from Pokhara, and gradually widening ventrad in the female.

Coptotettix muglingi, spec. nov.

Figs 1-6

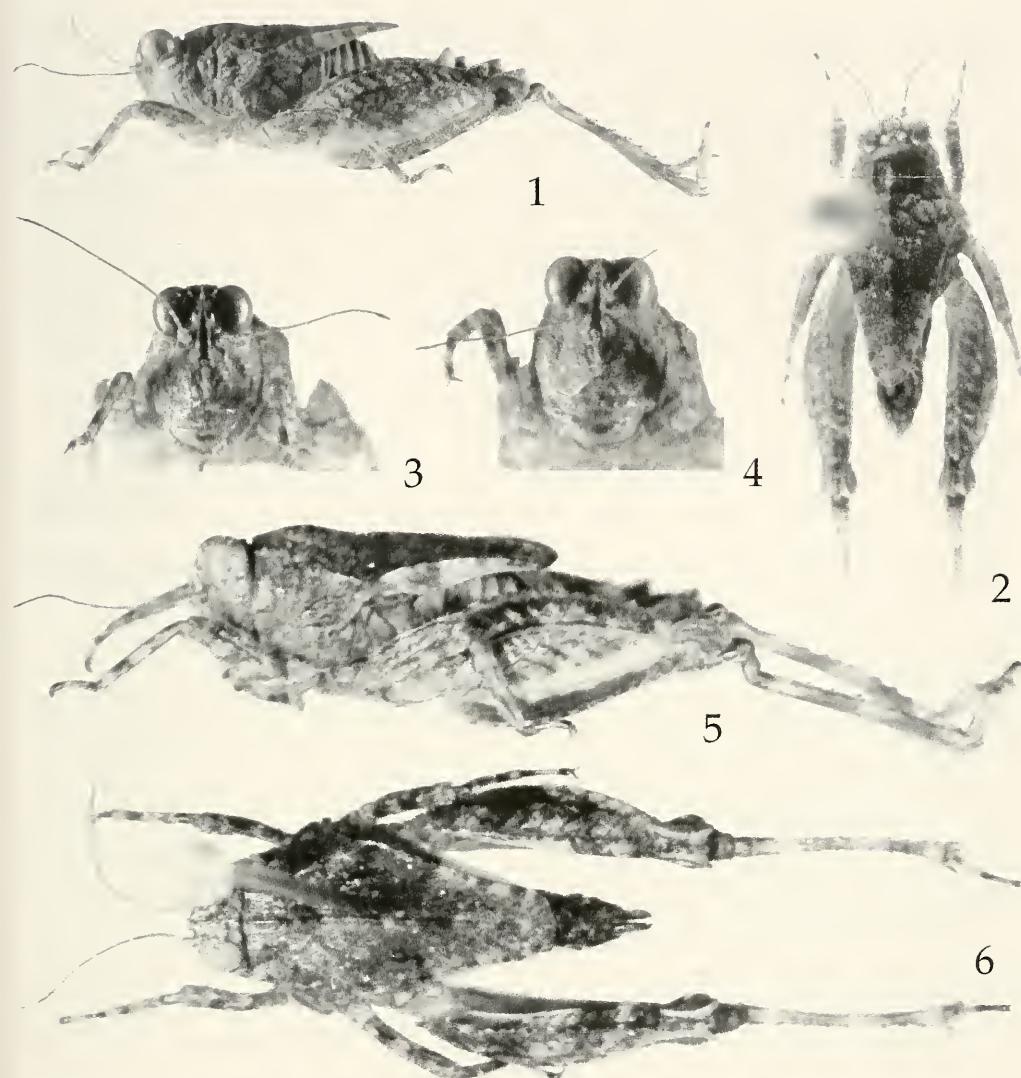
Coptotettix annandalei (nec Hancock, 1915) Ingrisch, 1987 partim.

Types. Holotype: ♂, Nepal: Trisuli river near Mugling Bazar, river bed, 26.X.1983, S. Ingrisch (ZSM). – Paratypes: 2♀♀, Trisuli river near Mugling Bazar, river bed, 26.X.1983, S. Ingrisch (1♀, ZSM; 1♀, CI).

Description

Small brachynotal species with small lanceolate tegmina and strongly reduced wings. Integument granular and slightly tuberculate.

Head with eyes not (female) or little exerted (male). Vertex $0.9 \times$ (female) or $0.8 \times$ (male) as wide as one eye; anterior margin truncate, not completely reaching anterior margin of eyes; medial carina distinct, running to end of fossulae; fossulae deep, elongate; lateral carinae raised to dorsal margin of eyes. Frontal costa in lateral view projecting in front of eyes, rounded together with vertex but slightly concave above lateral ocelli; in anterior view widened about halfway between dorsal angle and lateral ocelli, moderately wide dorsal, suddenly more widened between lateral ocelli and antennae, and then gradually widened ventrad; between antennae $0.8\text{--}0.9 \times$ as wide as scapus. Antennae inserted between ventral margins of eyes such that the middle of the antennal scrobae and the base of the scapus are placed between the ventral margins of eyes. Pronotum not completely covering abdomen, reaching about middle of postfemur; surface granular and a little tuberculate; anterior margin truncate or very faintly convex; posterior margin broad obtuse-angularly rounded; prozonal carinae sharp, almost parallel (or very little converging posteriorly); medial carina low, a little convex from anterior margin to behind sulci, substraight (female) or faintly undulate (male) thereafter; internal lateral carinae absent, lateral margins of disc of pronotal process formed by the external lateral carinae. Paranota with ventral margin slightly curved laterad; ventral projection distinct with apex roundly truncate; dorsal projection in male present, its shape short triangularly rounded, in female reduced to a weak convexity; ventral margin of pronotal process convexly expanded behind tegmen (more expressed in the female than in the male). Tegmen with free part small, lanceolate, $3.1\text{--}4.0 \times$ longer than wide in female, $2.5\text{--}3.6 \times$ longer than wide in male (varying between left and right tegmen of holotype); hind wing projecting 0.3 mm behind tegmen in male; in female hidden or absent. Femur I and II setose; femur I stout with dorsal margin convex and indistinctly undulate; femur II compressed and widened (in



Figs 1-6. *Coptotettix muglingi*, spec. nov.: 1-3. Male, holotype. 4-6. Female, paratype. 1,5. Lateral view. 2,6. Dorsal view. 3,4. Frons.

female 2.7-2.8 ×, in male 2.4 × longer than wide), dorsal and ventral margins faintly (in male indistinctly) undulate. Postfemur very thick (2.2 × longer than wide), granular and rugose; dorsal margin serrulate. Hind tarsus with first segment 1.6-1.7 × (female) or 1.9 × (male) longer than third segment; posterior metatarsus with pulvilli spinose, variable in length: third pulvillus the longest one, second pulvillus longer than or of subequal length with first pulvillus. Ovipositor with dorsal valve 2.3-2.6 × longer than wide.

Measurements (in mm): body length ♂ 6.89, ♀ 7.87-7.93; vertex width ♂ 0.44, ♀ 0.53; eye width ♂ 0.55, ♀ 0.58-0.59; frontal costa between antenna ♂ 0.22, ♀ 0.22-0.24; frontal costa at ventral end ♂ 0.28, ♀ 0.31; scapus width ♂ 0.25, ♀ 0.27; antennal length ♂ 3.75, ♀ 3.75-3.94; pronotum length ♂ 4.62, ♀ 5.17-5.27; pronotum shoulder width ♂ 2.24, ♀ 2.6; pronotum lobe width ♂ 3.15, ♀ 3.38-3.45; tegmen length ♂ 0.63, ♀ 0.78-0.88; femur I length ♂ 1.63, ♀ 1.76-1.82; femur II length ♂ 1.79, ♀ 1.95-2.02; femur II width ♂ 0.75, ♀ 0.72; postfemur length ♂ 4.81, ♀ 5.27; postfemur width ♂ 2.18, ♀ 2.37-2.41; hind tarsus I length

♂ 0.89, ♀ 0.94-0.97; hind tarsus III length ♂ 0.47, ♀ 0.56-0.59; dorsal ovipositor valve length 0.88; dorsal ovipositor valve width 0.34-0.38.

Discussion. The new species differs from most species described under *Coptotettix* by the strongly reduced tegmina and wings and the short pronotum reaching only the middle of the postfemur. It is similar to *Paratettix hancockus* (Shishodia & Varshney 1987) [= replacement name for *Coptotettix parvulus* Hancock, 1912]. The new species differs from the original description of *C. parvulus* by the frontal costa of the head which is distinctly expanded between the lateral ocelli and the antennae (not evenly widened forward), and the antennae are inserted between the lower margins of the eyes (not between the lower part of the eyes). From the redescription of *P. hancockus* in Shishodia (1991), the new species differs by the vertex which in strict dorsal view does not reach the anterior margin of the eyes (not reaching front margin), the apex of the pronotum is distinctly obtuse angular (not broadly rounded), the paranota have two projections (not one projection).

Paratettix hirsutus Brunner v. W., 1893

Distribution: Assam, Myanmar.

Type locality: Burma: Bhamo.

Locality: 1♂, 2♀♀, Province Narayani, Rapti Valley, Jhavani, 200 m, 15.V. 1967, Dierl-Forster-Schacht (ZSM).

Discussion. The specimen at hand are smaller than the measurements given in Brunner v. W. (1893) and Shishodia (1991).

Euparatettix corpulentus Hancock, 1912 [= syn. of *Euparatettix variabilis* (Bolívar, 1887) ?]

Type locality: of *E. corpulentus*: India: Bengal, Chapra; of *E. variabilis*: Philippines.

Localities: 23♂, 29♀, Province Bagmati, Kathmandu – Chauni, 1400 m 23.-29.VI.1967, Dierl-Forster-Schacht; 2♀♀, Province Narayani, Rapti Valley, Jhavani, 200 m, 15.V. 1967, Dierl-Forster-Schacht; 1♀, Province Bagmati, Kathmandu Valley, Godavari, 1600-1800, 8.VI.1967, Dierl-Forster-Schacht (all ZSM).

Discussion. This and the following species are currently listed under the synonymy of *Euparatettix variabilis* (Bolívar, 1887) (Naskrecki & Otte 1997), a species covering an area from India to the Solomon Islands. As in my opinion the taxonomic status of the numerous synonyms of *E. variabilis* (see catalogues of Blackith 1992 and Otte 1997) is still unresolved, I prefer for the moment to use Hancock's (1912) names for this and the following species, the more as the specimens at hand that should belong to *E. variabilis* according to the current synonymy obviously belong to two different species.

Günther (1938b) treats *Euparatettix variabilis* (Bolívar, 1887) as a synonym of *Pseudoparatettix histrionicus* (Stål, 1861). Shishodia (1991) lists *Euparatettix corpulentus* Hancock, 1912 under the synonymy of *Euparatettix histrionicus* (Stål, 1861), *Euparatettix tenuis* Hancock, 1912 as a separate species. Naskrecki & Otte (1997) list both *E. corpulentus* and *E. tenuis* under the synonymy of *E. variabilis* (Bolívar, 1887), and *Pseudoparatettix histrionicus* (Stål, 1861) as a separate species. Blackith (1992) lists *E. variabilis* twice, as a separate species and under the synonymy of *Pseudoparatettix histrionicus* (Stål, 1861).

Euparatettix tenuis Hancock, 1912 [= syn. of *Euparatettix variabilis* (Bolívar, 1887) ?]

Type locality: of *E. tenuis*: India: Bengal, Pusa; of *E. variabilis*: Philippines.

Locality: 3♀♀, Province Narayani, Rapti Valley, Monahari Khola, Belwa, 350 m, 9.-12.V.1967, Dierl-Forster-Schacht (ZSM).

Discussion. See under *E. corpulentus*.

Ergatettix dorsiferus (Walker, 1871)

Distribution: India, Sri Lanka, Bangladesh, Myanmar, Afghanistan, Iran, China, Taiwan, Central Asia, Sumatra, Java, Sumba Island.

Type locality: India: Bombay.

Localities: 8♂♂, 8♀♀, Province Bagmati, Kathmandu – Chauni, 1400 m, 24.VI.1967, Dierl-Forster-Schacht; 1♂, Province Bagmati, Kathmandu – Chauni, 1400 m, 29.IV.1967, Dierl-Forster-Schacht; 3♂♂, 2♀♀, Province Narayani, Bhainse Dobhan, 730 m, 16.-20.VII.1967, Dierl-Forster-Schacht; 11♂♂, 11♀♀, Province Narayani, Rapti Valley, Jhavani, 200 m, 15.-19.V.1967, Dierl-Forster-Schacht; 10♀♀, Province Narayani, Rapti Valley, Monahari Khola, Belwa, 350 m, 6.-12.V.1967, Dierl-Forster-Schacht (all ZSM).

Discussion. In the series at hand, there are all transient forms from specimens with barely rugose to such with distinctly rugose pronotum, with or almost without lateral undulating projections in apical area of pronotum, and with distinct or almost without rugose lateral projections on lateral surface of postfemora; i.e. from *Ergatettix guentheri* Steinmann, 1970 (= replacement name for *Indatettix nodulosus* (Hancock, 1915)) to *Ergatettix dorsiferus* (Walker, 1871). Thus the former might be only a synonym of the latter as already pointed out by Hebard (1929); no further separation between both forms is done. There are specimens with pale and others with annulated posttibia in the same population (see keys in Hancock 1915 and Shishodia 1991); thus *Ergatettix crassipes* (Hancock, 1912), in which the posttibiae are said to be subornate, is probably also a synonym of *Ergatettix dorsiferus* (Walker, 1871) (see also Shishodia 1991 who lists *E. crassipes* under the synonymy of *E. dorsiferus*).

The species was already recorded from Nepal as *Ergatettix nodulosus* Hancock, 1915 in Bei-Bienko (1968) and as *Ergatettix crassipes* (Hancock, 1912) in Ingrisch (1987).

Ergatettix minutus, spec. nov.

Figs 7-10

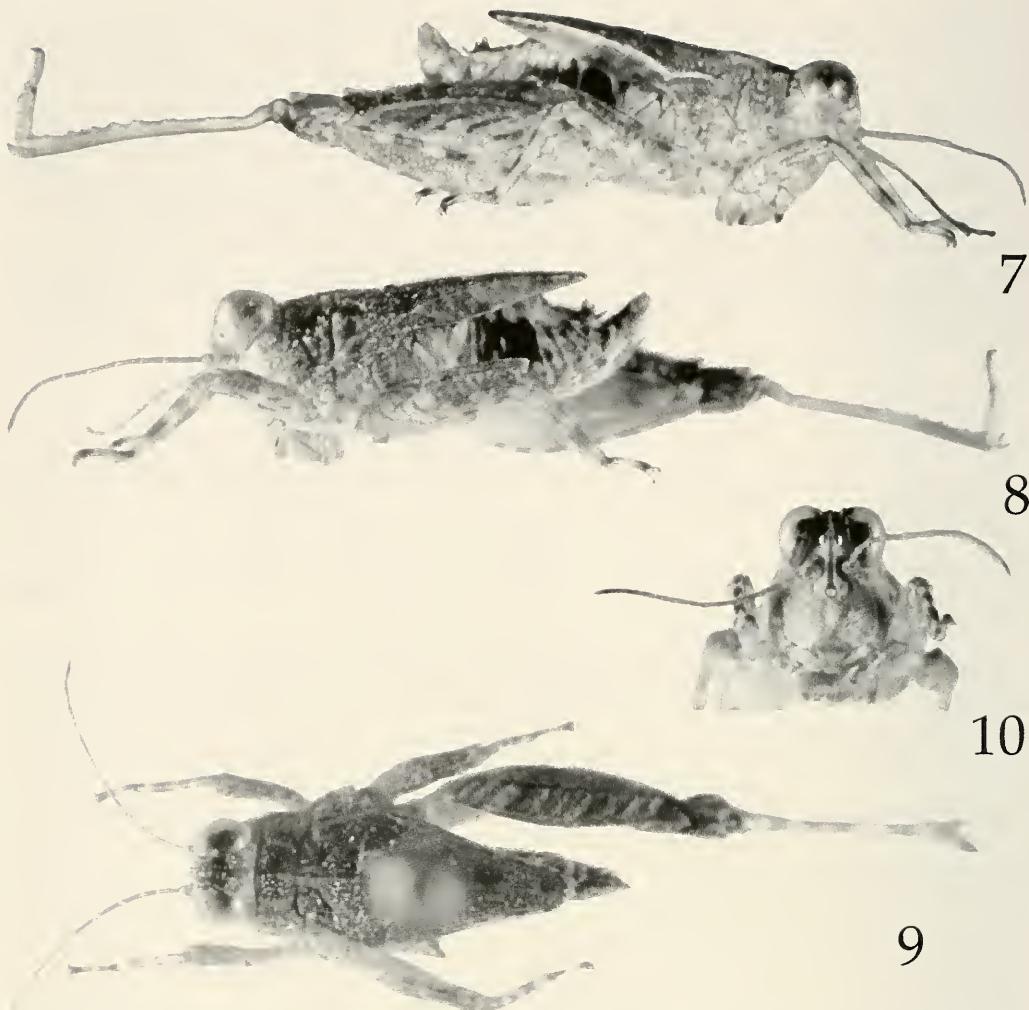
Types. Holotype: ♂, Nepal: East of Pokhara, 700 m, river bed and wasteland within rice fields, 13.-14.X.1983, S. Ingrisch (ZSM).

Description

Small, brachynotal species with exerted head, greatly reduced tegmina and hind wings; integument granular and a little tuberculate.

Head with eyes distinctly exerted above pronotum. Vertex $0.7 \times$ as wide as one eye; anterior margin not completely reaching anterior margin of eyes, slightly convex on both sides of projecting medial carina; vertex a little depressed with medial and lateral carinae almost raised to dorsal margin of eyes; fossulae shallow. Frontal costa in lateral view very little projecting between eyes, hardly concave above lateral ocelli, distinctly projecting between antennae; in anterior view forked about halfway between dorsal angle and lateral ocelli, gradually widening ventrad; between antennae $0.6 \times$ the width of scapus. Antennae inserted between ventral margin of eyes thus that the middle of the antennal scrobae and the scapus base lie in the same level with the ventral margin of the eyes. Pronotum reaching about middle of postfemur; surface granular and with scattered tubercles; anterior margin subtruncate; posterior apex broadly rounded; prozonal carinae low, parallel; medial carina distinct but low, in lateral view faintly convex between sulci and faintly depressed between shoulders, almost straight. Paranota with two projections, dorsal projection however reduced to a weak convexity; ventral projection with apex faintly curved laterad, subtruncate (very little convex); ventral margin of pronotal process concave at tegmen, convexly expanded behind concavity. Tegmen and hind wings greatly reduced, almost completely hidden under pronotum. Femur I strong with dorsal margin convex and indistinctly undulate and faintly serrulate; femur II compressed and widened ($2.3 \times$ longer than wide), with an indistinct preapical constriction, dorsal margin finely serrulate, ventral margin granular. Postfemur thick ($2.5 \times$ longer than wide), granular, dorsal and ventral margins indistinctly serrulate. Tibia II narrowed ventrad. Hind tarsus with first segment $1.5 \times$ longer than third segment; posterior metatarsus with third pulvillus longer than first and second pulvilli, all three pulvilli spinose. Measurements of male (in mm): body length 5.59; vertex width 0.34; eye width 0.48; frontal costa between antenna 0.16; frontal costa at ventral end 0.23; scapus width 0.25; antenna length 3.66; pronotum length 3.84; pronotum shoulder width 1.69; pronotum lobe width 2.34; tegmen length 0.41; hind wings projecting behind tegmen 0.38; femur I length 1.34; femur II length 1.47; femur II width 0.64; postfemur length 4.03; postfemur width 1.59; hind tarsus I length 0.69; hind tarsus III length 0.47.

Discussion. The new species is similar to *Paratettix hancockus* (Shishodia & Varshney, 1987). It differs by the distinctly exerted head, by the vertex being much narrower than one eye, by the anterior margin of the vertex not reaching the anterior margin of the eyes, and by the paranota of pronotum having two projections. It looks quite different from two other brachynotal *Ergatettix* species recently described from Nepal (Ingrisch in press). From *Ergatettix undunotus* Ingrisch in press, it differs by the frontal costa being less concave above the lateral ocelli, by the pronotum being only little rugose and its dorsal margin almost straight (not distinctly undulate), by the apex of the pronotum being broadly rounded



Figs 7-10. *Ergatettix minutus*, spec. nov., male, holotype. 7-8. Lateral view. 9. Dorsal view. 10. Frons.

(not narrow truncate), by the expansion of the ventral margin of the pronotal process, and by the extremely reduced tegmina and hind wings. From *Ergatettix elevatus* Ingrisch in press, it differs by the head being not extremely expanded dorso-ventrally, by the pronotum with the carinae not so strongly expressed but the surface distinctly granular (not rather smooth with tubercles) and its apex rounded (not triangular), by the expansion of the ventral margin of the pronotal process, by the extremely reduced tegmina and hind wings, and by the femur II being widened (not narrow, elongate).

Bannatettix menghaiensis Zheng, 1993

Distribution: South China.

Type locality: China: Yunnan.

Locality: 1♀, Province Narayani, Rapti Valley, Monahari Khola, Belwa, 350m, 12.V.1967, Dierl-Forster-Schacht (ZSM).

Acknowledgements

The material on which this study is based was kindly made available by Dr. M. Baehr (München).

References

- Bei-Bienko, G. Y. 1968. Orthopteroid insects of East Nepal. – Ent. Rev. (Engl. transl. of Ent. Obozr.) **47**: 59-72
- Blackith, R. E. 1988. The Tetrigidae (Orthoptera) of Sri Lanka. – Ent. Scand. Suppl. **30**: 91-107
- 1992. Tetrigidae (Insecta; Orthoptera) of South-East Asia: Annotated catalogue with partial translated keys and bibliography. – JAPAGA, Wicklow, Ireland, i-liv, 1-248
- & R. M. Blackith 1987. Tridactylids and Tetrigids (Orthoptera) from Sulawesi, Indonesia. – Tijds. Ent. **130**: 1-10
- Bolívar, I. 1887. Essai sur les acridiens de la tribu des Tettigidae. – Ann. Soc. Ent. Belg. **31**: 175-313, pl. 4-5
- 1909. Nouvelles espèces d'Acridiens du Musée de Genève. – Bol. Real Soc. Esp. Hist. Nat. **9**: 393-403
- Brunner v. W., C. 1893. Révision du système des orthoptères et description des espèces rapportées par M. Leonardo Fea de Birmanie. – Ann. Mus. Civ. Stor. Nat. Genova Ciacomo Doria **33**: 1-230, pl. 1-6
- de Haan, W. 1842. Bijdragen tot de kennis der Orthoptera. In: Verh. Naturl. Gesch. Nederl. Overz. Bezitt. **16**: 45-248
- Dierl, W. 1966. Zur Kenntnis der Hauptbiotope des Expeditionsgebietes Khumbu Himal vom Gesichtspunkt des Entomologen (Nepal Expedition 1964). – Ergebn. Forsch.-Unternehmen Nepal Himalaya, Lieg. 3: 142-171
- Günther, K. 1938a. Revision der Acridiinae, I. Sectiones Tripetalocerae, Discotettigiae, Lophotettigiae, Cleostratae, Bufonidae, Cladonotae, Scelimenae verae. – Mitt. Zool. Mus. Berlin **23**: 299-437
- 1938b. Revision der Acridiinae (Orth.) II. Scelimenae spuriae. – Stettiner Ent. Z. **99**: 117-148, 161-230
- 1939. Revision der Acridiinae (Orthoptera), III Sectio Amorphopi (Metrodorae Bol. 1887, aut.). – Abh. Ber. Staatl. Mus. Tierk. Dresden, Reihe A: Zool. **20** (NF Bd.1): 16-335
- Hancock, J. L. 1904. The Tettigidae of Ceylon. – Spolia Zeyl. **2**: 97-157, pl. 1-4
- 1907. Studies of the Tetriniae (Orthoptera) in the Oxford University Museum. – Trans. R. Ent. Soc. London **1907**: 213-244, pl. 21
- 1909. Further studies of the Tetriniae (Orthoptera) in the Oxford University Museum. – Trans. R. Ent. Soc. London **1908**: 387-426, pl. 22
- 1910. Third paper on the Tetriniae (Orthoptera) in the Oxford University Museum. – Trans. R. Ent. Soc. London **1910**: 346-365, pl. 49
- 1912. Tetriniae (Acridiinae) in the Agricultural research Institute, Pusa, Bihar, with descriptions of new species. – Mem. Dep. Agric. India **4**: 131-160
- 1913. Orthoptera, I: Tetrigidae (Acridiinae). – Rec. Indian Mus. **8**: 311-315, pl. 15
- 1915. Indian Tetriginae (Acridiinae). – Rec. Indian Mus. **11**: 55-137, pl. 14
- Ingrisch, S. 1987. Zur Orthopterenfauna Nepals. – Dtsch. ent. Z. N. F. **34**: 113-139, pl. 3-4
- 1990. Grylloptera and Orthoptera s.str. from Nepal and Darjeeling in the Zoologische Staatssammlung München. – Spixiana **13**: 149-182
- 2001. Orthoptera of the Nepal expeditions of Prof. J. Martens (Mainz). – Senckenberg. biol. **80**: in press
- Kevan, D. K. McE. 1966. Some Orthoptera-Caelifera from the Philippine, Bismarck and Solomon Islands, with a few interesting records from New Guinea and the Moluccas. – Ent. Medd. **34**: 375-420, 3 pl.
- Liang, G. & Z. Zheng 1998. Orthoptera Tetridoidea. – Fauna Sinica, Insecta Vol. **12**: i-x, 1-278
- Naskrecki & D. Otte 1997. Orthoptera Species File Online. Tetridoidea. – <http://viceroy.eeb.uconn.edu/Orthoptera/>; version 17.4.2000
- Otte, D. 1997. Orthoptera Species File 6 Tetridoidea and Tridactyloidea (Orthoptera: Caelifera) and Addenda to OSF Vols 1-5. – The Orthopterists' Society and The Academy of Natural Sciences of Philadelphia, Philadelphia 1-261
- Shishodia, M. S. 1991. Tetrigidae of north eastern India. – Rec. Zool. Survey India, Occas. paper no. **140**: 1-203
- & R. K. Varshney 1987 (1988). Two unusual cases of homonymy in Orthoptera with new names for species from India. – J. Bombay Nat. Hist. Soc. **84**: 167-169
- Stål, C. 1861. Orthoptera species novas descripsit. – In: Kongl. Svenska Freg. Eugenies Resa, vol. 2, Zoologi. 1. Insecta. Utgifna of K. Svenska Vetenskaps Akademien, Stockholm (P.A. Norstedt and Soner) **3**: 299-350
- 1877. Orthoptera nova ex Insulis Philippinis descripsit. – Öfvers. Kongl. Vetensk.-Akad. Förhandl. **34**: 33-58
- Steinmann, H. 1970. Check-list of the Tetrigidae (Orthoptera) of the oriental faunal region. – Acta Zool. Acad. Sci. Hung. **16**: 215-240
- Walker, F. 1871. Catalogue of the specimens of Dermaptera Saltatoria in the collection of the British Museum, Part V. – British Museum (Natural History): London pp. [iv +] 811-850
- Zheng, Z. 1993. One new genus and three new species of Tetrigidae from Yunnan province (Orthoptera: Tetrigidae). – J. Shaanxi Normal Univ. Nat. Sci. Ed. **21**: 46-50

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Spixiana, Zeitschrift für Zoologie](#)

Jahr/Year: 2001

Band/Volume: [024](#)

Autor(en)/Author(s): Ingrisch Sigfrid

Artikel/Article: [Tetrigidae from Nepal in the Zoologische Staatssammlung München \(Insecta, Orthoptera, Tetrigidae\) 147-155](#)