

## THE LARVA OF *SIDERIDIS MARYX* (GUENÉE) (NOCTUIDAE)

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**ABSTRACT.** The mature larva of *Sideridis maryx* (Guenée) (Noctuidae) is described and illustrated.

The noctuid genus *Sideridis* (Hübner) (Hadeninae) is represented in eastern North America by three species, *S. rosea* (Harvey), *S. congermana* (Morrison), and *S. maryx* (Guenée) (Forbes, 1954). Of the three species, *S. rosea* is the most common, and the immature stages are best known; they were most recently described and illustrated by Godfrey (1972) who listed grass, dandelion, *Elaeagnus angustifolia* L., *Ribes* sp., *Shepherdia* sp., and *Salix* sp. as host plants. *S. congermana* and *S. maryx* are generally considered to be uncommon to rare throughout eastern North America (Forbes, 1954; Rockburne & Lafontaine, 1976). Dyar (1899) briefly described the mature larva of *S. maryx* (= *Mamestra rubefacta* Morrison) based on preserved material. The larva of *S. congermana* and the natural host plants of all three species of *Sideridis* are unknown.

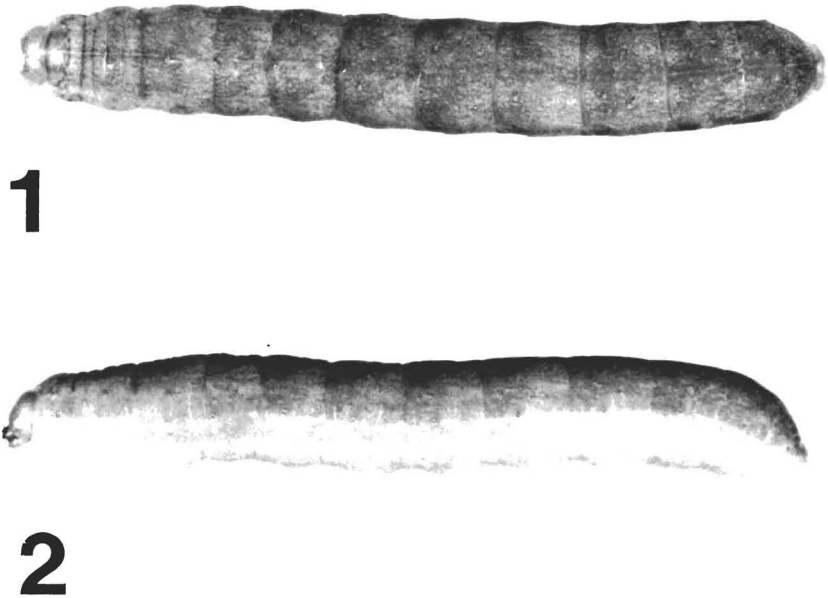
This paper describes the mature larvae of *S. maryx* reared from ova obtained from a female taken on 11 June 1979 at Belliveau Cove, Digby Co., Nova Scotia. Larvae were fed an artificial diet based on that of Hinks and Byers (1976). They grew quickly and pupated by 7 August. Adults emerged 10-15 September 1979. Throughout its range, *S. maryx* is single brooded, overwintering as a pupa, with adults emerging in late spring and early summer.

The terminology and abbreviations used here follow Godfrey (1972). The illustrations which accompany the description of the last larval instar were drawn to scale using a camera lucida and stereomicroscope.

### *Sideridis maryx* (Guenée)

**General.** Head 3.5-4.0 mm wide. Total length 40.0-49.5 mm. Head and body smooth. Prolegs present on Ab3-6, size increasing posteriorly on Ab3-6, those on Ab3 slightly more than ½ the size of those on Ab6. Crochets unioordinal, 19-22 per third abdominal proleg, 21-25 per fourth, 26-29 per fifth, 27-30 per sixth. All simple.

**Coloration** (living material). Head (Fig. 3): yellowish brown with darker reddish brown coronal reticulations and coronal stripes. Body (Figs. 1, 2): red; dorsal and subdorsal areas with numerous greyish flecks, flecks heaviest at edges of middorsal line; middorsal and subdorsal lines narrow and poorly defined, the middorsal line more well defined on T1-3; lateral and ventral areas translucent red, lacking greyish flecks. Spiracles yellowish brown with black peritremes. Lateral shields of prolegs and thoracic legs yellowish brown, both darker basally. Prothoracic shield orange brown.

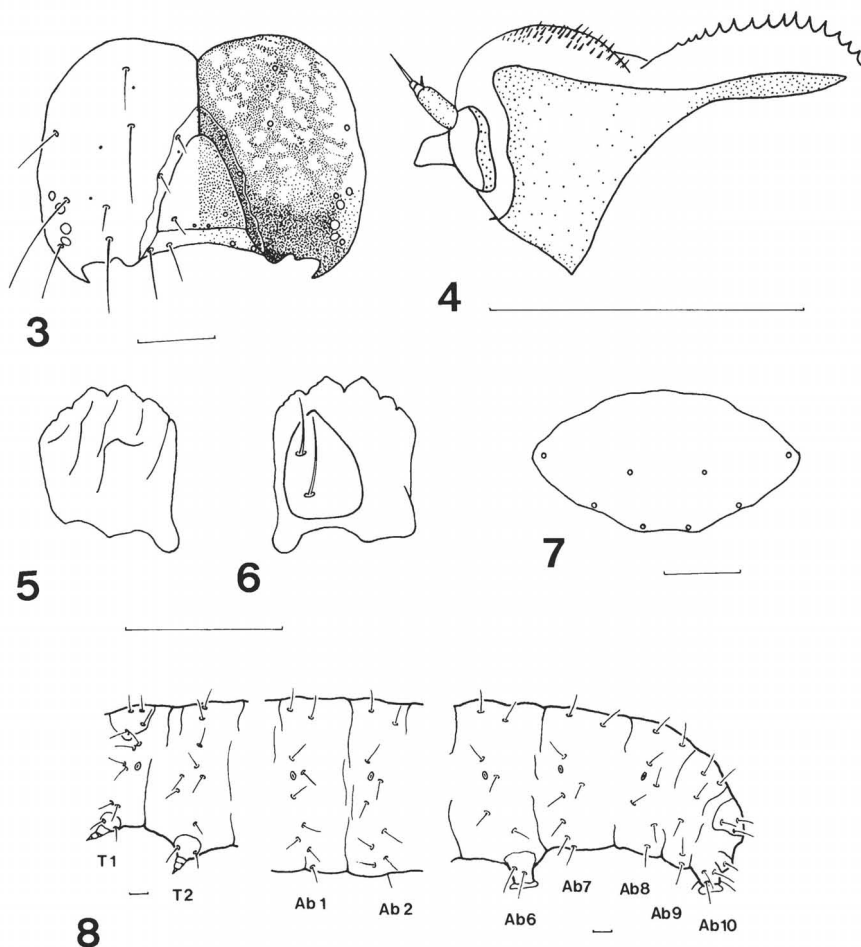


FIGS. 1 & 2. *Sideridis maryx*, sixth instar larva ( $\times 3$ ): 1, dorsal view; 2, lateral view.

**Head** (Fig. 3). Epicranial suture 0.92–1.05 mm long; height of frons (apex to Fa's) 1.03–1.05 mm; distance from F1 to anterior edge of clypeus 0.33–0.35 mm; interspace between F1–F1 0.45–0.47 mm; aFa anterior and Af2 posterior to apex of frons; A1–A3 forming an obtuse angle at A2; P1–P1 1.54–1.56 mm; P2–P2 1.70–1.72 mm. Distance from P1 to epicranial suture less than that from P1 to L; L cephalad of juncture of adfrontal ecdysial line. Ocellar spacing: Oc1–Oc2 0.07–0.09 mm; Oc2–Oc3 0.10–0.12 mm; Oc3–Oc4 0.05–0.06 mm.

**Mouthparts.** Hypopharyngeal complex (Fig. 4): spinneret short and broad, subequal to Lps1; Lps1 longer than Lp2; stipular setae short, about  $\frac{1}{3}$  the length of Lps1, slightly shorter than Lp1, and about  $\frac{1}{4}$  the length of Lp2; Lps2 subequal to Lp1; distal and proximal regions of hypopharyngeal complex separated by a distinct medial transverse cleft; distal region with distal  $\frac{1}{2}$  bare, remainder with short thin spines becoming longer and slightly more robust proximally; proximolateral region with 15–20 stout spines. Mandible (Figs. 5 & 6): two well-separated outer setae present; inner surface with ridges and tooth; inner tooth prominent, base broad, apex truncate; first outer tooth well developed, serrated on outer side; second outer tooth serrated on side opposite outer tooth; third and fourth outer teeth acutely angular; fifth outer tooth wide and flat with outer margin serrated.

**Thorax.** Segment T1 (Fig. 8): prothoracic shield weakly sclerotized; SD1 and SD2 setal insertations well separated from shield; interspace D1–D1 about 0.65 XD1–XD1; D2–SD-2 about 1.41 SD2–XD2; spiracle elliptical, 0.44–0.48 mm high, 0.27–0.29 mm wide;



FIGS. 3-8. *Sideridis maryx*, larva: **3**, frontal view of head capsule; **4**, left lateral view of hypopharyngeal complex; **5**, oral surface of left mandible; **6**, outer surface of left mandible; **7**, dorsal view of anal shield; **8**, dorsolateral chaetotaxy of prothoracic (T1), mesothoracic (T2), and abdominal segments (Ab1-2, Ab6-10). Scale lines equal 1.0 mm.

peritreme wider laterally. T2 (Fig. 8): D1-D2 about 0.69 D2-SD2; all setae thin and hairlike, tapering and sharply pointed distally; coxal bases narrowly separated.

**Abdomen.** Dorsal and lateral chaetotaxy of Ab1-10 as in Fig. 8. Ab1 with 2 SV setae, Ab2-6 with 3 SV setae, Ab7-8 with 1. Ab9: SD1 much finer than D1 and D2. Ab10: Anal shield as in Fig. 7. Dorsal margin convex, posterior margin entire. Length of D1 on Ab6-7 0.49-0.53 mm; D2 0.56-0.60 mm. Asp7 0.36-0.37 mm high, 0.21 mm wide; Asp8 0.49-0.50 mm high, 0.27 mm wide.

**Material examined.** 4 specimens: Belliveau Cove, Digby Co., Nova Scotia. Reared on artificial diet (Hinks & Byers, 1976) from ova obtained from a female taken on 11 June 1979. Adults emerged 10-15 September 1979. Moth collected, determined, and larvae reared by K. A. Neil.

**Remarks.** Based on the larval description and illustrations of *S. rosea* given by Godfrey (1972), *S. maryx* can easily be distinguished from that species by the truncate inner mandibular tooth, the short, stout spinneret which is only about  $\frac{1}{2}$  the length of the spinneret of *S. rosea*, and by the wider F1-F1 interspace.

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#### LITERATURE CITED

- DYAR, H. G. 1899. Descriptions of the larvae of fifty North American Noctuidae. Wash. Entomol. Soc. Proc. 4:315-332.
- FORBES, W. T. M. 1954. Lepidoptera of New York and neighboring states. Pt. III. Cornell Univ. Agr. Expt. Sta. Mem. 329. 433 pp.
- GODFREY, G. L. 1972. A review and reclassification of larvae of the subfamily Hadeninae (Lepidoptera, Noctuidae) of America north of Mexico. U.S. Dept. Agr. Tech. Bull. 1450. 265 pp.
- HINKS, C. F. & J. R. BYERS. 1976. Biosystematics of the genus *Euxoa* (Lepidoptera: Noctuidae). V. Rearing procedures and life cycles of 36 species. Can. Entomol. 108: 1345-1357.
- ROCKBURN, E. W. & J. D. LAFONTAINE. 1976. The cutworm moths of Ontario and Quebec. Can. Dept. Agr. Publ. 1593. 164 pp.