



***Loranthophila*, a new genus of Australian Lyctinae (Coleoptera: Bostrichidae) associated with Mistletoe**

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Abstract

Loranthophila **gen. n.** is described, based on *Minthea acanthacollis* (Carter & Zeck), and comparisons are made between this genus and other members of the bostrichid subfamily Lyctinae.

Key words: Bostrichidae, Lyctinae, *Loranthophila*, Australia, Mistletoe

Neotrichus acanthacollis Carter and Zeck (1937), based on a single specimen from the Blue Mountains, New South Wales, was considered by its authors to be a member of the widely distributed colydiine genus *Neotrichus* Sharp (Zopheridae). Vrydagh (1958) redescribed the species as *Minthea armstrongi*, a new and unusual species of lyctine Bostrichidae collected by J. W. T. Armstrong at Inverell, New South Wales. Almost immediately thereafter Vrydagh (1959) synonymized *M. armstrongi* with *N. acanthacollis* and retained this species within the lyctine genus *Minthea* Pascoe. Unaware of the second Vrydagh paper, Lawrence (1980) repeated this action, and the synonymy was incorrectly attributed to Lawrence by Borowski & Węgrzynowicz (2007) (Ivie 2010). After a closer examination of this unusual taxon, it became obvious that although properly placed in Lyctinae, the genus did not belong to the genus *Minthea*. A new genus is here described for its inclusion.

Habitus and wing images were generated with BK Plus Lab System by Visionary Digital (USA); dissected parts were photographed in open glycerol slides using Micropublisher 5 digital camera mounted on a Leica M205C microscope. Some body parts were gold coated to produce SEM images with a Zeiss EvoLS15 (Black Mountain Laboratory, CSIRO). All images were edited with Adobe Photoshop.

The following abbreviations are used for institutions housing types and other specimens examined: AMS—The Australian Museum, Sydney, NSW, Australia; ANIC—Australian National Insect Collection, CSIRO Ecosystems Sciences, Canberra, ACT, Australia; MVM—Museum of Victoria, Melbourne, VIC, Australia; QMB—Queensland Museum, Brisbane, QLD, Australia. NSWF—Forestry Commission of New South Wales, West Pennant Hills, NSW, Australia.

***Loranthophila* gen. n.**

Type species: *Neotrichus acanthacollis* Carter and Zeck 1937.

Diagnosis: This genus appears to be a member of the bostrichid subfamily Lyctinae, although it differs from other lyctines in certain respects. Lyctine features include the following: 1) antennal club 2-segmented (3-segmented only in *Cephalotoma* Lesne), 2) anterior edge of pronotum on same plane as posterior edge and anterior portion of pronotal disc not curving ventrally, 3) prosternal process complete, meeting the postcoxal projections of the two hypomera and closing the procoxal cavities externally, and 4) intercoxal process on first abdominal ventrite broad and apically subtruncate. Feature 2 refers to the lack of the hood-like pronotum of Dinoderinae and Bostrichinae. This type of prothorax also occurs in the subfamilies Dysidinae, Psolinae, Polycanoninae and Euderiinae and also in the family Endecatomiidae, sometimes included in Bostrichidae (Ivie 2002; Borowski & Węgrzynowicz 2007). In all of these groups the antennal club is 3-segmented, procoxal cavities are externally open, and the abdominal

- expanded setae forming distinct rows on elytra *Minthea* Pascoe
4. Elytral punctation seriate; procoxal process less than 0.4 times as wide as mid length of coxal cavity 5
- Elytral punctation not seriate; prosternal process least 0.8 times as wide as mid length of coxal cavity 6
5. Vertex with paired tubercles; lateral pronotal carinae absent; anterior portion of pronotal disc convex and covered with sharp tubercles (resembling those in many Dinoderinae and Bostrichinae) *Lyctodon* Lesne
- Vertex without paired tubercles; lateral pronotal carinae complete, although sometimes not distinct; pronotal disc flattened, without tubercles *Lyctus* Fabricius
6. Prosternal process not as wide as mid length of coxal cavity; prothorax about as long as wide; antennomere 11 about as long as 10. *Trogoxylon* LeConte
- Prosternal process wider than mid length of coxal cavity; prothorax not as long as wide; antennomere 11 longer than 10. *Tristaria* Reitter

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References

- Armstrong, J.W.T. (1948) On Australian Coleoptera. Part I. *Proceedings of the Linnean Society of New South Wales*, 72, 292–298.
- Alston, A.M. (1923a) On the method of oviposition and the egg of *Lyctus brunneus* Steph. *Journal of the Linnean Society of London. Zoology*, 35 (234), 217–227.
<http://dx.doi.org/10.1111/j.1096-3642.1923.tb00046.x>
- Alston, A.M. (1923b) On the genital system of *Lyctus brunneus* Steph. *Journal of the Linnean Society of London. Zoology*, 35 (238), 581–597, illus.
<http://dx.doi.org/10.1111/j.1096-3642.1924.tb00056.x>
- Borowski, J. & Węgrzynowicz, P. (2007) *World Catalogue of Bostrichidae (Coleoptera)*. Wydawnictwo Mantis, Olsztyn, Poland, 247 pp.
- Carter, H.J. & Zeck, E.H. (1937) A monograph of the Australian Colydiidae. *Proceedings of the Linnean Society of New South Wales*, 62, 181–208, pls. 8–9.
- Crowson, R.A. (1961) Considerations on the genera *Endecatomus* Mellié and *Euderia* Broun (Coleoptera: Bostrichidae), with descriptions of their larvae. *Proceedings of the Royal Entomological Society of London (B)*, 30, 113–120.
<http://dx.doi.org/10.1111/j.1365-3113.1961.tb00177.x>
- Gerberg, E.J. (1957) A revision of the New World species of powder-post beetles belonging to the family Lyctidae. *United States Department of Agriculture Technical Bulletin*, 1157, 1–55 + 14 pls.
- Ivie, M.A. (2002) Family 69. Bostrichidae Latreille 1802. In: Arnett, R.H., Jr, Thomas, M.C., Skelley, P.E. & Frank, J.H. (Eds.), *American Beetles. Vol. 2. Polyphaga: Scarabaeoidea through Curculionoidea*. CRC Press, Boca Raton, Florida, 233–244.
- Ivie, M.A. (2010) Additions and corrections to Borowski and Węgrzynowicz's world catalogue of Bostrichidae (Coleoptera). *Zootaxa*, 2498, 28–46.
- Lawrence, J.F. (1980) A new genus of Indo-Australian Gempylodini with notes on the constitution of the Colydiidae (Coleoptera). *Journal of the Australian Entomological Society*, 19, 293–310.
- Lesne, P. (1921a) Les espèces typiques de *Trogoxylon* (Col. Lyctidae). Position systématique de ce genre. *Bulletin du Museum National d'Histoire Naturelle, Paris*, 1921 (16), 228–231.
- Lesne, P. (1921b) Classification des Coléoptères Xylophages de la famille des Bostrychides. *Association Française pour L'Avancement des Sciences fusionnée avec L'Association Scientifique de France. Compte Rendu de la 44^{me} Session, Strasbourg*, 1920, 285–289.
- Lesne, P. (1924) Les Coléoptères Bostrychides de l'Afrique Tropicale Française. *Encyclopédie Entomologique, Paris*, 3, 301 pp.
- Lesne, P. (1937) Bostrychides nouveaux des collections du Muséum (Coléopt.). *Bulletin du Museum National d'Histoire Naturelle, Paris*, 1937 (5), 319–325.
- Liu, L.-Y. (2010) Microstructural characters of Lyctinae and Dinoderinae (Coleoptera: Bostrichidae). *Psyche*, 2010 (2010), 1–8.
<http://dx.doi.org/10.1155/2010/607568>
- Vrydagh, J.-M. (1958) Contribution à l'étude des Bostrichidae. 11. Les Bostrichidae de l'Australie, de la Tasmanie et la Nouvelle-Zélande. *Bulletin et Annales de la Société Royale d'Entomologie de Belgique*, 94 (1–2), 35–64.
- Vrydagh, J.-M. (1959) Contribution à l'étude des Bostrichidae. 18. Additions et corrections à l'étude des Bostrychides de l'Australie. *Bulletin et Annales de la Société Royale Entomologique de Belgique*, 95, 42–46.