H. Sauter's Formosa-Ausbeute.

Planipennia II, Megaloptera and Mecoptera.

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(With 15 figures.)

(Schluß.)

Chrysopidae.

Nothochrysa japonica M. Lachl.

Mac Lachlan, Trans. Ent. Soc. Lond., 1875, pag. 182.

Of this species, only known from Japan, there are 2 specimens, 1 from Kankau and 1 from Taihaproku, VIII. 1908.

Chrysopa ruficeps M. Lachl.

Mac Lachlan, Tijdschr. voor Ent., 1875, pag. 2.

4 specimens from Kankau, VI, 1912.

This species has much likeness to our European species, *Chr. vittata*, but is smaller of size; it is known from Celebes and Java.



Fig. 7. Fore wing of Chrysopa formosana.

Chrysopa formosana nov. spec.

Face and mouthparts pale yellowish brown, palpi darker, vortex somewhat raised and strongly yellowish. Antennae longer than the wings, basal joint increassated and yellowish brown; the rest of antennae yellowish in the basal half and becoming darker in the apical one. Prothorax nearly as long as broad with strongly rounded front angles, yellowish brown with a yellow median stripe and shortly haired. Meso- and metathorax and abdomen yellowish brown. Legs very pale with a brownish tinge; the knees, the apice of tibiae, the Entomel Mitteitungen II. 258

extreme tarsal joints and the claws a little darker. The claws broad at the base and strongly hooked. Wings hyaline with yellowish nervations (greenish in life); the nervures strongly haired. Pterostigma long, yellowish green, very conspicuous, especially in the hind wings. The number of gradate veins in the inner row in the fore wing 5 (rarely 4 or 6) and in the outer row 6 (scarcely 5 or 7); in the hind wing 4/5; scarcely 5/6. Number of cross veins in the costal area of fore wings before the pterostigma 15-17; in the area between radius and its sector 9-10.

Longth of body 7-9 mm; fore wing 11 mm; hind wing 9,5 mm; antennae 14 mm.

At first sight one may take the species for *Chrysopa flaveola* Schn.; but its comparatively broader wings, its paler antennae and the unspotted basal joint of antennae make the species easely recognizable.

In the collection of Sauter there is a long series of specimens from Sokutso, V. 1912; Taihorin, 7. VII. 1911 and Anping, 7. VII.



Fig. 8. Fore wing of Chrysopa sauteri.

Chrysopa sauteri nov. spec.

Head, thorax, palpi, 1^{st} and 2^{nd} joints of antennae yellowish green; head, lateral margins of prothorax and the two basal joints of antennae with a slightly brownish tinge. A shining black dot is found below each eye. The antennae are yellowish in their basal part, becoming darker in the apical one. Abdomen brownish yellow (in life yellowish green). Legs pale with a very feeble brownish or yellowish tinge. The knees, the apices of the tibiae, of the tarsal joints and the claws a little darker. Wings hyaline; pterostigma distinctly marked, but not strongly. All nervures and borders haired. The longitudinal nervures in both pairs of wings yellowish (greenish yellow in life) with exception of the base of the radial sector and its branches, which are brownish black. In the fore wings the cross veins in the costal area and the gradate veins are always totally blackish brown or black; the other cross veins totally brownish black in their full length or only at the one of their ends. Some of the branches of the forks along the apical part of the hind margin blackish brown at their base. In the hind wing the greater part of cross veins in the costal area, the first cross vein between the radius and the radial sector and at times some of the gradate voins brownish black. Number of gradate veins in the fore wing 7/7 (in two specimens) or 6/6 (in one specimen); in the hind wing 5/6 or 6/7 (in one specimen). Number of cross veins in the costal area before the pterostigma of fore wing 20-22; between the radius and its sector 11-12.

Length of body 12 mm; fore wing 13-17 mm; hind wing 12-15 mm; antennae as long as fore wings.

Two specimens from Sokutsu, V. 1912 and one from Kosempo 1911.



Fig. 9. Fore wing of Chrysopa anpingensis.

Chrysopa anpingensis nov. spec.

Head, thorax and abdomen yellowish (greenish in life). Labial palpi brownish black. A triangular brownish black spot at each side of the face. Vertex somewhat raised. Antennae yellowish at the base, becoming dark brown towards apex. Prothorax almost as long as broad, subquadrate with rounded front angles, which are brownish along the margin. Prothorax with a transverse carina nearly in the middle; the hind part of prothorax with a fine longitudinal median furrow. Legs yellowish, apical part of tibiae and tarsi with a pale brownish tinge; claws brown. Wings hyaline with greenish yellow nervature; all the nervures greenish longhaired. Gradate veins in fore wings 7/8; in hind wings 6/8. Number of cross veins in the costal area of fore wing 20; in the area between radius and the radial sector 12.

Length of body 10 mm; fore wing 13 mm; hind wing 11,5 mm; antennae a little longer than the fore wings.

This species belongs to the *vulgaris*-group, but it is easely recognized by its somewhat acute wings, by its blackish palpi and by the black spot below each eye. — One specimen, Anping, V. 1911.

Chrysopa decorala nov. spec.

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Whitish. Labram pale yellow with blackish front border. Clypeus at each side with a blackish triangular spot and with a narrow black front margin. Palpi yellowish brown with the apical joint darker. Face with a transverse row of three blackish spots below the insertion of the antennae; the middle one oblong. Eyes dark brown. Vertex raised and yellowish green. Antennae yellowish; the basal joint incrassated and with a brownish black stripe on its exterior side. Prothorax broader than long with strongly rounded front angles. Mesothorax with blackish brown wing-roots and with an almost complete broad, dark brown streak along the front margin. Metathorax,



Fig. 10. Fore wing of Chrysopa decorata.

abdomen and legs pale yellowish green; the hind tibiae strongly dilated. Wings whitish, hyaline and with all the longitudinal nervures pale yellowish green. The basal half part of the cross veins in the costal and in the radial area pale yellowish green with black ends; the apical half part and the first cross veins in the costal area totally black. The origin of radial sector, the first cross vein between the radial sector and the media, all the gradate veins and a single cross vein at the hind margin black. A few basal cross veins partly blackish. The other cross veins pale yellowish green. The greater part of cross veins and some forks brownish shaded. In the hind wing the apical half part of cross veins in the costal area, the gradate veins and some few along the hind margin black; some of the last mentioned with brown shadow. The pterostigma yellowish green; slightly marked. The margins and nervures whitish longhaired. Number of cross veins in the costal area of fore wing 17-18; between radius and radial sector 8-9.

Length of body 6-7 mm; fore wing 10 mm; hind wing 9 mm; antennae longer than fore wings.

Two specimens from Kosempo, 7. VII. 1909 and 7. VII. 1911. It is a fine-looking species, unlike what I have seen of species of Chrysopa. At first sight it has some likeness to pale coloured specimens of *Ancylopteryx octopunctata* Fabr.; but the shape of fore wings shows clearly that it is a true Chrysopa.

Ancylopteryx octopunctata Fabr.

Fabricius, Ent. syst. II, 1793, p. 85.

A long series of this wide-spread species was present. Kosempo, 7. VII. 1911 and X. 1911; Taihorinsho 7. XI.; Sokutsu VI. 1912.

Mantispidae.

Mantispa orientalis nov. spec.

Face yellow with a black longitudinal, median streak, which is broadened on the labrum; maxillary and labial palpi black with yellowish annulations at the joinings. The vertex jet black with two



Fig. 11. Fore wing of Mantispa orientalis.

small indistinct yellowish spots behind the insertion of the antennae. The basal joint of antennae reddish yellow on the underside, darker on the upperside; all the other joints short and black, shortly blackish haired. The number of antennal joints 27 or 28. Prothorax brownish black with yellowish side margins on the front half part. Meso- and metathorax black with yellowish scatellum and wing roots. Abdomen black; the greater part of abdominal segments with narrow yellowish front margin. Legs and fore coxae reddish yellow. Fore femora darker on the interior side than on the exterior; apex of tibiae blackish. Intermediate and hind femora dark in the apical half. The terminal tarsal joint and the apex of tibiae darker. Wings hyaline with a faintly yellowish brown tinge; the nervures and pterostigma dark reddish brown to black. The origin of the radial sector and the two following cross veins in the radial area brownish shaded.

Length of body 12 mm; fore wing 14 mm; hind wing 12 mm. One male, Hoozan, 7. IX. 1910, was present.

Mantispa formosana Okam.

Okamota, Zool. Anz., Bd. XXXVII, 1911, p. 297.

and-a.

Petersen, H. Sauter's Formosa-Ausbeute.

This species, originally described from Formosan specimens, seems to be a very common species on the island. 112 specimens are present and collected at Kosempo, 7. VII. 1911 and V. 1912; Sokutso VI. 1912; Kankau IV. 1912; Taihorin, 7. VII. 1911. It is a very varying species as to size and colour. In the smallest specimens the expanse of fore wing measures 15 mm and in the largest 29 mm.

Climaciella quadrituberculata West.

Mantispa quadrituberculata Westwood, Trans. Ent. Soc. Lond. 1852, p. 264, pl. 18, fig. 1. 12 specimens from Polisha, 7. IV. 1910 and 1 2 from Anping 7. IV.

Euclimacia badia Okam.

Okamoto, Zool. Anz., Bd. XXXVII, 1911, p. 301.

Of this fine species, described from $1 \circ'$ from Arikan (Formosa), is present 1 \circ , collected at Kankau, VII. 1912.

The antennae are black with exception of the two basal and four apical joints, which are yellowish red.

The fore wing measures 26 mm.

Megaloptera.

Sialidae.

Neochauliodes sinensis Walk. subsp. meridionalis Weele.

Chauliodes sinensis Walker, Cat. Neur. Ins. Brit. Mus. 1853, p. 199.

Neochauliodes sinensis meridionalis Weele, Notes Leyd. Mus. XXX, 1909, p. 260.

Chauliodes formosanus Okamoto, Wien. Ent. Zeit. XXIX, 1910, p. 263.

Of this wide-spread and very varying species was present one male, Kosempo, X. 1911.

Parachauliodes japonicus Mac Lachl.

Chauliodes japonicus Mac Lachlan, Journ. Linn. Soc. Lond. 1867, p. 232.

One female is collected at Taihorin, 22. V. 1911.

Sialis formosana nov. spec.

Head, mouthparts, antennae, thorax and abdomen jet black and blackish haired. Head with a deep triangular impression in front and with several oblong and raised tubercles. Antennae and palpi

densely haired. Prothorax rectangular, narrower than the head, twice as broad as long, and with one, in front indistinctly, impressed median line. Head and thorax finely punctuated. Legs pitchy black.



Fig. 12.

Apex of abdomen of Sialis formosana, Q, seen from below and from side.

Wings sooty black; nervures black. The median third part of the media in both wings placed in a fine hyaline streak.

Length of body 5 mm; fore wing 7 mm; hind wing 6 mm.

2 qq collected at Polisha 7. IV. 1910; 1 q at Taihorin, 7. V. 1911.

Mecoptera.

Panorpidae.

Panorpa deceptor nov. spec.

 σ . Head and rostrum pale brown; above the insertion of the antennae is found a brownish black spot, in which the ocelli are



Fig. 13. Fore and hind wing of Panorpa deceptor. $x = \frac{11}{2}$.

placed. Antennae blackish; the two basal joints pale brown. The dorsum of the prothorax brownish black with some small pale spots.

Meso- and metathorax yellowish brown with a broad blackish brown streak along the side margins. The 1^{st} to 5^{th} segments of

Petersen, H. Sauter's Formosa-Ausbeute.

the abdomen in the greater part of specimens mostly blackish brown; the rest of abdominal segments, the legs and the underside of thorax pale brown to yellowish brown with exception of the tarsal joints, which are a little darker. The hind border of the third tergit produced into a broad semicircular prolongation. The genital valves short and wide apart. Two curious, very long, threadlike prolongations are placed in the space between the two branches of the forceps. The 2^{nd} abdominal segment very short, much broader than long. Wings hyaline with a very faint, yellowish tinge and with sooty-brown bands and markings.





Fig. 14. Forceps of Panorpa deceptor, σ^2 , seen from the underside.



 \mathcal{Q} has the five basal abdominal segments, generally, more dark coloured than in the male.

Length of body 14-15 mm; fore wing 14-15 mm; hind wing 13-14 mm.

10 σ'σ' and 19 φφ, Taihorin, 7. XI. 1911; 1 σ' and 6 φφ, Taihorinsho, 7. IX. and 7. XI.; 1 σ', Kosempo, 7. VII. 1911; 2 σ'σ', 1 φ. Sokutsu, V. 1912; 3 φφ, Anping.

This species very much resembles Campodotecnum formosanum Navas with regard to the colour and markings of the wings; the nervature of wings, the shape of anal appendages in the male and other characters, however, show very clearly that it is a distinct species. The male very easily may be recognized from that of C. formosanum, especially by the shape of the anal appendages;

the female may be distinguished by the pale brown dorsum of mesoand metathorax; in *C. formosanum* the dorsum is quite black. It seems that the species is not uncommon in Formosa; I have seen it in great numbers in several collections. *Camp. formosanum* seems to be much rarer, as I have only seen 2 or 3 females of the species. I may here remark, that the three females, mentioned by me in "Entom. Mitteili.", Bd. 1, p. 198 as *Panorpa formosana* Navas, probably belong to *Panorpa deceptor*.

Campodotecnum ophtalmicum Nav.

Navas, Revue Russe d'Entom. XI, 1911, p. 113. Several specimens are present.

1 σ', 3 φφ, Taihorin, 7. VI. 1911; 1 σ', Hoozan, 7. VIII. 1910: 1 σ', 4 φφ, Suisharyo, X. 1911; 1 σ', 2 φφ, Taihorinsho, 7. IX., 1 δ, 2 φφ, Alikang, VIII. 1910.

H. Sauter's Formosa-Ausbeute.

Scydmaenidae.

Von Edm. Reitter, Paskau (Mähren.)

Genus Euconnus Thomson.

A" Halsschild an der Basis am breitesten, von da nach vorne konisch verengt, Fühler mit viergliedriger Keule:

Untergattung Napochus Thoms.

1" Fühlerkeule sehr stark abgesetzt, die drei vorletzten Glieder stark quer. Glied 3-7 des Fühlerfadens sehr klein und etwas quer.

Euconnus (Napochus) Sauteri nov. spec.

Rufus, fulvo-pilosus, palpis, antennis pedibusque testaceis, antennarum clavae articulo primo transverso, secundo perparum angustiore, capite thorace leviter angustiore, oblongo, oculis distinctis, temporibus longis, postice angustatis et dense fulvo pilosis; prothorace latitudine haud longiore, conico, nitido, glabro, ante basin quadrifoveolato, foveolis interioribus magnis, approximatis, exterioribus ad latera angustissimis, parvulis; elytris ovatis, thorace parum latioribus, minutissime, vix perspicue punctulatis, basi impressis, extus ad humeros plica valde distincta ornata, antrorum prope suturam leviter longitudinaliterque impressis, pedibus gracilibus. Long: vix 1 mm.

Entomol, Mitteilungen II.