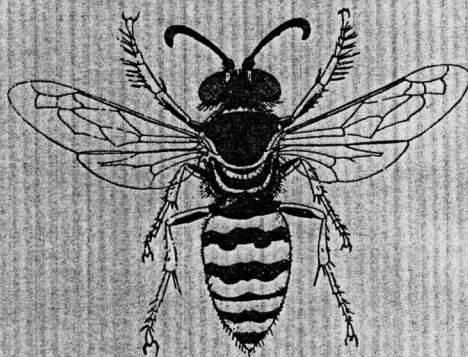


SPECIAL PUBLICATIONS
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JAPAN
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NO. 25



M I S H I M A

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C O N T E N T S

Tsuneki, K. :

Revision of the type specimens of three species of <u>Liris</u> described by Frederick Smith (Hymenoptera, Sphecidae)	1
Larrinae of New Guinea in the collection of the Hungarian National Museum of Natural History, Budapest (Hymenoptera, Sphecidae) ...	6
Key to the Papuan species of <u>Liris</u> (<u>Leptolarra</u>)	29
Tentative key to the species of <u>Dicranorhina</u> in Indo-Australian and Pacific areas	36
Key to the species of <u>Pison</u> known from New Guinea	42
<u>Chrysolarra</u> spp. Cameron, 1901, are presumably ssp. <u>binghami</u> of <u>Liris</u> (<u>Leptolarra</u>) <u>deplanatus</u> (Kohl, 1883), with one other synonym (Hymenoptera, Sphecidae)	54
Revision of the holotype of <u>Odontolarra</u> (= <u>Lyroda</u>) <u>nigra</u> Cameron, with remarks on its subspecies and the description of a closely related new species from Japan (Hymenoptera, Sphecidae)	57
A new species of <u>Psen</u> (<u>Psen</u>) found in Japan (Hym., Sphec., Pemphredoninae)	63

A NEW SPECIES OF PSEN (PSEN) FOUND IN JAPAN

(HYM., SPHEC., PEMPHREDONINAE)

By K. TSUNEKI

Psen (Psen) miyagino sp. nov.

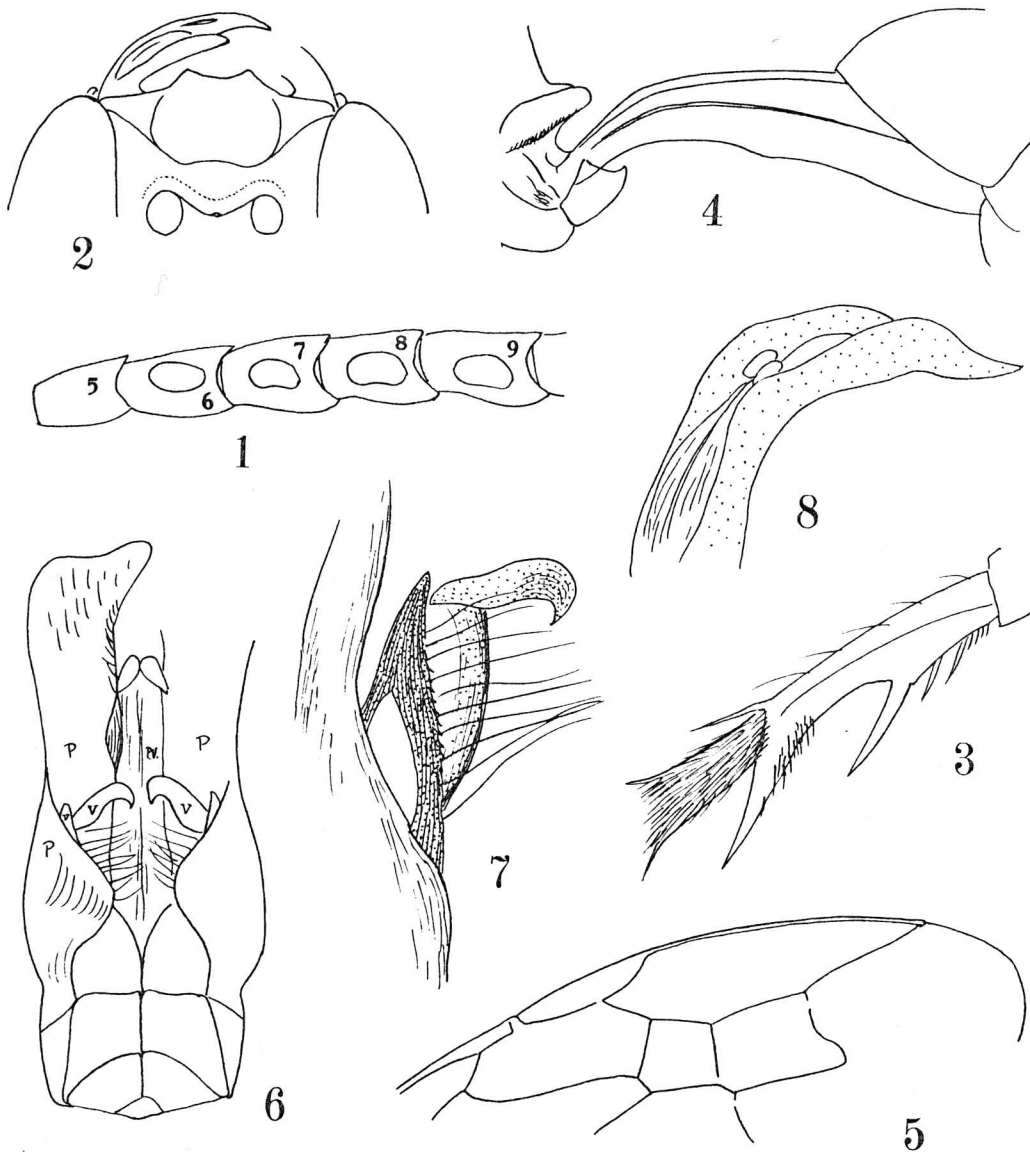
The present species (δ) belongs to the group of Psen ater and closely resembles this species, having antennae broadly ferruginous, A 2 largely inserted in the apical hollow of A 1 which is markedly incrassate, A 6-13 impressed with concave elongate rhinaria beneath, legs broadly pale brown, mid T 1 produced at apex and in middle beneath and GS 3 and 4 adorned apically in middle with a tuft of long hair. But it differs from ater in that the clypeal hair is not pale yellowish silky white, but silvery, antennal flagellum not so broadly dilated, apical margin of median produced part of clypeus roundly emarginate, with sides angulated as if bidentate, median and apical processes of mid T 1 much slenderer, gastral petiole shorter and strongly upcurved and apical hair tufts of GS 3 and 4 much denser and that of GS 4 much longer.

δ . Length 6.5 mm (paratype 7.3 mm). Black; brownish yellow (but not so bright ferruginous as in ater) are A 1 except narrow dorsal and apical areas, apical half of A 3 beneath, A 4-13 beneath (dusky brown above, but paler apically), mandible except inner margin and apical area, tegula and basal plates of wings, fore and mid legs from apices of trochanters apically (but femora beneath dark brown and tibiae beneath narrowly brownish), hind leg at each apex of trochanter and femur, on tibia broadly (apical half largely dark brown) and whole of tarsus. Arolia black. Hair silvery, generally long, on sides of face and below antennal bases dense and appressed, but on broad central area of clypeus short and not dense; long hair on posterior inclination of head above occipital carina reversely erected upwards, similarly at posterior margins of pronotum and mesoscutum, and on scutellum and postscutellum; long hair on thorax-complex, legs, gastral petiole and posterior part of gaster not appressed; on posterior margins of GT 2-6 hair curved inwards, appearing like special hair bands, on apical margin of GS 3 in middle the fringe of erected hair very dense, forming a hair screen which curved forwards at apex, that of GS 4 much longer, very dense, usually separated into 3 or 4 hair bundles.

HW, HL, IODv, A3=100, 47, 58, 27 (in HL interantennal carina is excluded). OOD, Od, POD, OCD=8, 4, 7, 9. Outer or anterior marginal area of each ocellus deeply impressed and each ocellus inclined outwards or forwards, seen in front HW, HL, IODv, IODmax, IODmini=100, 80, 58, 60, 47. AOD, WAS, IAD=3.5, 4, 7. A3, 4, 5, ..11, 12, 13=10, 7, 6, ..5, 5, 7. A3=AW \times 3.0 (dorsal). A12=AW \times 1.2, A 1 at apex deeply hollowed and including greater part of A2 within, but not so completely including as in ater, flagellum not so broadly dilated as in this species, but on A 6-13 beneath concave and oval rhinaria are present (Fig. 1, on A 6-9). Clypeus: Fig. 2, disc of median lobe markedly roundly elevated, upper frons on both sides of medial furrow strongly roundly raised (in ater not so highly and not so roundly raised), the furrow runs down from fore ocellus between the elevations, but below there widely open and becomes indistinct. Ocellar area gently raised, without median groove; occipital carina complete. Pronotum transversely, acutely, highly carinated on top, carina medianly almost contiguous to mesoscutum, laterally with narrow interspace, mesoscutum with notauli less than one third the length of scutum, exhibited by fine dotted impressed lines, scuto-scutellar furrow distinct, medianly broadly foveate, scutellum transversely, roundly and highly raised, postscutellum also highly raised, with anterior top acutely ridged and carinated, and the furrow in front of it becomes very deep, somewhat lunate in outline, bearing a fine shining line at the bottom. In the structure of mesopleuron similar to ater, omalus acutely carinated, epimeral area roundly raised, episternal and scrobal furrows distinct, the former strongly foveate and on lower end turned posteriorly, but soon disappeared, the latter not foveate, smooth. Structure and sculpture of propodeum are also generally similar to those of ater, but dorsum with basal depression not triangular, but lunate in form and longitudinally carinated, with carinae-interspaces smooth and polished, rest of dorsal surface on both sides of medial furrow irregularly rugoso-reticulate, these sculptures are much weaker and finer than in ater, especially near medial furrow very weak, only feeble rugulae observed; lateral carinae from spiracles to above hind coxae distinct, smoothly curved, not bent as in ater.

Legs generally slenderer than in ater. Mid T 1: Fig. 3 (right one, frontal view).

Gastral petiole in lateral view: Fig. 4 (in paratype ventral margin smoothly curved, without medial swelling), in dorsal view gradually widened posteriorly, with surface transversely roundly raised and smooth and polished. In fore wing radial and cubital cells: Fig. 5. Genitalia are, when taken out and desiccated, heavily deformed and the



Figs. 1-8. Psen (Psen) miyagino sp. nov., ♂

natural condition becomes difficult to observe (apical lamellate part of paramere bent ventrally and irregularly twisted). Seen from beneath (with left paramere in an extended state and the right one with apical area omitted): Fig. 6 (P paramere, V volsella, P.V. penis valve), apical lamellate part of paramere incrassate on inner margin whence a fringe of hair arises, apical portion also carries sparse hair scattered over ventral surface, volsella seen from outer ventral side; Fig. 7 (left one), consisted

of two lobes, outer lobe well chitinized, dark brown in colour, with ventral margin serrate, carrying a series of long setae, inner lobe except inner margin and apical turned part (normal?) not well chitinized (in ater this apical part is roundly incrassate), apical part of penis valve in dorso-lateral view: Fig. 8. GS 8 with long apical spine as usual.

Upper frons with fine but distinct, somewhat sparse, piliferous punctures, punctures on vertex much weaker and sparser, surface shining, roundly raised disc of median lobe of clypeus finely, closely punctured (well visible due to erected hair), on other parts of clypeus dense appressed hair conceals the punctation; mesoscutum and scutellum much more strongly, rather sparsely covered with larger and deeper piliferous punctures, on posterior part of scutum punctures close, PIS=PD, on mesopleuron prepectus strongly punctured as on scutum, but epimeral area with punctures very fine and very sparse, episternum finely and sparsely punctured, with piliferous points; basal lunate depression of propodeal dorsum smooth and polished and longitudinally, coarsely striate, rest of dorsal and posterior aspects covered with very rough irregular network of strong carinae, including two lateral ones on each side (outer carina complete and inner one incomplete), surface of large meshes minutely, weakly and irregularly rugoso-subreticulate, or simply irregularly rugulose, sides anteriorly nearly smooth and shining, on dorsal part obliquely coarsely striate, posteriorly irregularly, feebly rugulose. Gastral petiole smooth and polished above, acutely edged and carinated at dorso-lateral margins, ventral median line not carinated, on the sides, sometimes medianly longitudinally, but weakly carinate (Fig. 4, in holotype), but sometimes without this carina (in paratype), petiole apically beneath sparsely covered with fine piliferous punctures, succeeding tergites and sternites covered also with fine but distinct piliferous punctures, on tergites somewhat sparsely and on sternites more closely so (on GS 2 punctures very sparse at broad central area). GT 6 and GS 2-7 at least in part microcoriaceous.

♀, unknown.

Holotype: ♂, emerged from a cocoon on 12.VII.1981 (reared in laboratory, nest in soil, observed in Miyagi Prefecture), leg. K. Goukon (Coll. Tsuneki).

Paratype: 1 ♂, same as above.

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GENERAL INDEX

<u>appendiculata</u> (<u>Chrysolarra</u>) ..	54	<u>*morobensis</u> (<u>Liris</u>)	23
<u>*aurarius</u> (<u>Liris</u>)	9	<u>nigra</u> (<u>Odontolarra</u>)	57
<u>aureosericea</u> (<u>Chrysolarra</u>) ...	54	<u>nigra</u> (<u>Lyroda</u>)	57
<u>aurulentus</u> (<u>Liris</u>)	7	<u>*novaguineanum</u> (<u>Pison</u>)	49
<u>binghami</u> (<u>Liris</u>)	54	<u>*novaguineanus</u> (<u>Liris</u>)	16
<u>*biroi</u> (<u>Liris</u>)	14	<u>novarae</u> (<u>Tachysphex</u>)	41
<u>*biroi</u> (<u>Pison</u>)	46	<u>ornatitarsis</u> (<u>Liris</u>)	29
<u>bismarckianum</u> (<u>Pison</u>)	45	<u>*papuana</u> (<u>Dicranorhina</u>)	31
<u>deplanatus</u> (<u>Liris</u>)	54	<u>*papuana</u> (<u>Larra</u>)	6
<u>*difficilis</u> (<u>Liris</u>)	4, 13	<u>*papuanus</u> (<u>Liris</u>)	8
<u>*erimaense</u> (<u>Pison</u>)	50	<u>*papuanus</u> (<u>Tachytes</u>)	38
<u>exilipes</u> (<u>Liris</u>)	2	<u>*papuensis</u> (<u>Dicranorhina</u>)	34
<u>festinans</u> (<u>Liris</u>)	20	<u>*papuensis</u> (<u>Liris</u>)	26
<u>formosa</u> (<u>Lyroda</u>)	41	<u>polita</u> (<u>Larra</u>)	6
<u>foveiscutis</u> (<u>Liris</u>)	29	<u>pruinosa</u> (<u>Chrysolarra</u>)	54
<u>fulvopilosus</u> (<u>Tachytes</u>) ...	54, 55	<u>*timbang</u> (<u>Liris</u>)	24
<u>fulvovestitus</u> (<u>Tachytes</u>)	55	<u>subtessellatus</u> (<u>Liris</u>) ...	1, 11
<u>*fukuensis</u> (<u>Lyroda</u>)	61	<u>takasago</u> (<u>Lyroda</u>)	58, 60
<u>funerea</u> (<u>Liris</u>)	29	<u>trifasciata</u> (<u>Liris</u>)	20
<u>hospes</u> (<u>Pison</u>)	43	<u>vindex</u> (<u>Liris</u>)	29
<u>*huonense</u> (<u>Pison</u>)	48	<u>*yanonis</u> (<u>Liris</u>)	17
<u>*huonensis</u> (<u>Dicranorhina</u>)	33		
<u>*huonensis</u> (<u>Liris</u>)	15		
<u>ignavum</u> (<u>Pison</u>)	45		
<u>insularis</u> (<u>Liris</u>)	3		
<u>iridipenne</u> (<u>Pison</u>)	43		
<u>japonica</u> (<u>Chrysolarra</u>)	54		
<u>japonica</u> (<u>Liris</u>)	20		
<u>japonica</u> (<u>Lyroda</u>)	57, 58, 59		
<u>laboriosa</u> (<u>Liris</u>)	5		
<u>luzonensis</u> (<u>Liris</u>)	4		
<u>mindanaoensis</u> (<u>Liris</u>)	8		
<u>*miyagino</u> (<u>Psen</u>)	63		
<u>modestus</u> (<u>Liris</u>)	29		

Remarks.

- * ... New species.
- ** ... New subspecies.

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