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NOTA / NOTE
Two abnormalities in Coleoptera (Silphidae, Silvanidae) from Connecticut and Ohio (U.S.A.).

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Abstract: A case of brachelitry in *Oiceoptoma noveboracense* (Forster, 1771) (Coleoptera: Silphidae) and a case of symphysocery in *Telephanus atricapillus* Erichson, 1846 (Coleoptera: Silvanidae) collected respectively in Connecticut and Ohio (U.S.A) are reported.
Key words: Coleoptera, Silphidae, Silvanidae, Teratology, Faunistics, U.S.A.

Resumen: Dos anomalías en Coleoptera (Silphidae, Silvanidae) de Connecticut y Ohio (U.S.A.). Se dan a conocer un caso de braquielitría en *Oiceoptoma noveboracensis* (Forster, 1771) (Coleoptera: Silphidae) y uno de sinfisoceria en *Telephanus atricapillus* Erichson, 1846 (Coleoptera: Silvanidae) capturados respectivamente en Connecticut y Ohio (U.S.A.).
Palabras clave: Coleoptera, Silphidae, Silvanidae, Teratología, Faunística, U.S.A.

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Introduction

The order Coleoptera is the most diversified group of insects and with the most cases of abnormalities reported. Some abnormalities are minor, others are intriguing and exciting, but all are rare in nature. Any malformations should be reported because they provide valuable information on the role of the environment concerning the development of teratologies.

In this note, two different teratological cases, not usually mentioned in the literature, are reported for two families of Coleoptera. Several classifications of malformations have been proposed, being those of Balazuc (1948, 1969) the most followed and accepted and thus used here. All specimens are deposited in the author's collection (RNFC).

Material and results

Brachelitry in *Oiceoptoma noveboracense* (Forster, 1771) (Silphidae) (Fig. 1)

Specimen studied: U.S.A., Connecticut, New London Co. Stonington, Paffard Woods Preserve, 41° 24.479'N/ 71° 54.238'E, 7 July, 2016, leg. R.N. Ferreira (RNFC).

This specimen is 14.00 mm long, dark brownish or blackish with a distinct black pronotal disk and distinct orange-pinkish margins. Head black, small eyes with a short row of long erect hairs behind. Elytra lighter brown with 3 carinae with small punctures spaced evenly and with a toothed elytral shoulder. This species is diurnal and active during spring and early summer. This specimen was collected in a bait trap with rotten chicken, but individuals can be found in fungus in the open forest.

The brachelitry is unilateral on the right elytron which is about 1/6 reduced (Fig. 1) when compared with the normal right elytron. This type of deformity can be associated with other morphological anomalies in the same individuals and in different families, especially in Carabidae (Balazuc, 1948) and Cerambycidae (Balazuc, 1948; Ortuño & Hernández, 1993; Ferreira, 2015).

The cause of this deformity occurs during the pupal stage and may be purely mechanical: some pressure in the early stages causes a small wound and the healing time is reflected in the development of the elytron.

Symphysocery in *Telephanus atricapillus* Erichson, 1846 (Silvanidae) (Fig. 2)

Specimen studied: U.S.A., Ohio, Lucas Co. Toledo, Benore Road, 21 March, 1995, leg. R.N. Ferreira (RNFC).

This specimen is 4.50 mm long, slender and elongate, yellowish brown with dense erect setae on the elytra. Head black without grooves, densely punctured and broader than pronotum, with rows of deep punctures and with a dark band on the apical third. This species is found later in spring and summer on vegetation.

This species has been treated as a *nomen nudum* for more than 150 years but Thomas & Nearns (2008), based on Erichson's (1846) description, state that such description clearly fulfills the requirements of Article 13.4 of the ICZN (1999) and confers availability on each name. Thus, *Telephanus atricapillus* Erichson, 1846 is the corrected name for the North American species and is the type species of the genus by monotypy.

The symphysocery in this specimen is type 4-5, where the 1st segment is normal, the 2nd deformed and narrowed to the tip and forming a small acute angle towards the 3rd. The 3rd is slighted reduced but well defined. The 4th and 5th are fused and rounded and the rest are normal. (Fig. 2).

According to Balazuc (1948, 1969) the symphysomelies consist of the fusion of antennomeres (symphysomery) or less frequently the fusion of leg segments (symphysopodies). The fusion, partial or total, of antennomeres from 6 to 11 is common and less so for 4-5 and rare for 3 and 4.

This type of monstrosity occurs especially in Cerambycidae (Balazuc, 1948; Ortuño & Hernández, 1993; Ferreira, 2015) and Staphylinidae (Ferreira, 2012).

The cause for these deformities may be a simple mechanical action or a physical-chemical action during its pupal stage.

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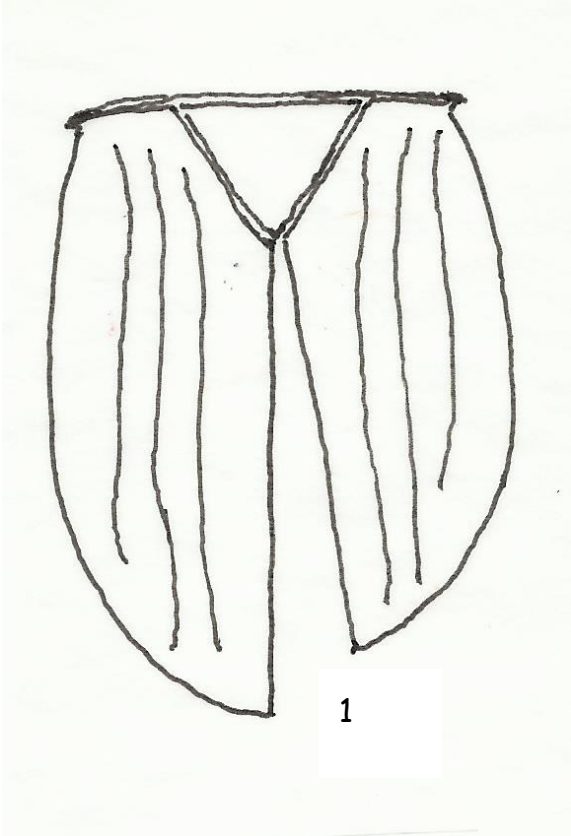

Fig. 1.- Brachelitry in *Oiceoptoma noveboracense* (Forster, 1771) (Silphidae).

Fig. 2.- Symphysocery in *Telephanus atricapillus* Erichson, 1846 (Silvanidae).