Schulz 1907 (W... Bischoff 1933)

2. Lycogaster apicipennis (Cam.).

1 ♀ from "Mejico" (leg. Hedemann, 1868).

Cameron based the original description of his "Trigonalos" apicipennis (1897, origin: Atoyac in Vera Cruz, Mexico) only on the ♂, even though he described the same one as a ♀. The fact that he was really dealing with a ♂ is evident when he does not mention any appendage at the second back-abdominal sternit with which the ♀ is equipped; he has the habit to always make a note of it in his descriptions of trigonaloids, whenever such an appendage is present.

L. apicipennis looks deceptively similar to L. nevadensis (cress.), however it differs from that one in the following points: its stature is shorter and more compact; this is especially true with the back abdomen, which, when viewed from above, can be considered almost heart-shaped. Markings are denser all over, and consequently, the body appears more "matt or dull; especially marked with quite coarse wrinkles crowded tightly together all throughout are the temples, the top of the head, the dorsulum, disk, middle-breast sides, and the back-abdominal sternits, beginning with the second one. These much more compact markings are explained by the presence of a much richer and longer hirsute (?) (bodily hair growth), lying closely, flatly, with a sheen of yellow gold; because of this and also because of the concurrence in size, coloring and markings, a great similarity has come about with certain "Faltenwespen" (pleat-wasps) of the genus Nectarina and with the group Pacheodynerus within the collective genus Odynerus ("Mimetismus"). Hair growth of the wings is also more compact and yellow-gold, except for the distinctly shaded wing-tips, where they are colored dark-brown. Stigma is black in the basic two thirds. The little shield is completely black, without any yellow spots. The legs are more extensively colored black. The yellow ribbons of the back abdominal tergits 2 and 3 are wider and more even. Tergit 4 (with the exception of the narrow, black front rim) and 5 and 6 (except for the always redbrown back edge) are entirely yellow-gold. Back-edge ribbon of the second sternit is wider and more continuous, only with a small interruption on the center of the disk which is sticking out. Sternits 3 - 6 yellow, in a qualified sense, because black remain the third one in the middle and at both sides in the front, as well as the fourth one a little bit at the front edge center, and the fifth and sixth ones stay brown at the tip.

These color markings may still vary a little with the individual, but, as a whole, they should remain pretty well constant, a conclusion which I am drawing from the comparison with Cameron's description of the ♂ and especially from the analogyof the 4 specimen of both sexes of the relative L. nevadensis (Cress.) which I have at my disposal for research.

Moreover, there are still considerable differences between the two species in regards to the sculpture of the second and the third female abdominal sternits: the armature of the second sternit of L. apicipennis (Cam.) ♀ is shorter and broader, more widely chopped off at the end, with obtusely angular lateral corners which are not rounded off. However, the endborder of the armature is declining polished smoothly and not just straight, thin, but it carries a cross-pleat below it, the in-between space appears to be a shallow smooth crevice. For comparison's sake, I will illustrate the armaments in question of the two types (genus?) here below. Sternit 3 of the ♀ of apicipennis in the front edge center has been pulled forward into a distinct, blunt point (or corner), a broadly triangular shape, which is missing with the nevadensis- female.
The two species have in common with each other the characteristic red-yellow brightening up of the second and third antenna sections.

Fig. 1. Extension of the second female back-abdominal sternit of a)Lycogaster apicipennis (Cam.), b.) lycogaster nevadensis (Cress.).

In the beginning, I was inclined to consider apicipennis to be just a geographical race or a subspecies of nevadensis, but my continuing studies of both forms led me to recognize the distinguishing sculptural and body-shape differences after all, as well as the deviations in the bodily markings which should not be underestimated, because of all of this, a genus separation is justified.

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5. Nanogonalos fasciatipennis (Cam.).

One ♂ from Rio Grande do Sul in South Brazil (legally Stieglmayr), which I had trouble recognizing as the "Trigonalos" fasciatipennis Cam. (1897) of Mexico described, mainly only after my discovery of a matching ♀ (from Columbia) among the trigonaloid material of the Berlin Museum. According to that, this species is spread out very extensively geographically and, moreover, it forms the type of a special genus, Nanogonalos m., which is probably closest to the genus Taeniogonalos m. (with maculata [F. SM.] as type), however, which deviates from that one by its more elongated figure, unarmed female back-abdominal sternits and a flat little shield. Since the male antennae are equipped with tyloids and because of their smooth sternits, the Nanogonalos are classified to be in the sub-family of the trigonaloids.

N. fasciatipennis-males have, in contrast to the females, besides the aforementioned tyloids, an even slimmer, more elongated stature, especially of the back abdomen, more compact bodily markings, a relatively longer third cubital cell of the front wing and a somewhat differently-shaped yellow marking.

However, in regards to the latter, a certain amount of variation should be expected.

Finally, this wasp is characterized as being one of the "imitators", the original one should be searched for among the "vespides" - genus Plybia, probably in the vicinity of P. occidentalis (Olic,).

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BISCHOFF 1933 your page 483

ORTHOGONALOS Seyrigi n. sp.

Available for research is a number of ♂♂ and ♀♀ from Madagascar, Rogez, IX - XII, 30. II. 31, 32, X. 32, XI. 32 Seyrig S.)

For the greater part the head is white with a large black spot right on top, which extends bilaterally from the middle region of the back edge obliquely towards the front up to the upper corner of the eye, then it returns in the direction of the posterior ocelles, and then from there it extends towards the front up to the antenna roots expanding into a wide stripe. Clypens most often with a small black "basalt leak". At the thorax, the upper and lower side edges of the pronotum are white, as well as the disk of the scutellum and metanotum, the pleures, including the lateral surfaces of the middle segment (in contrast, more of a light-brown are the sternites, including the mesosternum). In back, on the propodeum in the area of the joint margin, there may also be some brighter spots. The middle segments, for the remainder, is completely black, the same with the side parts of the scutellum and metanotum, while the mesoscutum is red. The abdomen is yellowish-brown, a little blackened only at the most extreme basis. The abdominal point may be brightened a little with yellow. The legs, including the hips and the trochanteres are of light-brown, only the back shins and - tarses may at times be somewhat darker. The feelers are black with a white ring, which stretches up above the 10th to the 15 th section (not counting the proximal shaft tie-in), occasionally it could stretch up to the 9th, resp. the 16th and 17th sections. The wings are completely clear without any cloudy dulling, only with an even light-yellow tone. The vein system is dark.

The abdominal shape deviates somewhat from the typical one, as it has been described for O. boliciana Schulz and the way it appears with O. debilis Ter. and hagoromonis Ter., because the back-abdominal segments are not fitted together in a box-like manner, and because the tergite margins show only shallow indentations. Here the relatively soft-skinned abdomen has a slim spindle-like shape.

Head and abdomen are nearly shapeless with only tiny and sporadic markings and hirsute. In contrast, the mesoscutum is distinctly and sharply engraved, with fairly compact markings, even outside the lengthwise line of the lateral fields. The parapside furrows are deeply entrenched with just a few cross ribs. A rough gridlike sculpture is noticeable in the basal furrow of the scutellum; the disk of the scutellum is somewhat stretched out in the lengthwise direction, distinctly domeshaped, with a central length-wise depression which is more or less distinct, and which becomes less and less towards the back (and at times, is missing completely), and with fine markings. A more or less arch-shaped oblique wrinkle pattern appears on the middle segment, which is prone to strong individual deviations; at the basis in the post-notal region of the meta-thorax with a rough grid sculpture in the furrow. Hairgrowth of the thorax is sparse, fine and short.

The number of feeler sections varies with the females between 24 and 28, with the males between 25 and 26. Length: females 7.5 - 10 mm, males 8 - 11. As a "typus", I will describe a male of Rogez, II. 31, as "allo typus", a female found at the same location and on the same date. Para-types are also in the museum of Paris.

As an f. maculata n. f, I am describing a large male of Rogez XI.32, which distinguishes itself from the norm (named form) in several aspects. The feelers have 28 sections and only the 11th and 12th sections are pure white, however, the preceeding and the following ones are only lightened up a little on one side, so therefore the feeler ring appears altogether shorter. The black markings on top of the head are also more spread-out. The borderline between black and white does not reach from the upper corner of the eye against the posterior ocelles towards the back, but along the sides past the anterior ocellus towards the front. On the upper parts of the metapleures, only a small light cross-stain is present. The first abdominal tergite is almost completely black, and on either side of the second one there appears a somewhat washed-out-looking black spot, on the 3. tergite there's an indication of one like that, laterally at the extreme basis. The abdominal point is brightened up a little more and the posterior shins and tarsesare darker. Length: 13mm.

With this particular individual, the rim of the tergite back edges is also more distinct than with the other individuals, which, however, in this case, most likely represents an individual character.

ORTHOGONALOS HOVA n. sp. your page 485

A number of ♂♂ from Madagascar, Rogez, IX. 30, X. 30.X.- XI. 31, XII. 32, as well as 2 ♀♀ from Ambalavao, XII. 30 and Ankaratra, I. 31 (Seyrig S.)

Morphologically, this genus is very close to the above-mentioned one and it has the same stretch-model body shape. If the last abdominal segments are a little pulled together or shortened, which is the case especially with the females, then the orthogonalos genus or type has been created, with its protruding segment corners, also individually.

The sculptural differences compared to O. seyrigi are quite minor. The scutellum and the pleures are somewhat stouter with tighter markings, and, at the middle segment, the wrinkling tends to be more uneven.

Mainly, the coloring is different. This genus fits well into the third coloring-convergence-groups set up by Seyrig for the madegassic ichneumonides. Males: the head is black with white markings, the thorax and legs are of a rust color, the abdomen, topside, has a rust-brown basis, black belt, white end-segments and white spot markings, underneath mainly white with black. The breakdown of the coloring in detail, is as follows:
(your page 486)

The markings on the head are similar to those of seyrigi, but the lighter temple markings are not quite as broad and are limited to that area only, in other words, they do not extend all the way up to the top of the head, either. The white ring around the antennae covers, on the average, the 10th up to the 15th section, and it also has a similar variation of width. The number of antenna sections varies within the same limits.

The thorax, including the legs, is monochromatically reddish-brown, a light color, with darker shadings at the posterior shins and tarses. The wings are also clearly transparent, however, with a light greyish cast. The first and second abdominal tergites are colored reddish-brown on the disk to a wide extent, however, they are darker at times, also the third one in many cases. The abdominal sides have large white stains, which reach up to the dorsal side, mostly with little strong demarcations in different widths and which are often darker in contrast to the reddish-brown. Usually, the fourth tergite is the darkest, since it is customarily black dorsally and only possesses tiny side specks; yet, even with this one and with the preceding tergite, a lighter end-margin may be present. The fifth, and the following tergites, are mostly white. At the belly-side of the abdomen, the first three sternites are white, the following ones have white end-seams.

Length: 6,5 - 11,5 mm.

Females: The 4th tergite is also white for the greatest part; the abdominal basis may be yellow-brown underneath. With the largest individuals, the back thighs, especially, on the upper edge, are black-brown along their length.

Length: 3 - 10mm.

As "Typus", I am describing a male from Rogez, X.31, as "Allotypus", a female from Ankaratra. Paratypes are also in the Paris Museum.

Poecilogonalos javana n. sp.

1 ♀ from Java, without any more information. The dark coloring and the barely shaded wings immediately distinguish it from all other types of the genus described to this day.

Black with pale-yellow markings, which are distributed in the following manner:

In the area of the mandibles, the cypleus, with exception of the narrow front-edge and a darkened, central, lengthwise line, a large interior and exterior, orbital stain, upper and lower side-edges of the pronotum, on the middle-field of the mesoscutum one spot which touches onto the parapside furrows, and which, up to about athird of their length, is drawn towards the back on these, lateral stains at the scutellum, the three customary crosswise stains on the metanotum, on the underside of the front hips, all trochanters and exterior thigh roots and tips,and, also at the fronts or outsides of the shins, there are lengthwise spots emanating from the knees (on the front ones, taking up almost their entire length), insignificant brighteningup areas at the back-edge of the 2. tergite, large, triangular, lateral spots, somewhat in front of the back angles of the 2., small, inconspicuous ones at the same location of the 3., larger, irregular-shaped ones on the 4th, 2 almost square, spots on the 5th, whereby the ~~the~~ black, middle-spot (present between them), is almost the same size as each of the yellow, lateral stains, small round specks on the 6th tergite, and a narrow, apical band on the second sternite. The wings are transparent, with a weak brown tint, which is only a tiny bit darker in the area of the radial - and cubital cells, and strongly iridescent.

Sculpturally, this genus is very close to fasciata Strd., but the abdomen is marked or dotted much more extensively on the the second sternite and therefore much more glistening. The feelers are somewhat thicker and shorter. By the way, the fasciata varies quite considerably in the abdominal sculpture, but not to the extent and extreme as with javana n. sp.

Length: 9mm.

Discenea natalensis madegassa n. subsp.

8 ♀♀ are available from Madagaskar, Bekily, I., III., IV. 1932 and Ihosy, II. - III. 1933 (Seyrig S.).

The "Typus" of the genus, a female, hails from Port Natal, a second female, from the Delagoabai, was described by Enderlein. A. Schulz 1910, separated a "Congo-race" as subsp. lamani.

Among the madegassic specimen were also no characteristics discovered, which would distinguish this form specifically from the African ones, however, there were some peculiarities in markings, which may well have subspecific value.

Missing are the light-colored stains at the middle segment, which are characteristic for the South-East-African form (which corresponds with lamani in that respect), the spots of the 2. abdominal tergite are enlarged, just like that one. Otherwise, the wings are quite dark, just as with the "nominat" form, maybe dulled even more, yet. On the 3. tergite are only small or no spots at all, laterally, the 4th one is completely black with all specimen. Each individual has 3 cubital cells, while the insect described by Enderlein in those days, had only 2, as an abnormality.

Length: 6,5 mm - 10 mm.
As "typus", I am describing a specimen of Bekily, IV. 1932.

Nanogonalos schulzi n. sp.

1 ♀ from Coroico, Bolivia.
This genus is very close to N. fasciatipennis Schulz, but it distinguishes itself well by means of sculpture and markings.

On its head, the markings are spread out more extensively, because the temple corners reach far up to the top of the skull, and there, they are joined together by means of a lower-head (or sub-head) cross-ribbon, which, in the middle, possesses 2 extensions which are pointing obliquely towards the front and outside. In contrast to the aforementioned genus, the thorax markings are relatively reduced. Especially the scutellum is completely black except for the axillar pieces, which, in part, are marked with a lighter tone, and the middle-segment markings are retroformed to small lateral spots. Wings and legs are marked in the same manner. The back-abdominal ribbons are more narrow, and the brightening of the sides of the 2. tergite is less.
The markings on the head are sparse, on the thorax and abdomen much finer than with fasciatipennis, especially even and tight together on the abdomen, so that it appears almost completely dull. Also the dorsal area of the middle-segment is dull and passes towards the back without any abrupt break against the metanotum, as is the case with the "generotypus" it is being compared to.
Length: 7,5 mm.

Lycogaster zimmeri n. sp.

1 ♀ from S. Celebes, Talassa (Maros), 300m, X. 1931 (G. Heinrich S.)
1 ♂ from Celebes, Ile-Ile, 500-800 m, Anf. XII. 1930 (Ge. Heinrich S.)
One genus which is easily recognized, just by its strikingly colorful markings.
Females: The basic coloring is black with yellow-white markings and widely extended red thorax disk. On the head, there are 3yellow-white spots on the cypleus, on either side a facial beauty-mark, which runs from the lower 2/3 of the eye rims to the antenna roots, a tiny little speck on the feeler roofs, the exterior orbital vein as a wide splash, as well as 2 insignificant little spots in front of the anterior ocellus.

The mandibles are dark, in general, however, a light-brown cast at the upper rim makes one expect a brightening-up from that point on. The feelers are pich-brown, but lighter at the underside of the basal half. The tergites of the thorax, including the tegulae, are red, however, at the pronotum, this coloring is also reaching over onto the sides. Within this red base coloring, there appear more or less distinct yellow markings, namely at the upper shoulder-bulges of the pronotum, on either side in front at the mesoscutum to the interior of the parapside furrows, as well as crosswise stains on the middle part of the metanotum and the cross-calluses, which are located on the sides of it. The pleures and the middle segment are black, however, the latter one has two larger light spots at its sloping back area. All hips and trochanters are also marked lighter, however, the trochanters of the middle legs are somewhat darkened underneath. Thigh bases and tips are more or less lightened, besides that, also the tibias from their basis, especially, on their exterior sides. The wings, in their entirety, are dimmed lightly brown, more pronounced along the front edge and at the tip part. The light abdominal markings consist of a large cross-ways stain at the back margin of the 1. tergite, one each of oblique side stains, which are distinctly separated from the back-edge of the 2. tergite and which are pouring themselves into fairly pointed tips towards the inside, 2 much smaller, also oblique, spots on the 3., and indistinct, light little dots on the 4th. Underneath, on the 2. and 3. sternites, a light marking is observed. The hairgrowth is predominantly light-brown, but, on the pleures a greyish-white.

This genus is close to the pictifrons Sm., but, the sculpture of the thorax is considerably more coarsely wrinkled, whereby on the middle-field no evenly arch-shaped meandering crossways wakes are produced, nor long wakes on the side-fields of the mesoscutum. The parapside furrows are entrenched similarily deep as with that one, and let one recognize cross-ribs, only here and there at the base of it. The entire flat scutellum is dull, because of a very tight wrinkle pattern. The border-furrow against the axillar pieces is carved-up into even-sized, large, almost square, pits by robust ribs, however, considerably less dramatically than with celebesiensis Szepl. Armament of the abdominal sternite just as with pictifrons nepheloptera, since the belly curves are relatively shallow. Feelers: 27 segments.

Length of the female described as "typus": 13 mm.

With the male, which I want to place with this genus, the red coloring of the thorax is limited to the lateral rags (?) (pieces?) lobes? of the mesonotum and to the axillar pieces, however, the yellow markings, in contrast, are in general, considerably richer.

The lower face is entirely yellow, beginning from 2/3 of the eye-level up towards the front, including the mandibles, but, with the exception of the mandible teeth, of the narrow cypleus front-edge, and of a black triangle between the feeler roots, whose tips (or the tips of which) are pointing upwards. There's one yellow spot in front of the anterior ocellus, and also one on either side of the posterior ocelles. A wide splash of yellow is also at the temples, up to the height of the vertex of the eye. Besides that, the tiny space between the exterior and the interior, orbital markings is filled up with a small, yellow speck. The back of the head is also yellow, and it dispatches towards the front 4 pointed tips, of which the lateral ones move towards the temple-yellow. The 26-sectioned feelers are entirely yellow-brown, towards the tips only slightly darker. On the thorax, the following are of yellow color: the upper side margins of the pronotum, two triangular spots in front of the middle rags or pieces of the mesoscutum, two side-stains positioned lengthwise at the middle-field of the scutellum and 2 smaller spots on the axillar pieoes. The metanotum is marked just like that of the female, with enlarged propodeal-spots. Yellow spot-markings can also be found on the pleures, namely, at the lower side-rim of the pronotum, as well as on top of the meso - and meta-pleures. The propleures are wearing two larger, yellow spots. The legs are, in general, predominantly, of a light color, only darkened at the middle- and back thighs, as well as distally. The wings are paler than those of the female, the browning of the front-edge, also, does not extend as far towards the root, either. The abdominal markings are similar to those of the female, however, the spots of the 2. tergite are so close together on the inside, that they almost touch, those of the 3. are enlarged in the same direction; also, tiny spots are painted on the 4th tergite. The belly-markings are just like those of the female. The sculptural proportions correspond to those of the other sex. Missing is an abdominal armament, distinctly formed are tyloides on the 10th to the 14th antenna segments, which are only hinted at on the 15th.

Length of male described as allotypus: 12 mm.

Hardly a doubt exists, that these two sexes belong together, because of the morphological correspondence of this male to the female, still, the question remains unanswered, whether we are possibly dealing with different races here, since we have only one of each specimen available for study.

LYCOGASTER Heinrichi n. sp.

1 ♀ from Celebes, Latimodjong-Geb., Uru, 800 m, III.-IX. 30 ? Heinrich S.).

A genus which appears almost dull, because of very compact markings or wrinkling, whereby only the 1. abdominal tergite is smooth. The part of the middle segment, which is the farthest one at the back, is only slightly sculpted, as well as the temples and the underside of the head. Because of that, all of these parts also have a more glossy sheen.

The body markings consist of lemon-yellow, yellow-brown and reddish elements, whereby the edges of thespots in these color-tones may be washed out. On the head, there are two spots on the cypleus in pure yellow, 2 stains running approximately up to the middle of the inner orbits, which may be merging with those on the antenna-roofs, and, to a larger extend, with the orbital edges. At the back of the head appears a yellow, crosswise ribbon, which, however, is turning to brown towards the sides and in the middle on two tips which are looming towards the front. Yellow markings can be found on the mandibles and on the lower orbital rims, which are mixed with a little brown at the edges. The 24-sectioned feelers are brownish, darker at the root and tip. On the thorax, the upper and lower side-rims of the pronotum are yellow (with a reddish mixture on top), and it is the same with the middle crosswise bulge of the metanotum; on the other hand, on the middle-segment, up at the abdominal joint opening, there is a stain of pure yellow color, which continues on by pouring itself into one long appendage flowing towards the front and another shorter one, obliquely pointing to the sides. The scutellum, axillar pieces, tegulae and side-bulges of the metanotum are rust-red. A slight, central darkening is noticeable on the scutellum. A lengthwise smudge of yellow can be found on the meso-metapleural seam of the mesopleures. The legs are predominantly dark, yet the front-side of the anterior thighs and - shins is lightened up with brown. The hip grooves and those sides of the trochanters facing them, are light, the posterior trochanters all over and the same with the most exterior thigh roots and knee spots of the shins. The wings are clearly transparent, but with a strong, dark clouding, which encompasses almost the entire radial cells and the half of the fields located outside of thecubital cells. At the abdomen, at the back-edge of the 1. tergite, there is, of pure yellow, one crossways stain which is leaking forward in the middle, a similar spot on the corresponding sternite. The remaining abdominal markings are more reddish-yellow, and they consist of a narrow back-edge cross-ribbon at the 2. tergite, which becomes slightly wider towards the sides, and of a triangulat spot in the depression up front of the same tergite at its front-edge, of a crosswise line near the depressed end-margin of the 3. tergite, etc.(not decipherable)

(please recopy page 492!)

Thanks - Erika