

Banasa

dimiata & euchlora









BMSB

Brochymena quadripustulata

Thyanta spp.

Eggs of Pentatomidae found in

Chinavia hilaris

the Eastern USA histrionica

Trichopepla semivittata





Edessa florida



Euschistus servus



Holcosthetus limbolarius



Oebalus pugnax



Menecles insertus



Mormidea lugens



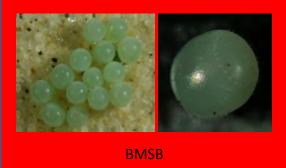
Podisus maculiventris



Stiretrus anchorago



Banasa dimiata & euchlora



Brochymena quadripustulata



Thyanta spp.



Chinavia hilaris



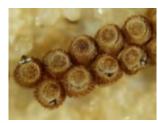
Chlorochroa sayi



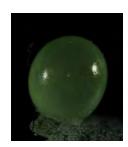
Cosmopepla lintneriana



Murgantia histrionica



Trichopepla semivittata



COCCOO

Edessa florida



Euschistus servus



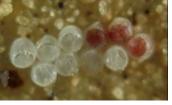
Holcosthetus limbolarius



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Podisus maculiventris



Stiretrus anchorago

Egg characteristics – what to look out for

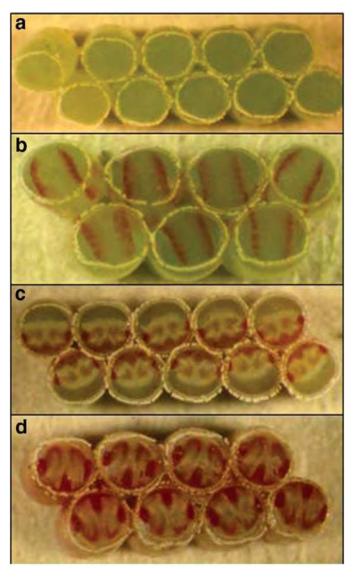
- Chorion reticulate, pitted, smooth, ...
 - spines
 - translucent
- Operculum
- Micropylar processes number, size, shape
- Egg Shape ovate, globose, cylindrical, elliptical,

• • •



Oebalus pugnax

Color



Bernhardt, J.L (2009) Color changes and development of eggs of rice stink bug (Hemiptera: Pentatomidae) in response to temperature. AnnalsEntomolSocAm 102(4): 638-641





Piezodorus lituratus







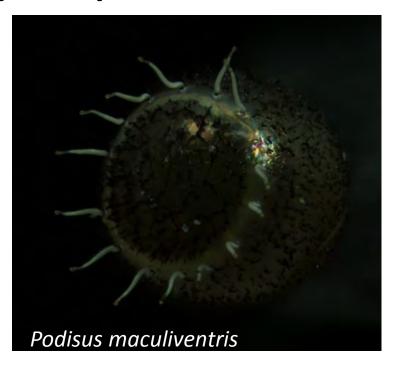


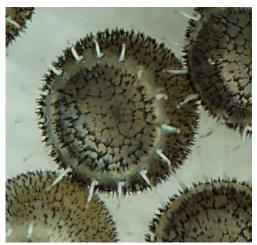


Spines vs. Micropylar processes









Banasa spp.







Egg Shape:

Barrel-shaped or subcylindrical

Chorion:

- Pitted shallowly
- In a comb-like, regular pattern

Operculum:

- Convex
- Surrounded by a pale colored ring

Micropylar processes:

- 17-22 in B. euchlora
- 20-26 in *B. dimiata*
- Clavate
- Short
- Sitting on the outside of the pale colored ring

• # eggs per egg mass:

6-19 (mean 8.86 ± 1.74) in B. euchlora

Brochymena sp.





• Chorion:

Pitted

• Operculum:

- Convex
- Surrounded by distinct ring

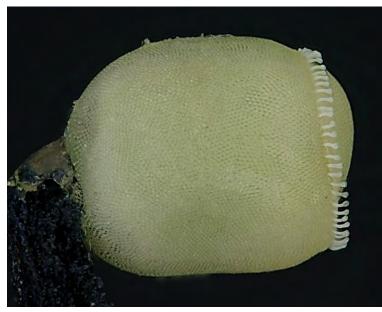
• Micropylar processes:

- **-~20**
- Minute

Shape:

Obovate (i.e. inversely ovate)

Chinavia hilaris







Shape:

Subcylindrical with rounded edges at the top and bottom

Chorion:

- Pitted
- Pits align in regular (somewhat wavy) rows running from top to bottom

• Operculum:

Slightly convex

• Micropylar processes:

- -50-59
- Clavate
- Medium-sized
- Curving inward

• # Eggs per Egg Mass:

- 3-59 (mean 25.23 ± 2.62)

Chlorochroa spp.







Shape:

- Cylindrical to Sub-ovate
- Chorion:
 - Pitted
 - Top of egg with distinct,
 pale and dark-grey,
 alternating bands
- Operculum:
 - Slightly convex
- Micropylar processes:
 - 19-27 in C. ligata
 - Distinctly clavate
 - short

Cosmopepla lintneriana



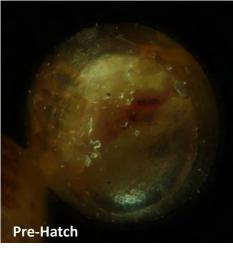


- Egg Shape:
 - Ovate
- Chorion:
 - Smooth
 - Reflecting/shiny
 - Translucent (developing nymphs visible through chorion)
- Operculum:
 - Convex
- Micropylar processes:
 - **–** 15-19
 - Clavate and curving inward
 - Short to medium-sized
- # Eggs per Egg Mass:
 - 1-12 (mean 5.65 ± 0.41)

Edessa florida







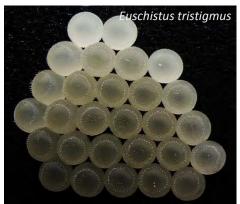
Shape:

- Elliptical
- Chorion:
 - Smooth with irregularly arranged shallow welts (looks like rain drops on a window)
 - Clear
- Operculum:
 - Convex
- Micropylar processes:
 - -20-25
 - Short
 - Clavate
 - Inconspicuous
- # Eggs per Egg Mass:
 - 3-18 (mean 11.90 ± 0.45)

Euschistus spp.







Egg Shape:

Globose

Chorion:

- Reticulated; triangles forming a fracturelike pattern
- Spines; not webbed together
- Translucent

• Operculum:

Convex

Micropylar processes:

- 20-28 in *E. servus*; 29-36 in *E. tristigmus*
- Slightly clavate

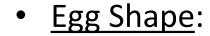
• # Eggs per Egg Mass:

1-54 (mean 14.92 ± 0.64) in *E. servus*;
 2-33 (mean 13.60 ± 0.38) in *E. tristigmus*



Halyomorpha halys





Elliptical or barrel-shaped

Chorion:

- Reticulate
- Impressions shallow
- Triangular pattern, only weakly defined

Operculum:

Convex

Micropylar processes:

- **–** 28-36
- Clavate
- Length: 2-3x the diameter of the micropylar head





Feeding tubes

Holcostethus limbolarius





• Egg Shape:

- Elliptical
- Chorion:
 - Reticulated; triangular pattern
 - Spines (at intersections of triangles)
 - Translucent
- Operculum:
 - Convex
- Micropylar processes:
 - **-** 15-20
 - Clavate
 - Short (about 2x as long as wide)
- # Eggs per Egg Mass:
 - 2-14 (mean 7.54 ± 1.12)

Menecles insertus





Close to hatch

Egg Shape:

Oval

• Chorion:

- Reticulated
- Irregularly arranged triangular pattern
- Spines at the edges of triangles; not webbed together

Operculum:

- Convex
- Micropylar processes:
 - -21-29
 - Short to Medium-sized
 - Slightly clavate
- # Eggs per Egg Mass:
 - 11-14 (mean 12 ± 1)

Mormidea lugens







- Egg Shape:
 - Subcylindrical
- Chorion:
 - Reticulated
 - Triangular weblike pattern
 - Spines; not webbed together
 - Translucent
- Operculum:
 - Convex
- Micropylar processes:
 - **–** 24-32
 - Slightly clavate
- # Eggs per Egg Mass:
 - 1-17 (mean 8.18 ± 0.59)

Murgantia histrionica





- Cylindrical
- Top and bottom edges slightly smoothed

• Chorion:

- Pitted
- Black-and-white horizontal coloration (occasionally allwhite/creamy colored eggs are laid)

Operculum:

- Slightly convex
- Yin/Yang-like pattern on top

• Micropylar processes:

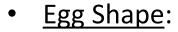
- **–** 25-30
- Minute

Eggs per Egg Mass:

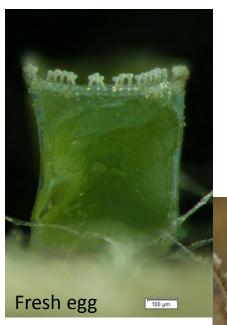
1-37 (mean 9.22 ± 0.09)



Oebalus pugnax



- cylindrical
- Chorion:
 - Smooth
 - Translucent (color changes over time with nymphal development; orange-reddish coloration shortly close to hatch)
 - With small welts (under high magnification)
- Operculum:
 - Flat (or nearly so)
- Micropylar processes:
 - -58-63
 - Aligned densely around the operculum
 - Clavate
- # Eggs per Egg Mass:
 - 2-32 (mean 13 ± 3.11)



Eggs close to hatch



Podisus maculiventris





Egg Shape:

Globose

• Chorion:

- Reticulated
- Spines (usually) darker than underlying chorion; irregularly aligned
- Metallic

• Operculum:

- Convex
- Micropylar processes:
 - **–** 11-18
 - Long
 - Wave-like/Sigmoid
- # Eggs per Egg Mass:
 - 1-161 (mean 17.47 ± 0.15)



Stiretrus anchorago







Egg Shape:

Oval

• Chorion:

- Reticulated
- Spines strong and irregularly aligned, darker than underlying chorion

Operculum:

- Convex
- Micropylar processes:
 - -14-20
 - Long
 - Clavate and curved inward
 - Each micropyle sitting on a single spine

Eggs per Egg Mass:

— 1-18 (mean 5.11 ± 1.32)



Thyanta spp.





Egg Shape:

- Cylindrical
- Chorion:
 - Pitted
 - Alternating pale and dark bands
- Operculum:
 - Convex
 - Pale spot in the middle
 - Surrounded by pale ring
- Micropylar processes:
 - 16-20 in Thyanta custator
 - Slightly clavate
 - Short
- # Eggs per Egg Mass:
 - 2-41 (mean 22.70 ± 1.36) in *T. custator*;
 2-52 (mean 19.84 ± 3.05) in *T. c. accerra*

Trichopepla sp.



- Egg Shape:
 - Elliptical
- Chorion:
 - Reticulated
 - Spines; webbed together
- Operculum:
 - Convex
- Micropylar processes:
 - -13-19
 - Not clavate (or only slightly so)