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Aphids from the Philippines and the Bismarck Islands, with Description of a New Species of *Greenideoida*.

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The aphids collected by the Noona Dan Expedition 1961—62 in the Philippines and the Bismarck Islands (Petersen 1966) belong to 12 species distributed over 28 samples. Each sample usually consists of 1, seldom 2—3 specimens, collected by sweeping or trapping. Only two samples comprise entire colonies taken directly from host plants. Two of the twelve species, therefore, are represented by numerous specimens, whereas the remaining 10 species include only 29 specimens.

All the adult specimens are viviparous females in accordance with the fact that sexual morphs of aphids are rare in the tropics.

Six of the species are cosmopolitan or at least distributed over several continents, three species are East Asian, one species (*Hystero-neura setariae*) is American, but recently introduced into Africa and Asia, one species is indeterminable, because only immature individuals are present, and one species (*Greenideoida noonadanae* n. sp.) is known only from the Philippines. Information about the distribution of the individual species in the surrounding parts of the world has been borrowed from Cottier (1953), Eastop (1961, 1966, and i.l.), Essig (1956), van der Goot (1917), Hille Ris Lambers (i.l.), Hughes et al. (1964), Martyn & Miller (1963), Boonsom Meksongsee (Thailand, i.l.), Takahashi (several papers), and Zimmerman (1948).

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to Dr. V. F. Eastop, British Museum, London, for loan of specimens and information concerning the recent distribution of *Hysteroneura setariae*, and to Dr. C. Watanabe and Mr. M. Miyazaki, Sapporo, Japan, for loan of specimens from the Takahashi Collection.

The material from the Noona Dan Expedition belongs to Zoological Museum, Copenhagen.

APHIDIDAE.

Aphis gossypii Glover.

Philippines. — MINDANAO: Sapamoro, Curuan district, 16.XII.1961, 1 al.; 20.XII.1961, several apt., juv., nymphs, from *Callicarpa basilanensis* Merr. (Verbenaceae); 22.XII.1961, 1 al.

Bismarck Islands. — NEW BRITAIN: Valoka, 7.VII.1962, 1 al.

Distribution: Philippines, New Britain, New Guinea, Solomon Islands, Hawaii, Micronesia, Fiji, New Hebrides, New Zealand, Australia, Tasmania, Indonesia, Thailand, Malaya, Burma, China, Formosa, Ceylon, and all over the world (cosmopolitan).

Aphis nerii Boyer de Fonscolombe.

Bismarck Islands. — MANUS: Lorengau, 24.VI.1962, several apt. and juv. from *Asclepias curassavica* L.

Distribution: Solomon Islands, Micronesia, Fiji, New Hebrides, New Zealand, Australia, Tasmania, Indonesia, Thailand, Malaya, Formosa, West Asia, Africa, South Europe, U.S.A.

Brachycaudus helichrysi (Kaltenbach).

Philippines. — PALAWAN: Mantalingajan, Pinigisan, 600 m, 23.IX.1961, 1 al.

Distribution: Philippines, New Guinea, Hawaii, New Zealand, Australia, Tasmania, Indonesia, Formosa, and all over the world (cosmopolitan).

Cavariella araliae Takahashi.

Philippines. — PALAWAN: Mantalingajan, Pinigisan, 600 m, 22.IX.1961, 2 nymphs with wing pads.

Distribution: China, Japan, Formosa, Philippines.

The identification is based on the key in Takahashi (1961) and certified by comparison with slides from Japan including nymphs with wing pads.

Dactynotus (Uromelan) orientalis (van der Goot).

Philippines. — TAWI TAWI: Tarawakan, 20.X.1961, 1 apt. (Hille Ris Lambers det.).

D i s t r i b u t i o n : Indonesia, Philippines.

Hysteroneura setariae (Thomas).

Philippines. — PALAWAN: Mantalingajan, Pinigisan, 600 m, 24.IX.1961, 1 al. — BALABAC: Dalawan Bay, 8.X.1961, 1 al.

D i s t r i b u t i o n : The species originates from America, but has been introduced to the Old World. It has been recorded from Africa by Eastop (1961). Eastop (i.l.) says that it has been widely distributed recently, probably by military planes during and after the war 1939—45, and has been collected in Hong Kong, Malaya, Philippine Islands, Savah, Solomon Islands, and other Pacific islands, including Fiji.

Macrosiphum (Sitobion) smilacifolium Takahashi.

Philippines. — PALAWAN: Mantalingajan, Pinigisan, 600 m, 1.IX.1961, 1 apt. (Hille Ris Lambers det.); 7.IX.1961, 1 apt.

D i s t r i b u t i o n : Japan, Formosa, Philippines.

Macrosiphum (Sitobion) sp.

Philippines. — MINDANAO: Sapamoro, Curuan district, 16.XII.1961, 3 juv.

Bismarck Islands. — NEW BRITAIN: Yalom, 1000 m, 9.V.1962, 1 nymph.

These specimens possibly belong to *smilacifolium* Tak. They cannot be definitely identified because they are immature.

Myzus (Nectarosiphon) persicae (Sulzer).

Philippines. — TAWI TAWI: Tarawakan, 7.XI.1961, 1 al.

D i s t r i b u t i o n : New Britain, Hawaii, Micronesia, Fiji, New Zealand, Australia, Tasmania, Indonesia, Thailand, Malaya, Formosa, China, Ceylon, India, and all over the world (cosmopolitan).

Rhopalosiphum maidis (Fitch).

Philippines. — TAWI TAWI: Tarawakan, 12.XI.1961, 1 al. Caught by Mercury-light 6⁰⁰—11³⁰ p.m. in the evening.

D i s t r i b u t i o n : Philippines, Solomon Islands, New Britain,

New Guinea, Hawaii, Micronesia, Fiji, New Zealand, Australia, Tasmania, Indonesia, Malaya, Ceylon, India, Japan, and all over the world (cosmopolitan).

GREENIDEIDAE.

Greenideoida noonadanae n. sp.

Philippines. — BALABAC: Dalawan Bay, 8.X.1961, 1 al., holotype, in the Zoological Museum Copenhagen as Noona Dan Aphidoidea no. 18.

Description. Alate viviparous female (fig. 1—2):

Colours in life unknown. Colours of mounted specimen: Pale

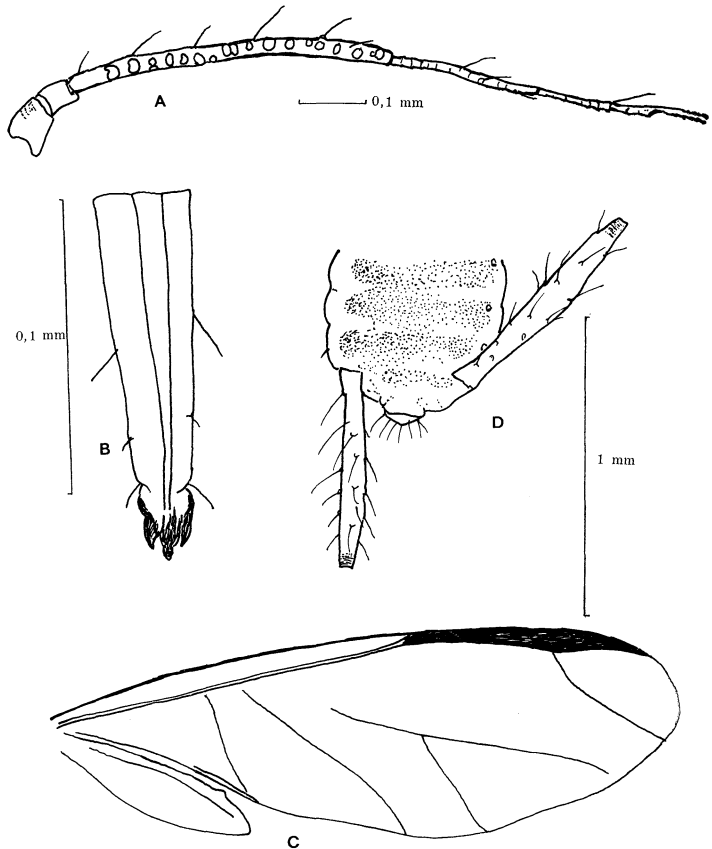


Fig. 1. *Greenideoida noonadanae* n. sp. Alate viviparous female. A) Antenna. B) Apical segment of rostrum. C) Wings. D) Posterior part of dorsum with siphunculi.

yellowish with brownish surroundings of the ocelli and brownish transverse bands on abdominal segments III—VII, those on IV—VI being fused. Brownish antennae. Brown siphunculi. Legs pale.

Body 1,56 mm long. Longest hair on anterior abdominal tergites about 1,8 times as long as basal diameter of IIIrd antennal segment. Width of head across eyes 0,37 mm. Frontal hairs about 0,06 mm long. Lateral frontal tubercles poorly developed. Eyes large with prominent ocular tubercles. Antenna of 5 segments; lengths of the segments in mm: I 0,09, II 0,07, III 0,60, IV 0,25,

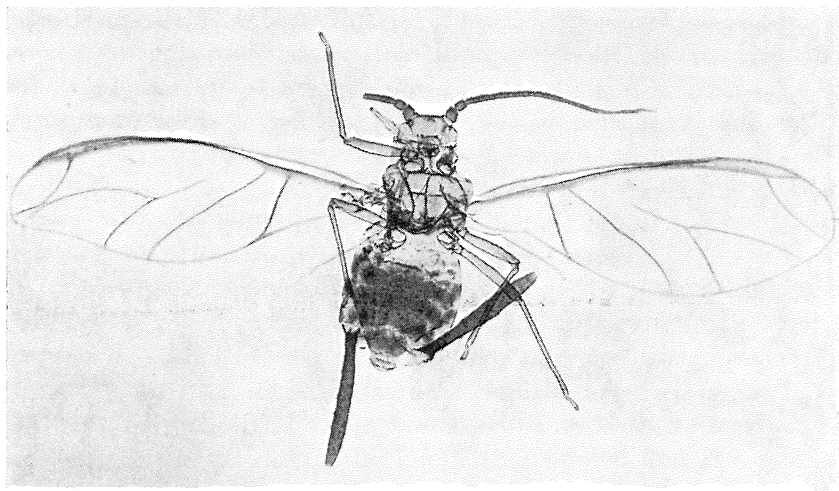


Fig. 2. *Greenideoida noonadanae* n. sp. Alate viviparous female. Natural size 1,56 mm.

Va 0,22, and Vb more than 0,09 (broken); IVth segment considerably thinner than IIIrd segment, and the base of Vth segment is very thin, too; 5—6 long hairs on the inner (frontal) side of IIIrd segment, about 4 times as long as basal diameter of that segment, IVth segment with 3 hairs, and base of Vth segment with 1 hair; IIIrd segment with 18 transversely oval secondary rhinaria over the entire length. Rostrum reaches to about 3rd coxae; apical segment (IV+V) slender and 0,12 (0,10 + 0,02) mm long or 1,3—1,4 times as long as 2nd segment of hind tarsus (0,09 mm), with 6—8 very pale, nearly invisible hairs. Fore wing 2,2 mm long; media with one fork. Hind wing reduced in size, about 0,7 mm long, without obliques. Legs slender. Siphunculus 0,81 mm or

about half as long as the body or 8 times the maximum width, with the largest diameter a little distally to the middle; the basal third is narrower than the rest, down to 0,06 mm, except the apex, which is only 0,04 wide and without flange, whereas the width is largest about $\frac{2}{5}$ from the apex, 0,10 mm or about 3 times the diameter of hind tibia in the middle (0,03 mm); covered with up to about 0,12 mm long bristles of uniform type and with normal acute apices, evenly distributed; without reticulation, but near apex covered with spinules in transverse rows. Cauda rounded triangular.

Notes: The wing venation, the presence of 5 antennal segments, and the absence of reticulation on siphunculi show the affinity with *Greenideoida elongata* van der Goot (cf. the key in Ray Chaudhuri 1956, p. 66—67), from which it differs, however, by having shorter siphunculus (0,52 times as long as body compared with 0,76 times in the alate *elongata*) and also thicker siphunculi. I doubt that it is identical with the unknown alate morph of *G. hanna*e van der Goot (van der Goot 1917 p. 145, Ray Chaudhuri 1956 p. 101), whose apterous morph has very short siphunculi, only about 0,25 times as long as body, but is said to have numerous long and spiny hairs.

Rostrum is more distinctly five-segmented than in *elongata*. The general appearance of *noonadanae* is much like that of *Eutrichosiphon pasaniae* Okajima (according to description in Ray Chaudhuri 1956 and comparison with specimens from the Takahashi Collection) from which it only differs by having the same reduced type of venation as in *Greenideoida elongata* and by having siphunculi which are not faintly striated or reticulate, though otherwise very similar.

Two alate aphids belonging in British Museum, London, from traps at the Davao Experimental Station, Philippine Islands, labelled *Greenideoida ?hanna*e v. d. Goot, 352/63 and 361/63, March 1963, collected by M. R. Gavarra, are — though only with doubt — referred to *noonadanae* n. sp. They differ from the type for instance by having shorter IIIrd antennal segment, fewer rhinaria (8—10), shorter and more hairy siphunculi, and — at least in one specimen (352/63) longer apical segment of rostrum. These differences may be due to a different season of the year or simply normal variation.

Some measurements in mm:

352/63: Body length 1,87, antenna 1,26, III—V 0,48:0,26:(0,22+0,16), siph. 0,71, apic. rostr. segm. 0,16, 2nd segm. hind tars. 0,09.

361/63: Body 1,80, antenna 1,01, III—V 0,41:0,19:(0,14+0,14), siph. 0,59.

PEMPHIGIDAE.

Tetraneura nigriabdominalis (Sasaki) (= *hirsuta* Baker).

(For synonymy: See Tanaka 1961).

Philippines. — PALAWAN: Mantalingajan, Pinigisan, 600 m, 7.IX.1961, 2 al. — MINDANAO: Sapamoro, Curuan district, 16. XII.1961, 3 al.; 20.XII.1961, 1 al.; 22.XII.1961, 3 al.

Bismarck Islands. — NEW BRITAIN: Kwalalessi, 3.VII.1962, 1 al.

Distribution: This species or complex of species is widespread in old world tropics and subtropics. According to Tanaka and others it occurs in Micronesia, Australia, Japan, Formosa, Philippines, China, India, Ceylon (Judenko & Eastop 1963), Africa, Yugoslavia (Tanasijevic & Eastop 1963, but not Eastop 1966), Jamaica, and U.S.A. Eastop (1966) does not mention U.S.A., but adds Malaya and New Guinea.

Summary.

Eleven aphid species, collected by the Noona Dan Expedition, are recorded from the Philippines (10 species) and the Bismarck Islands (4 species). Six of the species are distributed over several continents, three species are East Asian, one species (*Hysteroneura setariae*) is American, but recently introduced into Africa and Asia, and one species (*Greenideoidea noonadanae* n. sp.) is described from the Philippines (Balabac I.).

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