

with a sub-apical transverse band of yellow, the remaining tergites brown except for a trace of yellow in the middle of each tergite on apical quarter; abdomen much narrower, the tergites relatively much longer than broad, the 1st tergite three times as long as apical width, remaining tergites correspondingly narrow and elongated. As in the female the nervulus is antifurcal and vertical and the nervellus broken at its upper quarter and strongly reclivous.

Re-described from a series of six females and two males from the following localities: Creswell Sounds, South Westland; Mt Lomond and Waipango, Southland; Lake Brunner, Canterbury; and several localities in the North Island. The species has previously been recorded from Mt Arthur at 3,600ft, Lake Wakatipu, Humbolt Range at 3,000ft in Beech forest; Mt Peel, at 5,000ft, in February, and Mt Earnshaw, in January.

This large and handsome species was first described and named by Vollenhaven in 1873 from a female collected in New Zealand. Three years later Smith described and named another female collected at Oxford, Canterbury, *Rhyssa antipodum*, and in 1885 it was again described and named by Colenso from North Island specimens.

The species is not uncommon in native forests throughout both the North and South Islands and is a parasite of the Elephant Beetle (*Thynocodes urus*).

As the older descriptions are somewhat vague, mainly based on coloration, and do not mention characters that are now used in separating the species or this genus, the New Zealand species is re-described above.

Rhyssa lineolata (Kirby)

Cryptocentrum lineolatum Kirby, 1837. In Richardson, Fauna Bor. Amer. vol. 5, p. 260.

Rhyssa albomaculata Cresson, 1864, Ent. Soc. Phil., Proc. vol. 3, p. 318.

Epirhyssa Crevieri Provancher, 1880, Nat. Canad. vol. 12, p. 17.

Rhyssa lineolata (Kirby) Pratt, 1939, Ent. Soc. Amer. Ann. vol. 32, p. 733.

Mr R. Zondog, of the Forest Research Institute, Rotorua, has recently recorded this species from New Zealand. I am indebted to him for a series of specimens bred from pine logs infested with *Sirex*, at Rotorua. This widespread European and American species has apparently recently become established in New Zealand, and was probably introduced with consignments of *Rhyssa persuasoria*, which has been introduced and established in this country to control the Horntail Borer (*Sirex noctilio*). Pratt (1939) gives a detailed account of the morphology of this species.

Rhyssa persuasoria (Linnaeus)

Pimpla persuasorius Linnaeus, 1758, Syst. Nat. ed. 10, vol. 5, p. 562.

Rhyssa persuasoria (Linnaeus). Chrystal & Myers, 1928, Bull. Ent. Res. vol. 19, pp. 67-77. Clark, 1930, N.Z. Journ. Sci. & Tech. vol. 12, pp. 145-146. Miller & Clark, 1935, Bull. Ent. Res. vol. 26, pp. 149-154. Miller & Clark, 1935, N.Z. Journ. Sci. & Tech. vol. 19, pp. 63-64. Gourlay, 1951, Bull. Ent. Res. vol. 42, p. 21.

The above are the more important references to *Rhyssa persuasoria*, a notable parasite of the Horntail Borer (*Sirex noctilio*) in New Zealand.

This species, like other pimplids, varies considerably in size, usually correlated with the size of the host larva. The majority of the females range in length from 18 to 34 mm (excluding the ovipositor) while the males are normally much smaller. The extent of the yellow markings vary somewhat, although the colour of the legs is usually fairly constant, except that in some specimens the posterior legs, especially the coxae, are more or less darkened.

Rhyssa persuasoria was first introduced into New Zealand in 1928, and further introductions were made in 1929 and 1931. The actual liberations were made in Marlborough, Wairau, Hanmer Springs and Palmerston North in 1929, in Tasman and Moutere, in the Nelson district and Wairiki in 1931, and in Ashburton and Braeburn, in Canterbury, in 1932.