



Revision of the genus *Kymocta* (Trombidiformes: Trombiculidae) with new records from Brazil*

F.C. JACINAVICIUS¹, C. WELBOURN², R. OCHOA³, D.M. BARROS-BATTESTI⁴ & R. BASSINI-SILVA^{1,4}

¹Laboratório de Coleções Zoológicas, Instituto Butantan, São Paulo, SP; Brazil

✉ fcjacinavicius@gmail.com; <https://orcid.org/0000-0002-5503-3120>

✉ ricardo.bassini@gmail.com; <https://orcid.org/0000-0002-9568-4120>

²Smithsonian Institution, National Museum of Natural History, National Insect and Mite Collection, Washington, D.C., USA

✉ cwelbournflag@gmail.com; <https://orcid.org/0000-0002-9354-3615>

³Systematic Entomology Laboratory, United States Department of Agriculture, Agricultural Research Service, Beltsville, MD, USA

✉ ron.ochoa@usda.gov; <https://orcid.org/0000-0003-1680-3601>

⁴Departamento de Patologia, Reprodução e Saúde Única, Faculdade de Ciências Agrárias e Veterinárias-UNESP, Jaboticabal, SP, Brazil ✉ barros.battesti@gmail.com; <https://orcid.org/0000-0002-8541-2252>

*In: Zhang, Z.-Q., Fan, Q.-H., Heath, A.C.G. & Minor, M.A. (Eds) (2022) *Acarological Frontiers: Proceedings of the XVI International Congress of Acarology (1–5 Dec. 2022, Auckland, New Zealand)*. Magnolia Press, Auckland, 328 pp.

The neotropical genus *Kymocta* Yunker & Brennan, 1962 (Trombidiformes: Trombiculidae) is currently represented by seven species parasitizing rodents and occasionally marsupials: *Kymocta brasiliensis* (Fonseca, 1935), *Kymocta chironectes* Brennan & Bronswijk, 1973, *Kymocta faitkeni* Brennan, 1968, *Kymocta inca* (Brennan & Jones, 1961), *Kymocta lutui* Goff, Whitaker & Dietz, 1983, *Kymocta teratarsalis* Yunker & Brennan, 1962, and *Kymocta zulia* Brennan & Bronswijk, 1973. *Kymocta brasiliensis* was described from São Paulo and Cotia Municipality, São Paulo State, Brazil, parasitizing a “wild rat” (Rodentia) and *Akodon montensis* Thomas, 1913 (Rodentia: Cricetidae). *Kymocta chironectes* was only recorded from the type locality, Pedro Miguel Municipality, Panama, on *Chironectes minimus* (Zimmermann, 1780) (Didelphimorphia: Didelphidae). *Kymocta faitkeni* was described from Serra do Navio Municipality, Amapá State, Brazil, on *Hylaeamys megacephalus* Fischer, 1814 (Rodentia: Cricetidae). In addition to the type data, this species was also found in Bragança, Pará State, parasitizing *Necomys lasiurus* (Lund, 1841) (Rodentia: Cricetidae) and *Didelphis marsupialis* Linnaeus, 1758 (Didelphimorphia: Didelphidae). *Kymocta faitkeni* was also recorded from Cumuto and Nariva Swamp Municipalities, Trinidad and Tobago, on *Hylaeamys laticeps* (Lund, 1840) (Rodentia: Cricetidae), *Heteromys anomalus* (Thompson, 1815) (Rodentia: Heteromyidae), and *Zygodontomys brevicauda* Allen & Chapman, 1893 (Rodentia: Cricetidae) (Brennan, 1968); and from Machiques de Perija Municipality, Zulia State and Icabarú Municipality, Bolívar State, Venezuela on *H. anomalus*, *Rhipidomys macconnelli* de Winton, 1900 (Rodentia: Cricetidae), *Rhipidomys* sp., and *Monodelphis brevicauda* Erxleben, 1777 (Didelphimorphia: Didelphidae). *Kymocta inca* was described from Cuzco, Peru, on *Nephelomys keaysi* (J.A. Allen, 1900) (Rodentia: Cricetidae). In addition, it was also recorded from Brazil and Venezuela. In Brazil, it was recorded from Serra do Navio municipality, Amapá State, on *H. megacephalus* and from Bragança, Pará, on *Proechimys guyannensis* (É. Geoffroy, 1803) (Rodentia: Echimyidae) and in Venezuela, it was recorded from Caño la Culebra, Cerro Duida, on *R. macconnelli*, and from Amazonas and Bolívar states on *Necomys urichi* (J.A. Allen & Chapman, 1897) (Rodentia: Cricetidae), *Neacomys tenuipes* Thomas, 1900 (Rodentia: Cricetidae), *Rhipidomys* sp, and *Sigmomys alstoni* (Thomas, 1881) (Rodentia: Cricetidae). *Kymocta lutui* was recorded from São Roque de Minas Municipality, Minas Gerais State, Brazil on *N. lasiurus*. *Kymocta teratarsalis* was recorded from Pina, Panamá on *Heteromys desmarestianus* Gray, 1868, (Rodentia: Heteromyidae), *Hoplomys gymnurus* (Thomas, 1897) (Rodentia: Echimyidae), and *Tylomys watsoni* Thomas, 1899 (Rodentia: Cricetidae). *Kymocta zulia* was only collected from Sierra de Perija National Park, Zulia State, Venezuela on *H. anomalus*. In the present study, we examined the types and new material of all seven *Kymocta* species and recognize five valid species. We propose the synonymy of *K. lutui* with *K. brasiliensis*, and *K. chironectes* with *K. teratarsalis*. Also, we are increasing knowledge of Brazilian, *Kymocta* with new localities and host records for *K. brasiliensis* and *K. teratarsalis*.

Funding: FAPESP, CNPq, and CAPES.

Keywords: Chiggers, endoparasites, rodents, marsupials, neotropical