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【Research report】

台灣氈蟠科之分類研究(II)Asca屬(璠蟬亞綱、中氣門目)【研究報告】

曾義雄*

*通訊作者E-mail :

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Abstract

摘要

本文是氈蟠科分類研究一連串報告之第二部分，於第一報中，筆者敘述台灣氈蟠Lasioseius屬之種類。Asca之種類多生活於生植物體，土壤、落葉及腐植中，均屬捕食性，以植食性璠及微小昆蟲為生。本屬在台灣過去均未記錄現在共發現有13種，其中七種為新種：malathina, lacertosa, tricornicula, inflata, microplumosa, ramosa, flabellifera。本文除對新種之形態有詳實之記載，對5種新記錄種亦給予簡述。

Key words:

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THE MITE FAMILY ASCIDAE FROM TAIWAN (II)—GENUS *ASCA* HEYDEN (ACARINA: MESOSTIGMABNTA)

Yi-Hsiung Tseng

Section Chief, Tainan Branch Office, Bureau of Commodity Inspection and
Quarantine, Ministry of Economic Affairs

ABSTRACT

12 species of genus *Asca* Heyden found from Taiwan are described and illustrated. Five new record species for Taiwan are *equalis*, *aphidioides*, *spicata*, *garmani*, *garmanioides*, and 7 new species are *malathina*, *lacertosa*, *tricornicula*, *inflata*, *microplumosa*, *ramosa*, and *flabellifera*.

The genus *Asca* is one of the largest group of ascid mites of the world, and is cosmopolitan species. They are always found associated with living plant, in soil and litter, and considered as predacious mite, feeding upon phytophagous mites and small insects etc.

In general characters of this genus are the dorsal shield completely divided into 2 subdorsal shield— anterior dorsal and posterior dorsal shield; posterior dorsal shield with a pair of prominent posterolateral tubercles upon which setae Z4 and S5 approximal (some species Z4 absent).

This is second of a series reports concerning the mite family Ascidae from Taiwan. Since no publication dealt with genus *Asca* in Taiwan. The nomenclature for setae on the dorsum and on the venter of the opisthosoma in present paper are based on the concept of Lindquist and Evans (1965). Type materials will be deposited in Plant Quarantine Laboratory, Tainan Branch Office, Bureau of Commodity Inspection and Quarantine, Ministry of Economic Affairs, Tainan, Taiwan, Republic of China.

KEY TO SPECIES OF *ASCA* OF TAIWAN

1. Posterolateral tubercle with only a single well-developed pinnate seta2
Posterolateral tubercle with 2 well-developed setae.....6
2. Dorsal setae are strongly pulmose3
Dorsal setae smooth or with minutely barbed.....5

Section chief, Tainan Branch Office, Bureau of Commodity Inspection and Quarantine, Ministry of Economic Affairs.

3.	Dorsal shield ornamented with a polygonal network of small protuberances.	<i>aphidioides</i>
	Dorsal shield without a polygonal network of small protuberances.	4
4.	Anterior of j4 of anterior dorsal shield without transversely edge scalloped; fixed chela with 4 teeth.	<i>garmanioides</i>
	Anterior of j4 of anterior dorsal shield with transversely edge scalloped; fixed chela with 6 teeth	<i>garmani</i>
5.	J4 slightly shorter than distance J4-J5.	<i>ramosa</i> n. sp.
	J4 reaching about half distance J4-J5 or less; tectum with 3 tines, the middle tine shorter than the lateral tines; dorsal shield ornamented with scale-shaped ornamentation.	<i>microplumosa</i> n. sp.
6.	J5 as long as or slightly shorter than Z4	7
	J5 much shorter than Z4.	8
7.	J4 leaf-shaped	<i>flabellifera</i> n. sp.
	J4 seta-shaped	<i>malathina</i> n. sp.
8.	Tectum with 3 tines, Z4 leaf-shaped	<i>tricornicula</i> n. sp.
	Tectum with 2 tines, Z4 seta-like	9
9.	ZV3 longer than UR7, UR7 stout spine	<i>inflata</i> n. sp.
	ZV3 shorter than UR7, UR7 seta-like.	10
10.	J1 longer than distance J1-J1	<i>spicata</i>
	J1 shorter than distance J1-J1.	11
11.	Z3 as long as J4.	<i>equalis</i>
	Z3 longer than J4, posterolateral tubercle with a chitinous ring and a triangle-shaped chitinous process	<i>lacertosa</i> n. sp.

1. *Asca microplumosa* n. sp.

(Figs. 1 - 2)

This species is closely related *garmani* Hurlburt and is readily differentiated by the anterior dorsal setae are smooth and spiniform, rather than stout and strongly plumose.

Female. Movable chela bears 2 short processes; fixed chela with a row of 6 teeth along its cutting edge, 2 proximal teeth are large. Corniculi rather long and horn-like, the ratio means of long/base $\doteq 4$. Tectum with 3 simple tines, the middle tine shorter than the lateral tines. Peritreme long, extending to the level of j1. Anterior dorsal shield having dense scale-shaped ornamentation, anterior j4 with convex transversely line extends to anterior of S3 which is minutely scalloped ornamentation; 17 pairs of setae arising from the shield are smooth and spiniform except setae j1 and z2 are plumose. Posterior dorsal shield with scale-shaped ornamentation locate between J and Z series of setae, and absent between J-J, posterior dorsal shield, stout and with indistinctly plumose; J1 more or less reaching about 1/2 way to J1 to J2, J4 reaching less than half the distance J4 to J5, J4 about 6 times longer than J5; the posterolateral tubercle appears to bear a single pinnate seta designated as S5, the ratio means of J1-J1/J2-J2/J3-J3/J4-J4/j4-Z3=1/1.8/1.5/2. The sternal shield is longer than wide, anterior to sternal setae I with heavily sclerotization and with imperceptibly reticulated; 3 pairs of

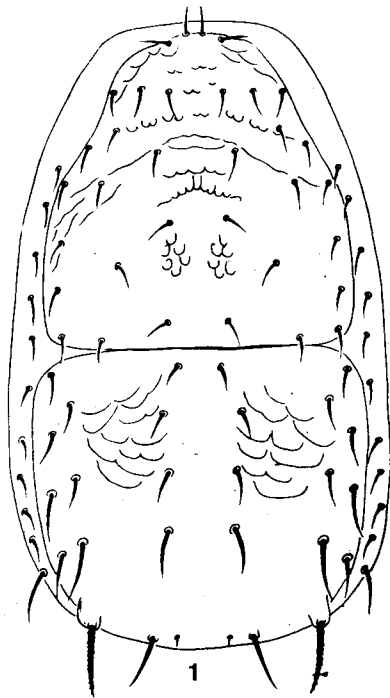


Fig. 1. Dorsal aspect of *Asca microplumosa*

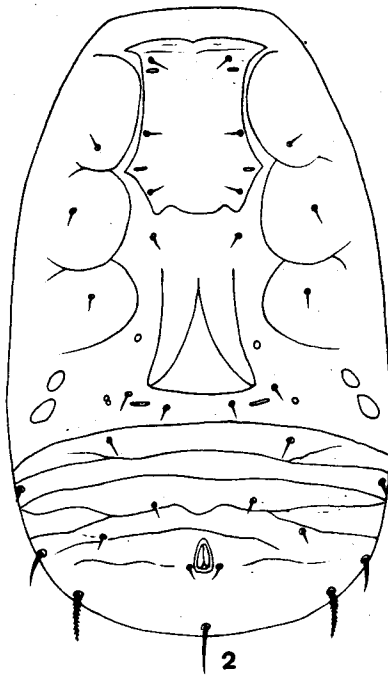


Fig. 2. Ventral aspect of *Asca microplumosa*

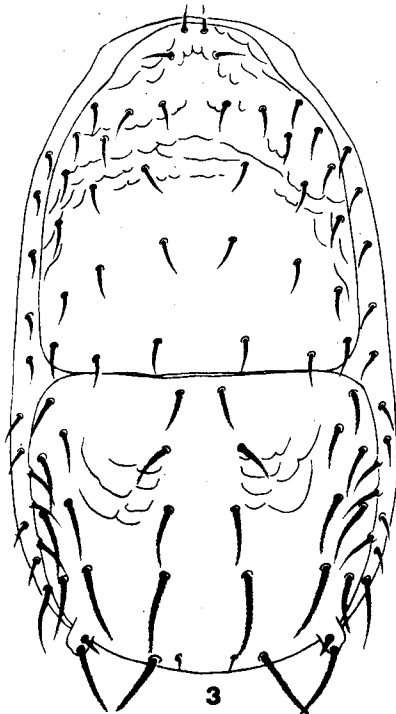


Fig. 3. Dorsal aspect of *Asca ramosa*

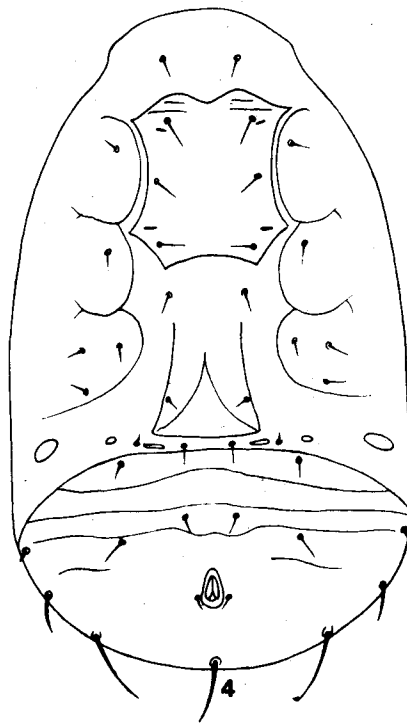


Fig. 4. Ventral aspect of *Asca ramosa*

setae and 2 pairs of sternal pores are on the shield; the fourth sternal setae arising from membrane. The metapodal shield are represented by a triangle and a pair of elongated platelets situated on the level of the posterior margin of the genital shield. Ventrianal shield strongly lineated transversely, with 6 pairs of setae, JV and ZV setae group are subequal in length, UR5 short, spine-like, UR7 longer than ZV3, serrated, JV5 longer than UR7, pilose.

Male. Unknown.

Measurement (♀♀): J1 14 μ , J2 18 μ , J3 18 μ , J4 23 μ , J5 4 μ , Z3 30 μ , Z4 33 μ , S5 34 μ , J1-J1 19 μ , J2-J2 34 μ , J3-J3 29 μ , J4-J4 29 μ , J4-Z3 38 μ , J1-J2 28 μ , J2-J3 27 μ , J3-J4 25 μ , J4-J5 51 μ .

Collection data. Holotype, ♀, Kuanshan (h:2800m), Taitung Hsien, 3-X-1976, ex lichen, Y. H. Tseng. paratype, 2♀♀, the same data as holotype.

2. *Asca ramosa* n. sp.

(Figs. 3 - 4)

This species similar to *microplumosa* n. sp. but differentiating by having J4 long and reaching to the J5.

Female. Movable chela bears 2 short tooth-like processes, fixed chela with 4 teeth. Corniculi triangle-shaped, the ratio means of high/base = 1.8. Tectum with 3 simple tines. Peritreme rather short, extending to the level of z2. Anterior dorsal shield with inconspicuous scale-shaped ornamentation and with 17 pairs of rather stout setae, minutely barb. Posterior dorsal setae on posterior portion distinctly pilose, more anterior setae only slightly pilose; ornamentation present anterolateral portion of shield, weak between J series of setae; J1 reaching about 2/3 way to J1-J2, J3 as long as distance J3-J4, J4 about 18 times longer than J5 and reaching to the base of J5; the ratio means of J1-J1/J2-J2/J3-J3/J4-J4/J4-Z3 = 1/1.9/1.4/2.1/1.8; the posterolateral tubercle appears to bear a single pilose setae as S5 and a short spur-like seta as Z4. The sternal shield as long as wide, anterior to sternal setae I with lineated transversely; the shield bears 3 pairs of sternal setae and 2 pairs of sternal pores, the fourth pair of sternal setae arising from the membrane. 2 pairs of setae and 2 pairs of platelets on the membrane between genital and ventrianal shield. The metapodal shields are represented by a pair of olive-shaped platelets situated on the level of posterior margin of genital shield. Ventrianal shield strongly lineated transversely and with 6 pairs of setae, UR5 half as long as ZV2, UR7 1.6 as long as JV3, JV5 1.7 longer than UR7.

Male. Unknown.

Measurements. j1 11 μ , j3 18 μ , j3-j4 33 μ , j4-j4 53 μ , j5-j5 33 μ , j4-j5 38 μ , s5 21 μ , s6 22 μ , J1 20 μ , J2 24 μ , J3 31 μ , J4 43 μ , Z3 43 μ , Z5 48 μ , S4 34 μ , S5 36 μ , J1-J1 22 μ , J2-J2 41 μ , J3-J3 31 μ , J4-J4 46 μ , J4-Z3 38 μ , J1-J2 31 μ , J2-J3 31 μ , J3-J4 31 μ , J4-J5 46 μ , Ur5 3 μ , ZV3 5 μ , Ur7 10 μ , JV5 17 μ .

Collection data. Holotype, ♀, Kuanshan (h:2800m), Taitung Hsien, 3-V-1976, ex lichen, Y. H. Tseng.

3. *Asca lacertosa* n. sp.

(Figs. 5 - 8)

This species fitting near *quinquestosa* Wharton, but differs by having 3 pairs of sternal setae on

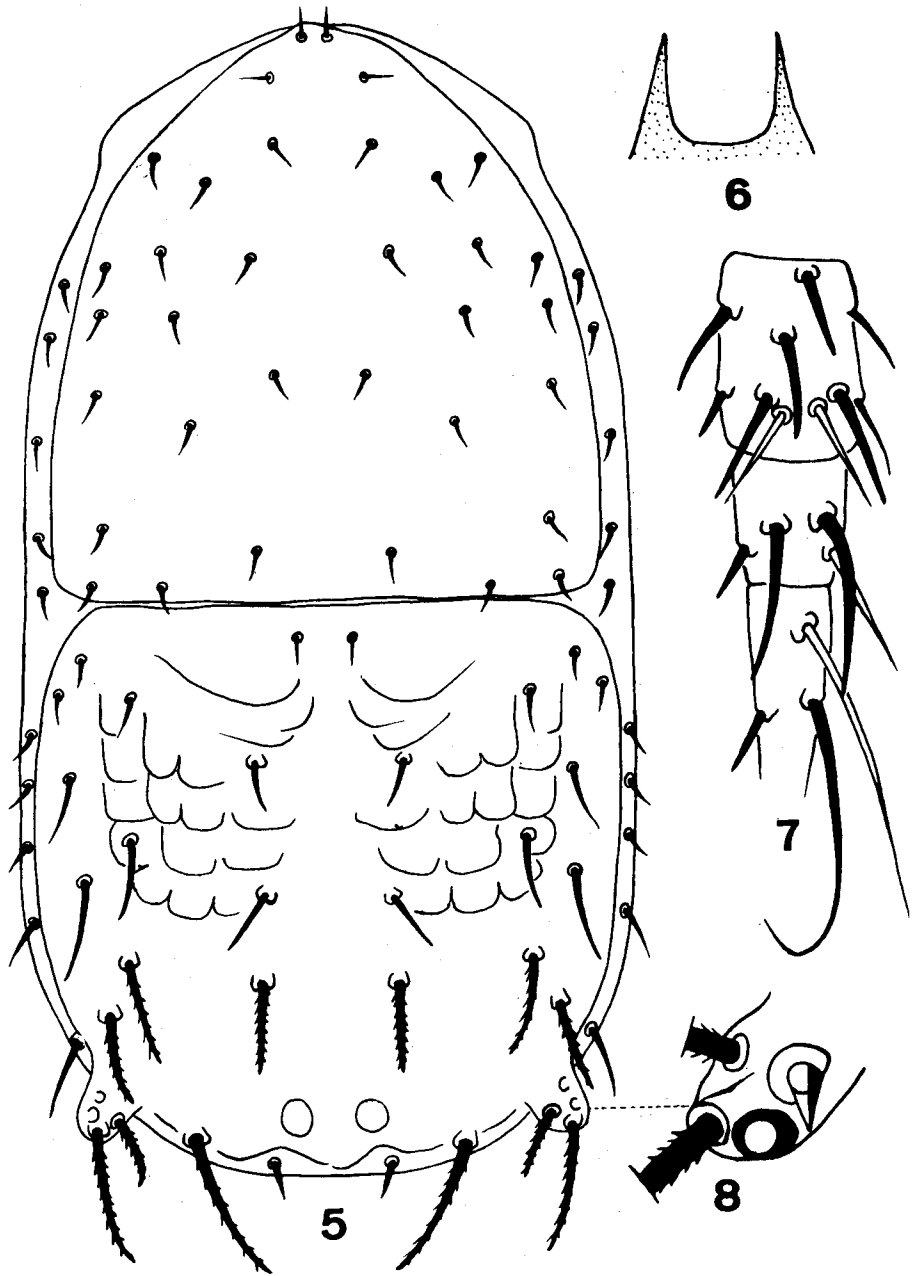


Fig. 5. Dorsal aspect of *Asca lacertosa*

Fig. 6. Tectum of *Asca lacertosa*

Fig. 7. Leg IV of *A. lacertosa*

Fig. 8. Protuberance of right side.

sternal shield, and posterolateral tubercles with a spur-like process.

Female. Anterior dorsal shield with weakly ornamentation and bears 17 pairs of minutely barbed setae. Tectum with 2 tines, the part between the tines slightly concave. Posterior dorsal shield with anterolateral scale-shaped ornamentation, lacking between J setae series; the ratio means of J1-J1/J2-J2/J3-J3/J4-J4/J4-Z3 = 1/1.9/1.9/2/2.4, J5 rather long, more or less 1/3 as long as J4, J1 reaching about 1/3 way to J1-J2, J4 reaching half the distance J4-J5. Sternal shield with 3 pairs of sternal setae and 2 pairs of sternal pores. 4 pairs of platelets located between the genital shield and ventrianal shield, 1 pair of platelets located posterior side of genital shield. 2 pairs of metapodal shields, proximal pair are transversely elongate, posterior pair rather large and triangular. Ventrianal shield strongly lined transversely with 6 pairs of setae, UR7 about half as long as JV5.

Male. Unknown.

Measurements (2♀♀), J1 13 μ , J2 14 μ , J3 19 μ , J4 32 μ , J5 12 μ , Z3 35 μ , Z4 26 μ , Z5 41 μ , S4 35 μ , S5 32 μ , J1-J1 18 μ , J2-J2 35 μ , J3-J3 34 μ , J4-J4 37 μ , J4-Z3 43 μ , J1-J2 41 μ , J2-J3 36 μ , J4-J3 24 μ , J4-J5 65 μ , S6 17 μ .

Collection data. Holotype, ♀, Shandiman, Pingtung Hsien, 8-II-1977, ex bird nest, Y. H. Tseng; paratype, 5♀♀, Liukui, Kaoshiung Hsien, 14-I-1974, ex *Pinus* sp., Y. H. Tseng; ♀, Hualien Hsien, 3-II-1976, ex humus, Y. H. Tseng; ♀, Shandiman, Pingtung Hsien, 8-II-1977, ex bird nest, Y. H. Tseng; ♀, Taipu, Chiayi Hsien, 28-II-1977, ex moss, Y. H. Tseng; ♀, Hualien Hsien, 3-XII-1979, ex weeds, Y. H. Tseng; ♀, Linnei, Yunlin Hsien, 16-II-1980, ex weeds, Y. H. Tseng.

4. *Asca spicata* Hurlbutt

(Fig. 9)

(Fig. 9)

Asca spicata Hurlbutt, 1963, *Acarologia* 5:514-515

This species is readily recognized by having the setae on anterior dorsal shield and j1 to j3, z1, S1, S2, and S3 are smooth and spiniform, J4, Z3, S4, S5 and Z5 are stout spine-like with finely barbed; by presence of J1 setae 1.5 longer than distance J1-J1.

Collection data. ♀, Chinshan, Tainan Hsien, 7-IX-1977, ex rice leaf sheath.

5. *Asca aphidioides* (L.)

(Fig. 10)

Acarus aphidioides Linnaeus, 1758, *Sept. Nat.* 10:235

Sejus bicornis (in Part) Canestrini, 1885, *Prospetto dell' Acarofauna Italiana*. PP. 91-91

Zercon bicornis Berlese, 1887, *Acar. Myr. Scorp.* 41:8

Asca aphidioides Vitzthum, 1926, *Tierwelt Mitteleuropas* 3:30

This species is differentiated from other *Asca* by having the setae on dorsal shield are strongly plumose except Z3 and S4 are minute plumose; dorsal shield ornamentation with a polygonal reticulation of minute protuberance; tectum with 3 tines; the posterior tubercle appears to bear a single

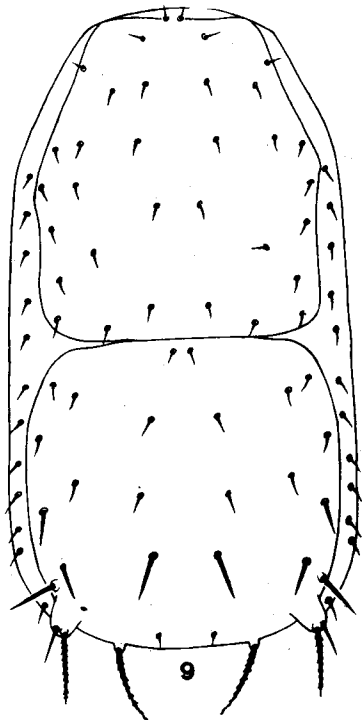


Fig. 9. Dorsal aspect of *Asca spicata*

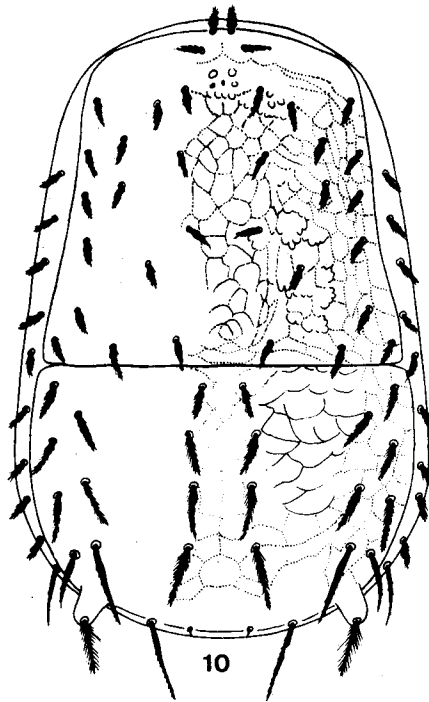


Fig. 10. Dorsal aspect of *Asca aphidioides*

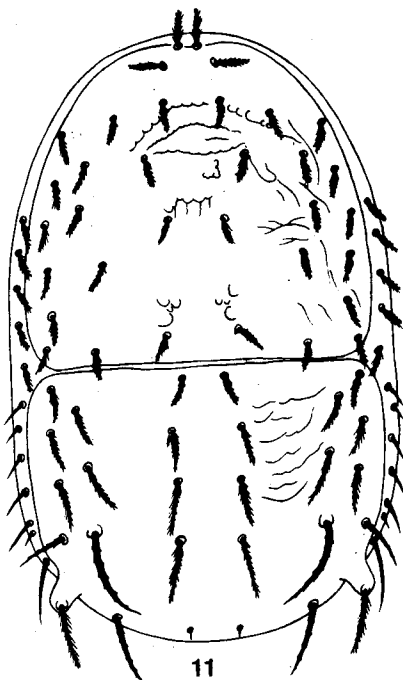


Fig. 11. Dorsal aspect of *Asca garmani*

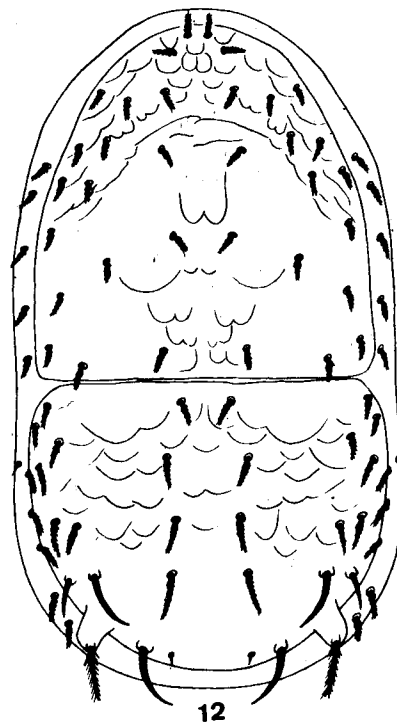


Fig. 12. Dorsal aspect of *Asca garmanioides*

seta, strongly plumose.

Collection data. ♀, Fenchihu, Chiayi Hsien, 22-IV-1973, ex *Pinus* sp., Y. H. Tseng; ♀, Fenchihu (e. 2000m), Chiayi Hsien, 30-V-1977, ex lichen, Y. H. Tseng; 2♀♀, Tongpu, Nantou Hsien, 12-X-1978, ex litter, Y. H. Tseng; ♀, Lishan, Nantou Hsien, 23-IX-1980, ex humus, Y. H. Tseng; ♀, Fenchihu, Chiayi Hsien, 14-XII-1980, ex weeds, Y. H. Tseng.

6. *Asca garmani* Hulburt

(Fig. 11)

Asca garmani Hulburt, 1963, *Acarologia* 5:491-492

This species is obviously related to *aphidioides* (L.) because of the dorsal setae are strongly plumose, and the posterior tubercle appears to bear a single plumose seta, but differs the ornamentation anterior of j4 of dorsal shield with posterior edge scalloped rather than with a network of small protuberance.

Collection data. ♀, Tsuton, Yunlin Hsien, 15-VI-1975, ex bark, Y. H. Tseng; ♀, Alishan, Chiayi Hsien, 25-X-1978, ex humus, Y. H. Tseng.

7. *Asca garmanioides* DeLeon

(Fig. 12)

Asca garmanioides DeLeon, 1967, Allen press, Lawrence, Kansas, P. 3

This species closely related to *garmani*. It may be readily distinguished from *garmani* by having the ornamentation anterior of j4 of anterior dorsal shield no scalloped edge and fixed chela with 4 teeth.

Collection data. 1♂, 1♀, Yuiching, Tainan Hsien, 28-VI-1972, ex unknown plant, Y. H. Tseng; 1♀, Alishan, Chiayi Hsien, 28-XI-1978, ex bark, Y. H. Tseng.

8. *Asca tricornicula* n. sp.

(Figs. 13 - 16)

Female. Fixed chela with 5 teeth, proximal 3 are rather large, terminal 2 are small; movable chela with 2 processes. Tectum with 3 tines, middle tine shorter than lateral tines. Dorsal shield heavily sclerotized. Anterior dorsal shield ornamentation with distinct deep dimples enclosed in cells of thick reticulum; the cells of the reticulum are more or less oval in shaped; the shield with 17 pairs of simple setae set on strongly tubercles, j1 are pilose. Posterior dorsal shield ornamentated with numerous elliptical mounds. J4 and Z3 are pilose setae, S4, S5 and Z5 are thickened, clavated, and with minutely barbed lateral, Z4 narrow leaf-shaped; the ratio means of J1-J1/J2-J2/J3-J3/J4-J4/J4-Z3 = 1/1.9/1.9/2.5/2.5. Sternal shield rather long, 96μ long, 72μ wide, bearing 3 pairs of sternal setae and 2 pairs of sternal pores; anterior to sternal setae I with inperceptibel lineated transversely.

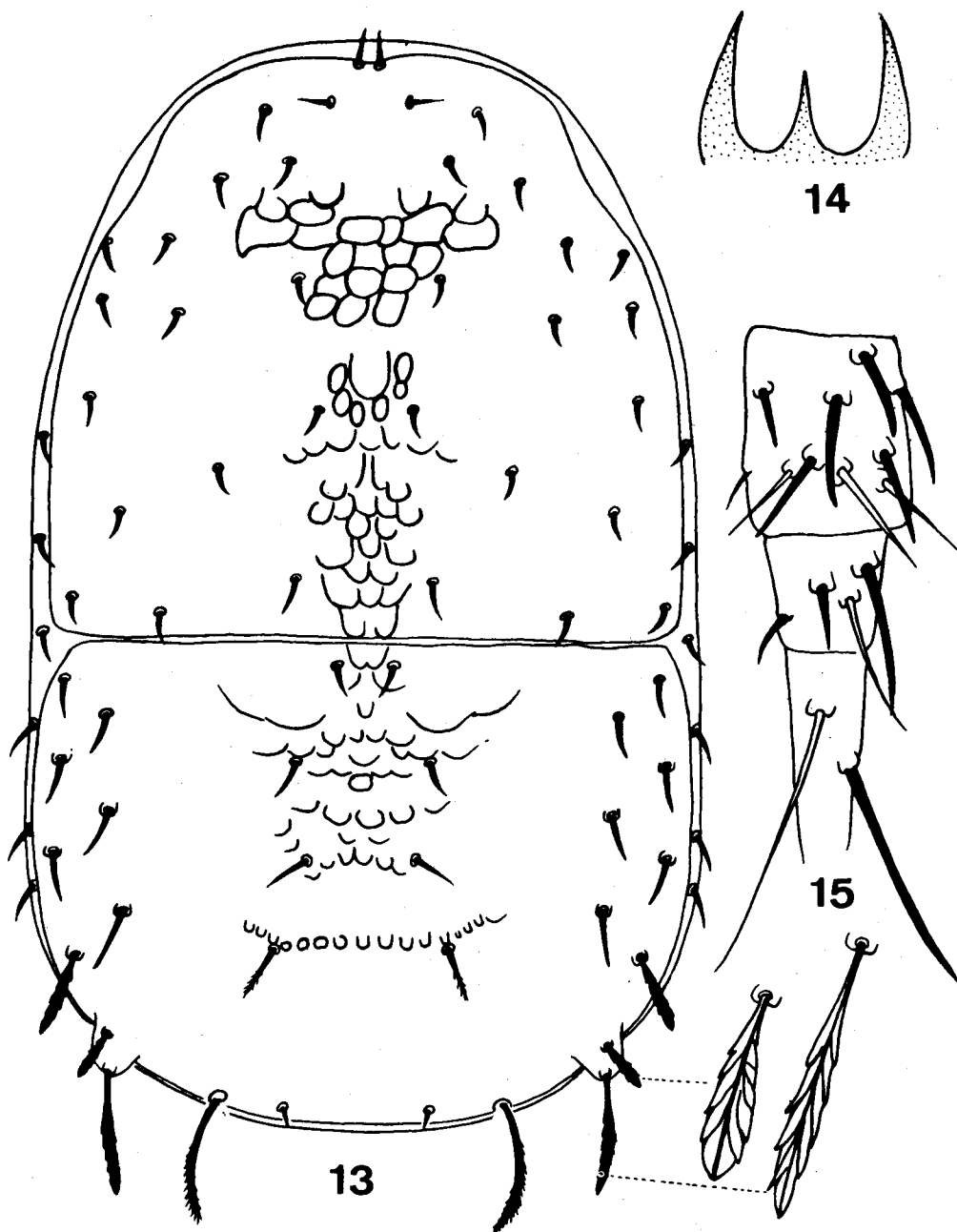


Fig. 13. Dorsal aspect of *Asca tricornicula*
Fig. 14. Tectum of *A. tricornicula*
Fig. 15. Leg IV of *A. tricornicula*

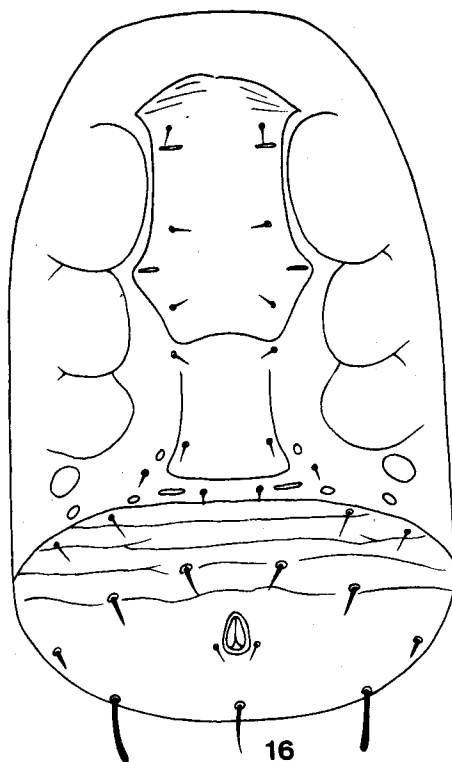


Fig. 16. Ventral aspect of *Asca tricornicula*

3 pairs of platelets located between the genital shield and ventrianal shield, 1 pair of platelets located posterior side of genital shield. One pair of round metapodal shields. Ventrianal shield strongly sclerotized, and lineated transversely with 6 pairs of ventrianal setae, ZV3 slightly longer than UR7, UR7 10μ long; JV5 3 times longer than UR7, slightly clavated and minutely barbed, 35μ long.

Male. Unknown.

Measurements. J1 12μ , J2 13μ , J3 14μ , J4 17μ , J5 6μ , Z3 19μ , Z4 19μ , 25 41μ , S5 31μ , J1-J1 19μ , J2-J2 36μ , J3-J3 29μ , J4-J4 48μ , J4-Z3 48μ , J1-J2 31μ , J2-J3 31μ , J3-J4 26μ .

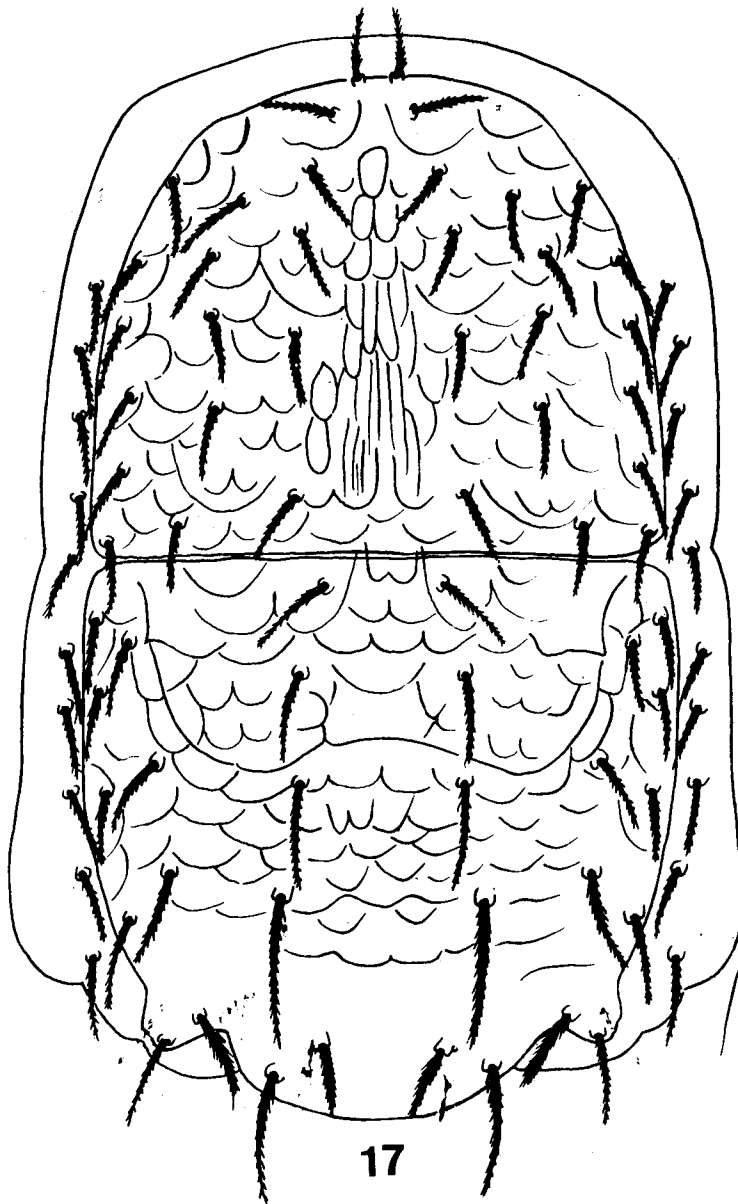
Collection data. Holotype, ♀, Fushin, Taoyuan Hsien, 22-III-1973, ex unknown plant, Y. H. Tseng; paratype, 4♀♀, the same data as holotype.

9. *Asca malathina* n. sp.

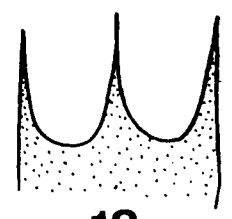
(Figs. 17 - 20, 28)

This species is differentiated from other known *Asca* by having the setae J5 and Z4 are subequal in length, narrow leaf-shaped.

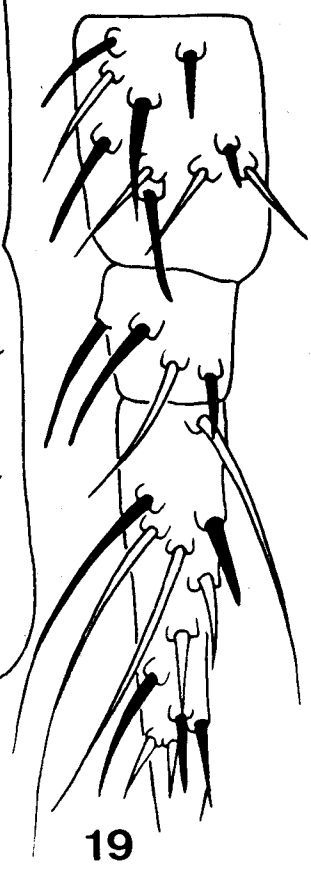
Female. Fixed chela with 4 teeth, proximal 2 large, terminal 2 small; movable chela with 2 teeth. Tectum with 3 tines, middle tine slightly shorter than lateral tines. Corniculi rather long, about 3 times longer than wide, the ratio means of long/base = 3. Peritreme long, extending beyond to the



17



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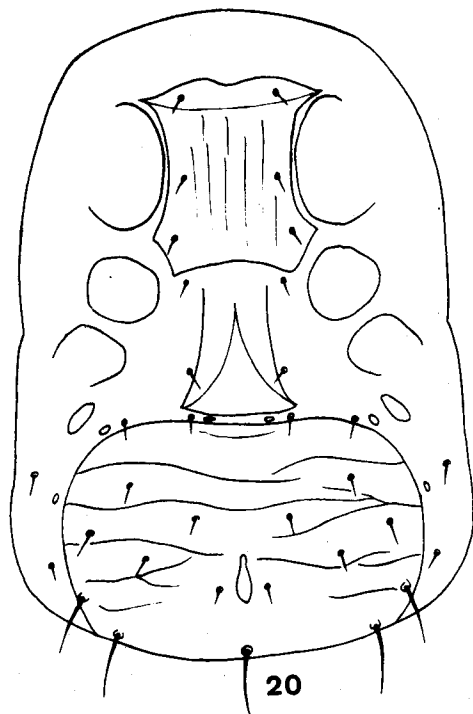


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Fig. 17. Dorsal aspect of *Asca malathina*
Fig. 18. Tectum of *A. malathina*
Fig. 19. Leg IV of *A. malathina*



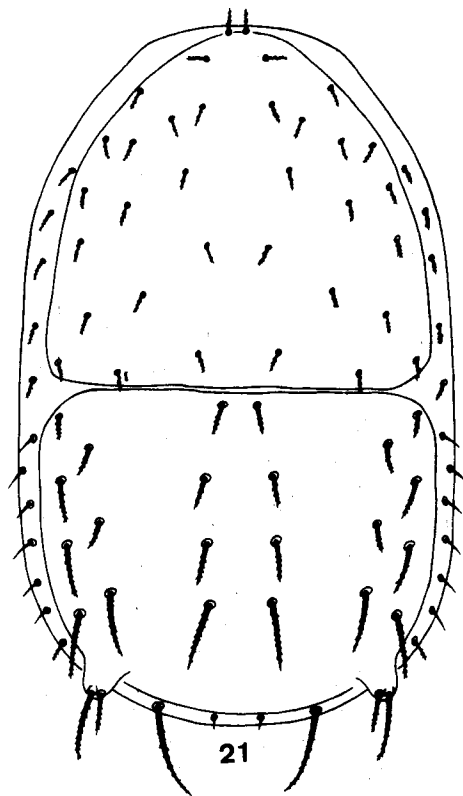
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Fig. 20. Ventral aspect of *Asca malathina*

Fig. 28. Spermactyle of *A. malathina*



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Fig. 21. Dorsal aspect of *Asca equalis*

setae j1. Dorsal setae pilose; the ratio means of J1-J1/J2-J2/J3-J3/J4-J4/J4-Z3 = 1/0.9/0.9/1.9/1.3, between j setae series ornamented with rather longitudinal stripes; anterolateral of posterior dorsal shield ornamented with scale-shaped ornamentation; J1 reaching about 4/5 way to J1-J2, J3 longer than distance J3-J4. J4 1.6 longer than J5 and reaching to the base of J5, J5 and Z4 subequal in length, narrow leaf-shaped and with minutely barbed. Sternal shield with longitudinal stripes, 3 pairs of sternal setae and 2 pairs of sternal pores. 2 pairs of platelets located between the sternal shield and ventrianal shield. 1 pair of metapodal platelets olive-shaped, situated the level of post margin of sternal shield. Ventrianal shield strongly lined transversely with 6 pairs of setae, UR7 2.4 times longer than JV3, JV5 3.3 times longer than JV3.

Male. Similar the female, spermactyle shown as figure.

Measurements (2♀♀). J1 20μ, J2 25μ, J3 27μ, J4 32μ, J5 20μ, Z3 27μ, Z4 21μ, Z5 30μ, J1-J1 17μ, J2-J2 15μ, J3-J3 16μ, J4-J4 34μ, J4-Z3 22μ, J1-J2 27μ, J2-J3 29μ, J3-J4 25μ, J4-J5 29μ.

Collection data. Holotype, ♀, Yilan Hsien, 21-X-1972, ex weeds, Y. H. Tseng; allotype, ♂, the same data as holotype; paratype, ♀, Fushin, Taoyuan Hsien, 2-IX-1980, ex pine, Y. H. Tseng.

10. *Asca equalis* DeLeon

(Fig. 21)

Asca equalis DeLeon, 1967, Allen press INC Lawrence, Kansas P. 7

This species is differentiated from other *Asca* by having tectum with 2 tines, posterior dorsal setae stout.

Collection data. 2♀♀, Nanhua, Tainan Hsien, 25-X-1975, ex *Longuas speciosa*. Y. H. Tseng.

11. *Asca inflata* n. sp.

(Figs. 22 - 24)

This species is closely related to *spicata*, and is differentiated by having JV3 1.5 longer than UR7 and the shaped of ornamentation on anterior dorsal shield.

Female. Fixed chela with 4 teeth, proximal 2 are larger than terminal 2; movable chela with 2 teeth. Tectum with 2 tines, part between tine slightly concave, each side of base of tectum is strong convex. Corniculi triangular, the ratio means of high/base = 1.7. Peritreme long, extending to the level of j1 and slightly downward. Idiosoma with strongly sclerotized, anterior dorsal shield ornamented with irregular ornamentation, ie. oval, triangular, and others; posterior dorsal shield with scale-shaped ornamentation on the anterolateral area and hexagonal on posterolateral; posterolateral tubercle bear a pair of setae as Z4 and S5, Z4 half as long as S5. Dorsal setae smooth, blunt at tip and set on tubercles except J4 are minutely barbed the ratio means of J1-J1/J2-J2/J3-J3/J4-J4/J4-Z3 = 1/1.7/1.9/2.1/2.4. Sternal shield bears 3 pairs of sternal setae and 2 pairs of sternal pores. 3 pairs of platelets located on the membrane between the genital shield and ven-trianal shield. 2 pairs of metapodal platelets; the proximal pair smaller than posterior pair and transversely elongate, posterior pair ball-shaped. Ventrianal shield with strongly transversely, with 6 pairs of setae. JV3 as long as JV5, UR7 0.7 as long as JV3, UR5 more or less half as long as JV3.

Male. Unknown.

Measurements. J1 19 μ , J2 24 μ , J3 31 μ , J4 34 μ , Z3 46 μ , Z4 19 μ , Z5 43 μ , S5 41 μ , J1-J1 24 μ , J2-J2 41 μ , J3-J3 46 μ , J4-J4 29 μ , J4-J5 67 μ , J3-J4 29 μ , J2-J3 38 μ , J1-J2 43 μ .

Collection data. Holotype, ♀, Tonpu, Nantou Hsien, 12-X-1978, ex litter, Y. H. Tseng; paratype, ♀, the same data as holotype.

12. *Asca flabellifera* n. sp.

(Figs. 25 - 27)

This species is differentiated from other known *Asca* by having the dorsal setae J4, J5, Z4, S4, S5 are narrow leaf-shaped.

Female. Movable chela with 5 teeth, proximal 3 are large, terminal 2 are small; fixed chela with 2 teeth. Tectum with 3 tines. Corniculi triangular, the ratio means of high/base = 1.4. Peritreme long, extending to the level of j1. Dorsal shield heavily sclerotized; anterior dorsal shield with 17 pairs of smooth setae are set on strong tubercles, the shield scale-shaped ornamentation, anterolateral with weak ornamentation. Setae J2, J3 and S2 seta-like, barbed, Z2 and S3 narrow leaf-shaped, J4, J5, Z3, Z4, S4 and S5 leaf-shaped and the midrib supports a broad membrane or vane which has coarsely barbed margin, posterolateral tubercles with a pair of setae as Z4 and S5, the ratio means

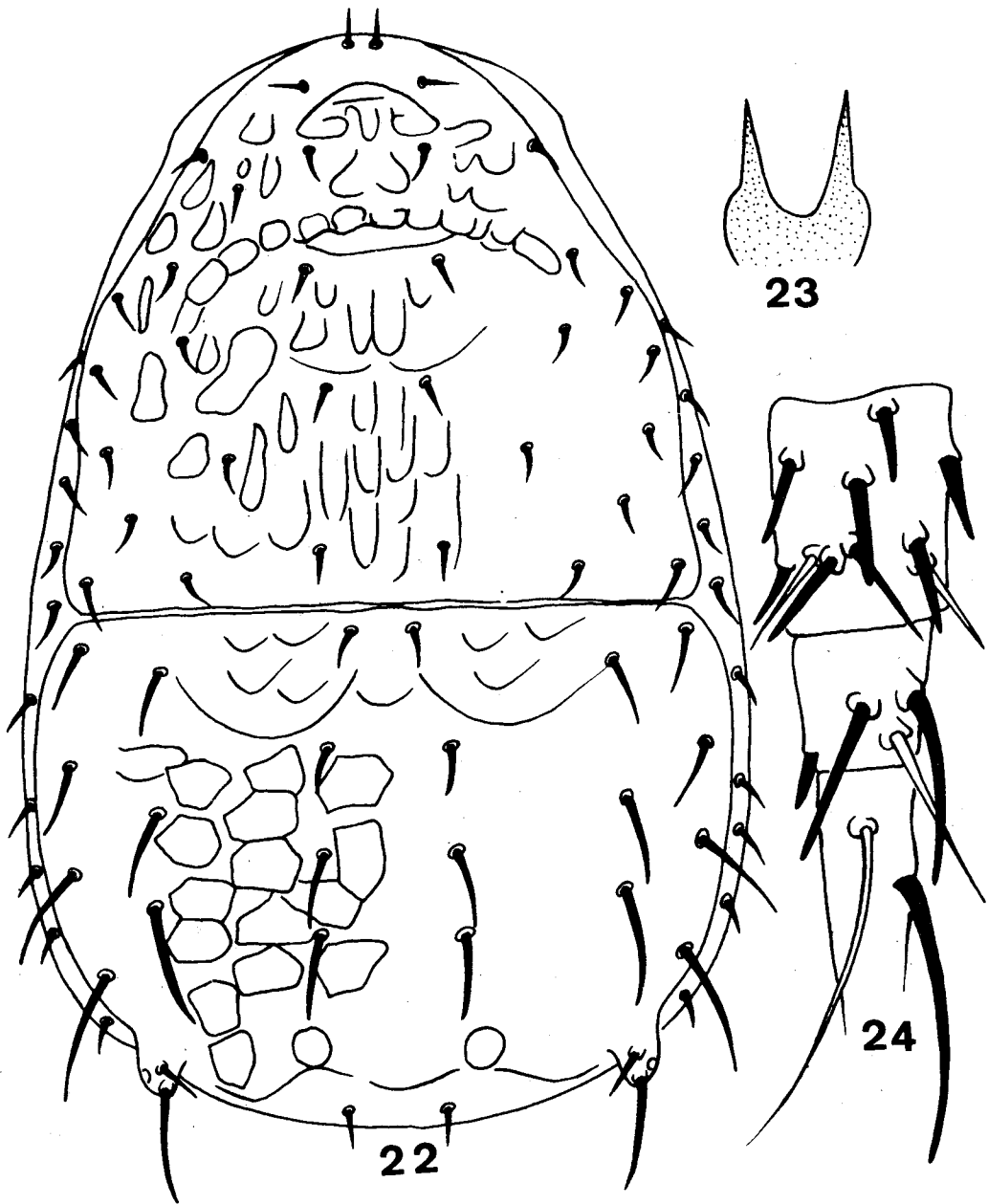
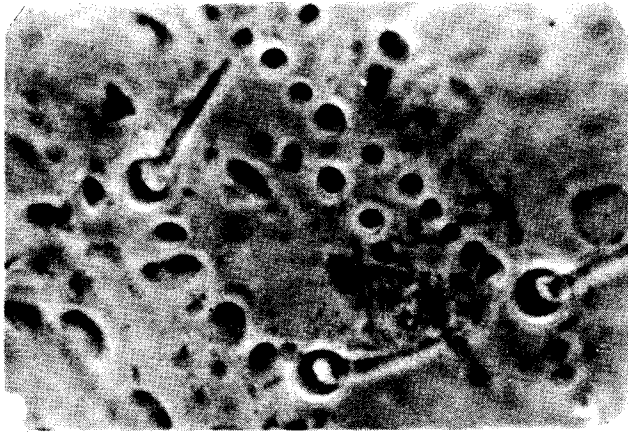


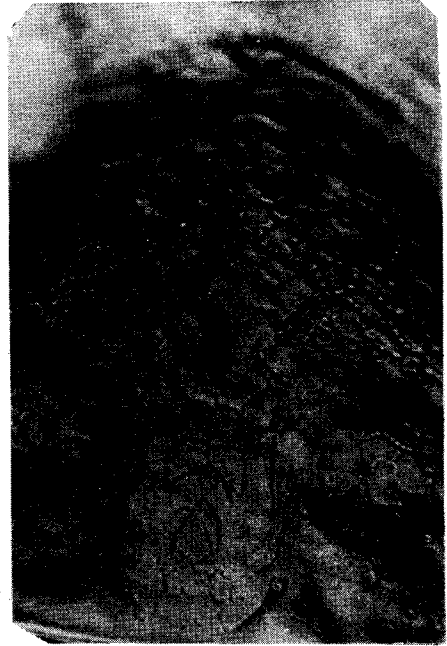
Fig. 22. Dorsal aspect of *Asca inflata*

Fig. 23. Tectum of *Asca inflata*

Fig. 24. Leg IV of *A. inflata*



The pattern of dorsal shield between j3 and j4 of *Asca garmani*.



The reticulation of dorsal shield of *A. aphidioides*



The pattern of dorsal shield between J3 and J4 of *Asca tricornicula*



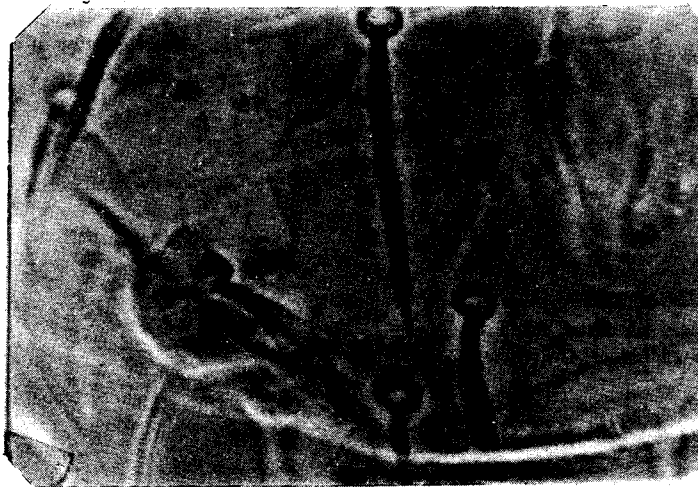
The pattern of dorsal shield between j3 and j4 of *A. microplumosa*



The pattern of dorsal shield between j3 and j4 of *Asca malathina*



The pathern of dorsal shield between J3 and J4 of *Asca tricornicula*



Seta S5 of *Asca malathina*

of J1-J1/J2-J2/J3-J3/J4-J4/J4-Z3 = 1/1.4/1.4/1.9/1.4. Sternal shield slightly longer than wide, anterior to sternal setae I with strong lineated transversely, the shield bears 3 pairs of setae and 2 pairs of sternal pores. Genital shield truncate post margin, and convex posterolateral margin. 2 pairs of platelets located on the membrane between the genital shield and ventrianal shield, 1 pair of platelets situated side of posterolateral of genital shield. 2 pairs of metapodal platelets, proximal pair are small ball-shaped, posterior pair are large, triangular. Ventrianal shield with strongly lineated transversely, bearing 6 paris of setae, JV3 about half as long as UR7, JV5 as long as UR7.

Male. Unknown.

Measurements (2♀♀). J1 14 μ , J2 17 μ , J3 22 μ , J4 29 μ , J5 19 μ , Z3 23 μ , Z4 22 μ , Z5 26 μ , S5 19 μ , S4 24 μ , J1-J1 17 μ , J2-J2 24 μ , J3-J3 24 μ , J4-J4 31 μ , J4-Z3 24 μ , J1-J2 29 μ , J2-J3 29 μ , J3-J4

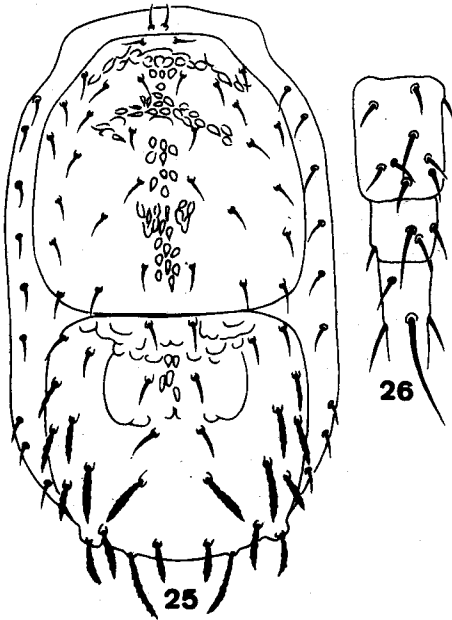


Fig. 25. Dorsal aspect of *Asca flabellifera*
 Fig. 26. Leg IV of *Asca flabellifera*

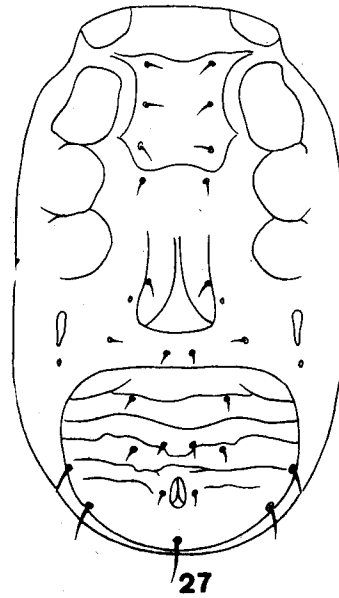


Fig. 27. Ventral aspect of *Asca flabellifera*

26 μ , J4-J5 39 μ .

Collection data. Holotype, ♀, Hoili, Taichung Hsien, 14-X-1974, ex *Acer* sp., Y. H. Tseng; paratype, ♀, the same data as holotype.

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台灣氈蟎科之分類研究(Ⅱ) *Asca* 屬 (蟎蜱亞綱、中氣門目)

曾義雄*

中文摘要

本文是氈蟎科分類研究一連串報告之第二部分，於第一報中，筆者敘述台灣氈蟎 *Lasioseius* 屬之種類。

Asca 之種類多生活於生植物體，土壤、落葉及腐植中，均屬捕食性，以植食性蟎及微小昆蟲為生。本屬在台灣過去均未記錄現在共發現有 13 種，其中七種為新種：*malathina*, *lacertosa*, *tricornicula*, *inflata*, *microplumosa*, *ramosa*, *flabellifera*。本文除對新種之形態有詳實之記載，對 5 種新記錄種亦給予簡述。

* 經濟部商品檢驗局台南分局課長