



A man in a dark shirt and trousers stands at a wooden podium on the left side of the stage, facing the audience. The podium has a microphone and a water bottle on it.

An audience of people is seated in a tiered lecture hall. Some are looking towards the stage, while others are talking or looking at their phones. The seats are brown and arranged in rows. A few people are standing near the back of the hall, possibly near an exit.










Extinction

1. Habitat destruction	3. Introduction of non-native species
2. Overkill	4. Climate change

Occurrence of selected
Gram-negative bacteria in bats faeces



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Diseases transmitted by bats

Hantavirus (Hantavirus capsid)

Nipah Virus

Ebola







Area

- Establishing a common platform of goals and shared values to the project and the participants in small meetings in forums
- Testing the influence of some variables (age, sex, weight, etc.) and normalised individual data
- Assessing local specificity and consequences of possible groups in real scenarios





The aim of this study is to

- provide a general overview of the geographic distribution - by producing maps that display the occurrences of ticks, and
- get a glimpse into the seasonality and host associations of tick species in Romania.

© 20 November 2010 West General Lecture 2 (Therapeutic) Room







from animal hosts between 2004 and 2008 → preserved in alcohol or RNAlater® (Ambion®, Applied Biosystems) solution.

Mapping the distribution

- tick distribution was mapped using EpiMap software from EpiInfo 3.5.1 package on a level IV administrative shapefile (vector layer obtained from geo-spatial.org <http://earth.unibuc.ro>) in the Coordinate Reference System Dealul Piscului 1970 (Stereo 70).

Seasonality data

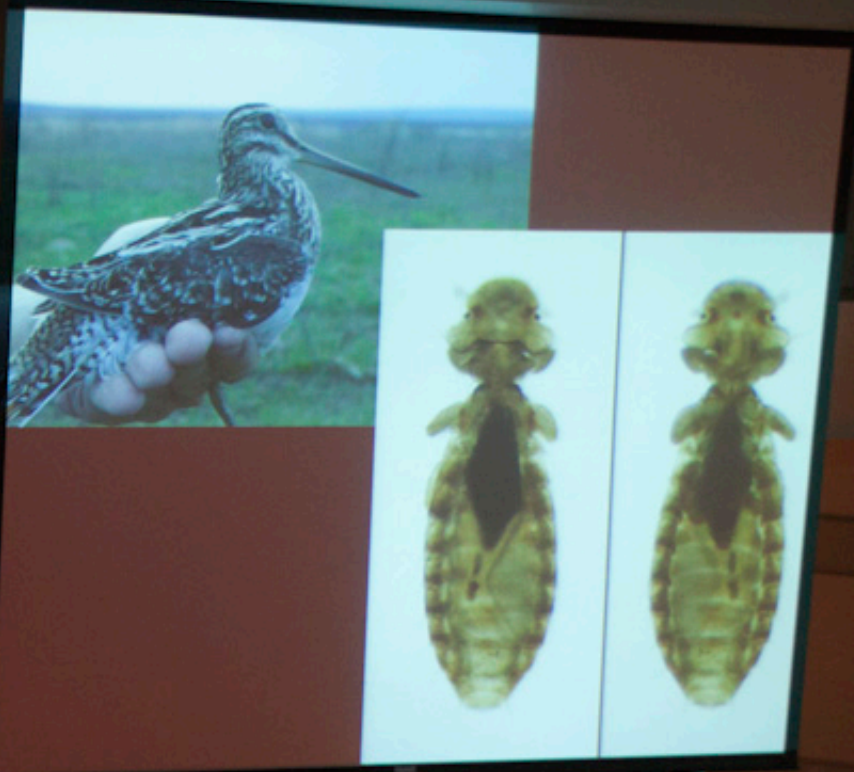
tick seasonality was assessed from data on tick occurrence in

În ceea ce privește prevalența infestărilor cu malofage la cele 9 ordine de păsări cercetate, se poate observa că în cazul ordinelor Podicipediformes, Falconiformes și Coraciiformes aceasta este 0 (nici-o pasăre controlată din cadrul acestor ordine nu a fost găsită infestată cu malofage).

Dintre celelalte ordine de păsări, valoarea cea mai scăzută a prevalenței o are ordinul Passeriformes, deși numărul păsărilor controlate din cadrul acestui ordin a fost cel mai mare. În general, reprezentanții ordinului Passeriformes (cu excepția câtorva familii) prezintă o prevalență destul de mică a infestărilor cu malofage, iar speciile de malofage întâlnite pe reprezentanții acestui ordin au o specificitate de gazdă mult mai pronunțată decât cele prezente pe păsările de talie mai mare.



A man in a dark suit is standing at a podium on the left side of the stage, looking down at a laptop. The podium is equipped with a microphone and a glass of water. In front of him is a long, curved desk with four orange upholstered chairs. Each chair has a microphone in front of it. The desk also has a laptop, a glass of water, and some papers. The background features a large screen displaying the bar chart and a wall with several circular vents.









BATS DIVERSITY IN VARIOUS TYPES OF HIBERNACULA FROM DOBROGEA, ROMANIA

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Introduction:

We present a preliminary study about the bats presence in winter shelters from Dobrogea territory. Our observations were made during winter 2009. We describe new hibernacula for the bats from Dobrogea

One of it, is the Cave from Cismeluta, in Sipote village. This one was presented in 1996 as a summer shelter for Dobrogea, but the new observations show it like important hibernacula for the area, especially, through the specific composition of the present bats. The second is located in the north of Tulcea city, named Terente's Cave, sheltering a reduce populations of rhinolophidae.



Rhinolophus ferrumequinum in Cave from Cismeluta



Entrance in Cave from Cismeluta



Plecotus austriacus



Miniopterus schreibersii



Gallery in Cave from Cismeluta



Entrance in Terente's cave



Rhinolophus ferrumequinum in Terente's cave



The third shelter is the Tunnel from Hagieni Reservation, well-known in literature as a nursery colonies shelter and investigated for a long time by several researchers. We visited this site during three winters (2004, 2006 and 2009), recording wintering presence of approximately 100 bats individuals. In this paper, we give data on the size of bats' wintering colonies from each shelter, specific composition of populations, presenting some aspects on these caves' ecology, too.



Entrance in Hagieni' Tunnel



Miniopterus schreibersii, winter colony



Reference:

1. PRIMA, E. I., 2009 - Răspândirea, ecologia și etologia chiroptenilor din estul României, Rezumatul tezei de doctorat, Universitatea "Al.I.Cuza" Iași, Facultatea de Biologie, Catedra Zoologie-Ecologie, 57pp.
2. MURARIU, D., 2008 - Faunology, Biology, Ecology and Protection Statulge of the Mammals (Mammalia) of the Măcin Mountains Natural Park (Romania). Travaux du Muséum National d'Histoire Naturelle "Grigore Antipa", 51: 273-301.
3. RĂDULEȚ, N., STĂNESCU, M., 1996 - Contribution à la connaissance des mammifères du sud de la Dobrogea (Roumanie). Travaux du Muséum National d'Histoire Naturelle "Grigore Antipa", 36: 373-384.

NEW DATA REGARDING THE DISTRIBUTION OF *PIPISTRELLUS KUHLII* (CHIROPTERA) IN EASTERN ROMANIA

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Abstract. *Pipistrellus kuhlii* is a west-Palaearctic and afrotropical species, apparently with tropical origin. The species is known to extend its range in Europe during the last years (Sachanowicz et al. 2006). In Romania *Pipistrellus kuhlii* was mainly met in Moldavia (Iffim & Valencic 2006) and in the southern part of the country (Droga et al. 2007). It's an anthropophilic species associated with humid habitats. We identified it inside localities (IS), hunting insects at the light pillars (SELMA - TL) along the roads, in humid habitats (The Natural Park Lunca Inferioara a Prutului - GL) and in Danube Delta. We met the species from the sea level up to ~600 m altitude. The authors present morphometric data at 11 individuals, as well as data on the biology and ecology of the species.

Introduction. Almost all findings documenting that the expansion of *Pipistrellus kuhlii* come from urban habitats. It is one of the most common bats in cuneiform habitats along the Mediterranean Sea and in adjacent lowlands of large rivers, occurring in different habitat types, both urban and natural, however, most of its roosts have been found in buildings and their ruins (Bogdanowicz 2004). The species has been recently recorded in the two remaining countries neighbouring to the Czech Republic - in southern Slovakia (Cef'uch & Sevcik 2006, Danko 2007) and in Poland (Sachanowicz et al. 2006), although the latter finding may be related to a passively transported individual or a vagrant. *Pipistrellus kuhlii* was given as a new species for Romania no later than 2002, when Gheorghiu & Marariu (2002) let us know that they discovered it on a balcony of an apartment in Iasi, Moldavia Region, this was the first "in hand" specimen from Romania. In 2007, DRAGU et al., signaled the species in Dobrogea. In July 2006, a hibernating male was discovered on a balcony of a building in Constanta, thus also being confirmed the reproduction of this species in Romania. On 27th of April 2010, an adult female was caught at Slatina Gheorghie, being new species for Transilvania (Levente 2010, in press).

Material and methods. The records were made during mist-netting sessions on July 2007, in the Natural Park "Lunca Inferioara a Prutului" (Galati county) and on September 2010, near Letea village (Tulcea county). In the Natural Park "Lunca Inferioara a Prutului", in first night the mist-nets were placed next to a pumping station at the water bank, along some sour cherry trees. On the second night, *Pipistrellus kuhlii* was caught on the bank of Prut River, near a curve formed by this where the width was reaching 30-35 m, the nets were caught by the reeds. At the border of Letea village, the nets were laid in the open flooded area, near a 10 meters wide channel. The rest of individuals were found in Iasi and Radauti localities. We met the species from the sea level up to ~600 m altitude (Rădăuți). Data concerning the distribution of *Pipistrellus kuhlii* species was collected with the help of 2 types of ultrasound detectors (heterodyne and with time expansion).

The material used: mist-nets, heterodyne detector (Barbos Dacul) and time expansion detector (Tranquility), magnifying glass (x10), Petzola of 60 g caliber, digital camera, bat identification keys (Grimmberger & Schöber 1996, Valencic 2002, Marariu et al. 2003, Dietz & Helversen 2004).

Results and Discussion. *Pipistrellus kuhlii* is considered to be a gregarious species, some showing preference for the shelter given by the crowded humans constructions, huts above water and at the lighting pillars. It's a sedentary species (Sachanowicz et al. 2006). The species live also in tree hollows (A. Sinyak 2003). In the east of Romania, we observed that for the *Pipistrellus kuhlii*, the most important habitats are the leafy riparian forests, but also the parks, all types of investigated humid areas and the human settlements. In the urban areas, probably that *Pipistrellus kuhlii* is the most abundant species. According to the frequency and dominance, in Moldavia and Dobrogea, *Pipistrellus kuhlii* is very common (Pocora & Pocora 2010, in press).

Morphology. The length of the arm and the weight of the 11 captured exemplars (table 1), were of the given values: arm length = 25.2 mm (14.4 - 36.7 mm) and the body weight = 7.6 g (6.7-9.2 g). It seems that *Pipistrellus kuhlii* from the west-Palaearctic Middle East (Benda & Ruedi 2004).

Table 1. The morphometric measurements on the captured exemplars of *P. kuhlii*

Local	Date	Sex	Age	FA (mm)	G (g)	Emp. (mm)	Form
Iasi, Slatina	13.07.07	W	ad	26.1	6.7	1	light
Natural Park Lunca Inferioara a Prutului	13.07.07	W	juv	24.4	7.1	1	dark
Letea village a Prutului	13.07.07	W	ad	24.8	8.2	1	light
Iasi, Radauti	13.07.07	F	juv	24.1	7.0	1	dark
Iasi, Slatina	21.07.07	W	juv	26.8	7.8	1	light
Iasi, Slatina	21.07.07	F	ad	33.3	8.3	1	dark
Iasi, Slatina	28.09.10	F	ad	26.2	7	2	dark
Iasi, Slatina	28.09.10	W	ad	28.2	6.7	1	dark
Radauti, Slatina	27.10.07	F	ad	33.4	7	2	light
Iasi, Slatina	04.11.10	W	ad	31.7	7.8	1	light
Iasi, Slatina area	19.09.10	W	ad	29.4	7.7	1	light

The distribution of *Pipistrellus kuhlii* in eastern Romania. Data gather with the detector (red dots) and the light pillars (blue dots) and the species range (black dots).

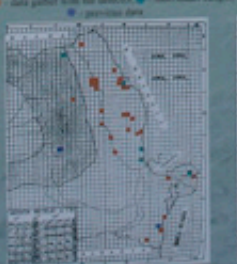
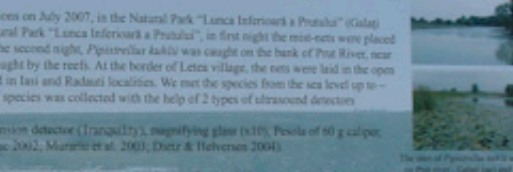


Table 2. The list of the localities where *Pipistrellus kuhlii* was captured in Romania.

Local	Date	Sex	Age	FA (mm)	G (g)	Emp. (mm)	Form
Iasi, Slatina	13.07.07	W	ad	26.1	6.7	1	light
Natural Park Lunca Inferioara a Prutului	13.07.07	W	juv	24.4	7.1	1	dark
Letea village a Prutului	13.07.07	W	ad	24.8	8.2	1	light
Iasi, Radauti	13.07.07	F	juv	24.1	7.0	1	dark
Iasi, Slatina	21.07.07	W	juv	26.8	7.8	1	light
Iasi, Slatina	21.07.07	F	ad	33.3	8.3	1	dark
Iasi, Slatina	28.09.10	F	ad	26.2	7	2	dark
Iasi, Slatina	28.09.10	W	ad	28.2	6.7	1	dark
Radauti, Slatina	27.10.07	F	ad	33.4	7	2	light
Iasi, Slatina	04.11.10	W	ad	31.7	7.8	1	light
Iasi, Slatina area	19.09.10	W	ad	29.4	7.7	1	light



The wing of *Pipistrellus kuhlii* holding on the wing. (Scale: 1 cm) and from Letea Village (Iasi).



Dark form of *Pipistrellus kuhlii*, the width of the stripe between finger 7 and the last digit, the white (black) and the pale (light) light form of *Pipistrellus kuhlii*, the width of the stripe between finger 7 and the last digit, the white (black) and the pale (light).

Acknowledgements. This study was possible through the project CNSIS PD - 326/2010, funded by the Romanian Education and Research Office.

THE ROLE OF NECROPHAGOUS INSECT SPECIES IN DECOMPOSITION OF ORGANIC MATTER (ROMANIA)

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INTRODUCTION

Necrophagous insects are truly scavenging agents, due to the fact that by the consuming of dead plants and animals they facilitate the access at these resources of principal decomposers, mushrooms and fungus, for the realization of degradation process. To be more specific the necrophagous species fulfill the decomposition process of the organic matter with the free of biogenic mineral elements, after death they also form a source of organic matter for the decomposers.

OBJECTIVES

- identification of necrophagous insects species involved in degradation of organic matter and determination of faunal associations
- establishment of temperature and humidity parameters and their influence on the development cycle of necrophagous species.
- highlighting the role of necrophagous species in decomposition of organic matter.

METHODS

- For achieving the research objectives the next methods were used:
- Substrate used: domestic pig meat (*Sus scrofa*) - urban area.
- The period of development cycle was established by daily monitoring.
- Registration of daily parameters: temperature and humidity.
- Daily measurements of larvae and pupa stages for each species.
- There were made observations regarding the behavior of parasitic insects, such as *Brachymeria fonscolombi* (Hymenoptera) and species of Formicidae Family.

RESULTS

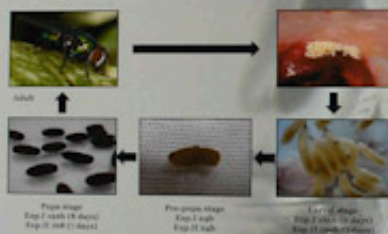
There have been identified the following species:

- *Lucilia caesar* (Diptera) - 70 specimens
- *Sarcophaga cornaria* (Diptera) - 40 specimens
- *Saprinus sp.* (Coleoptera) - 50 specimens
- *Dermestes maculatus* (Coleoptera) - 20 specimens

Two experiments were made on *Lucilia caesar* to evidence the influence of temperature on the development cycle:

- Exp. I - 27 °C

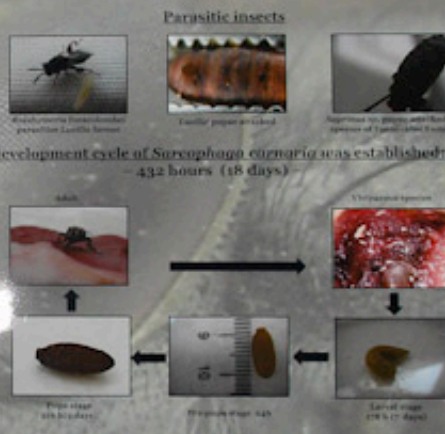
- Exp. II - 35 °C



The development cycle of *Saprinus sp.* was established - 576 ore (24 zile) -



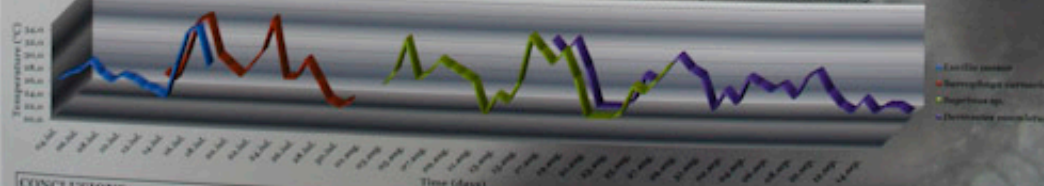
The development cycle of *Sarcophaga cornaria* was established - 432 hours (18 days) -



There were made observation regarding the development cycle of *Dermestes maculatus* - 1440 hours (60 days) -



Development cycles and succession of faunal associations depending on temperature and humidity



CONCLUSIONS:

From this research it results the identification of necrophagous insects and of successive faunal associations. The results from these experiments also show that the life cycle of necrophagous insects, the composition of successive faunal associations and the decomposition of organic matter are influenced by abiotic and biotic factors.

