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New state records of Buprestidae (Coleoptera)
for Idaho, USA

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New state records of Buprestidae (Coleoptera) for Idaho, USA

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Abstract. Five new state records for Idaho in the genera *Agrilus* Curtis, *Anthaxia* Eschscholtz, and *Buprestis* Linnaeus (Coleoptera: Buprestidae) are included herein, with brief comments thereon. Two of the species are believed to be introduced. *Agrilus liragus* Barter and Brown is elevated to a full species, **resurrected status**.

Key words. *Agrilus*, *Anthaxia*, *Buprestis*, distribution, introduced species.

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Introduction

Five new Idaho state records for Buprestidae are provided, three species for *Agrilus* Curtis and one each for *Anthaxia* Eschscholtz and *Buprestis* Linnaeus. *Agrilus liragus* Barter and Brown is elevated to a full species. Additional information is provided for all species, including distribution and larval host plants. I am publishing the data so that it will be available for a comprehensive state treatment of the family that is in progress at the University of Idaho.

Materials and Methods

The species records in this work are based on specimens sent to me for identification or, in one case, observation of a readily recognizable species by a collector of Coleoptera. Their names are provided in **bold** CAPS. Label data on the specimens is not always given verbatim, e.g. 25-XI-1939 for dates of collection. Plant taxa are according to WFO (2023). Collector names are provided when known. The following collection abbreviations used herein are from Evenhuis (2023): CIDA = College of Idaho, Caldwell, Idaho; WFBM = William F. Barr Museum, University of Idaho, Moscow.

Results

***Agrilus cyanescens* (Ratzeburg, 1837).** Clearly the following represents an introduction: Ada Co., Boise, 43.2184, –116.2483, 2700', on *Lonicera* sp. (Caprifoliaceae) foliage in yard, urban habitat, 24-V-2022, P. J. Castrovillo [2 specimens, CIDA]. This widespread Eurasian species was first reported in North America from the USA, where it became widespread east of the Rocky Mountains. It was first reported from the western United States in Utah (Westcott 1991), then later from Oregon (Westcott et al. 2019). The only confirmed larval hosts are honeysuckles (*Lonicera* spp.).

***Agrilus egenus* Gory, 1841.** This finding must represent another introduction: Ada Co., Boise, 3000', 20-VII-2016, Japanese beetle pheromone trap, urban habitat [CIDA]. This native species is widespread in the USA, having been recorded from most places where its hosts, *Robinia* spp. L. are native. Likely it will be found in other western states where its naturalized host black locust, *Robinia pseudoacacia* L. (Fabaceae), occurs.

***Agrilus liragus* Barter and Brown, 1949, resurrected status.** Carlson and Knight (1969) changed the status of this taxon to *Agrilus granulatus liragus* without any detail other than reference to the first author's thesis, which has no taxonomic standing. They compared it only to *Agrilus anxius* Gory, with which it has been confused. Barr (1971) treated *A. liragus* as a full species, perhaps being unaware of the aforementioned paper. Wellso et al. (1976) also treated the taxon as a full species, probably following Barr (1971). Later authors, notably Bellamy (2008) and Nelson et al. (2008), who treated this taxon as a subspecies, have listed the name both ways without comment. Bright (1987) treated it as a full species, cited Carlson and Knight (1969), and stated: "I have chosen to regard it as a full species, because this seems to reflect the distributional pattern more closely." The distribution of *A. granulatus* (Say) and *A. liragus* widely overlaps, though there may be some altitudinal separation. Given that, and that the beetle has been reared from five species of *Populus* (Barter 1965)—Nelson et al. (2008) listed only *Populus tremuloides* as a host—I choose to consider *A. liragus* a full species. My view is supported by Hespeneheide (2013), an authority on the genus, who stated: "... the official taxonomic standing is that *liragus* is a ssp. of *A. granulatus*. I haven't looked at *liragus* in a long time, but I think I'd not concur, primarily because they are sympatric in distribution and I follow Mayr's concept that subspecies must have allopatric distributions. There was a time that 'host races' were considered subspecies, but that time should be past."

I have not been able to find in the literature any specific mention of *Agrilus liragus* occurring in Idaho. However, there are specimens in WFBM from Boundary, Cassia, Latah, and Teton counties determined as *Agrilus granulatus liragus* by W. F. Barr and R. L. Westcott (SCAN 2023).

***Anthaxia (Melanthaxia) hatchi* Barr, 1971.** Canyon Co., Deer Flat NWR, 11-VI-2010, sweeping at forest edge, riparian habitat, 3000'; Owyhee Co., Bruneau Dunes State Park, 12-VI-2014 [CIDA]. This species has been recorded from Washington to California and appears to be uncommon. A larval host is unknown; adults have been collected on flowers of *Rosa* Linnaeus sp. in Oregon (Nelson et al. 1981).

***Buprestis viridisuturalis* Nicolay and Weiss, 1918.** Ada Co., Star, 5-VII-2015 [Albert Allen collection]. An individual was observed flying on 4-VII-2015, and another was found dead and severely damaged on 11-VIII-2015 (Albert Allen, personal communication). This beautiful species has been recorded from Washington to California, and Nevada and Utah. I am unaware of any confirmed larval hosts other than poplars (*Populus* spp. [Salicaceae]). Alders have been mentioned in the literature (e.g., Burke 1920). Nelson et al. (2008) listed *Salix gooddingii* Ball. (Salicaceae), but I have been unable to find a source in the literature.

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Literature Cited

- Barr WF. 1971.** Family Buprestidae. p. 55–89. In: Hatch MH. The beetles of the Pacific Northwest. Part V: Rhipicerioidea, Sternoxi, Phytophaga, Rhynchophora, and Lamellicornia. University of Washington Publications in Biology 16: 1–662 + xiv.
- Barter GW. 1965.** Survival and development of the bronze poplar borer *Agrilus liragus* Barter and Brown (Coleoptera: Buprestidae). The Canadian Entomologist 97(10): 1063–1068.
- Bellamy CL. 2008.** A world catalogue and bibliography of the jewel beetles (Coleoptera: Buprestoidea), Volume 4. Agrilinae: Agrilina through Trachyini. Pensoft Series Faunistica No. 79. Pensoft Publishers; Sofia–Moscow. 752 p.
- Bright D. 1987.** Coleoptera. Buprestidae. The metallic wood-boring beetles of Canada and Alaska. Minister of Supply and Services; Ottawa. 335 p.
- Burke HE. 1920.** Collecting some little known Buprestidae (Coleopt.). Proceedings of the Entomological Society of Washington 22(4): 72–76.
- Carlson RW, Knight FB. 1969.** Biology, taxonomy, and evolution of four sympatric *Agrilus* beetles (Coleoptera: Buprestidae). Contributions of the American Entomological Institute 4(3): 1–105 + i–vi.

- Evenhuis NL. 2023.** The Insect and Spider Collections of the World Website. Available at <http://hbs.bishopmuseum.org/codens/> (Last accessed 13 October 2023.)
- Hespenheide HA. 2013.** *Agrilus liragus*. Available at <https://bugguide.net/node/view/275555> (Last accessed 21-X-2023.)
- Nelson GH, Verity DS, Westcott RL. 1981.** Additional notes on the biology and distribution of Buprestidae (Coleoptera) of North America. *The Coleopterists Bulletin* 35(2): 129–151.
- Nelson GH, Walters GC, Haines RD, Bellamy CL. 2008.** A catalog and bibliography of the Buprestoidea of America north of Mexico. *The Coleopterists Society, Special Publication* 4: i–iv + 1–274.
- SCAN. 2023.** Symbiota Collections of Arthropods Network. Available at <https://scan-bugs.org/portal/map/googlemap.php?maptype=taxa&taxon=82514&clid=0> (Last accessed 21 October 2023.)
- Wellso SG, Manley GV, Jackman JA. 1976.** Keys and notes on the Buprestidae (Coleoptera) of Michigan. *The Great Lakes Entomologist* 9(1): 1–22.
- Westcott RL. 1991.** Distributional, biological and taxonomic notes on North American Buprestidae (Coleoptera). *Insecta Mundi* 4(1–4): 73–79.
- Westcott RL, Williams W, Grotta A. 2019.** The exotic *Agrilus cyanescens* (Ratzeburg) (Coleoptera: Buprestidae) is discovered in Oregon. *Insecta Mundi* 0724: 1–5.
- WFO. 2023.** World Flora Online. Available at worldfloraonline.org (Last accessed 13 October 2023.)

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