

NOTA / NOTE

First record of *Silpha puncticollis* Lucas, 1846 (Coleoptera: Silphidae, Silphinae) for North America.

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Abstract: The first record of *Silpha puncticollis* Lucas, 1846 (Coleoptera: Silphidae: Silphinae) for North America is reported. The specimens studied were all collected in 1994 and the establishment of the species has not been confirmed with more recent records.

Key words: Coleoptera, Silphidae, Silphinae, *Silpha puncticollis* Lucas, 1846, first record, North America, fauna.

Resumen: Primera cita de *Silpha puncticollis* Lucas, 1846 (Coleoptera: Silphidae: Silphinae) para América del Norte. Se da a conocer la primera cita de *Silpha puncticollis* Lucas, 1846 (Coleoptera: Silphidae: Silphinae) para América del Norte. Todos los especímenes fueron capturados en 1994 y el establecimiento de la especie no ha sido confirmado con registros más recientes.

Palabras clave: Coleoptera, Silphidae, Silphinae, *Silpha puncticollis* Lucas, 1846, primera cita, América del Norte, fauna.

Recibido: 28 de diciembre de 2016

Publicado on-line: 6 de febrero de 2017

Aceptado: 26 de enero de 2017

Introduction

The family Silphidae Latreille, 1807, the so called carrion beetles, is a cosmopolitan group represented in the United States by two subfamilies: Silphinae Latreille, 1807 and Nicrophorinae Kirby, 1857. The subfamily Silphinae is represented in the U.S.A. by eight genera: *Aclypea* Reitter, 1884; *Heterosilpha* Portevin, 1926; *Necrodes* Leach, 1815; *Necrophila* Kirby & Spence, 1828; *Oiceoptoma* Leach, 1815; *Oxelytrum* Gistel, 1848; *Thanatophilus* Leach, 1815, and *Silpha* Linnaeus, 1758, with this last genus only reported for Quebec, Canada by LaPlante (1997).

In this paper, the presence of an unrecorded species for North America, *Silpha puncticollis* Lucas, 1846, is documented for the first time.

Material and methods

During the curation routine of our collection eight specimens of Silphidae were found marked "to be identified". These specimens would not key out of Hanley & Cuthrell (2008). The Yale Peabody Museum in New Haven has three specimens, from Switzerland, 1915, marked as *Silpha tristis* Illiger, 1798 similar to our specimens.

Using Prieto Piloña & Valcárcel (2002) the specimens were keyed, and the aedeagus (Fig. 1) perfectly matches that of *Silpha puncticollis* Lucas, 1846.

The Connecticut specimens of *Silpha puncticollis* will be deposited in the following collections:

UCMS - University of Connecticut Collection, Storrs.

YPM-ENT - Yale Peabody Museum, Division of Entomology, New Haven.

RNFC - Raul Nascimento Ferreira Collection.

Specimens studied: *Silpha puncticollis* Lucas, 1846 (Silphidae: Silphinae) (Fig. 2): U.S.A., Connecticut, New London Co., Pawcatuck, 5 May 1994, R.N. Ferreira, 1 ex. (RNFC); Pawcatuck, 5 May 1994, R.N. Ferreira, 1 ex. (YPM-ENT); Pawcatuck, 5 June 1994, R.N. Ferreira, 4 ex. (RNFC); Pawcatuck, 5 June 1994, R.N. Ferreira, 1 ex. (UCMS); Pawcatuck, 10 August 1994, R.N. Ferreira, 1 ex. (RNFC). All specimens collected at latitude 41°22'38" and longitude 71°50'01". The altitude for Pawcatuck is 45 feet (≈ 10.5 m).

Discussion and conclusions

The genus *Silpha* Linnaeus, 1758 and the species *Silpha tristis* Illiger, 1798 were previously recorded by LaPlante (1997) based in 13 specimens from different locations around Quebec, Canada. He suggested modifications to the key of Anderson & Peck (1985) to include the new genus. This was later incorporated in volume 1 of *American Beetles* (Arnett & Thomas, 2000).

Silpha puncticollis Lucas, 1846 is very similar in appearance. Both have well developed raised costae and regular punctations on the elytra with tiny shining tubercles (asperites) in front of each elytral punctures, which are very distinctive under high magnification. The elytral punctures in *Silpha tristis* are fine, with 5-6 rows of punctures between each costae, but in *Silpha puncticollis* are gross and have 3-5 rows. The examination of the aedeagus (Figs. 1 and 3) is the best method to differentiate these species.

Silpha puncticollis, a native of the Mediterranean Region, represents a new species for North America. The impact of this introduced species on the environment and the native fauna has not been investigated. Given that no other specimens have been reported since these ones were collected in 1994, this species likely failed to establish and is no longer present in North America.

A trapping program is underway to find out if it is established or not. It is unknown if any negative effects have been caused by this species. However we cannot forget that such effects may not be immediately evident and not all non-native species will harm the recipient fauna.

Aknowledgements

I like to thank my son José Ferreira, Dr. Jane O'Donnell (University of Connecticut, Storrs) and Dr. Derek S. Sikes (University of Alaska Museum, Fairbanks) for kindly reviewing the manuscript offering critical comments and suggestions for its improvement.

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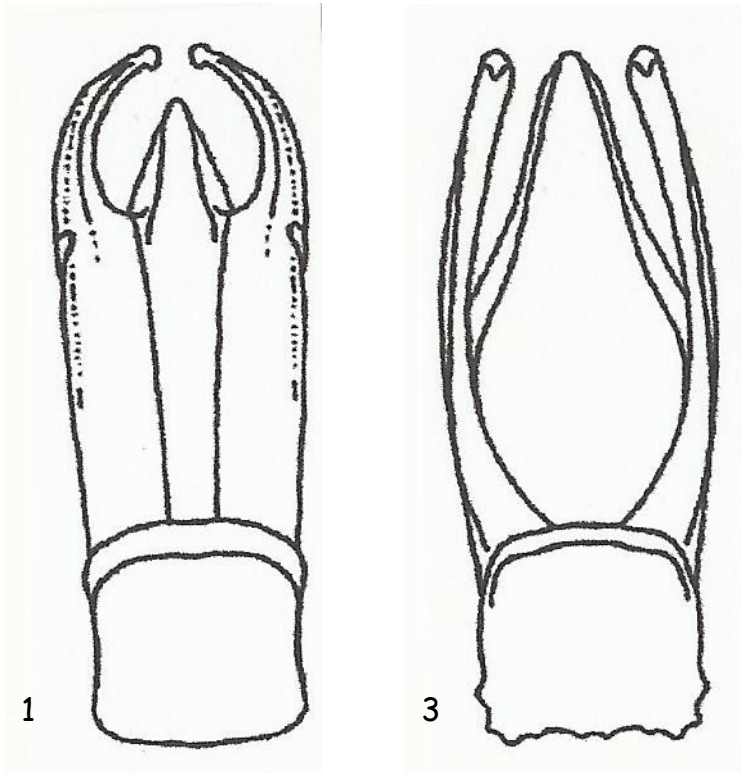


Fig. 1.- Aedeagus of *Silpha puncticollis* Lucas, 1846 (adapted from Prieto & Valcárcel, 2002).

Fig. 2.- Habitus of *Silpha puncticollis* Lucas, 1846 (♂).

Fig. 3.- Aedeagus of *Silpha tristis* Illiger, 1798 (adapted from Prieto & Valcárcel, 2002).