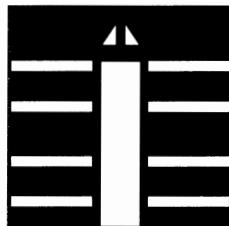


New feather mite species of the subfamily Pterodectinae (Astigmata: Proctophyllodidae) from some passerines (Aves: Passeriformes) of South Africa



JAZ

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Five new species of feather mites of the family Proctophyllodidae are described from some passerine birds of South Africa: *Montesauria emberizae* n.sp. from the Cinnamon-breasted Rock Bunting *Emberiza tahapisi* (Emberizidae), *M. jesionowskii* n.sp. from the Bar-throated Apalis *Apalis thoracica* (Sylviidae), *M. priniae* n.sp. from the Tawny-flanked Prinia *Prinia subfalsa* (Sylviidae), *Pedanodectes marginatus* n.sp. from the Green-backed Camaroptera *Camaroptera brachyura* (Sylviidae), *P. latior* n.sp. from the Black-throated Wattle-eye *Platysteira peltata* (Platysteiridae). Differential diagnoses are provided for all described species.

*Nouvelles espèces d'Acariens plumicoles de la sous-famille des Pterodectinae (Astigmata: Proctophyllodidae) récoltées sur des passereaux (Aves: Passeriformes) en Afrique du Sud. — Cinq espèces nouvelles d'Acariens plumicoles de la famille des Proctophyllodidae récoltées sur des passereaux d'Afrique du Sud sont décrites: *Montesauria emberizae* n.sp. récolté sur *Emberiza tahapisi* (Emberizidae), *M. jesionowskii* n. sp. sur *Apalis thoracica* (Sylviidae), *M. priniae* n. sp. sur *Prinia subfalsa* (Sylviidae), *Pedanodectes marginatus* n. sp. sur *Camaroptera brachyura* (Sylviidae), *P. latior* n. sp. sur *Platysteira peltata* (Platysteiridae). Des diagnoses différentielles sont fournies pour toutes les espèces décrites.*

Key words: Astigmata, Analgoidea, Proctophyllodidae, new species, Passeriformes, South Africa.

INTRODUCTION

The first accounts on southern African feather mites being generally compilations of previous works were given by Bedford (1932; 1936). Thereafter Till (1953; 1954a; 1954b; 1956; 1957) contributed to the taxonomy of feather mites from this subregion. Recently four new feather mite species from South African starlings were described and a list of more comprehensive papers dealing with feather mites associated with different bird orders of the whole Afrotropical Region was given (Mironov, Kopij, 1996). The present paper continues our taxonomic studies on feather mites associated with South African passerines and gives descriptions of 5 new species of the subfamily Pterodectinae (Analgoidea: Proctophyllodidae), namely 3 species of the genus *Montesauria* Oudemans, and 2 species of the genus *Pedanodectes* Park et Atyeo.

MATERIAL AND METHODS

The material for the present study was received from the National Museum of Bloemfontein, Republic of South Africa. It represents the collection of feather mites from different passerines of the families Emberizidae, Platysteiridae, and Sylviidae.

Descriptions of the new species follows the standard schemes used for the mites of the subfamily Pterodectinae (Park & Atyeo, 1971), the chaetotaxy nomenclature of idiosoma follows Griffiths *et al.* (1990), and the leg chaetotaxy is that of Atyeo & Gaud (1966). All measurements are given in micrometers. As the number of specimens in the type series was extremely restricted, the full set of measurements is given only for the holotype (male) and for one paratype (female). The range of idiosomal size (length, width) and of certain characters being important for an identification is displayed for other paratype specimens.

Latin and English names of birds follow the world checklist of Howard and Moore (1984). The holotypes are deposited in the National Museum in Bloemfontein (Free State, South Africa), paratypes are in the same institution and in the Zoological Institute of the Russian Academy of Science (Saint Petersburg). Type materials listed after descriptions are provided with accession collection number of the National Museum of Bloemfontein

DESCRIPTION OF NEW TAXA

FAMILY PROCTOPHYLLODIDAE SUBFAMILY PTERODECTINAE

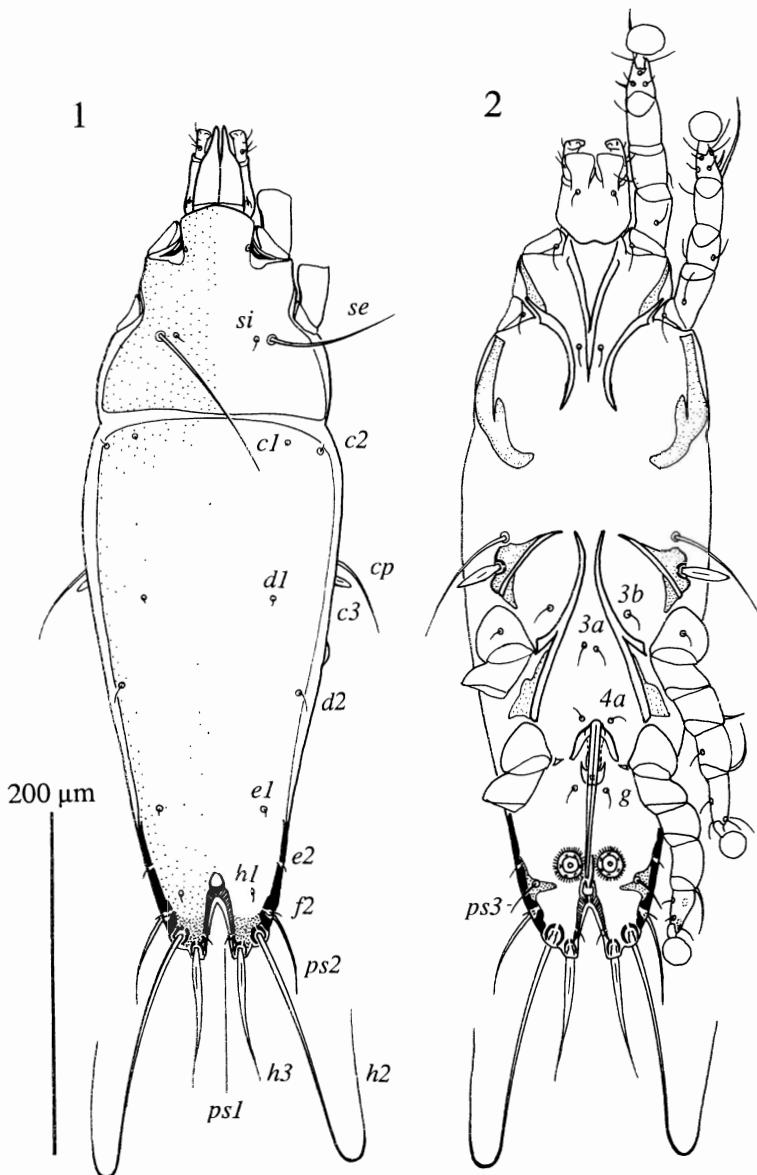
Genus *Montesauria* Oudemans, 1905

The genus *Montesauria* is the largest within the subfamily Pterodectinae and recently includes 41 species (Park & Atyeo, 1971; Mironov & Kopij, 1996). The identification of species is based mainly on males. The intrageneric taxonomy of the genus is still poorly known, and probably certain species groups should be assigned into separate genera (Mironov, 1996).

Montesauria emberizae Mironov & Kopij n. sp. (Figs. 1-2, 5-6)

Male (holotype)

Length of idiosoma 435, width 144 (idiosomal size of 2 paratypes 425-440 x 125-144). Prodorsal shield 122 in length, 129 in width, occupies almost all of prodorsum, lateral margins entire, posterior margin almost straight, without lacunae, distance between setae *se* 62. Humeral shields absent, setae *c2* situated on margin of anterior angles of hysteronotal shield (Fig. 1). Subhumeral



Figs 1-2. — *Montesauria emberizae*. Dorsal (1) and ventral (2) view of male.

setae *c3* short, lanceolate, with rounded apex, 24 in length, 6 in width. Hysteronotal shield 303 in length, 137 in width, anterior margin slightly convex, without lacunae. Opisthosomal lobes with oblique lateral margin and with small apical projection

carring setae *h3*. Terminal cleft narrow triangular, 29 in length, distance between setae *h3* 36. Supranal concavity present. Setae *f2* present. Setae *h3* narrowly lanceolate with hair-like apex, about 65 in length, 3.6 in width.

Epimeres I fused into Y, sternum without extensions, not connected with epimeres II. Genital arch middle sized, 24 in length, 26 in width. Epimeres IVa as small sclerites. Aedeagus straight, sword-like, 93 in length (90-98 in paratypes), extending to posterior margin of anal discs (Fig. 2). Basal sclerite of genital apparatus extending to setae g. Genital discs indistinct. Opisthoventral shields as small triangular sclerites, with setae ps_3 on anterior margin. Distance between setae: 4a-g 38, g- ps_3 53. Diameter of anal discs 14, corolla with 6-7 teeth. Tarsus IV without extensions.

Female (paratype)

Length of idiosoma excluding terminal appendages 547, width 153 (idiosomal size of 5 paratypes 540-567 x 140-165). Prodorsal shield 134 in length, 139 in width, lateral margins entire, posterior margin slightly convex, without lacunae. Distance between setae se 77. Humeral shields absent, setae c2 situated on margin of anterior angles of hysteronotal shield. Setae c3 lanceolate, 24 in length, 6 in width. Hysteronotal shield divided into anterior hysteronotal shield and lobar shield by narrow transversal furrow of weakly sclerotized tegument (Fig. 5). Anterior hysteronotal shield 347 in length, 150 in width, with anterior margin almost straight, without lacunae. Length of lobar region from level of anterior angles to base of appendages 62, width of lobar region at level of setae h2 65 (in paratypes 56-65 x 60-65). Terminal cleft narrow triangular, 45 in length. Setae f2 present. Setae h1 situated slightly posterior to anterior margin of lobar shield, separated by 36. Setae h2 lanceolate, acuminate apically, 55 in length, 4.8 in width. Setae h3 about 1/4 of terminal appendages. Epimeres I shaped as in male. Translobar apodemes present. Head of spermatheca weakly sclerotized; primary spermatheca with ampulliform enlargement near spermatheca head (Fig. 6). Copulatory opening dorsal.

Differential diagnosis

This species is similar to *Montesauria delicatula* (Till, 1957) described originally from *Passer grisea* (Ploceidae) (Till, 1957) and recorded also from *Serinus mozambicus* (Fringillidae) (Gaud & Mouchet, 1957). The male of *M. emberizae* differs from one of *M. delicatula* by having the opisthosomal lobes with well developed apical extinctions, position of setae h3 posterior to setae h2, lanceolate form of setae h3, and aedeagus extending to posterior margin of anal discs (Fig. 2). In males of *M. delicatula* the apex of each opisthosomal lobe is blunt and rather wide, therefore setae h2 and h3 are situated almost at the same level; setae h3 are setiform; the aedeagus extends to the bottom of the terminal cleft. Females *M. emberizae* are distinguished from *M. delicatula* by Y-shaped epimeres I with the sternum length about 1/3 of epimere length. In females of the latter species epimeres are fused into V or sternum less than 1/4 of epimeres.

Material

Holotype male, paratypes 2 males, 6 females from the Cinnamon-breasted Rock Bunting *Emberiza tahapisi* (Emberizidae) (#00472), Lydenburg (25°05' S, 30°30' E), Mpumalanga, South Africa, 1 December 1990, D.H. de Stewart coll.

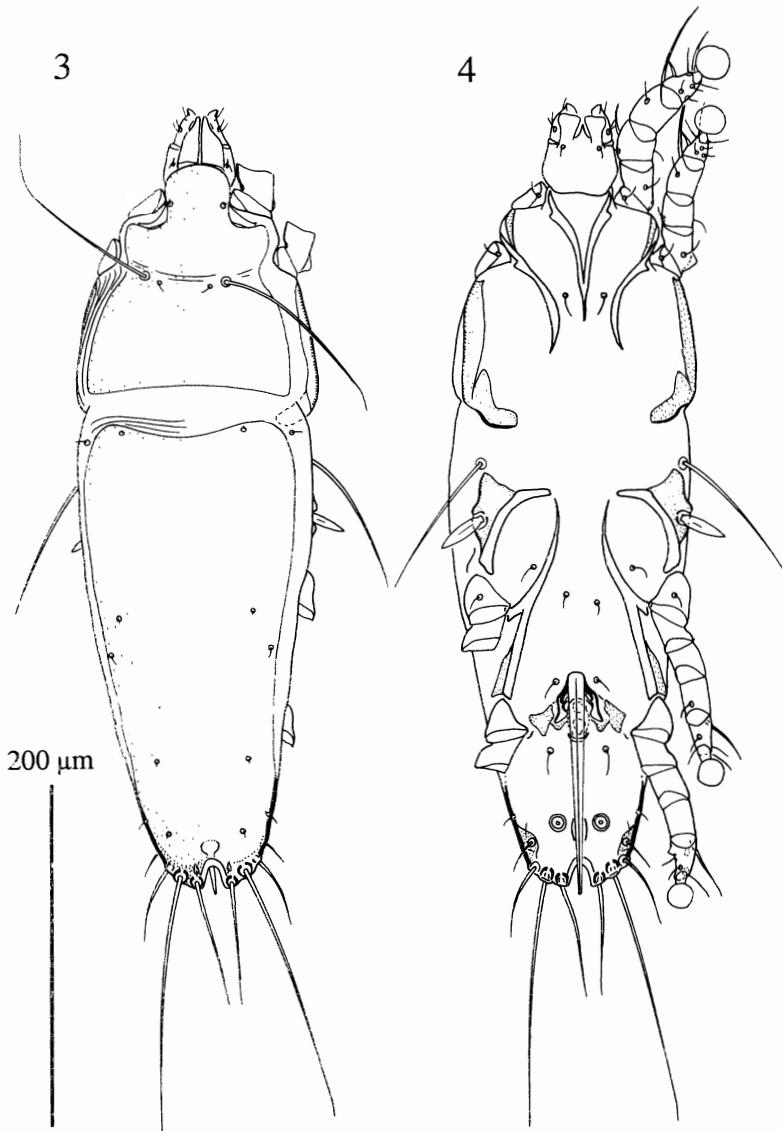
Etymology

The specific epithet is derived from the generic name of the host.

Montesauria jesionowskii Mironov & Kopij n. sp.
(Figs. 3-4, 7-8)

Male (holotype)

Length of idiosoma 415, width 132. Prodorsal shield 139 in length, 132 in



Figs 3-4. — *Montesauria jesionowskii*. Dorsal (3) and ventral (4) view of male.

width, occupies almost all of prodorsum, lateral margins entire, posterior margin slightly concave, without lacunae, distance between setae $se\ 45$. Humeral shields absent, setae $c2$ situated near anterior angles of hysteronotal shield (Fig. 3). Subhumeral setae $c3$ short, lanceolate, with rounded apex, 24 in length, 5 in width. Hysteronotal shield 268 in length,

105 in width, anterior margin slightly concave, without lacunae. Opisthosomal lobes small, short, with rounded lateral margin. Terminal cleft small U-shaped, 12 in length, distance between setae $h3$ 22. Supranal concavity present. Setae $f2$ absent. Setae $h3$ setiform, about 60 in length.

Epimeres I fused into Y, free from epimeres II. Genital arch small, 26 in length, 24 in width. Epimeres IVa as wide triangles, flanking genital arch from lateral sides. Aedeagus straight, sword-like, 120 in length, extending slightly beyond posterior margin of opisthosomal lobes (Fig. 4). Basal sclerite not extending to setae g. Genital discs indistinct. Opisthoventral shields as small sclerites on lateral margins of opisthosoma, carrying setae *ps3*. Distance between setae: 4a-g 38, g-ps3 50. Diameter of anal discs 12, corolla without indentation. Tarsus IV with small medial projection in basal part of segment.

Female (paratype)

Length of idiosoma excluding terminal appendages 547, width 160 (idiosomal size of 3 paratypes 545-570 x 146-160). Prodorsal shield 144 in length, 127 in width, lateral margins entire, posterior margin slightly convex, without lacunae, with heavy sclerotized medial stripe extending from level of setae *se* to posterior margin. Distance between setae *se* 60. Humeral shields absent, setae *c2* situated near anterior angles of hysteronotal shield. Setae *c3* lanceolate, 21 in length, 6 in width. Hysteronotal shield divided into anterior hysteronotal shield and lobar shield by narrow sinuous furrow of weakly sclerotized tegument (Fig. 7). Anterior hysteronotal shield 303 in length, 124 in width, with anterior margin almost straight, without lacunae, with heavy sclerotized longitudinal medial stripe. Length of lobar region from level of its anterior angles to base of appendages 84, width of lobar region 72. Terminal cleft almost slit-like, 60 in length. Setae *f2* absent. Setae *h1* situated on anterior margin of lobar shield, separated by 27. Setae *h2* lanceolate, acuminate apically, 41 in length, 6 in width. Setae *h3* about 1/4 of terminal appendages. Epimeres I fused Y-like, free from epimeres II.

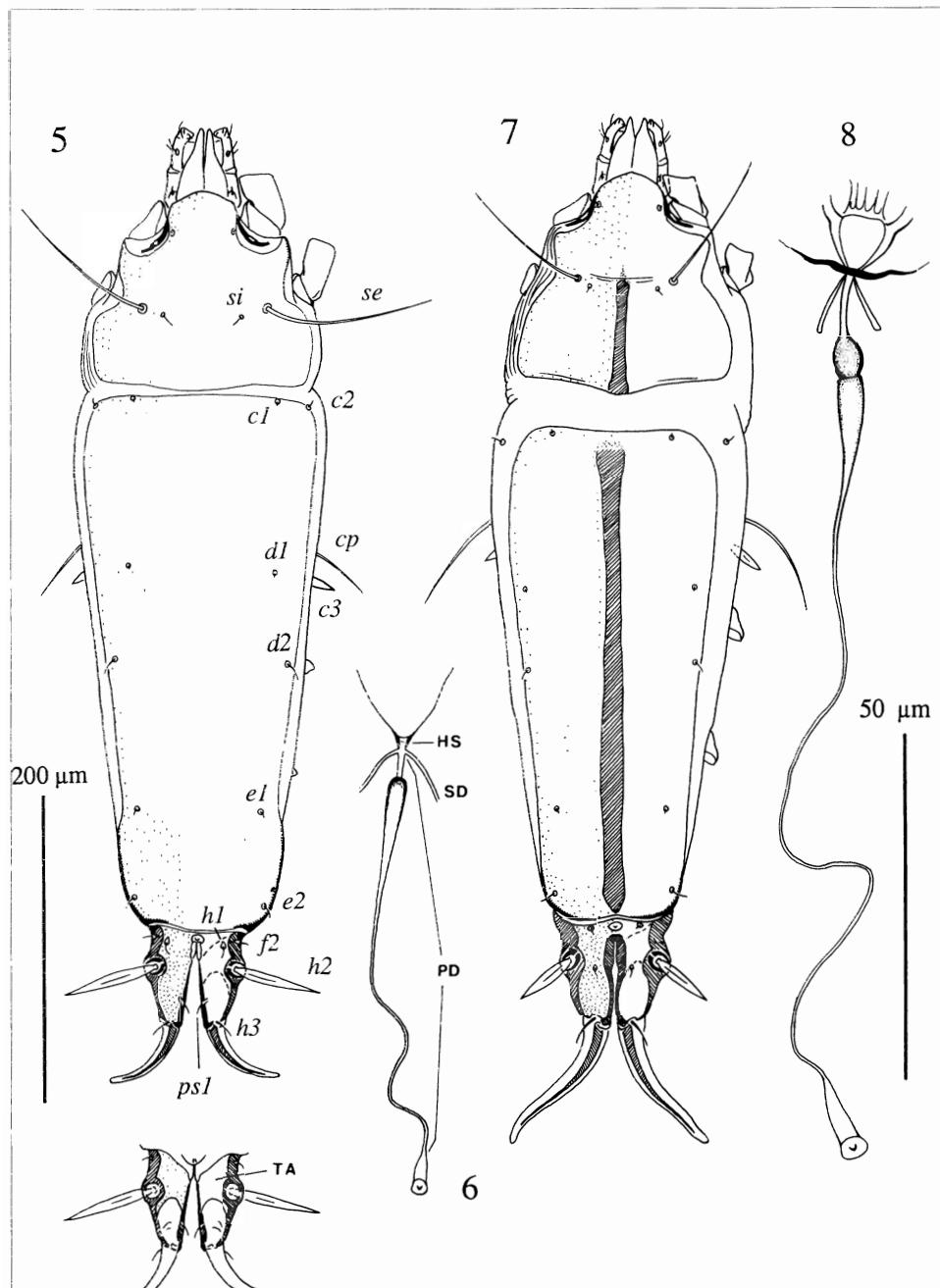
Translobar apodemes present. Head of spermatheca weakly sclerotized, with secondary spermataducts short stick-like, primary spermataduct with two enlargements in proximal 1/4 (Fig. 8). Copulatory opening dorsal.

Differential diagnosis

Montesauria jesionowskii is related to *M. papillo* (Gaud & Petitot, 1948) from *Ploceella chrysea* (Ploceidae) (Gaud & Petitot, 1948) and to *M. eucyrtta* (Gaud, 1953) from *Ploceus cucullatus* and many other african Ploceidae (Gaud, 1953, 1964). These three species and also *M. stictothyrus* (Gaud, 1953) may be defined as the *papillo* species group. Females of this group are clear characterized by a medial longitudinal sclerotized band or stripe on the hysteronotal shield. The males of *M. jesionowskii* differ from both closely related species by the small basal extension on a medial side of tarsus IV, and besides they differ from *M. eucyrtta* by Y-shaped epimeres I and a long aedeagus extending to apices of opisthosomal lobes. In males of *M. papillo* and *M. eucyrtta* the tarsus IV is simple, without basal extension; in *M. eucyrtta* the epimeres I are V-like and the aedeagus extends to the level of anal discs only. Females of *M. jesionowskii* are easily distinguished from all other species of the *papillo* group by the medial sclerotized stripe on the prodorsal shield and on the anterior hysteronotal shield. Females of three other species of the *papillo* group have a longitudinal sclerotized band on the hysteronotal shield only.

Material

Holotype male, paratypes 4 females from the Bar-throated Apalis *Apalis thoracica* (Sylviidae) (# 00330), Gustav Klingbiel Nature Reserve near Lydenburg (25°05' S, 30°30' E), Mpumalanga, South Africa, 27 June 1989, D.H. de Stewart coll.



Figs 5-8. — Females of the genus *Montesauria*. (5-6) *Montesauria emberizae*: (5) dorsal view and fragment of lobar region ventrally, (6) spermatheca. — (7-8) *M. jesionowskii*: (7) dorsal view, (8) spermatheca. *hs*: head of spermatheca, *pd*: primary spermiduct, *sd*: secondary spermiducts, *ta*: translobar apodeme.

Etymology

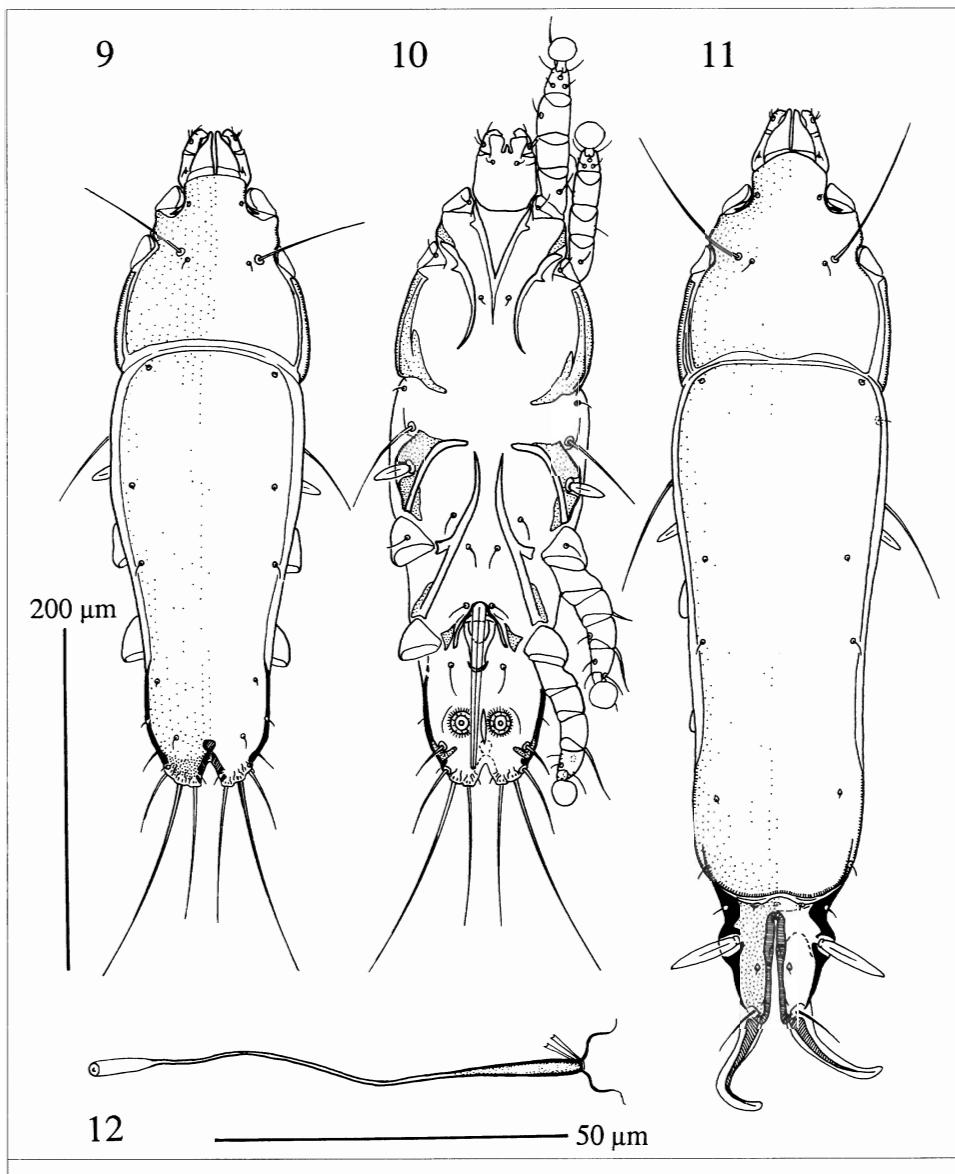
The species is named in the memory of Dr. Jacek Jesionowski (1956-1987), acarologist and ornithologist at the Adam Mickiewicz University (Poznan, Poland) and the University of Szczecin (Szczecin, Poland).

Montesauria priniae Mironov & Kopij sp. n.

(Figs.9-12)

Male (holotype)

Length of idiosoma 356, width 105
(idiosomal size of 4 paratype males 355-



Figs 9-12. — *Montesauria priniae*. Dorsal (9) and (10) ventral view of male, dorsal view (11) and spermatheca (12) of female.

366 x 102-108). Prodorsal shield 98 in length, 96 in width, occupies almost entire prodorsum, lateral margins entire, posterior margin strongly concave, surface dotted, without lacunae, distance between scapular setae $se\ 48$. Humeral shields reduced. Setae $c2$ occupy submarginal position (Figs. 9, 10). Subhumeral setae $c3$ lanceolate, with rounded apex, 23 in length, 7.5 in width. Hysteronotal shield 244 in length, 96 in width, anterior margin convex, surface uniformly dotted without lacunae. Opisthosomal lobes short, with slightly rounded lateral margins. Terminal cleft small, V-shaped, 12 in length, distance between setae $h3\ 19$. Supranal concavity present. Setae $f2$ present. Setae $h3$, setiform 75 in length (75-91 in paratypes).

Epimeres I Y-shaped, free from epimeres II. Genital arch big, 29 in length, 34 in width. Aedeagus straight, sword-like, 98 in length (95-103 in paratypes), extending to middle level of terminal cleft. Epimeres IVa small triangular, flanking genital arch from lateral sides (Fig. 10). Basal sclerite extending to level of setae g . Genital discs indistinct. Setae $4a$ at level of genital arch apex. Opisthoventral shields as small finger-like medial extensions posterior to setae $ps3$. Distance between setae: $4a-g\ 34$, $g-ps3\ 48$. Diameter of anal discs 12. Tarsus IV without extensions.

Female (paratype)

Length of idiosoma excluding terminal appendages 479, width 112 (idiosomal size of one another paratype 483 x 120). Prodorsal shield 122 in length, 96 in width, lateral margins entire, posterior margin concave, without lacunae, distance between setae $se\ 57$. Humeral shields absent, setae $c2$ submarginal in position. Setae $c3$ lanceolate, 21 in length, 7.5 in width. Hysteronotal shield divided into anterior hysteronotal shield and lobar shield by narrow sinuous furrow of weakly

sclerotized tegument (Fig. 11). Anterior hysteronotal shield 298 in length, 108 in width, with anterior margin slightly convex, without lacunae. Length of lobar region from level of its anterior angles to base of appendages 69, width of lobar region at level of setae $h2\ 62$. Terminal cleft narrow, almost slit-like, 50 in length. Setae $f2$ present. Setae $h1$ situated on anterior margin of lobar shield, separated by 34. Setae $h2$ lanceolate, acuminate apically, 40 in length, 6 in width. Setae $h3$ about 1/2 of terminal appendages. Epimeres I fused into Y, free from epimeres II. Translobar apodemes present. Head of spermatheca weakly sclerotized, primary spermiduct gradually slightly enlarged in proximal 1/4 (Fig. 12). Copulatory opening dorsal.

Differential diagnosis

This species is most closely related to *Montesauria eurycalyx* (Gaud, 1964) described from *Cysticola brachyptera* (Sylviidae) (Gaud, 1964). Males of *M. priniae* differ from *M. eurycalyx* by the long setiform setae $h3$ (always longer than 75); females are distinguished by a relatively long setae $h3$ being about 1/2 of the terminal appendages. Males of *M. eurycalyx* have setae $h3$ narrowly lanceolate, usually about 45-60; in females of that species the setae $h3$ are about 1/4-1/5 of terminal appendages.

Material

Holotype male, paratypes 4 males, 2 females from the Tawny-flanked Prinia *Prinia subfasciata* (Sylviidae) (#00289), Brae Lossie, East London ($53^{\circ}\ 30' S$, $27^{\circ}\ 50' E$), South Africa, 12 May 1989, A. Berruti coll.

Etymology

The specific epithet is derived from the generic name of the host.

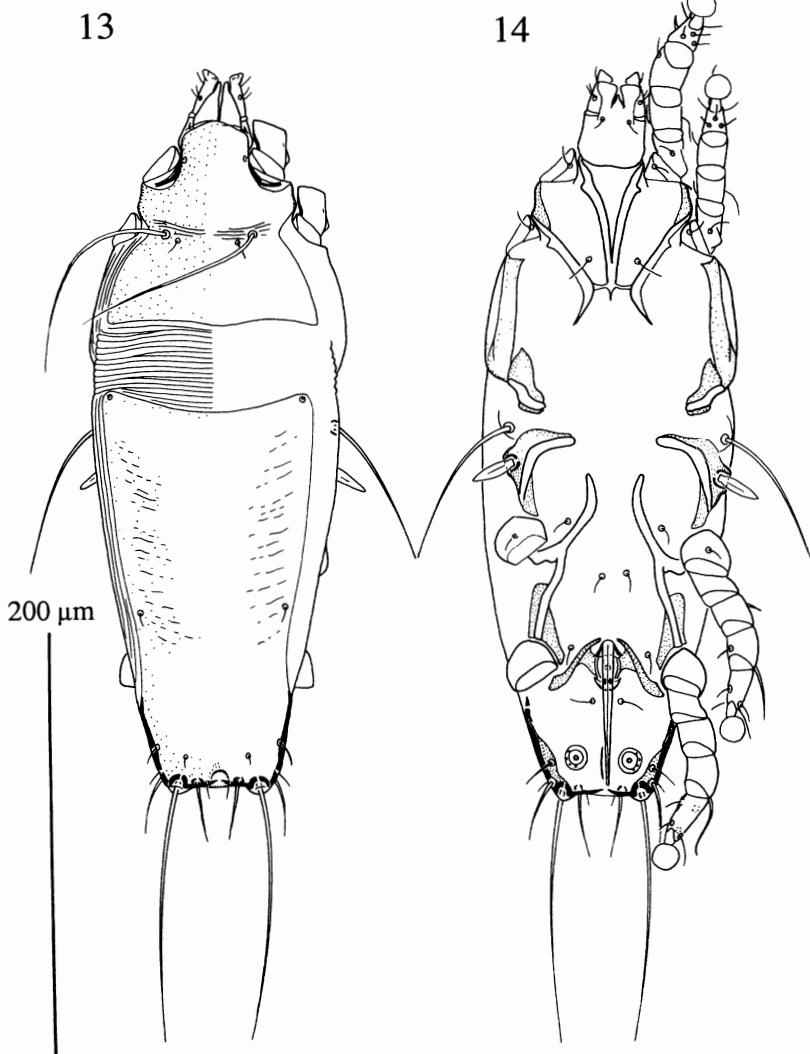
Genus *Pedanodectes*
Park & Atyeo, 1971

The genus comprised only three species associated with passerine birds of the families Laniidae and Nectariniidae (Park & Atyeo, 1971).

Pedanodectes marginatus
Mironov & Kopij n.sp.
(Figs. 13-14, 17-18)

Male (holotype)

Length of idiosoma 313, width 115 (idiosomal size of 5 paratypes 303-313 x 105-115). Prodorsal shield 98 in length, 96 in width, occupies almost all of prodorsum, lateral margins entire, posterior margin almost straight, without lacunae, distance between scapular setae $se\ 40$. Humeral shields absent. Setae c_2 situated on anterior angles of hysteronotal



Figs 13-14. — *Pedanodectes marginatus*. Dorsal (13) and ventral (14) view of male.

shield (Fig. 14). Subhumeral setae *c3* short, lanceolate, with rounded apex, 24 in length, 4.8 in width. Hysteronotal shield 170 in length, 96 in width, anterior margin slightly concave, without lacunae, with interrupted weak transversal striation. Opisthosomal lobes not developed, posterior margin of opisthosoma almost straight, terminal cleft absent. Distance between setae: *h3-h3* 22, *h2-h2* 38. Supranal concavity open, semicircular. Dorsal setae *c1*, *d1*, *e1* absent. Setae *h3* setiform, about 25 in length.

Epimeres I fused into Y, posterior tip of sternum connected with midpart of epimeres II by thin transversal sclerites. Epimeres IIIa extending to level of setae *c3*. Genital arch small, 9 in length, 12 in width, epimeres IVa large, connected with base of genital apparatus by internal transversal sclerites (Fig. 14). Aedeagus straight, sword-like, 67 in length (65-75 in paratypes), extending almost to posterior margin of opisthosoma. Opisthoventral shields narrow, developed along lateral margins only, carrying setae *ps3*. Distance between setae: *4a-g* 25, *g-ps3* 29. Diameter of anal discs 12, lateral side of corolla with 3-4 little teeth. Setae *ps3* at level of posterior margin of anal discs. Tarsus IV without extensions.

Female (paratype)

Length of idiosoma excluding terminal appendages 485, width 122 (idiosomal size of 5 paratypes 460-485 x 120-134). Prodorsal shield 120 in length, 110 in width, lateral margins entire, posterior margin concave, without lacunae, distance between setae *se* 53. Humeral shields represented by ovoid submarginal sclerites. Setae *c2* situated on anterior angles of hysteronotal shield. Setae *c3* lanceolate, 21 in length, 6 in width. Hysteronotal shield divided into anterior hysteronotal shield and lobar shield by narrow transversal furrow (Fig. 17). Anterior hysteronotal shield 244 in length,

112 in width, with anterior margin concave, without lacunae, with strongly sclerotized band along lateral margins. Length of lobar region 85, width of lobar region 72 (in paratypes 75-85 x 70-74). Terminal cleft narrow slit-like, 60 in length. Setae *c1*, *d1*, *e1* absent. Setae *h2* lanceolate, acuminate apically, 43 in length, 6 in width. Setae *h3* very short, about 1/8 of terminal appendages. Epimeres I Y-shaped, sternum without lateral extensions, free from epimeres II. Translobar apodemes present. Head of spermatheca weakly sclerotized, primary spermaduct with small bead-like enlargement near its proximal end (Fig. 18). Copulatory opening dorsal.

Differential diagnosis

Among three recently described species of the genus *Pedanodectes* (Park & Atyeo, 1971), the new species is most closely related to *Pedanodectes hologaster* (Gaud, 1953) described from two sunbird species of the genus *Chalcomitra* (Nectariniidae) (Gaud, 1953). Males of *P. marginatus* differ from males of *P. hologaster* by the epimeres I fused into Y with a sternum connected with epimeres II. In males of *P. hologaster* epimeres I are fused V-like and not connected to epimeres II. Females of *P. marginatus* differ from all other species of the genus by strongly sclerotized lateral margins of the anterior hysteronotal shield.

Material

Holotype male, paratypes 5 males, 6 females from the Green-backed Camaroptera *Camaroptera brachyura* (Sylviidae) (#00191), Pafuri (22°25' S, 31°20' E), Kruger National Park, Northern Province, South Africa, 10 January 1989, R. A. Earle coll. Additional material. 6 females from the same host (#00192), type locality, 10 January 1989, R.A.Earle coll.

Etymology

The specific epithet refers to the strongly sclerotized lateral margins of the hysteronotal shield in females.

Pedanodectes latior

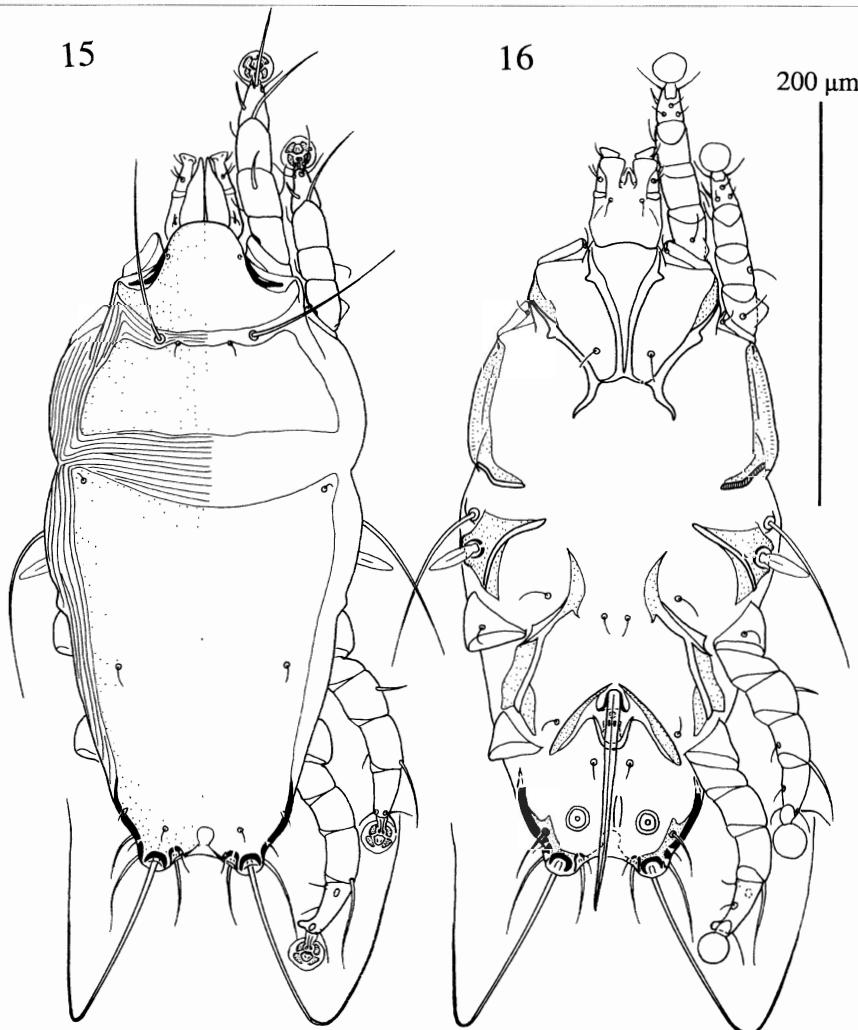
Mironov & Kopij n. sp.

(Figs. 15-16, 19-20)

Male (holotype)

Length of idiosoma 322, width 147
(idiosomal size of 24 paratype males 312-

332 x 139-156). Prodorsal shield divided into two parts by transversal band of striated tegument, bearing setae *se*; setae *si* situated on anterior margin of posterior part; total length of prodorsal shield 108, width of posterior part 122, posterior margin of shield slightly concave, surface without lacunae. Distance between setae *se* 47. Humeral shields absent. Setae *c2* situated on anterior angles of hysteronotal shield (Fig. 15). Subhumeral setae *c3* short, lanceolate, with rounded apex, 22 in length, 4.8 in width. Hysteronotal shield



Figs 15-16. — *Pedanodectes latior*. Dorsal (15) and ventral (16) view of male.

194 in length, 124 in width, anterior margin deeply concave, without lacunae. Posterior margin of opisthosoma shallow concave, opisthosomal lobes as small rounded extensions carrying setae h_2 , depth of terminal cleft about 9. Distance between setae: h_3-h_3 26, h_2-h_2 43. Supranal concavity open posteriorly, rounded anteriorly. Dorsal setae c_1 , d_1 , e_1 absent. Setae h_3 thick setiform, about 24 in length.

Epimeres I fused V-like, posterior tips of epimeres with small lateral extinctions, connected to midpart of epimeres II. Epimeres IIIa extending anterior to level of setae c_3 . Genital arch small, 9 in length, 12 in width; epimeres IVa large, connected with base of genital apparatus (Fig. 16). Aedeagus straight sword-like, 104 in length (98-105 in paratypes), extending beyond posterior margin of opisthosoma. Opisthoventral shields narrow, developed along lateral margin only, carrying setae ps_3 . Distance between setae: $4a-g$ 18, $g-ps_3$ 31. Diameter of anal discs 12, corolla without teeth. Setae ps_3 at level of posterior margin of anal discs. Tarsus IV with apical rounded processus.

Female (paratype)

Length of idiosoma excluding terminal appendages 503, width 168 (idiosomal size of 20 paratypes 485-510 x 160-182). Prodorsal shield 132 in length, 154 in width, lateral margins with deep lateral incisions around setae se and si ; posterior margin concave, surface without lacunae, distance between setae se 67. Humeral shields absent. Setae c_2 situated on anterior angles of hysteronotal shield. Setae c_3 lanceolate, 24 in length, 6 in width. Hysteronotal shield divided into anterior hysteronotal shield and lobar shield by narrow transversal furrow (Fig. 19). Anterior hysteronotal shield 250 in length, 156 in width, with anterior margin concave, without lacunae, with strongly

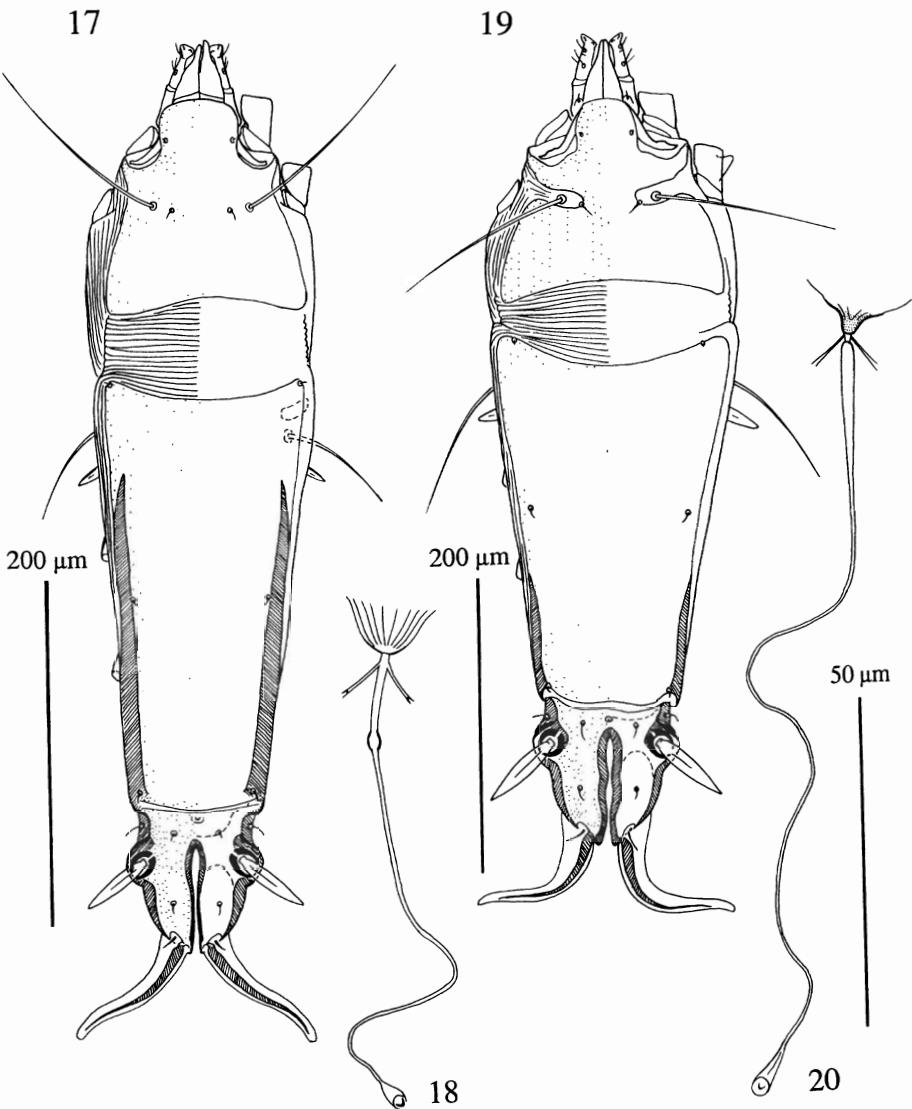
sclerotized posterior part of lateral margins. Length of lobar region 100, width of lobar region 93 (in paratypes 86-101 x 89-96). Terminal cleft narrow slit-like, 74 in length. Setae c_1 , d_1 , e_1 absent. Setae h_2 lanceolate, acuminate apically, 50 in length, 7.2 in width. Setae h_3 very short, about 1/5 of terminal appendages. Epimeres I fused V-like, posterior tips with small triangular lateral extensions, not connected with epimeres II. Translobar apodemes present. Head of spermatheca strongly sclerotized, primary spermaduct in proximal 1/4 gradually enlarged to head of spermatheca (Fig. 20). Copulatory opening dorsal.

Differential diagnosis

The new species is very similar to *Pedanodectes andrei* (Till, 1954) described from *Tchagra senegala* (Laniidae) (Till, 1954a). Males of *P. latior* differ from males of *P. andrei* by epimeres I connected to epimeres II and lesser length of idiosoma. In males of *P. andrei* the epimeres I are also fused V-shaped but their lateral extinctions are not connected to epimeres II; idiosomal length according to the original descriprion is 350-368. Females of *P. latior* are distinguished from *P. andrei* by the prodorsal shield with deep lateral incisions around setae se and lesser idiosomal length as well. In females of *P. andrei* the prodorsal shield is completely divided into two parts by transversal band at the level of both pairs of scapular setae; the length of idiosoma is within the limits 550-560.

Material

Holotype male, paratypes 24 males, 21 females from the Black-throated Wattle-eye *Platysteira peltata* (Platysteiridae) (#00195), Pafuri (22° 25' S, 31° 20' E), Kruger National Park, Nothern Province, South Africa, 12 January 1989, R.A.Earle coll.



Figs 17-20. — Females of the genus *Pedanodectes*. (17-18) *Pedanodectes marginatus*: (17) dorsal view, (18) spermatheca. — (19-20) *P. latior*: (19) dorsal view, (20) spermatheca.

Etymology

From *latus* (wide) to point that males of this species have relatively wider idiosoma than in other species of the genus.

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REFERENCES

- Atyeo, W. T. & Gaud, J. 1966. The chaetotaxy of sarcoptiform feather mites. *J. Kansas Entomol. Soc.* 39: 337-346.
- Bedford, G. A. H. 1932. A synoptic check-list and host-list of the ectoparasites found on South African Mammalia, Aves, and Reptilia. *18th Rep. Dir. Veter. Serv. Anim. Indus. U. S. Afr.*, August 1932: 223-523.
- . 1936. A synoptic check-list and host-list of the ectoparasites found on South African Mammalia, Aves, and Reptilia (Supplement N.1). *Onderstepoort J. Vet. Sci. Anim. Ind.* 7: 69-110.
- Gaud, J. 1953. Sarcoptides plumicoles des oiseaux d'Afrique occidentale et centrale. *Annls Parasitol. hum. comp.* 28 (3): 193-226.
- . 1964. Mission de zoologie médicale au Maniema (Congo, Léopoldville) (P. L. G. Benoit, 1959). Acariens plumicoles (Analgesoidea). *Annls Mus. roy. Afr. centr., Ser. 8, Sci. Zool.* 136: 119-130.
- Gaud, J. & Mouchet, J. 1957. Acariens plumicoles (Analgesoidea) des oiseaux du Cameroun. I. Proctophyllodidae. *Annls Parasitol. hum. comp.* 32(5/6): 491-546.
- Gaud, J. & Petitot, M. L. 1948. Sarcoptiformes plumicoles des oiseaux d'Indochine. *Annls Parasitol. hum. comp.* 23 (5/6) 337-347.
- Griffiths, D. A., Atyeo, W. T., Norton, R. A. & Lynch, C. A. 1990. The idiosomal chaetotaxy of astigmatid mites. *J. Zool., Lond.*, 220: 1-32.
- Howard, R. & Moore, A. A. 1984. *A Complete Check-list of the Birds of the World*. Second Edition. Academic Press, London.
- Mironov, S. V. 1996. A new genus of the feather mite subfamily Pterodectinae (Analgoidea: Proctophyllodidae) *Parazitologiya*. 30: 398-403. [Russian]
- Mironov, S. V. & Kopij, G. 1996. New feather mite species (Acarina: Analgoidea) from some starlings (Passeriformes: Sturnidae) of South Africa. *J. Afr. Zool.* 110: 257-269.
- Park, C. & Atyeo, W. T. 1971. A generic revision of the Pterodectinae, a new subfamily of feather mites (Sarcoptiformes, Analgoidea). *Bull. Univ. Nebraska St. Mus.*, 9: 39-88.
- Till, W. M., 1953. Four new feather mites of the genus *Trouessartia*. *Moçambique*, 73: 103-117.
- . 1954a. Five new feather mites of the genus *Pterodectes* (Acarina: Analgesoidea). *Moçambique*, 79: 85-100.
- . 1954b. The genus *Trouessartia* in the Ethiopian region with the description of three new species (Acarina: Proctophyllodidae). *Rev. Ecuat. Entomol. Parasitol.* 2: 187-202.
- . 1956. Three new *Pteronyssus* species from the redbilled hoopoe, *Phoeniculus purpureus* (Miller) (Acarina, Analgesoidea). *J. Entomol. Soc. S. Afr.* 19: 78-85.
- . 1957. Two new *Pterodectes* species from passeriform birds (Acarina: Proctophyllodidae). *J. Entomol. Soc. S. Afr.* 20: 450-453.