

A NEW *CHAETAGLAEA* FROM THE SOUTHEASTERN UNITED STATES (NOCTUIDAE: CUCULLIINAE)

VERNON ANTOINE BROU, JR.

74320 Jack Loyd Road, Abita Springs, Louisiana 70420, USA

ABSTRACT. *Chaetaglaea fergusonii*, new species, is described and illustrated, and compared to other members of the genus. *Chaetaglaea tremula* and *Chaetaglaea sericea* are reported as new from Louisiana.

Additional key words: Mississippi, South Carolina, voltinism, winter moths.

In 1943, Franclemont described the genus *Chaetaglaea*, listing three species: *C. cerata* Franclemont, *C. tremula* (Harvey), and *C. sericea* (Morrison). Hodges (1983) retained the same treatment for the genus. Both Franclemont (1943) and Forbes (1954) stated that only *C. tremula* ranged south to the Gulf coastal states, and Covell (1984) indicated that both *C. tremula* and *C. sericea* occurred in the Gulf coastal states from Florida to Mississippi. The genus *Chaetaglaea* has not been reported previously from Louisiana by noctuid workers (see von Reizenstein 1863, Jones 1918, Folsom 1936, Glick 1939, Harrison 1946, Merkl and Pfrimmer 1955, Pfrimmer 1957, Chapin & Callahan 1965). The purpose of this paper is to describe a new *Chaetaglaea* from Louisiana, and to provide new distributional and phenological data for the genus from the southern United States.

Chaetaglaea fergusonii Brou, new species

(Figs. 1, 2)

Description. *Male* (Fig. 1A): Mean forewing length 19.6 mm (range 18.9–20.4 mm, n=13). *Head*: color medium or reddish brown, with orange hue, frontal tuft rounded; palpi color contrasting reddish brown or orange brown; antennae similar matching color, simple, slender, acuminate. *Thorax*: frontal area dorsal color similar to head, orange brown scales less numerous caudally, color becoming reddish brown; scales form longitudinal central ridge; ventral color reddish brown; legs reddish brown to orange brown, usually similar to color of palpi. *Abdomen*: dorsal color rich reddish brown, on aged specimens brown to tan, generously peppered with black scales which substantially increases caudally; ventral color same as dorsal; anal tuft orange brown. *Forewing*: dorsal ground color rich monochrome reddish brown, light dusting of pale whitish scales basad of postmedial line, especially concentrated along costal margin near base; same area peppered with numerous, well dispersed, inconspicuous, black scales; whitish scales form a barely noticeable, thin line distally hugging postmedial line; single reniform spot, dark and small, sometimes nearly distinguishable or nonexistent; basal line usually limited to dark dash or spot on costal margin, occasionally extending onto basal area of discal cell; dark antemedial line extending from costal edge to a point about one-third width of wing, directed toward anal angle, abruptly changing direction perpendicular to inner margin, increasingly obscure, often vanishing; similar medial line roughly parallel to antemedial line, curving basally approaching inner margin; similar postmedial line beginning at costal edge, roughly parallel to medial line, usually vanishing two-thirds distance to inner margin, but occasionally represented by short dash near costal margin or distinct dark line intersecting inner margin; subterminal line changes from rich reddish brown ground color to area completely and

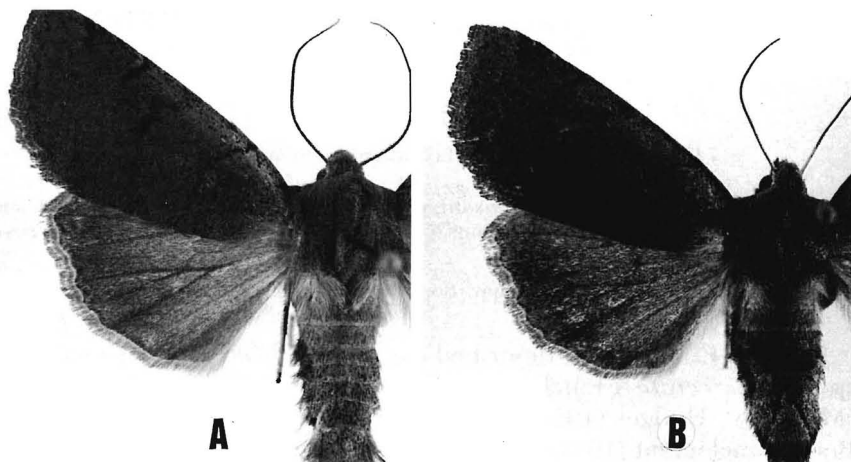


FIG. 1. *Chaetagnaea fergusonii*, new species. A, male holotype; B, female allotype.

delicately burnished with lighter shiny brown scales, creating whitish suffusion to outer margin, distinct to nearly indistinguishable; dark zigzag terminal line inwardly accented by tiny black dots between each vein, representing adterminal line, sometimes only adterminal dots evident; fringe uncontrasting reddish brown; ventral color fuscous, center bordered by shiny reddish brown along costal margin and broader area along outer margin; maculation limited to postmedial line, prominence variable. *Hindwing*: dorsal color fus-

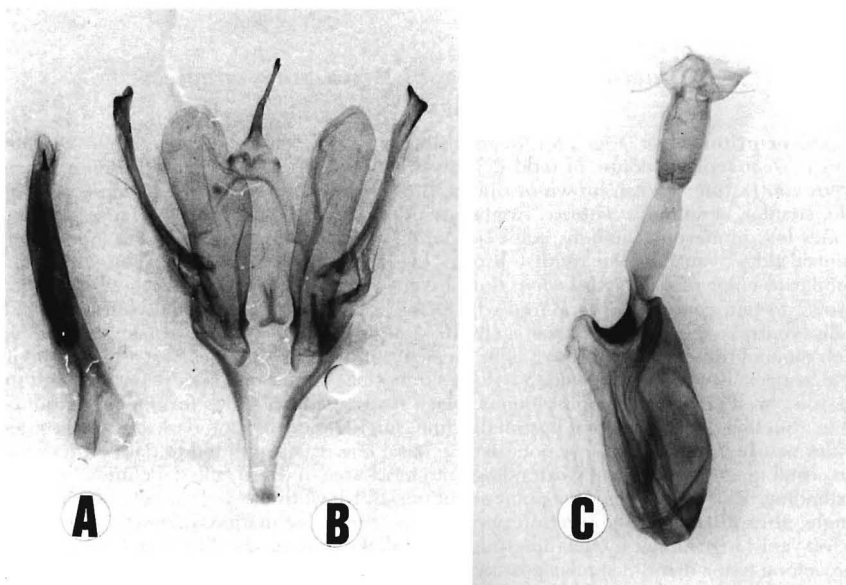


FIG. 2. Genitalia of *C. fergusonii*, Mississippi, Harrison County. A, B, male (aedeagus at left); C, female.

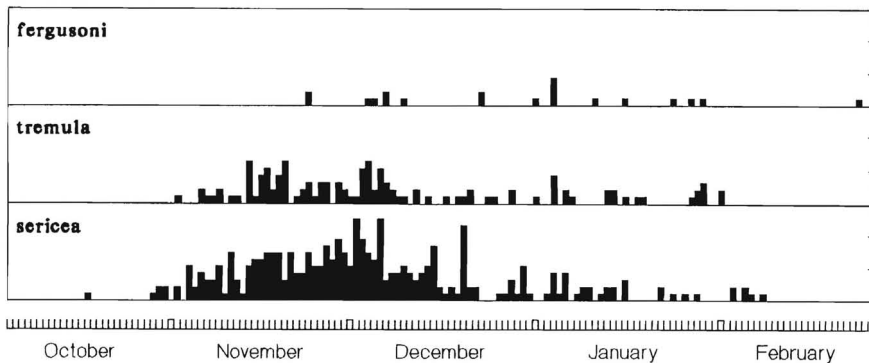


FIG. 3. Dates of capture for *Chaetagnalea* taken at Section 24, Township 6, South Range 12 East, 6.8 km NE Abita Springs, Louisiana. Vertical tick marks represent five captures: for *C. fergusonii*, $n = 20$, 1984–1996; for *C. tremula*, $n = 118$, 1990–1995; for *C. sericea*, $n = 303$, 1990–1995.

ous postmedially, increasingly lighter tan antemedially approaching base and anal area; fringe contrasting light brown, bordered inwardly by fine, inconspicuous, sinuous, reddish brown line, itself bordered basally by similar lighter contrasting, fine, tan line; still further bordered basally by edge of fuscous wing area, sometimes appearing as distinct adterminal line, often accented between some veins as tiny black dots; ventral color shiny reddish brown, peppered with well dispersed individual black scales; area near inner margin more fuscous; continuation of forewing postmedial line is only maculation. *Genitalia* (Fig. 2A–B, $n=3$): valves bilaterally asymmetrical; right valve simple, elongate, narrow, cuneate, cucullus truncate; left valve simple, elongate, narrow, cucullus obtuse; aedoeagus lanceolate, curving near obtuse apex, single tiny cornutus; large, elongate, spatulate, free lobes of sacculus extending almost to valve ends; uncus slender, acuminate; saccus greatly elongate, tapering to truncate end. *Female* (Fig. 1B): Mean forewing length 19.4 mm (range 19.0–19.9 mm, $n=5$). External morphology as described for male. *Genitalia* (Fig. 2C, $n=2$): oval unisaccate corpus bursae, small appendix bursae, separated distally by heavily sclerotized crescent patch. Sclerotized distal half of ductus bursae.

Types. *Holotype* ♂ (Fig. 1A): USA, Louisiana, St. Tammany Parish, 4.2 miles (6.8 km) NE Abita Springs, Section 24 of Township 6, South Range 12 East, 7 December 1988. *Allotype* ♀ (Fig. 1B): same locality as holotype, 1 January 1992. *Paratypes*: 13 ♂ 3 ♀, same locality as holotype, 24 November to 24 February 1984–1996; 5 ♂ 7 ♀, Mississippi, Harrison County, 20 December to 10 January 1992–1993; 1 ♂, Mississippi, Hancock County, 16 February 1992; 1 ♀, South Carolina, Charleston County, Wedge Plantation, South Santee River, 22 November 1967. Holotype and allotype deposited at the U.S. National Museum of Natural History, Washington, D.C. Paratypes deposited at Louisiana State University, Baton Rouge, and in the private collections of Rick Kergosien and the author.

Etymology. I take pleasure in naming this species in honor of Douglas C. Ferguson, who appears to have first discovered it 30 years ago.

Diagnosis and Discussion. *Chaetagnalea fergusonii* looks most similar to *C. tremula*. The maculation of both species can be nearly identical, although some specimens of *C. fergusonii* tend to have less accentuated markings. *C. tremula* is highly variable in both color and maculation, but despite this, *C. fergusonii* can always be separated by its less variable, rich reddish brown coloration. The male genitalia of *C. fergusonii* also differ from the three other species in the genus. Franclemont (1943) and Forbes (1954) illustrated and discussed the male genitalia of *C. cerata*, *C. tremula*, and *C. sericea*: the saccus of each tapers to an acute apex, the aedoeagus of each possesses large cornuti, and none of these three species has large free lobes of the sacculus. *Chaetagnalea fergusonii* appears to be rarely encountered; it has been collected at both ultraviolet light traps and fermenting

fruit bait. Apparently univoltine, its winter flight period is influenced by temperature and other factors. The flight periods of *C. fergusonii*, *C. tremula* and *C. sericea* at one location in Louisiana are shown in Fig. 3.

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LITERATURE CITED

- CHAPIN, J. B. & P. S. CALLAHAN. 1967. A list of the Noctuidae (Lepidoptera, Insecta) collected in the vicinity of Baton Rouge, Louisiana. Proc. La. Acad. Sci. 30:39-48.
- COVELL, C. V., JR. 1984. A field guide to moths of eastern North America. Houghton Mifflin Co., Boston. 469 pp.
- FOLSOM, J. W. 1936. Notes on little-known cotton insects. J. Econ. Entomol. 29:284-285.
- FORBES, W. T. M. 1954. Lepidoptera of New York and neighboring states. Noctuidae, Part III. Cornell Univ. Agric. Exp. Sta. Mem. 329:1-433.
- FRANCLEMONT, J. G. 1943. Notes on some Cuculliinae (Phalaenidae, Lepidoptera). III. On the identity of *Glaea pastillicans* Morrison and the species of the genus *Chaetoglaea* new genus. Entomol. News 54:92-99.
- HODGES, R. W. (Ed.). 1983. Check list of the Lepidoptera of America north of Mexico. E. W. Classey Ltd. and the Wedge Entomol. Res. Foundation, London. 284 pp.
- GLICK, P. A. 1939. The distribution of insects, spiders, and mites in the air. U.S.D.A. Tech. Bull. 673.
- HARRISON, P. K. 1946. Insects attacking cole crops in Louisiana. J. Econ. Entomol. 39:820-821.
- JONES, T. H. 1918. Miscellaneous truck-crop insects in Louisiana. U.S.D.A. Tech. Bull. 703.
- MERKL, M. E. & T. R. PFRIMMER. 1955. Light trap investigations at Stoneville, Miss., and Tallulah, La., during 1954. J. Econ. Entomol. 48:740-741.
- PFRIMMER, T. R. 1957. Response of insects to different sources of blacklight. J. Econ. Entomol. 50:801-803.
- VON REIZENSTEIN, L. 1863. Catalogue of the Lepidoptera of New Orleans and its vicinity. Issac. T. Hinton, New Orleans. 8 pp.

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