

NOTE

## *Acropteroxys gracilis* (Newman): the first reports of a lizard beetle (Coleoptera: Erotylidae: Languriinae) in the Maritime Provinces of Canada

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Acropteroxys gracilis (Newman 1838) is a member of the Languriinae (lizard beetles), a subfamily previously recognized as the Languriidae (Leshen and Skelley 2002), but treated more recently as a subfamily of the Erotidae (pleasing fungus beetles) (Leschen 2003). There are two Nearctic species in the genus Acropteroxys Gorham, Acropteroxys gracilis and Acropteroxys lecontei (Crotch). Acropteroxys gracilis is widely distributed in the United States from Maine south to Louisiana and Texas, west to Arizona and Idaho. The species also occurs southward through Mexico to Guatemala (Vaurie 1948). In Canada it has been reported from Saskatchewan east to Québec (Campbell 1991).

Four species in the Languriinae are known to occur in Canada; *Languria angustata* (Palisot de Beauvois), *Languria convexicollis* Horn, *Languria mozardi mozardi* Latreille, and *Acropteroxys gracilis* (Newman), however, none have hitherto been reported from Atlantic Canada (Campbell 1991).

*Acropteroxys gracilis* has been reported feeding on *Ambrosia artemisiifolia* L. (common ragweed), *Ambrosia trifida* L. (giant ragweed), *Erigeron* spp. (fleabane) (all Asteraceae), and *Urtica dioica* L. (stinging nettle) (Urticaceae) (Chittenden 1890). However, the beetle is primarily associated with *Ambrosia* spp., a genus whose members are serious agricultural pests and aeroallergenic pollen-producers responsible for hay-fever (Piper 1978). Larvae bore in the stems of ragweed plants, consuming almost all of the pith, whereas adults feed on the petioles, leaves, and stems Piper (1978). Piper (1978) investigated the biocontrol potential of *Acropteroxys gracilis* and found that extensive larval damage weakened the stems of ragweed plants and rendered them susceptible to breakage by strong winds. Heavy feeding also appeared to retard seed production.

On 4 July 2004 the third author discovered a specimen of *Acropteroxys gracilis* while sweep-netting foliage in Fredericton, York County, New Brunswick (45.9588° N; 66.6254° W). Subsequently, the second author discovered another specimen of *Acropteroxys gracilis* on 10 June 2010 while sweep-netting mixed grassy vegetation at a site approximately 8 km east of Edmundston, Madawaska County, New Brunswick (47.34497° N; 68.21144° W). The composition of the vegetation at this site was not noted, however, ragweed does grow abundantly in the area. Both specimens exhibit an entirely piceous pronotum, representing an extreme in the range of variation for this species (Fig. 1). The pronotum may be entirely reddish to entirely piceous, or have reddish lateral margins and a median piceous band.

These represent the first records of *Acropteroxys gracilis* in the Maritime Provinces of Canada, indeed the first records of a lizard beetle in the region. Given that *Ambrosia* spp. are widely distributed in both New Brunswick and Nova Scotia (Hinds 1986; Roland 1998) further surveying would be desirable to determine the extent of the species' distribution in the region.

Furthermore, *Languria mozardi mozardi* has been recorded in both Québec and Maine (Campbell 1991; Dearborn and Donahue 1993) and could potentially occur in the Maritime Provinces as well. This lizard beetle is considered an

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**Figure 1. Dorsal habitus of** *Acropteroxys gracilis* (Newman). Photo credit: Richard Migneault, Edmundston, New Brunswick.



economic pest, boring in the stems of *Trifolium pratense* L. (red clover), *Medicago sativa* L. (alfalfa), and *Melilotus* spp. (sweet clover) (Fabaceae), as well as a variety of other plants in the Asteraceae, Poaceae, and Urticaceae (Vaurie 1948).

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## REFERENCES

Campbell, J.M. 1991. Family Languriidae: lizard beetles. *In* Checklist of Beetles of Canada and Alaska. *Edited by* Y. Bousquet. Research Branch Publication 1861/ E, Agriculture Canada, Ottawa, Ontario. pp. 223-224. Available from http://www.canacoll.org/Coleo/ Checklist/PDF%20files/LANGURIIDAE.pdf [accessed 8 July 2010]

- Chittenden, F.H. 1890. Notes on *Languria*. Insect Life 2: 346–347.
- Dearborn, R.G., and Donahue, C.P. 1993. An annotated list of insects collected and recorded by the Maine Forest Service: Order Coleoptera, Beetles. Maine Forest Service, Technical Report 32. Augusta, Maine, USA. 101 pp.
- Hinds, H.R. 1986. Flora of New Brunswick. Primrose Press, Fredericton, NB. 460 pp.
- Leschen, R.A.B. 2003. Erotylidae (Insecta: Coleoptera: Cucujoidea): phylogeny and review. Fauna of New Zealand 47. Manaaki Whenua Press, Lincoln, Canterbury, New Zealand. 108 pp.
- Leschen, R.A.B., and Skelley, P.E. 2002. Languriidae Wiedeman 1823. *In* American Beetles, Volume 2: Polyphaga: Scarabaeoidea through Curculionoidea. *Edited by* R.H. Arnett, Jr., M.C. Thomas, P.E. Skelley, and J.H. Frank. CRC Press, Boca Raton, USA, pp. 343–347.
- Piper, G.L. 1978. Life history of *Acropteroxys gracilis* (Coleoptera: Languriidae) on common ragweed in northeastern Ohio. Ohio Journal of Science 78: 304–309.
- Roland, A. E. 1998. Roland's Flora of Nova Scotia, revised by Marian Zinck. Nimbus Publishing and the Nova Scotia Museum, Halifax, Nova Scotia. 1297 pp.
- Vaurie, P. 1948. A review of the North American Languriidae. Bulletin of the American Museum of Natural History 92: 123–155.