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ON THE GENUS *EVAGETES* OF JAPAN

(HYMENOPTERA, POMPILIDAE)¹⁾

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The genus *Evagetes* is one of the less known groups of Pompilidae in Eastern Asia and practically nothing is known on the occurrence of this genus in Japan. In the course of my study upon the spider wasps of this country, I have found but few specimens of *Evagetes*. These may be regarded as three distinct species separable from one another by characters given in the following key and descriptions are given in this paper.

All three species have three complete submarginal cells in fore wings. *Evagetes daisetsuzanus* is a peculiar species, having an unusually large anterior ocellus, and also in the shape of scutellum and metanotum. I am unaware of any species having a combination of such characters. Two other species, *yezensis* and *deirambo*, are closely allied to each other. They may be distinguished from the European species by that the rufous is limited at the 1st and 2nd abdominal segments only, never on the 3rd.

The type specimens are deposited in my collection and in the Entomological Laboratory, Kyushu University.

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Key to the Japanese species of *Evagetes*

Females

1. Propodeum with long dark hairs on the sides; posterior margin of pronotum obtusely subangulate; POL: OOL=3:4; anterior ocellus much larger than the posteriors; clypeus punctate to the apical margin; apical antennal segment long, about 3.5× as long as its basal thickness

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- *Evageles daisetsuzanus* Ishikawa, sp. nov.
- Propodeum at most with very short, white hairs; posterior margin of pronotum arcuate, at most with a weak median incision; POL=OOL; anterior ocellus not unusually large; clypeus with an impunctate strongly polished apical margin; apical antennal segment short, $2.5\times$ as long as its basal thickness 2.
 - 2. Ocelli at most slightly broader than right-angled in front; disc of scutellum elongate, usually more than $1.2\times$ as long as broad; transverse median vein at least distinctly postfural; comb-spines more or less brownish
 - *Evageles deirambo* Ishikawa, sp. nov.
 - Ocelli obtuse-angled in front; disc of scutellum shorter, as long as or slightly longer than broad; transverse median vein interstitial or nearly so; comb-spines black *Evageles yzzoensis* Ishikawa, sp. nov.

Evageles daisetsuzanus Ishikawa, sp. nov.

♀. (Holotype). Body 9.1 mm. long. Fore wing 8 mm. long.

Black, subshiny; upper posterior orbits with a distinct, narrow yellowish streak; posterior margin and the epipleurites of tergite 1 obscurely dark rufous and basal half of tergite 2 rufous; apex of tarsal claws brownish. Wings fuscous, fore wing with a broad, not well differentiated marginal band; hind wing except the apex less fuscous.

Body and appendages covered with a very short brownish pubescence, lower portion of meso- and metapleura, postero-lateral portion of propodeum, mid and hind coxae above with an inconspicuous sericeous pubescence, basal half of tergites 1 and 2, sternites 1, 2 and 3 except the apical margin with weak sericeous pubescence. Front with sparse erect dark hairs, temples and propleura with much longer hairs, pronotum very sparsely hairy. Propodeum with dark erect hairs on the sides.

Head $1.15\times$ as broad as long and as pronotum, front convex, broad, the middle interocular distance $0.66\times$ the head width, with the median line distinctly grooved at the middle, vertex weakly convex forming an even arc above the tops of eyes, inner orbits weakly emarginate above the middle, nearly parallel below, the upper, middle and lower interocular distances in a ratio of 22 : 25.5 : 24. Ocelli forming a right-angle in front, anterior ocellus much larger than the posteriors, the sides of posterior ocelli not markedly depressed, POL : OOL = 3 : 4. Clypeus $3.3\times$ as broad as long, punctate to the apical margin which is very narrow but distinctly differentiated, and is broadly but feebly emarginate. Temples narrow, $0.5\times$ as broad as eye in profile. Antennae moderately thick, basal four segments in a ratio of 12 : 5 : 10 : 11, the 3rd and 4th segments respectively $2\times$ as long as thick, and the former, $0.4\times$ as long

as the vertex width; the apical segment longer than the 3rd, nearly $3.5\times$ as long as thick.

Pronotum with the posterior margin subangulate. Parapsidal lines slightly convergent anteriorly. Scutellum well convex and the disc distinctly producing posteriorly; metanotum also strongly gibbous medially and produced posteriorly above the postnotum. Postnotum comparatively broad, transversely striate, with a distinct median groove. Propodeum less convex, short, $1.1\times$ as broad as long in full dorsal view, the sides nowhere parallel in dorsal view but roundly narrowing behind, the median line very strongly and broadly grooved in front, posterior declivity not well defined but, in lateral view the anterior face and rather short, posterior declivity well differentiated.

Abdomen rather robust, tergite 1 with frontal declivity fairly flat and, in lateral view, straight, nearly equal to the posterior horizontal face. Hypopygium distinctly compressed laterally towards the apex.

Front basitarsus longer than the 2nd and 3rd tarsal segments taken together, with 3 comb-spines, of which apical one is the longest but much shorter than the 2nd tarsal segment, the 2nd tarsal segment with an apical spine a little shorter than the 3rd segment, and with a basal one only as long as the width of the segment. Comb-spines are tapering from the base.

Fore wing with marginal cell rather large, slightly less than its own length from wing tip; 1st intercubitus strongly recurved at the middle, meeting cubitus at a right-angle, 2nd submarginal cell as long as the 3rd, the latter narrowing above by about one-third by the strong arcuation of the 3rd intercubitus at below, and is $1.3\times$ as long as high; transverse median vein a little less than its own length postfurcal. Anal vein of hind wing meeting media very short distance before the origin of cubitus.

♂. Unknown.

Holotype: ♀, Nukabira, Tokachi, Hokkaido vii-4-5, 1957 (R. Ishikawa).

Distribution: Hokkaido.

Evagetes yezoensis Ishikawa, sp. nov.

♀. Body 7.2-9.6 mm. long. Fore wing 5.6-7.1 mm. long.

Black, subshiny; tergite 1 except the base and the apical margin, and basal half of tergite 2 dark red; sternites 1 and 2 marked as in the tergites but the red more obscure. Apical half of mandibles dark reddish brown. Temples with an inconspicuous pale spot along the upper outer orbits.

Body and appendages covered with a brownish pubescence; the pubescence of abdomen more or less sericeous; dorsad of mid and hind coxae, and lower portions of pleura with patches of silvery pubescence. Vertex sparsely hairy,

lower temples and propleura more densely hairy. Sternites very sparsely setose.

Wings feebly infusate; fore wing with a broad, well differentiated, dark apical band; hind wing somewhat infusate apically.

Head $1.14-1.22\times$ as broad as long and $1.25-1.30\times$ as broad as pronotum, front convex, the middle interocular distance $0.65-0.675\times$ the head width, the frontal median line weak, broad, but distinctly impressed; vertex weakly convex but not forming an even arc as the ocellar region somewhat elevated, inner orbits weakly emarginate above the middle, the upper, middle and lower interocular distances in a ratio of $22:26-27:24-25$. Ocellar triangle distinctly much broader than right-angle in front, $POL=OOL$; the sides of posterior ocelli somewhat depressed. Clypeus $3.25-3.55\times$ as broad as long, apical margin distinctly depressed and polished, and is feebly emarginate. Temples $0.4-0.5\times$ as broad as eye in profile. Antennae rather thick, basal four segments in a ratio of $12:5:10:10$, the 3rd segment $2\times$ as long as thick and is $0.42-0.45\times$ as long as vertex width; the apical segment shorter than the 3rd segment, and is about $2.5\times$ as long as thick.

Pronotum with the posterior margin weakly arcuate. Parapsidal lines nearly parallel or slightly divergent anteriorly. Disc of scutellum weakly convex, $1.0-1.1\times$ as long as broad. Postnotum narrow, depressed. Propodeum nearly parallel-sided at base, $1.1-1.15\times$ as broad as long in full dorsal view, rather well convex, the median line weakly grooved through the horizontal face, posterior declivity not well defined and shorter. Abdomen rather robust, tergite 1 with frontal declivity not well defined.

Front basitarsus as long as the 2nd, 3rd and 4th segments taken together, with 3 almost blackish and stronger comb-spines, of which the basal one is weak and shorter than the middle and apical ones, which are nearly as long as those on the 2nd segment.

Fore wing with marginal cell short, $1.22-1.35\times$ its length from the wing tip; 2nd submarginal cell usually but not always longer than the 3rd; the 3rd submarginal cell usually about $1.2\times$ as long as high, and strongly narrowing above ($0.5-0.2\times$ as long on the radius as on the cubitus); transverse median vein almost interstitial, never more than the breadth of the vein postfurcal. Anal vein of hind wing meeting media a little before the origin of cubitus.

♂. Unknown.

Holotype: 1 ♀, Sapporo, vi-22, 1958 (S. Uéda).

Paratypes: 1 ♀, Takinosawa, near Sapporo, vi-27, 1958 (R. Ishikawa); 2 ♀♀, Ikeda, Tokachi, vii-15, 1953 (Y. Hirashima); 1 ♀ Horonobe, Teshio, vii-23, 1953 (R. Ishikawa).

Distribution: Hokkaido.

*Evagetes deirambo*¹⁾ Ishikawa, sp. nov.

♀. Body 7.3–10 mm. long. Fore wing 5.8–7.2 mm. long.

Black; opaque, basal two abdominal segments red, except the base and occasionally the apical margin of tergite 1, and the apical one-third of tergite 2; apical half of mandibles brownish red; temples with a narrow inconspicuous pale spot along the upper outer orbits. Wings weakly infuscate; fore wing with a broad, dark fuscous outer band; hind wing less fuscous but the apical portion. Veins and pterostigma dark.

Body and appendages covered with a brownish, comparatively long pubescence, silvery pubescence on the metanotum, posterior declivity of propodeum, dorsad of mid and hind coxae and latero-ventral margin of mesopleura; the rufous portion of abdomen with a short, sericeous pubescence.

Body almost hairless; vertex with sparse, erect, dark, rather long hairs; temples, propleura, anterior portion of pronotum somewhat hairy, inner side of front coxae with a few bristles; sternites 3–5 and pygidium sparsely setose, hypopygium sparsely but more strongly setose.

Head $1.12\text{--}1.17\times$ as broad as long and $1.25\text{--}1.38\times$ as broad as pronotum, front convex, the middle interocular distance $0.63\text{--}0.64\times$ the head width, frontal median line hardly impressed. Vertex very weakly convex, forming an even arc, inner orbits weakly emarginate above the middle, the upper, middle and lower interocular distances in a ratio of $22:26.5\text{--}27.5:23.5\text{--}25.5$. Ocelli at most very slightly broader than right-angled in front, $\text{POL}=\text{OOL}$. The sides of posterior ocelli somewhat depressed. Clypeus $2.9\text{--}3.2\times$ as broad as long, apical depressed margin very narrow, weakly polished and is feebly emarginate. Temples very narrow, about $0.3\times$ as broad as eye in profile. Antennae rather slender, basal four segments in a ratio of $11:5:9.5\text{--}11:9.5\text{--}11$, the 3rd segment a little more than $2\times$, and the 4th $2\times$ respectively as long as thick, the former $0.47\text{--}0.52\times$ as long as vertex width; apical antennal segment shorter than the 3rd segment, and is about $2.5\times$ as long as thick.

Pronotum with the posterior margin arcuate. Parapsidal lines nearly parallel or slightly divergent anteriorly. Disc of scutellum rather well convex, elongate, usually $1.2\text{--}1.3\times$ though rarely but $1.1\times$ as long as broad at base. Postnotum narrow, depressed. Propodeum nearly parallel-sided at the basal half, $0.96\text{--}1.14\times$ as broad as long in full dorsal view, the median line very faintly impressed on the horizontal face; the posterior declivity rather well defined but not concave. Abdomen comparatively slender.

Front basitarsus longer than the 2nd and 3rd tarsal segments taken together,

1) "Deirambo" is a traditional giant who inhabited the mountain region of Central Honshu.

with 3 more or less brownish comb-spines, of which basal one is weaker and shorter than the middle and apical ones, the last shorter than the 2nd segment; comb-spines of the 2nd segment shorter than the 3rd segment; comb-spines are usually not tapering from the base.

Fore wing with marginal cell short, $1.14-1.33 \times$ its own length from the wing tip; 2nd submarginal cell usually but not always a little longer than the 3rd; the 3rd submarginal cell $1.25-1.57 \times$ as long as high, and strongly narrowing above ($0.3-0.15$ as long on the radius as on the cubitus); transverse median vein more than its breadth postfurcal.

♂. (Allotopotype). Body ca. 6.9 mm. long. Fore wing 5.6 mm. long.

Coloration as in the female but abdomen entirely black. Pubescence as in the female but propodeum largely silvery pubescent. Much less hairy.

Head $1.1 \times$ as broad as long and $1.17 \times$ the pronotum. Front weakly convex, the middle interocular distance $0.58 \times$ the head width, no median line; the upper, middle and lower interocular distances in a ratio of 14.5 : 18 : 16. Ocelli right-angled in front, POL=OOL. Vertex not depressed on the sides of ocelli. Clypeus $2.4 \times$ as broad as long, apical margin truncate, no depressed border. Temples $0.38 \times$ eye in profile. First four segments of antennae in a ratio of 9 : 4 : 8 : 9, 3rd segment $2.3 \times$ as long as thick. Posterior margin of pronotum angulate. Disc of scutellum shorter, $1.05 \times$ as long as broad. Postnotum broad, about three-fourths as long as metanotum at middle. Propodeum shorter and rounded, no impressed line. Abdomen slender, subcylindrical. Sternite 6 with a broad U-shaped emargination; subgenital plate rather narrow, the sides tapering to rounded apex, weakly longitudinally convex, somewhat carinate at base, spinose apically. Apical tarsal segment of fore legs asymmetrical, its inner claw strongly modified, with a tuberculate tooth at base, outer claw cleft. Claws of mid and hind tarsi with a submedian tooth.

Fore wing with marginal cell short, $1.6 \times$ its length from the wing tip. 2nd submarginal cell short, scarcely longer than high; 3rd submarginal cell a little longer than 2nd, strongly narrowing above, 0.25 as long on the radius as on the cubitus, 3rd intercubitus strongly oblique, basal vein a little curved below, transverse median vein slightly postfurcal, inwardly oblique.

Holotype: ♀. Karuizawa, Nagano Prefecture, viii-7, 1949 (R. Ishikawa).

Paratopotypes: 1 ♀, viii-7, 1949; 1 ♀, ix-8, 1949; 1 ♀, ix-24, 1949; 2 ♀♀, ix-11, 1950; 1 ♀, ix-15, 1950; 1 ♀, viii-9, 1952. 1 ♂ (allotopotype), viii-9, 1955 (R. Ishikawa).

Paratype: 1 ♀, Komoro, Nagano Prefecture, ix-14, 1950 (R. Ishikawa).

Distribution: Honshu.