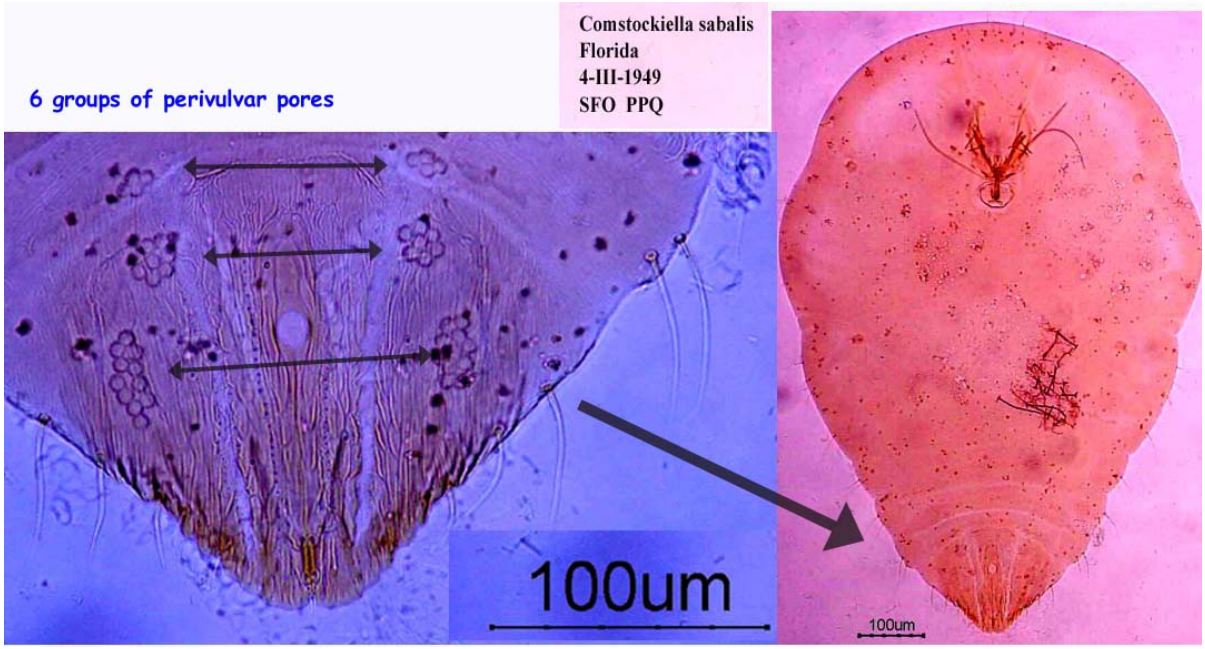
KEY TO THE GENERA OF THE ASPIDIOTINI

1. Adult female with six groups or Perivulvular pores; no plates, lobes, or paraphysis; on *Globularia salicina,* palms, and *Washingtonia robusta* from Bahamas, Canary Islands, Southern USA and Mexico; one species known ……...…. *Comstockiella* Cockerell



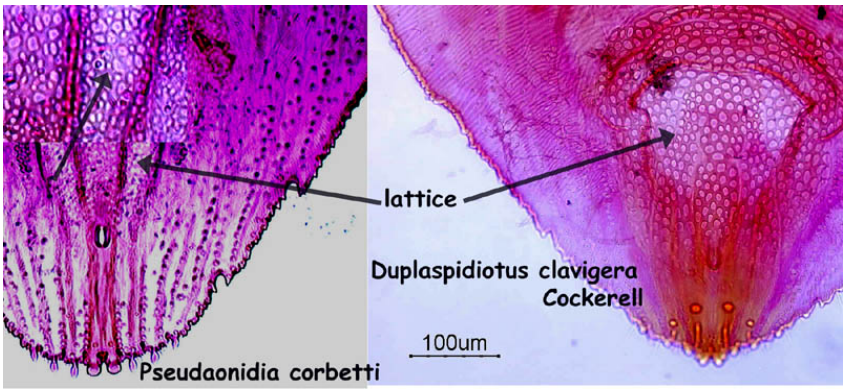
1’ Perivulvular pores lacking or present (never more than 5 groups); if lobes and plates are entirely lacking, paraphysis are present…….....……2

2(1) Pupillarial: second exuviae larger than, and enveloping the adult female with very much reduced plates and lobes; polyphagus from Afrotropical, Australasian, Nearctic, Neotropical, Oriental, and Palaearctic Regions; 42 species known ……..……..... ***Aonidia*** Targioni Tozzetti

2’ Not pupillarial: second exuviae absent or reduced and not completely enclosing the adult female .....…….. 3

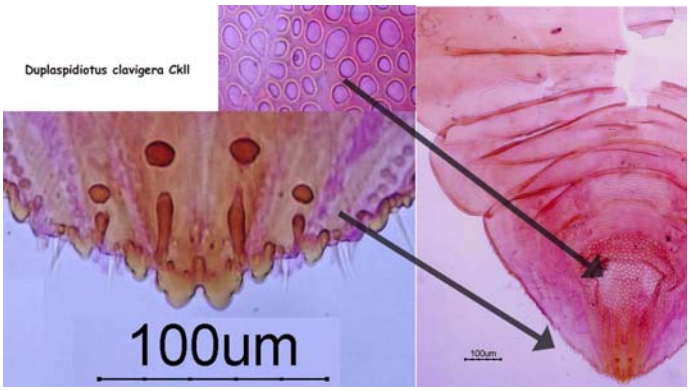
KEY TO THE GENERA OF THE ASPIDIOTINI

3(2) Dorsum of the pygidium with a reticulated or "lattice work" area formed by many small areas of weaker sclerotization…….....……..4

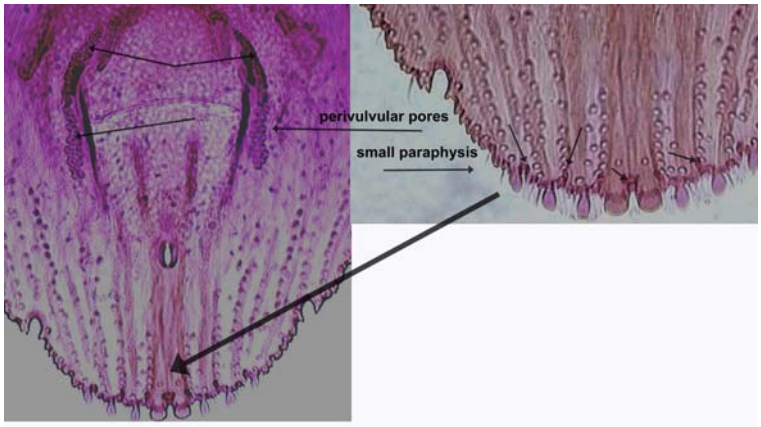


3' Without reticulated area…….....……...….5

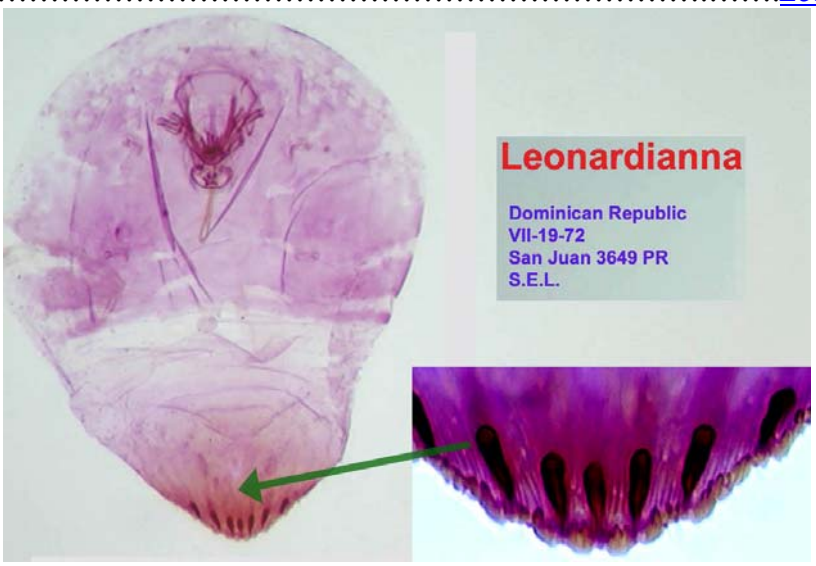
4(3) Perivulvar pores lacking; with a single very large and conspicuous, elongate, club-shaped sclerosis originating between at least the median and 2nd and between the 2nd and 3rd lobes; this at least 2 to 3 times the length of the lobes; polyphagus from Afrotropical, Australasian, Nearctic, Neotropical, Oriental, and Palaearctic Regions; 18 species known ……***Duplaspidiotus*** MacGillivray



4' Perivulvular pores present; sclerosis between the lobes present but small and inconspicuous; polyphagus from Africa, Australasian, Nearctic, Neotropical, Oriental, Palaearctic Regions; 18 species known…… ……..……***Pseudaonidia*** (Cockerell)



5(3) Pygidium lacks lobes and plates; three pairs of large paraphysis; on *Pimenta officinalis* from Jamaica; one species known……..…….*Leonardianna* MacGillivray

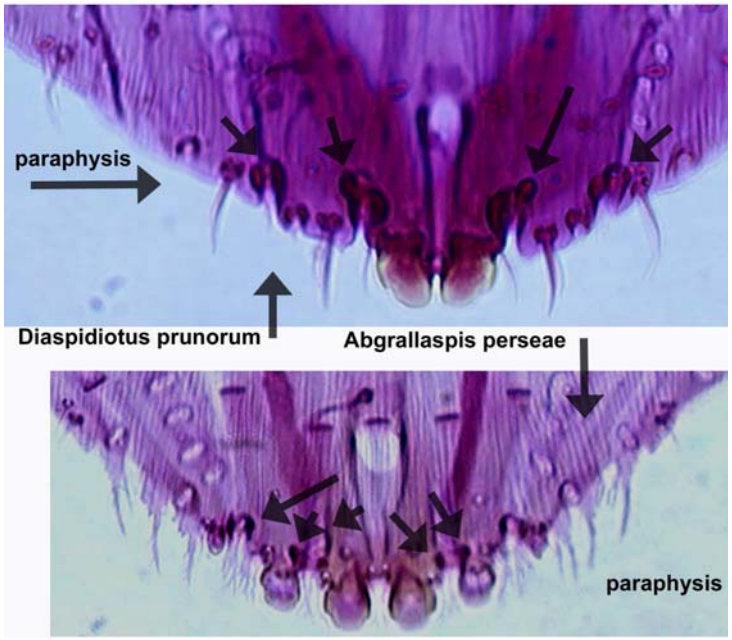


5’ Pygidium with at least median lobes developed and usually with at least minute plates; paraphysis present or absent…….....……6

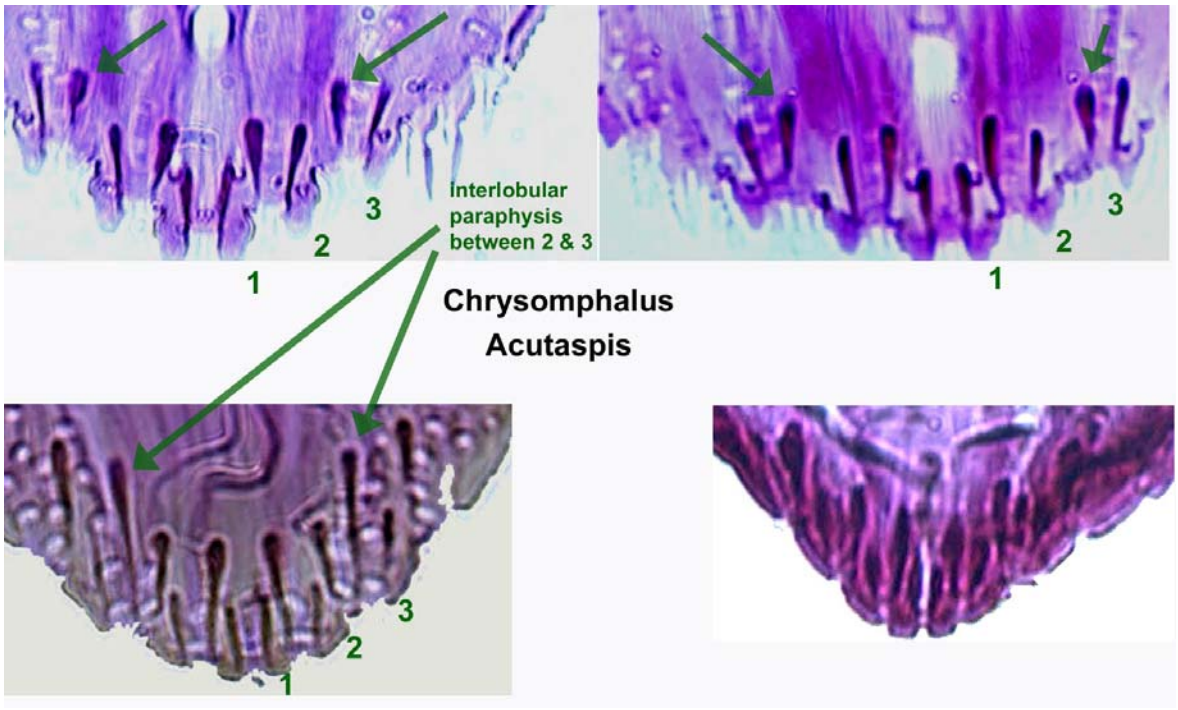
6(5) Pygidium with paraphysis arising from the bases of the lobes or site of obsolete lobes (not a mere prolongation of the median lobe base and nor the mere sclerotization of the folds about a pore or furrow); very small but clearly distinguishable…….....……7

6’ No paraphysis or sclerosis (other than exceptions listed in 6)…….....……24

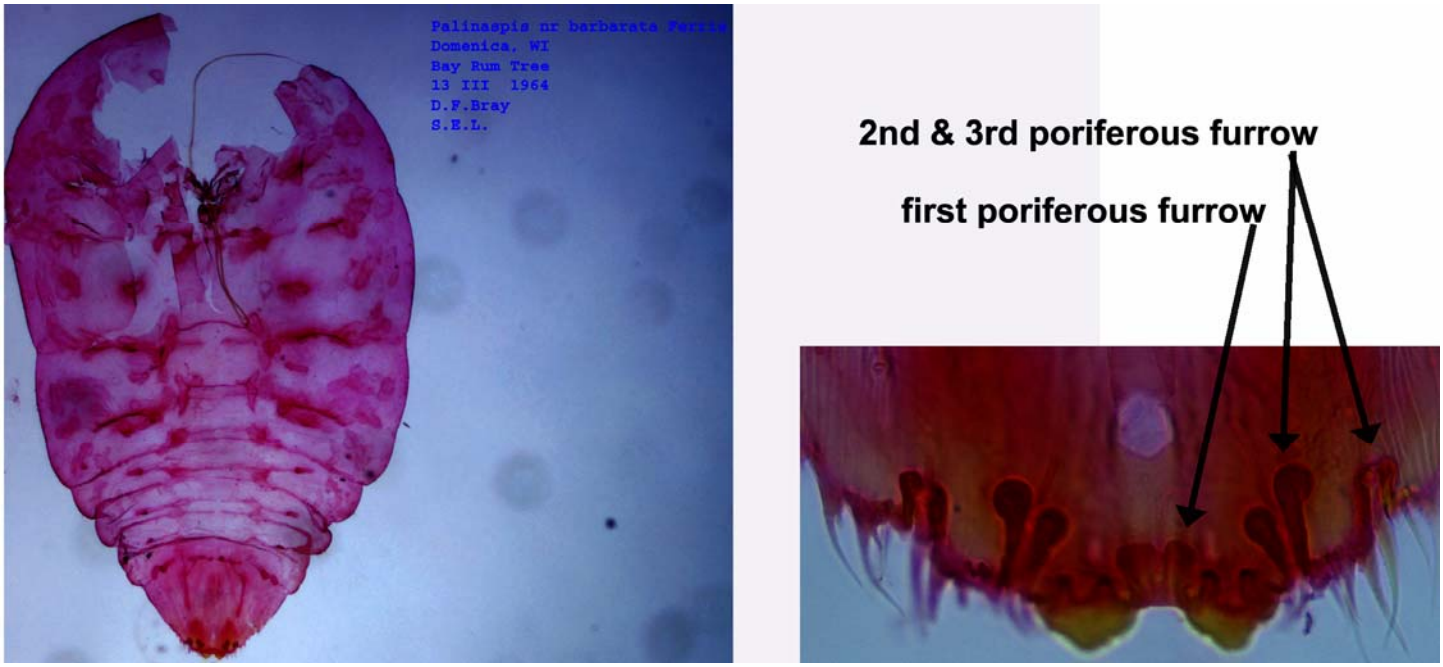
7(6) Paraphysis arising only from the basal angles of the lobes, NEVER FROM WITHIN THE SPACE BETWEEN THE LOBES, thus forming merely paired supports for the lateral margins of the intersegmental poriferous furrows…….....……8



7’ With at least one paraphysis arising from the center of at least one interlobular space usually between the 2nd & 3rd lobes and frequently with paraphysis along the margin beyond the 3rd lobe…….....……...14

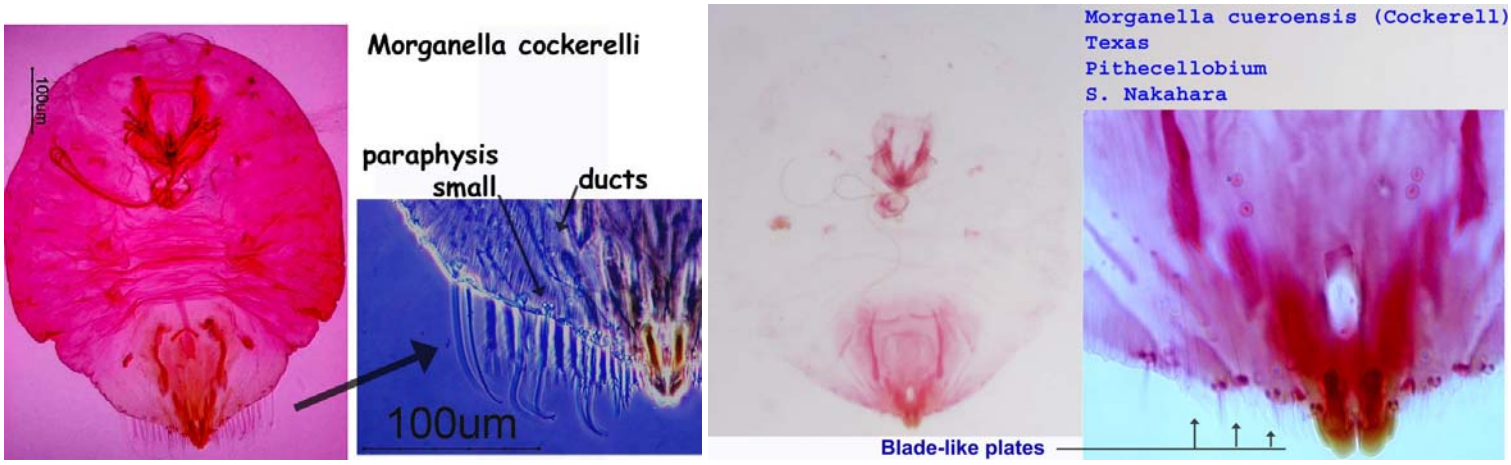


8(7) The pair of paraphysis bounding the first poriferous furrow elongate, of about the same length and set close together like a pair of fingers side by side, not apically knobbed; Paraphysis of the 2nd space various; polyphagus from Neartic & Neotropical Regions; 5 species known...……..……***Palinaspis*** Ferris



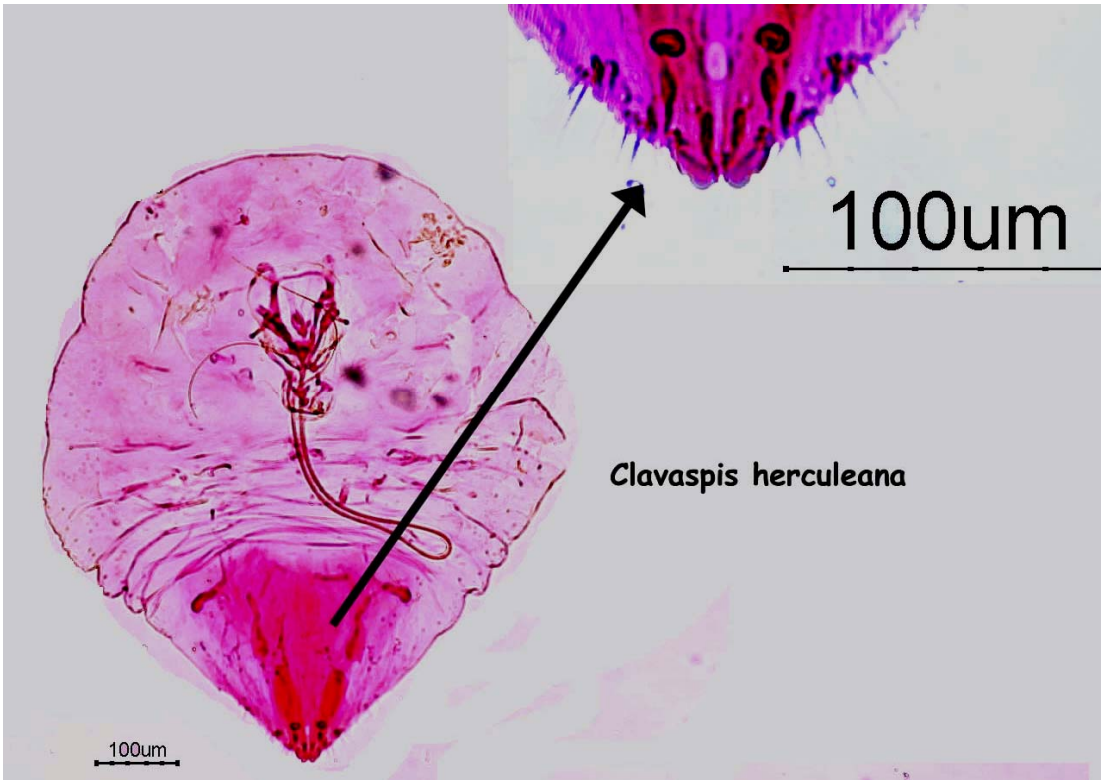
8’ Paraphysis otherwise, short, or of different lengths, or apically swollen or knobbed…….……9

9(8) Paraphysis (extremely small and appressed) of both the 1st & 2nd spaces present with the duct orifices being extremely minute; median lobes only present, elongate and mesally approximate; unusually shaped plates - either very large and elaborately fringed or small & bladelike; polyphagus on Afrotropical, Australasian, Nearctic, Neotropical , & OrientalRegions; 7 species known……..……***Morganella*** Cockerell



9’ Paraphysis well developed and at times quite small but members of each pair well separated……..…..10

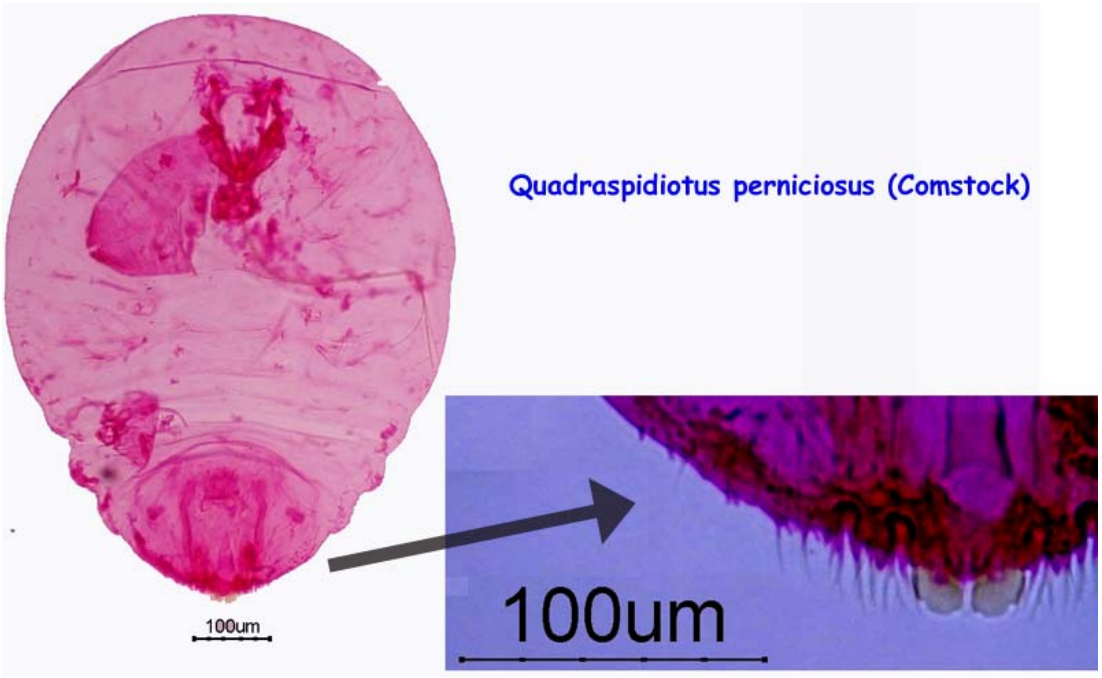
10(9) Mesal paraphysis of the first space, in its most physical form, elongate, slender and terminating apically in a heavily sclerotized knob, some of the other paraphysis at times showing a similar character; in less typical form the first paraphysis may be short and merely apically swollen, the swelling asymmetrical and being directed toward the meson; polyphagus from Afrotropical, Australasian, Palaearctic, Nearctic, Neotropical Regions; 18 species known .....……***Clavaspis*** MacGillivray



KEY TO THE GENERA OF THE ASPIDIOTINI

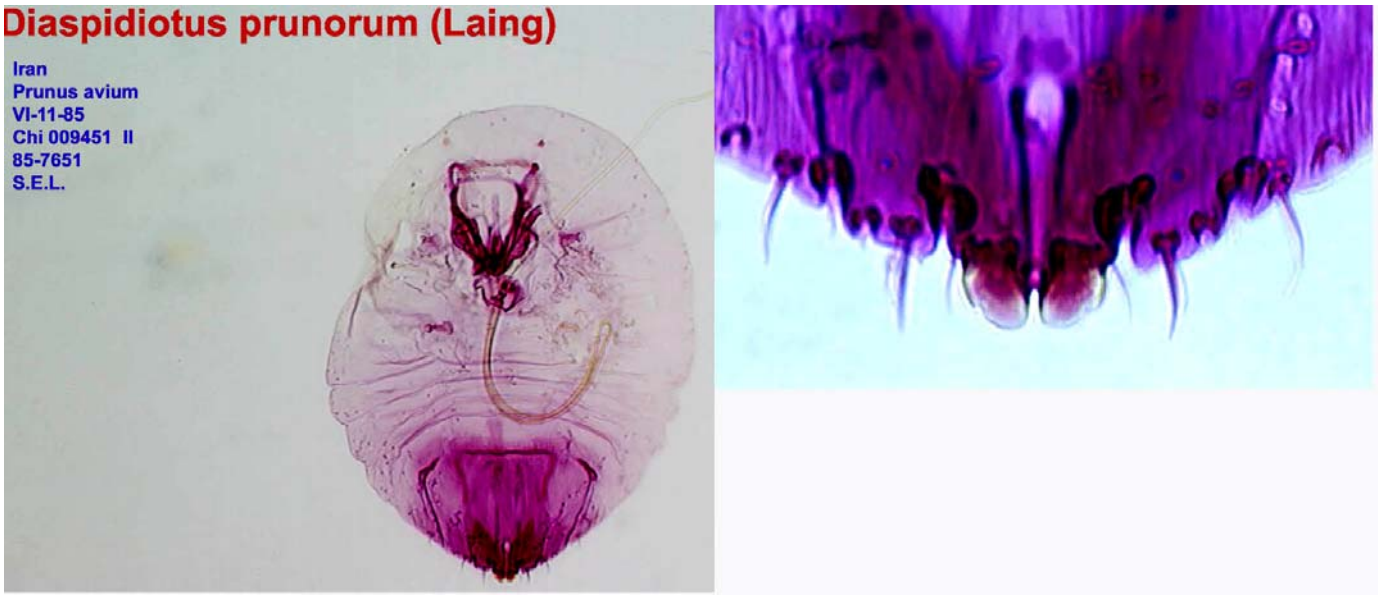
10’ Mesal Paraphysis of the first space without an apical knob although increasing in size apically……..….11

11(10) Median & second lobes well developed, sclerotized, apically rounded, their axes somewhat diagonal lobes appearing as converge slightly; polyphagus occurring worldwide; 89 species known..... ……***Diaspidiotus*** Berlese & Leonardi, (formerly ***Quadraspidiotus***)

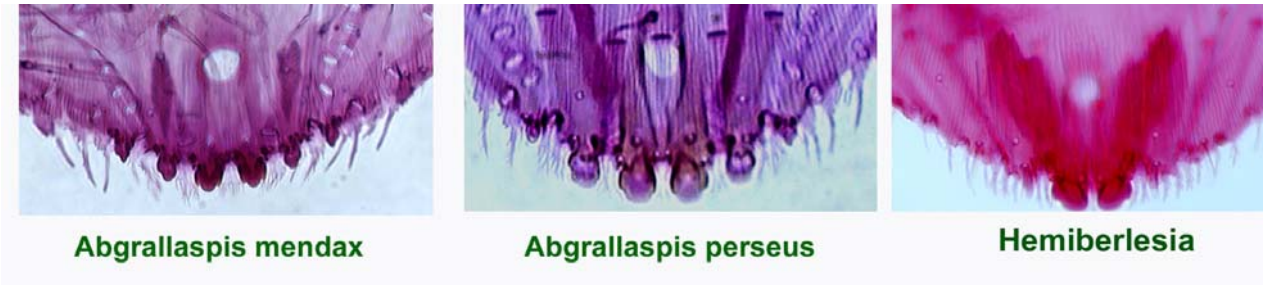


11’ Not so; if more than median lobes present, then axes are parallel or if convergent, pointed……..…12

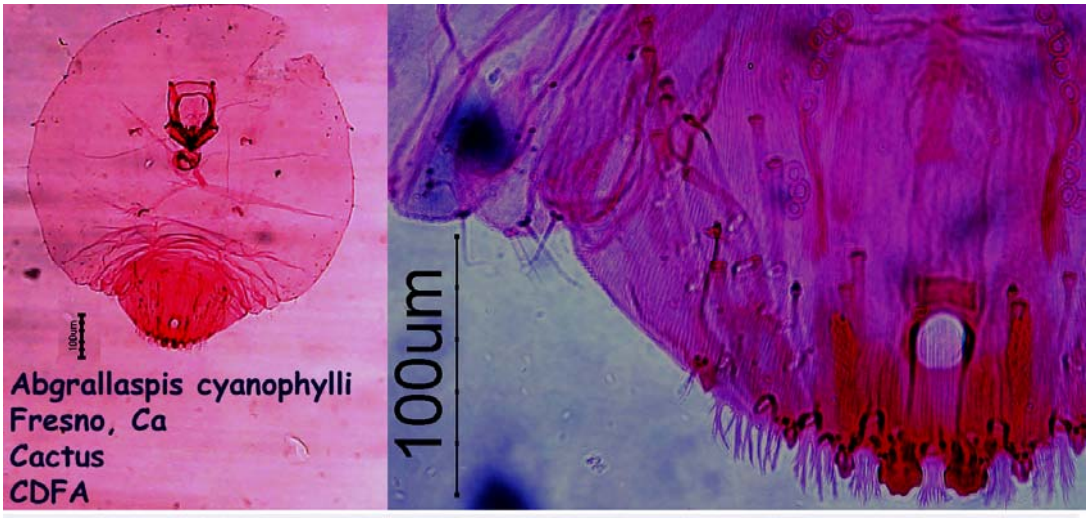
12(11) 2nd lobe never developed beyond a mere point; anal opening apical and small (although at times larger); plates usually small, at times scarcely developed; polyphagus occurring worldwide; 89 species known …….....***Diaspidiotus*** Berlese & Leonardi



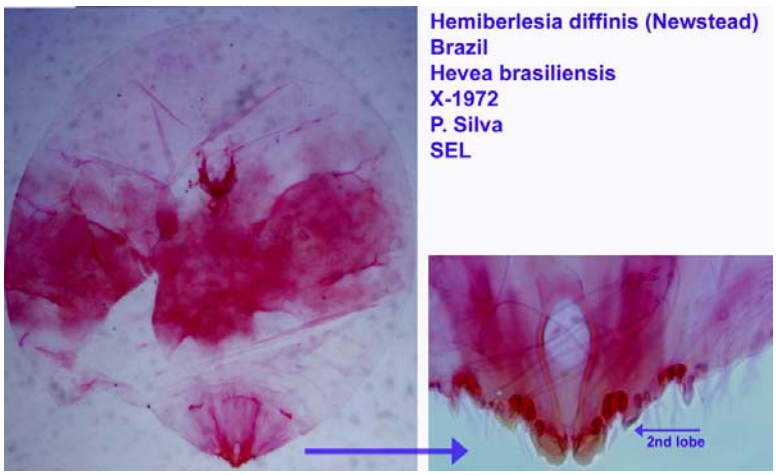
12’ 2nd lobe usually and at times the 3rd lobe developed (in some species neither more than a point); anal openingconspicuously large; plates usually quite developed; one species lacking lobes, with very small plates, and very large anal opening……13

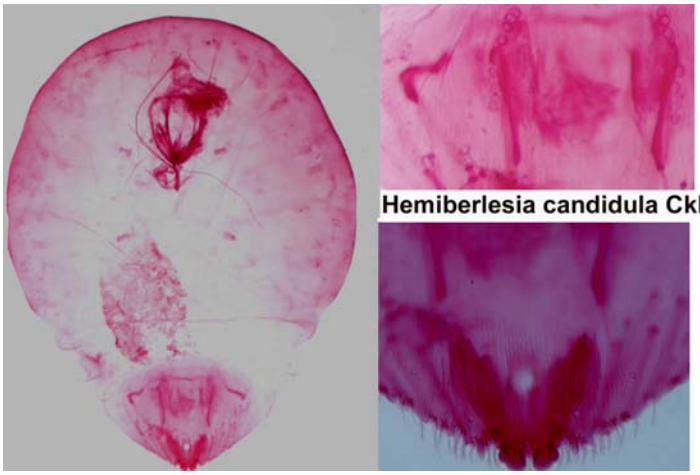


13(12) 2nd lobes present, smaller than median lobes both usually once notched mesally and laterally (***A. townsendi*** having hyaline points representing 2nd lobes); diameter of anal opening less than length of median lobes and removed 2 or more times its diameter from the median lobe bases; polyphagus occurring worldwide; 18 species known ……***Abgrallaspis*** Balachowsky

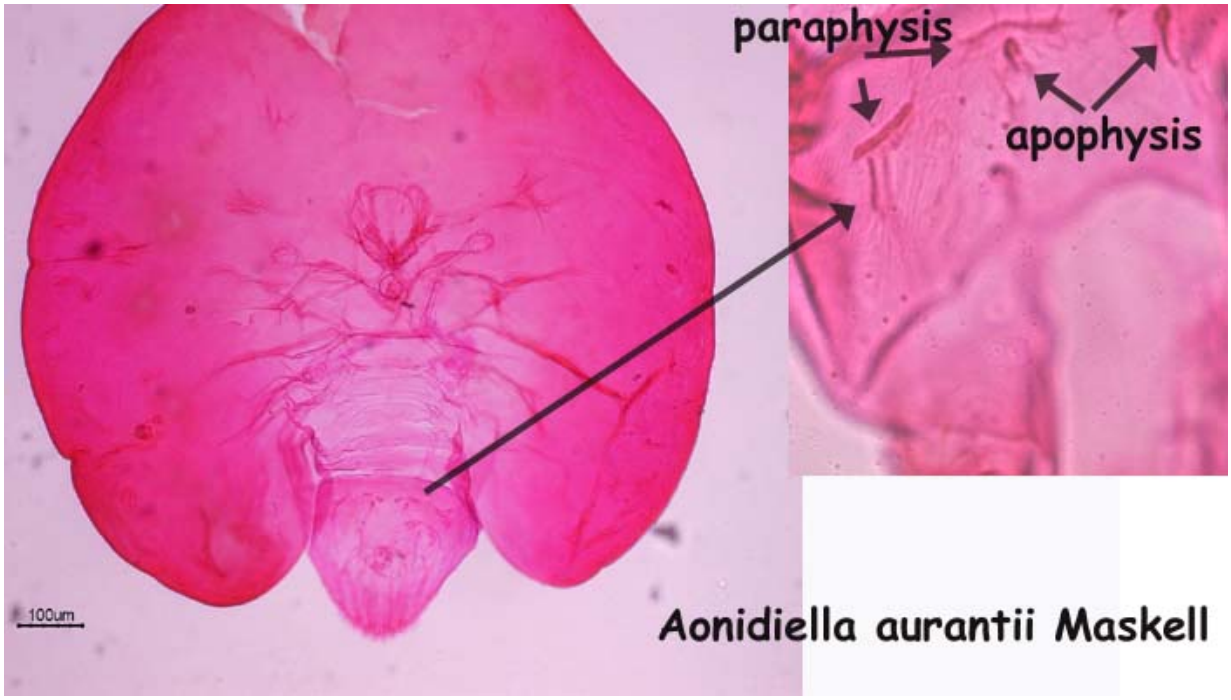


13’ 2nd lobe absent (except in ***H. diffinis***) replaced by hyaline points; diameter of anal opening equal to or greater than length of median lobes; polyphagus occurring worldwide; 34 species known……. ……..……***Hemiberlesia*** Cockerell



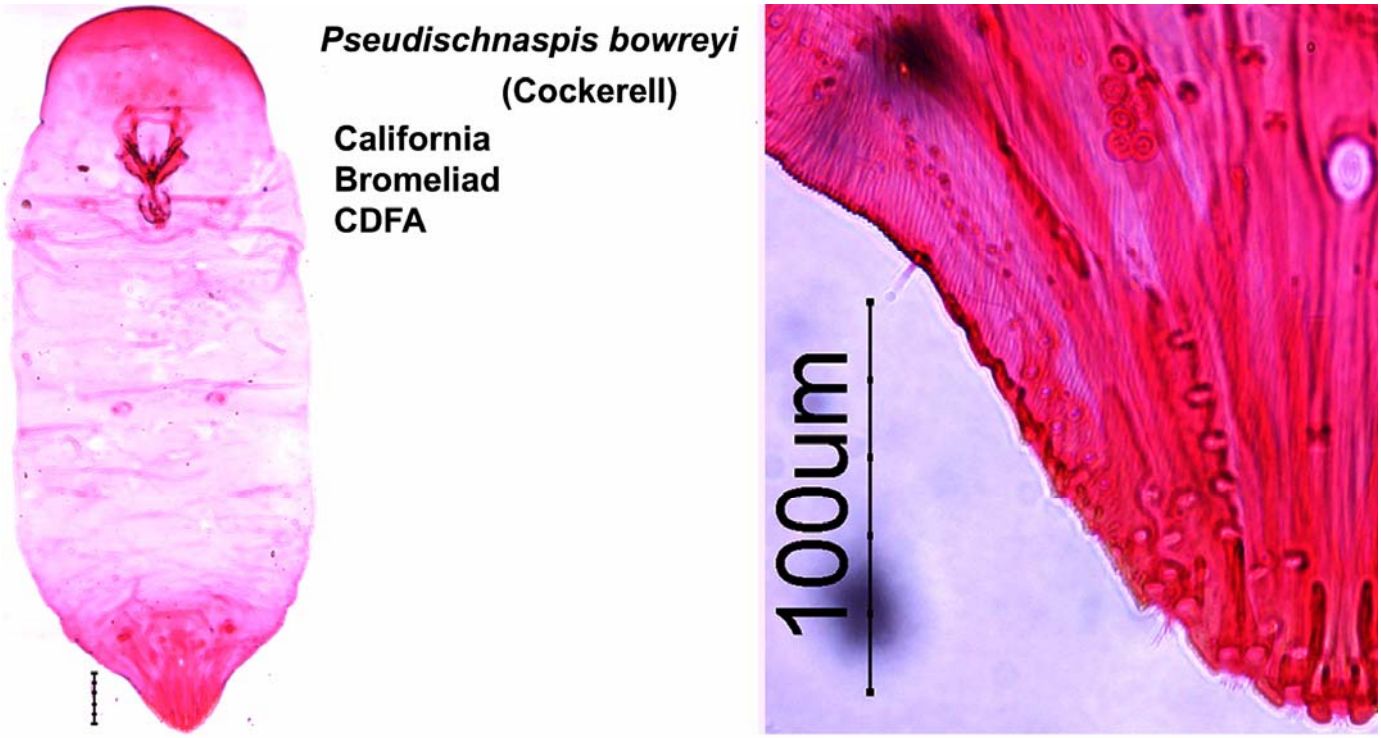


14(7) Prosoma swollen and strongly sclerotized, from slightly to extremely reniform with the lateral prosomatic lobes somewhat enclosing the Pygidium; if not strongly reniform (such as ***A. orientalis***), some species with paraphysis small and shorter than the length of the median lobes; polyphagus occurring worldwide; 34 species known.....***Aonidiella*** Berlese & Leonardi



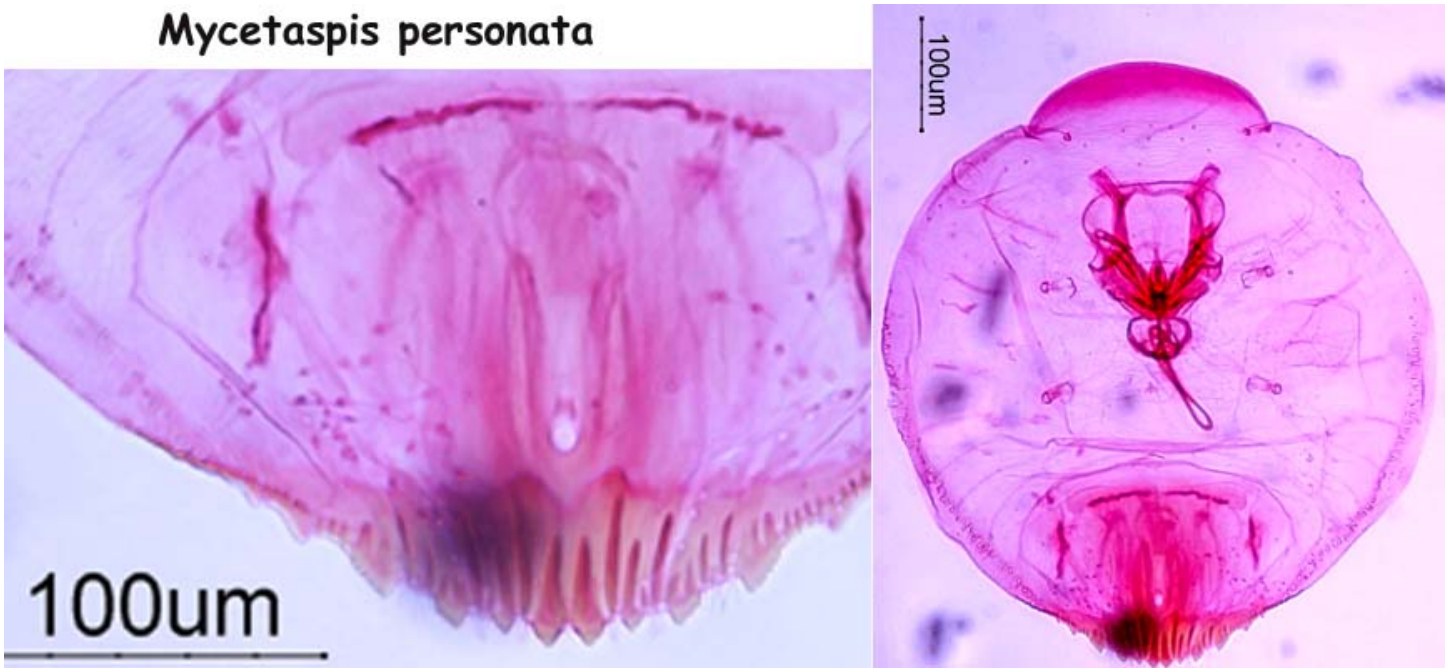
14’ Not so; if prosoma is swollen or sclerotized, not reniform……..……..15

15(14) Body elongate and somewhat parallel-sided, 3 or 4 times as long then wide; polyphagus from Nearctic & Neotropical Regions; 2 species known ……***Pseudischnaspis*** Hempel



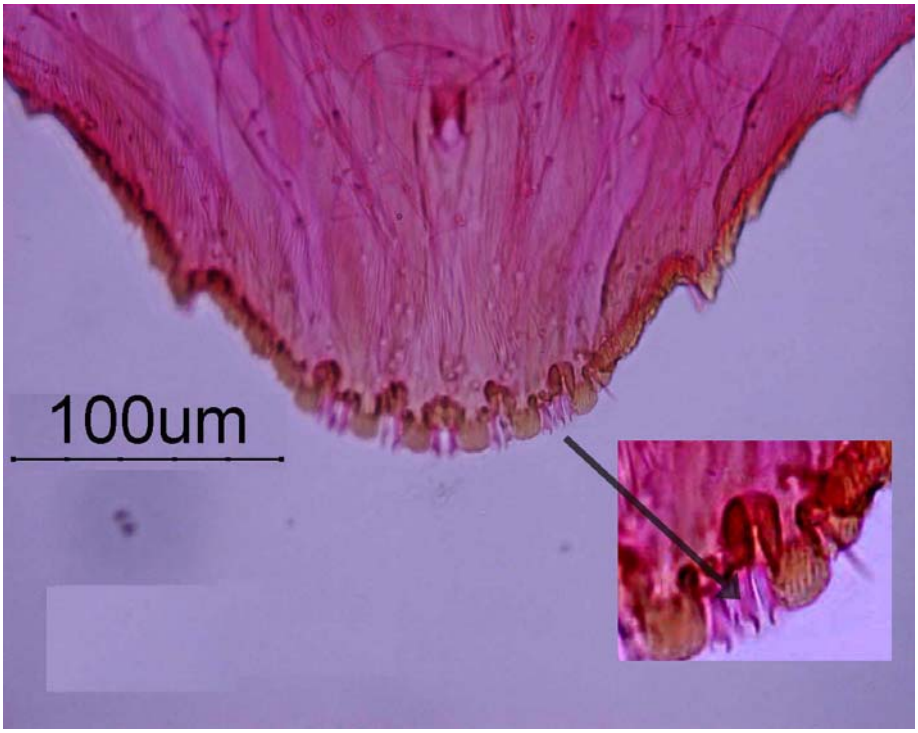
15’ Body more or less turbinate, at least oval……...…….16

16(15) The head, at maturity, produced conically or otherwise and sclerotized; polyphagus from Nearctic & Neotropical Regions; 8 species known……..……***Mycetaspis*** (Cockerell)



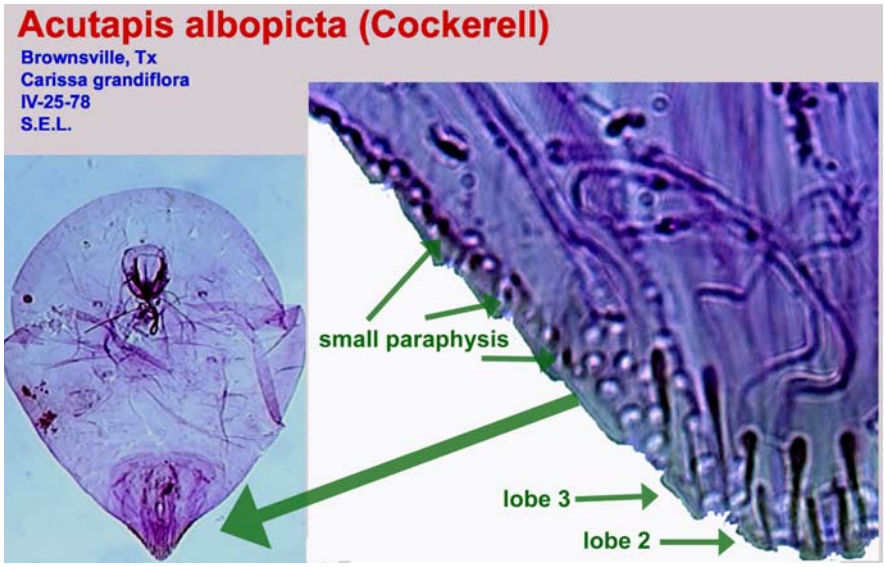
16’ Head not produced and sclerotized……..……17

17(16) Apically chelate plates present in the mesal and first two spaces with the fingers of the claw slightly sclerotized and connected by a very delicate membrane; polyphagus from Afrotropical, Australasian, Nearctic, Neotropical, Oriental Regions; 9 species known……..……***Furcaspis*** Lindinger



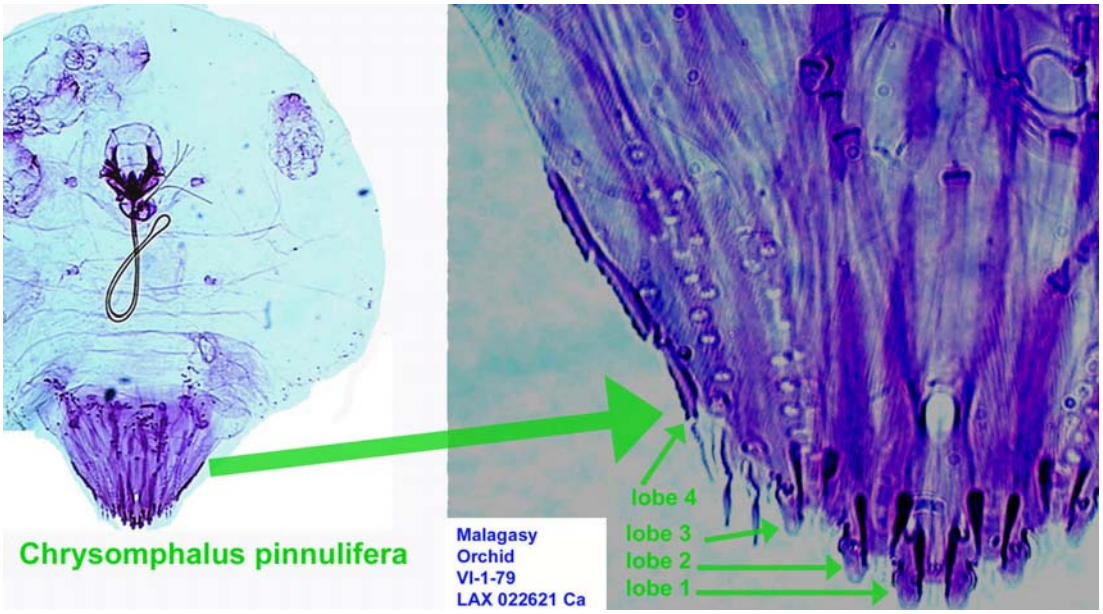
17’ Plates not chelate……..…18

18(17) Pygidium broad basally, elongated and tapering to an acute apex, lateral margins tend to be slightly concave; 3 pairs of lobes present, very small; extremely small plates confined in the spaces between the lobes; margin anterior to the site of the 4th lobe slightly sclerotized with small paraphysis; polyphagus occurring worldwide; 18 species known ……..…….....***Acutaspis*** Ferris



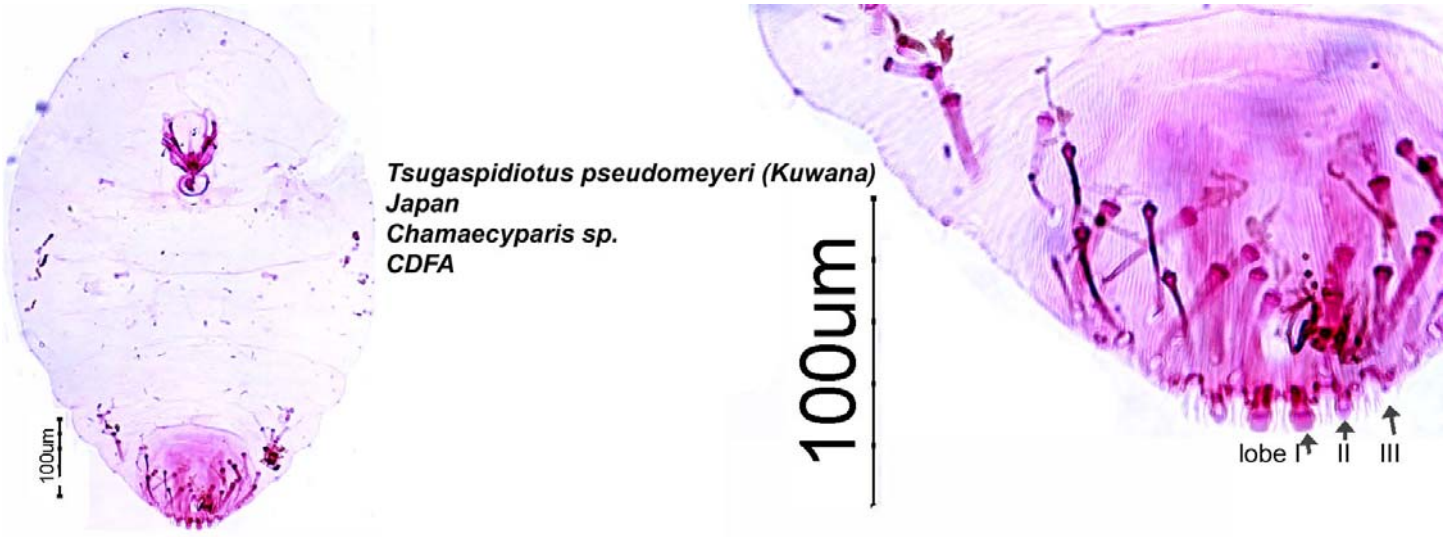
18’ Pygidium otherwise, usually short and broad……..……19

19(18) Pygidium with conspicuous, branched plates between the third and fourth lobes exceeding the lobes in length; 4th lobe a sclerotized point; margin anterior to the 4th lobe slightly sclerotized without paraphysis; polyphagus occurring worldwide; 17 species known..……..……***Chrysomphalus*** Ashmead



19’ Plates lacking, minute or a mere point, not exceeding the lobes in length……..……20

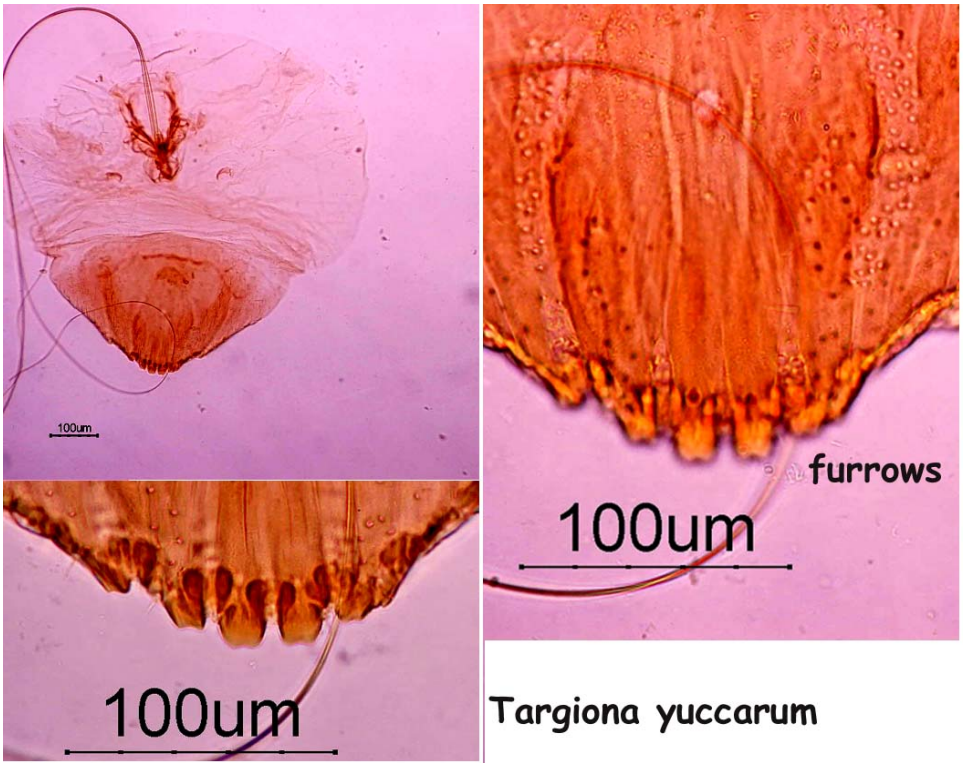
20(19) Pygidium apically rounded with 3 pair of lobes, 4th lacking (not even as a point); sclerotization & paraphysis absent on margin anterior from the 3rd lobe; macroducts confined to pygidial margin & sub margin; polyphagus occurring worldwide; 25 species known ……..….***Dynaspidiotus*** Thiem & Gerneck (formerly ***Nuculaspis*** or ***Tsugaspidiotus***)



KEY TO THE GENERA OF THE ASPIDIOTINI

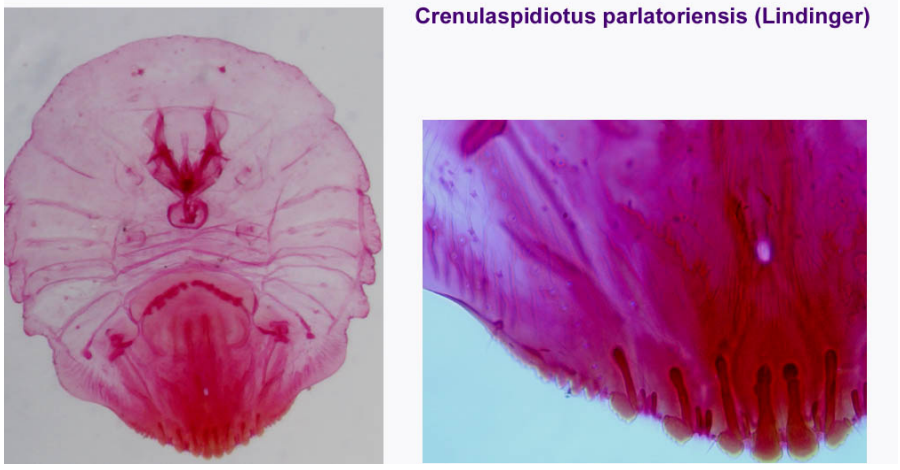
20’ Pygidium variously shaped from 3 to 4 pair of lobes with 4th a sclerotized point; except for Targiona some indication of paraphysis and marginal sclerotization present anterior to the 3rd pair of lobes; Macroducts usually present in anteriorly extending rows, often in furrows…….....…21

21(20) Entirely without plates; dorsal ducts on the pygidial numerous with the orifices for the most part arranged in distinct furrows; dorsum of pygidium without a sclerotization pattern; polyphagus from the Afrotropical, Nearctic, Neotropical, & Palaearctic Regions; 14 species known..... ***Targionia*** Signoret



21’ Plates often minute but usually present between most lobes; dorsal macroducts of the Pygidium not numerous, not arranged in wide anteriorly extending bands in distinct furrows; dorsum of Pygidium typical with a sclerotization pattern……..……..22

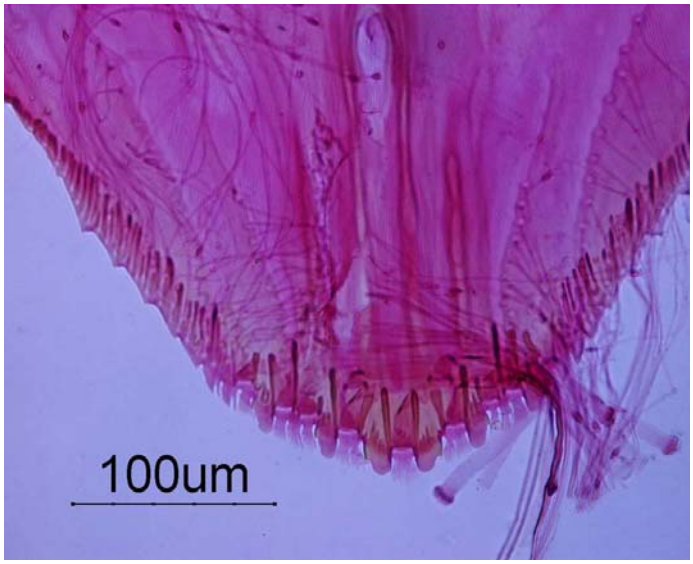
22(21) Longest paraphysis present arising from the bases of lobes; polypgaus from the Nearctic, Neotropical, & Oriental (Taiwan) Regions; 12 species known ……***Crenulaspidiotus*** MacGillivray



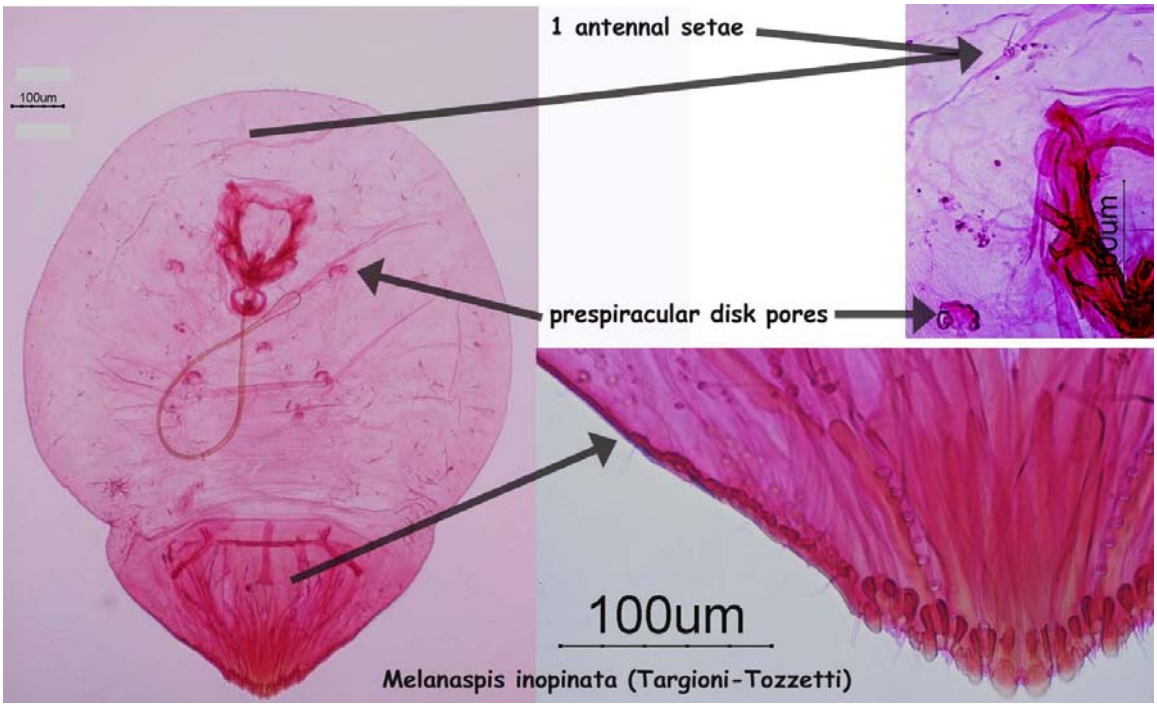
KEY TO THE GENERA OF THE ASPIDIOTINI

22’ Longest paraphysis present arising from the margin in spaces between lobes……..23

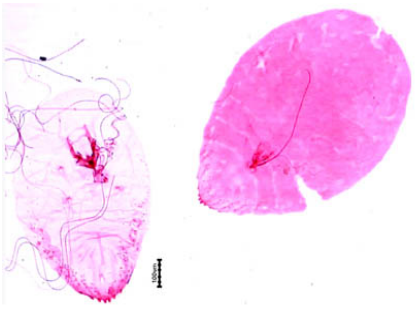
23(23) Margin anterior to the fourth pair of lobes with an extended series of well-developed, quite long, closely-packed paraphysis; polyphagus occurring worldwide ……..……***Lindingaspis*** MacGillivray

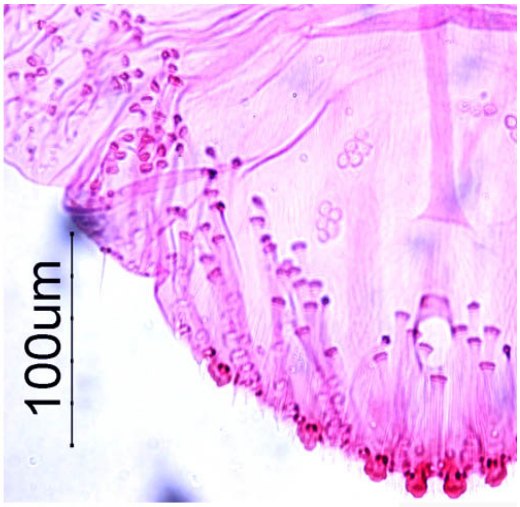


23’ Margin anterior to the fourth pair of lobes without an extended series of well-developed, quite long, closely-packed paraphysis; with at most a very few small paraphysis; polyphagus occurring worldwide; 63 species known ……..….***Melanaspis*** (Cockerell)



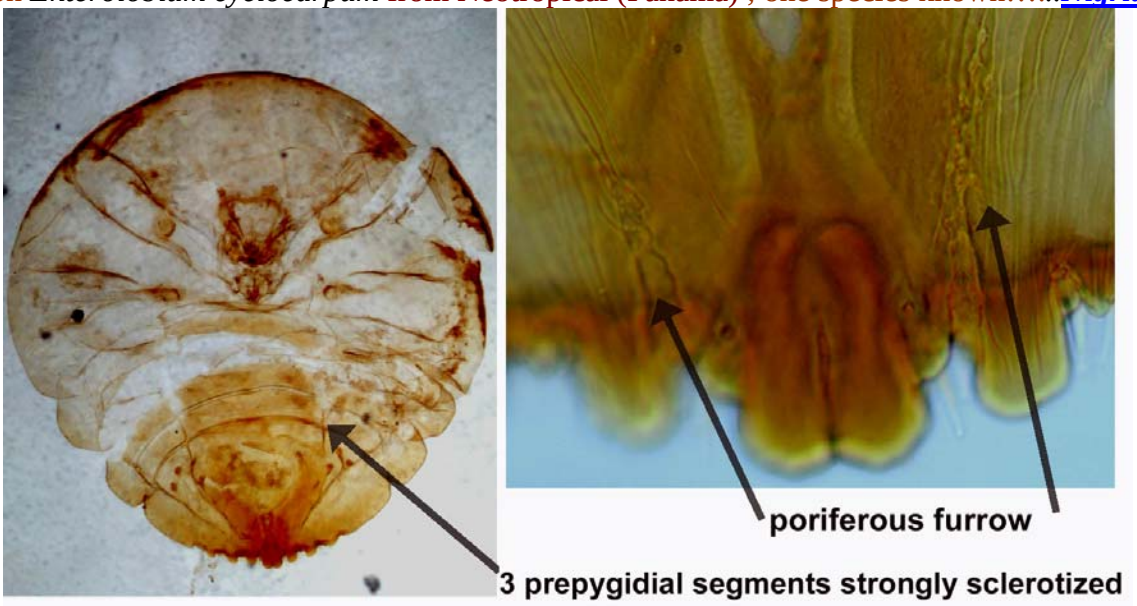
24(6) Body at maturity swollen & strongly sclerotized, the pygidium retracted into the apex of this sclerotization; no totally mature specimen available; polyphagus occurring worldwide; 25 species known…..*Dynaspidiotus* Thiem & Gerneck (formerly *Nuculaspis*)





24' Sclerotization various and pygidium always exerted.....25

25(24) Body at maturity with the tergites of the three prepygidial segments strongly sclerotized and forming transverse plates; poriferous furrow arising from the first interspace crowded with the orifices of many slender ducts; on *Enterolobium cyclocarpum* from Neotropical (Panama) ; one species known…...*Nigridiaspis* Ferris

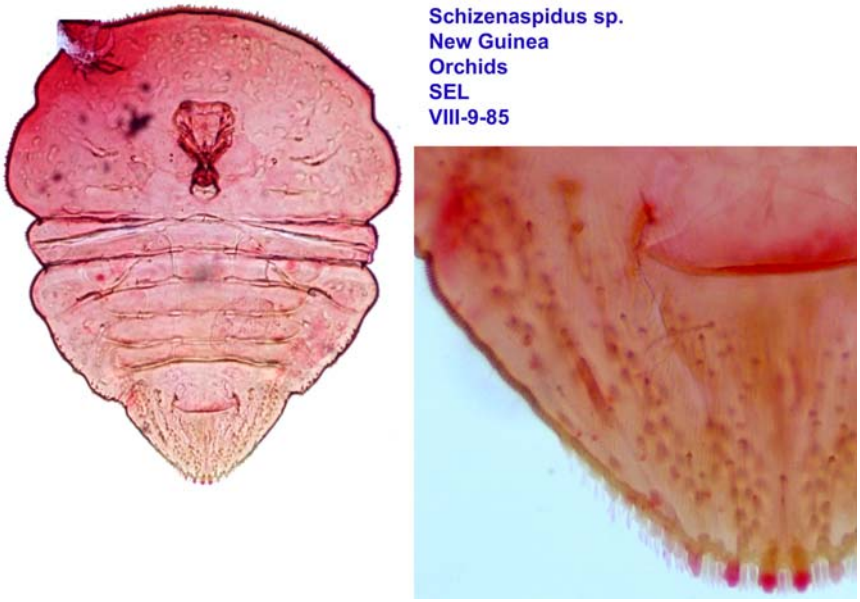


25' not so.....26

26(25) Prosoma with a marked indentation or constriction between either a) the prothorax and mesothorax, b) the mesothorax and the metathorax or c) the metathorax and abdominal segment 1…….....26a

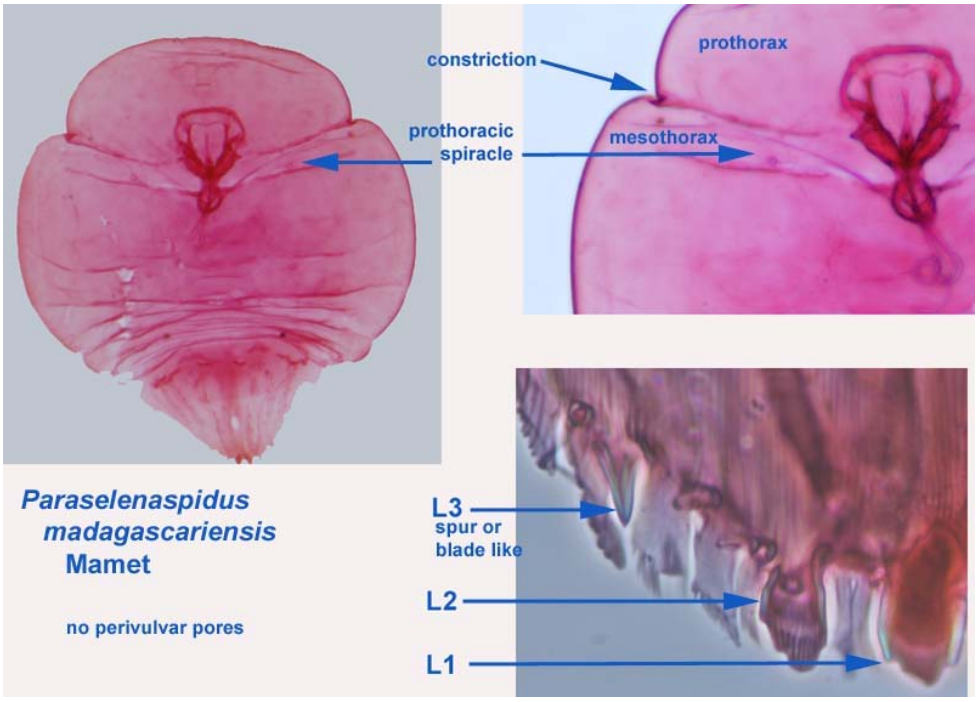
26' Not as above.....27

26a(26)With a marked indentation between metathorax & abdominal segment; 3rd pygidial lobe somewhat rounded; 2 species known; on *Loranthus amboinicum* or indet plant; from the Mollucas and Papua New Guinea; 2 species reported…….....***Schizentaspiodus*** Mamet

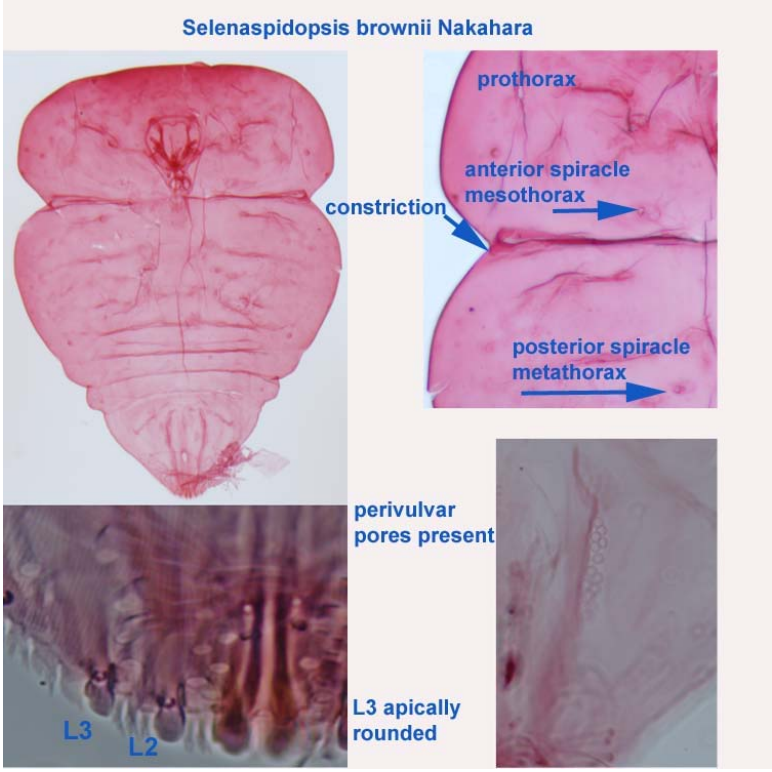


26b' Prosoma with a marked indentation or constriction between either a) the prothorax and mesothorax or b) the mesothorax and the metathorax…….26c

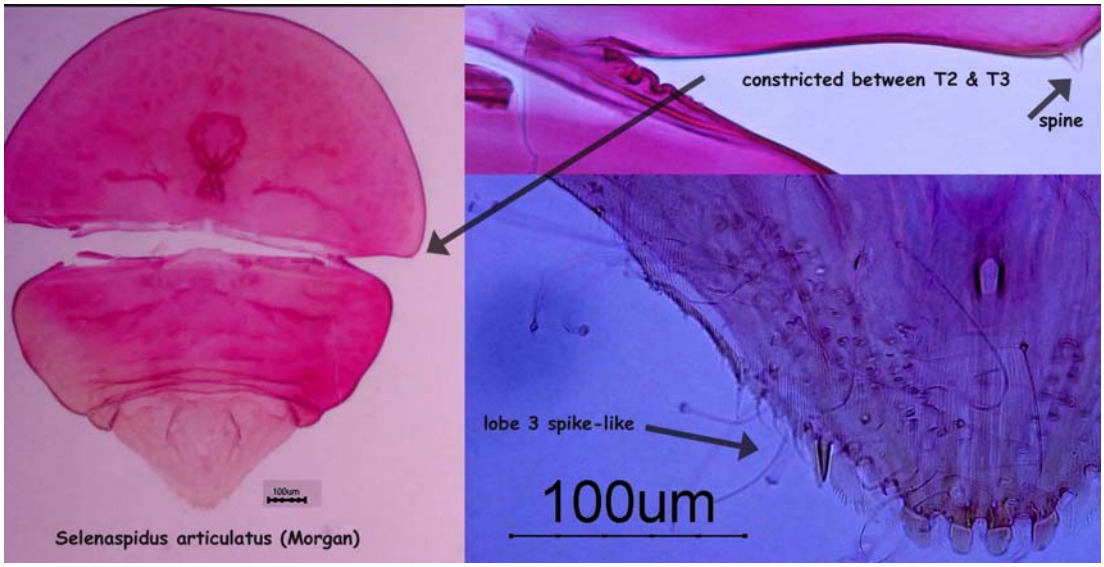
26c(26b) With a marked indentation between the prothorax and mesothorax; 3rd pygidial lobe in the form of an acute, elongate, sclerotized spur; without perivulvar pores; on *Agelaia fragrans* , *Cacao*, *Citrus*, *Haronga madagascariensis*, an indet palm, *Tambourissa sp.*, *Tricalysia* sp. ; from Benin, the Cameroons, The Congo, & Madagascar; 2 species reported…….……***Paraselenaspidus***



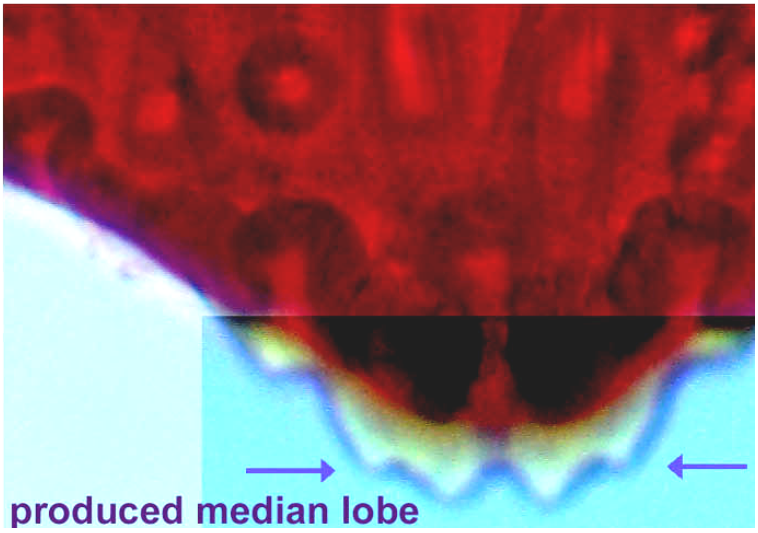
26c' With a marked indentation between the prothorax and mesothorax; 3rd pygidial lobe apically round, nor spur shape; with perivulvar pores……..……***Selenaspidopsis***



26c'' With a marked indentation between the mesothorax & metathorax ; 3rd pygidial lobe in the form of an acute, elongate, sclerotized spine 1; polyphagus occurring worldwide; 29 species known ……..... ……...***Selenaspidus*** (Cockerell)

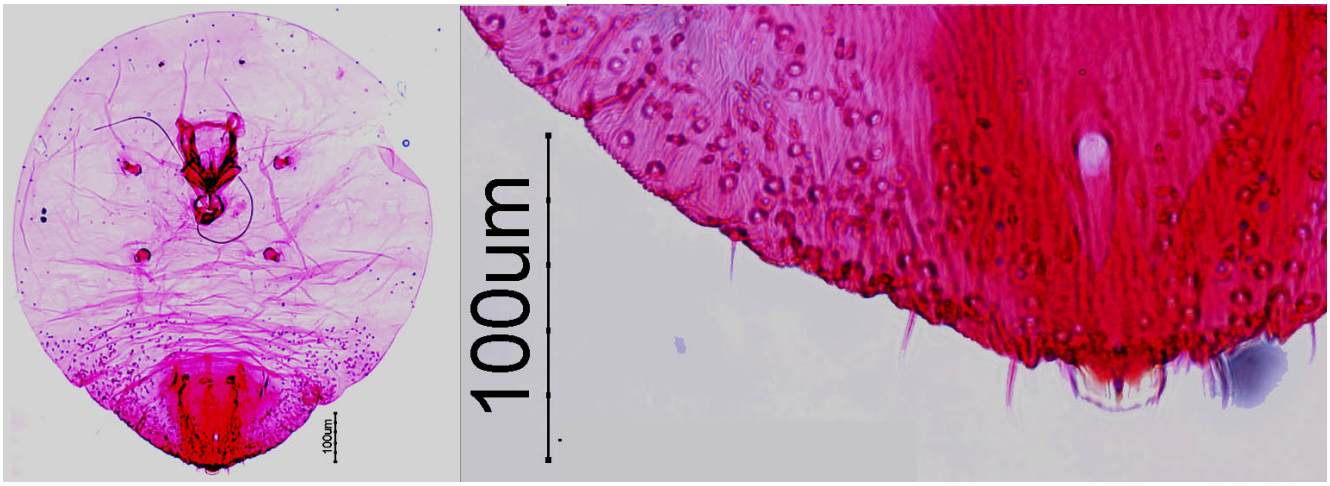


27(26) Pygidium with the median and 2nd lobes fused, forming a produced median lobe; primarily associated with grasses but with ginger and Iris from Australasian (Hawaii), Nearctic, Palaearctic, & Oriental Regions; 15 species known …….....***Chortinaspis*** Ferris



27’ not so.....28

28(27) Median pygidial lobes present and distinctly differentiated; remainder of the pygidial margin irregularly crenulate; 2nd & 3rd lobes represented at the most by slightly more prominent crenulations; ducts numerous on the dorsum and marginal ventral areas of the pygidium, all small and slender; polyphagus but primarily on gramineae from Palaearctic & Oriental Regions; 25 species known……..... ***Rhizaspidiotus*** MacGillivray



28’ Otherwise; the second and third lobes distinctly differentiated from other processes, if present at all…….....29

29(28) Perivulvular pores present.....30

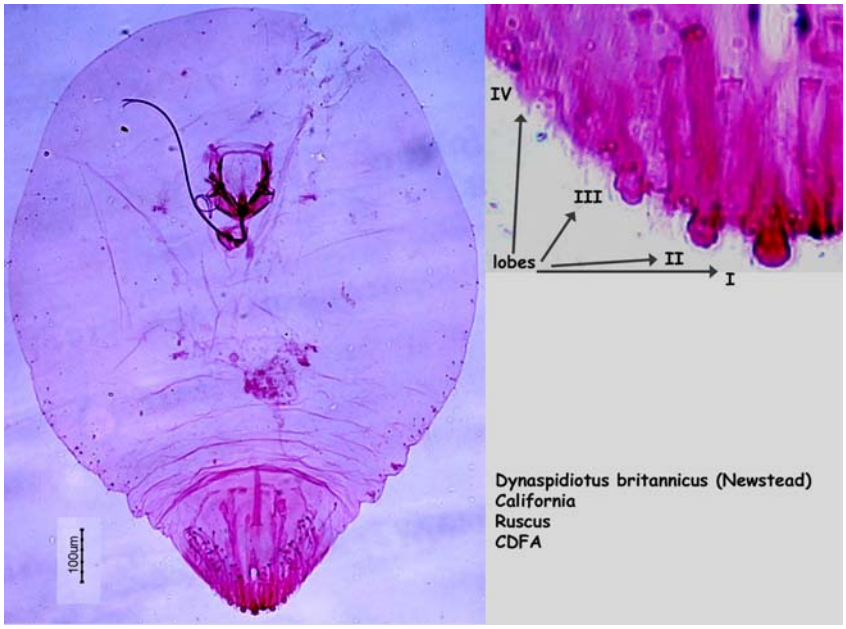
KEY TO THE GENERA OF THE ASPIDIOTINI

29’ Perivulvar pores absent; ; primarily associated with grasses but with ginger and Iris from Australasian (Hawaii), Nearctic, Palaearctic, & Oriental Regions; 15 species known…….....***Chortinaspis*** Ferris

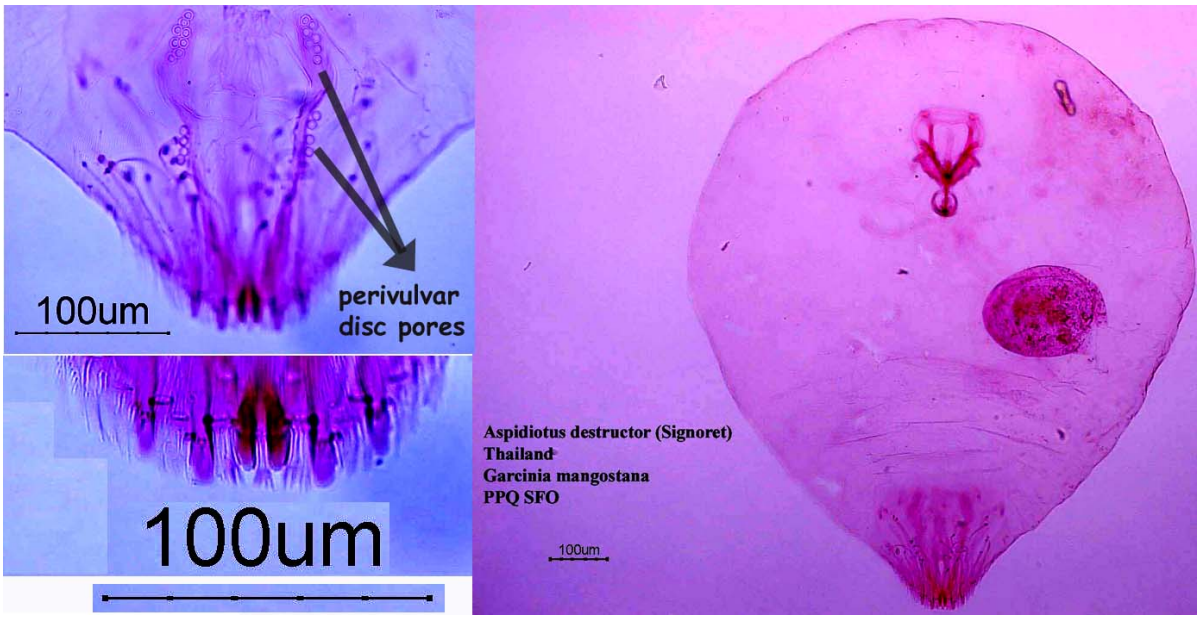
30(29) Three pairs of pygidial lobes definitely developed.....31

30’ Two pairs developed with the 3rd pair indicated at the most as a slight point.....32

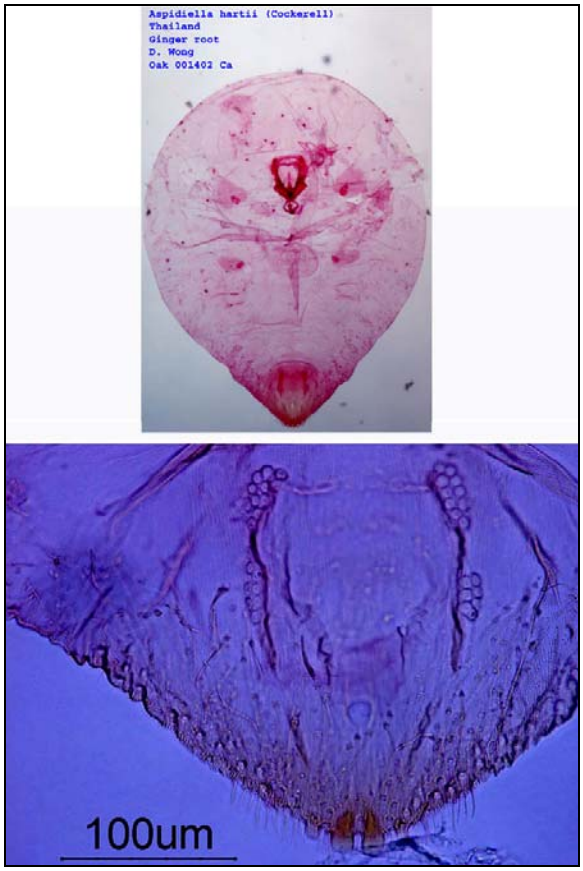
31(30) 4th pygidial lobe indicated at least definite sclerotized point; polyphagus occurring worldwide; 25 species known…….. ……***Dynaspidiotus*** Thiem & Gerneck

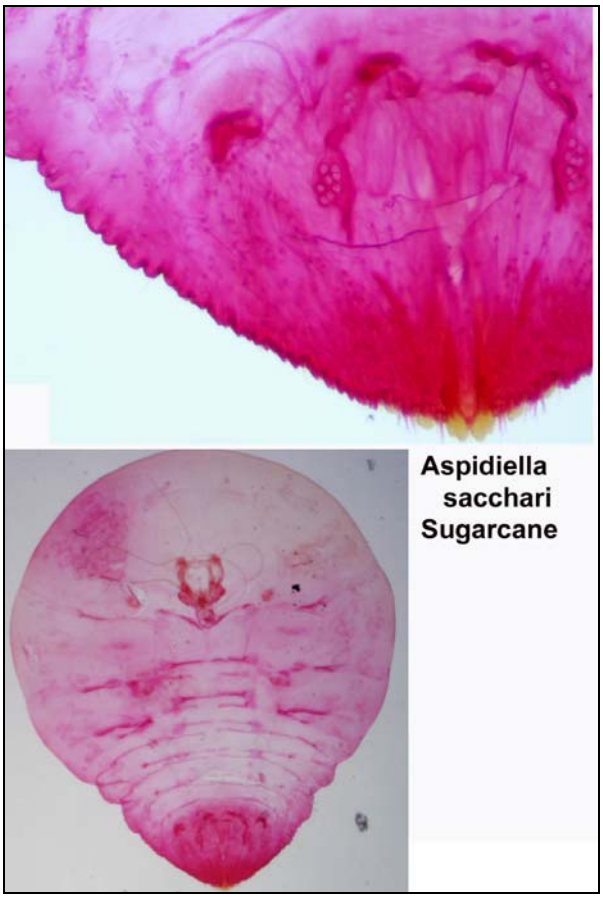


31’ 4th pygidial lobe not in the least developed; polyphagus occurring worldwide; 82 species known....***Aspidiotus*** Boucht

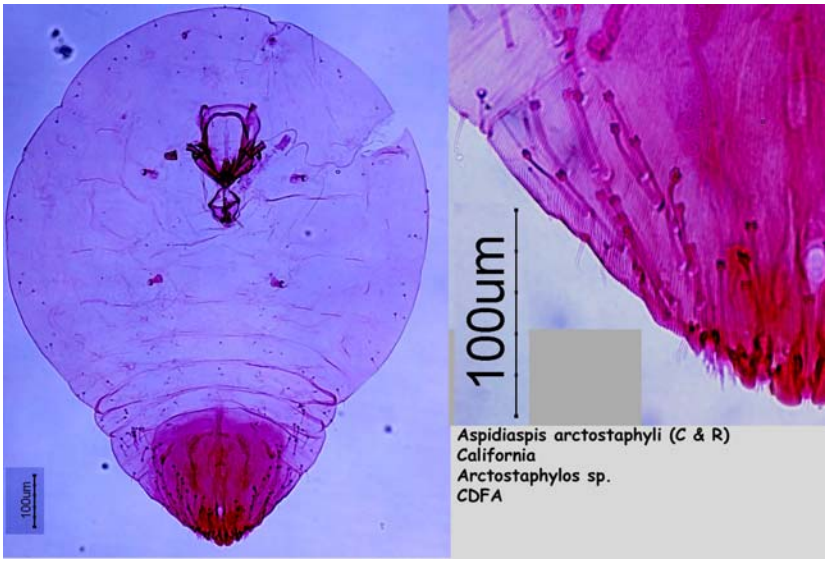


32(30) Ducts all small and slender, scattered, not arising from poriferous furrows, present in a broad marginal zone on the dorsum of the pygidium and in a narrower marginal zone on the ventral side; margin of the pygidium beyond the second lobe tending to be crenulated; polyphagus from Afrotropical, Australasian, Nearctic, Neotropical, & Oriental Regions; 8 species known.....***Aspidiella*** (Leonardi)





32' Ducts for the most part quite large, some of them arising from poriferous furrows extending from the 1st and 2nd interlobular space; polyphagus from the Nearctic & Palaearctic Regions; 82 species known ……***Aspidaspis*** Ferris



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John Dooley