

ON THE DISCOVERY OF *NESOCRABRO*
IN JAPAN, WITH THE DESCRIPTION OF A NEW SPECIES
(Hymenoptera, Sphecidae, Crabroninae)¹

By Katsuji Tsuneki

Biological Laboratory, Fukui University

Recently Mr. K. Shimoyama, an enthusiastic investigator of insects in the Towada district, kindly forwarded to me a collection of the fossorial wasps for study, as he has usually done for these several years. Upon examining I found among others a very curious Crabronid having an extraordinarily large head. The inner orbital lines of its eyes were not strongly convergent towards the clypeus, as usually met with among the members of Crabroninae occurring in Japan, but ran nearly parallel to each other, just as in the genus *Tracheliodes*. It does not have, however, the dense appressed glittering hairs on the surface of the clypeus. I consulted the literature and found that the example must be referred to the group *Nesocrabro* which is at present included within the genus *Ectemnius*, but which seems to have characters worthy of separation as a distinct genus as originally done by R. C. L. Perkins in 1899.

The members of *Nesocrabro*, so far as are known, are quite endemic to the Hawaiian Islands. Hence they have been considered to have developed such peculiar characters by being isolated amid the vast ocean. Therefore, the discovery of a member of this group in Japan seems to merit a special attention. I cannot give, however, any definite consideration to explain the distribution of the Hawaiian genus in Japan at least at present. It seems somewhat difficult to suppose the migration of the specimen or of its ancestors with the occupation of the American troops, or through some accidents from Hawaii, since the specimen belongs distinctly to an unrecorded species, differing from any of the known Hawaiian relatives. Moreover, there can be supposed no reason that the locality of the insect has direct connection with Hawaii. On the other hand, if this species has originally occurred in Japan, only escaping from the entomologists' eyes,² it will become to present an interesting datum for the zoogeographical relationships between Japan and Hawaii.

The locality of the specimen, Towada, is situated in Aomori-, or the northernmost Prefecture in Honshu (Japan proper) and is one of the National Parks in this country. Exact place of collection of the specimen was informed from Mr. Shimoyama to be the roadside in the dense wood above the northern coast of Lake Towada where not a large number of visitors roamed about.

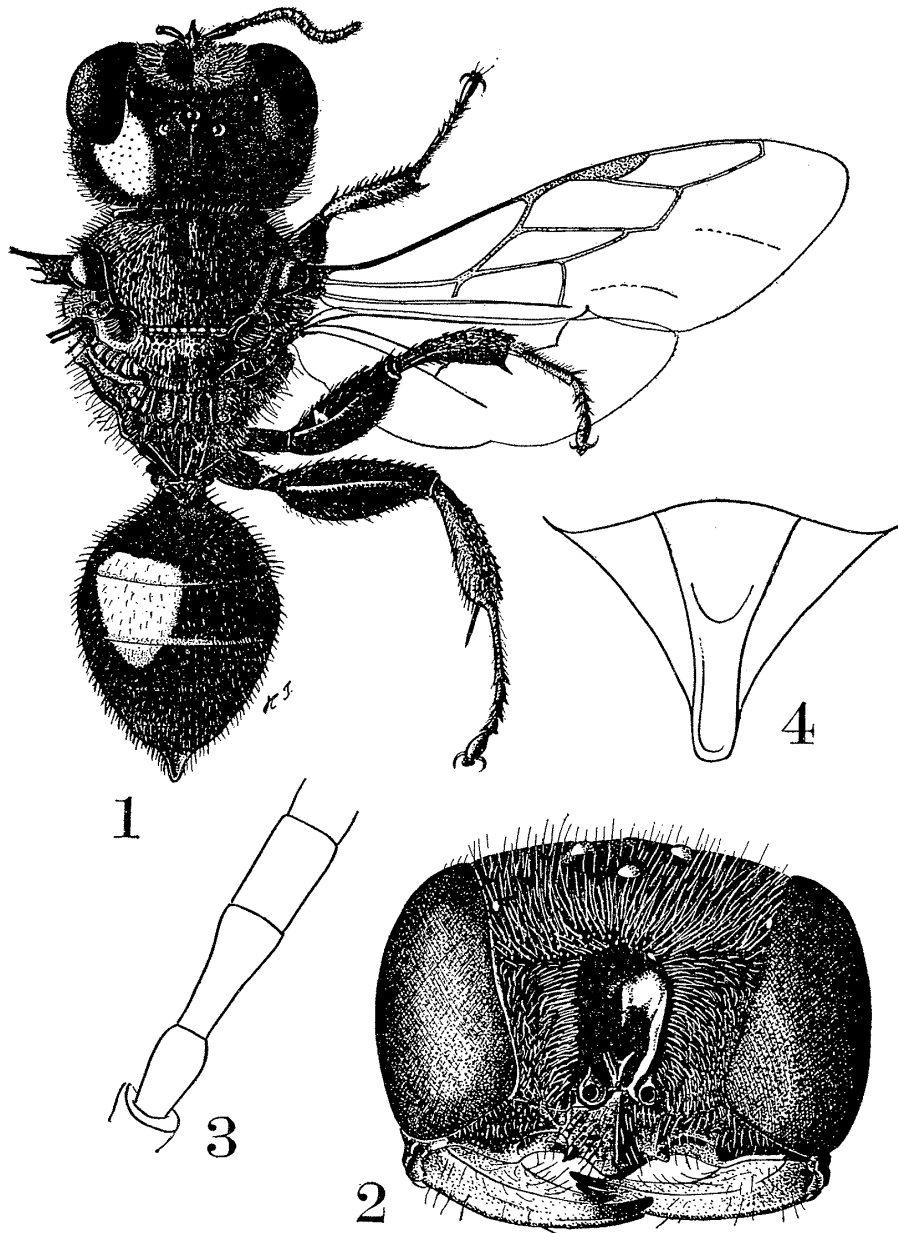
¹ Contribution No. 34, from the Biological Laboratory, Fukui University.

² The fact that the locality has been rarely visited by Hymenopterists in Japan seems to favour this opinion.

Ectemnius (Nesocrabro) shimoyamai sp. nov.

♀. Length 9.8 mm. Very stumpy in form, much like in general appearance to the members of *Oxybelus* (Fig. 1). Head large (width 3.4 mm, length 2.0 mm), with uniform ocelli located in front of the middle of the upper surface and in a curved line, OOD : POD = 9 : 7, ocelloccipital distance slightly more than twice as large as POD, a small lunate impression outside each postocelli and on both sides of frontocellus, from the latter a fine weak groove runs along the median line up to posterior portion of vertex. Frontal impressions very small (smaller than a ocellus), but with fairly distinct outline, frontal median furrow absent. Head seen in front (Fig. 2), with inner orbits of eyes very gently convergent below. The space between eye and the insertion of antennae twice as long as the interspace between the insertions, the latter nearly as long as the diameter of the hollow of the insertion; median excavation on lower front shallow, fairly broad, glabrous and shining, other parts of the area fairly closely covered with silvery hairs. Clypeus medianly with an acute keel which is gradually elevated forwards and ends before the anterior border in an acute angle; seen in profile it takes a distinct nose-form. The surface of clypeus sparsely covered with long hairs which are not silvery, not appressed, letting the surface easily observe. Anterior margin of clypeus roundly produced in the middle and roundly emarginate on both its side; at the emargination, slightly behind the extreme margin a stout tooth prominent (Fig. 2). Mandibles tridentate at apex; oculo-mandibular space almost none. Antennae with 1st joint as long as 4 subsequent joints united, relative length between the latter, 8 : 11 : 7 : 6; 3rd joint somewhat clavate, nearly 2.5 times as long as wide at apex, 4th 1.5 times as long as wide (Fig. 3). Head in profile with temple more than as wide as eye. Pronotum short, broad, with frontal margin running straight, with anterior inclination vertical, antero-lateral corners somewhat lamellate and produced in nearly right angle, mesonotum wider than long, medio-anteriorly broadly and gently furrowed, scutellum convex with medio-posterior feeble furrow, scuto-scutellar groove deep and coarsely crenate. Dorsal surface of propodeum corresponding area cordata broad and short, with about 6 strong longitudinal carinae and imperfectly enclosed posteriorly by a weaker and irregularly waved carina; on its lateral portions the area is separated from the sides of the segment by another strong carina; posterior portion of the segment with also lateral separating carinae, but they become indistinct upwards. Abdomen as given in Fig. 1, with 1st segment wider than long, with pygidial area on the caudal tergite elongate triangle and deeply grooved apically (Fig. 4). Legs stout, middle and hind tibiae strongly spinose on the outer surface. Wing venation as in Fig. 1. Pilosity on abdomen posteriorly long, but not stiff even on the apical segment.

Head finely and sparsely, upper frons closely and somewhat grossly, sides of lower frons and temples below finely and closely punctured; clypeus rather coarsely punctured, punctures irregular both in form and in size. Mesonotum longitudinally rugose-striate, with scattered weak punctures, on the latero-anterior portions transversely punctate-rugose; scutellum and postscutellum longitudinally rugose-striate, excepting the anterior smooth area of the former. Meso- and metapleuron wholly longitudinally, strongly and closely striate. Propodeum behind the dorsal area coarsely and irregularly (chiefly longitudinally) striate. Posterior inclination with



Ectemnius (Nesocrabro) shimoyamai sp. nov.

posteriorly convergent striae; side of the segment except the anterior area longitudinally coarsely striate. Abdominal tergites practically impunctate, pygidial area with a few scattered rounded punctures, sternites before each posterior margin scattered with a few distinct punctures, apical half of end sternite strongly and densely punctured. Mat spaces on 2nd sternite indistinct.

Black, Mandibles semitransparent white with apices brownish black; antennae apically somewhat brownish, joints 4-12 beneath ferruginous, tegulae of wings externally slightly brownish. Abdomen at the hind margin of each segment discoloured, membranous and appearing pale brownish. Anterior margin of fore tibiae, all tibial spurs and all tarsal joints beneath ferruginous brown. Wings pale brownish yellow, apical margins feebly clouded, veins brown or dark brown.

♂. Unknown.

Holotype: ♀. Japan (Towada), 23. VIII. 1957, K. Shimoyama leg. and in the writer's collection.

Comparative notes. The present species is very distinct in having the non-maculated body, the peculiar structure of the clypeus and impunctate abdominal tergites and can easily be distinguished from any of the known species of the subgenus.

Finally, I express my sincere gratitude to Mr. K. Shimoyama for his kind help given incessantly to my study. I am also indebted much to Mr. Y. Murakami for consulting some literature.

Explanation of Plate 25

Fig. 1. *Ectemnius (Nesocrabro) shimoyamai* sp. nov., ♀.

Fig. 2. Head seen in front.

Fig. 3. The 2nd-4th joints of the antenna.

Fig. 4. Pygidial area.

本邦におけるオオニジュウヤホシテントウの南限と ニジュウヤホシテントウの北限について

安 江 安 宣

オオニジュウヤホシテントウ *Epilachna vigintioctomaculata* Motchulsky は Dieke (1947) のモノグラフによる "Kagoshima" がわが国における分布の最南限であつたが、鹿児島市は周知のように国内有数の温暖な地であるから、冷涼な環境を好む本種の棲息は考えられず、該標本が同県内のどこで採集されたかは詳らかでなかつた。筆者は 1958 年 9 月、同県霧島村霧島神宮下 (北緯 31°51', 標高 420 m) のナス畑で同じ株に次種と混棲しているのを採集した。

ニジュウヤホシテントウ *Epilachna sparsa orientalis* Dieke の本州太平洋岸 (内陸部をのぞく) における北限は中田 (1950) による 茨城県鹿島郡大野村奈良毛 (北緯 36°0') であつたが、筆者は 1958 年 8 月に水戸市内 (北緯 36°23') のナス、ホホヅキを加害しているのを発見した。また本種の日本海沿岸における北限は 1918 年 J. E. A. Lewis が採集をした石川県江沼郡山中町 (安江, 1955) であつたが、筆者は 1957 年 8 月に金沢市東部 (北緯 36°33') の高台にある金沢大学薬草園や附近の家庭菜園のナス科植物で繁殖しているのみ