

# A NOTE ON VANESSA KERSHAWI (McCOY) IN AUCKLAND

## PRESENTING EVIDENCE OF AN UNUSUAL HOST PLANT

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*Vanessa kershawi* (McCoy) being seen here infrequently, and only in the adult form, opportunity is now taken to record an unusual oviposition by it; and to report that larvae were reared successfully on the selected host plant.

When, on 14.xi.1968, a specimen of *Vanessa kershawi*, undamaged but apparently fatigued, was seen alighting momentarily and frequently on a small part of a grassed area at 323 St. Heliers Bay Road, Auckland, closer inspection revealed that ova were being deposited upon the upper surfaces, near the petioles, of leaves of *Gnaphalium japonicum*.

Seven of the eggs were collected and kept until, nine days later, four larvae were found emerged and moving off the dry leaves. Upon the introduction of a fresh supply of *Gnaphalium*, together with some *Cirsium lanceolatum*, *Picris echioides*, *Sonchus oleraceus*, *Sonchus asper*, and *Senecio vulgaris*, the larvae avoided all but the *Gnaphalium*. In the absence of any *Urtica* it cannot be said whether the larvae would show preference for it over *Gnaphalium japonicum*, upon the upper surfaces of the leaves of which they settled readily, and established themselves eventually each on a separate leaf and under an obscuring mantle of silk. No other larvae emerged; and in the field no additional specimens were found. The caterpillars fed for between 26 and 28 days during which time some evidence of five ecdyses was afforded, at about the 4th, 9th, 13th, 21st, and 28th day respectively. Unlike the final ecdysis, of about 2 minutes' duration, wherein the end segments of the abdomen were withdrawn to allow the cremaster to reach outside the receding exuvia and entangle itself with vigorous twists and thrusts into the pad of silk while the ventral surface of a more anterior segment remained fast, the penultimate moult of the larva occupied 5 minutes, and included the two distinct processes of shedding the soft integument and separately dislodging the inflexible head-capsule. During the final instar, protection under web was not resorted to; and growth progressed rapidly at the rate of 2mm. daily until, at pupation the lengths of the larvae varied between 2.7cms. and 3.3cms.

To pupate, two of the larvae hung from the flat surface of the cage frame; but the other two, largest but latest to cease feeding, suspended themselves from web so as to hang inside a securely-braced enclosure of silk fibres loosely-woven, in an axil of Scotch Thistle. Pupation, which required from 14-21 hours to accomplish after suspension, occurred on 20th, 21st, and 22nd December, and

lasted for from 9½ to 11½ days.

The four imagines, which emerged very suddenly about 3½ hours after the sheen of the pupal surface had dulled and its colour much darkened, and at from 46½ to 49½ days after oviposition, were all males. Their wingspan varied between 4.8cms. and 6cms.

The sizes, growth rates and behaviour pattern throughout metamorphosis suggest that development continued steadily and that the **Gnaphalium japonicum** proved completely acceptable and adequate for these larvae.

For the butterflies, feeding from fresh flowers was limited to occasional visits only, preference being shown for Composite blossoms, but mostly for a prepared solution of honey. Peculiar behaviour was evoked by the vial of honey when not completely filled: the butterfly applied the tip of the haustellum repeatedly to the outside surface of the glass around the level of the meniscus of the liquid inside, and only reached the food at first by following the meniscus up as the vial was being refilled to the brim.

As the occurrence of **Vanessa kershawi** seems to have been discontinuous and unpredictable in Auckland, and as continuous generation from these four male specimens appeared to be unlikely, observation was terminated on 6.i.69.

The few previous sightings the writer has made of **V. kershawi** under conditions favourable for identification were recorded in notes as:

- (1) 14.iv.1931: Whatatiri, Clevedon, South Auckland.  
(on road cutting; **V. gonerilla** also present).
- (2) 1.xi.1931: One Tree Hill, Onehunga, Auckland.  
(on summit, in company with **V. itea**, 2 specimens, and **V. gonerilla**, 1 specimen).
- (3) 3. i.1944: Bowentown, Waihi Beach.  
(on top of Pa hill).

During the years 1926-30 **V. itea** was observed, and reared, frequently, for the species could be found in all stages at a well known patch of Nettles in Onehunga; but **V. kershawi** was not likewise established.

For a record of an early occurrence of **V. kershawi** numerically strong in Auckland I am grateful to Dr. A. W. B. Powell who, in 1912, submitted specimens to the Auckland Museum where they were identified as **V. cardui** by comparison with Major Broun's collection. On a piece of land near the Post Office at the corner of King Edward Street and Dominion Road, Auckland, there grew much Stinging Nettle, Scotch Thistle, and Fennel; and in this area where the specimens were captured, this butterfly and **V. gonerilla** were numerous; but the developing stages were not obvious at that time.

Although **Vanessa kershawi** has found suitable host plants in Auckland it does not yet seem to persist here.