Acarologia

NEW FEATHER MITES OF THE FAMILY ASCOURACARIDAE (ASTIGMATA: PTEROLICHOIDEA) FROM SOME PARROTS AND NIGHTJARS

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ACARI
ASCOURACARIDAE
PARASITES
BIRDS

SUMMARY: Four new species of the quill-inhabiting feather mites of the family Ascouracaridae are described: *Ascouracarus chordeili* sp. nov. from *Chordeiles r. rupestris* (Caprimulgidae); *Cystoidosoma aratingae* sp. nov. from *Aratinga jandaya* (Psittacidae), *C. myiopsittae* sp. nov. from *Myiopsitta monachus* (Psittacidae), *Vassilevascus trapezoides* sp. nov. from *Trichoglossus haematodus forsteini* (Loridae). A brief review of reference data and list of species described up to date are given.

RÉSUMÉ : Quatre nouvelles espèces d'acariens plumicoles de la famille Ascouracaridae, vivant dans les remiges de divers oiseaux, sont décrites : *Ascouracarus chordeili* sp. nov. de *Chordeiles r. rupestris* (Caprimulgidae); *Cystoidosoma aratingae* sp. nov. de *Aratinga jandaya* (Psittacidae), *C. myiopsittae* sp. nov. de *Myiopsitta monachus* (Psittacidae), *Vassilevascus trapezoides* sp. nov. de *Trichoglossus haematodus forsteini* (Loridae). Un bref rappel de la composition de la famille Ascouracaridae et une liste des espèces décrites jusqu'ici dans cette famille sont donnés.

INTRODUCTION

The feather mite family Ascouracaridae represents one of six feather mite families, representatives of which live inside quills of birds. This family was originally established as a subfamily Ascouracarinae within the family Syringobiidae (GAUD and ATYEO, 1976) and included six genera: *Ascogastra* GAUD et ATYEO, 1976, *Ascouracarus* GAUD et KOLEBINOVA, 1973, *Cystoidosoma* GAUD et ATYEO, 1976, *Orphanacarus* GAUD et ATYEO, 1976, *Petersonacarus* GAUD et ATYEO, 1976, *Pyonacarus* GAUD et ATYEO, 1976. D'SOUZA and JOGANNATH (1982) described one more genus, *Gallilichus* D'SOUZA et JOGANNATH, 1982. DABERT and EHRNSBERGER (1992) have elevated this suprageneric taxon to the family rank, partly revised its genera and described a number of new species. Besides, the genus *Pyonacarus* was synonymised to *Orphanacarus*. Finally, DABERT and EHRNSBERGER (1995) have described one more genus, *Vassilevascus* DABERT et EHRNSBERGER, 1995.

The members of the family are associated mainly with terrestrial non-passeriform birds (Table), about one third of them occurs on Psittaciformes, and only one species is known from the corvid birds (Passeriformes). It is obvious that the taxonomic and biodi-

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versity study of this family is in a beginning stage only. As far the representatives of some genera are recorded from rather different orders of host, it is quite possible that future studies and accumulation of new data on biodiversity and morphological variability of these mites will show that some recently recognised genera are a complex.

Up to date, the family has included 24 species arranged into 7 genera. The present paper gives the descriptions of four new ascouracarid species found on some parrots and nightjars from tropic areas.

Material and methods

The material used in the present study was collected by the junior author from birds wich died in the Zoo of Antwerp. The birds and the mites were deposited in the Institut royal des Sciences Naturelles de Belgique. One species was collected from a bird received from Mr. M. Marlier (Amazonas). The parasites were preserved in 70% ethanol and for light microscope study mounted on slides in the Hoyer's medium. The formats and terms of descriptions follow recent standards used for respective genera of the family Ascouracaridae (Gaud and Atyeo, 1976; Dabert and Ehrnsberger, 1992, Gaud and Atyeo, 1996), the idiosomal chaetotaxy is that of Griffiths *et al.* (1990). All measurements are given in micrometers (μm). All type material is deposited in Institut royal des Sciences Naturelles de Belgique (Bruxelles, Belgique).

Family **Ascouracaridae** Gaud et Atyeo, 1976

Genus **Vassilevascus** Dabert et Ehrnsberger, 1995

This genus was based on a single species, *Vassilevascus trichosus* Dabert et Ehrnsberger, 1995 from the Rainbow lory *Trichoglossus haematodus cyanorgammus* from New Guinea. That material was represented by one male, which was erroneously identified by Trouessart (1989) as *Dermoglyphus (Sphaerogastra) monstrosus* Trouessart, 1898.

Vassilevascus trapezoides Mironov et Fain n. sp. nov.

(Fig. 1-7)

Male (holotype). Length of idiosoma 975, width of hysterosoma (at widest part, posterior to legs IV) 595. Subcapitulum, including palpae, 197 × 215. Prodorsal shield 275 in length, 428 in width at posterior part. Distance between scapular setae: *se-se* 250, *si-si* 98. Setae *c1* and *d1* long, arranged in form of inverted trapezium, setae *d1* equidistant from levels of setae *c1* and *d2*. (Fig. 1). Setae *e1* slightly closer to level of setae *e2* than *d2*. Bases of setae *h1* more distant than bases of setae *h2*, separated by 270. Bases of setae *ps1* separated by 50, surrounded by small sclerotised dotted area. All dorsal idiosomal setae very long, exceeding 200. Length of setae: *vi* 125, *se* 495, *si* 395, *c1* 380, *c2* 340, *c3* 160, *cp* 360, *d1* 410, *d2* 365, *e1* 380, *e2* 335, *f2* 370, *h1* 230, *h2* 480, *h3* 440, *ps1* 270, *ps2* 175, *ps3* 90. Each coxal field I with two narrow incisions along epimerites I and II (Fig. 2). Genital apparatus at level of trochanters III, 70 × 50. Coxal setae *3a* anterior to genital apparatus level of subhumeral setae *c3*; genital setae *g* at level of genital apparatus apex. Genital acetabulae situated posterior to setae *g*. Anal opening subterminal, rudimentary adanal setae absent.

Female (paratype). Length of idiosoma 1105, width of hysterosoma 655. Subcapitulum 185 × 218. Prodorsal shield 286 in length, 435 in width. Distance between scapular setae: *se-se* 265, *si-si* 98. Setae *c1* and *d1* long, arranged in form of inverted trapezium, setae *d1* slightly closer to setae *c1* than to *d2*. Setae *e1* slightly closer to level of setae *e2* than *d2*. Bases of setae *h1* more distant than bases of setae *h2*, separated by 210. Bases of setae *ps1* situated closely to one another, separated by 58 (Fig. 3). External copulatory tube terminal, as narrow cone about 6 in length, surrounded by small dotted area. All dorsal idiosomal setae very long, exceeding 250. Length of setae: *vi* 110, *se* 460, *si* 445, *c1* 320, *c2* 385, *c3* 170, *cp* 385, *d1* 355, *d2* 430, *e1* 355, *e2* 365, *f2* 360, *h1* 290, *h2* 505, *h3* 495, *ps1* 260, *ps2* 160, *ps3* 80. Coxal fields I with one narrow incision along epimerites I. Coxal setae *3a* at level of anterior end of egg opening. Genital setae *g* anterior to acetabulae. Anal opening subterminal.

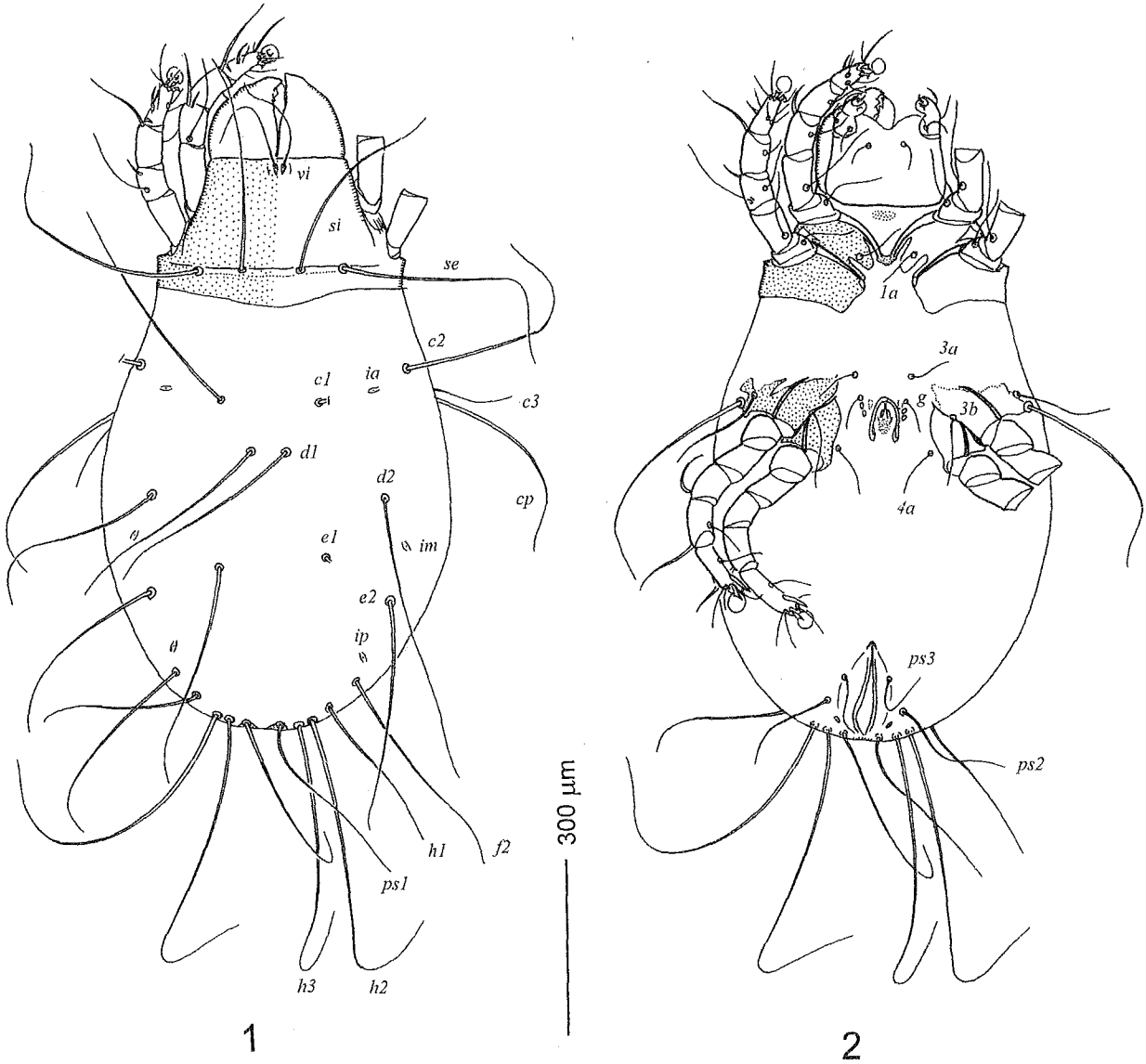

FIG. 1, 2: *Vassilevascus trapezoides* sp.nov., male. **1** — dorsal view; **2** — ventral view.

Cupules *ih* ventral. Two pairs of rudemintary adanal setae, anterior and posterior to setae *ps3*. (FIG. 4). Secondary spermaducts stick-like, thin, 13-14 in length, distal ends with numerous short spines (Fig 5).

LARVA (paratype). Idiosoma length 510, width 215. Subcapitulum rectangular, 95 × 82. Prodorsal shield almost rectangular, with rounded posterior angles, 142 in length, 90 in width; distance between scapular setae: *se-se* 120, *si-si* 75. Opisthosomal shield 160 × 120, with bluntly rounded anterior margin extending to the level of trochanters III. Setae *c1* and *d1* represented by macrochaetae with very thick basal half; setae *c1* situated at level of setae *c2*, setae *d1* on small cordiform sclerite slightly posterior to levels of setae *c1* and *c2*; setae *d2* at medium level of humeral shields, setae *e1* on opisthosomal shield, near to its anterior margin, setae *e2* at level of openings *gl*. Length of idiosomal setae: *vi* 12, *se* 680, *si* 320, *c1* 355, *c2* 345, *c3* 440, *cp* 690, *d1* 365, *d2* (broken), *e1* 190, *e2* 290, *h1* 150, *h2* 790.

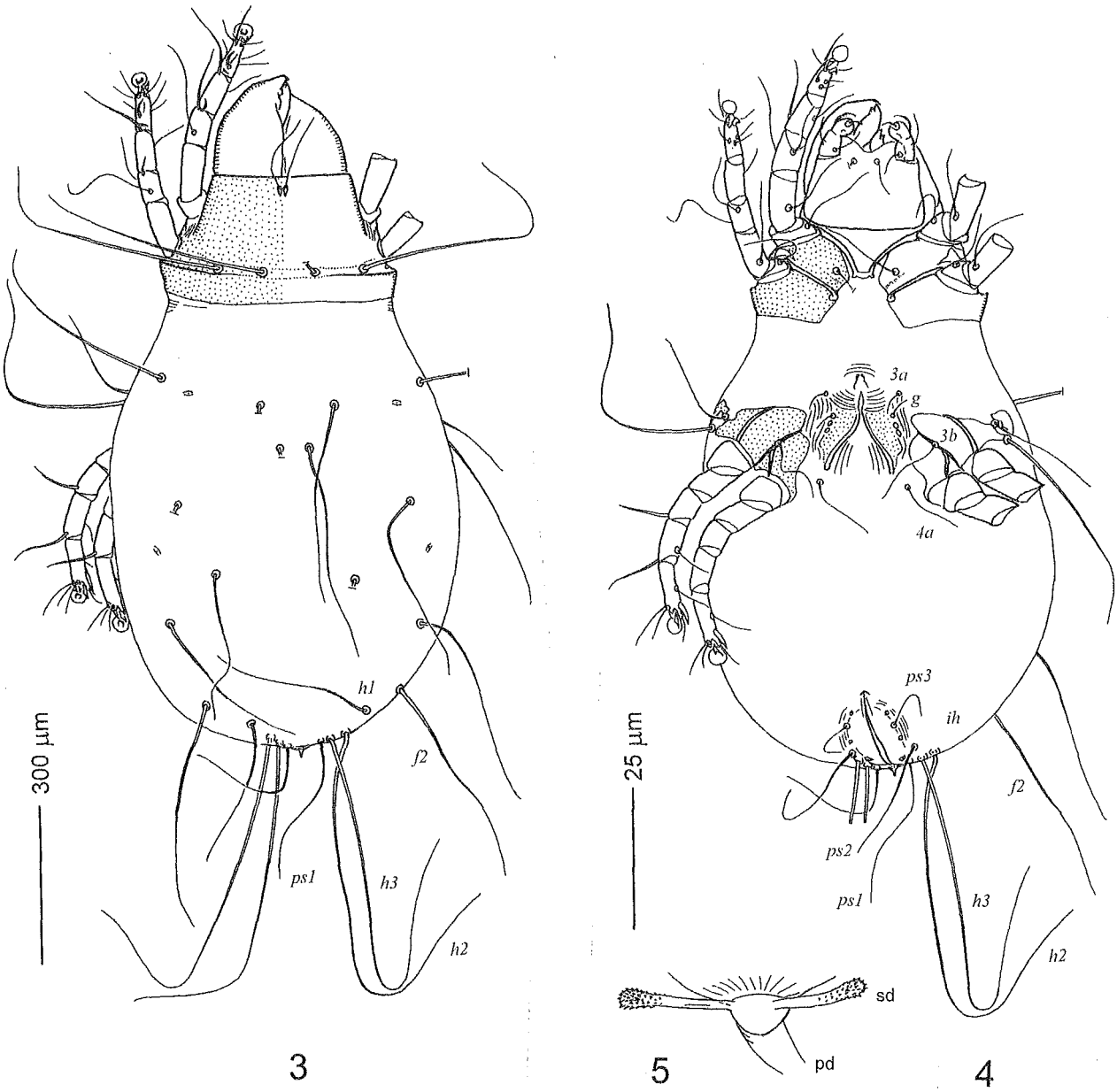

FIG. 3-5: *Vassilevascus trapezoides* sp.nov., female. **3** — dorsal view; **4** — ventral view; **5** — head of spermatheca. **ps** — primary spermaduct, **sd** — secondary spermaduct.

DIFFERENTIAL DIAGNOSIS: Formerly known species *Vassilevascus trichosus* DABERT et EHRNSBERGER, 1995 was based on one male only. The male of *Vassilevascus trapezoides* differs from that species by having setae *c1* and *d1* arranged into inverted trapezium (FIG. 1), setae *h1* widely separated from one another, and long setae *f2* about 230 in length. In the holotype of *V. trichosus*, the setae *c1* and *d1* are arranged into a transversal row slightly posterior to cupules *ia*; setae *h1* are close to one another, separated by 40; setae *f2* are short, about 70. As far the disposition and length ratio of most dorsal setae in male and female of *V. trapezoides* are rather similar, it is reasonable to suggest that listed characters would allow to discriminate the females of *V. trapezoides* and *V. trichosus*.

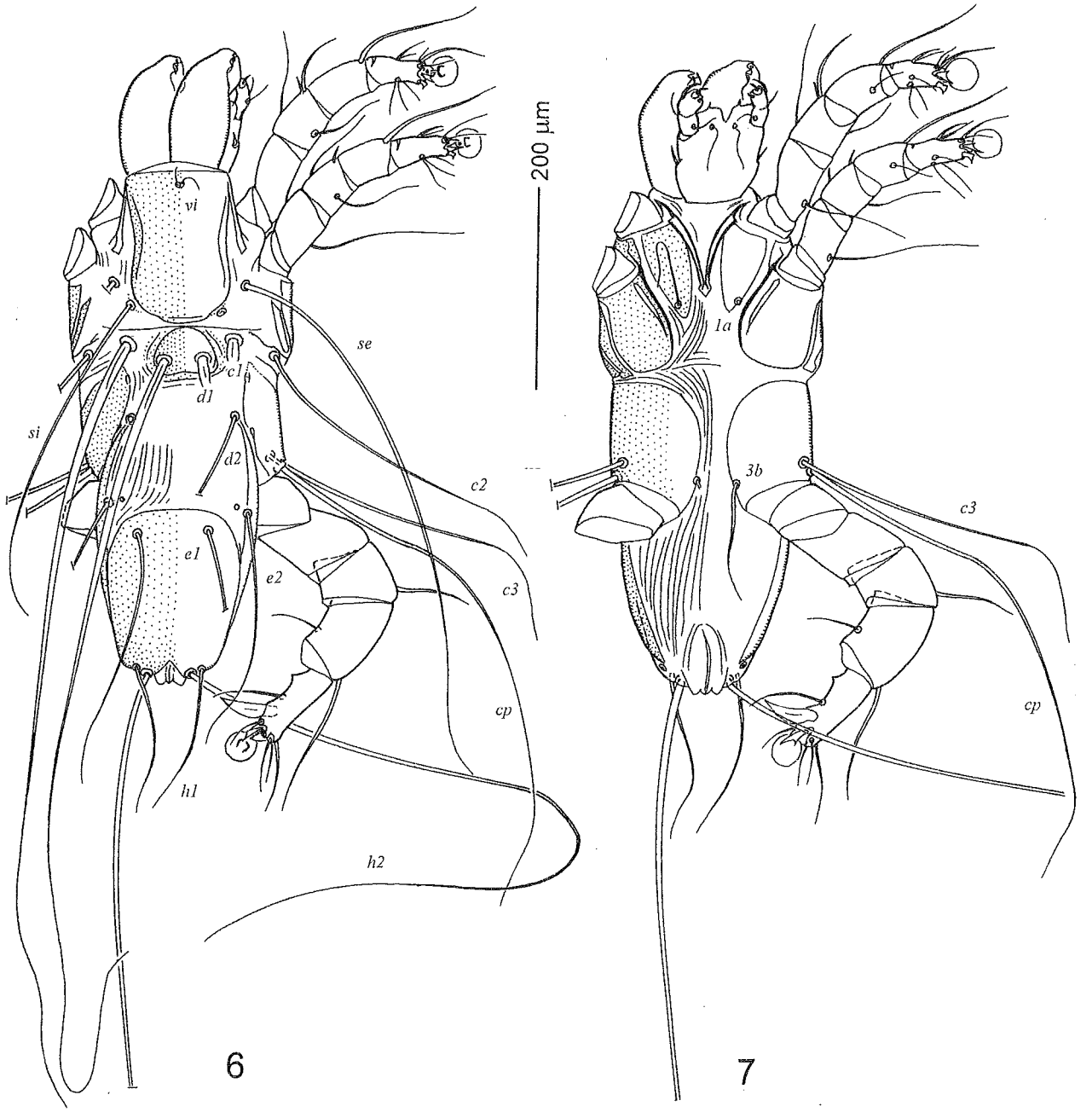

FIG. 6, 7: *Vassilevascus trapezoides* sp.nov., larva. **6** — dorsal view; **7** — ventral view.

MATERIAL : Holotype male, paratypes: 1 female and 2 larvae from the Rainbow lory *Trichoglossus haematodus forsteni* (Psittaciformes: Loridae), Antwerp Zoo, 3 July 1969. Coll. A. FAIN. The primary origin of this bird specimen is unknown, however this subspecies of the Rainbow lory is characteristic for Sumatra.

ETYMOLOGY : The species epithet refers to the trapezoid arrangement of setae *c1* and *d1*.

Genus **Cystoidosoma** GAUD et ATYEO, 1976

The genus has formerly included four species recorded on Psittaciformes and Falconiformes (GAUD

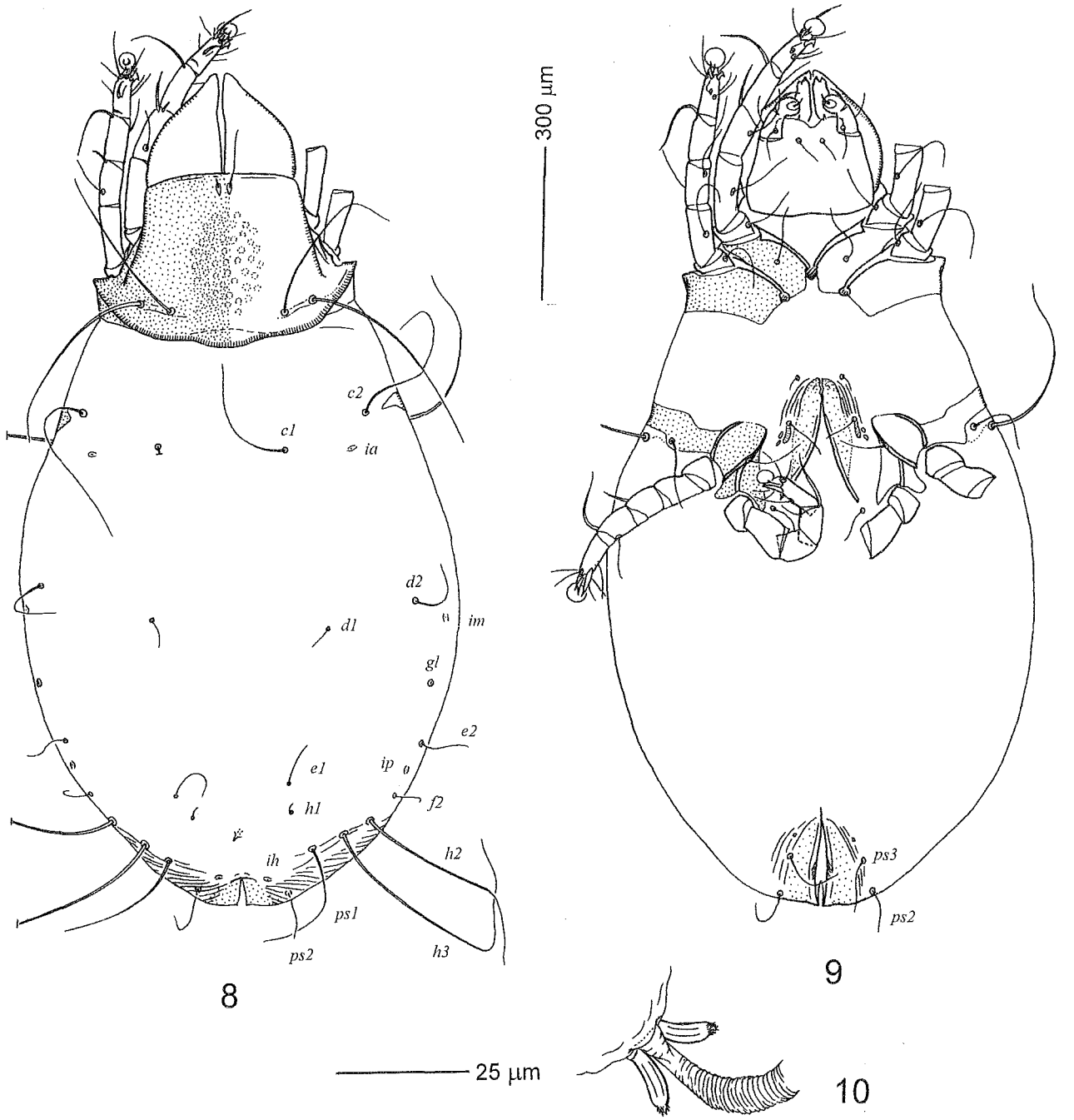

FIG. 8-10: *Cystoidosoma aratingae* sp.nov., female. **8** — dorsal view; **9** — ventral view; **10** — head of spermatheca.

Mite species	Host species	Host family	Locality
Ascogastra monstrosa (TROUESSART, 1898)	*Eclectus roratus polychloros*	Loridae	New Guinea
Ascouracarus kosarovi (VASSILEV, 1959)	*Caprimulgus europaeus*	Caprimulgidae	Europe
A. chordeili sp. nov.	*Chordeiles r. rupestris*	Caprimulgidae	Brazil, Amazonas
A. michigani DABERT et EHRNSBERGER, 1992	*Ch. Vociferus*	Caprimulgidae	USA: Michigan
A. distinctus DABERT et EHRNSBERGER, 1992	*Calyptorhynchus magnificus*	Cacatuidae	Australia
Cystoidosoma aratingae sp. nov.	*Aratinga jandaya*	Psittacidae	Brazil
C. centuri DABERT et EHRNSBERGER, 1992	*Centurus chrysogenys*	Picidae	Mexico
—	*Cen. Carolinensis*	Picidae	No data
—	*Cen. Uropygialis*	Picidae	No data
—	*Cen. Aurifrons*	Picidae	Mexico
C. labidostoma GAUD et ATYEO, 1976	*Pyrrhura leucotis*	Psittacidae	South America
C. myiopsittae sp. nov.	*Myiopsitta monachus*	Psittacidae	Antwerp Zoo
C. psittacivora DABERT et EHRNSBERGER, 1992	*Amazona finchi,*	Psittacidae	Mexico
—	*Araringa a. aurea*	Psittacidae	Brazil
—	*Aratinga h. holochlora*	Psittacidae	Mexico
—	*Ar. nana astec,*	Psittacidae	Mexico
—	*Ar. canicularis eburnirostrum,*	Psittacidae	Mexico
—	*Pionites melanocephalus*	Psittacidae	No data
C. sacculipyga DABERT et EHRNSBERGER, 1992	*Buteo magnirostris*	Accipitridae	No data
Gallilichus hiregoudari D'SOUZA et JOGANNATH, 1982	*Gallus gallus domesticus*	Phasianidae	India
G. jonesi PROCTOR, 1999	*Alectura lathami*	Megapodidae	Australia
Orphanacarus anacrotrichus (GAUD et ATYEO, 1976)	*Psittacus erithacus*	Psittacidae	Cameroon
O. parvisetiger DABERT et EHRNSBERGER, 1992	*Cacatua galerita*	Cacatuidae	Australia
O. trichozonus GAUD et ATYEO, 1976	*Apus affinis*	Apodidae	Togo
Pyonacarus aquilinus DABERT et EHRNSBERGER, 1992	*Aquila rapax*	Accipitridae	No data
P. pilosetus DABERT et EHRNSBERGER, 1992	*Corvus* sp.	Corvidae	USA: Florida
P. polysarcus GAUD et ATYEO, 1976	*Milvus milvus aegyptius*	Accipitridae	Egypt
Vassilevascus trichosus DABERT et EHRNSBERGER, 1995	*Trichoglossus haematodus cyanogrammus*	Loridae	New Guinea
V. trapezoides sp. nov.	*T. haematodus forsteini*	Loridae	Antwerp Zoo

TABLE. List of species and host-associations of the family Ascouracaridae

and ATYEO, 1976; DABERT and EHRNSBERGER, 1992) (Table).

Cystoidosoma aratingae MIRONOV et FAIN sp. nov.

(FIG. 8-12)

FEMALE (holotype). Length of idiosoma 1430, width of hysterosoma 835. Subcapitulum 220 × 246. Prodorsal shield 335 in length, 513 in width with long well-developed bow-like fold at posterior margin, with weakly expressed little pits in central part of the shield. Distance between scapular setae: *se-se* 335, *si-si* 218. Humeral shields present, their dorsal ends not extending to setae c2. Setae *c1* at level of cupules *ia*; setae *d1* slightly posterior to setae *d2* and cupules *im*. Pairs of setae *e1* and *h1* not far from one another, approximately at level of setae *f2*. Distance between setae: *h1-h1* 165, *ps1-ps1* 265. Bases of setae *h2, h3, ps1* without surrounding sclerotisation. External copulatory tube situated dorsally, at level of setae *h3*, as very little cone about 8 in length. Length of setae: *vi* 75, *se* 410, *si* 295, *c1* 180, *c2* 285, *c3* 135, *cp* 385, *d1* 45, *d2* 90, *e1* 75, *e2* 120, *f2* 70, *h1* 20, *h2* 450, *h3* 460, *ps1* 310, *ps2* 95, *ps3* 85. Coxal fields I, II completely sclerotised, with out striations and incisions; medial margins of coxal fields I separated by narrow gap posterior to the end of fused epimetites I. Coxal setae 3a at level of anterior end of egg opening. Genital setae g at level of anterior margins of coxal fields III, anterior to genital acetabulae. Anal opening ventro-terminal, folds of opening weakly sclerotised. Cupu-

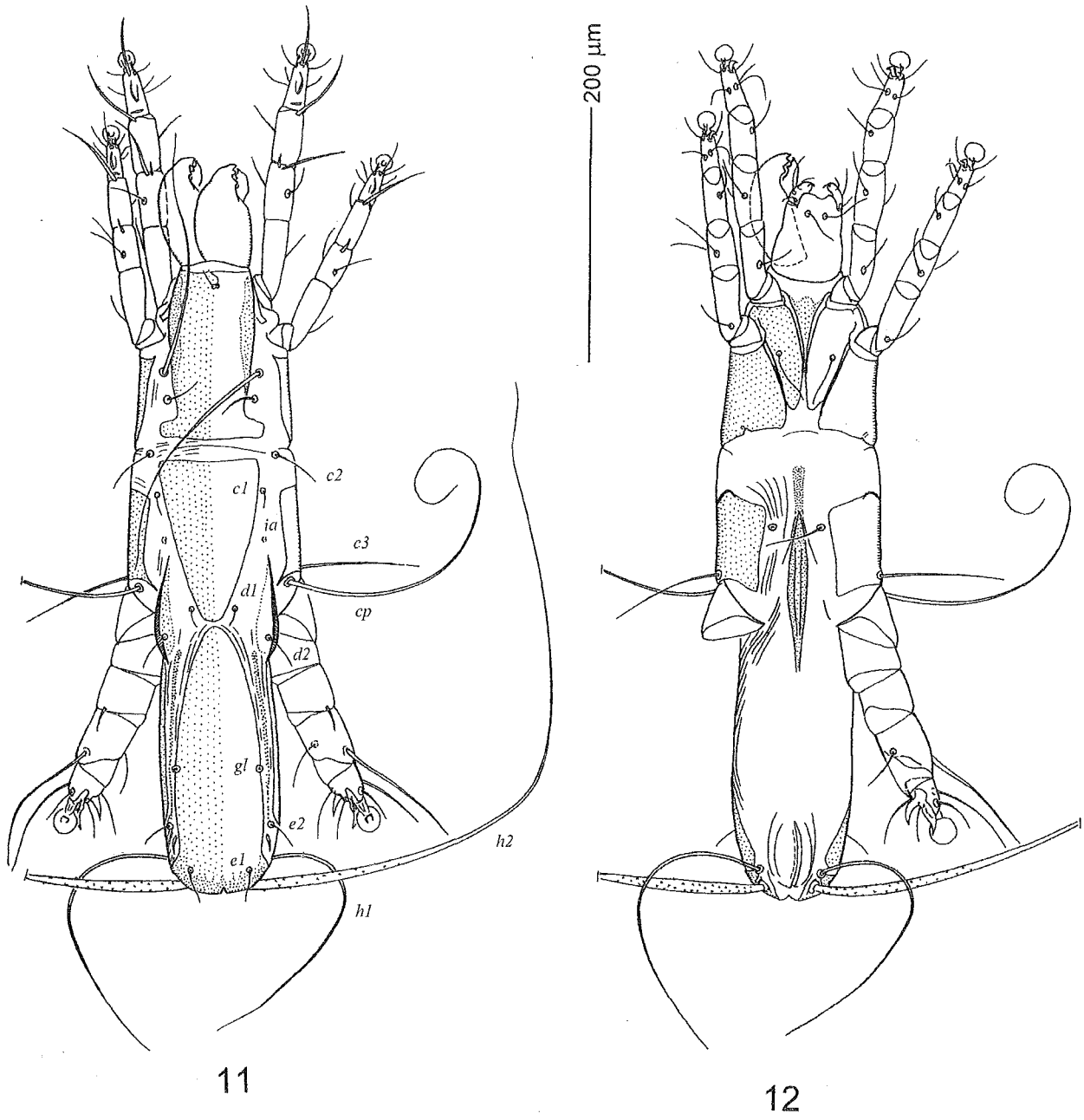

FIG. 11, 12 : *Cystoidosoma aratingae* sp.nov., larva. **11** — dorsal view; **12** — ventral view.

les *ih* dorsoterminal. One pair of rudimentary adanal setae anterior setae ps3 present. Secondary spermaducts banana-like, 10 in length, with small bunch of spines on apex; primary spermaduct with transversal striation (FIG. 10).

LARVA (paratype). Idiosoma length 495, width 130. Subcapitulum 85 × 45. Prodorsal shield almost rectangular, with posterior margin straight, posterior angles extending lateral, 145 in length, 85 in width; distance between scapular setae: *se-se* 75, *si-si* 68.

Dorsal setae *c1, c2, d1, d2, e1*, and *e2* hair-like, very short, disposed typically for the genus *Cystoidosoma*. Anterior hysteronotal shield triangular, 128 × 78, extending slightly beyond level of setae *d1*. Opisthosomal shield 200 × 68, with narrowly-ovate anterior end extending to level of trochanters III (FIG. 11). Length of idiosomal setae: *vi* 10, *se* 220, *si* 20, *c1* 15, *c2* 25, *c3* 105, *cp* 280, *d1* 16, *d2* 22, *e1* 17, *e2* 22, *h1* 170, *h2* 470. All setae of idiosoma smooth except macrochaetae *h2* having little nodules in enlarged basal half. Coxal fields I not fused posterior to tips of epimerites I, completely sclerotized, without incisions.

DIFFERENTIAL DIAGNOSIS : The new species is the largest one in the genus *Cystoidosoma* and belongs to the group of species characterised by the prodorsal shield with the bow-like fold on its posterior margin. The female of *Cystoidosoma aratingae* is most closely related to *C. psittacivora* DABERT et EHRNSBERGER, 1992 and differs by the humeral shields not extending to setae *c2*, coxal fields I separated from one another (FIG. 8, 9). In the female of *C. psittacivora*, the humeral shields extending to setae *c2*, coxal fields I are fused by the median margins just posterior to the sternum. The larva of *C. aratingae* is distinguished from that of *C. psittacivora* and also *C. sacculipyga* DABERT et EHRNSBERGER, 1992 by the longer anterior hysteronotal shield extending beyond the level of setae *d1* and completely sclerotised coxal fields I. In larvae of two latter species the anterior hysteronotal shield reaches only the level of setae *d1* and coxal fields I have a deep narrow incision.

MATERIAL : Holotype female, paratypes: 1 females, 4 larvae from the Jandaya conure *Aratinga jandaya* (Psittaciformes: Psittacidae), Antwerp Zoo (from Brasil), 5 March 1970. Coll. A. FAIN.

ETYMOLOGY : The species name derives from the generic name of host.

Cystoidosoma myiopsittae MIRONOV et FAIN sp. nov.

(FIG. 13-15)

FEMALE (holotype). Length of idiosoma 1335, width of hysterosoma 740. Subcapitulum 175 × 202. Prodorsal shield 335 in length, 513 in width with long well-developed bow-like fold at posterior margin, with almost indistinct pits in central part of the shield. Distance between scapular setae: *se-se* 315, *si-si* 205. Humeral shields present, dorsal ends not extending to setae *c2*. Setae *c1* at level of cupules *ia*, setae *d1* posterior to setae *d2*. Pairs of setae *e1* and *h1* not far from one another, approximately at level of setae *f2*. Distance between setae *h1-h1* 145, *ps1-ps1* 140. Bases of setae *h2, h3, ps1* situated on narrow sclerotised band. External copulatory tube terminal, as very short, thin cone about 9 in length, surrounded by little sclerotised area. Length of setae: *vi* 35, *se* 385, *si* 160, c1 (broken), *c2* 80, *c3* 65, *cp* 275, *d1* 35, *d2* 60, *e1* 40, *e2* 95, *f2* 65, *h1* 9, *h2* 335, *h3* 275, *ps1* 235, *ps2* 60, *ps3* 35. Coxal fields I, II completely sclerotised, with fine striations on medial ends; medial margins of coxal fields I separated by sternum of epimetites I. Coxal setae *3a* at level of anterior end of egg opening. Genital setae g at level of anterior margins of coxal fields III, anterior to genital acetabulae. Anal opening subterminal, folds of opening not sclerotised. Cupules *ih* ventral. One pair of rudimentary adanal setae anterior setae *ps3* present. Secondary spermaducts as slightly curved tubes, 12 in length, with few obliterated apical teeth; primary spermaduct with fine granular texture. (FIG. 15).

DIFFERENTIAL DIAGNOSIS : The female of *Cystoidosoma myiopsittae* is similar to *C. aratingae* described above and distinguished by the following characters: coxal fields I are separated by short sternum; bases of setae *h2, h3* and *ps1* are situated on weakly sclerotised band; setae *si* are relatively short, counting less than half of setae *se* (FIG. 13, 14). In the females of *C. aratingae* the coxal fields I are separated by the narrow gap, sclerotisation around setae *h2, h3* and *ps3* is absent, and setae *si* are about 3/5 of setae *se* (FIG. 9, 10). All these characters also separate the new species from *C. labidostoma* and *C. psittacivota*.

MATERIAL : Holotype female, paratype female from the Monk parakeet *Myiopsitta monachus* (Psittaciformes: Psittacidae), Antwerp Zoo, 25 June 1965. Coll. A. FAIN.

ETYMOLOGY : The species name derives from the generic name of host.

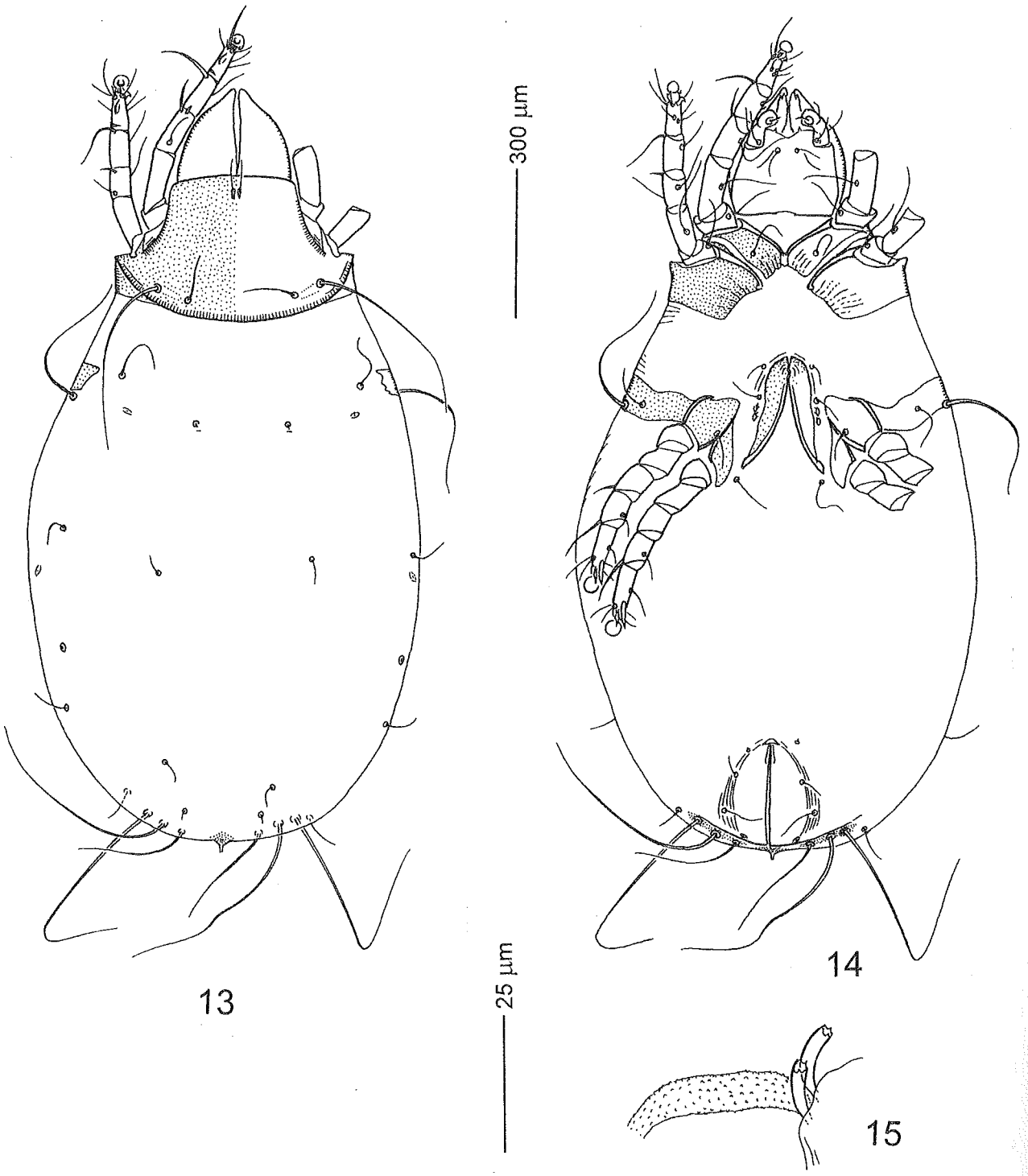

FIG. 13-15: *Cystoidosoma myopsittae* sp.nov., female. **13** — dorsal view; **14** — ventral view; **15** — head of spermatheca.

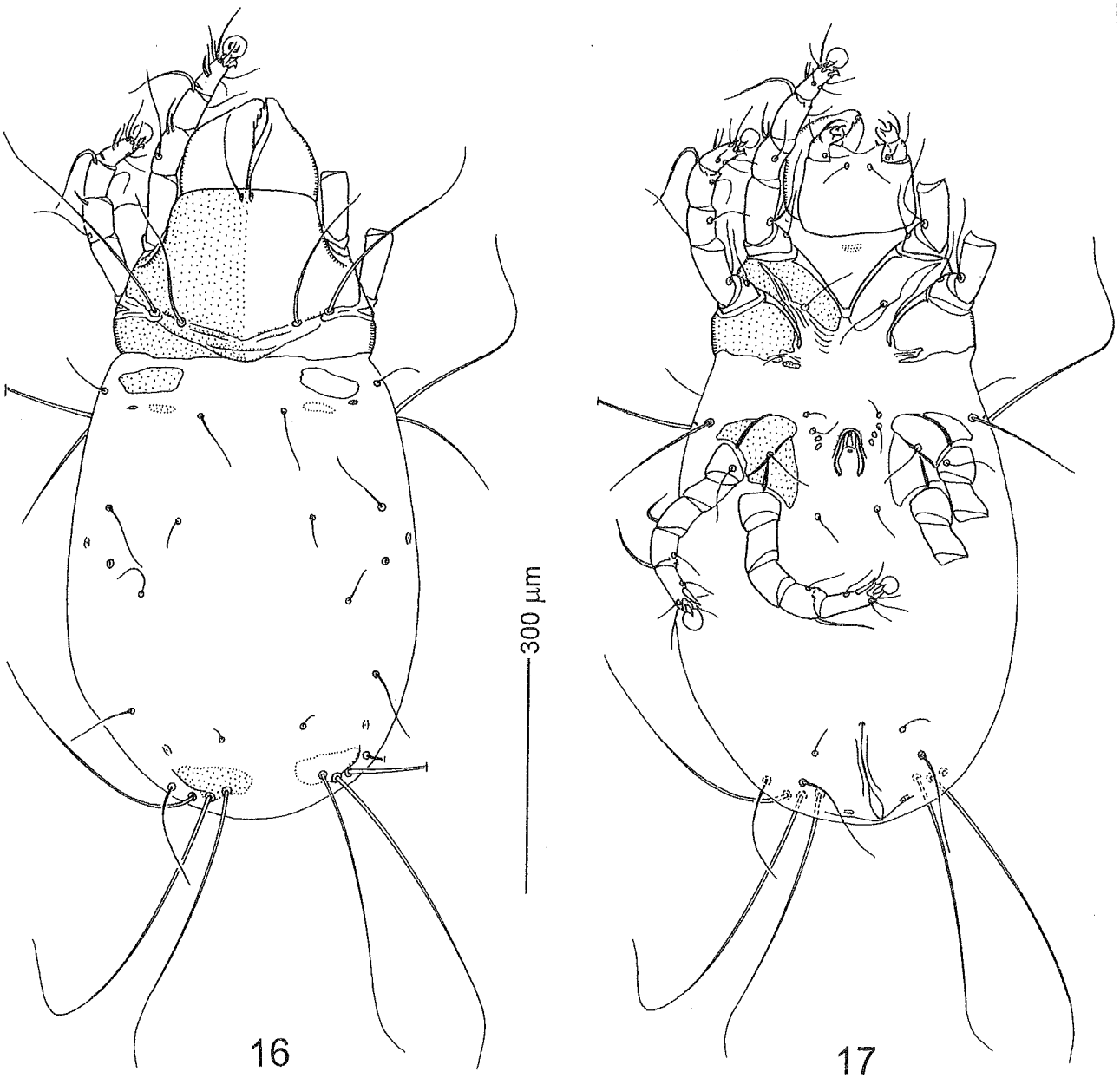

FIG. 16, 17: *Ascouracarus chordeili* sp.nov., male. **16** — dorsal view; **17** — ventral view.

Genus **Ascouracarus** GAUD et KOLEBINOVA, 1973

The genus has included 3 species, two of which were described from the nightjars Caprimulgiformes and one from parrots Psittaciformes (GAUD and KOLEBINOVA, 1973, GAUD and ATYEO, 1976; DABERT and EHRNSBERGER, 1992).

Ascouracarus chordeili MIRONOV et FAIN sp. nov.

(FIG. 16-20)

MALE (holotype). Length of idiosoma 805, width of hysterosoma 440. Subcapitulum, including palpae, 106 × 155. Prodorsal shield 220 in length, 330 in width, with lateral incision reaching bases of setae se

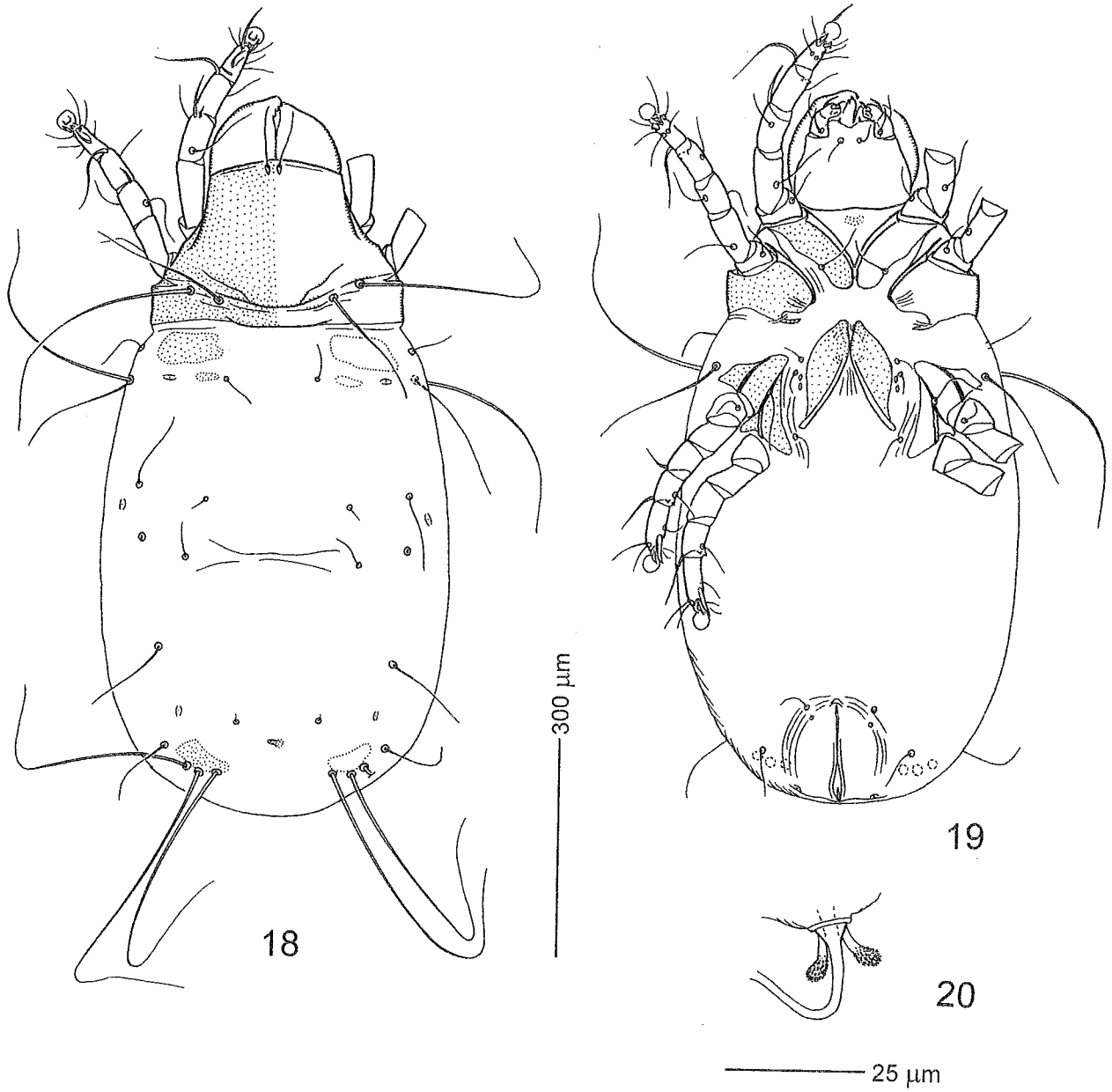

FIG. 18-20: *Ascouracarus chordeili* sp.nov., female. **18** — dorsal view; **19** — ventral view; **20** — head of spermatheca.

with several transversal crests or folds between scapular setae. Distance between scapular setae: *se-se* 225, *si-si* 145. Humeral shields represented by ovate shields at level of setae *c2* and very small transversal sclerites slightly posterior to level of cupules *ia*. Setae *c1* at level of cupules *ia*; setae *d1* posterior to setae *d2*; setae *e1* closer to gland openings *gl* than to setae *e2*; setae *h1* at level of cupules *ip*. Distance between setae: *h1-h*1 102, *ps1-ps*1 116. Posterior end of opisthosoma with pair of transversal irregular sclerites encompassing bases of setae *h3* and *ps1*. (FIG. 16). Length of idiosomal setae: *vi* 95, *se* 275, *si* 180, *c1* 65, *c2* 60, *c3* 135, *cp* 305, *d1* 30, *d2* 80, *e1* 40, *e2* 105, *f2* 110, *h1* 7, *h2* 310, *h3* 355, *ps1* 320, *ps2* 95, *ps3* 17. Coxal fields I not fused, with very deep narrow incisions along epimerites II almost reaching lateral margin of body. Geni-

tal apparatus at level of trochanters III, 54 × 42. Coxal setae *3a* anterior to genital apparatus, at level of anterior margin of coxal fields III, setae *g* at level of genital apparatus apex. Genital acetabulae situated posterior to setae *g*. Anal opening ventral, cupules *ih* ventral, rudimentary adanal setae absent.

FEMALE (paratype). Length of idiosoma 895, width of hysterosoma 436. Subcapitulum 135 × 162. Prodorsal shield 225 in length, 345 in width. Distance between scapular setae: *se-se* 320, *si-si* 155. Humeral shields as in the male. Setae *c1* at level of cupules *ia*, setae *d1* sligtly posterior to setae *d2*, setae *e1* posterior to gland openings *gl*. Distance between setae: *h1-h1* 120, *ps1-ps1* 155. Posterior end of opisthosoma with pair of transversal irregular sclerites touching bases of setae *h2, h3* and *ps1*. External copulatory tube dorsal, as little cone about 8 in length, with rounded apex. Length of setae: *vi* 75, *se* 320, *si* 155, *c1* 50, *c2* 65, *c3* 160, *cp* 305, *d1* 30, *d2* 85, *e1* 45, *e2* 110, *f2* 120, *h1* 5, *h2* 280, *h3* 325, *ps1* 335, *ps2* 1-5, *ps3* 20. Coxal fields I not fused, with very deep narrow incisions along epimerites II almost reaching lateral margin of body. Coxal setae *3a* at level of anterior one third of egg opening. Genital setae *g* at level of anterior pair of acetabulae. Anal opening ventral. Cupules *ih* ventral. One pair of rudimentary adanal setae posterior to setae *ps3* present. Secondary spermaducts as slightly curved tubes about 7 in length, with numerous small spines in distal half (FIG. 20).

DIFFERENTIAL DIAGNOSIS : The new species is most similar to *Ascouracarus kosarovi* (VASSILEV, 1959) and *A. michigani* DABERT et EHRNSBERGER, 1992 living on nightjars of the genus *Caprimulgus*. Both males and females of the new species differ from these species by having a pair of opisthosomal sclerites at bases of seta row *h2, h3, ps1*, and the setae *d1* situated posterior setae *d2*.(FIG. 16, 18). In two named species of *Ascouracarus* the opisthosomal sclerites are absent and the setae *d1* situated anterior to the level of setae *d2*.

Material. Holotype male, paratype female from the Sand-coloured nighthawk *Chordeiles rupestris rupestris* (Caprimulgiformes: Caprimulgidae), Redondo, Carcira Amazone, Brazil, 4 July 1963. Coll. M. MARLIER.

ETYMOLOGY: The species name derives from the generic name of host.

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REFERENCES

DABERT (J.) & EHRNSBERGER (R.), 1992. — Neue Arten bei der Federmilbenfamilie Ascouracaridae GAUD et ATYEO, 1976. — Osnabruecker Naturw. Mitteil. **18** : 109-150.

DABERT (J.) & EHRNSBERGER (R.), 1995. — *Vassilevascus* gen. now., a new genus of the family Ascouracaridae GAUD et ATYEO, 1976 (Astigmata; Pterolichoidea). — Osnabruecker Naturw. Mitteil. **20/21** : 95-100.

D'SOUZA (P. E.) & JOGANNATH (M.S.), 1982. — A new genus and species of syringobiid mite (Acari) in the quill of domestic fowl (*Gallus domesticus*) from south India. — Indian J. Acarol. **6**: 51-56.

GAUD (J.) & ATYEO (W.T.), 1976. — Ascouracarinae, n.-sub-fam. Des Syringobiidae, sarcoptiformes plumicoles. — Acarologia. **18** : 143-162

GAUD (J.) & ATYEO (W.T.), 1996. — Feather mites of the World (Acarina, Astigmata): the supraspecific taxa — Annls Mus. r. Afr. Centr., Sci. Zoolog. **277** : Pt. 1, 193 pp., Pt. 2. 436 pp.

GAUD (J.) & KOLEBINOVA (M.), 1973. — *Ascouracarus vassilevi* n.g., n.sp., sarcoptiforme plumicole énigmatique parasite de l'engoulevent d'Europe. — Acarologia. **15** : 349-355.

GRIFFITHS (D.A.), ATYEO (W.T.), NORTON (R.A.) & LYNCH (C.A.), 1990. — The idiosomal chaetotaxy of astigmatid mites. — J. Zool., London. **220** : 1-32.

PROCTOR (H.), 1999. — *Gallilichus jonesi* sp. n. (Acari: Ascouracaridae): a new species of feather mites from the quills of the Australian brush-turkey (Aves: Megapodidae). — Austral. J. Entomol. **38**: 77-84.

TROUESSART (E.), 1989. — Diagnoses préliminaires d'espéces nouvelles de sarcoptiformes plumicoles (Acari). 3e note. — Bull. Soc. Entomol. France. **3** : 319-322.