

Even though the trigonaloid "treasures" of Mr. Lessmann consist of only 4 specimen, our knowledge of this unique hymenoptere-group has been greatly enriched by his material, because those four specimen represent 3 new types and just as many new breeds (or classes) and it's also of the utmost importance to gain information regarding the distribution of the trigonaloids, because, up to now, only two types from Africa were known, and, that is to say, both of them from South Africa (cfr. W. A. Schulz, Trigonaloidae, in Wytsmans Genera Insectorum)1).bottom of page

1.) This work bears the year 1907, but the copy did not enter the Berlin Museum until March 18, 1908.

One of these two types, as well as the three others, belong to the subfamily Lycogastrinae, and therefore, it appears, that the African trigonaloids are mainly Lycogastrinae, but, without doubt, can we expect many new types yet to emerge from the ethiopian region, which could change the whole faunistic picture.

In the "Systematik", I am referring to the aforementioned<sup>ed</sup> Works of W.A. Schulz, who has garnered great acclaim regarding the knowledge about these rare and difficult insects; very much appreciated are his successful endeavours to collect as much material as possible of these insects which belong to the rare finds in all of the museums, as well as his detailed descriptions and ~~and~~ his outstanding reproductions (or illustrations). However, may the following remark be permitted, namely that he has possibly gone too far as classification into genera is concerned and that his "sub-families" are probably even less tolerable (or <sup>acceptable</sup> permanent); it's immediately obvious as far as the latter is concerned, that this is built on a weak foundation, consider the respective determination tables (l. c. p. 4), in which almost everything is a matter of "more" or "less", and therefore exceptions are the rule. Also those remarks placed right on top: number of antenna sections "maximum 19" or "at least 21", may not be depended on, because it is well known, that this number or figure can vary even within the same species of "Schlupfwespen" (slip-wasps), and thus it may well be the same situation with the trigonaloides.

But since the material at my disposal is by far not as extensive as that available to Schulz, and since most of his genera are not even known to me in natura, I just want to limit myself here to those indications or hints, and therefore, as far as genus differentiation is concerned, I will follow Schulz's lead; so that I will use, just as he did, the distinguishing marks which are subtle in some cases, but then later, when more material is available and the knowledge regarding the variability of the trigonaloids has grown, it should not be deemed impossible that this will prove insufficient or unreliable for the determination of differences among the species.

Berlin, October 1911

Stygnogonaloides crassiceps Strand n.g. n. sp.

One ♀ from: Spanish-Guinea, Nkolentangan, XI. 1907 until V. 1908

Embrik StrandGen. Stygnogonaloides Strand n. g.

Regarding sub-family Lycogastrinae Schulz. His classification tables lead to Stygnogonalos Schulz, but the insect differs from the description of this genus by the following: The forehead roof is more clearly defined than with Trigonalos Westw. (melanoleuca Westw.) and also the groove underneath it is a larger and more conspicuous; the middle segment of the shield is slightly vaulted, however, slightly flattened off in the middle and with an entire shallow lengthwise groove: front wings are not shaded black-brown across their complete span, with that one also the root area of the front wing is transparent; the middle segment is protruding by more than half the length of the back "coxa" the basis of these, the fourth sternit is unarmed at its basis, in contrast, the second one shows just a hint of an armament. - May I mention further genus characteristics: the feeler rods are unmistakably thickened in the center, the abdomen is strongly dotted and mat, the sternites are unarmed, as a matter of fact even more pronounced than with Discenea, the abdominal tip less curved than with D. natalensis, so that the tip is only pointed downward, not also towards the front. Three cubital cells; the first one longer than the following two together, approximately twice as high as the third one and three times as high as the second one; the latter is of elliptical shape with a broadly cut-off point or tip, the third cubital cell is pentagonal and from its proximal side (=second cubital cross vein) originate next to each other the two other cubital cells, which therefore reach or stretch out seawards the same distance (or the second one a little bit farther, or in other words, the second cubital cell is stemmed). The first returning vein flows into the basis of the second cubital cell, the second one is interstitial with the third cubital cross vein. - Because of its stemmed second cubital cell and respectively, because of the confluence of the first cubital cross vein into the second cubital cross vein instead of into the marginal vein this genus is enjoying a special position or place among all of the trigonaloides. - Type and only species: (or unique species)

Stygnogonaloides crassiceps Strand n. sp.

your page 128

♀. Black; the mandibles are light yellow with the exception of a narrow, black seam or margin band, which is the widest at the end and partly red, furthermore, two egg-shaped cross stains the distance of which from each other amounts to a little less than their shorter diameter, these are on the "clypeus", on the mesonotum in front of the middle are two elongated subparallel spots, a very small speck on either side of the scutellum, a slightly larger cross stain on both sides of the postcutellum, one spot on either side of the prothorax, all trochanters with the exception of one black spot on the underside. The following are more of a dirty or brownish yellow: the "palpen" (palps?), the tips of the femores at the first pair of legs, all of the tibiae and the tarsi which are tinted black at their ends (the tibiae and the tarsi of the second and third pairs are colored black or partially brownish yellow).

as well as the following spots on the belly: the second segment on top on both sides immediately in front of the middle with an obliquely triangular stain, just behind and on the side from these stains another lengthwise spot just like these, and then another one, just alike again, can also be found alongside the side margin at the two following segments; the second abdominal segment has a yellow posterior edge band, which is narrowed at both sides and which has a wide triangular rim, in front in the middle, the following segment with a narrow back edge band on each side. The front wings are smoke colored with subhyaline root field, which however, in the subcostal field is also smoked; the back wings are hyaline, both wings iridescent with brown-black vein system.

The second belly segment at the back edge has a little lengthwise hump in the middle, the third one in the same location has a high triangular cross plate which is very slightly vaulted convex towards the front which is cut off at the end forming an edge, this plate is pointing obliquely downward and towards the back, and its tip is at the same level as the tip of the abdomen. An excavation which can be found between the latter and the plate appears as a semicircle between the tip of the plate and the basis of the abdominal tip which is pointed downward.

Head and thorax 6mm long, abdomen 5 mm long, wings 9-10mm long.

Lycogastroides gracelicornis Strand n.g.n.sp.

One ♀ from: Spanish-Guinea, Alen, Benitoarea 1-15 VIII. 1906

If you ever want to consider the "sub-family-classifications" of Schulz, then you will probably have to combine this insect with Lycogastrinae; however, there are the following deviations, namely, that the head is very little elongated behind the eyes, so that, when viewed from above, the length behind the eyes is hardly equal to the width of the same, while for instance with *Lycogaster nevadensis* Cr. ♂ this length measurement appears to be the same or close to the same of the length of the eyes. Top of skull is less dome-shaped than with the aforementioned genus and the mandibles are protruding somewhat more pronounced than with this one. Feelers are elongated and thin, the distal is almost unnoticeably thickened from the middle; tyloids are missing entirely (with ♀).

Gen. Lycogastroides Strd. n. g.

Using Schulz's determination tables, the best classification to arrive at would be *Lycogaster*; however, the insect deviates from this first of all, because of its feelers which are longer and thinner as well as almost not at all thickened. Besides that, the hairgrowth is shorter and less sticking up (as with *Lycogaster nevadensis* ♂), the forehead in the center has a very weak indentation; the middle segment is extended more distinctly beyond the basis of the back hips; in profile it appears more clearly dome-shaped than with the beforementioned kind and its side edges run even more distinctly parallel to each other, or rather, the rounding-off towards the back takes place more

abruptly, and the "blunt corner" which they form by "quickly heading for the back edge center", is even more conspicuous than with *L. nevadensis*. According to the illustrations of Schulz, it appears, that the armament of the sternits can hardly be told apart from that of *Labidogonalos ornata* (F. Smith) and therefore deviates from that of *Lycogaster nevadensis* (Cr.), of which are only two ♂♂ available to me. Furthermore, the latter type (♂) has a wider head and smaller eyes as well as more crosswise higher vaulted mandibles which are obliquely cut off at the ends and therefore more strongly protruding at the tip of the front edge; but I have to leave it open whether these differences are sexual. Furthermore, there are differences in the vein system; so, the second cubital cell is more narrow in front and connected with the first discoidal cell by a very short stem, which may be missing at times, while, with *nevadensis*, it is attached to the first one, distinctly, if not exactly, widely; the second recurring (or returning) vein flows *far(?)* into the middle of the third cubital cell, *nevadensis*, in contrast, broadly before the middle; furthermore is *Nervulus* with our genus more strongly postfurcal (by plenty the half of the length of the *Nervulus*, with *L. nevadensis*, only by a third of this length). -  
Type and only genus: *L. gracilicornis* m.

*Lycogastroides gracilicornis* Strand n. sp.

your page 130

♀. Black; light yellow are the following: mandibles with the exception of the tip and the basis as well as a line along the front edge; two round spots, which are separated from one another by almost their diameter, on the clypeus; one band at the inner edge of the eye which expands approximately up to the antennaroots; one small spot each on top touching the roots of the antennae; one band or ribbon at the back edge of the eyes; which, however, by far does not extend to the top of the head; 2 spots on both sides of the prothorax; a cross stain on either side of the back segments II - VI, but only on the II. segment is it colored yellow, and on the others a brownish yellow, furthermore, these spots are decreasing gradually in width towards the back, so that those of the V. & VI. segments are about as round as a circle. Of a dirty gray-yellow are the distal joint of the trochanteres and the front-side of the tibiae I and the tip of the femores I; the front side of the tibiae II has a weak hint of brown. Of a light brownish color are the palps and the insignificant "Wische" (whisks?, hair-tufts?) near the back edge of the second belly segment; the hump of the latter is mostly brownish yellow. Tegulae and wing basis are dark brown. The vein system is black. Wings are subhyalin, alongside the front edge with a dark smoke-brown ribbon, which encompasses the subcostal and the cubital cells; also the remainder of the apical half is unmistakably smoke hazed, the basal half, however, subhyalin. The back wings are subhyalin, only towards the end are they weakly smoke tinged.

Body length 8 mm, wing span 8mm as well, widest width of abdomen is 2.8mm, the length of the same is 4 mm.

*Lycogastrula micaticeps* Strd. n. g. n. sp.

2 ♀♀ from: West-Africa, Belleburg VI - VIII. 1908

Genus Lycogastrula Strd. n. g.

Belonging to the lycogastrinae Schulz, however the skull is only slightly dome-shaped and the abdomen is "weakly depressed", as it is "supposed to be" with *C.* - The insect deviates from lycogaster by its longer and thinner antennae, which are only barely swollen in the middle, the armature of the 2. and 3. sternites is shaped about the same and fairly evenly strong, the protective humps above the initial stages of the feelers unite to form a forehead roof, the side rims of the middle segments, when viewed from above, are converging towards the back already from their basis, and there is absolutely no "formation of a blunt corner, before they strive towards the back edge center".

It's deviating from lycogastroides in that the forehead does not show an indentation, the shape of the middle segment is different (compare with above!), the armament of the sternites is different, because of the fact that there are two almost equal tooth extensions which are almost horizontally pointed towards the back; the hollowed-out area located behind these is more shallow and broader (longer), that is about twice as long (wide) as deep, while with lycogastroides it appears 3 to 4 times as deep as wide. Furthermore, the abdominal tip is pointed downward (the backside of this tip is obliquely pointed downward and forward) and not edged out with tooth shapes. There are also differences in the wing vein net: the front tip of the second cubital cell is not connected with a stem to the first discoidal cell, but sits attached to it broadly, while only moderately wide; the second recurring vein is interstitial with the distal cubital-cross vein, the second cubital cell is stemmed costalward, so that the first cubital cross vein originates in the middle of the second one; nervulus is only very insignificantly postfurcal; with lycogastroides, a white spot is located in the middle of the 2. and 3. cubital cross vein, which is completely absent with the present genus in the third cubital cross vein and which can be found in the second one under (behind) the middle. Furthermore the insect can be distinguished from lycogastroides by its smooth and shiny head; also the remaining tegument is gleaming, if only weakly. - Type and only kind: *Lycogastrula micanticeps* Strd.

*Lycogastrula micanticeps* Strand n sp.

♂. Black; of a dirty light-yellow color are the following: the mandibles with the exception of their black tip, of the reddish front rim and also of the reddish basis of the teeth, clypeus with two yellow spots, rounded-off triangular shaped which are separated from each other by their largest radius, one spot on either side of the prothorax, on the trochantères, on the second abdominal segment two elongated spots which are quickly diverging towards the back and two cross lines on the post scutellum. Of a reddish brown yellow color are: two triangular elongated spots in front on the mesonotum, a tiny speck just like it under the gray tegulae, again another of the same on either side at the front rim of the scutellum, the tibiae, tarsi and tip of the femores I, the tibiae and tarsi II (but darker than I), than a kidney-shaped long spot on either side of the II, and on the third and fourth tergite a round stain on each in the same area, furthermore, on the second sternite a back edge band of the same coloring.

continuation of "Lycogastrula micaticeps Strand n. sp.

Wings are hyaline, irridescent, with a hint of smoke in the smaller end-section half.

<sup>of</sup> The head is wider than the thorax, viewed from above, it appears to be chopped off across the front, it appears the widest across the eyes, the sides are faintly converging towards the back and are merging into the backsides with an almost perfectly even curving action; the latter does not have an edging in the middle. The face, under the fore-head-roof, is smooth and highly glossy, with a mat sheen between antennae and eyes, and the same is also the case with the clypeus, which, as always, is kidney-shaped, in the middle with a little, low hump which is pointed towards the bottom and the front and which is striped in a very fine pattern. The upper half of the face has a very weak glimmer, with large, but shallow grooves, which are smooth in the basis, and especially close together in the bottom, which become gradually less distinct towards the top and which do not pass into the area of the top and back of the head, which are smooth and highly brilliant and only sparsely dotted with microscopic spots.

Mesonotum and scutellum have deep, strong point or dot<sup>or pit</sup>-holes, but smooth spaces in-between them, and therefore only a very weak sheen; towards the margin the dotted markings are only less compact, in the middle of the scutellum the dots are separated from each other by half their radius up to their entire diameter. The middle part of the mesonotum is separated from the side part by very deep lengthwise grooves which are divided into cross-ribs, and it is equipped with a very shallow indentation across the length of the middle. The metanotum has a mat sheen, in the front half with a narrow, smooth, sparkling ribbon across the middle length. The abdomen is shiny, even though it is compactly dotted; however, the dot-grooves are shallow, flat and smooth in the bottom and just as well the spaces between the dots are smooth and shiny. The apical segment which is pointed towards the bottom, carries at its back side, 4 sharp lengthwise strips, of which the two middle ones butt together at the bottom, which quickly diverge towards the top and enclose a pit at that spot; the end margin is deeply cut out in the middle.

Body length: 8mm, wing length 6,5mm. Tibiae + all tarses of the third pair are 4mm long.

The feelers of the type appear to me to be a little bit thicker than those of the cotype, which is probably an individual deviation.