

# STUDY ON THE BATS SPECIES IN THE CAVES PROTECTED NATURAL OF NORTH WEST GORJ

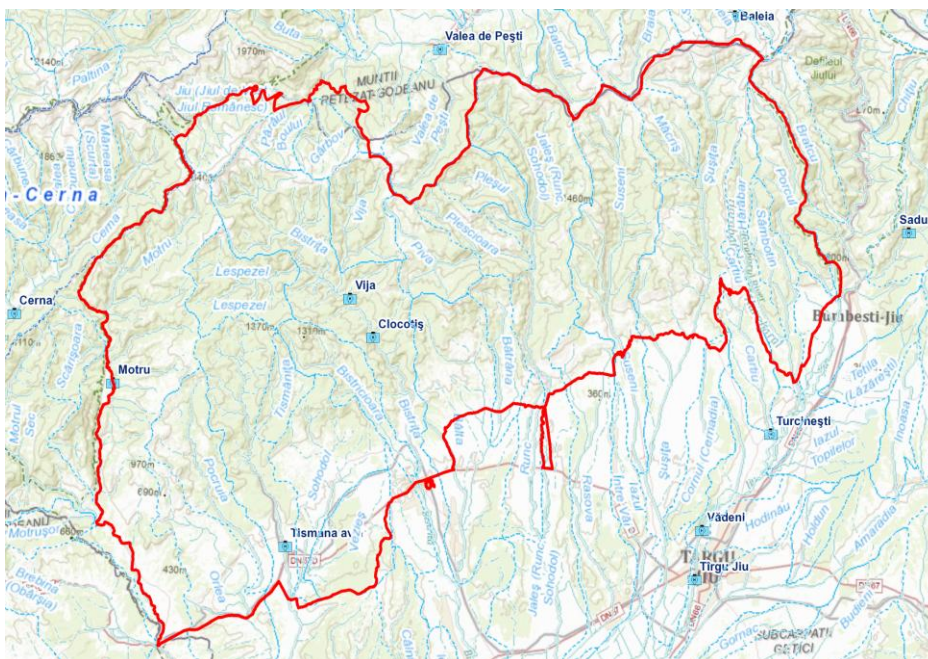
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**Abstract:** The paper gives a brief description of the protected area North West Gorj ecological characteristics of caves, and the bats species present in holes and caves in the description of the protected area.

**Keywords:** protected area, fauna, bats

## 1.Introduction

The protected area North West Gorj ROSCI0129 covers an area of 86,958 hectares in 9 communes in Gorj county - Bumbesti-Jiu (7%), Godinesti (8%), Pades (23%), Pestisani (69% (86%), Schela (84%), Stanesti (67%), Tismana (82%) and Turcinești (2%), as well as 3 localities in Hunedoara county: Lupeni (U% And Vulcan (<1%) and Baia de Arama (<1%) in Mehedinti County. Geographical coordinates: eastern longitude 23°4'44" ", 45°9'5" north latitude. Altitude: maximum -1940m, average - 835m, minimum -192m. (Figure 1).



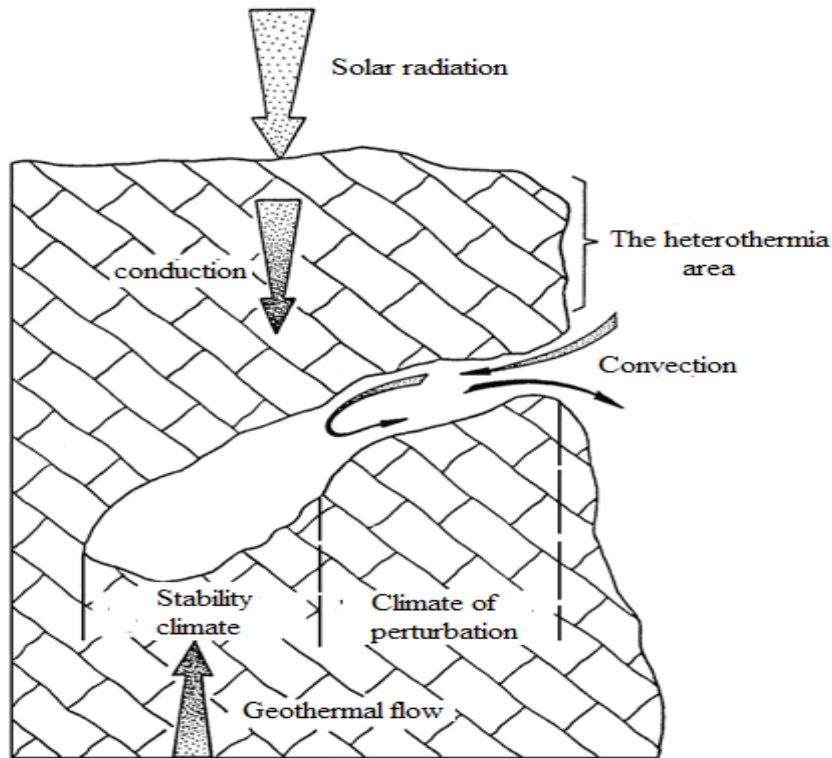
*Fig. 1 Limit of Protected Natural Area North West Gorj*

## 2. ECOLOGICAL CHARACTERISTICS OF CAVES

### *Physical factors*

The most important environmental factors in caves are: obscurity, temperature, humidity, air currents, air composition, water content in gases, mineral salts and organic substances.

The main source of energy that intervenes in the physical context of the caves is the solar radiation flux received by the surface of the carst (Figure 2).



*Fig. 2. The scheme of energy influences on a cave*

### *Trophic factors*

There are many possibilities in which organic matter produced externally is transported into fish, but, simplified it can be synthesized in the following scheme (Figure 3):

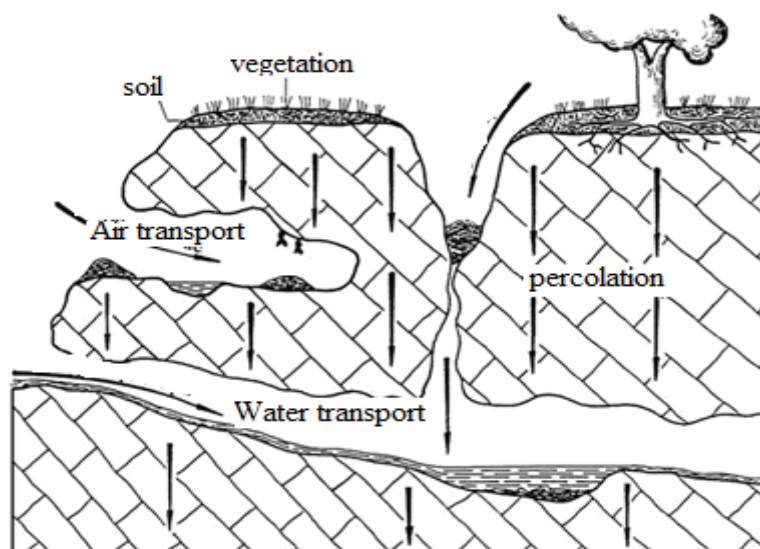


Fig. 3. Schematic representation of ways in which allochthonous trophic resources are transported inside caves

### 3. THE BATS SPECIES AND CAVES FROM NATURAL AREA PROTECTED NORTH WEST GORJ

In the Protected Natural Area North of the West Gorj there are a large number of caves that are populated by various species of chiroptera. As for the grouping of individuals, this is done in clusters consisting of 8-12 individuals or isolated, leaving free spaces between them, or crowded.

- ***Rhinolophus ferrumequinum***

The *Rhinolophidae* family, the horseshoe bats, have fleshy excrescences on the nose to guide the ultrasound beams emitted through the nostrils. Nasal excretions are species of nature. During the rest, they wraps with their wings. (Figure 4)

In the site, the population of *Rhinolophus ferrumequinum* is well represented and appears in Gura Văii Caves, Fușteica Cave (fig.5), Cicarei Cave.



*Fig.4. Rhinolophus ferrumequinum*



*Fig.5. Appearance from Fusteica Cave, Sohodol Gorges, Gorj County*

- *Myotis myotis* (The common bat)

Large waist, with the length of the forearm between 55,0 and 67,8 mm. It is characterized by a massive buttock and wide ears. (Fig. 6).



*Fig. 6. Myotis myotis*

In the site appears in the Fușteica Cave and Gura Văii Cave.

- *Rhinolophus hipposideros* (Little horseshoe bat)

It is the smallest species of horseshoe bats in Europe, having a small and delicate body (Figure 7).



*Fig. 7. Rhinolophus hipposideros*

*Rhinolophus hipposideros* is present in Coral Caves, Fușteica Cave, Cicarea Cave.

- ***Myotis blythii***

Also known as the Blyth bat, it differs from the common bay by the smaller waist, the narrower widths of maximum 8-10 mm, shorter and sharper (Fig. 8).



*Fig. 8. Myotis blythii*

- ***Myotis emarginatus***

Medium sized lilac with ear pavilion with distinct ridges on the edge external and 6-7 transversal folds (fig.9)



*Fig.9. Myotis emarginatus*

In the site appears in the Gura Văii Cave and the Bats Cave.

- ***Myotis capaccinii*** (Long-legged bat)

It is a medium-sized species, has narrow ear pavilion with five horizontal outer folds. Very large legs with long and hard bristles. (Figure 10)

In the site appears in the Pârgavu Cave and the Tismana Caves.(fig.11.)



*Fig. 10. Myotis capaccinii*



*Fig.11 The cave entrance Tismana*

- ***Miniopterus schreibersii*** (Bat with long wings)

Medium-sized species, with very short, triangular nose and ears, short, rounded toe and long and sharp wings. (Figure 12)



*Fig. 12. Miniopterus schreibersii*

In the site appears in the Fușteica Cave, Pârgavu Cave and Gura Văii Cave.

- ***Rhinolophus euryale***

It is a predominantly troglophilous species, which prefers the hectic and wooded areas, crossed by water courses, up to 1000 m altitude. Caves are the ideal shelter, especially for hibernation, but in the summer, maternal colonies can also be housed in housing bridges.



*Fig. 13. Rhinolophus mehelyi*

In the ROSCI0129 site, North West Gorj appears in Cioarei Cave and Gura Plaiului Cave.

#### **4. CONCLUSIONS**

In the Protected Natural Area North of the West Gorj there are a large number of caves that are populated by various species of chiroptera.

#### **REFERENCES**

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