Glocianus punctiger (Sahlberg, 1835) (Coleoptera: Curculionidae) common in Soldotna

by Matt Bowser¹



Figure 1: Larvae of *Glocianus punctiger* in inflorescence of *T. officinale*, June 10, 2015 (http://www.inaturalist.org/observations/1620773).

Glocianus punctiger (Sahlberg, 1835), an exotic weevil of Palearctic origin, has been known in Alaska from two specimens in the University of Alaska Museum Entomology collection: UAM:Ento:24180 from Fairbanks and UAM:Ento:113229 from Anchorage. These specimens, identified by C. W. O'Brien, are the basis of the Alaska record of *G. punctiger* in Bousquet et al. (2013). Larvae of *G. punctiger* feed on floral and seed tissues of common dandelions (*Taraxacum officinale* F.H. Wigg.), also exotic to Alaska.

On June 10–11, 2015, I observed larvae in inflorescences of *T. officinale* at two localities in Soldotna. The larvae were quite common in inflorescences when seeds were matur-

ing, after the petals had fallen and before the inflorescences reopened to release the wind-dispersed seeds. From the back lawn of the Kenai National Wildlife Refuge's headquarters building (60.465°N, 151.073°W) on June 11 I collected a handful of inflorescences at the seed maturation stage and placed them in a jar of water, arranging them so that the flowers were positioned over a plate. The larvae had dropped out of the flowers onto the plate by June 15. I placed the larvae in a jar of soil, where they quickly burrowed into the substrate. Twelve adults had eclosed between July 2 and July 6. These specimens now reside in the Kenai National Wildlife Refuge's entomology collection (KNWR:Ento:10799–KNWR:Ento:10810).



Figure 2: *Glocianus punctiger* specimen KNWR:Ento:10806, lateral view.

It is unlikely that the presence of *G. punctiger* in Alaska will meaningfully reduce the spread and persistence of common dandelions. The abundance of *G. punctiger* tends to be lower at high latitudes than at lower latitudes (Verhoeven and Biere, 2013). Even where *G. punctiger* is more abundant, the larvae consume only a small proportion of the plants' total seed production (McAvoy et al., 1983; Honek and Martinkova, 2005). Adults also consume dandelion foliage, but they cause little damage (McAvoy et al., 1983). With exceptions of the aphid *Myzus persicae* (Sulzer, 1776) and the slug *Deroceras reticulatum* (O. F. Müller, 1774), most of the other known herbivores of *T. officinale* listed by Stewart-Wade et al. (2002) appear to be absent from Alaska.

¹US Fish & Wildlife Service, Kenai National Wildlife Refuge, Soldotna, Alaska, Matt_Bowser@fws.gov

I wonder if *G. punctiger* is breeding in any of Alaska's native dandelion species. In particular, I would like to know if horned dandelions (*Taraxacum ceratophorum* (Ledeb.) DC.) are affected. This species has seldom been collected on the lowlands of the western Kenai Peninsula. I know of only three records: a dot on the map in the Niskiski area in Hultén (1968), one specimen in the Kenai National Wildlife Refuge's herbarium from Skilak Lake collected in 1951 (KNWR:Herb:573), and a specimen held by the Pratt Museum in Homer with label data as follows:

Locality AK; Kenai Borough; Ninilchik; 1200 Rd., 18 mile Date 7/15/96 Habitat area above and adjacent to muskeg, abundant microrelief Associated Species Cladina stellaris, Vaccinium caespitosum, Pleurozium schreberi Collected By Chris Reidy

If *T. ceratophorum* should be a species of conservation concern here, then it seems likely that genetic assimilation by *T. officinale* (see Brock, 2004) would be more of a threat to this species than seed consumption by *G. punctiger*. Still, I would like to know if *G. punctiger* feeds on *T. ceratophorum* or any of Alaska's other *Taraxacum* species.

I thank Savanna Bradley of the Pratt Museum for locating and photographing the *T. ceratophorum* specimen. Derek Sikes (University of Alaska Museum) and Matt Carlson (Alaska Center for Conservation Science) provided helpful comments on this note.

References

- Bousquet, Y., P. Bouchard, A. Davies, and D. Sikes. 2013. Checklist of beetles (Coleoptera) of Canada and Alaska. Second edition. Pensoft Publishers, Sofia, Bulgaria. URL http://www.pensoft.net/product.php?p=12903.
- Brock, M. T. 2004. The potential for genetic assimilation of a native dandelion speices, *Taraxacum ceratophorum* (Asteraceae), by the exotic congener *T. officinale*. American Journal of Botany **91**:656–663. doi:10.3732/ajb.91.5.656.
- Honek, A., and Z. Martinkova. 2005. Pre-dispersal predation of *Taraxacum officinale* (dandelion) seed. Journal of Ecology **93**:335–344. doi:10.1111/j.1365-2745.2005.00986.x.
- Hultén, E. 1968. Flora of Alaska and neighboring territories. Stanford University Press, Standford, California.

- McAvoy, T. J., L. T. Kok, and J. T. Trumble. 1983. Biological Studies of *Ceutorhynchus punctiger* (Coleoptera: Curculionidae) on dandelion in Virginia. Annals of the Entomological Society of America 76:671–674. doi:10.1093/aesa/76.4.671, URL http://aesa.oxfordjournals.org/content/76/4/671.
- Stewart-Wade, S. M., S. Neumann, L. L. Collins, and G. J. Boland. 2002. The biology of Canadian weeds. 117. *Taraxacum officinale* G. H. Weber ex Wiggers. Canadian Journal of Plant Science 82:825–853. doi:10.4141/P01-010.
- Verhoeven, K. J., and A. Biere. 2013. Geographic parthenogenesis and plant-enemy interactions in the common dandelion. BMC Evolutionary Biology **13**:1–8. doi:10.1186/1471-2148-13-23.



Figure 3: Larva of *G. punctiger* in inflorescence of *T. officinale*, June 11, 2015 (http://www.inaturalist.org/observations/1620902).