

for many days. For many subsequent days I was prevented from catching crickets, and it thus came about that the two scorpions fasted for some seven weeks.

One day, about the middle of December, I examined the jar and found the slightly larger scorpion dead, with the slightly smaller insect in the act of feeding on its left side. All the legs on this side had been bitten off, and the left pedipalp had been sucked hollow; there was also a fairly extensive wound on the body's left side between the cephalothorax and the abdomen.

This observation suggests that scorpions—at least of the same generation—do eat each other if no alternative food is available.

(3) On the other hand, I have three small scorpions (two “grey-and-yellow”, one black) which have lived together peaceably in the same jar for the last two months, during which their food supply of crickets and grasshoppers has had to be very irregular. When these insects encounter each other, they feel one another with their pedipalps and then separate in different directions. They can even crawl over each other's bodies without provoking any aggressive response.

Those persons who may be interested in making further observations, may rest assured that scorpions cannot climb perpendicular glass surfaces and may be safely kept in deep glass jars. The bottom of the jar should be covered in sifted soil, and a piece of coconut shell, fitted with a wire hook on top for purposes of easy removal, makes a satisfactory “stone” for the scorpions to hide under, being light enough to cause no damage in case it is accidentally dropped into the jar.

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January 11, 1974.

THOMAS GAY

16. *ALEURODOTHrips FASCIAPENNIS* (FRANKLIN)
PREDATORY ON COCCIDS AND ALEYRODIDS
(With a text-figure)

Franklin (1908) described the species *Cryptothrips fasciapennis* based on a solitary female on the leaf of lime in West Indies and in the very next year erected the genus *Aleurodothrips* with *C. fasciapennis* as the Type. Priesner (1949) synonymised *Cephalothrips spoinous*. Bagnall (1909) subsequently transferred it to the genus *Micranthothrips* (Bagnall 1914). *Aleurodothrips fasciapennis* enjoys a wide distribution being recorded from Barbados, Bermuda, Sri Lanka, China, Cuba, Fiji, Florida, Formosa, Hawaii, Java, Jamaica and even

from Brussels and New York. This species was first recorded in this country by the author in 1964 feeding on coccids on the leaves of *Palmyra* (*Borassus flabellifer*). Since then this species has been recorded more frequently and recently a good series was taken on drying *Pandanus* infested with coccids, in West Bengal. Its introduction from Java to Fiji for the control of *Aspidiotus destructor* on coconut palms and its close association with other aleyrodids and coccids point to the possibility of its usefulness in biological control.

Examination of a good series of both sexes offered good evidence for the presence of major and minor females and oedymorous and gynaeccoid males. While the genus *Aleurodothrips* is characterised among other features by the banded wings, lack of epimeral suture on pronotum, the divided pelta and by the strongly developed fore-

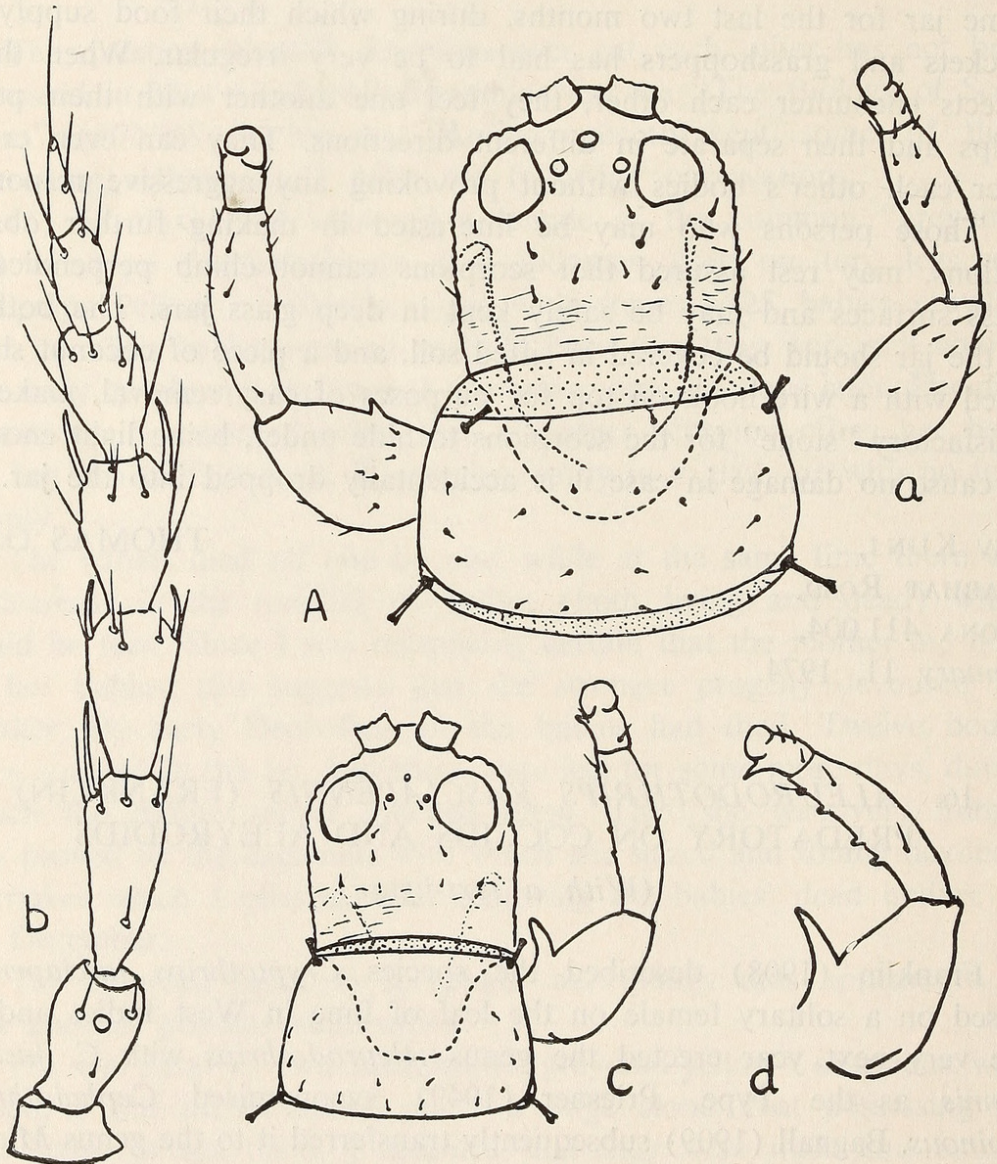


Fig. 1. *Aleurodothrips fasciapennis*: A. Head & Prothorax of major female. a. Forelimb of normal female; b. Antenna of female; c. Head and prothorax of normal male; d. Foreleg of oedymorous male.

femoral spur or tooth in the males, the distinct presence of a comparatively small spur on the forefemora of major females appears to be of interest. This is absent in the minor and normal females. Correspondingly the three or four seta bearing warts become more emphasised in oedymorous males and absent in gynaeoid males (Fig. 1).

While Stannard (1968) has characterised this species in detail, it would be proper to give the range of essential measurements (in microns) so as to have an idea of the intraspecific variation of this important species, information on which is lacking.

Macropterous female (male):

Head 112-115 long (92-96), 124 (99-106) wide across eyes, 129-131 (99-106) across cheeks and 124-126 (97-103) at base. Eyes 46 (44) long, 37-44 (34-36) wide. Antennal segments, 1-8, length (width):
Female: 18-23 (23); 32-34 (23); 51-53 (18-21); 44-46 (21-23); 37-39 (21-23); 32-34 (18); 25-28 (11-14); 23-25 (7).

Male: 14-16 (18-21); 25-28 (18); 44-46 (14-16); 37-41 (21); 32-37 (18-21); 30-34 (16-18); 23 (11); 18-23 (7-9).

Mouth cone broadly rounded, 122-124 (92-101) wide at base and 71 (48-55) at apex.

Prothorax 103-115 (76-94) long, 131-140 (103-115) wide at anterior margin, 92-107 (133-166) across posterior; anteroangulars 16-21 (11-16), epimerals 16-23 (21-23) expanded at apex. Forefemora 80-92 (80-103) wide, foretarsal tooth absent in female, with a minute tooth in males, 5-9 long; forefemora of normal and minor females unarmed, major females with a *distinct spur*; forefemora of males with a strong tooth, reduced in gynaeoid males and well developed in oedymorous males, 21-32 long; foretibia of males with a series of 2-3, rarely 4 emphasised tubercles better developed in oedymorous individuals. Forewing 520 (395-441) long, comparatively narrow, and without double fringes; basal wing bristles very short 5 (5-7), 5-7 (7-11), 7-11 (9-11) long, expanded.

Abdomen 226-237 (136-162) wide at base, 249-260 (124-136) at middle, 158-169 (90-102) and 79-102 (68) across VIII and IX. B1-B3 of IX 39-41 (56); 64-69 (34-36) and 69 (69) long. Tube 94 (80) long, 46 (34-37), 34 (25-34) and 23 (23-32) respectively wide at base, middle and apex. Anal setae 69-80 (46-73) long.

Total body length: 1.051-1.445 (0.836-0.842) mm long.

Material: Sibpore (West Bengal), drying *Pandanus*, 27-i-72; 14 females, 8 males, Kolathur, Kerala, Palmyra leaves, 31-vii-64; 10 females, 9 males; Calicut (Kerala), grass, 4-xi-63, 8 females, 6 males; Chalakudi (Kerala), bamboo leaves, 5-xii-63, 4 females, 2 males; Mangalore (Mysore), grass, 26-i-64, 4 females, 2 males.

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17. NOTE ON THE PECULIAR BEHAVIOUR OF DRAGONFLIES

It is now known that certain dragonflies have the habit of following, without any apparent reason, moving objects both animate and inanimate. For example, Acharya (1961) and Worth (1962) reported unspecified dragonflies following bicycles and Corbet (1962) reported *Brachythemis leucosticta* following a walking man over a concrete pavement in Africa. I have observed an *Ictinogomphus rapax* Ramb. following a moving tram car for about 10 metres on a June evening in 1966, and a *Pantala flavescens* (Fab.) following for about 6-7 metres another tram car in an afternoon of April, 1968. On the latter occasion the dragonfly was found to hit against the roof of the vehicle. One morning in July, 1970, some examples of *Crocothemis servilia* (Dr.) were observed to follow motor vehicles running along a main trunk road in the suburbs of Calcutta for about 4 to 5 metres and then to come back their original place. Sometimes several *Diplacodes trivialis* (Ramb.) and *Brachythemis contaminata* (Fab.) dragonflies are found to follow men walking along grasslands.

Acharya (1961) considered this behaviour of dragonflies as fun, but Worth (1962) considered it as hunting strategy. But Corbet (1962) did not consider it as a preying technique because no small-winged insect was found to rest on the concrete pavement. Similarly, no winged insect could possibly be resting near moving vehicles and men. From the above facts it is clear, as Corbet (1962) has already suggested



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