

## Amphorophora Aphids Notes

By GEORGE F. KNOWLTON, Utah Agricultural Experiment Station, Logan, Utah

The following paper includes the description of an apparently undescribed *Amphorophora* from currant foliage, and records host and locality data for additional species of the genus *Amphorophora*, a number of which were collected upon berry plants.

### *Amphorophora fronki*<sup>1</sup> n. sp.

*Alate vivipara*: Color green; cleared specimens largely pale; antennae 2.75 mm. long; antennal III, .865 with 51 to 57 sensoria; IV, .44 to .46 with 2 to 4 sensoria in row on basal half of segment; V, .367 to .385 without secondary sensoria; VI, .014 + .95; rostrum exceeds second coxae; rostral IV + V slenderly obtuse, .145 mm. long; hind tibiae 1.72, pale with thickened distal end blackish; hind tarsi .175, blackish; cornicles vasiform, .296 long, pale with distal three-fifths slightly dusky, swollen portion scarcely twice thickness of narrowest part; cauda .32 mm. long, pale to slightly dusky.

*Apterous vivipara*: Color green; body 2.4 mm. long; antennae pale with dark ends on III to VI; antennals III, .835 to .93 with 12 to 15 sensoria on proximal half; IV, .408 to .48, without sensoria; V, .4 to .464; VI, .104 to .112 + .92 to .945; rostrum reaching third coxae, tip slenderly obtuse; rostral IV + V, .152; hind tibiae 1.92, pale, blackish at distal ends; hind tarsi .168 to .176; cornicles .736 to .785, spinosely imbricated before the flange; cauda .368 to .385, pale, usually with 3 lateral hairs; cauda rounded.

Collected on foliage of "bedbug currant," *Ribes* sp., at American Fork, Utah, July 25, 1940 (G. F. Knowlton). Type in the collection of writer.

Winged females of *Amphorophora fronki* n. sp. key to *A. sensoriata* Mason in Mason's key (U. S. Natl. Mus. Proc. 67:

<sup>1</sup> Named in honor of 1st Lt. W. D. Fronk.

5-6, 1925) from which they differ in having no sensoria on antennal V, longer rostrum, shorter and paler antennals III and IV with fewer sensoria. Aptera of *A. fronki* key to *A. pergandei* Mason in the above key, but possess longer cornicles and have fewer lateral hairs on cauda. Alate *A. fronki* have paler and less tuberculate antennae and paler cornicles than *A. pergandei*.

*Amphorophora arnicac* Glend. Collected on *Arnica* sp. near foot of Puyallup Glacier, Mt. Rainier, Washington (H. C. Bennion).

*A. crataegi* (Monell). An extremely heavy infestation caused foliage of *Crataegus* to drop early in the forestry nursery at the Utah State Agricultural College, Logan, Utah, during the fall of 1943. On September 5 to 8 the trunk, branches and soil beneath a number of *Crataegus* were green with hundreds of thousands of these crawling aphids, deserting heavily infested fallen leaves and crawling back upon the hosts. Also collected at Hoytsville, Utah, October 1943; Mt. Timpanogos, Utah, July 12, 1942; Grand Canyon of the Snake River, Wyoming, September 11, 1941 (Knowlton); and at Hollister, Idaho, August 30, 1930 (D. E. Fox).

*A. geranii* G.-P. Buhl, Idaho, October 17, 1930 (D. E. Fox).

*A. grindeliae* Wms. On *Grindelia squarrosa* at Garland, June 4 and 10, 1938, and Granite, June 27, 1937, in Utah; Beaver Dam, April 25, 1935, and Flagstaff, September 23, 1944, in Arizona; Basin, Wyoming, September 12, 1941; Helena, Montana, August 2, 1944; and Castleford, Idaho, August 19, 1943.

*A. halli* Knt. Runs to *A. nervata* (Gill.) in Mason's key (U. S. Natl. Mus. Proc. 2: 6, 1925) from which it differs in more swollen cornicles, relatively longer antennal V and unguis. Rostral IV + V, .126 mm. long; hind tibiae 1.77; hind tarsi .126.

*A. laingi* (?) Mason. An apterous female collected at Puyallup, Washington, August 11, 1937 (H. C. Bennion) keys to this species in Mason's key (U. S. Natl. Mus. Proc. 67: 6-7, 1925).

*A. masoni* (Knl.). On *Helianthus annuus*, Toquerville, Utah, June 18, 1935; Fredonia, Arizona, July 11, 1935.

*A. minima* Mason. On raspberry, Wooster, Ohio, August 24 (Wilcox).

*A. nervata* (Gill.). On leaves and tender tips of twigs of wild rose, *Rosa chrysocarpa*, at Big Cottonwood Canyon, Utah, June 29, 1925; and *Rosa fendleri* at Emigration Canyon, Utah, July 25, 1925; on cultivated rose at Bonneville Dam and Portland, Oregon, June 20, 1939; Twin Falls, Idaho, August 19, 1943; Shoshone, Wyoming, September 13, 1935; Bozeman, Montana, July 16, 1936; Overton, Nevada, May 20, 1935; in Utah at Moab, July 26, 1935, and at Amalga, Cedar Valley, Delta, Hooper, Logan, Ogden, Pleasant Grove, Provo, St. George and Springville. Collected in sweeps on grass at Salem, Oregon, June 17, 1939.

*A. rubi* (Kalt.). Abundant on wild raspberry leaves at Miner's Basin in LaSal Mountains, Utah, July 28, 1939; on tame raspberry at Wellsville, Utah, July 4, 1939; on *Rubus strigosus*, Hyrum, Utah, October 12, 1938; on *Rubus* sp. at Albany, Oregon, August 24, 1944.

*A. rubicola* (Oest.). On wild raspberry, *Rubus* sp., Livingston, Montana, July 31, 1942 (H. F. Thornley).

*A. rubicumberlandi* K.-A. On wild black raspberry canes, *Rubus* sp., Oregon Caves, Southern Oregon, June 24, 1939 (Dr. S. A. Huber). More than 1000 to 2000 in some very large colonies on black raspberry canes examined at Puyallup, Washington, June 17, 1939 (Huber-Knowlton).

*A. sensoriata* Mason. On growing tips of cultivated raspberry, Madison, Wisconsin, October 7, 1914 (A. C. Burrill); Haddonfield, N. J., July 12, 1938 (M. D. Leonard).

*A. sonchi* (Oest.) On *Lactuca* at Overton, Nevada, April 26, 1935; Bozeman, Montana (C. B. Philip); Buhl, Idaho, August 19, 1943; Hurricane and Salt Lake City, Utah; on loganberry, Corvallis, Oregon, October 8, 1914 (A. L. Lovett); on wild gooseberry on foothills west of Woodruff, Utah, July 5, 1935; on black currant at Fielding, Collinston and Garland, October 22, 1929; on *Sonchus asper* at Magna; alates on sugar

beets (accidentals?) at Cornish, Utah, September 23, 1926. Alate on *Rosa* sp., Ogden Canyon, October 9, 1937 (accidental?); winged females in greenhouse at Logan, Utah on *Agropyron crestatum*, December 5 and 15, 1939; at Preston, Idaho on currant.

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## The Andrew Bolter Insect Collection<sup>1</sup>

By WILLIAM F. RAPP, JR.

The statement has recently been made that the Andrew Bolter collection has been lost. This collection was willed to the Department of Entomology, University of Illinois, Urbana, by the late Andrew Bolter in 1900. The will specified that the collection was to be kept in the original cabinets and was not to be broken up and placed in other collections. The provisions of the will have been kept and the collection is still retained by the University of Illinois' Entomology Department.

At the time of Bolter's death this collection was considered the largest private insect collection in North America. A partial list of types was published by Frison.<sup>2</sup> Many types and co-types are still thought to be in the collection. It is particularly strong in Lepidoptera, the majority of which were determined by the leading specialists of the day, such as Smith, Hulst, Grote, Daecke, Edwards, and Harris. A partial list of the Lepidoptera has been published by Kimball and Jones.<sup>3</sup> The collection is also rich in Coleoptera. There is a fair number of Hymenoptera, which were largely determined by E. T. Cresson, Sr. The type of *Trogus bolteri* is in the collection, and possibly several other of Cresson's types.

Today the collection is in good condition, but the nomenclature is that of 1900. Unfortunately, there is very little collection data with the specimens, the majority having only state labels.

<sup>1</sup> Contribution from the Department of Entomology, University of Illinois, Urbana, No. 252.

<sup>2</sup> Bull. Ill. State Nat. Hist. Survey, vol. 15 (1927), pp. 232-233.

<sup>3</sup> Kimball, C. R. and Jones, F. M., Annotated List of the Lepidoptera of Nantucket and Martha's Vineyard Islands, Mass., Publication of the Nantucket Maria Mitchell Association, vol. IV.