

# NEW *GLYPHIPTERIX* SEDGE MOTHS FROM THE SOUTHEASTERN UNITED STATES (LEPIDOPTERA: GLYPHIPTERIGIDAE)

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**ABSTRACT.**— Two new species of *Glyphipterix* sedge moths are described from North America: *G. floridensis* n. sp. from southern Florida and *G. nordini* n. sp. from the southcentral United States.

**KEY WORDS:** Arkansas, Florida, *Glyphipterix floridensis* n. sp., *Glyphipterix nordini* n. sp., Kentucky, Nearctic, North America, systematics.

The North American sedge moths, family Glyphipterigidae, were monographed in an earlier work (Heppner, 1985). In the intervening years, 4 new species have been discovered in North America north of Mexico: 2 species of *Glyphipterix*, which are described herein, and 2 species of *Diploschizia* described in another paper (Heppner, 1997). These descriptions will make these new species names available for upcoming works on Florida and Nearctic Lepidoptera. Biologies are unknown for the new species.

## *Glyphipterix nordini* Heppner, n. sp.

**DESCRIPTION.**— **MALE:** wingspan of 13-15mm. *Head:* fuscous. Labial palpus white except for dorsal fuscous coloration, with 4 evenly spaced bands of black from segment 2 to near apex; long scales ventrally, smooth dorsally. Antenna half forewing length, fuscous. *Thorax:* fuscous with white venter. Legs silvery-white with fuscous ventrally and on tarsal segments. *Forewing:* fuscous ground color with golden sheen; costal margin with 5 white marks, of which mark nearest wingbase merges with silvery dorsal mark, while apical mark in enlarged and curved; costal marks each with silver spot on mesal end; dorsal margin with large basal white mark plus silver spot on mesal end not reaching to costal margin, and another large white mark at midwing with a large silver spot. Ternal third of wing with large patch of yellow-ochreous scaling, with many fine horizontal black lines midwing and a large ternal patch of alternating black and silver spots (2 silver spots centrally and 4 on the ternal margin). Fringe fuscous except for white mid-termen and indentation, which becomes silver line that merges with penultimate white costal mark. Venter silvery-fuscous, with only the costal white marks duplicated. *Hindwing:* fuscous; venter same. *Male genitalia:* simple, with membranous tuba analis emergent from simple tegumen-vinculum band; saccus finger-like, slightly bulbous at end; uncus absent; gnathos absent; valva simple, with fine setal field from apex to near base; anellus a simple collar with few setae apically; aedeagus an elongated straight tube, with short tubular cornutus and pipe-shaped corpus seminalis.

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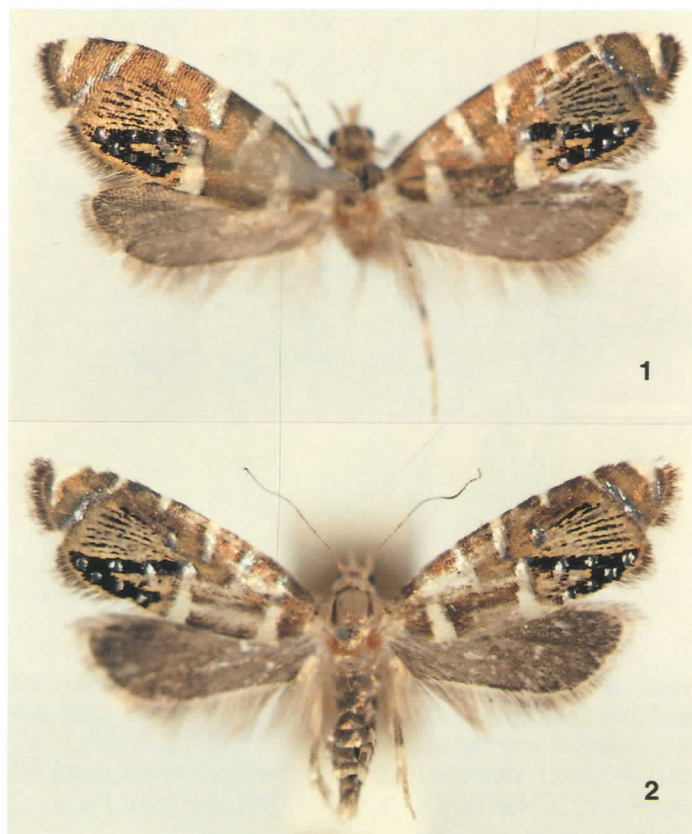


Fig. 1-2. *Glyphipterix nordini* n. sp., adults, both from Kentucky: 1) ♂ holotype (abdomen removed). 2) ♀ allotype. (ca. 6x)

**FEMALE:** similar to male, somewhat larger in size: 17mm (n = 1). *Female genitalia:* simple, with setous ovipositor of average length; apophyses very fine and thin, with posterior pair somewhat longer than anterior pair; ostium bursae a simple membranous funnel-shape; antrum about 2/5 as wide as depth of ostium bursae; ductus bursae very narrow below ostium bursae until reaching an ovate and bulbous corpus bursae; ductus seminalis wider at entrance to corpus bursae than is the ductus bursae; corpus bursae with simple spicules overall plus an open oval-shaped field of elongated and thin spines (a kind of signum area).

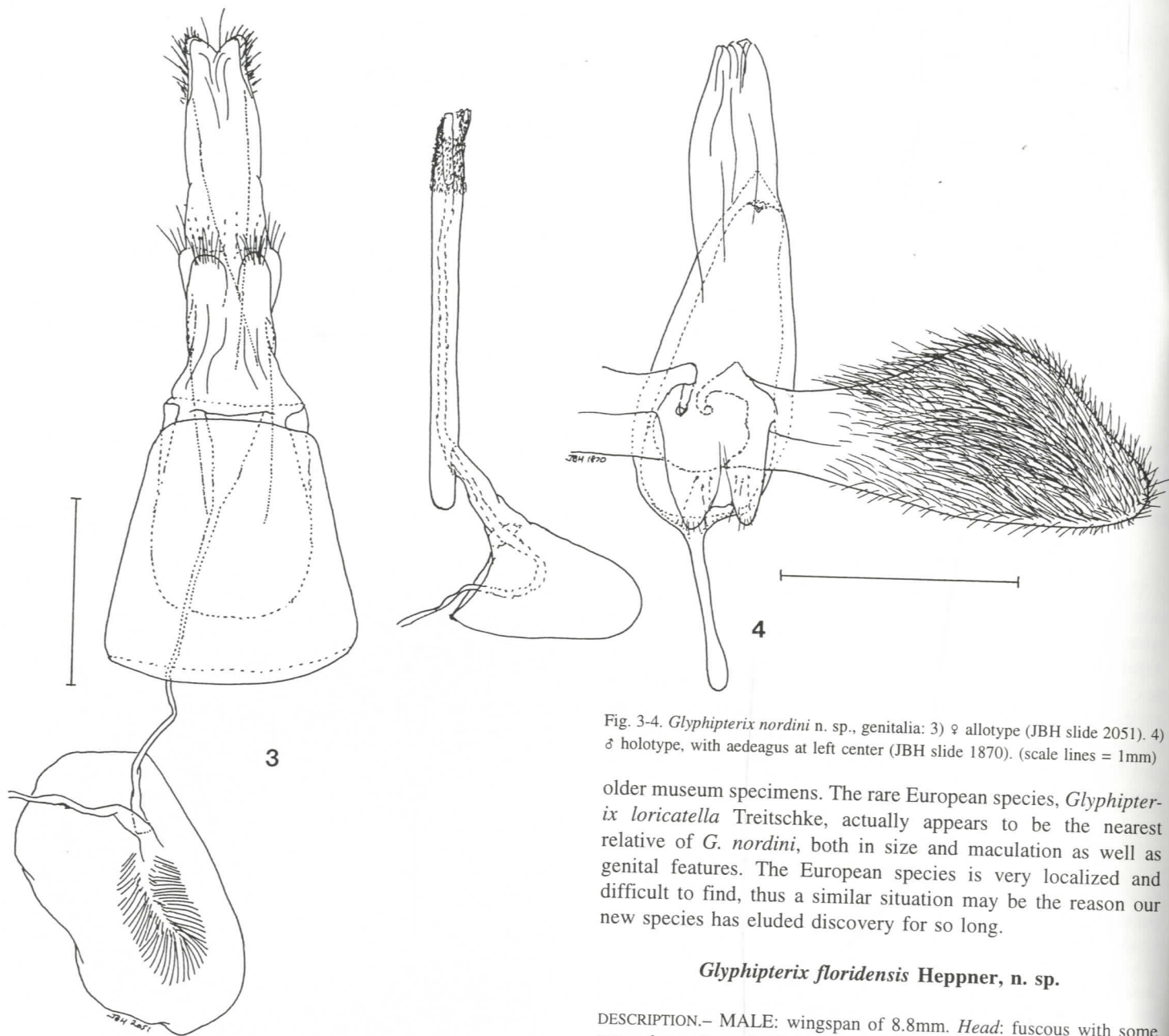


Fig. 3-4. *Glyphipterix nordini* n. sp., genitalia: 3) ♀ allotype (JBH slide 2051). 4) ♂ holotype, with aedeagus at left center (JBH slide 1870). (scale lines = 1mm)

older museum specimens. The rare European species, *Glyphipterix loricatella* Treitschke, actually appears to be the nearest relative of *G. nordini*, both in size and maculation as well as genital features. The European species is very localized and difficult to find, thus a similar situation may be the reason our new species has eluded discovery for so long.

#### *Glyphipterix floridensis* Heppner, n. sp.

DESCRIPTION.— MALE: wingspan of 8.8mm. *Head*: fuscous with some tan on lower frons. Labial palpus tan dorsally; venter white basally, then black on central segment and tan on apical segment. Antenna fuscous, half as long as forewing. *Thorax*: fuscous, with white on posterior margin of scutum; venter white and fuscous. Legs range from white forelegs, to gray-fuscous middle legs, and silvery-fuscous hind legs with darker fuscous on tarsal segments. *Forewing*: ground color gray-fuscous, shining, with a large but narrow white crescent mark near base from dorsal margin; costal margin with 5 silvery marks from midwing, interspersed with orange; silver spot at end of cell; apex with the 2 costal silver lines close together but separated by orange line, merging to silver line on termen; venter silvery-fuscous, no markings. *Hindwing*: fuscous, venter same. *Male genitalia*: simple, with short membranous tuba analis emergent from dorsally open tegumen-vinculum band, with broad but quadrate vinculum; saccus finger-like, short; uncus absent; gnathos absent, possible remnant only as a sclerotized central line with widened basal end; valva simple but bifurcate, with fine setal field from apex to near base on each of two narrow arms divergent from mid-point of valval length, the ventral arm ending in a single strong spine and the dorsal arm ending in rounded, setose end; anellus a simple collar with

TYPES.— Holotype ♂: KENTUCKY: Indian East Fork, Kelley Branch, Rd. 9B, 720 ft., Menifee Co., 11-12 May 1985, J. S. Nordin (JBH slide 1870; deposited with FSCA).

Allotype ♀: KENTUCKY: Red River Gorge (For. Serv. Rd. 23, nr. SR 77), Menifee Co., 21 May 1988, L. D. Gibson (JBH slide 2051, FSCA).

Paratypes: KENTUCKY: same as holotype, 1 ♂ (FSCA).

ARKANSAS: 8 mi. N. Clarksville, Johnson Co., 10-12 May 1987, R. L. Brown, 5 ♂ (at BL) (Miss. Ent. Museum and FSCA).

ETYMOLOGY.— The species is named in honor of its first discoverer, Dr. John S. Nordin, formerly of Kentucky and now living in Wyoming.

DISTRIBUTION.— Known from the southern USA; thus far from Kentucky and Arkansas.

REMARKS.— This new species is surprisingly large to have eluded discovery prior to its first capture in 1985. Although similar to *Glyphipterix circumscriptella* Chambers, also from Kentucky and nearby eastern states, the new species was not found among any



few setae apically; aedeagus an elongated tube, somewhat bend and tapering toward inner end, with long tubular cornutus and pipe-shaped corpus seminalis.

FEMALE unknown.

TYPES.— Holotype ♂: FLORIDA: Fakahatchee Strand, nr. Copeland, Collier Co., 15 October 1986, H. D. Baggett (JBH slide 2053, deposited with FSCA).

DISTRIBUTION.— Known only from the type locality of southern Florida.

REMARKS.— This colorful new species is a surprising addition to the Florida fauna, being mainly a member of a group of similar species with a tropical distribution in Latin America. No other specimens have been found, nor are any known for the nearby West Indies. Although one could consider the specimen to have been introduced to Florida (perhaps from Central America), owing to the single capture, this seems unlikely: the area in Collier Co. is remote, with no significant residential areas nearby, and is within a secluded natural area of higher ground on the western edge of the Everglades. Related species have the forewing dorsal margin patch larger in most species.

#### ACKNOWLEDGMENTS

My thanks to H. D. Baggett (Jacksonville, Florida) for capturing the single specimen of *G. floridensis* and depositing it with the FSCA for study and preservation. Likewise, thanks go to Dr. Richard L. Brown (Mississippi State Univ., Mississippi State, Mississippi) and John Nordin (Laramie, Wyoming) for providing specimens of *G. nordini* for study.

#### LITERATURE CITED

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Fig. 5. *Glyphipterix floridensis* n. sp., adult ♂ holotype (abdomen removed). (ca. 10x)

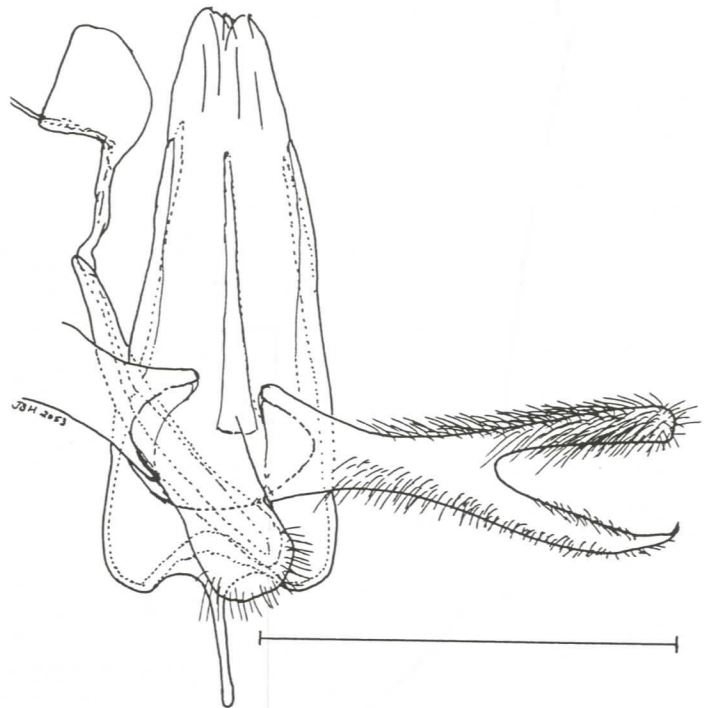


Fig. 6. *Glyphipterix floridensis* n. sp., holotype ♂ genitalia, with aedeagus in situ (JBH slide 2053) (scale line = 0.5mm).