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NOTES ON CERTAIN PALPICORNIA OF THE REPUBLIC OF ARGENTINA. (Notes sur quelques palpicornia de la republique Argentine).

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NOTES ON CERTAIN PALPICORNIA OF THE REPUBLIC OF ARGENTINA

by

A. d' Orchymont

Spercheus fimbriicollis Bruch, 1915.

The Conservator of the Museum of Natural History, Buenos Aires, Mr. E.V. Gemignani, has been kind enough to draw my attention to the study of a Bolivian specimen of fimbriicollis, a species stated to be of the Plate and Santa Fe. It was taken at Cuatro Ojos, in September 1917, in the region of Rio Piray, a tributary of Rio Grande. The following notes are the result of the examination of this subject.

Size : 3,3 x 1,5 mill.

The hood raised highly on the lateral sides in oblique lamina from each eye, presenting a deep anterior triangular cut whose external angles however are rounded (? ♂). Antennae of 8 articles, resembling those of the other species of the genus, that is to say of the formula 4 + 4 = 8. (1).

Pronotum reached longitudinally in the middle by a big depression, interrupted towards two-thirds, and furnished with two longitudinal series of very thick but unequal points,

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(1) See the French Review of Entomology, T.V, 1938, p.81, 82 and Figure 1.

becoming very fine in front, on smooth and shining background. On each side of this longitudinal depression there are other irregular and punctuated ones in the bottom, above all a narrow and impressed transversal space, just behind the anterior edge; the disc becoming smooth, brilliant and unpunctuated towards the laterla fringes, but again always unequally affected. Certain elements of the lateral fringe of the pronotum are clearly bifid at the extremity. (Figure 1).

The elytral sides are very little protruded, the second (counting the sutural for 1) drawing a little beyond the two-thirds towards the place where the posterior declivity of the elytrons begins, a tubercle protruding enough, a bit stronger than the tubercle of the 3rd rid, which happens to be a little more in front, but quite little, from that of the 2nd; the 4th rib has no tubercle and the fifth is almost erased, visible only on a short space, at a level just in front of the tubercle of the 3rd rib. Between the ribs there are three regular enough lines of points much bigger than their intervals, drawn near in such a way that even the intercostal space appeared alveolus. " Limber " the elytrons, seen from above, big enough, oblique, non-horizontal, terminating behind the dentiform projection, very distinct from the sutural angle, found at the bottom and lower down the cut formed between the two projections. M. Gemignani wrote to me that these latter also existed in type of the Plate, but less pronounced.

These were however not indicated by Bruch nor in the text, - nor even at figure 15 of his description, 'Pseudopipleures' seen from under, completely horizontal, with big shoulder,

Fig. 1. Simple and bifid elements of the lateral fringe of the protonum of sphercheus fimbriicollis Bruch.

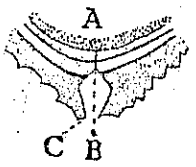

Fig. 2. Spercheus fimbriicollis Bruch. Dentiform projections and pentagonal cut between them at the end of the elytrons seen from under.
A: Last ventral arch;
B: sutural angels;
C: Extremity of the dentiform projection.

becoming slightly more narrow towards the middle and later enlarging again inappreciably until the posterior dentiform projection. It, therefore, forms itself into a cut of pentagonal form, between the two elytrons, at whose bottom there is the sutural angle, as stated already (Figure 2).

Hydrochus pupillus n. sp.

This new species recalls H. pumilio Knisch a little, but distinguishes itself immediately by the anterior angles of the pronotum, seen from the side, rounded instead of being -

angular. The form is also shorter, not at all parallel on sides, but with the elytrons distinctly enlarged in the middle, when this is not the case in the species compared. The elytrons are downright metallic, whereas in the pumilio their bottom is often of a reddish brick color with slight metallic reflection. The organ ? is very sharp at the extremity, the parameres extremely cutting, going beyond the median lobe which is truncated at the end, by a great length. In the ♂ of pumilio the organ is flat and round at the end. In the small form of a metallic brilliant, of 'corruscans' Bruch, the organ ♂ equally pointed at the end, is as long as the parameres in its median lobe, slender and sharp at the termination as these latter.

Type: Argentina, Prov. Buenos Aires (C. Bruch leg.) ♂ 2 x 0.78 mill. (Coll. Knisch). Paratypes of two sexes: as the type 3 subjects: Isla Martin Garcia, (M. Viana), April 1937, 2 subjects Museum of Buenos Aires and my coll.); Tigre near Buenos Aires, 2 subjects (Viana leg., coll. Viana and mine).

Head green metallic more or less bright, protruding eyes, however, less and less detached from the head in appearance as among the 'pumilio'; the disc covered by a strong enough punctuation and with a variable gap, often quite dense, without the sculpture being rugose or granulous.

Pronotum ordinarily of a trapezoidal shape, bigger in front with discal foveolae, the median anteriorly and the two

posterior, indicated but little deep, covered by a punctuation similar to that of the head, more dense with less non-punctuated space than in the 'pumilio'. Its form however, is variable, because in an ♂ paratype, of the coll. Knisch, it is more cordiform with the sides lightly rounded in front instead of being straight.

Elytrons with 10 series of thick points very close in the direction of length, as in that of the breadth, in a manner that the intervals and the interstriae are very narrow. But these latter are not convex and the series of points hardly thus appearing striate. On the sides series 6 to 9 bend a little towards the external edge, a little before the middle and the interstria 8, coming very close to the 9th, almost anastomosing and the point that marked this reconciliation is smaller than the others. Apart from that the interstriae have no irregularity, no part depressed or lifting again in side or tubercle.

As in the 'pumilio', the ventral arches are strongly dug in, stronger than in the small form of 'corruscans' to which a reference has already been made. The extremity of the last arch, before the protruding part of the membrane, is finely and densely covered with setigerous pores. These are very fine, less numerous and more spaced out at the same place in 'pumilio'. In the ♂ of dissected 'corruscans' these pores appear still more densely arranged and stronger than in the

'pupillus'.

Cercyon (s.str.) praetextatus Say, 1825.

This 'Cercyon' was collected by M. Manuel J. Viana at Tigre, in the suburbs of Buenos Aires no doubt having been imported in thers from the United States, where it has been mentioned.

Helochares (.s.tr.) pallipes (Brulle) (non A. d'Orchymont, 1926 = parhedrus n. sp.)

Hydrophilius (Philydrus pallipes) Brulle, 1838.

Helochares pallipes Bedel, 1881.

This species was placed in genus Helochares by Bedel (1) but without justification. Thanks to the favor of Dr. Jeannel, I could examine the only type which was quite spoiled (the abdomen was missing which prevented from determining the sex) and observe that due to the lack of appropriate materials, I could ill-interpret it in 1926 (1). My "pallipes" of this epoque in reality is an original species which I propose to name 'parherdrus' later.

The type of 'pallipes' is of Montevideo and measures 7.65 x 3,8 mill. It presents as all the specimens that I have received since 1926 and which I could report now, a very particular microsculpture. We should not have had any difficulty in understanding the species if Brulle had observed and described it. First the elytrons have ten series of spaced out and extremely fine points, hardly thicker than

(1) Ann. Soc. Ent. Fr. Bull. p. 94
(1) Ann. Soc. Ent. Belg. Vol. 66, p. 233

those scattered of the interstriae. These serial point belong to the upper front of the elytrón and not to the lower front; they are not therefore seen bytransparance. As it happens so often in the Helochares s. str. Due to these details one should be persuaded to classify the pallipes in the sub-genus Hydrobaticus; but the very long maxillary palpes attained, when these are brought behind the ventral side, the base of the pronotum, as the general morphology of the organ resembling greatly in broad lines with that of Helochares (s.str.) abbreviatus, appear to me to be opposite to this attribution. In fact 'pallipes' and 'abbreviatus' have from the ventral side and between the parameres, a free process terminated in point to cover the basal half or more of the median lobe properly said (See figure 3 and 4). At last the intervals of the points of the head and the pronotum are troubled microscopically sometimes feebly, but even in this case the brilliant ground of these parts of the body reduces them considerably. The mesosternal process is slightly tectiform in lump carinated behind not in high strip and scanty between the intermediate hips as in the 'Sindolus. Apart from the ' inornatus' of Orchymont, of Brazil and Guyana it is the biggest Helochares of South America that I know of. The coloring of the above is a dark brown and deep black as I had believed earlier following a contradictory passage of the diagnosis of Brulle.

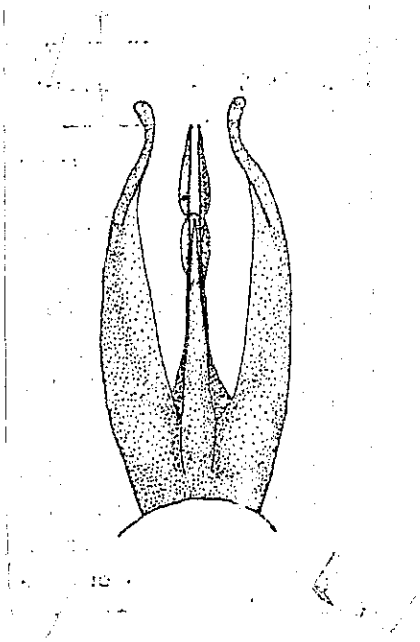

Fig. 3. Helochares (s.str.) pallipes (Brulle). Organ seen ventrally, x 50. The pointed process in place, at the base and above (in reality under) the median love.

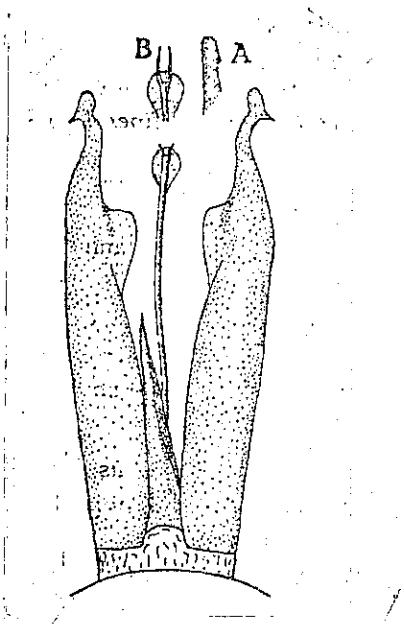

Fig. 4. Helochares (s.str.) abbreviatus (Fabricius). Organ ? ventral view, x 50. The pointed process separated intentionally from the base of the median lobe. A: extremity of a paremere and B: extremity of the median lobe in H. abbreviatus ? oculatus Sharp.

Material examined: Province of Buenos Aires, 6 specimens of two sexes of which one, an ♀, determined 'pallipes' by Knisch (Coll. Knisch); Rosas F.C. Sud, Prov. Buenos Aires, J.B. Daguerre, 2 ♂♂ (Buenos Aires Museum). Besides the Brulle type of Montevideo.

Helochares (s. str.) abbreviatus (Fabricius), A. d' Orchymont, 1936. (1)

Hydrophilus abbreviatus Fabricius, 1801.

Philphydrus pallidus Laporte de Castelnau, 1840.

Helochares (s. str.) pallidus A. d' Orchymont, 1926.

Helochares oculatus Sharp, 1882 (= form ♂ ? (2).

H. abbreviatus is stated to be of South America, but the type, a unique ♀ that I have seén, is marked " ex Ins. Amer." (2). At first sight by the deep brown stain specially, it resembles a bit with the preceding species (pallipes). But the elytrons do not have the longitudinal series extremely fine points between which these could be sparsely dotted: the bottom is brilliant, practically, unpunctuated, although there are small points, that are extremely fine. As for the punctuation of the head of the pronotum, it is finer than in the pallipes, and the intervals are not shagreened. The organ is also quite different in details (See fig. 3 and 4).

I have seen or examined the abbreviatus of the following countries: Cuba (♀); Panama (Tabogilla island, off the Town of Panama, 1 ♂) ; Columbia (Sabanilla, 1 ♀); Venezuela

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1. Bull. Mus. Roy. Hist. nat. Belg., XII, 13, 1936, p.10.

2. I have not seen until now any ♂ of these islands, that is to say of the Antilles.

(San Fernando de Afure, 1 ♂ ♀, the ♂ determined by Regimbart as pallidus); Surinam (Paramaribo, 1 ♂ , oculatus Knisch det.); French Guyana (Saint Laurent du Maroni 1); Brazil (Matto Grosso, Corumba, 1 ♂♀, corumbanus in litt. Knich det.); Paraguay (Rio Alto Parana, 1 ♂ 8 ♀ ♀). The organ ? of all the ♂ ♂ was verified.

According to Bruch (3) the species which he designated under the pallidus, was found in Argentina also. I have not seen any specimen of this country until now.

One ♂ of Mexico (Orizaba), three others of Panama (Rio Grande (and one last of Brazil (Matto Grosso, Corumba) showed an organ ? with extremity of the parameres and the median lobe (fig. 4 A and B) slightly different from the form which is considered typical. It is perhaps that, the oculatus of Sharp stated to be of Guatemala, but also stated by the author to be of Panama. The dissection of the type of Sharp - if it is ♂ , which is not specified - should prove it. As has been seen the two forms sometimes both happen to be at the same place, specially at Corumba.

To justify these references, we recall that there exists a doubt as to the origin (Southern continental America or the Antilles) of the type of Fabricius and that is of sex ♀. There is therefore no harm to consider definitely as typical,

(3) Catalogue, Review of the Plate Museum, XIX t. 1915 p. 482.

the most widespread form in southerm America, that is to say, the one presenting the organ of Figure 4.

Helochares (s. str.) parhedrus n. sp.

Helochares (s. str.) pallipes A. d' Orchymont (1926) (1) not not Brulle, 1838).

This species is remarkable for its deep black stain and a very pronounced brilliance without shagreen ?. I believe to have dealt with the Pallipes of Brulle in 1926 and distinguished them by enumerating their peculiarities and described its organ ? seen from the dorsal front. Since the examination of Brulle type came to prove that this attribution was erroneous, I propose to call the new form 'parhedrus'. The punctuation of the pronotum is little dense. That of elytrons, sparse and fine, not partly arranged in logitudinal series. Organ ? figure 5, ventral view, in which the two ailerons set up by the median lobe, described in 1926, are only poorly visible, because of the dorsals of each side of the extremity of the same lobe. The processus covering the base of this lobe ventrally in the 'pallipes' and the

(1) L.c.p. 233. In the diagnosis of Helochares quadelupensis (same page and the following) it is also good to substitute the name ' parhedrus' for that of 'pallipes' which is found mentioned thrice for the sake of comparison. H. guadelupensis is also found, with the same organ ? in Guayana Maroni.

' abbreviatus ' does not exist in ' parhedrus '.

Material examined: Argentina (Chaco de Santiago del Estero) ex. Coll. Wagner, 1 ♂ (type, 6.8 x 3.7 mill.) and

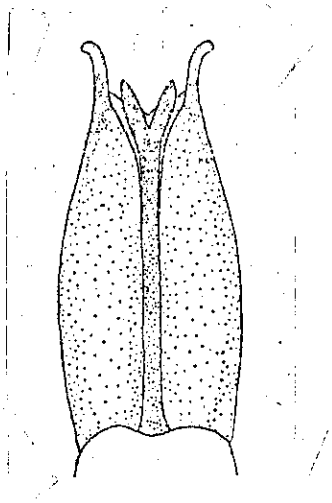

Figure 5. Helochares (s. str.) parhedrus n. sp. Organ ? ventral view, x 50. No. process at the base of the median lobe.

1 ♀; (Chaco de Santa Fe, Las Garzas, Bords du Rio Las Garzas, 25 kil. of 1 'O. d' Ocampo)., E. R. Wagner, 1903, 1 ♂. Paraguay (Rio Alto Parana, 2 ♀ ♀). Brazil (Matto Grosso, Corumba, 1 ♀).

Helochares (Sindolus) femoratus (Brulle), A. d' Orchymont, 1926.

Hydrophilus (Philydrus) femoratus Brulle, 1838.

Philhydrus spadiceus Mulsant, 1844.

Helochares femoratus Bedel, 1881.

Helochares gravidus Bruch, 1915.

I have attributed this species to the genus Sindolus in 1926 (1) basing myself only on the published diagnosis. Now having had the occasion of verifying the types of Brulle (Province of Cirrientes, two specimens of indeterminable sex without dissection, of clear stain, of which one very badly in place and the other, the second, measuring 4.25 (head not visible from above) x 2.65 mill.) I could assure myself that this attribution was exact. I have seen specially the high and laminiform mesosternal carina. The gravidus Bruch, whose paratypes I have received is quite the same species. Organ ? Figure 6.

The second ex typis femoratus has more attenuated elytrons, more prolonged and slightly lifted at the extremity, as is the case with a specimen of Porto Alegre (Brazil).

Helochares (Sindolus) gibbus (Brulle) A. d' Orchymont, 1926.

Hydrophilus (philydrus) gibbus, Brulle, 1838.

Helochares gibbus Bedel, 1881.

Helochares atratus Bruch, 1915.

Helochares ventricosus Bruch, 1915.

Placed by me in the sub-genus Sindolus in 1926 deservedly that I happen to verify it as the unique type of Brulle

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(1) L.c.p. 236.

(province of Corrientes, 5. 25 x 3.05 mill.) as I could no longer see it soon. This one has the mesosternum provided between the intermediary haunches of a high carina in the form of a lamina. As in the femoratus, the last ventral arch, in the middle of its posterior edge, the usual small slot ciliated half-circular. Organ Figure 7. The species is distinguished from the preceding in the clue that follows:

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The Helochares which should be found in Argentina or which are known there with certainty, can be recognized according to the following table.

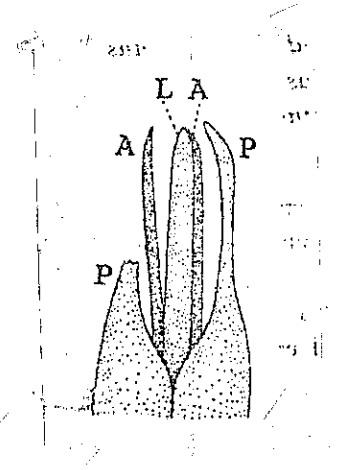

Figure 6: Helochares (Sindolus) femoratus (Brulle). Extremity of the organ ventral view, x 100. L: median lobe; PP: Parameres that of the left appears broken to permit view of the appendix A separated deliberatedly in the preparation. The appendix A right stays coupled with the median lobe, which shows its normal position.

1. Mesosternal process at the very most in the form of hump, sometimes tectiform-carinated behind. Elytrons without regular longitudinal series of point belonging to the upper face, however these series are less distinct and the maxillary palpes arr very long, touching the base of the pronotum when these are extended from the ventral side (Subg. Helochares s..str.) 2

1. Mesosternal process in the form of high thin lamina separating the intermediary haunches (Subg. Sindolus).. 4

2. Elytrons with ten little distinct series of spaced out and extremely fine points and the interstriae furnished with scarce points hardly finer than those of the series. Intervals of the points of head and the pronotum microscopically shagreened carrying off brilliant. Dark brown stain from above. Length: 7 - 8 mill. organ ?. Figure 3.....pallipes (Brulle).

2. Elytrons without longitudinal series of points going from the base towards the extremity and belonging to the higher front of the elytron. Intervals of points of the head and the pronotum not shagreened ? 3

3. Dark brown stain from above. Punctuation of the head and the pronotum finer than in the pallipes. Apart from the longitudinal series of setigerous pores bigger, the elytrons possess only fundamental punctuation so fine that they appear practically non-punctuated. Length: 6 - 7 mill. Organ ? Figure 4.

.....abbreviatus (F).

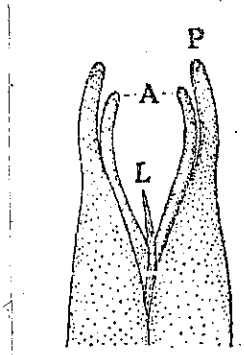

Figure 7. Helochares (Sindolus) gibbus (Brulle). Extremity of the organ ? ventral view, x 100. L : Median lobe: A lateral appendices: P: one of the parameres.

3. Above the extremely brilliant deep black stain though the punctuation is more visible, that is to say, better stamped and less fine, above all in the midst of the pronotum where it is a little more dense than on the elytrons. Length: 6.25 -7 mill. Organ figure 5. Parhedrus n.sp.

4. Mesosternal lamina with low horizontal cut, either right or slightly convex. The elytrons little big after the milieu. Much more clear stain from above, never black, varying from a clear testaceous to chestnut brown. The size is variable, but generally smaller, the length varying from 3,4 (certain) to 5 mill. Organ "genitals" with extremity of-

the median lobe attaining the end of the two supplementary lateral appendices, these not exceeding the apex of the parameres that they reach (figure 6)..... femoratus (Brulle).

4. Mesosternal lamina with low cut going up behind, not horizontal. The elytrons clearly enlarged and stout according to the milieu, appearing therefore less convex. Ordinarily very dark stain, black or almost. Size quite big (length: 5 to 5,75 mill.) organs "genitals",? with the extremity of the median lobe remaining far away from the end of the two supplementary lateral appendices, these not reaching the extremity of the parameres entirely and enlarged slightly from a side before the apex (figure 7) ..... gibbus (Brulle).

Enochrus (Hugoscottia) scutellaris (Bruch).

Philphydrus scutellaris Bruch, 1915.

By its mesosternal process in the shaft head, scutellaris belongs to sub-genus Hugoscottia of Knisch. This author has again indicated it under 'Lumetus' in his catalogue of 1924 (Junk ed., Pars 79, p. 214).

Neohydrophilus medius (Brulle), A. d' Orchymont, 1919, 1928, 1929 (1).

Hydrophilus medius Brulle, 1838, p. 54, exp. (-Antilles).

Hydrophilus irinus Brulle, 1838, p. 55, o .

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1) Ann. Soc. Ent. Fre., Vol. 88, 1919, p. 162 (= Neohydrophilus); Bull. and Ann. Soc. Ent. Belg., Vol. 68, 1928, p. 160, 163-165 (classification and morphology do not exist in the Antilles); IV. International Congress of Entomology, Ithaca, Aug. 1928, Vol. II, 1929, p. 1025 - 1028, Figure 4 (Organ Phylogeny).

Suspected in 1928 (2), the synonym of 'irinus', of the Corrientes province, appeared to me quite real, now that I could examine the only type. Its hardly the problem of a ♀ (I have seen the mesocercarae ? a bit immature, belonging to genus Neohydrophilus (Prefront cut forward, labrum with two median isolated pores, etc.) whose slight iridescent reflection from above - a detail which motivated the name ' irinus ' - has no importance from the taxonomic point of view. The size is 14,5 x 6.5 mill.; the prosternal bottom is provided behind with a small separated mucro; the lower cut of the metasteternal quill/ spine seen from the side, goes up rounded at the end finding the higher cut angularly, but without shaping the point directed towards the abdomen; the first ventral suture occurs a little beyond the extremity of this quill/spine. The last ventral arch does not have a smooth plaque, it is entirely pubescent, which is frequently observed in the ♀ ♀ of medius. The shape of the body is largely elliptical with the sides not as parallel as in the longus Bruch. The microsculpture of the pronotum consists of very small points mixed with still other small ones, in the midst of a microscopic shagreen ? meanwhile in the longus (paratype ♀) the points appear a little thicker and dense, all uniform like size/weight/height. The circumference of the elytrons is largely testaceous enough (no doubt due to immaturity) backwards, and in this fringe there are thicker

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2) L. c.p. 165.

points aligned more or less. As regards the " striae " of the elytrons that Brulle said were weaker than in 'medius', they are not different from those of this species, whether the primary series of very little visible point are anticipated or the systematic series more or less striaeform of thicker setigerous pores.

This time again I could imagine how rash is it, in spite of all, to obtain full conviction in the interpretation of an isolated ♀ of Neohydrophilus. Only the ♂ ♂ could be selected as specific types because as I remarked in 1928, they alone present in their organs "genitals" sufficiently sharp and constant characteristics. Basing new names on the other sex, is to create almost definitely species that are indefinable with irresolute or individual characteristics.

Figure 9 H. (C). rusticus n. sp. Aedeagus extremity (median lobe parameres, apex of the basal lobe seen ventrally X 50.

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