

THE FIRST RECORD OF *EUBULE AMPLIATA* FROM THE  
UNITED STATES WITH NOTES ON ITS BIOLOGY  
(HEMIPTERA: COREIDAE)

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ABSTRACT

*Eubule ampliata* Valdés is recorded from Florida and the United States for the first time. Breeding populations were found on *Jacquemontia curtissii* Peter ex Hall. f. The immature stages are described and the distribution discussed.

Key Words: Coreidae, Florida, *Jacquemontia curtissii*

RESUMEN

*Eubule ampliata* Valdés es reportada de la Florida y de los Estados Unidos por primera vez. Poblaciones reproductoras fueron encontradas en *Jacquemontia curtissii* Peter ex Hall. f. Son descritos los estados inmaduros y se discute la distribución de la especie.

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Specimens of a species of Coreidae were brought to the Tropical Research and Education Center for identification. They were recognized as not being a species previously reported for Florida by Baranowski & Slater (1986), nor was it a species listed

by Blatchley (1926) for eastern North America. Specimens sent to Dr. Harry Brailovsky, Instituto De Biologia, U.N.A.M., Departamento De Zoologia, Mexico were determined to be *Eubule ampliata* Valdes (Fig. 1).

*Eubule ampliata* was described by Valdes (1910) from Cuba and was known only from there until Brailovsky (1992) reported it from the island of San Salvador, Bahamas. This is the first record of a member of this genus for the United States. It will key out in Baranowski & Slater (1986) to *Corecoris* but can be separated from it by *E. ampliata* having the pronotal humeri deeply notched whereas they are rounded in *Corecoris*.

*Eubule ampliata* was collected by L. Spier (formerly with the Big Cypress National Preserve) and subsequently by the authors at Raccoon Point, Big Cypress National Preserve, Collier County Florida. It was found on *Jacquemontia curtissii* Peter ex Hall. f. (Convolvulaceae) an herb or subshrub, usually twining with stems up to a meter in length. According to Long & Lakela (1971) this plant is restricted to pinelands and is endemic to south Florida. Since *J. curtissii* is endemic to south Florida, *E. ampliata* must utilize other plant hosts in other parts of its range, most likely other species of *Jacquemontia*. Correll & Correll (1982) list five species of *Jacquemontia* from the Bahamas and state that there are about 100 species, mostly American in origin.

We collected nymphs and adults during the months of December and January at Raccoon Point. Specimens were usually found at the base of the plants and on the thicker stems, although occasional specimens were found on other parts of the plants. Eggs were not found, however four masses, consisting of 12, 9, 4 and 11 eggs were deposited in a single layer on paper toweling or on the sides of a plastic pot under caged conditions in the laboratory.

A pineland area outside of the Big Cypress National Preserve, about 10 km from Raccoon Point, was surveyed but *E. ampliata* was not found even though the host plant was common in the area. Numerous surveys were conducted in the Everglades National Park in areas where the host plant was abundant. Plants of *Jacquemontia pentantha* (Jacq.) G. Don were also examined in pinelands on Big Pine Key. *E. ampliata* was not found in either location. It appears that *E. ampliata* has a very restricted range in Florida, suggesting a recent introduction.

In May, 1995, the Raccoon Point area was revisited to make additional observations on *E. ampliata*. In the period since the observations in 1991, the area was burned at least twice as part of a study of the impact of fires on the plants in the pineland area of Raccoon Point. In addition, the area had been under water for at least four months during the 1994-95 winter season and was still flooded during our visit in May. The *Jacquemontia* was just beginning to recover on the few higher areas that were above the water. Most of the plants were only a few centimeters high. No specimens of *E. ampliata* were found in the areas examined; however, additional surveys need to be conducted to determine if the population is extant in Florida.

#### DESCRIPTION OF IMMATURE STAGES

(All measurements that follow are given in mm.)

Fifth Instar (N=1) (Fig.2)

Head short, broad. Pronotum much wider at humeral angles than anterior margin (4:1), lateral margins of pronotum irregularly crenulate, humeral angles notched. Head, pronotum, wing pads, legs, and antennae dark brown. Scutellum, and abdominal tergites lighter brown. Humeral angle area of pronotum with a yellow spot. Lateral margins of wing pads with a yellow spot at midpoint. Lateral margins of

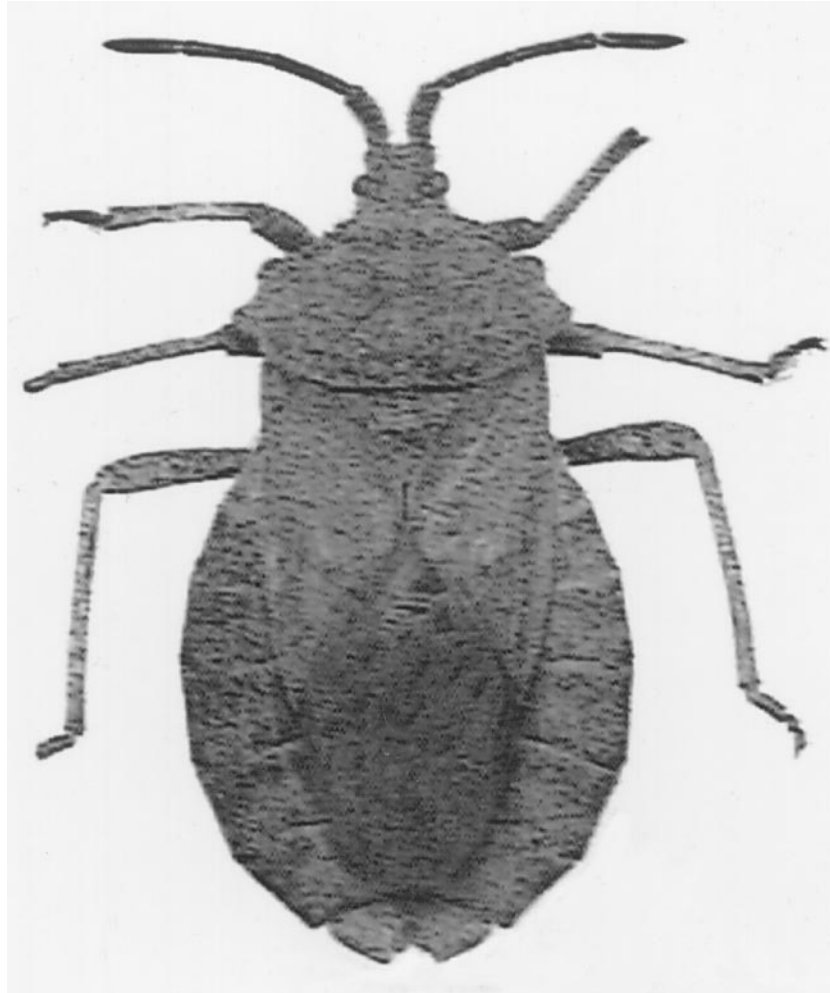


Fig. 1. *Eubule ampliata* Valdes, adult, dorsal view.

abdominal tergites dark brown with a central orange spot attaining the lateral margin. Scent gland sclerites dark brown. Head, body, antennae and legs with short stiff hairs. Length head 1.40, width 1.65, interocular space 1.00. Length pronotum 2.10, width 4.50. Length wing pads 3.65. Length abdomen 6.10. Length labial segments I 0.40, II 0.40, III 0.30, IV 0.75. Length antennal segments I 1.35, II 1.65, III 1.60, IV 1.70. Total body length 10.85.

#### Fourth Instar (N=1)

Shape as in preceding instar. Head, pronotum, wing pads antennae, and legs reddish brown. Area around humeral angles, orange pink. Lateral margins of wing pads

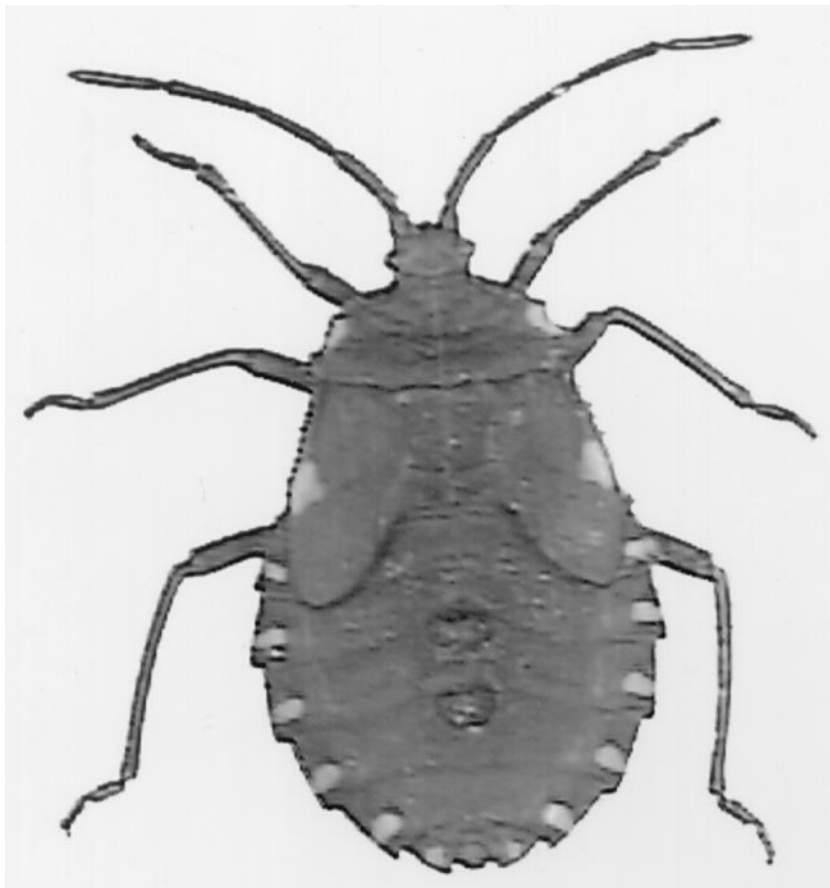


Fig. 2. *Eubule ampliata* Valdes, fifth instar, dorsal view.

with an orange pink spot at midpoint. Lateral margins of abdominal tergites with a U shaped brown vitta having the opening on the margin. Scent gland sclerites dark brown. Short, stiff hairs distributed as in preceding instar. Length head 1.20, width 1.30, interocular space 0.80. Length pronotum 1.05, width 2.80. Length wing pads 1.95. Length abdomen 5.25. Length labial segments I 0.45, II 0.30, III 0.25, IV 0.60. Length antennal segments I 1.0, II 1.20, III 1.15, IV 1.20. Total body length 9.05.

#### Third Instar (N=1)

Shape and color as in preceding instar. Short stiff hairs present, but sparse. Length head 0.92, width 1.0, interocular space 0.70. Length pronotum 0.84, width 1.75. Length wing pads 0.80. Length abdomen 3.75. Length labial segments I 0.36, II 0.30, III 0.24, IV 0.50. Length antennal segments I 0.92, II 0.92, III 0.92, IV 1.0. Total body length 6.25.

Second Instar (N=1)

Shape as in preceding instar. Head, abdomen, lateral margins of pronotum reddish. Thorax, antennae, legs reddish brown. Length head 0.80, width 0.90, interocular space 0.60. Length pronotum 0.48, width 1.14. Length abdomen 2.75. Length labial segments I 0.30, II 0.26, III 0.22, IV 0.44. Length antennal segments I 0.84, II 0.84, III 0.80, IV 0.84. Total body length 4.5.

First Instar (N=1)

Shape more elongate than preceding instar. General coloration red, antennae reddish brown. Length head 0.50, width 0.72, interocular space 0.56. Length pronotum 0.28, width 0.84. Length abdomen 1.66. Length labial segments I 0.30, II 0.22, III 0.22, IV 0.44. Length antennal segments I 0.60, II 0.56, III 0.56, IV 0.64. Total body length 2.88.

Egg (N=1)

Golden brown in color, elliptical in shape with the side adhering to the substrate slightly flattened. Micropylar processes simple, slightly raised, numbering 28-32, circumscribing the anterior pole. The circular pseudopericulum intersects the ring of micropyles. Length 2.30, width 1.60.

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