Rev Soc Bras Med Trop 50(6):877-878, November-December, 2017
doi: 10.1590/0037-8682-0324-2017

Letter

A proposal for the use of standardized abbreviations for the genera of triatomine bugs (Reduviidae: Triatominae) across the World

***Carlos Brisola Marcondes*[1]**

[1]. Departamento de Microbiologia, Imunologia e Parasitologia, Centro de Ciências Biológicas, Universidade Federal de Santa Catarina, Florianópolis, SC, Brasil.

Dear Editor:

One-letter abbreviations are often, but not mandatorily, used for the names of animal genera. This leads to difficulties in those publications where several genera with the same initial letter are described. Proper use of abbreviations is recommended by the International Code of Zoological Nomenclature (ICZN, Chapter 7, Article 25, Recommendation 25A, 1999). Two-letter abbreviations for the genera of Phlebotominae[1], Ixodidae[2], and Culicidae[3] have been proposed and widely used by many experts.

Because triatomine bugs, with 151 valid species[4], are distributed in at least 17 genera, their initials might be the same; for example, for *Panstrongylus*, *Parabelminus*, and *Paratriatoma*, the abbreviation would be "*P.*" and for *Belminus* and *Bolbodera*, it would be "*B.*" Thus, it would be useful to have two-letter abbreviations for this group. "*Pa.*" was used for *Paratriatoma*[4], first cited between brackets, although this usage was not defined previously in literature.

The following abbreviations are proposed for the genera of Triatominae: *Alberprosenia* Martínez and Carcavallo, 1977, *Al.*; *Belminus* Stål, 1859, *Be.*; *Bolbodera* Valdés, 1910, *Bo.*; *Cavernicola* Barber, 1937, *Ca.*; *Dipetalogaster* Usinger, 1939, *Di.*; *Eratyrus* Stål, 1859, *Er.*; *Hermanlentia* Jurberg and Galvão, 1997, *He.*; *Linschcosteus* Distant, 1904, *Li.*; *Meccus* Stål, 1859, *Mu.*; *Mepraia* Mazza, Gajardo and Jorg, 1940, *Me.*; *Microtriatoma* Prosen and Martínez, 1952, *Mi.*; *Nesotriatoma* Usinger, 1944, *Ne.*; *Panstrongylus* Berg, 1879, *Pn.*; *Paratriatoma* Barber, 1938, *Pt.*; *Parabelminus* Lent, 1943, *Pb.*; *Psammolestes* Bergroth, 1911, *Ps.*; *Rhodnius* Stål, 1859, *Rh.*; and *Triatoma* Laporte, 1832, *Tr.* The second letters in the abbreviations were chosen with the consideration that they were not same as those present in the abbreviations of other genera with the same letter as the first initial.

The validity of *Mepraia* as a genus has been controversial. Created to accommodate *Me. spinolai*, a triatomine bug with alar polymorphism, it was included in *Triatoma*, but was validated again[5,6], and its reinclusion in *Triatoma*[4] was recently proposed.

The genus *Meccus* was synonymized to *Triatoma*[7] and revalidated, because of its exaggerated size, compared to *Triatoma*, great width of conexivum, and differences in the structure and shape of testicles[8]. This revalidation was corroborated by molecular analysis[9], but the genus was again considered as non-valid[4].

The revalidation of *Nesotriatoma* as a genus[9], and its inclusion as a subgenus of *Triatoma*, was proposed[4]. If the last proposal is accepted, the three-letter abbreviation for the name of this is proposed to be "*Nes.*", as described in previous studies[1-3].

The presence of numerous monotypic genera and the need for careful evolutionary analysis warrant meticulous studies on population structure and genetic flux[10]. Considering the current controversies on the phylogeny of subfamilies, new abbreviations, as described above for the mentioned genera, may be used by workers who prefer to accept the genus status.

Because of the low probability of reference to both Culicidae and Phlebotominae in the same publication, no precaution, with respect to the use of similar abbreviations, is necessary, as exemplified in a previous study[1]. For Culicidae, only *Limatus* (*Li.*), *Psorophora* (*Ps.*), and *Trichoprosopon* (*Tr.*), would have similar abbreviations[3]; these genera occur in the American continent, where most species of Triatominae are found. For Phlebotominae[1], such coincidence occurs only for *Hertigia* (*He.*), *Micropygomyia* (*Mi.*), *Phlebotomites* (extinct) (*Pt.*), and *Psychodopygus* (*Ps.*).

Thus, we propose that the judicious and consistent use of abbreviations for the names of genera to avoid ambiguity in the literature.

Corresponding author: Dr. Carlos Brisola Marcondes.
e-mail: cbrisolamarcondes@gmail.com
Received 31 August 2017
Accepted 6 December 2017

REFERENCES

1. Marcondes CB. A proposal of generic and subgeneric abbreviations for Phlebotomine sandflies (Diptera: Psychodidae: Phlebotominae) of the world. Entomol News 2007;118(4):351-6.

2. Dantas-Torres F. Towards the standardization of the abbreviations of genus names of ticks (Acari: Parasitiformes: Ixodida). Vet Paras 2008;154(1-2):94-7.
3. Reinert JF. List of abbreviations for currently valid generic-level taxa in family Culicidae (Diptera). Eur Mosquito Bull. 2009;27:68-76.
4. Justi SA, Galvão C. The evolutionary origin of diversity in Chagas disease vectors. Trends Parasit. 2017;33(1):42-51.
5. Justi SA, Russo CAM, Mallet JRS, Obara MT, Galvão C. Molecular phylogeny of Triatomini (Hemiptera: Reduviidae: Triatominae). Parasit Vectors. 2014;7:149.
6. Lent H, Jurberg J, Galvão C. Revalidação do gênero *Mepraia* Mazza, Gajardo & Jörg, 1940 (Hemiptera, Reduviidae, Triatominae). Mem Inst Oswaldo Cruz 1994;89(3):347-52.
7. Pinto C. Classification de genres d'hemiptères de la famille Triatomidae (Reduvidioidea). Bol Biol 1927;8:103-114.
8. Carcavallo RU, Jurberg J, Lent H, Noireau F, Galvão C. Phylogeny of the Triatominae (Hemiptera: Reduviidae). Proposals for taxonomic arrangements. Entomol Vect 2000;7(Supl 1):1-99.
9. Hypša V, Tietz DF, Zrzavý J, Rego ROM, Galvão C, Jurberg J. Phylogeny and biogeography of Triatominae (Hemiptera: Reduviidae): molecular evidence of a New World origin of the Asiatic clade. Molec Phylogen Evol. 2002;23(3):447-57.
10. Dujardin JP, Costa J, Bustamante D, Jaramillo N, Catalá S. Deciphering morphology in Triatominae: the evolutionary signals. Acta Trop. 2009;110(2-3):101-11.