

The Nearctic Sawflies of the Genus *Fenusa* (Hymenoptera, Tenthredinidae)

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The sawflies of this genus are leaf-miners so far as known, as follows: *ulmi* on elm, *pusilla* on birch, *dohrnii* and perhaps *inspiratus* on alder. They have been in considerable taxonomic confusion and this brief synopsis has been prepared in an effort to straighten matters out. A key is given for the recognition of the species, together with illustrations of the genitalia, which are essential for checking identifications. The species are all small, less than four millimetres in length, and are mostly black.

Types designated in this paper are deposited in the collection of the Illinois State Natural History Survey except where noted.

KEY TO NEARCTIC SPECIES

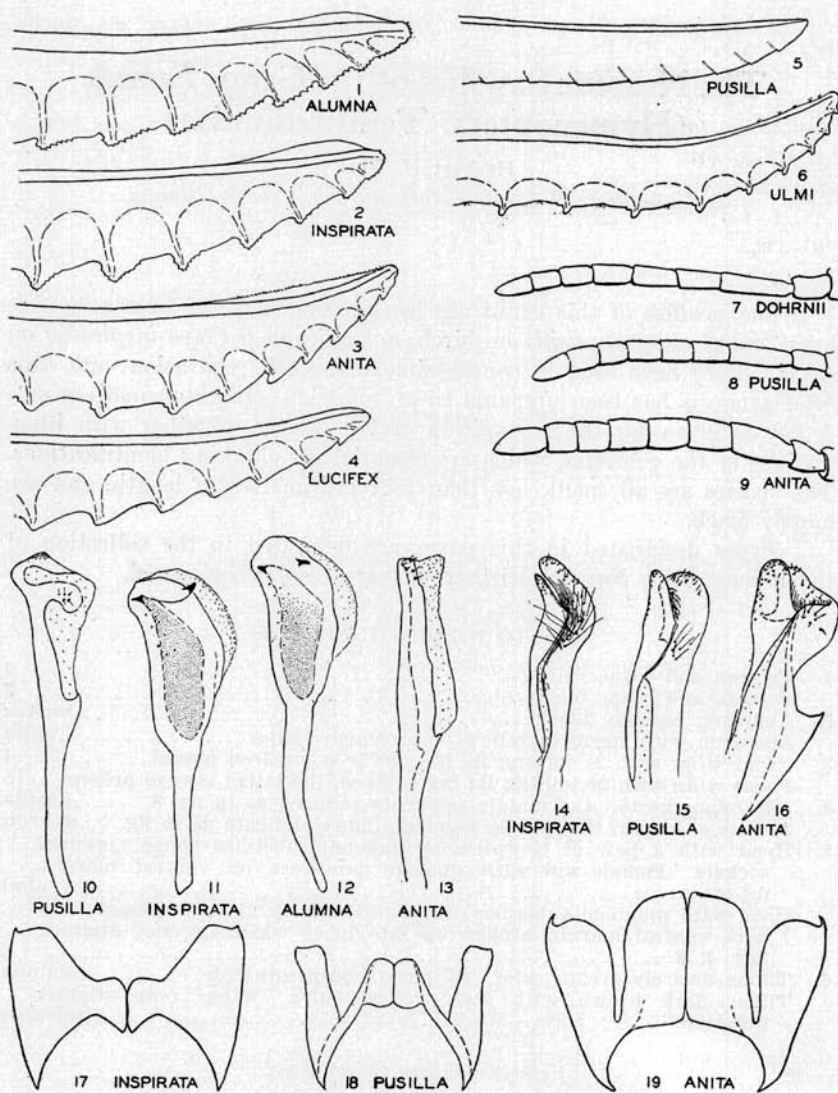
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|---|-------------------|
| 1. Femora and coxae yellow..... | 2 |
| Femora and coxae black..... | 3 |
| 2. Abdomen entirely black..... | <i>lucifex</i> |
| Abdomen with sternites yellow or brownish yellow..... | <i>anita</i> |
| 3. Front wing with <i>2r</i> joining <i>R_s</i> beyond <i>3r-m</i> , or <i>3r-m</i> absent..... | 4 |
| Front wing with <i>2r</i> joining <i>R_s</i> before <i>3r-m</i> , the latter always present... | 5 |
| 4. Antennae shorter, the middle segments reduced as in fig. 8..... | <i>pusilla</i> |
| Antennae longer, the middle segments more elongate as in fig. 7... | <i>dohrnii</i> |
| 5. Head with a pair of conspicuous diagonal tubercles above antennal sockets. Female saw with digitate processes on ventral margin, fig. 6..... | <i>ulmi</i> |
| Head with diagonal tubercles almost or entirely absent. Female saw with ventral margin broken up into lobes which are not digitate, figs. 1, 2..... | 6 |
| 6. Tibiae entirely cream color. Wing strongly infusate..... | <i>alumna</i> |
| Tibiae dark brown with their apices paler. Wings only slightly infusate..... | <i>inspiratus</i> |

Fenusa dohornii (Tischbein)

Kaliosysphinga dohornii Tischbein, Stetting. ent. Zeitg., vol. 7, 1846, p. 80.

Fenusa curtus Norton, Proc. Ent. Soc. Phil., vol. 1, 1861, p. 199, ♀. *New synonymy.*

A true holarctic species which is usually but erroneously considered introduced. Nearctic records: B. C., Colo., Mass., Me., Mich., Ont., Sask.



EXPLANATION OF PLATE

- Figs. 1-6.—Apices of saws.
 Figs. 7-9.—Antennae.
 Figs. 10-13.—Penis valves.
 Figs. 14-16.—Sagittae and volsellae.
 Figs. 17-19.—Parapenes and gonostipes.

Fenusa pusillus (Lepeletier)

Tenthredo (Emphytus) pumila Klug, Magaz. Ges. naturf. Fr. Berlin, vol. 8, 1814, p. 277. Preoccupied.

Dolerus (Fenusa?) pusillus Lepeletier, Monogr. Tenthred., 1823, p. 120.

Klug described two species *Tenthredo (Allantus) pumila* and *Tenthredo (Emphytus) pumila* in the same genus. The former is now known as *Entodecta pumila*, but the latter is obviously a direct homonym and Lepeletier's name *pusilla* must be used instead.

A European species which has probably been introduced into North America. Nearctic records: Mass., Me., N. Y., Que.

Fenusa ulmi Sundewall

Fenusa ulmi Sundewall, Förh. Skand. Naturf., 1844, p. 249.

Messa alsia MacGillivray, Univ. Ill. Bull., vol. 20, no. 50, August 13, 1923, p. 22, ♀. *New synonymy*.

Status similar to above. Nearctic records: N. Y.

Fenusa alumna (MacGillivray) new combination

Messa alumna MacGillivray, Univ. Ill. Bull., vol. 20, no. 50, August 13, 1923, p. 23, ♀.

Messa amica MacGillivray, *ibid.*, ♀. *New synonymy*.

Messa appota MacGillivray, *ibid.*, p. 24, ♂. *New synonymy*.

Distribution.—Ill., Mass., N. H., N. Y.

Fenusa inspiratus (MacGillivray) new combination

Parabates inspiratus MacGillivray, Ann. Ent. Soc. Amer., vol. 2, no. 4, Dec., 1909, p. 264, ♀.

Male.—Similar in size, color and general structure to female. Genitalia with parapenes almost undifferentiated, fig. 17. Sagittae narrow and pointed at apex, volsellae digitate and rounded at apex, fig. 14. Penis valves wide, with two variable "horns" near apex, and no large, unpigmented area in central area, fig. 11.

Allotype.—Male; Hatchet Mt., Shasta county, Calif., July 14, 1933, on *Alnus*, K. A. Salman. Deposited in the U. S. National Museum.

Distribution.—Cala., Nev.

Fenusa anita (MacGillivray) new combination

Messa anita MacGillivray, Univ. Ill. Bull., vol. 20, no. 50, August 13, 1923, p. 23, ♀.

Male.—Similar in size, color and general structure to female. Genitalia extremely aberrant for both genus and subfamily. Parapenes large and plate-like, fig. 19. Sagittae and volsellae both enlarged and rounded at apex, fig. 16. Penis valves slender, straight, with a few minute setae at apex and a ventral membranous fringe, fig. 13.

Allotype.—Male; Montreal, Quebec, June 3, 1906.

Distribution.—N. Y., Que., Wis.

Fenusa lucifex n. sp.

This species most closely resembles *anita* (MacGillivray) but may be distinguished from that species by the black venter of the abdomen and the more slender antennae. From all members of the genus it differs in the smooth-lobed saw, fig. 4.

Female.—Length 3.5 mm. Color black, with the pronotum, tegulae and legs almost entirely yellow; legs with apices of their segments slightly infuscated; clypeus yellow with mesal fourth brown. Front wings fairly heavily infuscate with brown, hind wings only slightly so; stigma and veins brown.

General structure as for genus. Head robust, shining. Antennae slender, with first, second, fourth and fifth segments subequal, third twice length of each; flagellum filiform, closely set with apparent sense pores. Front wings with first abscissa of Rs and looped portion of 2A & 3A atrophied. Hind wings with apical portion of 2A almost atrophied, the loop connecting it with 1A reduced to a faint line. Abdomen shining. Sheath long, with ventral and dorsal margins parallel and straight, and apex diagonal. Saw, fig. 4, with 13 segments in lance, 12 in lancet, lancet with no teeth on lobes, forming a regularly serrate margin, ducts long and narrow.

Holotype.—Female; Fox Lake, Illinois, June 30, 1935, DeLong and Ross.