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## / viII. - FAUNA SIMALURENSIS - DECAPODA (CRUSTACEA) on two species of crabs from the island of simalur, ONE OF WHICH IS NEW TO SCIENCE."

by Dr. J. G. DE MAN of ierseke (holland). (WITH PLATE I).

## a. Thorlemitu bilobutu n. sp.

One male, collected February 1913 by Mr. Edw. Jacobson at Sinabang, on the island of Simalur, east const of Sumatra.

This species belongs to the Section I. B of the Key to the Indian species of the genus Thalamitu in Prof. Alcock's "Materials for a Careinological Fauna of India, N". 4. The Brachyura Cyclometopa. Part II. Calcutta 1899 , p. 73 " and the nearest allied forms are Thrt. quallilobutw Miers from the Seychelles, Thut. Admute (IIerbst) var. intermedic Borr. from the Maldive Islands and Thet. pilmmoides Borr. from the lagoon at Minikoi.

The carapace presents its greatest breadth of $18,5 \mathrm{~mm}$. ( Fig .1 ) at the level of the marginal teeth of the 2nd pair, the external orbital angles are $17,75 \mathrm{~mm}$. distant, the distance between the tecth of the 5th pair 18 mm . ; the length, measured near the median incision of the front, exclusive of the abdomen, amounts to $11,75 \mathrm{~mm}$., so that the carapace appears one and a half as broad as long. Upper surface depressed, flat, sloping slightly down towards the antero-lateral borders, towards the front, and, as usual, more strongly towards the postero-lateral borders. It is crossed transversely by fine, faint gramular ridges, one, broken by the cervical groove, between the last spines of the antero-lateral borders, one, interrupted in the middle, across the middle of the gastrie region, which anteriorly is defined on each side by three short ridges, an anterior pair separated only by the narrow frontal furrow, a second pair widely distant from one another, one and a half as far distant from the ridge across the middle of the gastric region than from the anterior pair, while a third very short ridge, consisting only of 3 granules, is observed immediately behind the lateral extremity of the ridges of the 2nd pair. Just behind the gastro-cardiac groove a transverse ridge, that is interrupted in the middle, crosses the cardiac region anteriorly and just outside of it another extends on each branchial region. Under a strong magnifyingglass the upper surface of the carapace appears very finely granular, especially the gastric region, while the lateral regions are pubescent, a
short pubescence of the gastric and cardiac regions is perhaps worn off.
Distance between the inner supra-orbital angles 11,75 mm. long, twothirds the distance leetween the external orlital angles. The two lobes that form the front proper, are together 7 mm . broad, reach slightly more forward (Eig. 1 (f) than the inner supra-orbital angles and are separated by a narrow, shallow, median cleft; each lobe consists of a larger median part, the slightly arcuate anterior margin of which runssome what ohliquely and the inner angle of which does not at all projeet forward and an outer part, abouthalf as broad, that projects forward as a rounded lobule' $)$. Inmer supra-orbital angles a little arched, distinctly less broad than the frontal lobes, the proportion being like $4: 5$; they run a little backward and are situated on a slightly higher level.

Major diameter ( 3 mm .) of the orbits ahout one-fourth the distane between the inner supra-orbital angles; orbital margin shap, two sutures on the upper, one on the lower, inner angle of the lower blunt dentiform, outreaching a little that of the upper and extending nearly as far forward as the outer lobule of the frontal lobes, when the carapace is looked at from above.

Antero-lateral borders with 5 acute claw-like teeth, of which the 1st, the extra-orbital tooth, is the largest, the $2 \mathrm{ml}, 3 \mathrm{~d}$ and 5 th gradually decrease in size, the 4 th is the smallest of all, a little smaller than the 5th and barely half as long as the 3rd; as already remarked the $2 n d$ teeth project a little farther laterally than the others. Postero-lateral borders very ohlique and concave. The somewhat prominent posterior border of the carapace is a little less than half as broad ( $7,75 \mathrm{~mm}$.) as the greatest breadth.

The extreme extent ( 4 mm .) of the basal antema-joint is one-third longer than the major diameter ( 3 mm .) of the orbits; the crest is armed in the middle with one single, eompressed, large acute spine (Fig. $10,1 b$ ), that is directed outward; the upper edge of the left spine bears 3 sharp granules, that of the right 1 and between the antennula and the spine one observes 3 or 4 sharp granules, of which the first next to the spine is a little larger than the following; 3 sharp conical gramules occur at the inner end of the joint there where it is contiguous to the epistome, and 2 or 3 between these and the crest. Lower wall of the orbit smooth. Pterygostomian region, between the inner suborbital lobe and the antero-lateral angle of the buccal cavern, covered

[^0]with sharp granules of unequal size and pubeseent, subhepatic region granular, pubeseent and marked with small red spots.

Anterior margin of merus-joint of external maxillipeds straight, anteroexternal angle rounded.

Abdomen (Fig. 1e) 5-jointerl, though the sutures between the 3rd and 4th and between the 4 th and 5th are partly visible; 2ud and 3rd tergum with a prominent transverse carina along their whole breadth, lateral margin of 6th tergum straight, converging quite anteriorly towards the terminal segment, so that the bradtl of the anterior margin which is contiguous to the latter, measures two-thirds the breadth of the posterior; terminal segment nearly as long as the penultimate, barely shorter.

Chelipeds unequal, the right the larger. Anterior border of the arm with 3 acute spines on the distal half, of which the 1st or proximal is a little smaller than the 2 others that are of equal size, posterior border gramular in its distal half; there is also a very small, uncoloured spine at the distal end of the inner lower border, close by the articulation of the wrist, but in the smaller $\operatorname{leg}$ this spine is rudimentary; this border appears finely granular on its proximal half. Inner angle of carpus strongly spiniform, outer surface with 3 sharp spines, of which only the upper one is marked with a red band near the tip; upper surface costate and presenting several conical tubercles, inner border finely granulat. Larger chela $12,5 \mathrm{~mm}$., fingers 5 mm . long, fingers a little shorter than the palm, chela 3 -times as long as high near the articulation; smaller chela just as long as the other, but only $3,5 \mathrm{~mm}$. high near the artieulation and the fingers barely shorter than the palm. In both chelac the upper surface bears 6 spines (lig. $1 d$ ) in two rows, of which the two distal ones are the smallest, while the distal spine of the inner row is uncoloured; a row of acute gramules of unequal size between the 1st or proximal spine of the inner row and the carpus, a few much smaller granules also on the dorsum of the 2nd spine, a few larger acute granules on the dorsum of the 2 nd spine of the outer row, 2 or 3 very small ones at the base of the 3 rd spine. The third costa (Fig. 1/l) is only represented by one small sharp granule not far from the carpal articulation and preceded by a still smaller one, the fourth costa only by a row of small, barely prominent granules along the proximal third part of the outer surface and a subacute tubercle not far from the distal border of the palm; the fifth costa, finally, that appears finely granular under a strong lens, is well developed, begins just before the level of the 1st spine of the second costa and continues until to the tip of the immobile finger. The upper surface of the palm botween the two rows of spines is slightly pubescent on its proximal half, but is for the rest
quite smooth, without a trace of granules, and this is also the case with the outer, the lower and the greater part of the convex inner surface of the palm. In the smaller chela the third costa on the outer side of the palm is represented by three acute granules, the 3rd, smaller than the 2nd, situated at some distance from the two proximal granules at the level of the 2nd spine of the outer row; the fourth costa is also a little more distinct than on the larger chela, a row of small granules proceeding from the distal tubercle backward, though not yet reaching the proximal row. The lower half and the lower border of the inner surface of the palm are, near the carpal articulation, in both cholae finely granular, in the smaller somewhat more distinctly than in the other, the lower border of the immobile finger is, however, quite smooth. Fingers grooved and denticulate as usual, the teeth of the immobile finger are larger than those of the dactylus, excepting the obtuse tooth at the base of the dactylus, which is larger than the teeth of the immobile finger.

The merus of the 5th pair of legs, that is a little more than twice as long as broad in the middle, distinctly narrows towards the distal extremity and its upper surface bears two longitudinal grooves separated by a ridge; there is a strong spine near the distal extremity of the lower border, the distal extremity itself terminating in a much smaller acute spine. Distal margin of the outer surface of the wrist with a few small teeth, the 2nd proximal one a little larger than the others. Posterior border of the propodus armed throughout its whole length with 7 or 8 sharp spinules.

Thul. quadrilobata Miers (E. J. Miers, Report on the Zoological Collections made in the Indo-Pacific Ocean during the Voyage of H. M. S. 'Alert' 1881-1882, London, 1884, p. 589, Plate XLVIII, Fig. B) differs by the lobes of the front proper being less broad, just as broad as the inner supra-orbital angles, separated by a deeper and broader median notch and by the inner angle of their anterior margin projecting, like the outer, as a small lobule. In that species the inner suborbital lobule is not obtusely dentiform, but truncate and there are five subequal marginal teeth, of which the last projects the most laterally; the palm of the chelipeds is granulated above and all the five costac on the palm are quite distinct and granulated. This species was established by Miers on an adult male, the carapace of which was 47 mm . broad and the basal antennal joint was armed with three strong spines; in 1899 a younger specimen - carapace 35 mm . broad - was recorded by Alcock (l.e. p. 85) from the Andaman lslands, in which the basal antennal joint was also armed with a row of three large spines; in

1911, finally, Miss Rathbun records a young male from Cargados Carajos, in which the basal joint of the antenna bore even four slender sharp spines. (M. J. Rathbun, The Transact. Limean Soc. London, 2nd Ser. Koology, Vol. XIV, Part 2, London 1911, p. 208). The existence of only one spine in Thal. bilobuta appears therefore quite characteristic.

Upon my request Dr. L. A. Borrmaile of Selwyn College, Cambridge, has been so kind to send mo a cotype of Thal. Adinete (Herbst) var. intermetia Borr. from the reef in Naifaro, Fadifoln, Maldive Islands, for which I thank him heartily, so that I was enabled to determine with certainty the specimen from Simalur as a new species, different from that variety (L. A. Borradaile, The Fauna and Geography of the Maldive and Laccadive Archipelagoes, Vol. I, Part 2, 1902, p. 20:3). This cotype is a young male, with the arapace $13,75 \mathrm{~mm}$. brom and $8,75 \mathrm{~mm}$. long, exclusive of the abdomen, and moasured close to the midline. The proportion between breadth and length is exactly the same as in Thol. bilobata, there are also 5 marginal teeth, of which the 4 th is the smallest, being only half as long as the 3rd, but, while in Thrt. bilobatu the carapace presents its greatest width at the 2 nd teeth, in the variety intermedit the 5th tooth projects most laterally, so that a line uniting the tips of the 1 st, 2nd, 3rd and 5th teeth distinctly diverges backwards. In both forms the 1st or extraorbital tooth is larger than the following, but, whereas in Thul. bilobatu the curved outer border is directed obliquely forward, in the var. intemedia this tooth projects more straight forward. The proportion between the breadth of the lobes of the front proper and that of the inner supra-orbital angles (Fig. 2) is the same, the former project as much forward with regard to the latter, but in the var. intermedia the anterior border of the lobes of the front proper is slightly concave and the rounded inner angles project a little more forward than the outer, that do not project forwardas a rounded lobule. As regards the form of the upper surface, the number and the disposition of the transverse granular ridges, both forms agree with one another.

The extreme extent ( 2 mm .) of the basal antenna-joint is not longer, but a little shorter than the major diameter ( $2,4 \mathrm{~mm}$.) of the orbit and the joint is armed with three spines (Fig. 2), of which the 1 st or inner one is the smallest, the middle one the largest, the outer one of intermediate size.

The anterior margin of the merus-joint of the outer footjaws appears in the variety intermedia more arcuate and a little longer with regard to the outer margin than in That. bilobuta. The pterygostomian and subhepatic regions agree in both forms, but the red spots are wanting.

The abdomen (lig. $2 / 1$ ) seems to be 7 -jointed and has another form than in Thul. bilobette. The 2nd and 3rd somite are likewise strongly carimate along their whole breadth, a trace of a transverse carima is also visible in the middle of the th somite, the lateral margins of the 4th somite are, however, curved and make a distinct angle with those of the 5th that are also curved; lateral margins of the 6th somite first parallel almost to the middle, then converging towards the terminal segment; terminal segment a little shorter than 6th, the proportion being as 32 : 35, and nearly just as long as broad at base.

Like as in the male of Thot. bitobuto the larger cheliped is placed on the right side. The 3 spines on the anterior and the gramulation on the posterior border of the merus just as in the male of Thal. bilobotc, carpus with its + spines also as in this species; chela with $\%$ spines, the Brd or distal spine on the imnor border of the upper surface wanting, the 5 spines disposed as in Thel. bitobata; upper surface between the two rows also smooth, pubescent; third and fourth costa well developed and strongly granular, the fourth formed on the larger chela by If or 15 gramules or teeth, fifth costa, proceeding to the tip of the immobile finger, also granular. When looked at under the microscope, 40- to 50-times magnified, the outer surface of the palm between the costae like the lower horder appear very finely granular; convex inner surface of the palm microscopically granular. Fingers as in 'That. bitobuthe.

The other legs also as in this species, but the merus of 5th legs a little more slender; there is, as in Thal. bilobectu, a strong spine near the distal end of the lower horder and a very small one at the distal end; lower border of propodus with 5 or 6 spines.

Therl. pilamoides Borr. (L. A. Boradaile, 1. c. 1902, p. 207, fig. 38) from the lagoon at Minikoi with its variety geterelkmsis Nob. (G. Nobili, Ricerche sui Crostace della Polinesia, T'orino 1907, p. 384) from the Gambier Islands differs by the inner supra-orbital lobes being less than half ats broad as the frontal lobes, of which the outer angle does not project as a lobule, by the existence of only fous marginal teeth (including the orbital tooth), the 3rd being the smallest; the basal antennajoint bears 4 blunt teeth, the upper side of the cholae is covered with sharp tubereles, there are three granular ridges on the outside of the palm, with the areae between them smooth. This species is moreover of a very small size (carapace $6,5 \mathrm{~mm}$. broad, 4 mm . long).

## 1. Atergatis fromterlis (de ITaan).

Cuncer (Itergetiv) fiontulis W. de Maan, Fauna Japonica, Crustacea, 1835, 1. 46, Tabl. XIV, fig. 3.

Nee: Alrogates fiontalis J. G. de Man, in: Notes from the Leyden Museum, I, 187!, p. 54.

Confer: J. (. de Man, in Zoolog. Jahrb. (Spengel) VIII. Abth. f. Syst. 1895, p. 4910

One adult female without exgs collected by Mr. E. Jacobson in June 1913 at Jabuan Badjan, Island of Simalur, near the cast coast of Sumatra. When one runs over literature, it strikes that, excepting the well-known and very common Atery. floridus (Rumphius), species of the genus Atergatio are rarely mentioned by the authors, a fact perhaps caused by their rarity but probably quite aceidental. It is for the first time in $m y$ careinological career that a specimen of Atery. fromtalis (de Ham) is examined by me.

The specimen, collected by Mr. Jacobson, the carapace of which is 91 mm . broad and 57 or 58 mm . long, certainly belongs to Aler\%. fiontedis, because it does not only agree with the short diagnosis, but perfeetly also with the excellent figure in de Haan's work, even in minute particulars and in the form of the whitish spots on the pale brickcoloured carapace. The crest-like edge of the antero-lateral border of the earapace shows on each side traces of three fissures, by which it is divided into four parts of which the 1st or anterior is the longest, the 3rd is a little shorter than the 1st, the 2nd a little shorter than the 3rd, while the 4 th or posterior that turns in at the lateral epibranchial angle, is the shortest of all. The distance between the external orbital angles is $2 \overline{5}, \overline{5} \mathrm{~mm}$. $10 n \mathrm{~g}$, a little less than $/ / 3$ the greatest width. The interregional grooves are shallow, though distinet, especially those that separate the protogastric areac from the hepatie region, shallow grooves occur between the hepatic and branchial regions, epigastric lobes oblique, well discernible. Two adult specimens, a larger male and a somewhat smaller female, of Aterg. integerimus from the Bay of Batavia, received last year from Dr. M. C. Delsman, are in my private collection. The interregional grooves are here almost indistinct. In these specimens of Atery. inteyerimus the anterior third or half of the uper surface of the carapace is covered with large, rounded, distant pits that are 1 to $1,5 \mathrm{~mm}$. broad, more numerous in the female than in the male; they are wanting on the mesogastric and on the posterior brunchial and intestinal regions, almost also on the cardiae area. Aterg. integerimus may,
however, besides by this different punctation, be distinguished at first sight from Ater\%. fromtalis by the different form of the front, of which the median lobes are much less prominent and separated by a shallow emargination from the lateral lobes. The chelipeds agree with those of the female of Atery. integrerimns, exeepting the upper border of the palm which in the female of Atory. frontalis is less sharply, more bluntly crested. In Aterg. frontulis all the joints of the ambulatory legs are of a somewhat less stout shape and a little less sharply erested above: so e.g. the merus of the last pair of legs is 20 mm . long and 10 mim. broad, twice as long as broad, in the female of Aterg. integerimus, however, the carapace of which is also 91 mm . broad and 57 or 58 mm . long, these numbers are 19 mm . and 11 mm . In the female of Alerg. fromatios the outer maxillipeds are covered with short, stiff, yellow hairs, larger near the inner borders, nearly as in Aterg. integerimus.

The nearest allied species of Aterg. frontalis, however, is not Aterg. intrgerrimes Lam., but Aterg. Lutissimus (II. M. Fdw.). This species was first deseribed in 1834 by II. Milne Edwards in Vol. I of the „IIistoire Naturelle des Ceustacés" at p. 384 as $Z_{n}$ aymus latissimus after specimens from Australia; a more detailed description with two excellent figures was published in 1865 by A. Milue Edwards in Vol. I of the "Nouvelles Archives du Muscum" at p. 237, Pl. XIV, fig. I, 1a, and I myself, finally, have dealt with Atm\%. Intissimets in 1895 (1. \%) when 1 was enabled to examine the type specimen from Australia ont of the Paris Museum. The carapace of this type specimen was $73,5 \mathrm{~mm}$. broad and 47 mm . long: the proportion between width and length is thus exactly the same as in the specimen from Simalur, referred to Atery. fromatis. When I now comprare the Simalur specimen with the deseription and figures of Aterg. latissimus, only the following differences are observed. According to the description of 1865 the upper surface of the earapace should be "couverte de petites ponstuations serrées ct nombreuses", according to that of 1595 it should be "sehr dicht, aber sehr fein punktirt". In the sjecimen from simalur one observes on the protogastric and epigastric regions roundish pits, situated rather close together and of which the largest are $3 / 4$ to 1 mm . broad, nearly as broad as in Aterg. integeremems, on the intero-lateral regions they are a little smaller, but close to the crest-like edge and on the front much smaller; the posterior half of the mesogastric area appears to the naked eye smooth, but on the cardiae region the pits, being more confluent and irregular, form reticulating lines. Between the larger pits fine microscopical puncta become visible under a strong magnifying-glass and by means of such a glass the posterior branchial and intestinal regions show a microscopical
granulation, while they appear almost smooth to the naked eye. The median frontal lobes of the Simalur specimen project a little more forward than in Fig. 1 of the "Nouvelles Archives" and the frontoorbital horder appears slightly broader in proportion to the width of the carapace: in the female from Simalur the carapace is 91 mm . broad, the distance between the external orbital angles measures $25,5 \mathrm{~mm}$., in the fig. 1 a of the "Nouvelles Archives" these numbers are 116 mm . and $29,5 \mathrm{~mm}$. The tooth at the antero-internal angle of the carpus of the chelipeds is subacute in the female from Simalur, in Fig. 1 of Atery. ladissimus it appears more obtuse; the ambulatory logs appear in that figure still a little less stout than in the female from Simalur, so e.g. the merus of the posterior legs appears in that figure $2 \overline{5}, 5 \mathrm{~mm}$. long, but only 11 mm broal, 2,3 -times as long as broad. Of the pale spots and flecks on the carapace of the specimen from Simalur, so well figured by de Haan, in the figure of Aterg. latissimu: no trace is visible.

The specimen from Amoy, referred in my paper of 1879 to Aterg. fromtrelis, is again lying before me, it belongs to another speeies than the female from Simalur and should, no doubt, be referred to Ater\%. reticulutus (de Haan) from Japan. My mistake in 1879 may be explained by the fact that neither the chelipeds nor the ambulatory legs of Aterg. frontalis have been described or figured by de Maan and that, almost half a century ago, I was still little experienced, it being the first paper published by me on Crustacea. As far as I know, the true Aterg. froutulis is nowhere dealt with and this is also the case with Aterg. reticulatus, excepting A. Milne Edwards in 1865 in his paper „Sur les Cancériens", by whom apparently no specimens were examined and Grtmann in 1894 in his work entitled: „Die Decapodenkrebse des Strassburger Museums p. 463", who, though 4 male specimens and 1 female of $A$ terg. reticulatus were at his disposal, confines himself to mention the name of the species without contributing by a single word to our knowledge ').

The specimen from Amoy is an adalt male, the carapace is 80 mm . broad (not $82 \mathrm{~mm} .$, l. c. 1879 ) and 50 mm . long, of a larger size than de Haan's type. The upper surface of the carapace, of which the regions are well delimited by rather deep grooves, appears on its anterior third and near the antero-lateral border irregularly pitted and rugose; the pits that are of unequal size, the largest about 1 mm . broad, the

[^1]smallest punctiform or only visible by means of a magnifying glass, are on the anterior half of the protegastric regions, on the hepatie regions and on the branchial regions near the antero-lateral enge often situated in larger depressions, that give to the surface a reticulated appearance. The mesogastric area is nearly smooth, with only a fee symmetrically placed small puncta and the remaining parts are punctate, while noar the posterior and the postero-lateral borders the surface appeass very finely rugose. The crest-like edge of the antero-lateral border is rather prominent and shows traces of two fissures. The width of the frontoorbital border appears a little less hroad in proportion to the width of the cmapace than in de Jaan's figure 4 on Plate IIl, but this is probably owing to the larger size of our speemon. In the mate from Anoy the external orbital angles are namely 24 mm . distant, in that figure, however, the carapace is 77 mm . broad and the distance between the extraorbital angles 27 mm . or perhaps 28 mm . The front closely resembles that of Atery. intrgervimu; the median incision is small, the rounded broad median lobes project more forward than the much smaller outer lobules, from which they are separated by a shallow emargination, so that the two halves of the front are directed obliquely backward and outward. The upper surfare of the front is closely pitted, the pits $3 / 4$ to 1 mm . broad, with microseopieal puncta hetween them.

Outer maxillipeds closely covered with short stiff bristles. The sternum is coursely pitted, except anteriorly between the buceal cavern and the abdomen, and findy granular, especially posteriorly on cach side of the abdomen. The abdomen is five-jointel, the 3 -5th somites are fused, though the sutures are well visible; the two last joints show other measurements than in Aleq. integeromus: in the adult male of this species from Batavia, of which the carapace is 95 mm . broad, the penultimate somite is 12 mm . long and 9,75 num. broad in the middle, the terminal somite 9 mm . long, in the male of Aterg. reliculatus from Amoy these numbers are in the same succession $9,5 \mathrm{~mm} ., 9 \mathrm{~mm}$. and 8 mm. The abdomen is punctate, the lateral parts of the 1 st and 2nd somite closely granular.

The upper surface of the carpus and the upper and outer surface of the palm of the chelipeds are reticulate, rugose and punctate, puncta rather small, towards the lower border of the palm the reticulate appearance gradually disappears, but the lower loorder is punctate. Upper border of the palm crested, not sharply, however; the erest on the upper border of the merus of the chelipeds is very sharp and prominent. Upper border of merus, carpus and propodus, like also the lower of merus and propodus of the ambulatory legs very sharply carinate; as regards their general
shape these legs resemble those of Aterg. integerimus, so e. g. the merus of the last pair is 19 min. long and 10 mm . broad.

Aterg. frontulis (de ILaan) is most closely allied to Alerg. latissimus (II. M. Edw.), and Aterg. reticulatus (de ILam) to Aterg. integorimus (Lam.). Aterg. frontelis (de Haan) should therefore, at least provisionally, be considered as a distinct species, but it will perhaps once prove to be a local variety of Aterg. latissimus when specimens of the former will be compared with australian specimens of the latter.

## EXILANATION OF PLATE.

Fig. 1--la. Thmlamita bilobate n. sp., type. l'ig. 1 the whole animal, $x 3$; $1 a$ anterior interorbital part of the carapace, $X 6 ; 16$ bassal antennal joint of the left side, $\times 6 ; 10$ abdomen, $\times 6 ;$ Id larger chela with carpus, $\times 6$.

「ig, 2--9a. Thalamite Admute (Herbst) var. intermedia Borr., young male from the Maldive Islands. Fig. 2 anterior interorbital part of the carapace, $X 6 ;$ 2a abdomen, $\times 6$.


1. Thultmita litobeta de Man. Sinabang, Simaloer. Type.
2. Thulumita . 1 dmete (Herbst) var. intermedia Borr. ${ }^{3}$.

Rif, Naifaro, Fadifolu. Maldiven.
J. G. de M. del. Mei 1026 .


[^0]:    ${ }^{1}$ ) It is frem the fromtal lobes presenting only one lobule insteal of two (Ihu7. quedritotreta), that the specilie name of bilobate is derived.

[^1]:    ${ }^{1}$ ) In his work on the Decapoda etc. of the Red Sea, published at Kieff in 1875 in the russian language, Aterg. retictutus is considered by Paulson together with three other species as a variety of Aterg. roseus (Rupp.) and Aterg. frontulis with Aterg. subdinisus as a varicty of Alerg. integerrimes; this procecding, however, is altogether crroncous, as was already stated by Dr. C. B. Klunzinger in 1913 (Die Rundkrabben (Cyclometopa) des Roten Meeres, Hafle 1913, p. 149).

