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FILIPPO MARIA BUZZETTI & HENDRIK DEVRIESE

## TETRIGIDAE FROM ECUADOR (Orthoptera Caelifera Tetrigoidea)

ABSTRACT - BUZZETTI F. M. & DEVRIESE H., 2007 - Tetrigidae from Ecuador (Orthoptera Caelifera Tetrigoidea).

Atti Acc. Rov. Agiati, a. 257, 2007, ser. VIII, vol. VII, B: 41-54.

Thirty-six taxa of Tetrigidae are known from Ecuador, twenty-nine were known previously to this study, the presence of five of these is confirmed, seven are here reported for the first time. No tetrigids are known from Galapagos Islands. Faunistical notes on Tetrigidae recently collected in Ecuador are given. All taxa are listed and commented. Type locality of the species is reported when in Ecuador.

KEY WORDS - Faunistics, Amazonia, Andes, Coastal Plains, Galapagos Islands, Macropronotal, Brachypronotal, *Scaria maculata* Giglio Tos 1898.

RIASSUNTO - BUZZETTI F. M. & DEVRIESE H., 2007 - Tetrigidae dall'Ecuador (Orthoptera Caelifera Tetrigoidea).

Trentasei taxa di Tetrigidae sono conosciuti per l'Ecuador, ventinove erano conosciuti precedentemente al presente studio, la presenza di cinque di questi è confermata, sette sono qui riportati per la prima volta. Non sono noti tetrigidi per le Isole Galapagos. Sono fornite note faunistiche sui Tetrigidae recentemente raccolti in Ecuador. Tutti i taxa sono elencati e commentati. La località tipica è citata quando in Ecuador.

PAROLE CHIAVE - Faunistica, Amazzonia, Ande, Pianure Costiere, Isole Galapagos, Macropronotale, Brachipronotale, *Scaria maculata* Giglio Tos 1898.

### INTRODUCTION

Tetrigidae of Ecuador are only partially known, mostly on the basis of the two main contributions on Orthopteroid fauna of Ecuador (GIGLIO TOS 1898, HEBARD 1924b). Other useful references are GÜNTHER (1939) and the contributions by Lawrence Bruner. To date a work com-

prehensive of all the species and identification key on Ecuador is lacking, so the present paper wants to be a first step to such a goal.

Working on Neotropical tetrigids is particularly difficult due to the scarcity of material in Museums and private collections. This appears rather strange, being Tetrigidae a group of insects so common along water streams and ponds, especially in Neotropics. Further difficulty in approaching this group is represented by the literature, mostly scattered, not revisional and limited to small groups of species, and especially not using a modern systematics approach. GÜNTHER (1939) provided an identification key for subfamily Metrodorinae, to which belong most of the South American species, but he examined only a fraction of the types so that probably misinterpretation of some descriptions was unavoidable. Subfamily Batrachideinae is revised by GRANT (1955, 1956), except for the very large genus *Tettigidea*, for which the revision was never published. Subfamily Cladonotinae is also revised by GÜNTHER (1938), while Tetriginae were never been reviewed, the most recent work by STEINMANN (1969) listing 20 species.

Resulting from this situation is that a revision of all Neotropical genera of Tetrigidae is strongly needed.

The present work results from recent collecting expeditions since 2002 run by the first author. Identification of the species was made by the second author. Furthermore the collection in Museo Regionale di Scienze Naturali di Torino has been examined.

The material examined is now in the private collection of the first author in Arzignano, Italy, abbreviated as F.M.B., and in the Institute Royal des Sciences Naturelles de Belgique, Brussels, Belgium, abbreviated in ISNB.

Species collected during expeditions in Ecuador since 2002 are listed, the synonymy comprehensive of all citations concerning Ecuador is listed for each species plus the material examined and some notes.

#### SPECIES COLLECTED

subfam. Batrachideinae

gen. *Batrachidea* Serville 1839

*Batrachidea inermis* Hebard 1923

*Batrachidea inermis* Hebard 1923: 174.

*Batrachidea inermis*; Grant 1956: 79.

*Material Examined:* Esmeraldas prov., Montalvo, La Mayronga, 95 m., 0°53'27.2" N 79°13'2.5" W, 14/17.XI.2004, lg F. M. B. & G. Carrotti, 1♂, 1♀, coll. F. M. B.; idem, 1♀, coll. ISNB; Esmeraldas prov., San Lorenzo, S. Francisco de Bogotá, 9/10.XII.2004, lg G. Carotti, 1♀, coll. F. M. B.

The genus *Batrachidea* Serville includes five species all from South America and was revised by GRANT (1956).

*B. inermis* Hebard was known for Colombia only and the specimens here reported are the first record of the species for Ecuador where it is present in the Coastal Plains.

All the material examined is brachypronotal.

***Batrachidea mucronata* (Saint-Fargeau & Serville, 1825)**

*Tetrix mucronata* Saint-Fargeau & Serville 1825, Encyclopédie méth., Hist. nat., Insectes, 7: 600.

*Batrachidea mucronata*; Bolivar 1887: 300.

*Batrachidea mucronata*; Giglio Tos 1898: 36.

*Batrachidea notata* Bruner 1906b: 616.

*Tettigidea gracilicornis* Bruner 1910: 128.

*Batrachidea mucronata*; Grant 1956: 70.

*Material Examined:* Esmeraldas prov., Montalvo, La Mayronga, 95 m., 0°53'27.2" N 79°13'2.5" W, 14/17.XI.2004, lg F. M. B. & G. Carrotti, 1♂, coll. F. M. B.; Esmeraldas prov., San Lorenzo, S. Francisco de Bogotá, 9/10.XII.2004, lg G. Carotti, 1♀, coll. F. M. B.; idem, 1♂, coll. ISNB; Napo prov., Yasuni Scientific Station, 219 m., 0°40'26.6" S 76°23'51.5" W, 22/26.XI.2004, lg F. M. B. & G. Carotti, 1♂, coll. F. M. B.; idem, 2/5.V.2002, lg F. M. B., 2♂♂, 1♀, coll. F. M. B.; idem, 1♂, coll. ISNB; Pichincha prov., Union del Toachi, trail to Otongachi, farm, 14.IV.02, lg F. M. B., 1♀, coll. F. M. B.; Morona Santiago prov., Gualaquiza, 851 m., lg G. Carotti & P. Tirello, 1♂, coll. F. M. B.; Sucumbios prov., El Reventador, San Rafael Falls, 1400 m., lg G. Osella, 1♂, coll. F. M. B.

*B. mucronata* (Saint-Fargeau & Serville, 1825) Fig. 1, is widely distributed in South America, being present in Colombia, Ecuador, Peru, Bolivia and Brazil (GRANT 1956). The distribution of the species in Ecuador covers Amazonian part, Andes and Coastal Plains.

This species differs only slightly from *B. macella* Grant 1956, so that is not clear if these are separate species.

GRANT (1956) synonymized *B. notata* Bruner 1906 and *Tettigidea gracilicornis* Bruner 1910 with *B. mucronata*.

The brachypronotal specimens collected are much bigger than macropronotal specimens, a character typical of Batrachideinae.

gen. *Paurotarsus* Hancock 1900

***Paurotarsus ruficornis*** (Walker 1871)

*Tettix ruficornis* Walker 1871: 817.

*Paurotarsus amazonus* Hancock 1900: 42.

*Paurotarsus rugosus* Bruner 1906a: 148.

*Paurotarsus ruficornis*; Hebard 1924a: 92.

*Paurotarsus ruficornis*; Grant 1955: 4.

*Material Examined*: Napo prov., Yasuni Scientific Station, 219 m., 0°40'26.6" S 76°23'51.5" W, 22/26.XI.2004, lg F. M. B. & G. Carotti, 1 brachypterous ♂, coll. F. M. B.

The small Central and South American genus *Paurotarsus* Hancock includes two species: *P. insolitus* Rehn 1916, divided in three subspecies, and *P. ruficornis* (Walker 1871).

Hebard (1924a) synonymized *P. amazonus* Hancock 1900 and *P. rugosus* Bruner 1906 with *P. ruficornis*.

*P. ruficornis* is distributed in Bolivia, Brazil, Peru, Trinidad (GRANT 1955) and Amazonian Ecuador.

gen. *Scaria* Bolivar 1887

***Scaria producta*** Hancock 1907

*Scaria producta* Hancock 1907: 70.

*Scaria producta*; Bruner 1910: 140.

*Material Examined*: Napo prov., Yasuni Scientific Station, 219 m., 0°40'26.6" S 76°23'51.5" W, 22/26.XI.2004, lg F. M. B. & G. Carotti, 1♂, coll. F. M. B.

The genus *Scaria* Bolivar 1887 has not been revised since 1910 and therefore is in need of revision. Eight species have been described with range from Southern United States to South America.



Fig. 1. *Batrachidea mucronata* (Saint-Fargeau & Serville, 1825), male from Esmeraldas prov., Montalvo, La Mayronga (photo G. Carotti).

Fig. 2. *Eomorphopus antennatus* (Bolivar 1887), female from Napo prov., Yasuni National Park, PUCE Estacion Cientifica (photo G. Carotti).

The single macropronotal male collected is the first record for Ecuador of this species that was known for Peru, Bolivia and Brazil. In Ecuador the distribution of *S. producta* Hancock is Amazonian.

subfam. Metrodorinae

gen. *Allotettix* Hancock 1899

*Allotettix americanus* Hancock 1907

*Allotettix americanus* Hancock 1907: 234.

*Allotettix americanus*; Bruner 1910: 116.

*Allotettix americanus*; Hebard 1924b: 156.

*Material Examined*: Pichincha, La Union del Toachi, 900 m, 10.VIII.02, lg G. Osella, 1♂, coll. F. M. B.

Within the genus *Allotettix* Hancock 1899, eight species are actually included, all from South America except for *A. peruvianus* Bolivar 1887 and *A. cayennensis* Bolivar 1887 which are present also in Costa Rica and West Indies respectively. The first species is cited with some doubts sub *Paratettix peruvianus* by GIGLIO TOS (1898) on the basis of a single specimen collected in the valley of Santiago River in Ecuador. More later HEBARD (1924b) ascribes to *A. peruvianus* a single female from «Allpa-yacu, Rio Pastaza, Tunguragua, 3600 feet (ca 1080 meters)» probably on the eastern slopes of the Andes.

Type locality of the *A. americanus* is Cachabi. In Ecuador the species ranges from the western slopes of the Andes to the coastal plains.

Gen. *Chiriquia* Morse 1900

*Chiriquia concinna* (Bolivar 1887)

*Metrodora concinna* Bolivar 1887: 249.

*Chiriquia concinna*; Hancock 1907: 39.

*Chiriquia concinna*; Kirby 1910: 23.

*Chiriquia concinna*; Bruner 1910: 99.

*Chiriquia concinna*; Günther 1939: 228.

*Material Examined*: Esmeraldas, San Lorenzo, S. Francisco de Bogotá, 9/10.XII.2004, lg. G. Carotti, 1♂, coll. F. M. B.

The Central and South American genus *Chiriquia* Morse 1900 is very easy to recognise among Metrodorinae, by the peculiar position of the antennae that are placed very below the base of eyes.

Four of the six described species are from Ecuador: *C. compressa* Günther 1939 with type locality Ecuador, Rosario, *C. mirifica* Hebard

1924 with type locality Ecuador, Rio Pescado, Azuay, 480 m., *C. spinata* Günther 1939 with unspecified Ecuadorean type locality and *C. concinna* (Bolivar). *C. concinna* is known in Ecuador for the Coastal plains and for the Western slopes of the Andes.

gen. *Crimisus* Bolivar 1887

*Crimisus bolivianus* (Bruner 1913)

*Allotettix bolivianus* Bruner 1913: 425.

*Crimisus bolivianus*; Günther 1939: 242.

*Material Examined*: Napo, Yasuni Scientific Station, 0°40,407' S 76°23,883' W, 2/5.V.2002, lg F. M. B., 1♀, coll. F. M. B.

The genus *Crimisus* Bolivar 1887 has the lateral lobes of pronotum only slightly produced, so that it could be also attributed to subfamily Tetrigininae which has the lateral lobes of pronotum not produced. This feature is shown clearly by the present species having the lateral lobes of pronotum not extended from the body.

This species was known before only for Bolivia and this is the first record for Ecuador.

*Crimisus tibialis* (Bruner, 1910)

*Sclerotettix tibialis* Bruner 1910: 106.

*Crimisus tibialis*; Günther 1939: 246.

*Material Examined*: Napo prov., Yasuni Scientific Station, 219 m., 0°40'26.6" S 76°23'51.5" W, 22/26.XI.2004, lg F. M. B. & G. Carotti, 1♂, 1♀, coll. F. M. B.; idem, 1♀, coll. ISNB; idem, 0,6784° S 76, 40032° W, 2/5.V.2002, lg. F. M. B., 1♂, coll. F. M. B.

Twelve species have been described in the genus *Crimisus* Bolivar 1887 and in *Sclerotettix* Bruner 1910, the latter synonymized by GÜNTHER (1939) with *Crimisus*.

These specimens from Ecuador have very enlarged middle femora, this a typical character of *C. tibialis*. Nevertheless the present species resembles two species very related to it: *C. steinbachi* (Bruner 1913) and *C. variegatus* (Bruner 1910). The first differs from *tibialis* in having the middle femora slightly less expanded, the latter for the comparatively smoother pronotum and legs.

Known before only for Brazil, the species is likely present all along the Amazonian Basin.

gen. *Eomorphopus* Hancock 1900

***Eomorphopus antennatus*** (Bolivar 1887)

*Amorphopus antennatus* Bolivar 1887: 241.

*Eomorphopus antennatus*; Hancock 1907: 38.

*Eomorphopus antennatus*; Günther 1939: 262.

*Material Examined*: Napo prov., Yasuni Scientific Station, 219 m., 0°40'26.6" S 76°23'51.5" W, 22/26.XI.2004, lg F. M. B. & G. Carotti, 12♂♂, 7♀♀, coll. F. M. B.; idem, 1♂, 1♀, coll. ISNB; idem, 0°40,407' S 76°23.883' W, 2/5.V.2002, lg. F. M. B., 1♀, coll. F. M. B.

The South American genus *Eomorphopus* Hancock 1900 includes 3 species and can be distinguished from the related genus *Amorphopus* Serville 1838 by the not dilated forelegs.

*E. antennatus* (Fig. 2) was known before for Brazil, Trinidad (BRUNER 1910), Peru and Suriname (GÜNTHER 1939), the material here listed is the first record of the species for Ecuador.

gen. *Metrodora* Bolivar 1887

***Metrodora rana*** Bolivar 1887

*Metrodora rana* Bolivar 1887: 248.

*Metrodora rana*; Giglio Tos 1898: 35.

*Metrodora rana*; Hebard 1924b: 152.

*Material Examined*: Napo prov., Yasuni Scientific Station, 219 m., 0°40'26.6" S 76°23'51.5" W, 22/26.XI.2004, lg F. M. B. & G. Carotti, 1♀, coll. F. M. B.

Fourteen species belong to the genus *Metrodora* Bolivar 1887 and ten of them were revised by GÜNTHER (1939).

The present species is very closely related to *M. acuta* Günther 1939 which was described on a single male from Loja, Ecuador.

Gen. *Scabrotettix* Hancock 1907*Scabrotettix bolivianus bolivianus* Hancock 1907

*Scabrotettix bolivianus bolivianus* Hancock 1907: 47.

*Scabrotettix bolivianus*; Bruner 1910: 114.

*Material Examined*: Pichincha, Union del Toachi, pastures after Otongachi, 868 m, S 0°20'12,5" W 78°55'55,7", 8.III.2004, lg. Buzzetti, Carotti & Tirello, 3♂♂, 1♀, coll. F. M. B.; idem, 1♂, coll. ISNB; idem, 900 m, 20.VIII.02, lg G. Osella, 1♀, coll. F. M. B.; Cotopaxi, Otonga Nat. Res., III.2004, lg. C. Tapia, 2 B&, coll. F. M. B.; Las Pampas, III.2004, 2♀♀, coll. F. M. B.; Cotopaxi, S. F. Las Pampas, Otonga N. R. scientific station, 1906 m, S 0°25'10,1" W 79°0'11,8", 10.III.04, lg. Buzzetti, Carotti & Tirello, 2♂♂, 1♀, coll. F. M. B.; idem, 1♀, coll. ISNB.

The five species contained in the genus *Scabrotettix* Hancock 1907 are all from South America, three of them known for Ecuador: *S. amazonus* Bolivar 1887, *S. scabrosus* Hancock 1907 and the species here reported. The species of this genus are not very well distinguished.

*S. bolivianus* is a very variable species with two macropronotal forms: one with pronotum extending behind the hind femora, the other with pronotum as long as the femora. Even the extension of the wings beyond the pronotal hind tip, this character separating the two subspecies of *bolivianus*, is very variable within the same populations of the two subspecies.

*Scabrotettix bolivianus extensus* Hancock 1907

*Scabrotettix bolivianus extensus* Hancock 1907: 47.

*Scabrotettix bolivianus extensus*; Bruner 1910: 114.

*Scabrotettix bolivianus extensus* ?; Günther 1939: 254.

*Material Examined*: Pichincha, Union del Toachi, 805 m, S 0°19,036' W 78°57,303', 14.IV.02, lg F. M. B., 1♂, coll. F. M. B.; Cotopaxi, Otonga Nat. Res., ponds to Sentiero Nuevo, 1682 m, S 0°25'9,5" W 78°59'36,5", 1♂, coll. F. M. B.; Pichincha, S. F. Las Pampas, Otonga N. R., Sendero Nuevo, 2.XII.04, lg G. Carotti, 1♂, coll. F. M. B.

The present subspecies is distinguished from the nominal one on the basis of the length of wings that are longer than pronotum in *S. b. extensus*.

## OTHER SPECIES CITED FOR ECUADOR:

Among Batrachideinae:

*Scaria brevis* Hancock 1909 described from unspecified locality in Ecuador.

*Scaria fasciata* Hancock 1907 described from Cachabi, in Ecuadorian Coastal Plains (HEBARD 1923).

*Scaria hamata* (De Geer 1773) is cited by GIGLIO TOS (1898) from Valley of Santiago River.

*Scaria maculata* Giglio Tos 1898 described on one male and one female from Ecuador, Valley of Santiago River. The species does not appear on Orthoptera Species File online version June 2007, but was not synonymized with other species. No material bearing this name is present in the material studied by Giglio Tos in the Museum of Torino.

*Rebhidium perexiguum* Grant 1956 described from Baños in the Ecuadorian Andes.

*Tettigidea planus* Hancock 1907 described from Paramba, on Ecuadorian Andes (BRUNER 1910).

Among Metrodorinae:

*Amorphopus notabilis* Serville 1838 cited sub *Paratettix cnemidotus* by GIGLIO TOS (1898) on the basis of a single female from Cuchipamba at about 1050 meters of elevation on the eastern slopes of the Andes, northwest of Gualaquiza. This specimen was collected by Enrico Festa during one of his two visits to the hacienda Cuchipamba, the first the 12 November 1895, the latter the 18-20 July 1896. The travel report of the Italian naturalist (FESTA 1909) gives no information on collecting of Orthoptera in Cuchipamba, but since the second visit was characterized by continuous rains that compelled Festa to stop there inside the hacienda for two days, the specimen of *A. notabilis* was likely collected during November 1895. The specimen from Coca examined by GÜNTHER (1939) is the largest of the series reported. The species is known in Ecuador East of the Andes.

The genus *Cotys* Bolivar 1887 contains two species, both known for Ecuador. *Cotys gibbulosus* Hancock 1913 described from Santo Domingo del Los Colorados and *C. antennatus* Bolivar 1887 cited by GÜNTHER (1939) for Amazonian Ecuador.

*Otumba amazonica* (Bolivar 1887) reported by GIGLIO TOS (1898) sub *Metrodora amazonica* from Valley of Santiago River.

*Otumba incompta* Hebard 1924. As noted by HEBARD (1924b) the genera *Otumba* Morse 1900 and *Cotys* Bolivar are very near and some

species bear character states intermediate between the two genera, so that are not clearly ascribable to one or the other genus. Type locality of the species in exam is Rio Pescado, about 480 m, Azuay, apparently ranging in Ecuador from the Andes to Coastal Plains. GÜNTHER (1939) cites material of this species from Balzapamba on the Andes.

*Chiriquia mirifica* Hebard 1924. Described from Rio Pescado, about 480 m, Azuay, this species bears a peculiar characteristic among other Neotropical tetrigids in having the carinae of the vertex dorsally produced in two small horns (HEBARD 1924b). Cited but not examined by GÜNTHER (1939).

*Scabrotettix scabrosus* Hancock 1907 cited by HEBARD (1924b) referring to this species the single male from «between Quito and Napo River» mentioned by SCUDDER (1869) as *Amorphopa caiman* Saussure 1861.

*Crimisus contractus* Bolivar 1887 cited by GIGLIO TOS (1898) for Pun and Huaca collected on 9-11 January 1897 according to travel notes (FESTA 1909).

*Trigonofemora fossulatus* Hancock 1907, described from Peru, reported by GÜNTHER (1939) for Ecuador, Santa Inez.

*Plesiotettix* Hancock 1907 comprehends *P. spinosus* Hancock 1907 and *P. uncinatus* Hancock 1907, both from Peru. GÜNTHER (1939) cites one single male from Ecuador, Cachabé as *Plesiotettix* sp.

*Crimisus acutus* Günther 1939 described from Ecuador, Huaca.

Among Tetriginae:

*Paratettix toltecus* (Saussure 1861) reported by GIGLIO TOS (1898) for Gualaquiza. HEBARD 1933 synonymized *P. borellii* Giglio Tos 1897 with *P. frey-gessneri* Bolivar 1887. The citation by Hebard appears rather criptic since he treats *P. borellii* as «Ecuadorean», actually being that species described from Argentina; furthermore the author writes as he had previously synonymized *borellii* with *P. toltecus* (Saussure 1861), but no reference is given and we found no synonymy of *borellii* with *toltecus* in previous publications by Hebard.

## DISCUSSION

In the Orthoptera collection of Museo Regionale di Scienze Naturali di Torino, where the material collected by Enrico Festa and studied by Giglio Tos should be preserved, the only tetrigids present are *Otumba amazonica* (Bolivar 1887), identified by Giglio Tos as *Metrodora amazonica*, and *Metrodora rana* Bolivar 1887. Likely other material

species	occurrence	reference
<b>Batrachideinae</b>		
1. <i>Batrachidea inermis</i> Hebard 1923	new for Ecuador	
2. <i>Batrachidea mucronata</i> (Saint-Fargeau & Serville, 1825)	confirmed	Grant 1956
3. <i>Paurotarsus ruficornis</i> (Walker 1871)	new for Ecuador	
4. <i>Rebnidium perexiguum</i> Grant 1956		Grant 1956
5. <i>Scaria brevis</i> Hancock 1909		Hancock 1909
6. <i>Scaria fasciata</i> Hancock 1907		Hebard 1923
7. <i>Scaria hamata</i> (De Geer 1773)		Giglio Tos 1898
8. <i>Scaria maculata</i> Giglio Tos 1898		Giglio Tos 1898
9. <i>Scaria producta</i> Hancock 1907	new for Ecuador	
10. <i>Tettigidea planus</i> Hancock 1907		Bruner 1910
<b>Metrodorinae</b>		
11. <i>Allotettix americanus</i> Hancock 1907	confirmed	Hebard 1924b
12. <i>Allotettix peruvianus</i> (Bolivar 1887)		Hebard 1924b
13. <i>Amorphopus notabilis</i> Serville 1838		Günther 1939
14. <i>Chiriqia compressa</i> Günther 1939		Günther 1939
15. <i>Chiriqia concinna</i> (Bolivar 1887)	confirmed	Günther 1939
16. <i>Chiriqia mirifica</i> Hebard 1924		Hebard 1924b
17. <i>Chiriqia spinata</i> Günther 1939		Günther 1939
18. <i>Cotys antennatus</i> Bolivar 1887		Günther 1939
19. <i>Cotys gibbulosus</i> Hancock 1913		Hebard 1924b
20. <i>Crimisus acutus</i> Günther 1939		Günther 1939
21. <i>Crimisus contractus</i> Bolivar 1887		Giglio Tos 1898
22. <i>Crimisus bolivianus</i> (Bruner 1913)	New for Ecuador	
23. <i>Crimisus tibialis</i> (Bruner, 1910)	New for Ecuador	
24. <i>Eomorphopus antennatus</i> (Bolivar 1887)	New for Ecuador	
25. <i>Metrodora acuta</i> Günther 1939		Günther 1939
26. <i>Metrodora rana</i> Bolivar 1887	confirmed	Hebard 1924b
27. <i>Otumba amazonica</i> (Bolivar 1887)		Günther 1939
28. <i>Otumba incompta</i> Hancock 1913		Günther 1939
29. <i>Otumba quadrata</i> Hancock 1907		Hancock 1907
30. <i>Plesiotettix</i> sp.		Günther 1939
31. <i>Scabrotettix bolivianus bolivianus</i> Hancock 1907	New for Ecuador	
32. <i>Scabrotettix bolivianus extensus</i> Hancock 1907	confirmed	Günther 1939
33. <i>Scabrotettix scabrosus</i> Hancock 1907		Hebard 1924b
34. <i>Trigonofemora fossulatus</i> Hancock 1907		Günther 1939
<b>Tetriginae</b>		
35. <i>Paratettix proximus</i> (Hancock 1907)		Otte 1978
36. <i>Paratettix toltecus</i> (Saussure 1861)		Giglio Tos 1898

Tab. 1. List of Tetrigidae actually known for Ecuador.

has been sent to foreign specialists during the first decades of XX<sup>th</sup> century and never returned.

After recent collectings and from literature, thirty-six specific and subspecific taxa of Tetrigidae are known from Ecuador (Tab. 1), twenty-nine were known previously to this study, the presence of five of these is confirmed, seven are here reported for the first time. All are from continental Ecuador since Galapagos Islands, one of World biodiversity hotspots, are apparently lacking of tetrigids as reported by PECK (2001) and confirmed by recent expeditions on some islands of the archipelago (Carotti, pers. comm.). This number is probably only a part of the real Tetrigidae fauna of Ecuador, being this family overlooked since many decades, at least in the Neotropics.

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#### REFERENCES

- BOLIVAR I., 1887 - Essai sur les Acridiens de la tribu des Tettigidae - *Annales de la Société Entomologique Belgique*. 31: 175-313, pl. 4-5.
- BRUNER L., 1906a - Report on the Orthoptera of Trinidad, West Indies - *Journal of the New York Entomological Society*. 14: 135-168.
- BRUNER L., 1906b - Synoptic list of Paraguayan Acrididae or locusts with descriptions of new forms - *Proceedings of the United States National Museum*. 30 (1461): 613-694.
- BRUNER L., 1910 - South American Tetrigidae - *Annals of the Carnegie Museum*, VII (1): 89-143.
- BRUNER L., 1913 - South American locusts (Acridoidea), II - *Annals of the Carnegie Museum*. 8(3-4): 423-506.
- FESTA E., 1909 - Nel Darien e nell'Ecuador. Diario di viaggio di un naturalista - U.T.E.T., Torino, 397 pp.
- GIGLIO TOS E., 1898 - Viaggio del Dr. Enrico Festa nella Repubblica dell'Ecuador e regioni vicine. VI. Ortoteri - *Bollettino dei Musei di Zoologia ed Anatomia Comparata della R. Università di Torino*. 13(311): 1-108.
- GRANT H. J., 1955 - Notes on the Neotropical Tetrigid genus *Paurotarsus* ancock, including the description of two new subspecies (Orthoptera: Acridoidea) - *Notulae Naturae*, 275: 1-14.
- GRANT H. J., 1956 - The taxonomy of *Batrachidea*, *Puiggaria*, *Lophoscirtus*, *Eutettigidea* and *Rehndium* n. gen. (Orthoptera; Acridoidea; Tetrigidae) - *Transactions of the American Entomological Society*, LXXXII: 67-108.

- GÜNTHER K., 1938 - Revision der Acrydiinae, I. Sectiones Tripetalocerae, Discotettigiae, Lophotettigiae, Cleostratae, Bufonidae, Cladonotae, Scelimenae verae - *Mitteilungen aus dem Zoologischen Museum in Berlin*. 23: 299-437.
- GÜNTHER K., 1939 - Revision der Acrydiinae (Orthoptera), III. Sectio Amorphophi (Metrodorae Bol. 1887, aut.) - *Abhandlungen und Berichte aus den Staatlichen Museen für Tierkunde und Volkerkunde in Dresden (Ser. A: Zool.) (N.F.)*. 20 (NF Bd. 1): 16-335.
- HANCOCK J.L., 1900 - A new Tettigian genus and species from South America - *Psyche, A Journal of Entomology*. 9 (288): 42-43.
- HANCOCK J.L., 1907a - Orthoptera Fam. Acridiidae. Subfam. Tetriginae - In Wytzman [Ed.]. *Genera Insectorum*. 48: 1-79, pl. 1-4.
- HANCOCK J.L., 1907b - Studies of the Tetriginae (Orthoptera) in the Oxford University Museum - *Transactions of the Entomological Society of London*. 1907: 213-244, pl. 21.
- HEBARD M., 1923 - Studies in the Dermaptera and Orthoptera of Colombia. Third paper. Orthopterous family Acrididae - *Transactions of the American Entomological Society*, 49 (845): 165-313, 8 pls.
- HEBARD M., 1924a - Studies in the Acrididae of Panama (Orth.) - *Transactions of the American Entomological Society*. 50 (851): 75-140, 3 pls.
- HEBARD M., 1924b - Studies in the Dermaptera and Orthoptera of Ecuador - *Proceedings of the Academy of Natural Sciences, Philadelphia*, 76: 109-248.
- HEBARD M., 1933 - Studies in the Dermaptera and Orthoptera of Colombia. Supplement to papers one to five. Material received since Previous Publications - *Trans. Amer. Ent. Soc.*, LIX: 13-67.
- KIRBY W.F., 1910 - Synonymic Catalogue of Orthoptera (Orthoptera Saltatoria, Locustidae vel Acridiidae) - 3 (2): 674 pp.
- OTTE D., 1978 - The primary types of Orthoptera (Saltatoria, Mantodea, Phasmatodea and Blattodea) at the Academy of Natural Sciences of Philadelphia - *Proceedings of the Academy of Natural Sciences of Philadelphia* 130: 26-87.
- PECK S.B., 2001 - Smaller Orders of Insects of the Galápagos Islands, Ecuador: Evolution, Ecology, and Diversity - NRC Research Press, Ottawa, Ontario, Canada, 278 pp.
- SCUDDER S.H., 1869 - Notes on Orthoptera Collected by Professor James Orton on either side of the Andes of Equatorial South America - *Proc. Boston Soc. Natural Hist.*, XII: 330-345.
- STEINMANN H., 1969 - The Tetrigidae of the Neogaea - *Folia Entomologica Hungarica* (n.s.). 22(19): 383-404.
- WALKER F., 1871 - Catalogue of the Specimens of Dermaptera Saltatoria in the Collection of the British Museum - (5), I-IV: 811-850.

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