



The Taxonomic Report

OF THE INTERNATIONAL LEPIDOPTERA SURVEY



ISSN 2643-4776 (print) / ISSN 2643-4806 (online)

Louisiana species of the genus *Xestia* Hübner and the genus *Agnorisma* Lafontaine

Vernon Antoine Brou Jr. and Charlotte Dozar Brou
 74320 Jack Loyd Road
 Abita Springs, Louisiana, 70420
 E-mail: vabrou@bellsouth.net

Abstract. We address three species of the genus *Xestia* Hübner recorded for the state of Louisiana: *Xestia dilucida* (Morrison), *Xestia elimata* (Guenée) and *Xestia c-nigrum* (Linnaeus), and we also address new state capture records for *Agnorisma badinodis* (Grote) and *Agnorisma bollii* in Louisiana.

The medium-size brownish colored Noctuidae moth *Xestia dilucida* (Morrison) (**Fig. 1a**) is a commonly encountered fall species at the **Abita Entomological Study Site* (AESS), as is the slightly larger gray species *Xestia elimata* (Guenée) (**Fig. 1b**). The Louisiana parish records for these two species are illustrated in **Fig. 2**. Both species, have almost identical single-brood flight periods at the AESS, both populations peaking early to mid-November (**Figs. 3 & 4**).

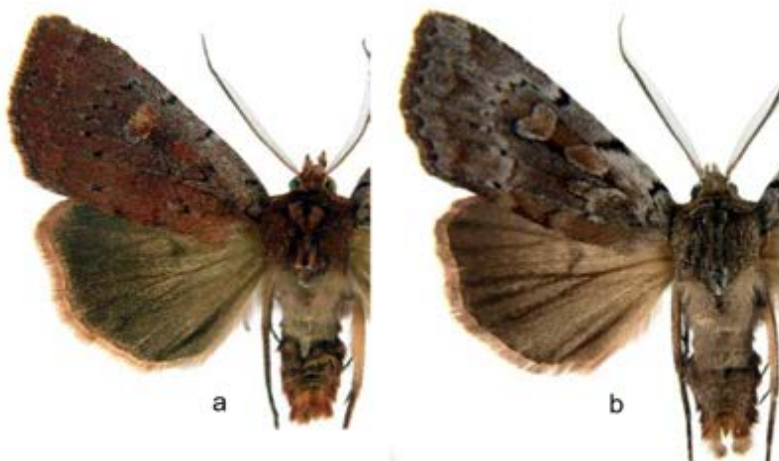


Fig. 1. *Xestia* species, males: a. *X. dilucida*, b. *X. elimata*.

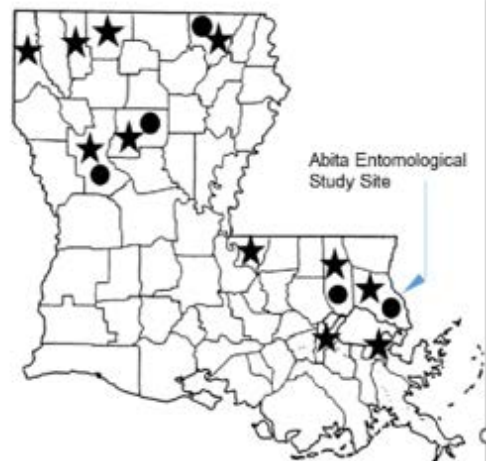


Fig. 2. Parish records for *X. dilucida* ● and *X. elimata* ★

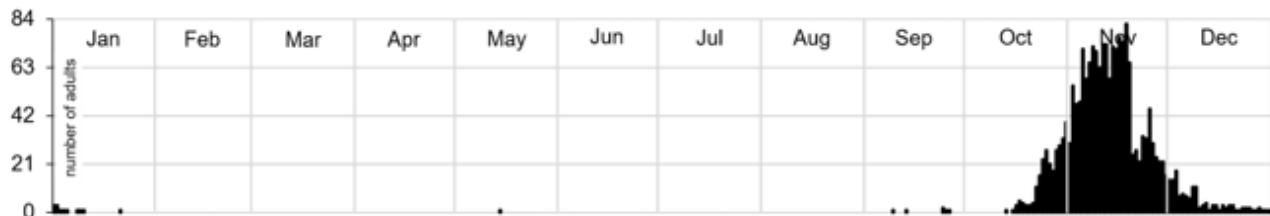


Fig. 3. *X. dilucida* captured at sec.24T6SR12E, 4.2 mi. northeast of Abita Springs, Louisiana. n = 1,947



Fig. 4. *X. elimata* captured at sec.24T6SR12E, 4.2 mi. northeast of Abita Springs, Louisiana. n = 2,037

Lafontaine (1998) stated the range of both *X. elimata* (Guenée) and *X. dilucida* (Morrison) to include southern Maine to northern Florida and west to Eastern Texas, wild adults of *X. elimata* occurring August to September and *X. dilucida* occurring August to November. An adult *X. dilucida* is illustrated from Abita Springs, Louisiana in Lafontaine (1998). Neither species are pictured in Covell (1984), though both are mentioned under similar species to *Xestia badicollis* (Grt.). Lafontaine (1998) reported there are 52 species in the genus *Xestia* in America north of Mexico and about 200 species worldwide. This same author reported the range of *X. elimata* includes Vermont to east Texas.

Xestia c-nigrum (Fig. 5) is newly reported here for Louisiana from three parishes (Fig. 6) Iberville Parish, St. John the Baptist Parish and St. Tammany Parish.

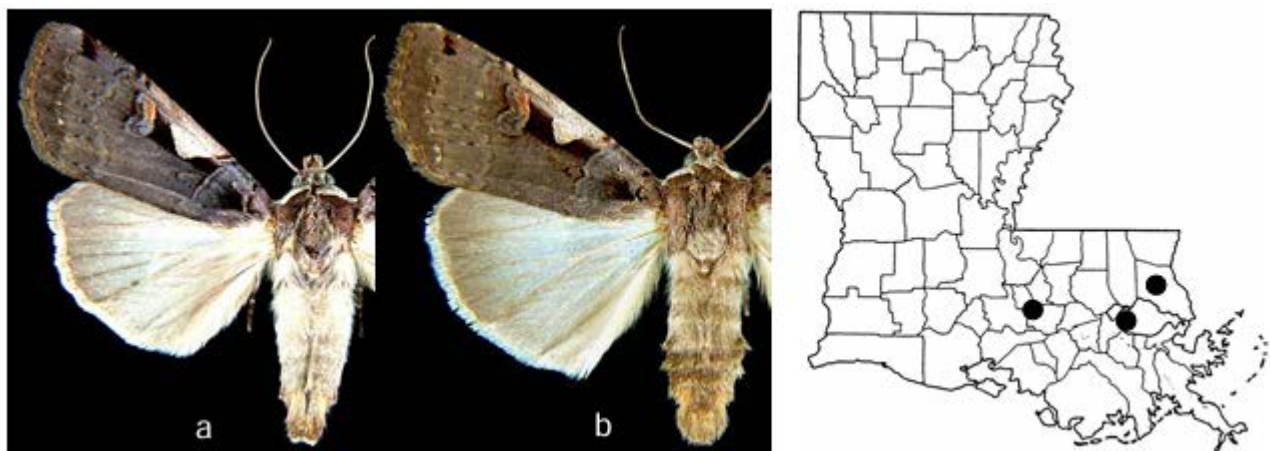


Fig. 5. *Xestia c-nigrum* (Linnaeus, 1758) a. male b. female. Fig. 6. Parish records for *X. c-nigrum*.



Fig. 7. *Agnorisma badinodis* in Louisiana.

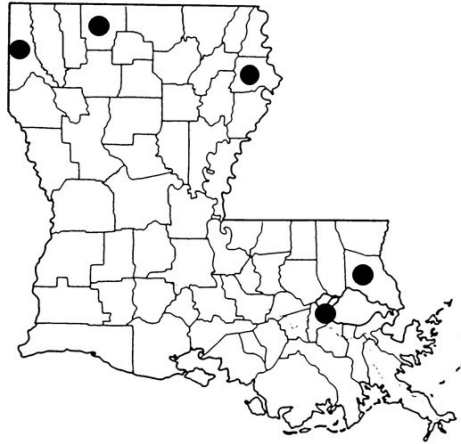


Fig. 8. Parish records for *Agnorisma badinodis*

Agnorisma badinodis (Grote) (Fig. 7) Type locality Maryland, [USA] is a species which occurs from southern Quebec and Ontario westward to North Dakota and southward to South Carolina, Mississippi and Texas (Lafontaine, 1998). The reporting of these five Louisiana parish records (Fig. 8) Caddo Parish, Claiborne Parish, Madison Parish, St. John the Baptist Parish and St. Tammany Parish are the first reports for this species occurring in Louisiana.

We recorded 29 males and two females of *A. badinodis* captured over the past 57 years involving continuous automatic-capture nightly light trapping. Lafontaine 1998 created a new genus name (*Agnorisma*) and placed three North American species into this genus, two of which we cover here. The third species *Agnorisma bugrai* (Koçak, 1983) is known from Nova Scotia to British Columbia in Canada and across the northern United States, but absent across the entire southern half of the United States from Florida to California except for Colorado and the eastern edge of Utah (Lafontaine, 1998).



Fig. 9. Wild adult *A. bollii* from Caddo Parish, Louisiana.



Fig. 10. Parish records for *A. bollii* in Louisiana.



Fig. 11. N.A. records for *A. bollii* illustrated in MONA.

Agnorisma bollii (Grote) (Figs. 9, 10, 11) is newly reported to occur in Louisiana. Type locality: Texas, USA. Lafontaine, 1998 states: "*A. bollii* occurs primarily west of the Appalachian Mountains from southern Ohio and southeastern Kansas southward to Mississippi and Arkansas", "East of the Appalachians it has been found in Maryland and the Chesapeake Bay area". "Adults have been collected between late September and early November" (Lafontaine, 1998). A single male specimen of *A. bollii* was captured November 4, 2018 in a UV light trap at Vivian, Caddo Parish, Louisiana (Fig. 9). The two Louisiana species of *Agnorisma* generally are easily separable with *A. badinodis* overall appearing chestnut brown in ground color, while *A. bollii* appears to have a dark gray ground color.

This study is a continuation of our 56-year Odyssey targeting the lepidoptera and other insects which occur in the state of Louisiana. Our half-century of publications include previously undocumented information e.g., new locality records, detailed phenology information based upon decades or more of actual wild captured adults presented in an easily understood format of 366-day phenograms, illustrations of the actual Louisiana captured adults and a review of current and past entomological literature.

*Abita Entomological Study Site (AESS): sec.24,T6S,R12E, 4.2 miles northeast of Abita Springs, St. Tammany Parish, Louisiana USA.

Acknowledgements

We thank Ricky Patterson for most helpful critique and invaluable assistance especially concerning current lepidoptera taxonomical nomenclature.

Literature cited

- Covell, Jr., C.V.**, 1984. A field guide to moths eastern North America. The Peterson Field Guide Series No. 30. Houghton Mifflin Co., Boston. xv + 469 pp., 64 plates.
- Koçak, A.Ö.**, 1983-1986, More notes on the homonymy of the specific names of Lepidoptera. Cent. Ent. Stud., Priamus 2 (1983) (4): 164-166; 3 (1983) (2): 41-42; 4 (1986) (1/2): 55-60.
- Lafontaine, J.D.**, 1998. Noctuoidea, Noctuidae (part) in Dominick, R. B., et al. The Moths of America North of Mexico, Fasc. 27.3 Allen Press. 348 pp. including 36 B&W plates, 8 color plates.

The Taxonomic Report

is a platinum open access peer-reviewed publication of

The International Lepidoptera Survey (TILS)

The International Lepidoptera Survey is registered as a non-profit Limited Liability Company (LLC) in the state of Virginia, U.S.A. The Taxonomic Report (TTR), ISSN 2643-4776 (print) / ISSN 2643-4806 (online) is published for the purpose of providing a public and permanent scientific record. Articles are peer-reviewed but not necessarily through the anonymous editor-mediated review process. Typically, the authors are encouraged to solicit reviews of their manuscripts from knowledgeable lepidopterists before submission. TTR appears in digital, open-access form, is disseminated as a hardcopy to select institutional repositories, and is available as printed copy upon request at the discretion of authors and/or the editor. Printing and postage charges may apply. An initial run of 25 copies is printed on paper to meet ICZN Code recommendation 8B. All published TTR articles are freely available at the archival TTR website (<http://lepsurvey.carolinanature.com/report.html>) and via the following digital repositories:

Internet Archive (<https://archive.org/>)
Biodiversity Heritage Library (<https://www.biodiversitylibrary.org>)
Zobodat (<https://www.zobodat.at/>)
Zenodo (<https://zenodo.org>)
Digital Commons (<https://digitalcommons.unl.edu>)

TILS Purpose

TILS is devoted to the worldwide collection of Lepidoptera for the purpose of scientific discovery, determination, and documentation, without which there can be no preservation.

TILS Motto

“As a world community, we cannot protect that which we do not know”

Articles for publication are sought

Manuscripts may deal with any area of research on Lepidoptera, including faunal surveys, conservation topics, life histories and foodplant records, matters of nomenclature, descriptions of new taxa, methods, etc. Taxonomic papers are particularly welcome. There are no publication charges for authors. Before submitting a manuscript, email **TTR editor, Harry Pavulaan, 606 Hunton Place NE, Leesburg, VA, 20176, USA** at intlepsurvey@gmail.com (cc: to harrypav@hotmail.com if you do not receive a reply within one week) to initiate discussion on how to best handle your material for publication, and to discuss peer review options.

Visit *The International Lepidoptera Survey* on the World Wide Web at:

<http://lepsurvey.carolinanature.com>

Join the discussion at our list serve on Groups.io at:

<https://groups.io/g/TILS>