

## THE PRESENCE OF SPECIES *MORIMUS FUNEREUS* MULSANT, 1862 (LONG-HORNED BEETLE) COLEOPTERA: CERAMBYCIDAE IN A FOREST OF OAK CONDITIONS, 2015

Cristina STANCĂ-MOISE

“Lucian Blaga” University of Sibiu, Faculty of Faculty of Agricultural Sciences, Food Industry and Environmental Protection, Sibiu, Romania, Phone: 0040269234111, Fax: 0040269234111, E-mail: cristinamoise1@yahoo.com

**Corresponding author:** cristinamoise1@yahoo.com

### Abstract

*In this paper I present the species *Morimus funereus* Mulsant, 1862 (Coleoptera: Cerambycidae) which was reported in 2015 in the oak forest Dumbrava Sibiului. The samples were collected using soil traps mounted inside the forest. The material was added to the entomological collections along with other species of beetles caught in 2015. Studies on species of beetles were conducted by the author over several years, and this study complements the list of species caught in this ecosystem.*

**Key words:** *Cerambycidae, Morimus funereus, species*

### INTRODUCTION

*Morimus funereus* Mulsant, 1862 (Coleoptera: Cerambycidae) inhabits a relatively narrow geographical zone (forests of south-eastern Europe), and infests deciduous and coniferous trees [16].

The distribution of the species is in: Spain, France, Italy, Austria, Germany, Croatia, Bosnia and Herzegovina, Cehia, Macedonia, Moldova, Bulgaria, Slovakia, Serbia, Slovenia, Hungary, Romania, Montenegro, Ukraine, etc.

*Morimus funereus* (long-horned beetle) is a species stenotope, forestry, xylo-detriticole, xylophagous, saproxilyc. It prefers oaks and beech forests, but occasional occurrences of the species have been observed in coniferous forests [5].

The biology of the species is poorly known. Females lay eggs under the bark of logs and thick, dry branches. Larval development lasts 3-4 years; the larvae developed under the bark of dead tree and subsequently in the their wood. The larval stage lasts no longer than 2 years. The larvae pupate in spring or early summer. After completion of development, the larvae penetrate deeper into the wood, which prepares the room for metamorphosis. Adults appear autumn, but do not leave the pupal chamber until next spring. Adults can be

observed during the period from May to July on tree trunks. Adult activity begins quite early in April and continues until September. They have two maximum period of mating: the first half of May, respectively, the last half of June and a peak of activity between 8 p.m. and 3 a.m. Adults have longevity up to two years. Inability to fly leads to a small dispersion of population, and the increased habitat fragmentation[6]. *Morphology:* The head has a strong punctuation, more dense forehead (fig.1). The eyes are bordered with little hairs lying, yellow. The antennas have non rings articles. Pronote is dotted roughness has numerous irregularities and a side tooth, strong and sharp. Bandannas are granulated with fine glossy grains and stronger at the base.

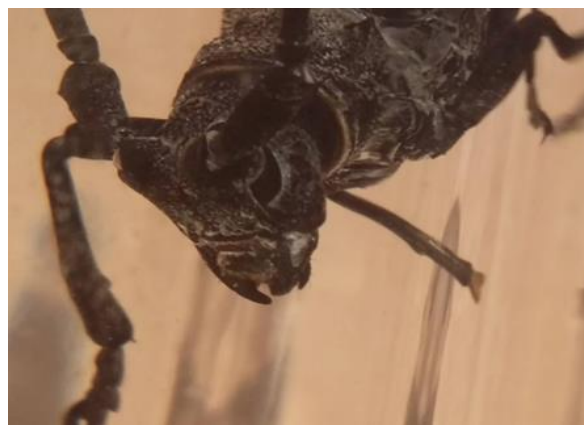


Photo 1. The head ( Original photo)

The body is black, his dorsal side shows a very dense pubescent lying, gray-silver, which completely covers the background (fig.2). Bandannas have two soft spots, black, one located in the front third and the other is postmedian; under these spots the bandannas fund is not grainy. The antennae of males are 1-1.5 times longer than bandannas and females have approximately the same length as bandannas. Body length - 18-38 mm.



Photo 2. *Morimus funereus* Mulsant, 1862 (Coleoptera: Cerambycidae) (Original photo)

Suitable habitat is the forests over 45 years, which may be present dry trees, which ensures optimal conditions for development (fig.3). Low dispersion capacity of individuals segmenting the area. So that, during the period of the adults activity, who seemed favorable habitats within the site, the species has not been found. The existence of the slopes in a ratio of about 80% in the SCI's influences the density and size of the population.

This cerambycid beetle develops on host plants of the families *Tiliaceae*, *Fagaceae*, *Corylaceae*, *Salicaceae*, *Fabaceae* and *Pinaceae*, using either physio-logically debilitated trees, tree stumps or recently cut

logs. The larvae are inner bark (phloem) feeders, found in the first stage of decomposition of trees [6].



Photo 3. *Morimus funereus* Mulsant, 1862 in habitat (Original photo)

The larva develops in thick trunks and branches of trees dried or partially dried. Neonate larvae initially feed on the bark after consuming wood in order to perfection their development. Adults feed, it seems, with bark and leaves (fig.4.). The captive adults were fed with oak bark, leaves and stems of field plants.



Photo 4. Adult *Morimus funereus* Mulsant, 1862 (Original photo)



## MATERIALS AND METHODS

In the studied sylvo-cenosis they were made field studies [3,7,8,9] about epigeous entomofauna in the period between March-August 2015 [14].

In the first moment it was exactly established the place and it was dugged a pit in the ground of the size of the collection box [12,13,14]. It was important, by inserting into it in such a way that the hole funnel to be exactly at ground level. The funnel was covered with soil and plant debris to be well camouflaged. Along his way long-horned beetle fell into the trap 5 on 01.06.2015, as shown, along with other species of beetles (Photo 5, 6).

## RESULTS AND DISCUSSIONS

The list of species collected is presented in [14]. Each species is accompanied by data on the microclimate, eco-geography, trophic spectrum and floor (sublevel) where vegetation was collected [10,15,16]. There were collected 32 species of beetles belonging to six families: *Carabidae* (14 species), *Scarabeidae* (5 species), *Cerambycidae* (1specie), *Silphyidae* (6 species), *Elateridae* (2 species), *Staphylinidae* (4 species) [14].



Photo 5. Trap 5 (Original photo)

## CONCLUSIONS

*M. funereus* is listed as vulnerable by the IUCN Red list of threatened species [17] and is an Annex II Species of the EU Habitats and

Species Directive [17] and also by the Decree on designate and protect the strictly protected and endangered species of wild plants, animals and fungi [18].

*Measures of protection and conservation.* The protection of the old trees of deciduous forests [1,2]; especially by prohibition of the actions amateur collectors; reducing toxic chemicals treatments in forest ecosystems[11]; preserving and protecting the characteristics biotopes [4].



Photo 6. *Morimus funereus* Mulsant, 1862 (Original photo)

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