

[This is a copy of an electronic appendix that will be downloadable from www.umbi.umd.edu/users/jcrlab/eggshells.doc]

APPENDIX

[Regier, J.C., Paukstadt, U., Paukstadt, L.H., Mitter, C., and Peigler, R.S. 2004. Phylogenetics of eggshell morphogenesis in *Antheraea* (Lepidoptera: Saturniidae): Unique origin and repeated reduction of the aeropyle crown. *Systematic Biology* (submitted).]

References to bombycoid moths with known eggshell surface structures¹

I. Bombycidae

Bombyx mori: Hinton, H.E. (1981). **Biology of Insect Eggs**, vol. I. Pergamon Press, Oxford. 473 pgs + 155 pls + 135 figs.

II. Lasiocampidae

Lasiocampa quercus: Hinton, H.E. (1981). **Biology of Insect Eggs**, vol. I. Pergamon Press, Oxford. 473 pgs + 155 pls + 135 figs.

III. Saturniidae (31/161)

III.a. Arsenurinae (2/10)

Arsenura armida: unpublished observations

Dysdaemonia boreas: unpublished observations

III.b. Ceratocampinae (2/28)

Eacles imperialis: unpublished observations

Citheronia sepulchralis: unpublished observations

III.c. Hemileucinae (4/51)

Automeris io: unpublished observations

Automeris zephyria: unpublished observations

Coloradia pandora: unpublished observations

Lonomia achelous: unpublished observations

Polythysana apollina: unpublished observations

III.d. Saturniinae (23/63)

III.d.1. Micragonini (1/9)

Holocerina smilax: unpublished observations

III.d.2. Bunaeini (1/16)

Imbrasia cytherea: unpublished observations

III.d.3. Attacini (8/9)

Archaeoattacus edwardsii: this report (Fig. 7H)

Archaeoattacus staudingeri: this report (Fig. 7I)

Attacus caesar: unpublished observations

Attacus lorquinii: unpublished observations

Callosamia securifera: unpublished observations

Coscinocera hercules: unpublished observations

Eupackardia calleta: unpublished observations

Hyalophora cecropia: Hatzopoulos, A.K. and Regier, J.C. (1987). Evolutionary changes in the developmental expression of silkworm chorion genes and their morphological consequences. *Proc. Natl. Acad. Sci. USA* 84: 479-483.

Rothschildia forbesi: unpublished observations

Rothschildia lebeau: unpublished observations

Rothschildia orizaba: unpublished observations

Samia cynthia: unpublished observations

Samia abrerai: Paukstadt, L.H. and Paukstadt, U. (2000). Beschreibung der Präimaginalstadien einer noch unbeschriebenen Art der Gattung *Samia* Hübner, 1819 ("1816") von Bali, Indonesien (Lepidoptera: Saturniidae). *galathea - Berichte des Kreises Nürnberger Entomologen* (Nürnberg), Supplement 8: 41-51.

Samia ricini: Hinton, H.E. (1981). **Biology of Insect Eggs**, vol. I. Pergamon Press, Oxford. 473 pgs + 155 pls + 135 figs.

III.d.4. Saturniini (12/16)

Actias selene: Eitschberger, U. and Brehm, G. (1998). Bildliche Darstellung der Präimaginalstadien von *Actias selene* aus Nord-Indien (Lepidoptera: Saturniidae). *Tropical Lepidoptera* 9: 23-27.

Antheraea cordifolia: this report (Fig. 6F)

Antheraea diehli: Buchsbaum, U., and Brüggemeier, F. 1996. *Antheraea (Antheraea) diehli* Lemaire discovered on Nias Island, with notes on the eggs and a rearing attempt (Lepidoptera). In W.A. Nässig, R.E.J. Lampe, and S. Kager. **The Saturniidae of Sumatra (Lepidoptera)**, Appendix II. Göttingen, Germany. *Heterocera Sumatrana* 10: 171-174.

Antheraea expectata: this report (Fig. 6A); Paukstadt, L.H. and Paukstadt, U. (2000). Die Präimaginalstadien von *Antheraea (Antheraea) expectata* Brechlin, 2000 von Sulawesi, Indonesien (Lepidoptera: Saturniidae). *galathea - Berichte des Kreises Nürnberger Entomologen* (Nürnberg). Supplement 16: 109-124.

Antheraea godmani: this report (Fig. 5E)

Antheraea halconensis: this report (Fig. 5B)

Antheraea helferi: this report (Fig. 5F)

Antheraea imperator: unpublished observations; Paukstadt, L.H. and Paukstadt, U. (2003). Die Präimaginalstadien von *Antheraea (Antheraea) imperator* Watson, 1913, von Jawa, Indonesien (Lepidoptera: Saturniidae). *Entomologische Zeitschrift* 113: 19-23.

- Antheraea jana* (Bali): Naumann, S. and Nässig, W.A. (2000). A rearing of *Antheraea* (*Antheraea*) sp. (probably *jana* (Stoll, 1782)) from Bali, Indonesia (Lepidoptera: Saturniidae). Nachrichten des Entomologischen Vereins Apollo (Frankfurt/Main), N.F. 21: 25-30.
- Antheraea jana* (Lombok): this report (Fig. 5G)
- Antheraea kelimutuensis*: this report (Fig. 5C); Paukstadt, L.H. and Paukstadt, U. (2000). Die Präimaginalstadien von *Antheraea* (*Antheraea*) *kelimutuensis* U. Paukstadt, L.H. Paukstadt & Suhardjono, 1997 von Flores, Indonesien (Lepidoptera: Saturniidae). galathea - Berichte des Kreises Nürnberger Entomologen (Nürnberg), Supplement 8: 6-21.
- Antheraea lampei*: this report (Fig. 6C)
- Antheraea larissa*: unpublished observations; Paukstadt, L.H. and Paukstadt, U. (2002). Die Präimaginalstadien von *Antheraea* (*Antheraea*) *larissa* (Westwood, 1847) von Java, Indonesien (Lepidoptera: Saturniidae). Nachrichten des Entomologischen Vereins Apollo (Frankfurt am Main), N.F. 23: 59-64.
- Antheraea mylitta*: this report (Fig. 5I); Jolly, M.S., and Sen, S.K. 1974. Patterns of follicular imprints in egg shell, a species specific character in *Antheraea* (Lepidoptera). *Bull. Ent.* 10: 32-38.
- Antheraea pasteuri*: Paukstadt, L.H. and Paukstadt, U. (2000). Beschreibung der Präimaginalstadien von *Antheraea* (*Antheraea*) *pasteuri* Bouvier, 1928 [oder eines anderen nah verwandten Taxons] von Lombok, Indonesien (Lepidoptera: Saturniidae). galathea - Berichte des Kreises Nürnberger Entomologen (Nürnberg), Supplement 7: 7-18.
- Antheraea paukstadtorum*: this report (Fig. 4F)
- Antheraea pernyi*: this report (Fig. 4A-C); Kawakami, T., Nakajima, F., and Tanaka, K. (1980). Surface structure of egg-shell in the Japanese Tusser, *Antheraea yamamai* and Chinese Tusser, *Antheraea pernyi* (Saturniidae: Lepidoptera). *Jap. J. appl. Ent. Zool.* 24: 241-245. (in Japanese); Hinton, H.E. (1981). **Biology of Insect Eggs**, vol. I. Pergamon Press, Oxford. 473 pgs + 155 pls + 135 figs.
- Antheraea platessa*: this report (Fig. 5H)
- Antheraea polyphemus*: this report (Fig. 4D,E); Regier, J.C., Mazur, G.D., and Kafatos, F.C. (1980). The silkmoth chorion: Morphological and biochemical characterization of four surface regions. *Develop. Biol.* 76: 286-304.
- Antheraea raffrayi*: unpublished observations; Paukstadt, L.H., and Paukstadt, U. 2000a. Die Beschreibung der Präimaginalstadien von *Antheraea* (*Antheraea*) *raffrayi* Bouvier, 1928 von Bali, Indonesien (Lepidoptera: Saturniidae). galathea - Berichte des Kreises Nürnberger Entomologen eV, Nürnberg. 16: 129-138.
- Antheraea rosemariae*: this report (Fig. 5A)
- Antheraea rosieri*: this report (Fig. 6B)
- Antheraea rumphii*: unpublished observations
- Antheraea royliei*: this report (Fig. 6E); Jolly, M.S., and Sen, S.K. 1969. Patterns of follicular imprints in egg shell, a species specific character in *Antheraea* (Lepidoptera) II. *Ind. J. Seri.* 13: 36-43.
- Antheraea yamamai*: this report (Fig. 6D); Kawakami, T., Nakajima, F., and Tanaka, K. (1980). Surface structure of egg-shell in the Japanese Tusser, *Antheraea yamamai* and Chinese Tusser, *Antheraea pernyi* (Saturniidae: Lepidoptera). *Jap. J. appl. Ent. Zool.* 24: 241-245. (in Japanese); Hinton, H.E. (1981). **Biology of Insect Eggs**, vol. I. Pergamon Press, Oxford. 473 pgs + 155 pls + 135 figs.

Antheraea youngi: this report (Fig. 5D); Paukstadt, L.H. and Paukstadt, U. (2001). Beschreibung der Präimaginalstadien von *Antheraea* (*Antheraeopsis*) *youngi* Watson, 1915 von Jawa, Indonesien (Lepidoptera: Saturniidae). galathea - Berichte des Kreises Nürnberger Entomologen (Nürnberg), Supplement 10: 109-124.

Antherina suraka: this report (Fig. 7E)

Argema mittrei: unpublished observations

Copaxa cydippe: this report (Fig. 7G)

Copaxa multifenestrata: unpublished observations

Cricula andrei: unpublished observations

Graellsia isabellae: this report (Fig. 7A)

Loepa katinka: this report (Fig. 7B)

Rhodinia fugax: this report (Fig. 7D); Hinton, H.E. (1981). **Biology of Insect Eggs**, vol. I. Pergamon Press, Oxford. 473 pgs + 155 pls + 135 figs.

Rhodinia jankowskii: unpublished observations

Saturnia (Caligula) japonica: unpublished observations

Saturnia (Eudia) pavonia: Hinton, H.E. (1981). **Biology of Insect Eggs**, vol. I. Pergamon Press, Oxford. 473 pgs + 155 pls + 135 figs.

Saturnia (Saturnia) pyri: this report (Fig. 7C)

Syntherata leonae: this report (Fig. 7F)

III.d.5. Urotini (1/12)

Pseudaphelia apollinaris: unpublished observations

IV. Sphingidae

Manduca sexta: unpublished observations

¹ Numbers within parentheses that follow supra-generic clade names (for Saturniidae only) refer to the number of genera in which at least one species has been examined for eggshell structure followed by the total number of genera in that clade.