



Field and Taxonomic Identification of Cycad Aulacaspis Scale

Amanda Hodges

University of Florida, SPDN

Greg Hodges

Florida Dept. of Agriculture, Division of Plant Industry

Cycad Aulacaspis Scale (CAS)



Dr. Ross Miller

CAS

- *Aulacaspis yasumatsui* Takagi
- Found in Miami in 1996.
- Females produce more than 100 eggs.
- Hatch into crawlers within 14 days.
- Roughly 35-40 days to new generation.
- **Commonly confused with false oleander scale.**

CAS

■ Systematics

Hemiptera

Coccoidea

Diaspididae

Diaspidinae

Aulacaspis yasumatsui

(Order)

(Superfamily)

(Family)

(Subfamily)

Field Identification

Diaspidinae Armored Scales

Field Specimens

- Armor:
 - Made of previous cast skins and secreted waxes.
 - Aids in protection.
- Adult females: Legless, located underneath armor
 - Armor will look similar to a white teardrop with a golden to brown apex.

Aspidiotine cover development

Female

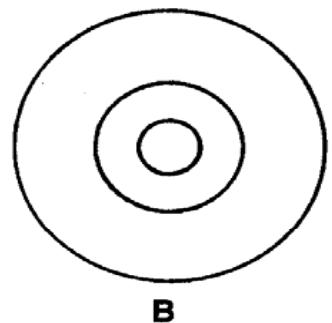


A

Male

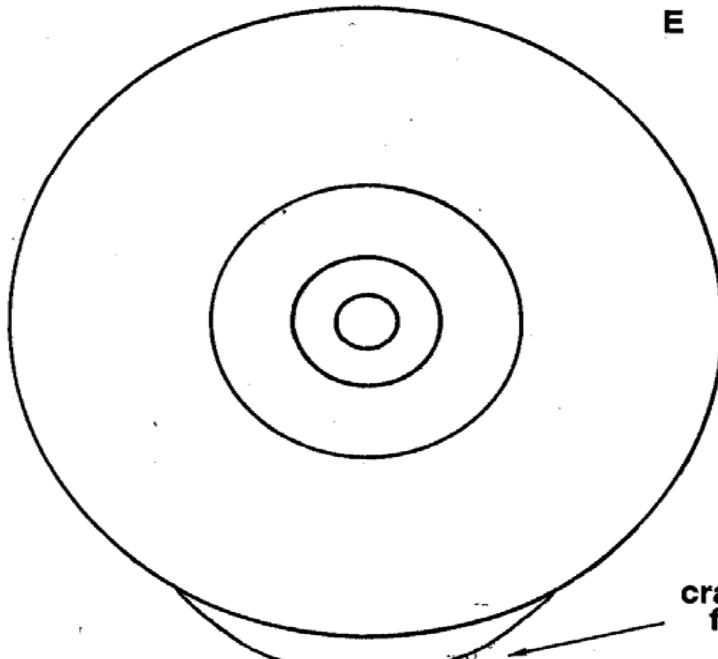


D



B

E



C

Diaspidine cover development

Female



F



G

SAD

H

Male



I



J



K

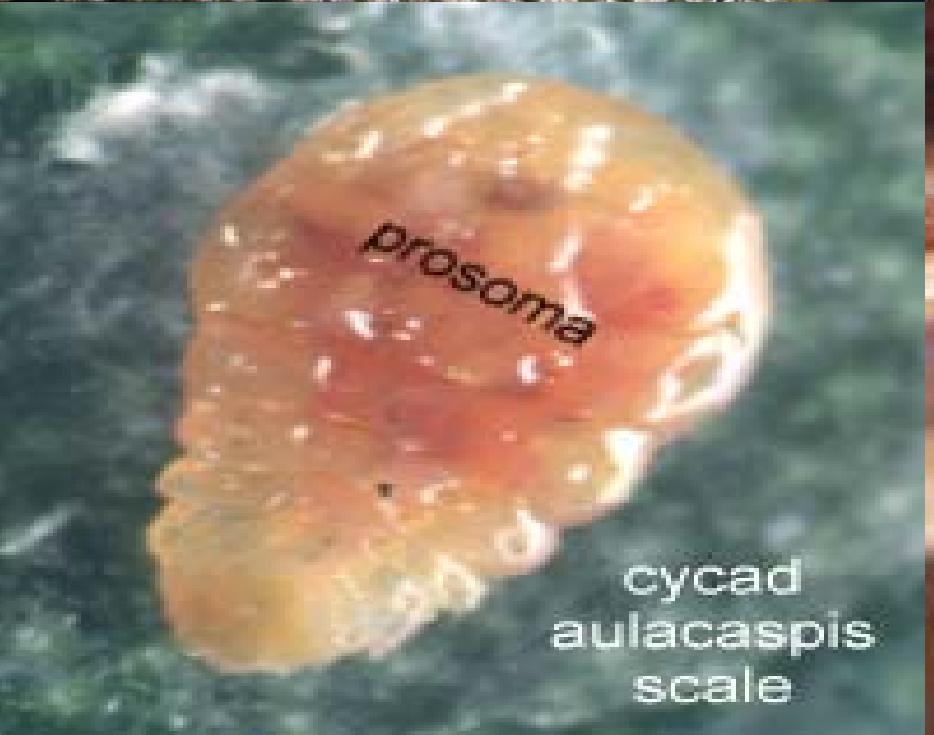
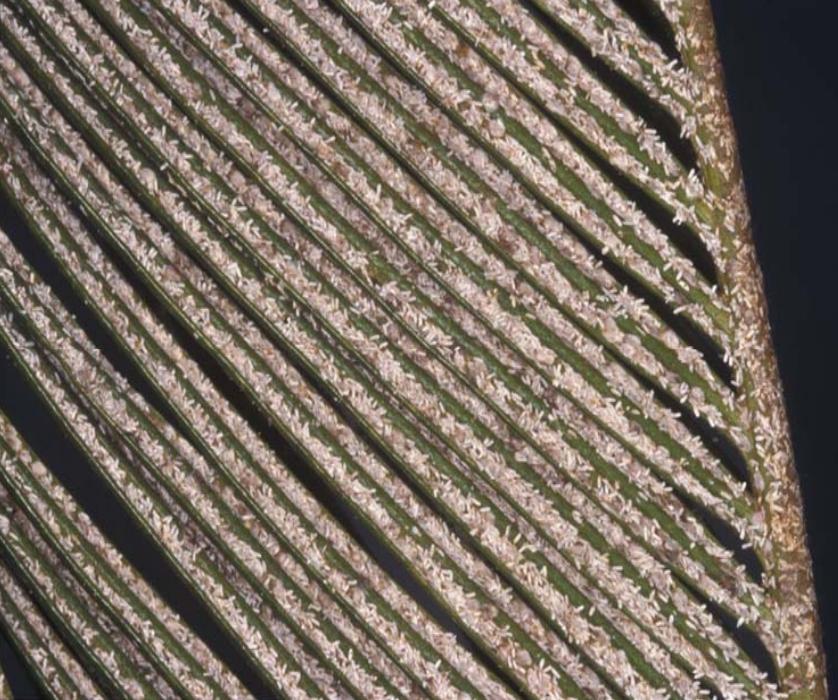
Shed exoskeleton, will appear golden to brown.

Wax cover will be white.

crawler flap







cycad
aulacaspis
scale



magnolia
white scale





Pseudaulacaspis cockerelli (False Oleander Scale)

Looks very similar to CAS but the female cover is generally more oyster-shell shaped and the wax portion of the cover tends to appear thicker than that of CAS.

Taxonomic Identification

How are Scale Insects Identified?

- Some may be tentatively identified in the field using characteristics of: shape of female, shape of female or male armor, shape of male, host, and feeding location on host.
- Most specimens must be slide-mounted for confirmatory diagnosis.
- Most taxonomic keys rely on the *Adult female* life stage.

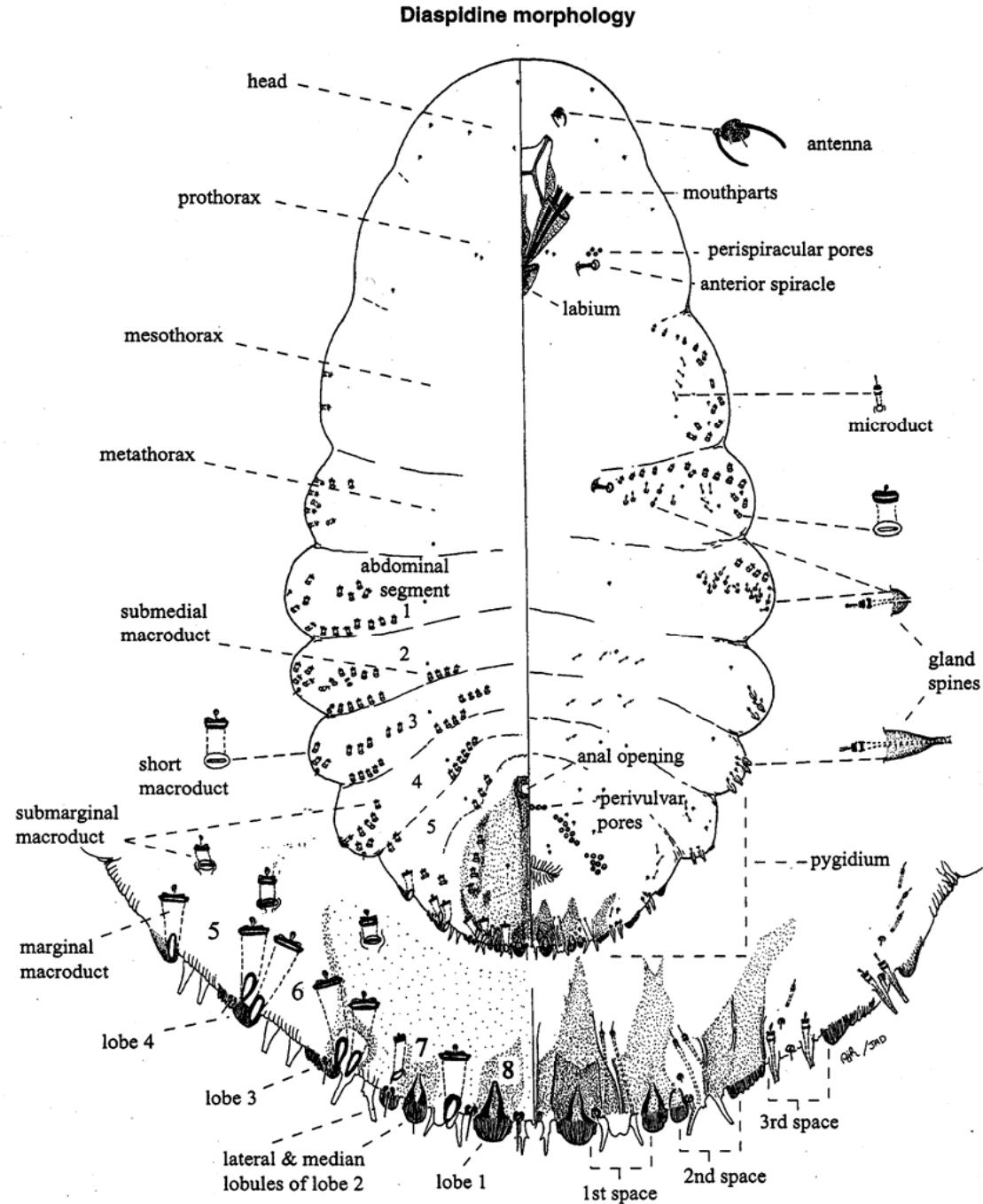


Figure 4. General morphology of slide-mounted adult female diaspidine.

Key Characters

- Gland Spines
- Macroducts
- Lobes
- Perivulvular Pores

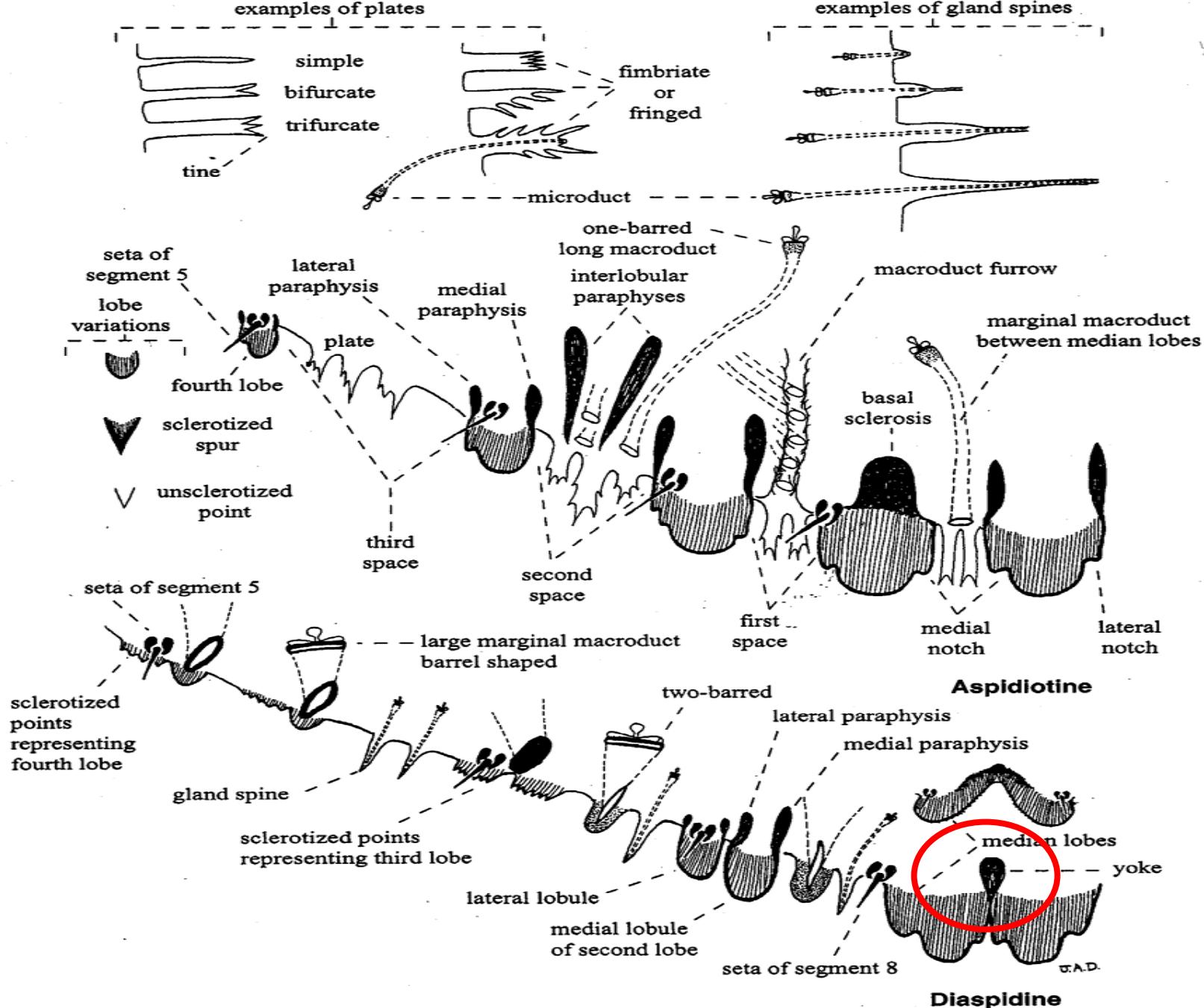
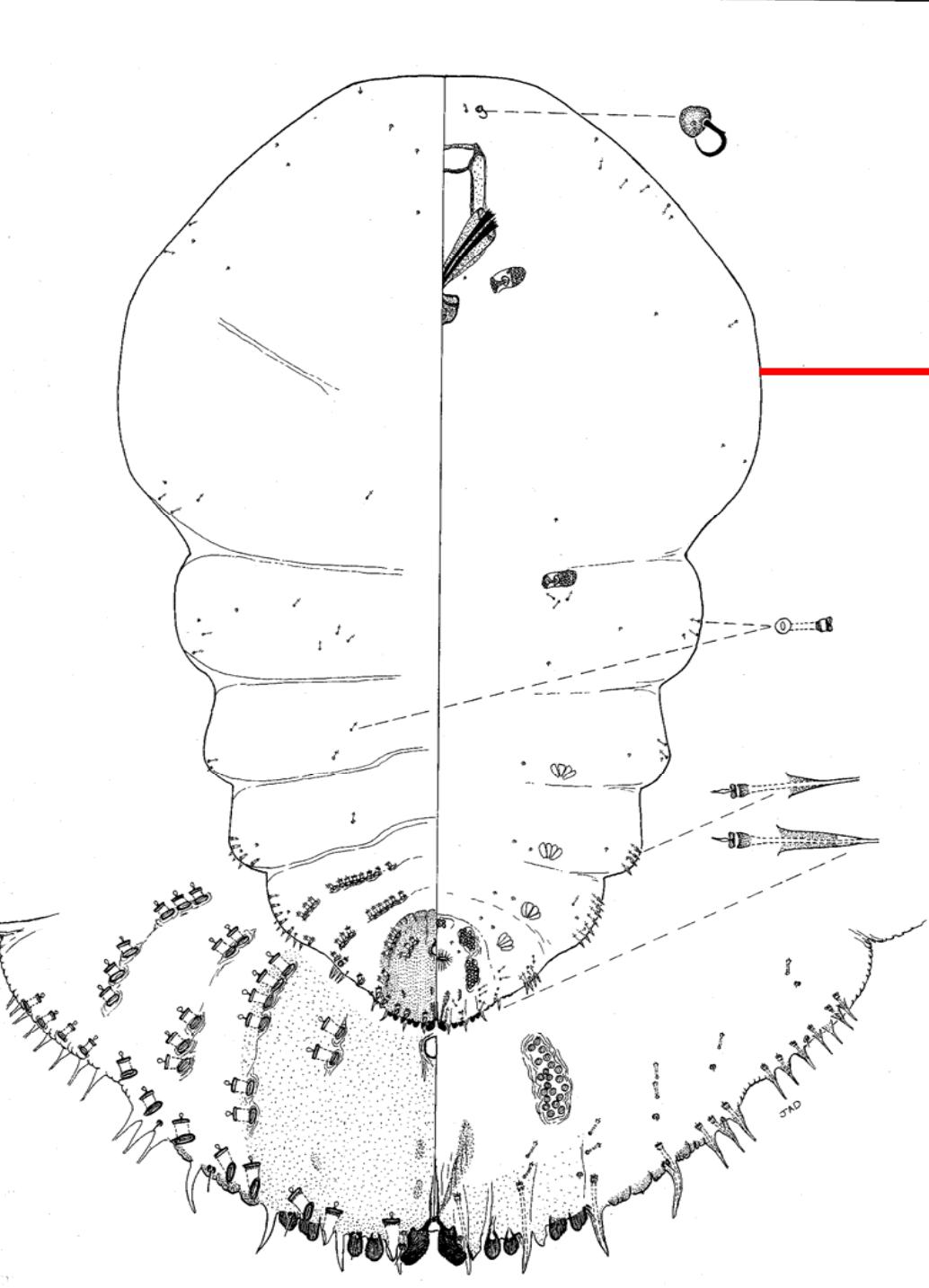


Figure 5. General morphology of pygidial margin.

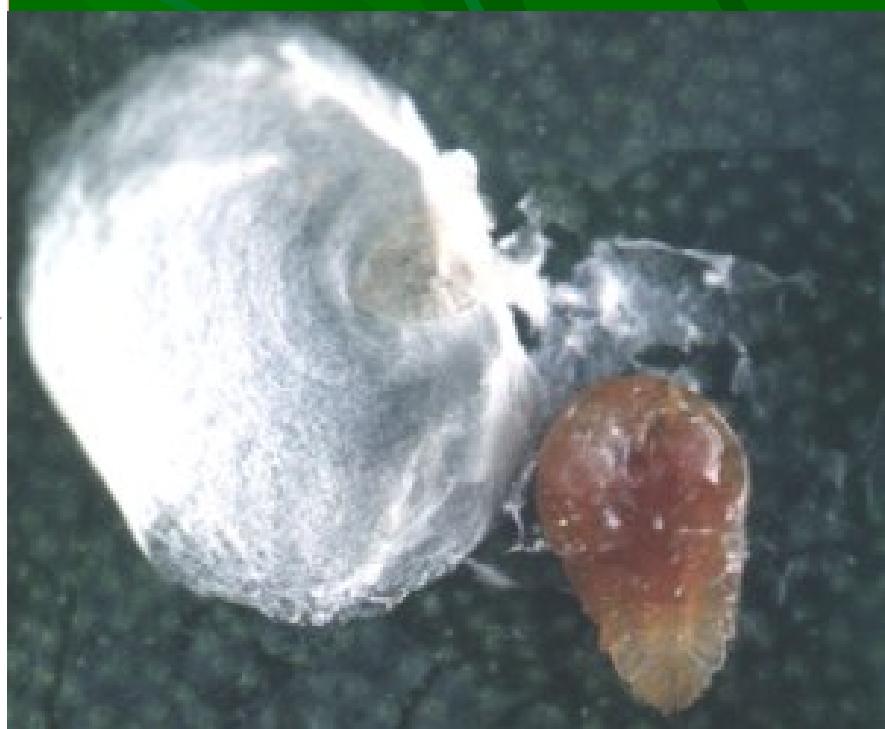
Key Characters for CAS and False Oleander Scale

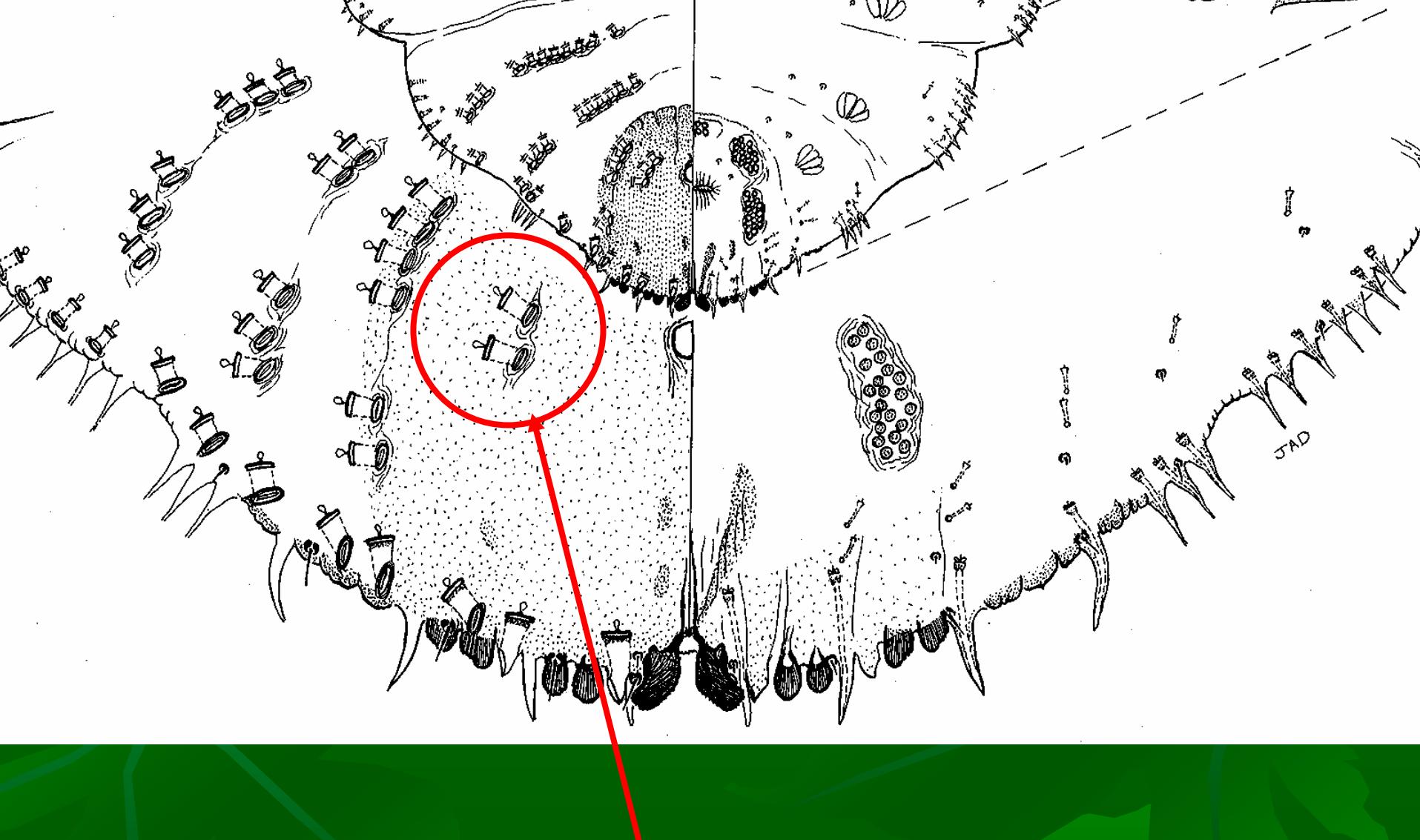
Character	CAS	False Oleander Scale
Median Lobes Yoked Together	Yes	Yes
Thorax and Head Wider than Abdomen	Yes	No
Somewhat Elongate Body Shape	No	Yes



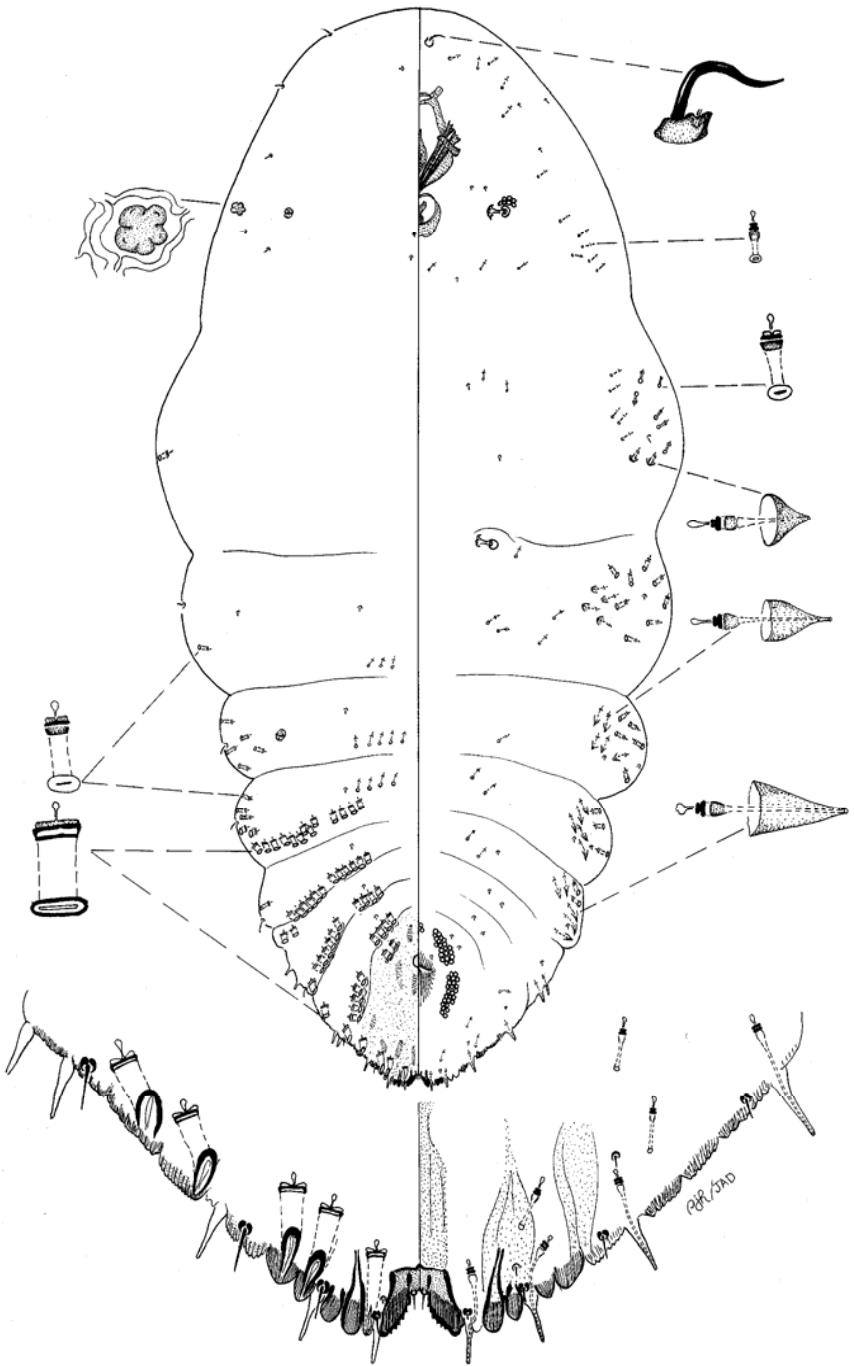
Aulacaspis yasumatsui

Rectangular shaped head
and thorax





Two, two barred ducts present in illustration. However, there is a range in the original description of 1-3 ducts present in this area.

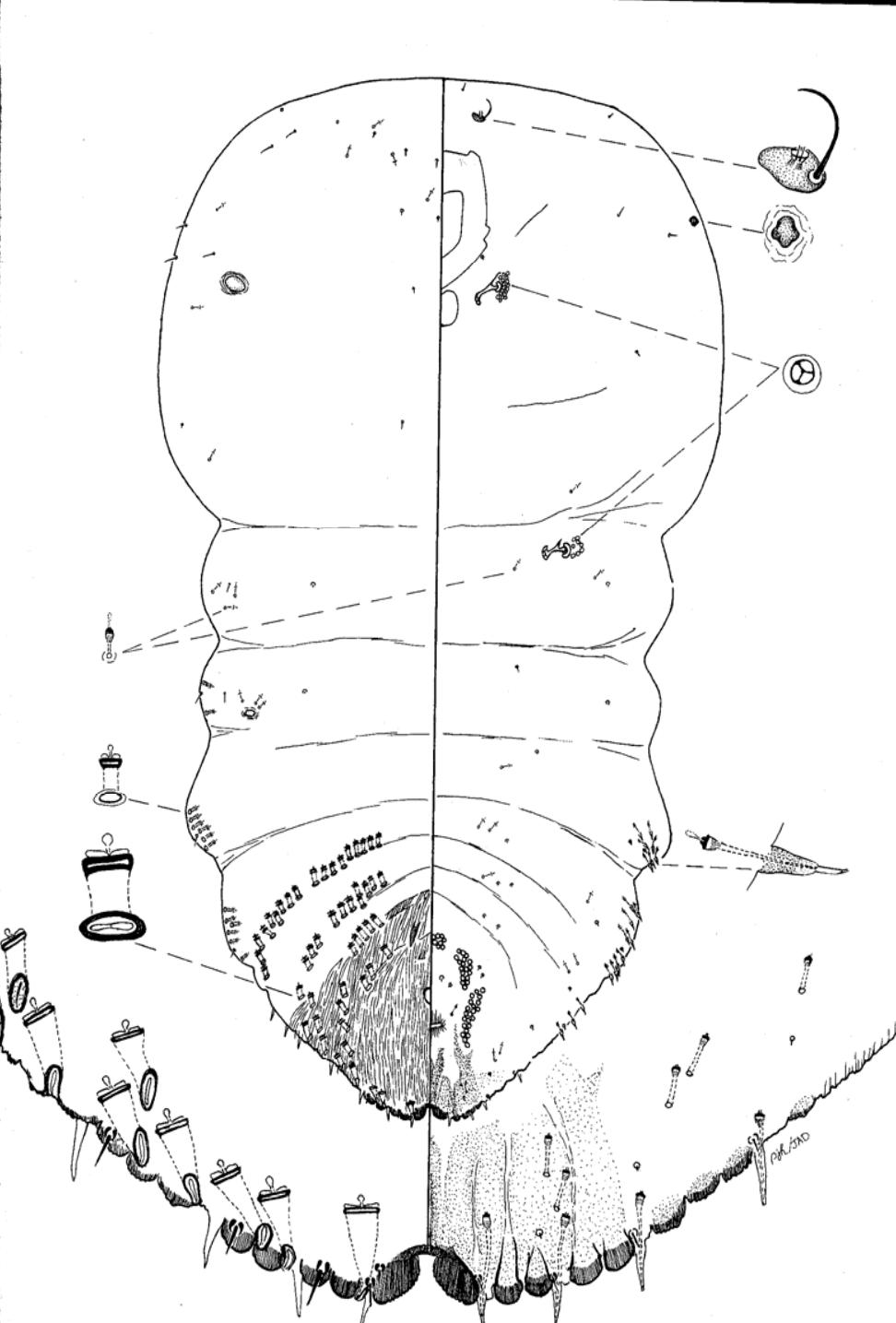


Pseudaulacaspis cockerelli
(Cooley)

Wide host range, common on
Cycas revoluta in Florida.

Distribution (outdoor): AL, AR,
FL, GA, HI, LA, TX





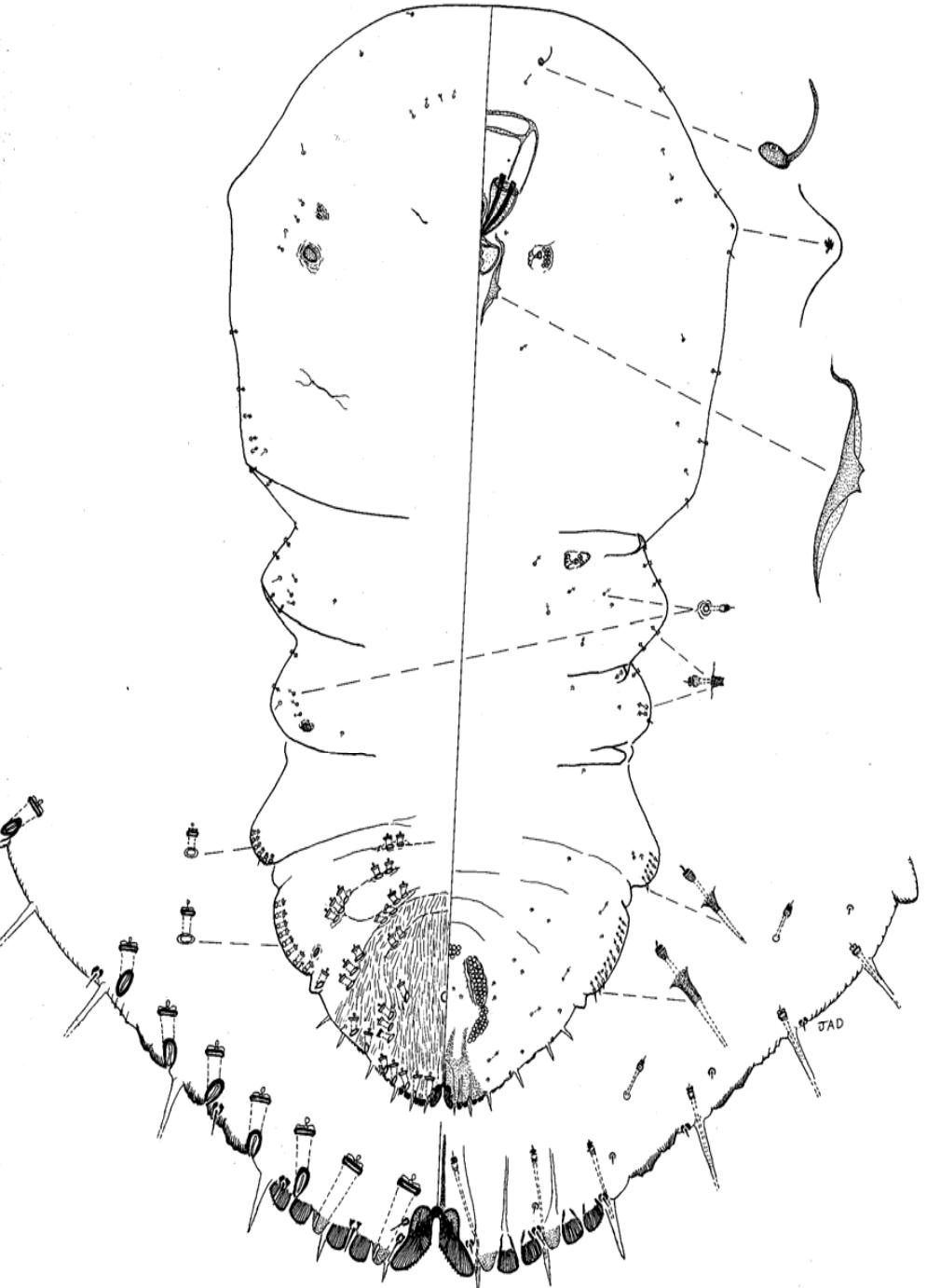
Aulacaspis rosae (Bouche)

Common on roses

Distribution: AR, CA, CT, DC, FL, GA, IA, IL, IN, KS, KY, LA, MA, MD, MI, MO, MS, NC, NH, NJ, NM, NY, OH, OR, PA, SC, TX, UT, VA, WA, WY, WV



R.J. Gill



Aulacaspis tubercularis

Newstead

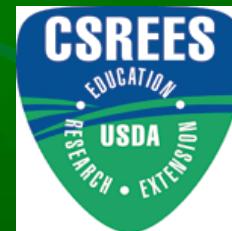
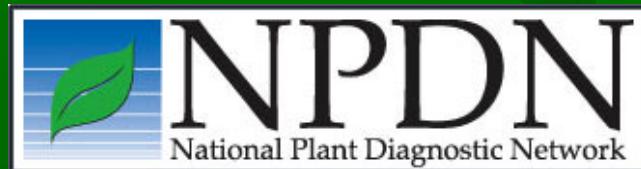
Polyphagous but not a
common species.

Distribution: FL



Questions???

- Amanda Hodges, University of Florida
- SPDN Assistant Director <http://spdn.ifas.ufl.edu>
- achodges@ufl.edu or (352) 392-1901 ext. 199



- Greg Hodges, FDACS-DPI
- Coccoidea and Aleyroidea Taxonomist
- hodgesg@doacs.state.fl.us or (352) 372-3505 ext. 183