

Ancistrocerus gazella (Vespoidea: Eumenidae); a first record for New Zealand

J. A. BERRY

Entomology Division, DSIR, Private Bag, Auckland, New Zealand

ABSTRACT

Ancistrocerus gazella (Panzer 1798) a British and European species of solitary wasp was collected from 8 locations in greater Auckland during February and March 1988. It is presumed to have been present for at least one generation.

Keywords: Hymenoptera, Eumenidae, *Ancistrocerus gazella*, new record, New Zealand.

INTRODUCTION

The genus *Ancistrocerus* comprises strictly solitary, predaceous wasps. Most nest in pre-existing cavities, such as borings in twigs, stems and structural timber, in abandoned galls, in abandoned mud dauber nests and in old burrows of ground-nesting wasps and bees. A few species build complete mud cells (Krombein 1979). The female constructs a series of cells, laying a single egg in each as it is completed. A number of paralysed larvae are placed inside the cell and the cell is closed. North American species have only been recorded as preying on lepidopterous larvae, but a European species is reported to feed on coleopterous larvae (Krombein 1979). The number of cells constructed is always small, usually less than 12. The size of the wasp emerging from the cell is determined by the size of the cell and the amount of provisions (Bequaert 1926). Adults feed almost exclusively on carbohydrates derived from the nectaries of flowers and the honeydew of aphids (Spradbery 1973). The dominant parasitoids of eumenids in the Northern Hemisphere are the Chrysididae, commonly called cuckoo or jewel wasps. This family is absent from New Zealand. *Melittobia acasta* (Walker 1839) (Chalcidoidea: Eulophidae) is the only recorded parasite of *Ancistrocerus* known to be present in New Zealand (Spradbery 1973).

Ancistrocerus gazella is distributed throughout Britain, where it is common in the south (Yarrow 1954), is present in Europe and has been found recently in the United States (M. C. Day pers. comm.). In Britain it is recorded as nesting in various cavities, especially cut stems, and is thought to have 2 generations a year (Richards 1980).

A. gazella in New Zealand

Two female specimens of *A. gazella* were collected indoors by M. J. Taylor (Orakei, Auckland) on the 3 and 8 February, 1988. On 11 February 1 female was collected, also indoors, by S. DeRenzy (Mt. Eden, Auckland). Since then the following specimens have been collected from Auckland.

Henderson, 27 February 1988, O. R. Green, (2 females); Mt Albert, 15 March 1988, P. J. Wigley, (1 female); Howick, 16 March 1988, E. Murray, (1 female); Otahuhu, 17 March 1988, D. Wiley, (1 male); Bucklands Beach, 21 March 1988, V. Holt, (1 female); Titirangi, 21 March 1988, B. Kemp, (1 female).

These are the first records of any eumenid in New Zealand apart from a number of interceptions which have failed to establish (T. H. Davies; R. Kleinpaste pers. comms.). Voucher specimens of *A. gazella* are held in the New Zealand Arthropod Collection at Entomology Division, DSIR, Mt. Albert Research Centre, Auckland.

Description

Ancistrocerus gazella is quite distinctive and easily separated from other New Zealand vespoids particularly by its small size, wide body and distinctive colour pattern (Figs. 1-3).

EUMENIDAE:

Col Henderson, Auckland.

Dead on windowsill.

O.R. Green, 27-2-88

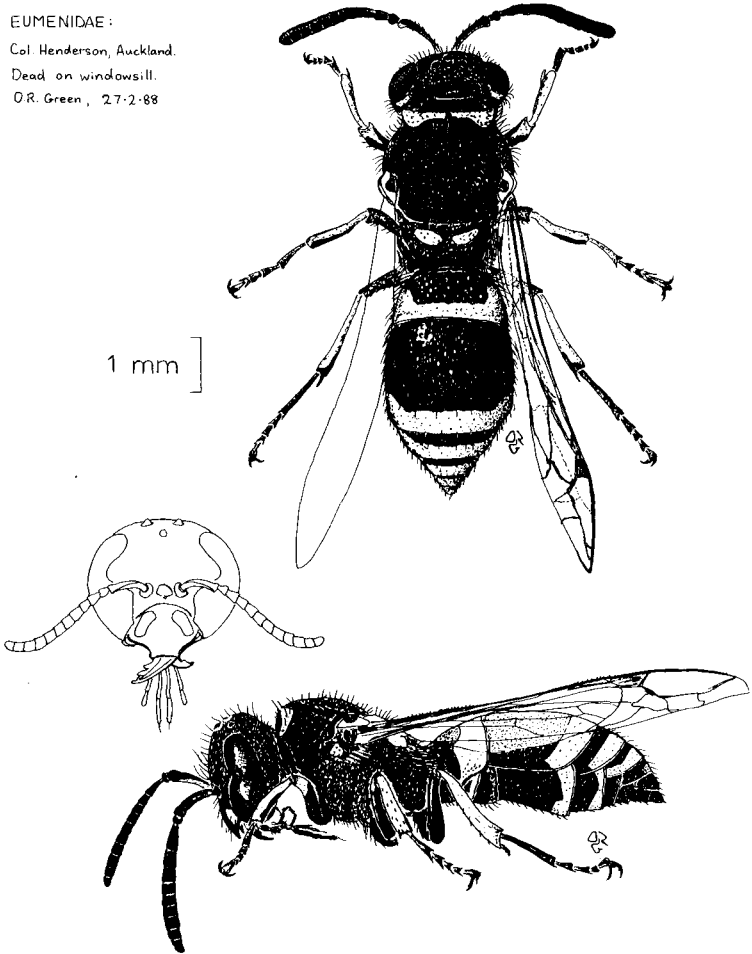


Fig. 1-3: *Ancistrocerus gazella*. Female 1, habitus, dorsal view, 2, head; 3, habitus, lateral view.

Female: 11-15 mm. Head transverse, black with yellow markings on clypeus, between antennal sockets and a yellow genal spot. Eyes deeply emarginate opposite antennal sockets. Antennae black, slightly clavate; ventral side of scape yellow. Thorax black with yellow pronotal collar widened at each end. Lateral angles of pronotum sharply pointed. Tegulae and pleural spot yellow. Mesoscutum black, coarsely punctured; scutellum yellow marked. Metanotum with or without yellow markings. Abdomen black with yellow bands on tergites 1-5, that on T1 rectangularly emarginate anteriorly. Femora black proximally, yellow distally. Tibiae yellow, tarsi brownish-red.

Male: 7-9 mm. Yellow markings as for female except clypeus entirely yellow, more convex than female. No pleural spot, scutellar markings much smaller and no markings on metanotum. Distal 2 segments of antennae reflexed.

Prospects for establishment

The wide distribution of the specimens collected in the Auckland area indicates that this is not the first generation of *A. gazella* in New Zealand. Although each female wasp produces relatively few offspring, if *A. gazella* is multivoltine and lacks important natural enemies it may become firmly established in a short time.

ACKNOWLEDGEMENTS

I am grateful to Dr M. C. Day (British Museum, Natural History) for confirmation of identification and biological information, to O. R. Green (Ministry of Agriculture and Fisheries, Lynfield, Auckland) for the illustrations and to Dr M. J. Taylor for collection of specimens.

REFERENCES

- Bequaert, J., 1926: The genus *Ancistrocerus* (Hymenoptera, Vespidae) in North America with a partial key to the species. *Transactions of the American Entomological Society* 51: 57-117.
- Krombein, K. V.; Hurd P. D.; Smith, D. R.; Birks, B. D., 1979: Catalog of Hymenoptera in America north of Mexico 2. Washington D.C., Smithsonian Institution Press. 2209 pp.
- Richards, O. W., 1980: Scolioidea, Vespoidea and Sphecoidea. *Handbooks for the identification of British insects* 6 Part 3(b): 19-29.
- Spradbery, J. P., 1973: *Wasps*. London, Sidgwick and Jackson.
- Yarrow, I. H. H., 1954: *Ancistrocerus gazella* (Panzer) (= *A. pictipes* Thomson), an abundant but hitherto undetected Eumenine wasp in Britain. *Journal of the Society for British Entomology* 5: 78-82.