

A New Scolothrips from Hawaii¹

By K. SAKIMURA

PINEAPPLE RESEARCH INSTITUTE OF HAWAII

The species described herein, *Scolothrips priesneri*, has been recorded several times ("PROCEEDINGS" 9:417, 1937; 12:24, 1944; 12:331, 1945) under the name of *S. sexmaculatus* (Pergande). The specimen mentioned in a note ("PROCEEDINGS" 12:125, 1944) was not available for re-examination but it probably was *S. priesneri*. The specimens collected in 1910 (?) at Honolulu (Fauna Hawaiiensis 3:700, 1910; "PROCEEDINGS" 7:108, 1928) likewise may have been *S. priesneri*.

Scolothrips are not uncommon in the Hawaiian Islands and were often collected in the cultivated areas as well as in the forested areas at the higher elevations. As far as known to the writer, there are two different species of *Scolothrips* in Hawaii. *S. priesneri* is commoner and *S. pallidus* (Beach) is less common. Mixed colonies of the two species have never been observed.

In his monograph of the genus *Scolothrips* (Bull. Soc. Fouad I Ent. 34:39-68, 1950), Priesner concluded that the Hawaiian species known under the name of *S. sexmaculatus* needed to be re-examined (page 40). Upon his request, material was forwarded to him and he replied that in his opinion it was an undescribed species. He requested the writer to publish the description which had been submitted to him in manuscript form.

Scolothrips priesneri new species

Female holotype: Color (under reflected light on white background): pale lemon yellow without dark grayish shading on body and legs except mesoscutellum. *Antennae:* I hyaline, the rest shaded gray except basal halves of III and IV and basal tip of V. Frontal portion of vertex weakly shaded; mesoscutellum deeply shaded but somewhat lighter in some paratype specimens; lateral corners of mesoscutum and metascutum I except the median portion weakly shaded; laterals of pterothorax, particularly of mesothorax, weakly shaded; forelegs very weakly grayish; in some lighter paratype specimens these weak shadings on body and legs are practically invisible. *Wings:* basal 3/5 of scale and both bands deeply shaded, band II slightly lighter, both bands nearly twice as long as broad and *always* reach both margins broadly. Last four segments of abdomen yellower than the rest and very weakly grayish. Body bristles yellow or light brown except the ones on wing bands which are pale grayish, and the ones on middle segments of abdomen which are hyaline.

(All measurements in microns.) *Head* 85 long, 125 (at eyes) and 120 (at cheeks) wide; eyes laterally produced, 48 long, 40 wide, 45 interval; pronounced bulging of ocellar hump, interocellar bristles 85; mouth cone 150 long. *Antennae* 205 long in total; length (width) of joints are 19(27), 31(24), 37(19), 34(18), 29(15), 42(15), 11(6), and 15(4); V nearly straight on sides. *Prothorax* 95 long, 135 (foremargin) and 175 (hind margin) wide; bristles on foremargin, b.1: 50, b.2: 120, b.3: 45, b.4: 110; lateral bristles 105; bristles on hind margin, b.1: 115, b.2: 60, b.3: 105, b.4: 100; *prebasal setae* wanting. *Pterothorax* 275 long, 240 wide; metascutum I, b.1: 47 long and 10 microns shorter from

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the hind margin of metascutum; hind tibiae 160 long. *Wings* 705 long, 59 wide at both bands; band I 95 long, band II 100 long; costal bristles 130 (at band I) and 145 (at band II) long; b.2 on scale 115 long; number of bristles on costa 19, forevein 9, hind vein 5. *Abdomen* 730 long, 250 (at III) wide; bristles on IX, b.1 and b.2: 75, b.3: 80, dorsal bristles 36; bristles on X, b.1: 70, b.2: 65; ovipositor 210 long. Total body length 1145.

Measurements from 10 paratype specimens: Mean or average (Min.-Max.). *Head* 75 (70-85) long, 120(110-125) wide at eyes, 115(110-120) wide at cheeks; interocellar bristles 85 (80-90) long; mouth cone 150 (140-165) long. *Antennae*, I: 18 (17-19) long, 27 (26-27) wide; II: 32(30-33) long, 24(24-25) wide; III: 36(34-38) long, 19(18-20) wide; IV: 32(31-34) long, 18(18-19) wide; V: 28(28-29) long, 15(14-16) wide; VI: 42(40-44) long, 15 wide; VII: 11(10-12) long, 7(6-8) wide; VIII: 15(14-16) long, 4.5(4-5) wide; total length: 205 (190-212). *Prothorax* 95(90-105) long, 130(115-140) wide along foremargin; 165(150-175) wide along hind margin; bristles on foremargin, b.1: 52(50-55), b.2: 115(105-120), b.3: 40(36-45), b.4: 100(95-110); lateral bristles 100(90-110); bristles on hind margin, b.1: 110(100-115), b.2: 55(45-64), b.3: 100(90-105), b.4: 95(90-105). *Pterothorax* 240(230-275) long, 225(200-240) wide; hind tibiae 160(155-165) long. *Wings* 685(640-730) long, 57(55-59) wide at band I, 55(53-59) wide at band II; band I 95(90-116) long, band II 95(80-105) long; costal bristles 125(110-130) long at band I, 140(130-155) long at band II; b.2 of scale 105(100-115) long; number of bristles on costa 20(19-23), on forevein 9(9-10), on hind vein 5(4-6). *Abdomen* 700(660-740) long, 240(210-260) wide at III; bristles on IX, b.1 and b.2: 75(70-80), b.3: 82(80-85), dorsal: 38(32-40); bristles on X, b.1: 70(60-75), b.2: 65(60-65); ovipositor 200(195-220) long. Total body length 1100(1000-1230).

Male allotype: Color: Pale yellow to pale grayish yellow. Grayish shadings same as in female; in addition, abd. VIII (weakly) and IX (distinctly) always shaded. Bands I and II of wings same as in a female.

Head 78 long, 110 (at eyes) and 100 (at cheeks) wide; eyes 45 long, 36(?) wide, 36(?) interval; bulging ocellar hump; interocellar bristles 70 long. *Antennae* 190 long in total; length (width) of joints are 14(23), 28(22), 32(16), 26(16), 26(14), 37(15), 9(7), and 15(4); V straight on sides. *Prothorax* 90 long, 120 (foremargin) and 150 (hind margin) wide; bristles on foremargin, b.1: 36, b.2: 93, b.3: 32, b.4: 80; bristles on hind margin, b.1: 90, b.2: 42, b.3: 75, b.4: 80; *prebasal setae wanting*. *Pterothorax* 200 long, 170(?) wide; hind tibiae 120 long. *Wings fully developed*; 520 long, 44 (at band I) and 38 (at band II) wide, gradually tapered; band I 78 long, band II 90 long; costal bristles 90 (at band I) and 115 (at band II) long; b.2 on scale 85 long; number of bristles on costa 17-18, forevein 9, hind vein 4-5. *Abdomen* 500+ long, 175 (at III) wide; bristles on IX, b.1: 50 long and 21 microns apart from the hind margin, b.2: 20 long and 8 apart, b.3: 8 long and 17 apart, b.4: 60 long and 8 apart, they are on two different levels, dorsal bristles 22 long; sternites III-VIII with very broad dumb-bell shaped glandular areas, III: 100 wide, 9 (at constricted part) and 16 (at broader part) long, VI: 120 wide, 7 and 20 long. Total body length 860+.

Specimens examined: Female holotype—Manoa, Oahu; *Asystasia coromandeliana*; November 3-16, 1943; K. Sakimura (Saki. 2918-19). Male allotype—Puuwaawaa, Hawaii; *Erythrina monosperma*; January 3, 1947; K. S. (Saki. 2160). Paratypes are: 1 ♀—Waipahu, Oahu; *Xanthium* sp.; March 8, 1931; K. S. (Saki. 372). 4 ♀—Manoa, Oahu; October 23, 1940; C. T. Schmidt. 1 ♀—Manoa, Oahu, tomato; September 25, 1942; K. S. (Saki. 1258). 1 ♀—Aiea, Oahu; *Hibiscus rosa-sinensis*; September 29, 1942; K. S. (Saki. 1408). 1 ♀—Hilo, Hawaii; *Passiflora* sp.; March 15, 1945; W. C. Look (Saki. 1671). 1 ♀—South Kohala, Hawaii; *Sonchus oleraceus*; August 3, 1945; W. C. Look (Saki. 1702). 1 ♀, 1 ♂—same as allotype. 1 ♀—Waikoloa, Hawaii; *Dodonaea viscosa*; January 3, 1947; K. S. (Saki. 2162). 4 ♀, 6 ♂—Kapahulu, Oahu; *Ficus carica*; August 18, 1943; I. Yanagihara (Saki. 2810). 1 ♀—Waipahu, Oahu; asparagus; September 15, 1943; K. S. (Saki. 2830/19A). 1 ♂—Waipahu, Oahu; *Colocasia esculenta*; September 15, 1943; K. S. (Saki. 2830/21). 1 ♀—Waialeale, Oahu; *Eugenia uniflora*; October 11, 1943; K. S. (Saki. 2854). 2 ♂—same as holotype. 1 ♀—Aiea, Oahu; *Pluchea odorata*; December 1, 1943; K. S. (Saki. 2956). 10 ♀, 2 ♂, 6 immature stages—Kunia, Oahu; *Colocasia esculenta*; November 5, 1946; K. S. (Saki. 3253). 7 ♀, 4 ♂—Lualualei, Oahu; *Ipomoea pentaphylla*; June 6, 1943; T. Nishida (Saki. 3722) (Haw. Agr. Exp. Sta. Dept. Ent. 3367).

The holotype and allotype were deposited in Dr. Priesner's collection, and the paratypes, in the writer's collection. Some of the paratypes are

to be deposited in the Bernice P. Bishop Museum, Honolulu, Hawaii, and the U. S. National Museum, Washington, D. C.

The species is named after Dr. H. Priesner of Cairo, Egypt, who made a great contribution to the knowledge of the genus *Scolothrips*.

Dr. Priesner stated in his letter that *priesneri* is structurally similar to *longicornis* Priesner but differs in coloration. In addition, the male has fully developed wings and cannot, therefore, be identical with *longicornis*. All the specimens of the latter species he has seen were hemimacropterous.

Structurally, females of *priesneri* are similar to *longicornis* from which it is separated by shorter antennae (190-212 *vs.* 220-235), particularly shorter II, V, and VI; slightly longer prothorax bristles (95-120 and 36-64 *vs.* 90-105 and 32-52); shorter hind tibiae (155-165 *vs.* 160-180); and slightly shorter bristles on abdominal IX (70-85 *vs.* 80-95). Antennal formula of *priesneri* is nearer to that of *sexmaculatus*. In coloration, however, *priesneri* is strikingly different from *longicornis*, which has no dark shading on body and legs, and has a spot-like wing band I without reaching the hind margin. In *priesneri*, antennal joint II is wholly shaded, mesoscutellum is deeply shaded, and both wing bands are longer than broad and *always broadly* reach both margins.

With two broad wing bands broadly reaching both margins, *priesneri* is separated from all the known species, including *sexmaculatus*, *pallidus*, and *longicornis*, except the following 5 species. However, *priesneri* is further separated from the five as follows: *hoodi* Priesner by prebasal setae of prothorax, *takahashii* Priesner and *latipennis* Priesner by broader wings, *hartwigi* Priesner by shading on scale, and *lanzarotensis* Priesner by other body colorations.