

TRABAJOS ORIGINALES

Type material of Cicadellinae (Hemiptera: Cicadellidae) of the Museum für Naturkunde, Humboldt-Universität zu Berlin, Germany**Material tipo de Cicadellinae (Hemiptera: Cicadellidae) en el Museum für Naturkunde, Humboldt-Universität zu Berlin, Alemania****Pedro W. Lozada¹, Jürgen Deckert² and Peter Schönefeld²**

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Abstract

In this paper, 65 type species of Cicadellinae (Hemiptera: Cicadellidae) are reported from the collections of the Museum für Naturkunde, Universität Humboldt, Berlin, Germany, described by Signoret, Breddin, Schmidt, Jacobi, Schröder, Burmeister and Emmrich. The species of Melichar have not been included because Wilson & Takiya (2007) reported them as present in the Hungarian Natural History Museum.

Keywords: Type collection; Leafhoppers; Sharpshooters; Berlin Museum, Germany.

Resumen

En este artículo, se reportan 65 especies tipo de Cicadellinae (Hemiptera: Cicadellidae) de las colecciones del Museum für Naturkunde, Universidad Humboldt, Alemania, descritas por Signoret, Breddin, Schmidt, Jacobi, Schröder, Burmeister y Emmrich. Las especies de Melichar no se han incluido pues Wilson & Takiya (2007) las reportaron como presentes en el Museo Húngaro de Historia Natural.

Palabras clave: Colección tipo; Cigarritas; Cicadelinos; Museo de Berlín; Alemania.

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Introduction

Young (1964) published 24 species of Cicadellinae in the genus *Tettigonia* Olivier described by Signoret and housed in the collections of Berlin Museum in preparation of his revisions of the World Cicadellinae (Young 1968, 1977, 1986). Emmrich (1984, 1988) described new species of *Oncometopia* Stål and *Tretogonia* Melichar, and Schröder (1959) described new species of *Oncometopia*. Cavichioli (1996) described a new genus and revalidated the genus *Alocha* Melichar.

In this paper, the authors report 65 type species of Cicadellinae housed in the Museum für Naturkunde, Universität Humboldt, Berlin, Germany, described by Signoret, Breddin, Schmidt, Jacobi, Schröder, Burmeister and Emmrich.

The species of Melichar were not included because Wilson & Takiya (2007) reported that this collection is in the Hungarian Natural History Museum.

Material and methods

The specimens with labels of types were searching in the collection and placed in separated drawers. Data of collecting labels of all the specimens were transcript to sheets of paper to then elaborate the listing presented here. In the text, specimens are separated by a semicolon, and data labels in the same pin by a slash. The references before 1955 can be found in Metcalf (1964) and will not be cited herein. All the specimens reported here are in good condition of conservation.

The institutions whose acronyms are cited in the text are as follows:

AMNH: American Museum of Natural History, New York, USA.

BM(NH) and NHM: The Natural History Museum, London, UK.

CAS: California Academy of Science, San Francisco, California, USA.

IZP: Universidad de Porto, Porto, Portugal.

MNRJ: Universidade do Rio de Janeiro, Museu Nacional, Rio de Janeiro, Brazil.

NCSU: North Carolina State University Insect Collection, Raleigh, NC, USA.

SMNH: Royal Saskatchewan Museum, Regina, Canada.

USNM: National Museum of Natural History, Washington DC, USA.

Taxonomy

1. *alboparallela* *Tettigonia* Signoret, 1855d: 784.

1 Type ♂: Syntypus/*alboparallela*, Sign. Suppl./Nr. 6752, Columb. Moritz/Lectotype, *Tett. alboparallela* Sign., D.A. Young; 3 types ♂s and 1 specimen without abdomen; Syntypus.

Comments: As *Beirneola* after Young (1977); this author was unable to find type male specimens. Wilson *et al.* (2009) cited this species but not include a photograph. Cited by Young (1964).

2. *albostriata* *Tettigonia* Signoret, 1853b: 366.

1 Type ♀: 7709/Syntype, *Tettigonia albostriata* Signoret, 1853/*albostriata* Germ., Rio Jan. Coll. Germ./Zool. Mus., Berlin/*Apogonalia albostriata* Sign., det. Schönefeld 1977; 1 type ♀: Rio Jan., coll. Germar, Nr. 7709/Syntype/Zool. Mus., Berlin.

Comments: As *Parathona* after Young (1977). Wilson *et al.* (2009) cited a female from Teresopolis, RJ, Brazil, housed in the MNRJ. Not cited by Young (1964).

3. *alternata* *Tettigonia* Signoret, 1855d: 795.

3 Types ♂: Lectoparatypoid/*Molomea alternata*, Heinz Schröder det./Brasil, v. Alfes, Nr. 6520.

Comments: As *Molomea* after Young (1968). Wilson *et al.* (2009) cited a female from Chapada, Brazil, housed in USNM. Not cited by Young (1964).

4. *ardentula* *Trichogonia* Breddin, 1901c: 75.

1 Type ♂: Type/Santa Jnéz, (Ecuad.), R. Haensch S./Rolle v./*Trichogonia ardentula* Breddin; 1 type ♂: Type/P. de Chimer, (Ecuad.), R. Haensch S./Rolle v./*Trichogonia ardentula* Breddin; 1 type ♂: same data except Baiza.

Comments: Wilson *et al.* (2009) cited a male from Ecuador housed in IZP, determined by Schmidt. Cited by Young (1965) from Deutsche Entomologische Institut.

5. *atramentatula* *Tettigonia* Breddin, 1901h: 107.

2 Types ♂: Type/Archidona, (Ecuad.), R. Haensch S./Rolle v./*Tettigonia atramentatula* Bredd.

Comments: As *Mesogonia* after Young (1977), in which is reported from Peru and Bolivia. Wilson *et al.* (2009) cited a male from Yungas del Palmar, Bolivia, housed in NCSU. Cited by Young (1965) from Deutsche Entomologische Institut.

bilimitata *Tettigonia* Signoret, 1855d: 770.

Comments: Wilson *et al.* (2009) cited a female from Sta Catharina and Lagos, Brazil, housed in NHM. Cited by Young (1964) but not found in the Berlin collections.

6. *bilunata* *Tettigonia* Signoret, 1855d: 771.

1 Type ♂: 17/*bilunata* Sign., Suppl./Brasil Nirm./6602/Typus/Zoolog. Museum, Berlin/Lectotype, *Tettigonia bilunata* Sign., D.A. Young.

Comments: As *Scoposcartula* after Young (1977). Wilson *et al.* (2009) cited a female from Brazil housed in SMNH. Cited by Young (1964).

7. *circumcincta* *Tettigonia* Signoret, 1855d: 775.

1 Type ♂: 11/*circumcincta*, Sign. Suppl./Brasil Nirm./6648/Typus/Zoolog. Museum, Berlin/Lectotype, *Tett. circumcincta* Sign., D.A. Young.

Comments: As *Nannogonalia* after Young (1977). Wilson *et al.* (2009) cited a female from Corupa and Sta. Catharina, Brazil, housed in AMNH. Cited by Young (1964).

8. *clathrata* *Tettigonia* Signoret, 1855d: 795.

1 Type ♂: *clathrata* Sign. Suppl./Columbien/6486/Typus/Zoolog. Museum, Berlin/Lectotype, *Tettigonia clathrata* Sign., D.A. Young.

Comments: As *Teleogonia* after Young (1977), in which is reported from Venezuela. Wilson *et al.* (2009) cited a female from Rancho Grande, Venezuela, housed in NCSU. Cited by Young (1964).

9. *coronata* *Tettigonia* Signoret, 1853b: 348, Pl. 10 fig.6.

1 Type ♂: *coronata* Sign., /Typus/6625/S. João del Rey, Sello/*Amblyscarta coronata* Sign., 1853/Zool. Mus., Berlin; 1 type ♀: Type/St. João, Sello, Nr. 6625/Zool. Mus., Berlin.

Comments: As *Ruppeliana* after Young (1977). Wilson *et al.* (2009) cited the female specimen reported here. Not cited by Young (1964).

10. *croceipennis* *Tettigonia* Signoret, 1853b: 351.

3 Types ♂ and 1 ♀: Syntype/Rio, Besck, Nr. 6633/Zool. Mus. Berlin; 1 type ♀: *croceipennis*, Germ. Sign./Syntype, *Tettigonia croceipennis* Signoret, 1853/6633/Rio Besck/Zool. Mus., Berlin/*Amblyscarta croceipennis* Signoret, 1853.

Comments: As *Cardioscarta flavifrons* (Signoret) after Young (1977). Wilson *et al.* (2009) cited a male from Sta. Catharina, Brazil, housed in IZP. Not cited by Young (1964).

11. *cruentula* *Tettigonia* Breddin, 1901h: 107.

1 Type (without abdomen): Type/Santa Jnéz, (Ecuad.), R. Haensch S./Rolle v./*Tettigonia cruentula* Bredd.

Comments: As *Mesogonia atramentatula* (Breddin) after Young (1977); this species was reported from Peru and Bolivia. Wilson *et al.* (2009) cited a male from Yungas del Palmar, Bolivia, housed in NCSU. Cited by Young (1965) from Deutsche Entomologische Institut.

12. *dallasi* *Tettigonia* Signoret, 1853b: 367.

3 Types ♂: Brasil, v. Alfes, Nr. 6589/Syntype/Zool. Mus., Berlin; 2 types ♀: same data.

Comments: As *Macugonalia* after Young (1977). Wilson *et al.* (2009) cited one of the female specimens reported here. Not cited by Young (1964).

13. *dentalis* *Tretogonia* Emmerich, 1988: 189.

1 Type ♂: Paraguay, San Bernardino, K. Friebrieg S.V./5225/Zool.Mus. Berlin/*Tretogonia dentalis* sp.n., det. R. Emmerich 1988/Holotypus.

14. *diadema* *Tettigonia* Burmeister, 1835a: 120.

5 Types ♀: *diadema* Burm./Syntype, *Tettigonia diadema* Burmeister, 1835/ Monteideo Sello/Zool. Mus. Berlin

Comments: As *Ochrostacta* after Young (1968). Wilson *et al.* (2009) cited a female from Argentina housed in BM(NH).

15. *dohrni* *Tettigonia* Signoret, 1855d: 792.

1 Type ♀: 72/Mexico, Deppe/Typus/6746/*Tettigonia dohrni* Sign., unicum!/Zoolog. Museum, Berlin/Lectotype, *Tettigonia dohrni* Sign., D.A. Young.

Comments: As *Graphocephala* after Young (1977). Wilson *et al.* (2009) cited a male from Sta. Rita, Mtz Ariz., housed in USNM. Cited by Young (1964).

16. *episcopalis* *Tettigonia* Signoret, 1853b: 332.

1 Type ♂: 6619/*episcopalis* Sign., Bahia/typus/Zool. Mus. Berlin/*Amblyscarta episcopalis* Signoret, 1853.

Comments: As *Ruppeliana* after Young (1977). Wilson *et al.* (2009) cited a specimen from Sierra do Subaio, Teresopolis, Brazil, housed in MNRJ. Not cited by Young (1964) but Young & Beier (1964) reported a damaged male of this species.

17. *excisum* *Diestostemma* Schmidt, 1910a: 46.

1 Type ♀: Santa Jnéz, (Ecuad.), R. Haensch S./Rolle v./*Diestostemma paralela* Breddin/Type/*Diestostemma excisum* Schmidt, ♀, Edm. Schmidt, determ. 1909.

Comments: Wilson *et al.* (2009) cited a female lectotype from Sta. Jimenez, Ecuador, housed in IZP. Young & Nast (1963) cited a female too.

18. *ferrugatula* *Tettigonia* Breddin, 1901h: 107.

2 Types ♂: Type/Archidona, (Ecuad.), R. Haensch S./Rolle v./*Tettigonia ferrugatula* Bredd.

Comments: As *Mesogonia* after Young (1977). Wilson *et al.* (2009) cited a male from Peru housed in BM(NH). Cited by Young (1965) from Deutsche Entomologische Institut.

19. *flava* *Tettigonia* Signoret, 1855d: 799.

1 Type ♀: Mexico, Koppel/6578/*Tettigonia flava* Sign./Syntypus/Zoolog. Museum, Berlin/Zool. Mus. Berlin.

Comments: As *Oncometopia* after Young (1968). Wilson *et al.* (2009) cited the female syntype reported here. Not cited by Young (1964).

20. *flavolineata* *Tettigonia* Signoret, 1855d: 791.

1 Type ♀: *flavolineata* Sign., Suppl./Nr. 6791, H. Joao, Sello/Syntypus/Zoolog. Museum, Berlin/Lectotype, *Tett. flavolineata* Sign., D.A. Young/*flavolineata*, Nr. 6791, St. Joao, Sello, Typunere.

Comments: As *Subrasaca* after Young (1977). Wilson *et al.* (2009) cited a specimen from Brazil housed in BM(NH). Cited by Young (1964).

21. *funebroidalis* *Oncometopia* Emmrich, 1984: 116.

1 Type ♂: Mexico Deppel/*funebri* Sign./6558/Zool.Mus. Berlin/*Oncometopia funebroidalis* sp.n., det. Dr. Emmrich 1983/ Holotypus; 2 types ♂: same data except Paratypus.

22. *geographica* *Tettigonia* Signoret, 1855d: 780.

2 Types ♂: *geographica* Sign., Suppl./Lectotype, *Tettigonia geographica* Sign., D.A. Young/6634/Bras. V. Alf./Zoolog. Museum, Berlin; 1 type ♀: Brasil, v. Alf., N° 6634/Zoolog. Museum, Berlin/Paralectotypus.

Comments: As *Macugonalia* after Young (1977). Wilson *et al.* (2009) cited a female from Argentina housed in BM(NH). Cited by Young (1964).

23. *germari* *Tettigonia* Signoret, 1853b: 359.

1 Type ♂: 7704/Syntype, *Tettigonia germari* Signoret, 1853/*germari* Sign., Brasil Coll. Germ.

Comments: As *Trachygonalia* after Young (1977). Wilson *et al.* (2009) cited the male type reported here. Not cited by Young (1964).

24. *guerini* *Tettigonia* Signoret, 1855a: 51.

1 Type ♂: *guerini* Sign./Syntype, *Tettigonia guerini* Signoret, 1855/6483/Cayenne Signor./*Caripuna guerini* Sign./Zool. Mus., Berlin.

Comments: As *Mareba* after Young (1968). Wilson *et al.* (2009) cited the male type reported here. Not cited by Young (1964) but cited by Young and Beier (1964).

25. *icterica* *Tettigonia* Signoret, 1855d: 781.

1 Type ♂: Syntypus/*icterica* Sign., suppl./Nr. 6687/Lectotype, *Tettigonia icterica* Sign., D.A. Young/Zoolog. Museum, Berlin/*icterica*, N., Pará Sieber; 1 Type ♀: same data except 50.

Comments: As *Paromenia auroguttata* (Signoret) after Young (1977). Wilson *et al.* (2009) cited a male from Sta. Catharina, Brazil, housed in BM(NH). Cited by Young (1964).

26. *inspergata* *Tettigonia* Signoret, 1855d: 770.

1 Type ♂: Syntypus/*inspergata*, Sign. Suppl./Nr. 6678, Brasil v. Olf./Zoolog. Museum, Berlin/Lectotype, *Tettigonia inspergata* Sign., D.A. Young; 1 type ♂ and 2 ♀: Syntypus.

Comments: As *Scoposcartula* after Young (1977). Wilson *et al.* (2009) cited a female from Matto Grosso, Brazil, housed in BM(NH). Cited by Young (1964).

27. *interstitialis* *Tettigonia* Signoret, 1855d: 789.

1 Type ♂: Syntypus/Brasil, v. Alf., Nr. 6595/Zool. Mus., Berlin/*Tettigonia interstitialis* [sic] Sign.; 3 types ♀: same data except 1 specimen with Lectotype, D.A. Young.

Comments: As *Parathona* after Young (1977), in which is reported only from Bolivia. Wilson *et al.* (2009) cited a male from Misiones, Argentina, housed in BM(NH). Cited by Young (1964).

28. *isabelulla* *Trichogonia* Breddin, 1901c: 75.

1 Type ♀: Baños, (Ecuad.), R. Haensch S./Rolle v./*Trichogonia isabelulla* Breddin; 1 type ♀: Type/Santa Jnez, (Ecuad.), R. Haensch S. /Rolle v./*Trichogonia isabelulla* Breddin .

Comments: Wilson *et al.* (2009) cited a male from Ecuador housed in CAS. Cited by Young (1965) in Deutsche Entomologische Institut.

29. *lacteoguttatum* *Diestostemma* Schmidt, 1910a. 42.

1 Type ♀: Ost Bolivien, Prov. Sara, 750 m., Steinbach S.V./ Type/*Diestostemma lacteoguttatum* Schmidt, ♀, Edm. Schmidt, determ. 1909.

Comments: As *Diestostemma stesilea* Distant after Young (1968). Wilson *et al.* (2009) cited a female from Utcuyacu, Tarma, Peru, housed in NHM.

30. *laminata* *Tettigonia* Signoret, 1855d: 794.

2 Types ♂: Syntypus/Brasil, v. Alf., Nr. 6572/Zool. Mus. Berlin; 1 type ♀: same data; 1 type without abdomen: same data.

Comments: As *Molomea* after Young (1968); this author was unable to find type specimens. Wilson *et al.* (2009) cited a female syntype reported here. Not cited by Young (1964).

31. *latercula* *Tettigonia* Breddin, 1901e: 90.

1 Type ♂: Type/Baños, (Ecuad.), R. Haensch S./Rolle v./*Tettigonia latercula* Bredd.; 1 Type ♂: same data except Santa Jnez.

Comments: As *Stehlikiana* after Young (1977); this author was able to find only type female specimens. Wilson *et al.* (2009) cited a female and a male from Paramo de Anago, Ecuador, housed in NCSU. Young (1965) cited a female.

32. *lepida* *Tettigonia* Signoret, 1855d: 775.

1 Type (without abdomen): 27/Typus/*lepida* Sign., Suppl./ Nr. 6721, Peru, Pavon/Zoolog. Museum, Berlin/Lectotype, *Tettigonia lepida* Sign., D. A. Young.

Comments: As *Juliaca* after Young (1977). Wilson *et al.* (2009) cited males from Callanga, Peru, and Itiatuba, Brazil housed in USNM. Cited by Young (1964).

33. *limbatipenne Diestostemma* Schmidt, 1910a: 44.

1 Type ♀: 9748/Antioquia (Columb.), Wallis/Type/*Diestostemma limbatipenne* Schmidt, ♀, Edm. Schmidt, determ. 1909.

Comments: As *Diestostemma stesilea* Distant after Young (1968). Wilson *et al.* (2009) cited a female from Utcuyacu, Tarma, Peru, housed in NHM. Young & Nast (1963) cited a damaged female.

34. *limpida Tettigonia* Signoret, 1855c: 512.

2 Types ♀: 6580/Syntype, *Tettigonia limpida* Signoret, 1855/ Bahia Sello/*Myogonia limpida* Sign., det. Schönefeld 1977.

Comments: As *Teletusa* after Young (1968). Wilson *et al.* (2009) cited a male from Brazil and a female from Kartabo, British Guiana, housed in BM(NH). Not cited by Young (1964).

35. *maculicollis Tettigonia* Signoret, 1855d: 776.

1 Type ♂: *maculicollis* Sign., Suppl./Nr. 6713, Columb., Moritz/Syntypus/Zoolog. Museum, Berlin/Lectotype, *Tett. maculicollis* Sign., D.A. Young; 1 Type ♀: 39/Syntypus.

Comments: As *Pawiloma amoena* (Walker) after Young (1977). Wilson *et al.* (2009) cited a male from State of Lara, Venezuela, housed in NCSU. Cited by Young (1964).

36. *mexicana Tettigonia* Signoret, 1855d: 789.

1 Type ♂: 54/Mexico, Ehrenberg/6606/Zoolog. Museum Berlin/Typus/*Tettigonia mexicana* Sign./Lectotype, *Tettigonia mexicana* Sign., D.A. Young.

Comments: As *Manzutus* after Young (1977). Wilson *et al.* (2009) cited a male from Mexico housed in NCSU. Cited by Young (1964).

37. *nigrifrons Tettigonia* Signoret, 1853c: 671.

2 Types ♂: 6540/Pulo Penang, Westerm leg./*nigrifrons* Sign., Pl. 21 fig. 14/Typus.

Comments: As *Sochinsogonia* after Young (1986); this author was unable to find type specimens. Wilson *et al.* (2009) cited a male and a female from Malay Peninsula. Not cited by Young (1964).

38. *nigriventris Tettigonia* Signoret, 1855d: 784.

1 Type ♀: 6/*nigriventris* Sign. Suppl./Brasil Vicosa/Typus/ Zoolog. Museum, Berlin/Lectotypus/Lectotype, *Tettigonia nigriventris* Sign., D.A. Young/6637.

Comments: As *Subrasaca* after Young (1977). Wilson *et al.* (2009) cited the female lectotype cited here. Cited by Young (1964).

39. *nigrocincta Tettigonia* Signoret, 1855d: 774.

1 Type ♂: 49/Typus/*nigrocincta* Signoret/Brasil Vim./6718/ Zoolog. Museum, Berlin/Lectotype, *Tett. nigrocincta* Sign., D.A. Young.

Comments: As *Paratubana* after Young (1977). Wilson *et al.* (2009) cited a specimen from Sao Paulo, Brazil, housed in NCSU. Cited by Young (1964).

40. *obtecta Tettigonia* Signoret, 1855d: 798.

1 Type ♂: Syntypus/*obtecta* Sign., Suppl./Nr. 6751/Peru, Pavon/Zoolog. Museum, Berlin/Lectotype, *Tettigonia obtecta* Sign., D.A. Young; 1 Type ♂: 69/Syntypus.

Comments: As *Fusigonalia* after Young (1977). Wilson *et al.* (2009) cited a male from Rioja? housed in IZP and a male from Yungas del Palmar, Bolivia, housed in NCSU. Cited by Young (1964).

41. *opalinula Kolla Jacobi*, 1941a: 301.

1 Type ♂: Sunda-Exp. Rensch, O.-Flores, Geli Moetoe, 14-20.vii.1927/Typus/99/Zool. Mus. Berlin/Paralectotypus ♂, *Kolla opalinula* Jacobi, 1941, det. Schönefeld 1978; 13 types ♂: same data except Badjawa and 17.vi.1927; 2 types ♂: same data except Rana Mésé and 20-30.vi.1927; 12 types ♀: Sunda-Exp. Rensch, W.- Flores, Badjawa, 17.vi.1927/Zool. Mus. Berlin/Paralectotypus ♀, *Kolla opalinula* Jac. 1941, det. Schönefeld 1978; 1 type without abdomen: Sunda-Exp. Rensch, W.- Flores, Badjawa, 17.vi.1927/Zool. Mus. Berlin/Paralectotypus, *Kolla opalinula* Jac. 1941, det. Schönefeld 1978; 1 type without abdomen: same data except Rana Mésé.

Comments: Young (1986) was able to find only type female specimens. Wilson *et al.* (2009) cited a male and a female paralectotype reported here.

42. *pallidula Kolla Jacobi*, 1941a: 302.

1 Type ♂: W.- Flores, Rana Mésé, 20-30.vi.1927, B. Rensch S.G./Typus/68/Zool. Mus. Berlin/Syntypus ♂, *Kolla pallidula* Jac. 1941, det. Schönefeld 1978; 1 type ♀: same data except without 68 and Syntypus label.

Comments: Young (1986) was unable to find type specimens. Wilson *et al.* (2009) cited a male syntype reported here.

43. *parvum Diestostemma* Schmidt, 1910a: 55.

1 Type ♂: Balzapamba, (Ecuad.), R. Haensch S./Rolle v./ *Diestostemma paralela* Breddin/Type/*Diestostemma parvum* Schmidt, ♂, Edm. Schmidt, determ. 1909.

Comments: Wilson *et al.* (2009) cited a male lectotype from Balzapamba, Ecuador, housed in IZP. Young & Nast (1963) cited also a male.

44. *perrisi Tettigonia* Signoret, 1855d: 779.

1 Type ♂: *perrisi* Sign. Suppl./Syntype, *Tettigonia perrisi* Signoret, 1855/6588/Brasil v. Alf./*Apogonalia perrisi* Sign., det. Schönefeld 1977/Zool. Mus., Berlin; 3 types ♀: 75/Brasil, v. Alf., Nr. 6588/Syntype/Zool. Mus., Berlin.

Comments: As *Scoposcartula* after Young (1977); this author was unable to find type specimens. Wilson *et al.* (2009) cited

a female from Ouro Preto, Brazil, housed in MNRJ. Not cited by Young (1964).

45. *physocephala Tettigonia* Signoret, 1854d: 720.

1 Type ♂: Syntypus/St. Paul, Sello, Nr. 6493/Zool. Mus., Berlin; 4 types ♀: same data.

Comments: As *Ochrostacta* after Young (1968), in which is reported from Paraguay and Argentina. Wilson *et al.* (2009) cited a male from Fazenda, Cerro Negro, Sao Francisco de Assisi, RS, Brazil, housed in MNRJ. Not cited by Young (1964). Young & Beier (1964) cited a female.

46. *pseudobtusa Oncometopia* Schröder, 1959: 18.

1 Type ♂: 49/Syntype/Zool. Mus., Berlin/Mexiko, Deppe, Nr. 6495/*Oncometopia pseudobtusa* Schröder, det. Dr. Emmrich 1983.

Comments: Wilson *et al.* (2009) cited a male from Veracruz, Mexico, housed in BM(NH).

47. *pseudofusca Oncometopia* Emmrich, 1984: 121.

1 Type ♂: Bahia Gomes, Para Sieber, Nr. 6507/Zool. Mus., Berlin/*Oncometopia pseudofusca* sp.n., det. Dr. Emmrich 1983/Paratypus.

Comments: Wilson *et al.* (2009) cited a specimen from Brazil housed in MNRJ.

48. *quatordecimpunctata Tettigonia* Signoret, 1855d: 782.

1 Type ♀: 63/Typus/Mexico, Deppe/6749/*Tettigonia quadripunctata* Sign./Zoolog. Museum, Berlin/Lectotype, *Tettigonia quadripunctata* Sign., D.A. Young

Comments: Young (1977) reported this species as *Incertae sedis*. Wilson *et al.* (2009) cited the specimen reported here. Cited by Young (1964).

49. *quinquemaculata* var. *mutabilis Tettigonia* Signoret, 1853c: 683.

1 Type ♂: 6626/Type/*mutabilis* Sign., Pl. 22 fig. 10, Brasil v. Alf./Zool. Mus., Berlin/*Erythrogonia quinquemaculata* var. *mutabilis*, Sign., 1853; 1 type ♂: Type/Brasil v. Alf., Nr. 6626/Zool. Mus., Berlin; 3 types ♀: same data.

Comments: As *Tettisama quinquemaculata* (Germar) after Young (1977). Wilson *et al.* (2009) cited a male from Matto Grosso, Brazil, housed in BM(NH). Not cited by Young (1964).

50. *rostrata Tettigonia* Signoret, 1855c: 509.

1 Type ♀: *rostrata* Sign./Type, *Tettigonia rostrata* Signoret, 1855/6461/Bahia Sello/Zool. Mus., Berlin/*Astenogonia rostrata* Sign. **Comments:** As *Acrogonia* after Young (1968); this author was unable to find type specimens. Wilson *et al.* (2009) cited a

male and a female from Mexico? and Bahia, respectively, from Berlin collections. Not cited by Young (1964).

51. *rubromarginata Tettigonia* Signoret, 1855d: 793.

2 Types ♂ and 2 ♀: Lectoparatypoid/*Cuerna rubromarginata* (Sign.)/Heinz Schröder det./Montevideo, Sello, Nr. 6560/Zool. Mus., Berlin; 1 type ♂: c'aerope Sello/Lectotypus/*Cuerna rubromarginata* (Sign.), Heinz Schröder det./Zoolog. Museum, Berlin/6560/Montev. Sello.

Comments: As *Tapajosa* after Young (1968). Wilson *et al.* (2009) cited a male from Vidmao, RGS, Brazil?, housed in MNRJ. Not cited by Young (1964).

52. *rufipennis Tettigonia* Signoret, 1855d: 797.

1 Type ♂: *rufipennis* Sign./Lectoparatype/*Similitopia rufipennis* (Sign.), Heinz Schröder det.; 1 Type ♂: Mexico, Deppe/6557/*Tettigonia rufipennis* Sign./Lectotypus/*Similitopia rufipennis* (Sign.), Heinz Schröder det./Zoolog. Museum, Berlin; 2 Types ♂: 9/Lectoparatypoid/*Similitopia rufipennis* (Sign.), Heinz Schröder det.

Comments: As *Oncometopia* after Young (1968). Wilson *et al.* (2009) cited a male from "Atlixco", Ruinas del Monte, Alban, OAX, housed in NHM. Not cited by Young (1964).

53. *rufocirculum Diestostemma* Schmidt, 1910a: 43.

1 Type ♂: 6475/*farinosa* N., Columb/Type/*Diestostemma rufocirculum* Schmidt, ♂, Edm. Schmidt, determ. 1909.

Comments: Wilson *et al.* (2009) cited a female from Rancho Grande, Venezuela, housed in BM(NH). Young & Nast (1963) cited a specimen from Merida, Venezuela.

54. *salamandra Tettigonia* Signoret, 1855d: 787.

2 Types ♂: 6590/*salamandra* Sign., Suppl./*salamandra* N., Columb. Mer./Syntypus/Zoolog. Museum, Berlin/Lectotype, *Tettigonia salamandra* Sign., D.A. Young; 2 type ♂s and 3 ♀s: same data except 74 and Paralectotypes.

Comments: As *Aguahua* after Young (1977). Wilson *et al.* (2009) cited a female from Truj. and Parama Zumbador, Tachira State, Venezuela. Cited by Young (1964).

55. *sanguineovittata Tettigonia* Signoret, 1855d: 777.

1 Type ♀: 20/Typus/*sanguineovittata* Sign./St. Paul Sello/Zoolog. Museum, Berlin/Lectotype, *Tett. sanguineovittata* Sign., D.A. Young.

Comments: As *Fonsecaiulus* after Young (1977). Wilson *et al.* (2009) cited a female from Chapada, Brazil, housed in USNM. Cited by Young (1964).

56. *semiclara Tettigonia* Signoret, 1853c: 666.

2 Types ♂: 6543/Pulo Penang, Westerma/*semiclara* Sign., Pl. 21 fig. 9/Typus.

Comments: As *Bhandara* after Young (1986); this author was unable to find type specimens. Wilson *et al.* (2009) cited a male from Malaya housed in BM(NH) and a male from Soekaranda housed in IZP. Not cited by Young (1964).

57. *semiguttata* *Tettigonia* Signoret, 1853b: 367.

1 Type ♂: Brasil, Coll. Germar, Nr. 7711/Syntype/Zool. Mus., Berlin; 2 types ♀: same data.

Comments: As *Macugonalia* after Young (1977). Wilson *et al.* (2009) cited a female reported here. Not cited by Young (1964). Young & Beier (1964) cited a male.

58. *semipellucida* *Kolla* Jacobi, 1912a: 36.

1 Type ♂: A. Jacobi typus/*Kolla semipellucida* Jac., A. Jacobi determ./Zoolog. Museum Berlin, Fundort, Afrika, coll. Herzog a. F., Sammler zü Mecklenburg, 1 Jass., gef. Am XI.07 Jr. No. 362/08.

Comments: Young (1986) was unable to find type specimens. Wilson *et al.* (2009) cited the male reported here.

59. *sordida* *Tettigonia* Signoret, 1855d: 781.

1 Type ♂: 52/Typus/*sordida* Sign., suppl./Surin/6692/Zoolog. Museum, Berlin/Lectotype, *Tettigonia sordida* Sign., D.A. Young.

Comments: As *Alocha* after Cavichioli (1996). Wilson *et al.* (2009) cited a male from Essequibo housed in BM(NH). Cited by Young (1964).

60. *stillatula* *Tettigonia* Breddin, 1902b: 2.

2 Types ♂: Type/Archidona, (Ecuad.), R. Haensch S./Rolle v./*Tettigonia stillatula* Breddin.

Comments: As *Mesogonia* after Young (1977). Wilson *et al.* (2009) cited a male from Rioja, Peru, housed in IZP. Young (1965) cited a specimen without abdomen.

61. *tarsalis* *Tettigonia* Signoret, 1855d: 769.

1 Type ♂: *tarsalis* Sign., Suppl./João del Rey, Sello/Syntypus/Zoolog. Museum, Berlin/Lectotype, *Tettigonia tarsalis* Sign., D.A. Young/6629; 1 type ♂: Paralectotype/St. João, Sello, Nr. 6629/Zool. Mus. Berlin; 3 types ♀: 4/Paralectotype/St. João, Sello, Nr. 6629/Zool. Mus., Berlin.

Comments: As *Caragonalia* after Young (1977). Wilson *et al.* (2009) cited a female from Ubatuba, SP, Brazil, housed in MNRJ. Cited by Young (1964).

62. *tessellata* *Tettigonia* Signoret, 1855d: 790.

1 Type ♀: Typus/Mexico, Deppe/84/6594/*Tettigonia tessellata* Sign./Zoolog. Museum Berlin/*tessellata* Sign. Suppl./Mexico Deppl/6594.

Comments: As *Gorgonalia* after Young (1977); this author was unable to find type specimens. Wilson *et al.* (2009) cited the female reported here. Not cited by Young (1964).

63. *titonii* *Tettigonia* Signoret, 1855d: 783.

1 Type ♂: *titonii* Sign., Suppl./Manila Meyer/Syntypus/Zoolog. Museum, Berlin/Lectotype, *Tettigonia titonii* Sign., D.A. Young/6553; 2 types ♂ and 1 ♀: 78/Manila, Meyer, Nr. 6553/Paralectotype, ! Suppl. **Comments:** As *Sochinsogonia longa* (Walker) after Young (1986). Wilson *et al.* (2009) cited a specimen from Philippine Isl. housed in BM(NH). Cited by Young (1964).

64. *tredecimpunctata* *Tettigonia* Signoret, 1855b: 231.

1 Type ♀: 13 *punctata*/Syntype, *Tettigonia tredecimpunctata* Signoret, 1855/6491/Brasil Visrr/Zool. Mus., Berlin; 1 type ♀: 38/Syntypus/Brasil, Virmond, Nr. 6491/Zool. Mus., Berlin

Comments: As *Egidemia speculifera* (Walker) after Young (1968); this author was unable to find type specimens. Wilson *et al.* (2009) cited a female from Vale de Revolta, Teresopolis, RJ, Brazil, housed in MNRJ. Not cited by Young (1964).

65. *vermiculata* *Tettigonia* Signoret, 1855d: 785.

1 Type ♂: *vermiculata* Sign., Suppl./syntype, *Tettigonia vermiculata* Signoret, 1855/Bras. V. Alf./6624/Zool. Mus., Berlin/*Amblyscarta vermiculata* Sign., 1855; 1 type ♀: 25/Syntype/Brasil, v. Alfes, Nr. 6624/Zool. Mus., Berlin.

Comments: As *Molomea* after Young (1968); this author was unable to find type specimens. Wilson *et al.* (2009) cited a female reported here. Not cited by Young (1964).

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Literature cited

- Cavichioli R.R. 1996. Albiniana, gen.n. e revalidação de *Alocha Melichar*, 1926 (Homoptera, Cicadellidae, Cicadellinae). *Revista Brasileira de Zoologia* 13(3): 677-683.
- Emmrich R. 1984. Weiteres zur Kenntnis der Gattung *Oncometopia* Stål (s.str.) (Homoptera, Auchenorrhyncha, Cicadellidae, Cicadellinae).- *Reichenbachia* 22: 113-124.
- Emmrich R. 1988. Eine neue Art der Gattung *Tretogonia* Mel. aus Paraguay. *Reichenbachia* 25: 189-190.
- Metcalf Z.P. 1964. General Catalogue of the Homoptera. Fascicle VI. Cicadelloidea. Bibliography of the Cicadelloidea (Homoptera: Auchenorrhyncha). United States Department of Agriculture, Agricultural Research Service.
- Schröder H. 1959. Taxionomische und tiergeographische Studien an neotropischen Zikaden. *Abhandlungen Senckenbergischen Naturforschenden Gesellschaft* 499: 1-93.
- Wilson M.R., Takiya D.M. 2007. Cicadellinae (Hemiptera, Auchenorrhyncha: Cicadellidae) described by Leopold Melichar in the Hungarian Natural History Museum. *Annales Historico-Naturalis Musei Nationalis Hungarici* 99: 29-48.
- Wilson M.R., Turner J.A. & Mckamey S.H. 2009. Sharpshooter Leafhoppers of the World (Hemiptera, Cicadellidae, subfamily Cicadellinae). *Amgueddfa Cymru – National Museum Wales*. Available on line at: <http://naturalhistory.museumwales.ac.uk/Sharpshooters>. [Accessed: 31 July 2013]
- Young D.A. 1964. Some cicadelline types of species described by Signoret from Berlin collections. *Mitteilungen aus dem Zoologischen Museum in Berlin* 40: 9-13.

- Young D.A. 1965. Some Cicadellinae lectotypes of Breddin species. *Beiträge zur Entomologie* 15(1/2): 11-14.
- Young D.A. 1968. Taxonomic study of the Cicadellinae (Homoptera: Cicadellidae). Part 1. Proconiini. United States National Museum Bulletin 261: 1-287.
- Young D.A. 1977. Taxonomic study of the Cicadellinae (Homoptera: Cicadellidae). Part 2. New World Cicadellini and the genus *Cicadella*. North Carolina Agricultural Experiment Station Technical Bulletin 239: 1-1135.
- Young D.A. 1986. Taxonomic study of the Cicadellinae (Homoptera: Cicadellidae). Part 3. Old World Cicadellini. North Carolina Agricultural Experiment Station Technical Bulletin 281: 1-627.
- Young D.A. & Beier M. 1964. Types of Cicadellinae (Homoptera: Cicadellidae) in the Natural History Museum in Vienna.- *Annalen des Naturhistorischen Museums in Wien* 67: 565-575.
- Young D.A. & Nast J. 1963. Cicadelline types of species described by Edmund Schmidt (Homoptera, Cicadellidae). *Annales Zoologici (Polska Akademia Nauk, Instytut Zoologiczny, Warsaw)* 21(14): 265-271.