# Resultados de la expedición Peris-Alvarez a la isla de Annobón (*)

## (13) Oribatid mites (1st series)

### (Acari, Oribatei).

BY

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The present paper is the first in a series containing descriptions and records of the species present in a small collection of Oribatid mites obtained by Drs. Salvador V. Peris and Julio Alvarez during their expedition to the island of Annobón, in 1959.

This collection is of interest because the Oribatid mite fauna of equatorial West Africa is not yet well known. Papers on the oribatids of this area have been published during the last years by a small number of specialists, as Balogh (1958, 1959, 1960, 1961 and 1962), Balogh and Mahunka (1966 and 1967), Wallwork (1960, 1961, 1962 and 1963) and Karppinen (1966), but concerning the mite fauna of the islands in the Gulf of Guinea no one paper has been published till now.

The little island of Annobón is the smallest in size of the four islands in the Gulf of Guinea (18 square kilometres), it lies in the Southern hemisphere, near to the equatorial line, between latitude 1° 26' S and 1° 28' S, and longitude 5° 36' E and 5° 38, E. It is distant about 150 Km. from the Portuguese island of São Tomé and 355 Km. from the nearest point in the mainland: Cape López, in Gabon.

Annobón is an island of volcanic origin, and like the other islands in the Gulf of Guinea except Fernando Poo, never had a land connection with the continent. Its surface is extremely abrupt, and rises steeply from the sea to several sharp peaks separated by deep valleys. It highest point, Monte Santamina, reaches 650 m. over sea level.

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(*) This a general title comprising all the papers dealing with the zoological material collected by Drs. S. V. Peris and J. Alvarez on Annobón Island during 1959.

The climate is equatorial temperated by the water of the cold current of Benguela. Annobón has two distinct seasons yearly, a rainy and a dry. During the dry season (from May to October) Annobón enjoys a moderate temperature, that during the day is rather constant, between 17° and 30° C. The wet season begins by violent tornadoes. The rainfall, evenly distributed through the winter months, is about 1.020 mm. During this season the temperature by day varies between 30° and 32.5° C.

As the wind always blows from the South, the Northern region is drier than the Southern part which presents primitive forest conditions, whereas the Northern region is a more open country.

The vegetation is luxuriant, forest covers all safe the Northern region, the only one populated and to some extent cultivated. The forest is an impenetrable mass of oil-palms and other plants, where gigantic ceiba-trees are scattered throughout. At the highest elevations there is a mist forest.

## LOHMANNIIDAE Berlese, 1916.

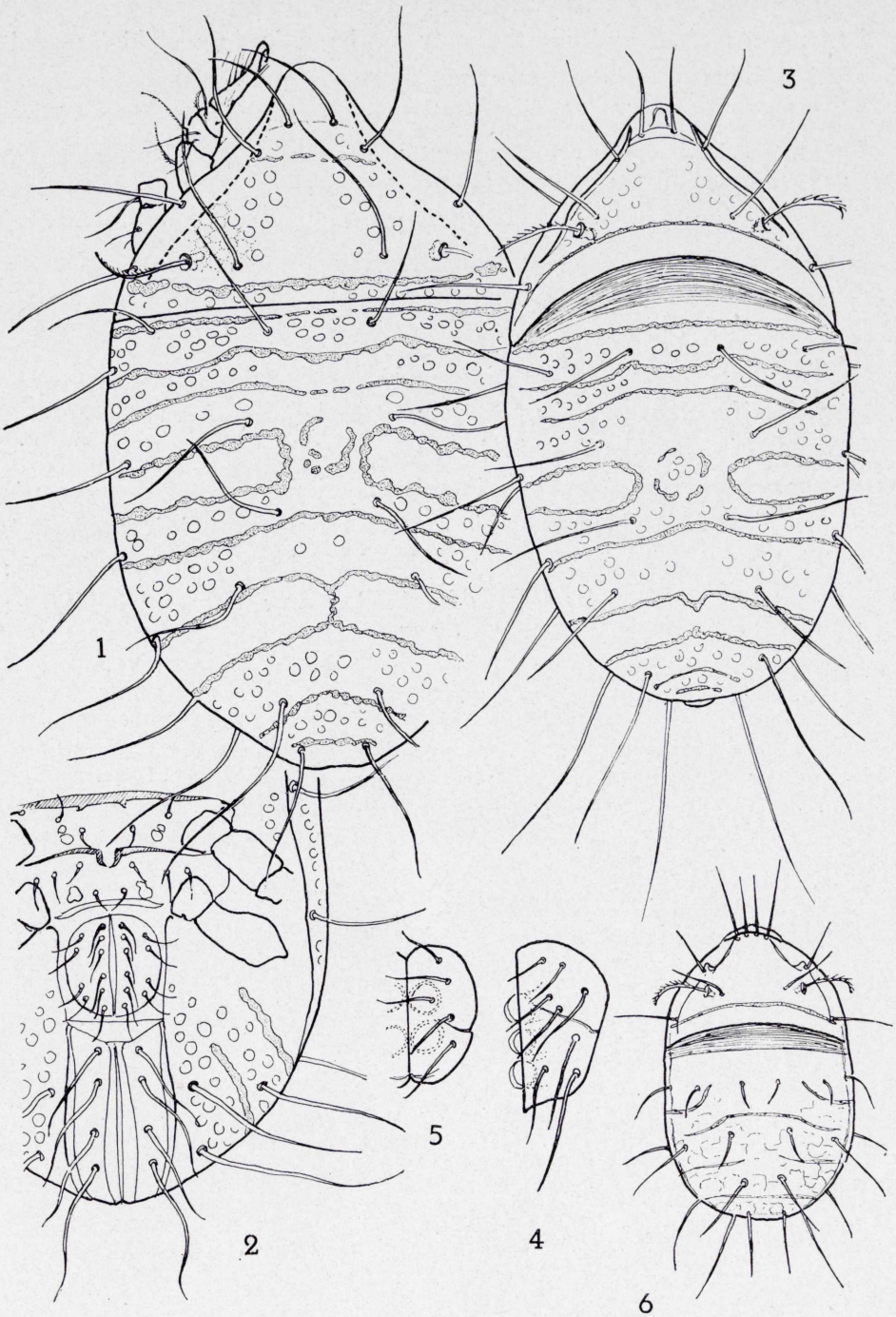
**Meristacarus africanus annobonensis** nov. ssp. (figs. 1-6).

The collection from Annobón includes 37 specimens that agree in most respects with *Meristacarus africanus* Balogh, 1958 from Angola, and are undoubtedly conspecific, but the specimens from Annobón differ from the Angolan form in several features of minor importance that are perhaps sufficient to warrant the erection of a new subspecies which is described below under the name of *Meristacarus africanus annobonensis* n. ssp.

Material examined: 18 adults, 14 tritonymphs, 1 deutonymph, 1 protonymph and 3 larvae.

Adult.

Average length of body: 895.7 μ (range: 870-920 μ): average width of body: 559.0 μ (range: 545-575 μ). *M. africanus* from Angola measures 803-820 μ, so *annobonensis* is larger in body size than the form described by Balogh, but it is shorter than *M. porcula* Grandjean, 1934 that measures 950-1.030 μ. Wallwork regards *africanus* as identical with *porcula*, remarking that *porcula* from Ghana is smaller than the Central American form (Ghanaian specimens: 898.3 μ). In this way *annobonensis* is similar in body size to the specimens from Ghana.




Figs. 1-6.—*Meristacarus africanus annobonensis* n. ssp.: 1) adult, dorsal view; 2) adult, ventral view; 3) tritonymph; 4) genital plate of the tritonymph; 5) genital plate of the deutonymph; 6) larva.

Prodorsal and notogastral setae beset with scattered barbs, but these barbs are so short and thin that only can be noticed under high magnification, otherwise these setae seem to be glabrous. Dorsal setae are remarkably longer in the Annobonian specimens than in other African forms. Balogh (1961) drew the seta $c_1$ less than 1/8 of the total length of body, whereas this seta is in *annobonensis* nearly 1/5 of the total length. Judging by the figure given by Balogh the seta $c_1$ appears to measure 100 $\mu$ in *africanus* from Angola (body length: 803 $\mu$), whilst it measures 150 $\mu$ in an exemplar from Annobón with a total body length of 870 $\mu$.

The grater length of dorsal setae in *annobonensis* is especially remarkable if we examine the posterior setae, thus seta $f_2$ measures about 115-125 $\mu$ in the Angolan specimens whilst this seta reaches 230 $\mu$ in the subspecies from Annobón; in this way $f_2$ in the nominate form is about 1/7 of the total length and in the Annobonian form it is nearly 1/4.

The length of other setae are the following (total body length: 870 $\mu$) = *ro:* 115 $\mu$; *la:* 190 $\mu$; *in:* 230 $\mu$; *exa:* 150 $\mu$; *exp:* 190 $\mu$; $d_2$: 210 $\mu$; $h_3$: 250 $\mu$. Sensillus: 125 $\mu$.

The transversal bands (fossulae vittiformes transversales) $S_4$ and $S_5$ form in the middle a separate ring, which is always incomplete and often not well discernible. Bands $S_7$ and $S_8$ are connected in the middle by a longitudinal branch that is rather inconstant or lacking in some specimens.

Juvenile stages.

*Tritonymph:* Average length: 775 $\mu$. Very similar to the adult but the dorso-sejugal articulation is pleated. Although the genital plates are entire in the adult they are divided in the nymphs, but the suture is weak and incomplete. Each plate bears 8 setae (5 + 3). Genital suckers are 3 pairs.

*Deutonymph:* Length: 550 $\mu$. Similar to the tritonymph but more rounded in shape. Genital setae (4 + 1). Two pairs of genital suckers. Plates incompletely divided.

*Protonymph:* Length: 450 $\mu$.

*Larva:* Length: 375 $\mu$.

**Papillacarus angulatus** Wallwork, 1962.

*Acarologia*, t. IV (3), págs. 470-474, figs. 12-16.

The collection from Annobón includes two specimens (1 adult and 1 deutonymph) belonging to this species.

Adult.

Measurements: Length: 525 $\mu$; width: 250 $\mu$. These measures agree with the Ghanaian specimens described by Wallwork. (Length: 523.6-554.4 $\mu$, width: 246.4-261.8 $\mu$).

The most important features for its identification are the following:

1. The whole body surface covered by a markedly papillar cerotegument. Papillae present even near the rostral edge; only the borders of the prodorsum and the anterior part of the notogaster are free from papillae.

2. Rostral tectum very thin, almost transparent, difficult to observe.

3. Lateral margins of prodorsal shield angular in outline.

4. The characters of the setae agree with the type specimen.

5. Polygonal reticulation absent both on prodorsum and on notogaster.

6. Sensillus similar in shape to the Ghanaian specimens, but the barbs appear to be a little longer in the specimens from Annobón.

7. Genital formula as described by Wallwork but there are certain difference concerning the arrangement of these setae.

Five species belonging to the genus *Papillacarus* Kunst. 1959 have been described until now. They have been arranged in a key as follows:

1. a. Branched lamellar and interlamellar setae ..... ..... **Papillacarus ramosus** Balogh, 1961 (Java).
   b. Lamellar and interlamellar setae not branched ..... 2.
2. a. Smooth, not barbed centrodorsal setae ($c_1$, $d_1$ and $e_1$) ..... 3.
   b. Barbed centrodorsal setae ..... 4.
3. a. Faint but noticeable reticulation on notogaster and on prodorsum. Except centrodorsal setae all notogastral setae slender and barbed. $Ps_1$ cannot be well distinguished from the numerous setae of the neotrichy, that are feathered ..... ... **Papillacarus chamartinensis** Pérez-Iñigo, 1967 (Spain).

b. Neither polygonal reticulation nor papillae present. Except centrodorsal setae all notogastral setae strong, sparsely barbed. $Ps_1$ much thicker and longer than the supernumerary setae which are barbed, not feathered ..... ..... **Papillacarus undirostratus** Aoki, 1965 (Thailand).

4. a. Papillae only present on the posterior region of notogaster. A faint polygonal reticulation can be noticed as well as two notogastral bands ($S_2$ and $S_3$, this one incomplete) ..... **Papillacarus aciculatus** (Berlese, 1905) (Southern Europe).

b. Papillae covering the whole body surface. Polygonal reticulation is lacking. Five transversal bands present on notogaster. ..... **Papillacarus angulatus** Wallwork, 1962 (West Africa).

Deutonymph.

Measurements: Body length: 380 $\mu$.

Notogastral setae arranged like in the adult, but pygidial neotrichy less noticeable.

Sensillus conspicuously pectinated, a row of short barbs is also present in addition to pectination. Rostrum rather uneven. Body surface covered with papillae.

Five genital setae on each plate, which is completely divided. Two genital suckers.

## **Haplacarus foliatus** Wallwork, 1962.

*Acarologia,* t. IV (3), págs. 466-470, figs. 6-11.

I have found only a tritonymph which undoubtedly belongs to the present species. The features of the dorsal aspect are essentially similar to those of the adult described by Wallwork. As it has been remarked by this author the foliate shape of the dorsal setae is less pronounced in the tritonymph than in the adult.

Genital plates undivided, 8 setae on each plate. Preanal plate broad. Anal and adanal plates completely fused, 4 adanal and 1 anal setae on each plate. Anal seta shorter than adanals. 3 pairs of genital suckers.

Length of body: 630 $\mu$, width: 300 $\mu$.

## CEPHEIDAE Berlese, 1896.

**Microtegeus alvarezi** nov. sp. (figs.10-13).

Material examined: 3 adult specimens.

Measurements: Average body length: 255 $\mu$, average body width: 165 $\mu$ (holotype: length, 265; width, 170 $\mu$) therefore it is similar in size to the other species of the genus, which are *M. undulatus* Berlese, 1917, from East Africa, *M. reticulatus* Aoki, 1965, from Thailand, *M. foveolatus* Balogh, 1968 and *M. labyrinthicus* Balogh, 1968, both from New Guinea.

Prodorsum: Lamellae located laterally on prodorsum. They are relatively broad laminar expansions with anterior extremity of each rounded, bearing a little tubercle where lamellar seta is inserted. This seta is rather thick, stiff, glabrous and directed forwards. A sort of translamella is present on the anterior part of prodorsum, but if we examine the specimen in a lateral position we realize it is the appearance, when seen from above, of a steep slope.

Rostrum narrow and long, longer than those of *reticulatus, foveolatus* and *labyrinthicus,* similar to that of *undulatus.* Rostral setae inserted laterally on rostrum, curved and shorter and finer than lamellars. Interlamellar setae inserted near the lamellar blades, ahead of the bothridia. They are very short, thin and difficult to discern, much shorter than those of *undulatus, reticulatus* and *labyrinthicus. Foveolatus* has interlamellar setae not discernible.

Sensillus clavate, bearing blunt horns arranged around its large head. Prodorsum ornamented with a microsculpture of knob-like granula. Foveolae or polygonal reticulum are lacking, except on the lamellar surface where several, irregular, faint foveolae are present.

Notogaster: Broadly oval in shape, truncate anteriorally where the border is slightly convex. Laminae humerales absent, or at least not discernible.

Notogastral surface covered with granula like the prodorsum, foveolae and reticulum absent. Three pairs of shallow, irregular depressions on the central region of notogaster, ill-delimited and not clearly discernible. 9 pairs of short, thin, almost vestigial notogastral setae.

Anogenital region: Anal and genital apertures separated by a dis-

tance about 1/4 of the length of anal plates. These apertures are surrounded by a chitinous ribbon that is not well delimited.

5 very short and thin setae on each genital plate. 2 anal setae on each plate, also short and thin, 1 pair of aggenital and 2 pairs of adanal setae.

The microsculpture of the ventral plate consists in granula similar to those of the notogaster.

Epimeral region: Microsculpture on epimeres I and II granular, posteriorally, on epimeres III and IV, it becomes foveolate. Pedotecta little developed, pedoctectum II bifurcate.

Epimeral ridges well chitinised, continuous in the mid-line with a chitinised sternal ridge that reaches posteriorally the ribbon that surrounds the genito-anal field.

Coxisternal setae very short, difficult to discern. Formula [2-1-3-3].

## CARABODIDAE C. L. Koch, 1837.

### **Carabodes agenjoi** nov. sp. (figs. 7-9).

Material examined: The collection from Annobón contains 23 adult specimens of this small carabodid mite.

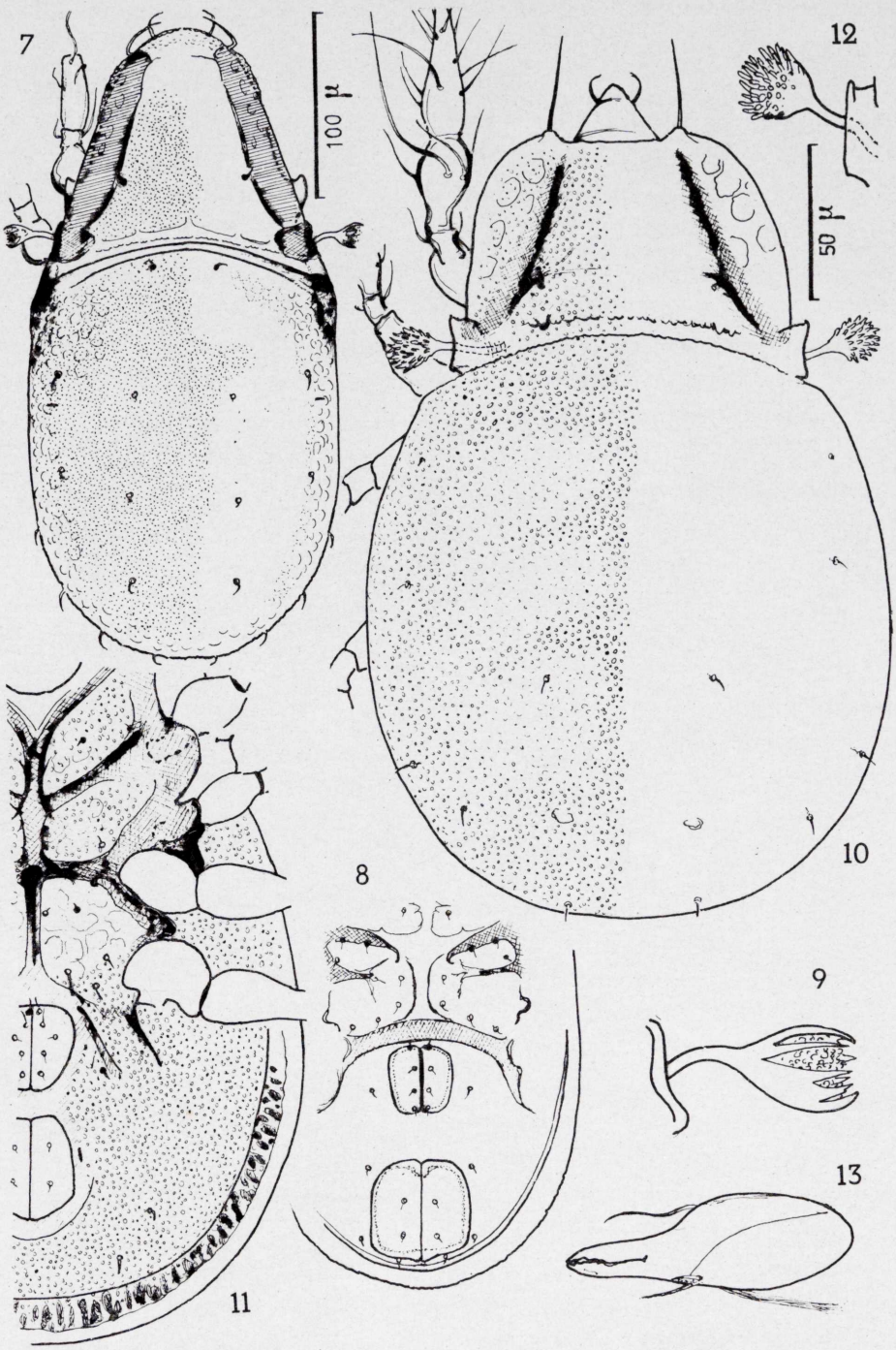
Measurements: Body length: 310-360 $\mu$, width: 150-180 $\mu$.

Colour: Light brown.

Prodorsum: Slightly shorter than it is broad, with the rostrum rounded. Rostral setae thin and glabrous, curved inwards, inserted on the anterior border. Lamellar setae inserted on lamellar apex, longer than rostrals, strongly curved inwards.

Prodorsal surface smooth, with a finely granulous microsculpture. Lamellae as in other species of the genus, showing a few rounded foveolae on its surface. Bothridium large, directed laterally, at the postero-lateral corner of prodorsum. Sensillus showing an infrequent shape: The short and smooth pedicel bears a funnel-shaped head, with an irregular rim, showing several deep indentations. The inside of the funnel appears to be filled with a granular material, probably cerotegumentary. Interlamellar setae very short and thin, difficult to view.

Notogaster: Anterior border slightly convex. No cervical cavity present. Humeral processes short, where the fissures *ia* are visible. Notogastral surface smooth in its central region, with a granulous mi-




Figs. 7-13.—*Carabodes agenjoi* n. sp.: 7) dorsal view; 8) ventral view; 9) sensillus. *Microtegeus alvarezi* n. sp.: 10) dorsal view; 11) ventral view; 12) sensillus; 13) chelicera.

crosculpture, but showing on the sides flattened round tubercles. 10 pairs of very short and fine notogastral hairs.

Ventral side: Apodemes well developed except the third. There is an incomplete sternal ridge. Coxisternal setae very thin and short. Formula: [3-1-3-4]. Genital setae are four on each plate.

Remarks: This species belongs to the *minusculus*-group on account of its small size and the absence of a cervical cavity.

The new species can be readily distinguished from *costulatus, sordidus, bicolor, angulatus, longulus* and *basilewskyi,* all of them Central African *Carabodes* on account of its smaller size, shorter setae (especially the interlamellar ones) and the shape of the sensillus.

*Carabodes subnudus* Balogh, 1964 is a small Angolan species (300-322 $\mu$ × 124-140 $\mu$), but its body shape is quite different, extremely elongate, without lamellar and interlamellar setae. *Carabodes fraterculus* Balogh, 1964 is similar to the new species by its corporal shape, but it differs considerably in lacking prodorsal setae and presenting only 2 pairs of genital setae; moreover the sensillus shows a quite different shape.

This species is named in honour of D. Ramón Agenjo, Director of the Spanish Institute of Entomology, Madrid.

## Oppiidae Grandjean, 1954.

### **Machadobelba symmetrica** Balogh, 1958 (fig. 21).

Balogh, 1958: *Rev. Zool. Bot. Afr.,* t. LVIII, pág. 13.—Ibíd., 1959: *Acta Zool. Acad. Sci. Hung.,* t. V, pág. 14.—Wallwork, 1961: *Acarologia,* t. III (3), pág. 359.

The Annobón collection contains 31 adult specimens that appear to be conspecific with Balogh's species in spite of several minor differences. I discuss below some of their characters.

Measurements: Length of body: 470-490 $\mu$: width: 240-260 $\mu$. The specimens from Annobón are, on the average, rather larger in body size than those from Congo described by Balogh in 1958 (measures: 425 -460 $\mu$ × 220-230 $\mu$), as well as those specimens from Ghana measured by Wallwork (404.1-461.5 $\mu$; average: 427.5 $\mu$).

Colour: Reddish brown, rather dark.

Sensillus: It agrees with the description provided by Balogh, length and other features are identical in Congo and Annobón specimens. Sensillus length is 90-110 μ, the two branches are pectinated.

Lamellae: Lamellar ridges appear to be similar in their shape to those of *symmetrica* from Congo, but they are ill-defined and worse chitinised, not well discernible unless the specimens are examined in a slightly lateral position.

Prodorsal setae: Rostral setae smooth, gently curving medially. Lamellar setae slightly shorter than rostrals, inserted median to each lamella and at a short distance behind lamellar apex. Interlamellar setae strongly curved, similar in length to rostrals.

Prodorsal ridges: Apart from lamellae the prodorsum shows some noticeable ridges. Between the bothridia there is a transversal ridge, curved anteriorally at both sides, extending to the interlamellar setae. This ridge does not accord well with the structure of the posterior part of prodorsum observed by Balogh. Between the places of insertion of interlamellar setae are present two chitinous knobs, well delimited, rather dark, that appear to be absent or inconspicuous in the specimens from Congo.

Notogaster: Ovoid, anterior margin straight, with two pairs of chitinous carinae convergent in acute angle. These carinae are rather ill-defined and often difficult to discern.

Ano-genital region: 6 short and slender genital setae on each plate. 2 short and smooth anal setae; adanal fissure close to, and parallel with, lateral rim of anal aperture. A round dark spot near this rim, not always well discernible.

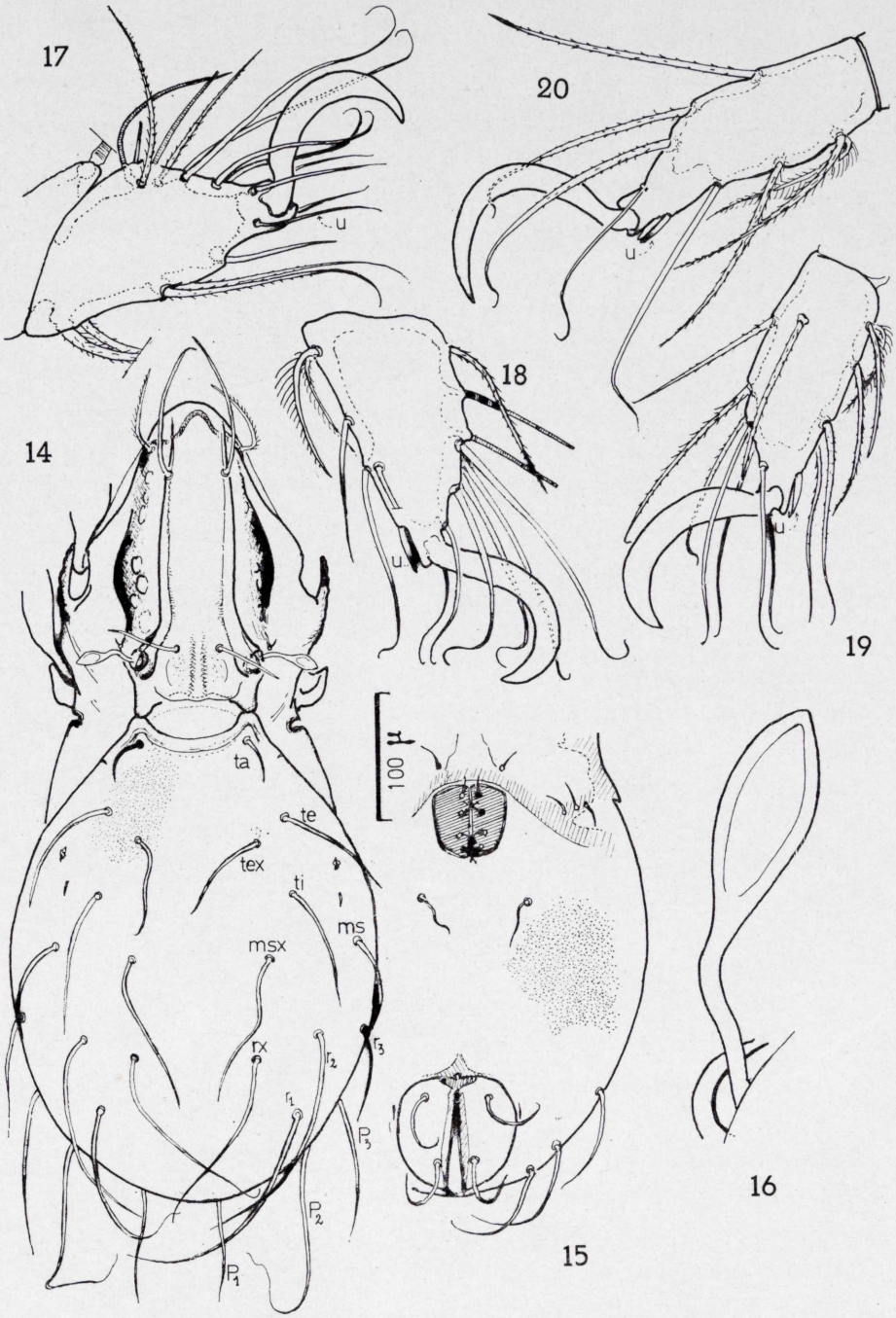
## OTOCEPHEIDAE Balogh, 1961.

### **Dolicheremaeus perisi** nov. sp. (figs. 14-20).

Material examined: 7 adults.

Measurements: Average length of body: 630 μ (range: 620-645 μ), average width of body: 280 μ (range: 265-285 μ).

Prodorsum: Lateral wing-like expansions moderately developed. Lamellae showing the characters typical for this genus, well chitinised. Lamellar setae inserted on the anterior part of each lamella, relatively long (110 μ) and smooth (but if examined under high magnification




Figs. 14-20.—*Dolicheremaeus perisi* n. sp.: 14) dorsal view; 15) ventral view; 16) sensillus; 17) tarsus I; 18) tarsus II; 19) tarsus III; 20) tarsus IV.

they appear furnished with short, fine and scattered barbs). Rostral setae slightly shorter than lamellars, measuring 90 $\mu$, markedly barbed on its outer border. Interlamellar setae smooth, ressembling notogastral setae (about 60 $\mu$). Sensillus short with a slender and reclinate pedicel and a rather large, fusiform, distally pointed head. Inner prodorsal condyles *(co. pm)* very small, reduced, almost vestigial, whereas the outer condyles *(co. pl)* well developed.

Notogaster: Elongated, as typical for this genus. No foveolate sculpture present on the integument, but it shows a dense and minute punctuation.

Inner notogastral condyles *(co. nm)* absent, in its place a concave border exists. As the outer condyles *(co. nl)* are markedly developed an elliptical area is formed between notogastral and prodorsal condyles.

13 pairs of fine, glabrous, tapering notogastral setae. Only $P_2$ ending in flagelliform curled tip. *ta* is the shortest of all dorsal setae, it measures about 50 $\mu$. The posterior setae are the longest (excepting $P_1$: 80 $\mu$), *rx* measures 150 $\mu$, $r_1$ and $P_2$: 160 $\mu$.

Fissures *ia* and *im* visible from above, *im* is located anterior to *ms* and posterior to *gla*.

Anogenital region: Genital aperture rectangular in shape. Genital plates markedly darker than the ventral plate. 4 short and slender genital setae on each plate. 2 setae on each anal plate, these setae are fine, glabrous and a little curled, slightly longer than the width of the plate.

Adanal fissures aligned longitudinally and situated close to the anal border.

Legs: Ultimate seta long on tarsus I, short on tarsi II, III and IV. (Type: LSSS). From this point of view the new species is an exception to the correlation, found by Wallwork and confirmed by Aoki, between the type of ultimate setae and the shape of sensilli. *D. perisi* is a species that has ultimate setae of the type LSSS and therefore ought to possess filiform, bacilliform or spindle-shaped sensilli instead of a clearly fusiform one.

Remarks: This species has a certain ressemblance with *D. oginoi* and *D. aokii* on account of the absence of median notogastral condyles, but it is readly distinguished by the shape of sensillus, the elliptic area between notogastral and prodorsal condyles, the length of the notogastral setae and the sculpture of the notogaster.

## TECTOCEPHEIDAE Grandjean, 1954.

### **Nodocepheus hammerae** Balogh, 1961.

*Ann. Univ. Sci. Budapest, Biol.*, t. IV, pág. 5.

Among the specimens collected in Annobón I have found six adults that agree fairly well with the description of this species. The differences between *N. hammerae* Balogh and *N. dentatus* Hammer are not great, being difficult the distinction between them.

The Annobonian specimens are similar to those from Congo, but the lamellar apex is more angulate and the inner projection more remarkable. The sensilli appear to have the head covered with longer and thicker hairs.

Body length: 220-230 $\mu$; body width: 140-150 $\mu$.

## PARAKALUMMIDAE Grandjean, 1936.

### **Protokalumma afrum** nov. sp. (figs. 22-23).

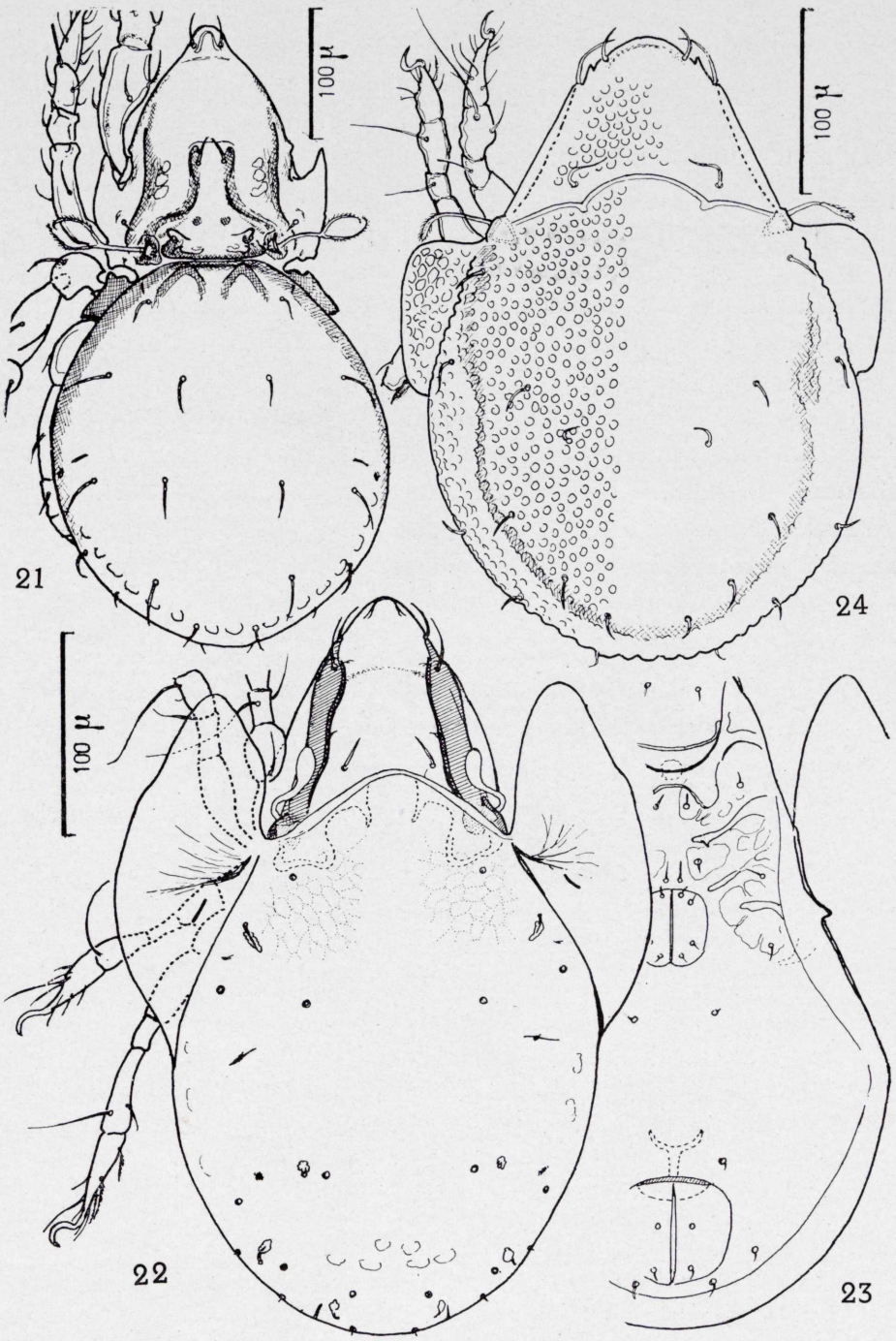
The collection from Annobón contains 15 adult specimens belonging to the genus *Protokalumma* Jacot, but differing in numerous respects from the other congeneric species.

Body length: Males, 300-335 $\mu$; females, 355-370 $\mu$. This species is smaller in size than *P. jacoti* Balogh et Mahunka, 1967 (641 $\mu$), *P. parvisetigerum* Aoki, 1965 (512 $\mu$) and other species of the genus.

Prodorsum: Rostrum rounded, the lamellae are broad plates situated laterally on prodorsum, each distal end rounded and prolonged in a prolamella that reaches the insertion of the rostral seta. This seta measures about 25 $\mu$, is very thin, glabrous and somewhat curved inwards. Lamellar setae inserted not on lamellar ends but slightly posteriorally, similar in shape to rostrals but longer than these ones (30 $\mu$).

Interlamellar setae slender, short and inserted on the posterior region of prodorsum. These setae are missing in many specimens. Sensillus with a rather long and S-shaped stem and a glabrous clavate head.

The prodorsal surface is smooth, without any kind of sculpture. Notogaster: Anterior margin strongly arched with a narrow tectum. Pteromorphae well developed, the anterior edge rounded, only slightly




Figs. 21-24.—*Machadobelba symmetrica* Balogh: 21) dorsal view. *Protokalumma afrum* n. sp.: 22) dorsal view; 23) ventral view. *Rostrozetes foveolatus* Sellnick: 24) dorsal view.

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sinuous along the ventral edge and acute at caudal end. The surface shows some radial ribs.

4 pairs of sacculi clearly discernible on notogaster; *Sa* is the largest. The notogastral surface is finely granulous on the anterior region. A faint reticulum, difficult to discern, near the insertion of pteromorphae, that is lacking in several specimens.

Fissure *ia* on pteromorph, very conspicuous. Fissure *im* clearly visible. Fissure *ip* difficult to observe from above.

Epimeral region: Apodemes weakly developed, incomplete; the integument is fenestrated. All coxisternal setae small and inconspicuous; formula [3-1-3-2].

Anogenital region: Genital and anal apertures widely separated from each other, interspace between them 2.5 times as long as genital aperture. 4 genital setae on each plate, all very thin and short. *Agg* vestigial. 2 pairs of anal setae, $An_1$ short and slender, $An_2$ reduced to alveoli. Adanal hairs short, $Ad_3$ inserted in a preanal position.

## HAPLOZETIDAE Grandjean, 1936.

### **Rostrozetes foveolatus** Sellnick, 1925 (fig. 24).

*Suppl. ent.*, t. XI, pág. 85, figs. 6-7; Willmann, 1931: *Arch. Hydrobiol.*, suppl. 9, pág. 278; Beck, 1965: *Abh. senckenb. naturf. Gesell.*, 508, págs. 1-64.

*Thachyoribates nodosus* Hammer, 1958: *Biol. Skr. D. Vid. Selsk.*, t. X, (1), pág. 103, lám. 34, fig. 127.

*Peloribates areolatus* Balogh, 1958: *Rev. Zool. Bot. Afr.*, t. LVIII, página 29.

*Peloribates punctulatus* Balogh, 1958: *Rev. Zool. Bot. Afr.*, t. LVIII, página 30.

*Trachyoribates dorsalis* Balogh, 1958: *Rev. Zool. Bot. Afr.*, pág. 27.

*Trachyoribates punctulatus* Balogh, 1960: *Publ. Cult. Comp. Diam. Ang.*, t. LI, pág. 100, fig. 30.

*Trachyoribates areolatus* Balogh, 1960: *Publ. Cult. Comp. Diam. Ang.*, t. LI, pág. 100, fig. 31.

*Rostrozetes pulcherrimus* Balogh, 1960: *Mem. Inst. Sci. Madagasc.*, tomo XIV, pág. 29, fig. 35.

*Rostrozetes nodosus* Hammer, 1961: *Biol. Skr. D. Vid. Selsk.*, t. XIII (1), pág. 130.—Beck, 1963: *Zool. Jb., Syst.*, XC, pág. 375.

This is a species widely distributed in the intertropical region, not only in Africa but also in Asia and in America. As most species that

have so wide a distribution, *R. foveolatus* presents several geographic variations that have been occasionally described as different species.

Mihelčič described in 1957, under the name of *Carabozetes poensis,* an oribatid mite from the island of Fernando Poo, that undoubtedly must be regarded as a *Rostrozetes,* being perhaps conspecific with *foveolatus,* but it is not possible to make clear its real status because the original description is quite unsatisfactory, the accompanying figure too elementary and, moreover, the types are no more present in this Institute Collection.

Material examined: 20 adults.

Measurements: Average body length: 337.8 $\mu$ (range: 315-365 $\mu$), average body width (pteromorphae excluded): 227.8 $\mu$ (range: 215-260 $\mu$). According to Beck the dimensional range is: Total length: 280-450 $\mu$; width of hysterosoma: 175-300 $\mu$.

I shall remark that peripherally the notogaster is circled by a dark narrow band at a short distance from the postero-lateral border. This band must not be regarded as a ridge, on the contrary, it represents when viewed from above, the external border of a central convex part which is surrounded by a flat marginal zone. Beck pointed out that a certain number of specimens are "in den hinteren zwei Dritteln randlich mit einer flachen gewölbten Zone ausgestattet, die das steil von hier aufragende Mittelstück von der wiederum steil abfallenden Seitenzone trennt".

## Types

Holotypes and Paratypes of the new species and subspecies are preserved in the Spanish Institute of Entomology (Instituto Español de Entomología), Madrid.

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