



CONSERVATION
INTERNATIONAL



Conservation Leadership Programme

Comprehensive final narrative report

Project ID: 0418441

Project title: Protecting the horseshoe bats of Romania

Host country: Romania

Target areas: Protected areas in South-Western and South-Eastern Romania

Field work: 2014 (July, September, December), 2015 (February)

Participating institutions:

Mehedinți Plateau Geopark
Underwater and Speological Explorer Club (G.E.S.S.)
Exploratorii Caver Association
Nerei Gorge - Beușnița National Park
Domogled - Cerna Valley National Park
Semenic - Carașului Gorge National Park
Iron Gates Natural Park

Overall aim of the project:

The conservation status of horseshoe bat populations in Southern Romania is improved.

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Note: The data presented in the following report is the intellectual property of the team behind the project “Protecting the horseshoe bats in Romania” and cannot be used publicly without the consent of the project leader. However, data may be used in the internal databases of organizations who have directly received this report. Partial data have already been published in journals and presented at scientific conferences. Until publishing the full data set in scientific journals, the project team wishes to retain the confidentiality of the data presented here.

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We are especially grateful to Christina Imrich, Iain Dickson, Julie Lewis, Kiragu Mwangi, Robyn Dalzen and Stuart Paterson. The valuable insights received from Christine Ageton, Martin Davies, Martin Fowlie, Maureen Ryan and Nalini Mohan at the Barrier Lake Training was crucial for project success. We are indebted to the Romanian Bat Protection Association for providing their contribution for the project. We are thankful for the insight and advice given by Prof. Dr. Ioan Coroiu at the project startup.

The project team thanks the following people, organizations and companies for their effort during the field work, education activities and mass media communication: Alexandra Hillebrand, Alexandra Telea, Anca Colojoară, Anca Dragu, Andreea Moldovan, Anna Szabó, Bogdan Bădescu, Călin Uruci, Corina Trifina, Dragoș Bălășoiu, Emanuel Ștefan Baltag, Endre Jakab, Farkas Szodoray-Parádi, Gabriela Olariu, Gaudeamus Bookstore, Ioan Coroiu, Iosif Morac, Levente Barti, Ligia Mînican, Lucian Fasolă-Mătășaru, Marius Vlaicu, Mircea Jumanca, Oana Chachula, Olimpia Stan, Orsolya Naghi, Réka Jakab, Rodica Plaiasu, Semn de Carte Bookstore, Sistemis Group, Ștefan Wisket, Teodora Sinculeț, Think Outside the Box, Timea Bakk-Dávid, Tomasz Postawa, Valentin Jujea, Zoltán Nagy.

The project team also thanks the following institutions and organizations for contributing to the successful outcome of the project:



Domogled - Cerna Valley
National Park



Iron Gates Natural Park



Nerei Gorge - Beușnița
National Park



Semenic - Carașului
Gorge National Park



Underwater and
Speleological Explorer
Club (G.E.S.S.)



Mehedinți Plateau
Geopark



Exploratorii
Caver Association

SUMMARY

The overall goal of the project is the improvement of the conservation status of horseshoe bat populations in Southern Romania. Our project's purpose was to establish key elements in the conservation of horseshoe bat populations in Southern Romania.

The project had three objectives which were accomplished: (1) By the end of the project, scientific data about horseshoe bats in Southern Romania is up to date; (2) By the end of the project, the public's attitude towards horseshoe bats and bats in general is changed towards the positive; (3) By the end of the project, stakeholders from Southern Romania are able to get actively involved in the conservation of local horseshoe bat populations.

Key results of the project were: (1) Constant presence of Méhely's horseshoe bat is demonstrated in South-Western Romania; (2) Publication about Méhely's horseshoe bat is accepted in a peer-reviewed scientific journal; (3) One of the largest horseshoe bat colonies in Europe, with more than 7.400 bats, is discovered in South-Western Romania; (4) The largest, currently known building dwelling colony of the greater horseshoe bat from Romania is discovered in South-Western Romania; (5) Key stakeholders are involved in all stages of field work; (6) Protected area administrators receive management recommendations for horseshoe bats; (7) The public's attention and positive feed-back is gained through awareness articles, social page and printed information; (8) Teenagers from Southern Romania greatly improved their knowledge about bats, through presentations in schools.

Our project had impact for all three objectives: (1) Scientific data about the distribution and status of horseshoe bats in Southern Romania is now up-to-date and publicly available; (2) We officially established durable collaborations with protected area administrators for the protection of bats; (3) We officially established durable collaborations with two schools, for education activities about bats.

Project progress was as expected. Changes occurred to the project through the lessons learned at the Barrier Lake workshop and subsequent team training, with approval of the Conservation Leadership Programme.



Fig. 1. Méhely's horseshoe bat (*Rhinolophus mehelyi*, left), together with a Mediterranean horseshoe bat (*Rhinolophus euryale*, right) captured and identified at the Ungurului de la Pecenișca Cave, in 2014 September.

INTRODUCTION

Bats (Chiroptera) have a series of key roles in our ecosystems. They control the size of harmful insect populations by consuming them in large quantities, and they also pollinate several hundred plant species in the tropics. Finally, by merely being present or absent, they offer key information about the health of our ecosystems.

One of the reasons behind our project was that field work from 2013 gave hope for the vulnerable M \acute{e} hely's horseshoe bat. We already knew, based on existing scientific data that the species has a single known population in Romania, in the South-Eastern part of the country. But the population is below 150 adult bats, with low genetic diversity and being isolated. However, field work in the year 2013 indicated the possible presence of M \acute{e} hely's horseshoe bat also in caves from South-Western Romania, some 500 km west from the known location.

The other four horseshoe bat species present in Romania have viable and large populations in the South-Western part of the country. In spite of this, all four species are threatened with roost loss and habitat fragmentation. In addition, all bat species from Romania are facing persecution based on ignorance, misinformation and lack of information. According to IUCN, horseshoe bat populations are in decline at the global level. However, several large areas remain unexplored in Romania.

In order to succeed, the project needed to address the three key issues of high impact conservation work: (1) science based conclusions, (2) proper management decisions and (3) targeted awareness work.

The sites in Southern Romanian, targeted by the project were chosen because of their strong relationship with bats, and because there were serious indications that large bat colonies are undiscovered in the area, together with M \acute{e} hely's horseshoe bat. Having a diverse landscape, extensive karst areas, and several hundred caves, the national and natural parks, as well as other Natura 2000 sites targeted by our project harbor a great diversity of bats, probably the largest in Romania.

Key partners in our efforts were the administrative bodies of target protected areas, and the biology teachers at local schools. Administrators of protected areas have a dual role. On one hand, they must ensure the durable and proper management of these high value sites. On the other hand they must inform visiting tourists about rules regarding wildlife, like for example visiting caves and proper behavior around wildlife. The role of teachers is obvious: to inform future generations about the values of nature and wildlife, and the necessity of protection.

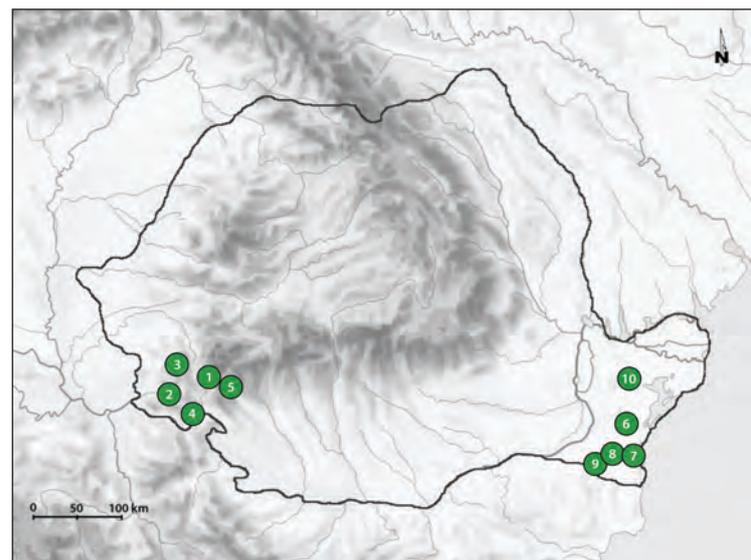


Fig. 2. Map of Romania with main project sites for scientific activities: (1) Domogled-Valea Cernei National Park, (2) Cheile Nerei-Beușnița National Park, (3) Semenic-Cheile Carașului National Park, (4) Porțile de Fier Natural Park, (5) Mehedinți Plateau Geopark, (6) ROSCI0215 Jurassic Reefs of Cheia, (7) ROSCI0191 Limanu Cave, (8) ROSCI0157 Hagieni Forest – Cotul Văii, (9) ROSCI0172 Canarua Fetii Forest and Valley - Iortmac, (10) ROSCI0201 North Dobrogean Plateau. See also Appendices, for detailed maps in case of activity types.

PROJECT MEMBERS

Our project included four team members, but we are grateful also for the invaluable insight of our project advisor.

Szilárd Lehel Bücs, team leader

Having a PhD in bat research, and more than 10 years of intensive involvement in bat protection, Szilárd is a well established bat expert from Romania. He has experience as coordinator in previous bat projects, and in education, obtained as trainer in bat related workshops. Szilárd took part in every aspect of it's implementation: field work, data collection and synthesis, scientific publication, education and mass media communication, elaborating management decisions of durable bat protection, reporting. Szilárd currently works for the Romanian Bat Protection Association, as bat specialist, in projects about (1) building-dwelling bat colonies and (2) the relationship of bats and humans. He also takes a major part in the long term monitoring of cave-dwelling bat colonies.

István Csósz, team member

With a Masters degree in Biology and Ecology, and almost ten years of active involvement in Romanian bat research and monitoring, István is an expert bat researcher. He contributed to the elaboration of several management decisions regarding bats, and took part in major projects that shaped the future of bat research and protection in Romania. István took part in the project's field work, data collection and synthesis, scientific publication, education, as well as in elaborating management decisions of durable bat protection. István currently works for the Romanian Bat Protection Association, taking part in every project. He also takes a major part in the long term monitoring of cave-dwelling bat colonies.

Georgiana Mărginean, team member

With a Masters degree in Expertise and management of ecological systems, Georgiana has more than 5 years of experience with the bat populations of Romania. She took part in several key projects on Romanian bat conservation, and is well versed in up-to-date research methods, especially ultrasound analysis. She took part in every aspect of the project, but most importantly in education activities and creating specific artwork for the project. Georgiana is currently working for the Făgăraş Mountain Association, as biodiversity expert.

Csaba Bartha, team member

Csaba took part in the largest bat conservation project of Romania, targeting the Apuseni Mountains and key bat roosts of its karst areas. During that project, he was active in all types of bat conservation efforts, by closing caves, placing artificial bat boxes, and surveying buildings. He also learned to identify bat species in the field with various methods, especially hands-on identification by mist-netting. Csaba's knowledge was well put to use in the field work phase of the project and also during data synthesis and publication. Csaba is currently at home, having a well earned vacation, and taking care, together with his wife, of their two little girls.

Csaba Jére, project advisor

Csaba is the founding member and board member of the Romanian Bat Protection Association, the sole NGO entirely dedicated to bats in Romania. With more than 15 years of intensive activity in bat research, Csaba is a leading authority in species identification, monitoring, conservation actions and project coordination. The project benefitted from Csaba's invaluable insight into middle sized horseshoe bats, and also from his field experience in Southern Romania, as well as during the education and publication activities.



Fig. 3. The project team in action: above left, Georgiana presenting to children about bats in the Racovița School; above right, our team advisor Csaba, taking notes during the winter survey of Buhui Cave; middle left, István descending fast in the Gaura Ungurului de la Pecenișca Cave; middle right, Csaba waiting for his turn to descend a waterfall (not visible on the photo) in the Buhui Cave; below right, Szilárd presenting to children about bats in the Limanu School.

AIM AND OBJECTIVES

The initial aim of the project was to improve of the status of horseshoe bat populations in Southern Romania, through research, education and management. Our objectives, in their initial form, were:

1. Updating scientific knowledge about the distribution, population size and status of horseshoe bats in Southern Romania.
2. Raising awareness through education and information in local schools regarding the highly sensitive horseshoe bat species.
3. Informing administrators of local protected areas and stakeholders about proper management decisions for the horseshoe bat genus.

However, based on the lessons learned at the Barrier Lake training month, as well as based on the feedback received from trainers, we formulated a clearer, more realistic aim, and SMART objectives.

In this way, the final version of the project's aim was to establish key elements in the conservation of horseshoe bat populations in Southern Romania. To reach our aim, we formulated the following objectives:

1. By the end of the project, scientific data about horseshoe bats in Southern Romania will be up to date.
2. By the end of the project, the public's attitude towards horseshoe bats and bats in general will be changed towards the positive.
3. By the end of the project, stakeholders from Southern Romania will be able to get actively involved in the conservation of local horseshoe bat populations.



Fig. 4. Interacting with the audience during the presentation in the Sasca Montană School, South-Western Romania. The locality is home to the largest buildings-dwelling colony of the greater horseshoe bat in Romania, so awareness among locals is crucial for durable bat protection.

METHODOLOGY

To reach our **scientific objective**, first we reviewed the existing literature about horseshoe bat species in Southern Romania. Based on this, and communication with protected area staff and local cavers, we created a list of caves, which had the potential to harbor undiscovered horseshoe bat colonies. We obtained permits from the Speleological Heritage Commission and protected area administrators, to conduct field work in these caves.

Field work was carried out (1) in summer, to assess maternity colonies, (2) in autumn, to assess mating activity, and (3) in winter, during hibernation. Contact with bats was minimal. Species were identified using morphological characters, based on Jéré et al. (2010), and in some cases, based on the analysis of bat ultrasounds. Maternity and hibernation colonies were assessed only visually. Colonies including more than 100 bats were photographed and individuals counted on computer (Fig. 5.), in order to reduce on-site disturbance. Mating activity was investigated by capturing and identifying bats at cave entrances. We used standard, globally accepted methods: mist-nets and harp-traps. Every bat was released in max. 10 minutes after capture. In each case we measured the temperature in key locations (ex. under the main colony) or at specific intervals (ex. every two hours).

The effects of anthropic activities in caves and roosts were estimated based on information obtained from stakeholders and based on our site visits. Depending on the difficulty of access (ex. for vertical caves), we ruled out anthropic impact in some cases. Based on signs of deterioration (broken formations, inscriptions on walls, dead bats), we evaluated whether the location is prone or not to vandalism. We determined the level of impact and assigned one of the following attributes for each location: low impact, medium impact, high impact.

After finishing the field work, we analyzed our dataset (Table 1., but also see a summary for all 49 sites in Appendices, Table 6.) and started working on oral/poster presentations, as well as on journal publications.

To reach our **education / awareness objective**, we used a variety of methods. We started the project's FaceBook page at the official start date (2014.06.01). We published (and continue to

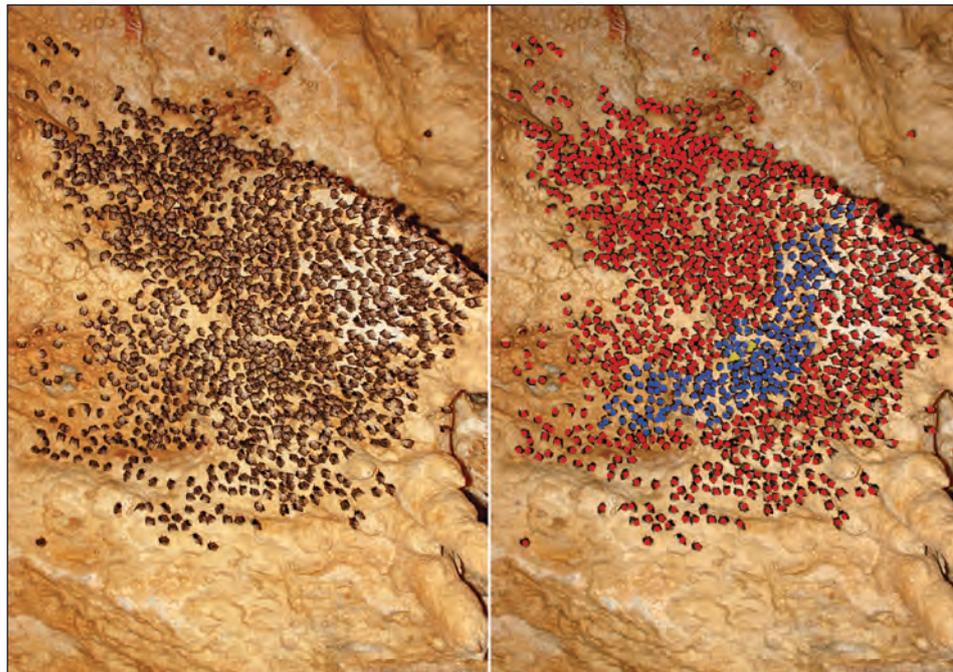


Fig. 5. Example of a bat colony being counted using photos, to reduce disturbance. Exactly 1354 middle sized horseshoe bats hibernate in this colony from Cloșani Cave, in February 2015.



Fig. 6. Two of the six stickers created for children: left: the vulnerable Méhely's horseshoe bat; right: "Batty going to school" (drawing by our team member, Georgiana).

publish) on regular basis key information about bats and their role in our ecosystems, as well as about the project's results: <http://www.facebook.com/clp.rhinolophus>.

We prepared and distributed an 8 page brochure, containing general information about horseshoe bats, threats faced by bats, benefits of bat presence in ecosystems, and possibilities of public input to bat protection. Mainly for children, we created and distributed a sticker series, presenting bats in sympathetic photos and drawings (Fig. 6).

For raising awareness among teenagers, we created a presentation about bats, bat protection, and guidelines for protection, which was presented at local schools and other venues. We evaluated existing knowledge through simple questions of an online questionnaire (<http://form.jotforme.com/form/50548671487365>). To gain information about the success of presentations, evaluation was done also afterwards, with slightly modified questions, as not to repeat ourselves (<http://form.jotformpro.com/form/50672481747967>).



Fig. 7. Two of the four stickers created for cavers, to be used on their equipment. Drawings were made by our team member, Georgiana.

To ensure the permanent nature of information about the importance of bats, we wrote short, awareness raising articles for highly visited internet sites (ex. Think Outside the Box, <http://totb.ro/>), and one article in a small local newspaper of Sasca Montană locality.

In order to succeed in our **objective for decision makers**, we first informed protected area administrators about the project and obtained permits. We invited protected area staff and local cavers to suggest potential caves to be surveyed, and also to actively participate in the field work. During the field work, we ensured that participants learn about bats, and the basic aspects of species identification. We created and distributed a sticker series to cavers, which can be placed on caving equipment. The stickers containing key messages about the simplest way of protecting bat colonies in caves (Fig. 7).

We elaborated specific management recommendations for all five horseshoe bat species, and sent these to protected area administrators, to be used in their management plans. A technical report was created containing all scientific data of the project, and presented to protected area administrators. In addition, this final report will reach decision makers and to project financiers.

OUTPUTS AND RESULTS

The **outputs and results of the scientific objective** contributed (1) to the correct assessment of horseshoe bat populations in Southern Romania, (2) to updating distribution maps for all five species, (3) to assess the anthropic impact in key roosts, and (4) to formulate management decisions for durable bat protection. The scientific outputs and results are the following:

Fig. 8. Greater horseshoe bats hibernating in the ceiling of Topolnița Cave, in the Mehedinți Plateau Geopark. The colony, discovered and counted in February 2015, is composed of 7482 bats, making it one of the largest horseshoe bat colonies in Europe.



1. We reviewed the existing horseshoe bat literature from Southern Romania through 41 scientific articles, published between 1898 and 2012. The original target was 15 articles (separate file with Literature review is attached).
2. Field work covered, as planned, all three main parts of the life cycle of bats: nursery colonies in summer, mating activity in autumn, and hibernation colonies in winter.
3. Field work surveyed 49 roosts (Appendices, Fig. 18., Table 6.), exceeding the original target of 30 roosts.
4. We confirmed the presence of Méhely's horseshoe bat in five locations from Romania, exceeding the original target of one site.
5. We identified eight new colonies of horseshoe bats in the project area, not mentioned before in the scientific literature.
6. We identified 24 key sites, with high importance for horseshoe bats in Southern Romania (Table 1.).
7. We identified what is one of the largest hibernation colony of the greater horseshoe bat in Europe, in the Topolnița Cave, numbering above 7400 bats (Fig. 8).
8. We identified the largest building-dwelling colony of the greater horseshoe bat from Romania, in Sasca Montană locality, with 300 bats, and two additional species.
9. We completed the first winter survey of the Buhui Cave, and identified it as a roost of

- continental importance, with more than 5000 bats in hibernation and a diversity of 12 species.
10. Our article, about the constant presence of Méhely's horseshoe bat in South-Western Romania was accepted in the North Western Journal of Zoology (IF=0.7).
 11. We are prepared to publish two additional articles containing project data, for a total of three articles. The original target was two publications. See Appendices, Table 4., for details about these publications.
 12. We presented data about the building dwelling greater horseshoe bat colony, discovered by the project, at the 6th International Zoological Congress of the "Grigore Antipa" Museum, in November 2014.
 13. We will be present, already in 2015, at two additional conferences, with three oral, and one poster presentation. The original target was two presentations. See Appendices, Table 4., for details about these conferences.

Table 1. List of key sites for horseshoe bats in Southern Romania, based on project data. Sites are listed according to protected areas; total number of bat species is given, as well as the periods in which bats intensively use these roosts.

| Protected area or locality | Roost name | Nr. of species | Used by bats in | |
|--|---|----------------|-----------------|--------|
| | | | Summer | Winter |
| Mehedinți Plateau Geopark | Peștera Bulba | 8 | o | o |
| | Peștera de la Podul Natural | 7 | | o |
| | Peștera Epuran | 5 | | o |
| | Peștera Isverna | 6 | o | o |
| | Peștera Topolnița | 2 | o | o |
| Isvarna, Gorj County | Peștera Fusteica | 8 | o | o |
| Cheile Nerei - Beușnița National Park | Peștera Dubova | 5 | o | o |
| | Peștera Porcariului | 6 | | o |
| Domogled - Valea Cernei National Park | Avenul lui Adam | 8 | o | |
| | Peștera Cloșani | 4 | | o |
| | Peștera Lazului | 7 | | o |
| | Peștera Șălitrari | 3 | | o |
| | Peștera Ungurului de la Pecenișca | 11 | o | o |
| Semenic - Cheile Carașului National Park | Peștera Buhui | 12 | | o |
| | Peștera Comarnic | 4 | | o |
| | Peștera cu Apă din Cheile Gărlîștei | 6 | o | o |
| Iron Gates Natural Park | Peștera Gaura cu Muscă | 7 | o | o |
| | Peștera Gaura Haiducească | 7 | o | o |
| | Peștera Gura Ponicovei | 6 | o | o |
| | Peștera Padina Matei | 1 | o | o |
| ROSCI0157 Hagieni Forest - Cotul Văii | Tunelul de la Hagieni | 6 | o | o |
| ROSCI0191 Limanu Cave | Peștera Limanu | 4 | o | o |
| ROSCI0215 Jurassic Reefs of Cheia | Peștera Liliiecilor de la Gura Dobrogei | 5 | o | o |
| Sasca Montană, Caraș-Severin County | Clădire la Ocolul Silvic Sasca Montană | 4 | o | |

The **outputs and results of the education / awareness objective** contributed (1) to clearing up misconceptions about bats, (2) to capture the attention of the large public, regarding the importance of bats in ecosystems, (3) to raise awareness about the need of urgent bat protection, (4) to inform the public about the simplest ways of bat protection, and (5) to raise awareness among teenagers in schools. The education / awareness outputs and results are the following:

1. The Facebook page of the project (<http://www.facebook.com/clp.rhinolophus>) has a considerable follower base (above 2500 likes), becoming one of the largest bat related online information sources in Romania.
2. The webpage's public responded exclusively in a positive way to the information posted about bats.
3. We published two awareness raising articles, about the misconceptions in bat - human contact, on the Think Outside the Box webpage (Fig. 21.). Articles were written both in Hungarian (<http://think.transindex.ro/?p=35161>) and Romanian (<http://totb.ro/ce-faci-cand-te-trezesti-in-casa-cu-o-familie-de-lilieci/>) versions. The audience's feedback was overwhelmingly positive, with over 300 Likes.
4. We created and printed an 8 page, full color educational brochure in 1000 copies, and distributed it mainly in Southern Romania, but also, upon request, in key areas all over Romania (Appendices, Fig. 20). In this way, we maximized the brochure's reach.
5. We created a sticker series with the five horseshoe bat species of Romanian, and a sixth sticker, with a bat drawing, mainly for children (Fig. 6). We distributed the more than 300 copies of stickers mainly during the education week / presentations in Southern Romania, but upon request, also in key sites all over Romania. A map with the distribution points (brochures and stickers combined) in Romania can be found in the Appendices, Fig. 20. The success of the sticker series is confirmed by constantly receiving new requests to print and distribute more copies. Because it is a low cost output, we plan on continuing to print these stickers even after project closure.
6. We organized and held presentations about the importance of bats and bat protection in 9 cities, 15 locations, to a total of 305 participants, mainly teenagers (Table 2., as well as Appendices, Fig. 19). The full presentation is attached as separate file to the report.
7. We evaluated knowledge of participants before and after presentation, in order to quantify the impact of targeted education activities. We observed a significant increase in correct and positive answers after the presentations. For example everybody had learned that (1) bats do not get entangled in our hair, (2) they are important pollinators and insect eaters, and that (3) we are able to eat chocolate mainly because of the pollinating activity of tropical bats. After presentations, the percentage of negative / incorrect answers decreased from 27% to 3%, for all question combined. When looking at certain question (ex. the bat - hair relationship), we registered a decrease of negative / incorrect answers in 100%. In Appendices, Table 5., we summarize some of the responses to the main questions asked.
8. After presentations, 63 teenagers specifically asked to receive more information about bats. They received additional information, internet sources and contact information. The list with their email addresses is attached to the report as separate file.
9. After presentations, our association signed long term collaboration agreements with two schools, facilitating future education possibilities and constant shaping of the new generation (documents attached to the report as separate files).
10. As a consequence of one presentation, held in Cluj-Napoca, one participant (a journalist) wrote a nice and fun article about bats in one of the most visited local online journals (http://foter.ro/cikk/20150508_szantai_janos_drakula_batman_denever). The article (Fig. 21.) contains also recommendations in case of human – bat contacts, and tips of proper behavior inside caves.

11. We published a short article about the benefits of bats in our ecosystems, in a small local newspaper of Sasca Montana locality, where we protected an important anthropic bat roost, by renovating the roof of the building used by bats. The article served to draw attention to the necessity of bat protection (attached as separate file)..

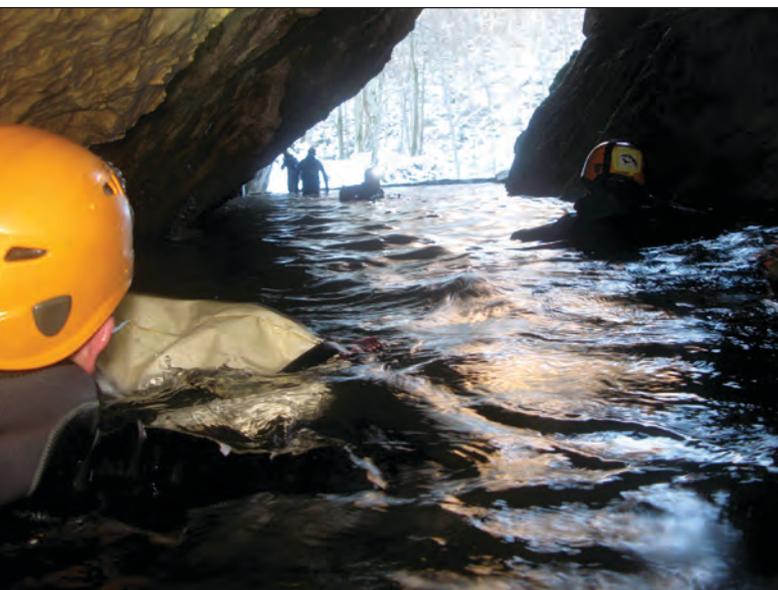


Fig. 9. Exiting Buhui Cave, in South-Western Romania, after the first complete winter survey. During the survey we established that the cave has continental importance, houses above 5000 bats in hibernation and 12 species.



Fig. 10. Children and their bat-artwork, after the presentation in Constanța, May 2015.

Table 2. Details of the 15 presentations held about bats, during the education activities of the project.

| Nr. | Location name, locality | Date | Held for | Participants |
|-----|--|------------|----------------------|--------------|
| 1. | Facultatea de Biologie, Cluj | 2014.11.27 | Test audience | 8 |
| 2. | Colegiul Național Mihai Viteazul, Turda | 2015.03.27 | Students | 40 |
| 3. | Liceul Ovidius, Constanța | 2015.04.05 | Students | 5 |
| 4. | Școala Gimnazială, Limanu | 2015.04.06 | Classes V-VIII | 55 |
| 5. | Universitatea Ovidius, Constanța | 2015.04.06 | Biology students | 5 |
| 6. | Liceul Hercules, Băile Herculane | 2015.04.08 | Three classes | 21 |
| 7. | Școala Gimnazială Mihai Novac, Sasca Montană | 2015.04.09 | Two classes | 14 |
| 8. | Librăria Semn de Carte, Reșița | 2015.04.09 | For the large public | 12 |
| 9. | Școala Gen. Nr. 9, Reșița | 2015.04.10 | Three classes | 35 |
| 10. | Grădina Botanică "Anastase Fatu", Iași | 2015.04.10 | Children | 10 |
| 11. | Librăria Gaudeamus, Cluj-Napoca | 2015.05.07 | For the large public | 5 |
| 12. | Școala cu clasele I-VIII, Racovița | 2015.05.08 | Classes V-VI | 30 |
| 13. | Școala nr. 29, Constanța | 2015.05.25 | Class III | 16 |
| 14. | Școala nr. 39, Constanța | 2015.05.25 | Class III | 34 |
| 15. | Școala nr. 29, Constanța | 2015.05.26 | Class II | 15 |

The project's **outputs and results for decision makers** contributed (1) to establish long term collaborations with key stakeholders in Southern Romania, (2) to raise awareness in local caver clubs about the need of urgent bat protection, (3) to inform protected area administrative bodies about proper management decisions regarding durable bat protection, (4) to train local cavers and protected area staff in basic bat identification and standard research methods, (5) to secure the protection of a highly important nursery colony in Sasca Montana locality. The outputs and results for decision makers are the following:

Fig. 11. Printed materials prepared to be given away at presentations (left), and the numerous audience of the Limanu School, in South-Eastern Dobrogea (right).



1. Protected area administrators were included into the project from the start, by informing them and asking for research permits. Received permits are attached as separate files.
2. A sticker series was printed, with key messages about bats to local cavers, and distributed to key caver clubs, and by request, all over Romania (Appendices, Figure 20). Simple messages on these stickers draw attention to proper behavior inside caves and close to bat colonies. The success of the sticker series is confirmed by constantly receiving new requests to print and distribute more copies. Because it is a low cost output, we plan on continuing to print these stickers even after project closure.
3. During the project, six protected site administrators from Southern Romania received documents about proper management recommendations for durable protection of horseshoe bat populations. This document will enable them to make crucial and correct decisions about the protection of horseshoe bats (the document is attached as separate file).
4. During the project, three protected site administrators from Southern Romania officially accept the documents about management recommendations for horseshoe bats (scan of documents with official stamps and signatures is attached to the report as separate files). This means that they will most likely include these recommendations in the protected area's integrated management plan, ensuring that the needs of local horseshoe bat populations are met.
5. Local cavers and protected area staff were actively involved in all stages of field work: surveying nursery colonies in summer, evaluating mating activity by mist-netting in autumn, and counting hibernating bats and colonies during winter. Some of the best scientific successes of the project were made with the help of local cavers, for ex. the first complete winter survey of Buhui cave, establishing it as a bat roost of continental importance. Protected area staff from the Mehedinți Plateau Geopark guided our team the great hall of Topolnița cave, where we discovered the largest European colony of the greater horseshoe bat (Fig. 8.).

6. Through the work started during the project, our organization signed long term collaboration agreements with two protected areas from South-Western Romania (the administrative bodies of the Mehedinți Plateau Geopark and the Nerei Gorge – Beușnița National Park), and with the mayor's office of Sasca Montană locality. These agreements will ensure the collaboration on future issues of bat protection. Agreements are attached as separate files.
7. The project was asked by the G.E.S.S. group, the custodian of the Limanu cave, which is home to the largest colony in Romania of Méhely's horseshoe bat, to help in establishing protected sectors inside the cave. We informed them about the location of bat colonies inside the cave (Fig. 12.), and made also recommendations about the possible closing of the cave, in a bat-friendly way.
8. By collaborating with the mayor's office of Sasca Montană locality, and the administration of the nearby Nerei Gorge Beușnița National Park, we ensured the protection of the currently known largest nursery colony of the greater horseshoe bat in Romania, located in a disused building of Sasca Montană locality (Fig. 13.). While the project was tasked with education activities in the local school, the Romanian Bat Protection Association's project "Long term conservation of bats in their anthropic environment by high involvement of local communities", financed by SEE grants 2009-2014, was tasked with renovation work in the disused building, in order to ensure the continuity of the bat roost. Both the education activities (Fig. 4.) and renovation work were highly successful (Fig. 13.).
9. The project supplied the technical report to all administrators of target protected areas from Southern Romania (attached as separate file). The report contains all the data gathered during the project and also site-specific recommendations for all key roost identified.

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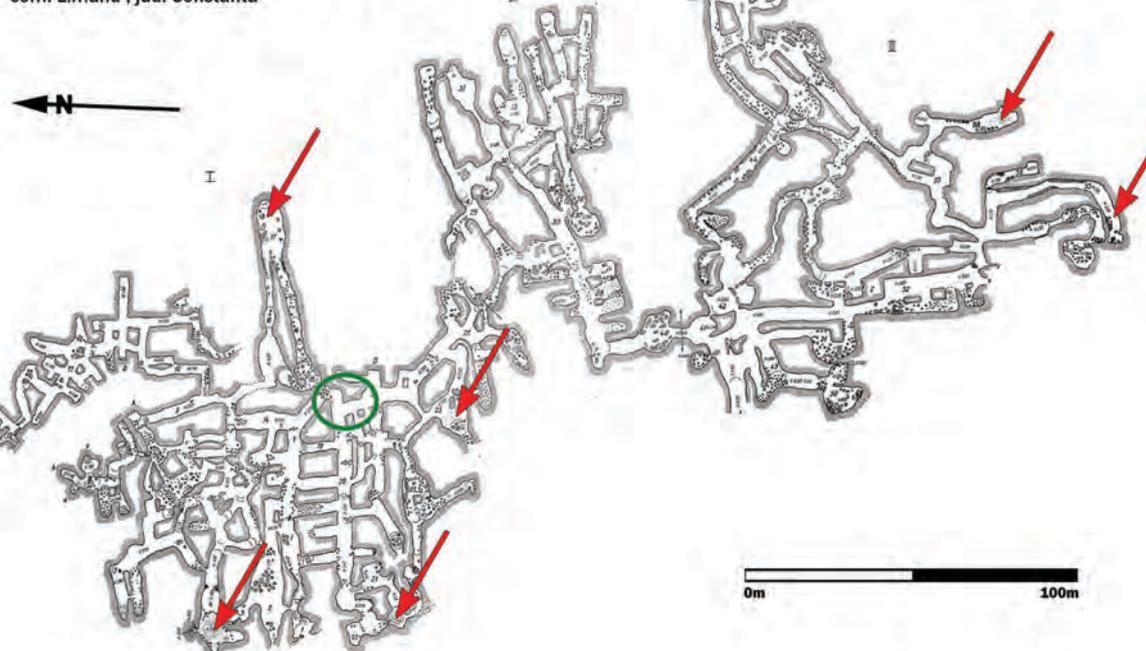


Fig. 12. Sectors in Limanu cave, where bats are hibernating and/or forming nursery colonies. This map was supplied at the request of the custodian of the Limanu cave, the G.E.S.S. group, in order to establish protected sectors inside the cave.



Fig. 13. Above left: Status of abandoned building in Sasca Montană, with open roof, before renovation; above right: The restored roof structure of the Sasca Montană building; below: the nursery colony of the greater horseshoe bat in June 2015, using without problems the loft of the building.

In addition to the above results and outputs, the team gathered a large amount of experience, by working in a diverse environment, with different stakeholders, and all generations of local communities. Team cohesion evolved during the project, with everyone contributing with their best qualities. Team security in the cave environment was always a priority and we managed to survey difficult caves with no incidents of any kind.

ACHIEVEMENTS AND IMPACTS

The project's field work resulted in significant findings at the national and continental level. We have surveyed a large number of bat roosts, many of which were surveyed for the first time, or in their entirety. We have discovered three new sites where the vulnerable Méhely's horseshoe bat is present. This indicates the possibility that the species, considered to have only 150 adult bats in Romania, is actually having a much larger population.

During the field work, we also discovered one of the largest European colony of the greater horseshoe bat, in Topolnița cave, with a colony size of above 7.400 bats. We also identified key sites where Blasius's horseshoe bat is present in higher numbers than previously believed. Finally, we have identified Romania's largest nursery colony of the greater horseshoe bat from an anthropic roost, in Sasca Montană locality. This discovery resulted in concrete conservation actions, through building restoration.



Fig. 14. Adult female of the vulnerable Méhely's horseshoe bat (*Rhinolophus mehelyi*), captured at the Gaura Ungurului de la Pecenișca cave in September 2014. Although the project has discovered new sites where the species is present, the possibility of further unknown colonies remains.

By the end of the project, we have updated the scientific data about horseshoe bat populations in Southern-Romania, and published key results in a peer-reviewed scientific journal. We also presented key findings at scientific reunions. By discovering new colonies of horseshoe bats, especially in case of the vulnerable Méhely's horseshoe bat and the greater horseshoe bat, we were able to update distribution maps and make additions to the list of Europe's largest bat colonies. Because these colonies require strict protection, our published data will serve as proof to protected area managers to reinforce and defend existing policies or to introduce new policies regarding bat protection. In this way, our scientific objective has reached its proposed target.

With our education activities we have reached out to a large audience, becoming in the short period of the project, one of the most important information sources about bats in Romania. Our informative materials (brochure and sticker series) have reached key sites and key interest groups in Romania, making sure that if complex situations arise, people know where to turn for information. Presentations were made at key sites (ex. Sasca Montană), where the received information will complement and strengthen

concrete conservation actions. The collaboration agreements signed with local schools ensures that our efforts and information about bats will continue to be present in the educative curriculum of the new generation. Through our education activities we have reached the objective to positively influence public opinion regarding bats.

Including stakeholders and supplying them with key information was crucial for the success of the project. Protected area managers received all scientific information of the project, together with detailed management recommendations for the durable protection of horseshoe bats. This enables them to make adequate management decisions regarding the protection of horseshoe bat populations. The collaboration agreements signed with protected areas demonstrate their willingness to invest into the protection of bats, while also ensuring that we will be present with scientific know-how in key management decisions regarding bat populations.

CONCLUSIONS

The successful implementation of the project led to a significant increase of scientific knowledge regarding the five Romanian horseshoe bats, to an increase of public awareness and positive attitude regarding bats, as well as to better management decision in the future by protected area administrative bodies. We can conclude that:

1. South-Western Romania is a key region on the continental level, regarding horseshoe bat diversity and population size;
2. Méhely's horseshoe bat is present in the South-Western part of the country, with the Romanian population being probably much larger than the previously thought 150 bats;
3. The threat factors identified by the project will help guide decision makers in Southern Romania towards the durable protection of not only horseshoe bat species, but of the bat fauna in general;
4. The high visibility of the project in various media channels ensured that the Romanian public is aware of the threats faced by bats, and that they are informed about bat protection and proper behavior;
5. The collaborations and partnerships started with cavers, protected area staff and local schools during the project will enhance future efforts of bat protection and further raise awareness in the Romanian public;

Overall, the project has reached its purpose, by establishing key elements in the conservation of horseshoe bat populations in Southern Romania. By continuing to work in the field, by staying connected to the public and by maintaining official relations, we will work towards reaching the overall goal of the project: to improve the conservation status of horseshoe bat populations in Southern Romania.



Fig 15. Studying bats is often hard, but always rewarding: tackling waterfalls during the summer survey of Buhui Cave, South-Western Romania. The scientific discoveries of the project, made during three seasons of the bat life cycle will contribute to the durable management and understanding of horseshoe bats.

PROBLEMS ENCOUNTERED AND LESSONS LEARNT

During the project, we encountered no major problem. All project activities and outcomes went well, because of preliminary planning, efficient implementation and diverse collaborative partners, especially cavers. Project changes occurred only after the Barrier Lake training session and the subsequent team training at home, and with the approval of the Conservation Leadership Programme. We rephrased our overall goal, project purpose and objectives, but these changes did not affect the core of the project and specific activities. The changes resulted only in the fine-tuning of the project, with simpler, clearer, and more realistic details.



Fig. 16. One key factor for the success of the project was constant communication. Messages containing key information, combined with visually appealing photos were posted on the Facebook page of the project regularly, contributing greatly to the re-shaping of public opinion about bats.

We are especially happy with our scientific results and the feed-back received for our education activities. The scientific activities were well planned and field work was implemented with the help of local specialists (cavers and protected area staff). Because our initial theory (there are unknown Méhely's horseshoe bat colonies in South-Western Romania) was straight to the point, we managed to prepare beforehand and quickly publish our results in a peer-reviewed journal. At least one additional manuscript with important data will be submitted to peer-reviewed publications. The success of our education activities is demonstrated by several facts. First of all, involved people can easily recall key messages from the presentations held at schools, for example we need to protect bats, because they help us get chocolate, through pollinating the cocoa tree. Also, the project keeps getting requests to print and distribute more copies of the sticker series that contains key messages about bats combined with attractive imagery (drawings and photos).

The tools used to meet the project's scientific, educational, and management objectives were well chosen and could be implemented with no problems. The scientific tools (literature review, field work in various stages of bat life cycle, publications) were chosen because of their universal presence in the standard workflow of scientific research. Our education tools were diverse and simple, easily adapted to various target groups. The printed brochure supplied more detailed information about bats, while the sticker series is highly visible, simple and convincing. The presentation at schools captured the attention of participants by being simple and visually captivating. The tools used to strengthen our relationship with stakeholders (cavers and protected area managers) were based on frequent communication, periodic and detailed reporting about field work results, as well as active inclusion in all project activities. Field work participants will also be part of scientific publications, to further cement our relationship.

The most important lesson learned during the project, that one must constantly and clearly communicate. Internal communication is a key aspect for team cohesion and efficient work, while external communication, towards the public and stakeholders is essential for long lasting impact and trust. Communicated messages towards the public should be simple but engaging, while the messages towards key stakeholders (ex. protected area managers) should be more complex, and should provide solutions to problems encountered by them.

IN THE FUTURE

We plan on maintaining communication with local stakeholders, so we can continue our work in case of bat colony discoveries, or sites that require urgent protection. With protected area managers being aware of our project, they can now ask for our assistance in bat related management issues. The Facebook page of the project will continue to function and to grow, by supplying interesting news about the local and global bat fauna. We plan on publishing short awareness raising articles and to held presentations about bats in schools or other venues, upon request. The scientific part of the project will continue to gather data about horseshoe bat populations in South-Western Romania, with the involvement of cavers and protected area staff.

Fig. 17. Team members István and Csaba discuss threat factors faced by the bat colonies of Gaura Ungurului de la Pecenișca cave, after an all-nighter mist-netting event in September 2014. Much work remains to be done, in order to secure the future of all bat species from Romania.



APPENDICES

Table 3. List of attachments to the report, not present in the Appendices, because of their length, format or complexity.

| File name | Description |
|---|--|
| CLP_Rhinolophus_Financial_Report.xlsx | Detailed financial report of the project (below the thick line is the new addition since the accepted preliminary final narrative report, submitted on March 9th, 2015) |
| CLP_Rhinolophus_Literature.xlsx | Used to elaborate list of sites to be surveyed during the project. |
| CLP_Rhinolophus_Fieldwork.xlsx | All data gathered during the field work of the project. |
| CLP_Rhinolophus_Mehelyi_Paper.pdf | Accepted article about the constant presence of Méhely's horseshoe bat in South-Western Romania, in the North Western Journal of Zoology (IF=0.7). |
| CLP_Rhinolophus_Antipa_Poster.pdf | Poster presented at the 6 th International Zoological Congress of the "Grigore Antipa" Museum, in November 2014. |
| CLP_Rhinolophus_Brochure.pdf | 8 page educational brochure about bats, distributed all over Romania, in key locations. |
| CLP_Rhinolophus_Stickers_All.pdf | Six sticker types for children, and four sticker types, for cavers, distributed during the project. |
| CLP_Rhinolophus_MoreonBats.pdf | List of email addresses of teenagers, who after presentations, specifically asked to receive further information about bats. |
| CLP_Rhinolophus_Education.xlsx | All details about the education activity in schools and other locations in Southern Romania. |
| CLP_Rhinolophus_School_Collab.pdf | Long term collaboration agreements with two schools, for education and common projects about bats. |
| CLP_Rhinolophus_Sasca_Article.pdf | Front and back cover, contents and actual article published in the small local newspaper of Sasca Montană locality. |
| CLP_Rhinolophus_School_Presentation.pdf | Full text of presentation held at schools and other locations in Southern Romania during the project. |
| CLP_Rhinolophus_All_permits.pdf | Six documents from one central authority and five protected areas to conduct the project's field work. |
| CLP_Rhinolophus_Management.pdf | Document containing proper management recommendations about durable protection of horseshoe bat populations, send to protected area administrators from Southern Romania |
| CLP_Rhinolophus_Agreements.pdf | Partnership agreements signed with two protected areas and the mayor's office of Sasca Montană, for future collaborations in bat protection |
| CLP_Rhinolophus_Manag_Feed_back.pdf | Official feed-back received from three protected areas, about the management recommendations for horseshoe bats. |
| CLP_Rhinolophus_Tehcnical.pdf | Technical report of the project, containing all data and site-specific recommendations for durable protection of horseshoe bats |
| CLP_Rhinolophus_Additional_photos | Folder with various photos taken during the project, other than those from the present report. |
| CLP_Rhinolophus_Abstracts.pdf | Four abstracts, prepared for upcoming scientific conferences containing all project data. |

Fig. 18. Location of the 49 roosts surveyed during the field work of the project. See also details about locations in Table 6.

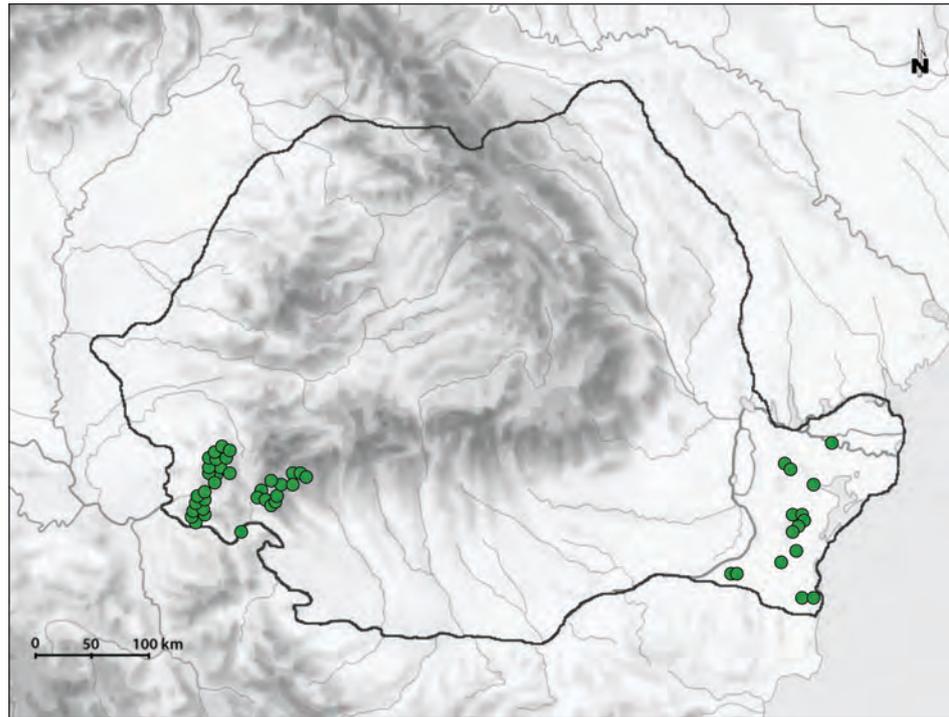
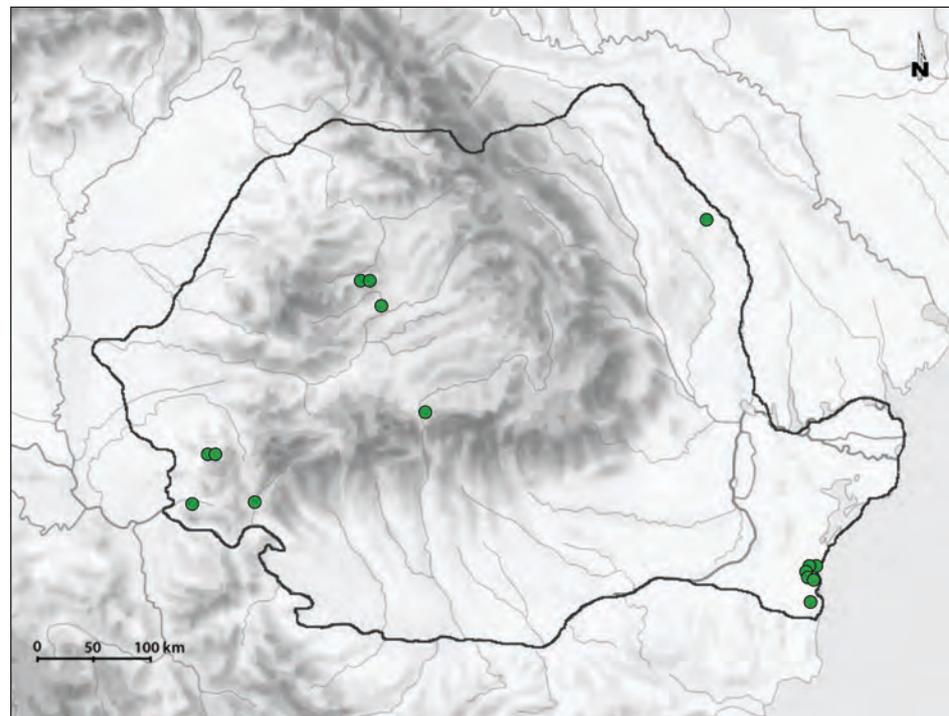


Fig. 19. Location of the 15 education events, held during the project, in schools, universities and bookstores in 9 cities. See also details about locations in Table 2.



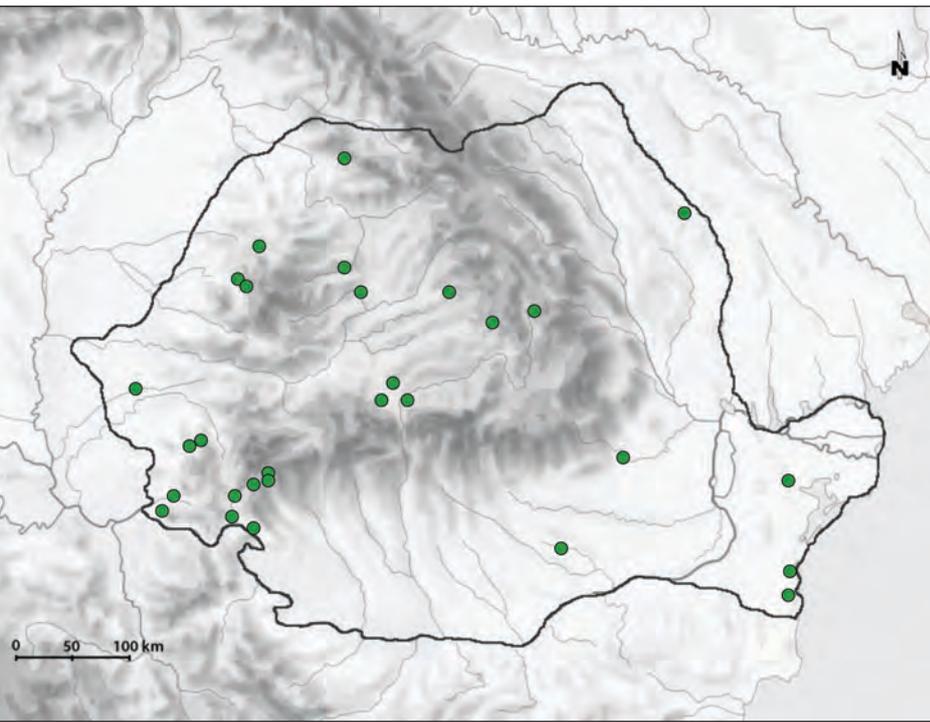


Fig. 20. Location of the 29 cities, where we distributed the projects printed educational materials (brochures and stickers).

Fig. 21. Screenshots of media presence of the project: above left and right: Romanian and Hungarian article on Think Outside the box, about bats, bat protection and human – bat interaction; below left: Online article on the website www.foter.ro, containing positive feed-back of a journalist after attending one of our educative presentations; below right: Screenshot of the project’s Facebook page, with currently over 2.500 Likes.

Table 4. List of planned participations at scientific conferences, as well as publications in scientific journals.

| Conference name | Period / location | Type | Authors | Presentation content |
|--|------------------------------------|---------------------|--|---|
| 10 th Hungarian Conference on Bat Protection | 2015.10.16-18 / Bălnaca, Romania | Oral presentation | Project team Team advisor | Scientific results Education results Mass media results |
| | | Oral presentation | | Status of the vulnerable Méhely's horseshoe bat in Romania |
| 7 th International Zoological Congress of the "Grigore Antipa" Museum | 2015.11.18-21 / Bucharest, Romania | Oral presentation | Project team Team advisor Local cavers Protected area staff | Scientific results, Seasonal data of 49 roosts Distribution of bat species Implications for conservation Durable management |
| | | Poster presentation | | Project team Team advisor Project volunteers |
| Publication name | | | Authors | Publication content |
| North Western Journal of Zoology (IF=0.8) | | | Project team Team advisor | Scientific results Education results Mass media results |
| Peer-reviewed scientific journal, ex. Acta Chiropterologica (IF= 0.8) | | | Project team Team advisor Other bat researchers from Romania | All <i>Rhinolophus</i> data from Romania Roosting preferences Habitat preferences Implications for conservation |

Table 5. Summary for some of the main questions asked before and after the presentations held at schools and other locations in Romania.

| Main questions asked: | Dominant answers before presentation: | Dominant answers after presentations: |
|--|---|--|
| What is your first thought when you hear the word: bats? | Vampires, Dracula, blood sucking, hair entangling, fear, "the night", rat with wings, mouse with wings, "get away", danger, ugly. | Chocolate, bananas, insects, caves, flying mammals. |
| Do you think bats will get entangled in your hair? | Yes, I think so, maybe, only if I have long hair. | No, never. |
| Are bats beneficial for us? | I do not know, no, they are not beneficial. | Yes, because of pollination, insect eating and chocolate. |
| If you would find an injured bat on the streets, what would you do? | I would ignore it, because I fear it. | I would take it to the vet. I would be concerned about its health. In case I cannot contact a vet, I would try to take care of it myself until it recovers. |
| Quotes from participants: | | |
| Worst answer: "Bats are dangerous, because they get entangled in my hair, and bite me." | Best answer nr. 1: "I would not allow humans to pollute nature around bats. I would rather close places where bats live, because humans are not what they used to be." | Best answer nr. 2: "I learned that I am able to eat chocolate thanks of bats..:) The presentation was useful, because I learned a lot of new things, and know now that bats must be protected." |

Table 6. Details about the five horseshoe bat species identified in the 49 roosts during the field work of the project. Acronyms: Rm - *Rhinolophus mehelyi*, Rb - *Rhinolophus blasii*, Re - *Rhinolophus euryale*, Re/Rb - Middle sized horseshoe bats (*Rhinolophus blasii* or *Rhinolophus euryale*), Rh - *Rhinolophus hipposideros*, Rf - *Rhinolophus ferrumequinum*. Number of species includes all bat species identified during the project. The Summer (May 15th - August 15th) and Winter (November 1st - March 31th) columns indicate the period when bats use these roosts intensively and/or form colonies. The level of observed anthropic impact is also indicated for each roost. Colonies marked with (*) are new discoveries, not mentioned in the literature before.

| Roost name | Rm | Rb | Re | Re/Rb | Rh | Rf | Nr. of species | Summer | Winter | Anthropic impact |
|--|----|----|----|-------|----|----|----------------|--------|--------|-----------------------------|
| Avenul lui Adam | 0 | | | 0 | | 0 | 8 | 0 | | Low (all year) |
| Bisericile de Piatră de la Murfatlar | | | | | | | - | | | Low (all year) |
| Buncărul de la Ciocărlia | 0 | | | | | 0 | 3 | | 0 | Medium (all year) |
| * Clădire la Ocolul Silvic Sasca Montană | | | | | | 0 | 4 | 0 | | Medium (all year) |
| Clădire lângă Peștera Comarnic | | | | | | 0 | - | | | Low (all year) |
| Galeria de mină 1 de lângă Dorobanțu | | | | | | 0 | 1 | | 0 | Low (all year) |
| Galeria de mină 2 de lângă Dorobanțu | | | | | | 0 | - | | | Low (all year) |
| Găurile lui Miloi | | | | | | 0 | 3 | | | Low (all year) |
| Mină lângă drumul de la Anina | | | | | | 0 | - | | | Medium (all year) |
| Mină pe drumul spre Padina Matei | | | | | | 0 | 2 | | 0 | Low (all year) |
| Peștera 2 Mai | | | | | 0 | | 1 | | | Low (all year) |
| * Peștera Buhui | | | | | 0 | 0 | 12 | | 0 | Medium (except winter: low) |
| Peștera Bulba | | 0 | | | 0 | 0 | 8 | 0 | 0 | Low (all year) |
| Peștera Casian | | | | | | 0 | 6 | | | High (all year) |
| Peștera Cloșani | | 0 | | 0 | 0 | 0 | 4 | | 0 | Low (all year) |
| Peștera Comarnic | | | | | 0 | 0 | 4 | | 0 | Medium (except winter: low) |
| Peștera cu Apă din Cheile Gărlîștei | | | | 0 | | | 6 | 0 | 0 | Medium (except winter: low) |
| Peștera cu Gheață | | | | | | | 1 | | | Low (all year) |
| * Peștera de la Canaraua Fetii nr. 1 | | | | | 0 | | 1 | 0 | | Medium (all year) |
| Peștera de la Canaraua Fetii nr. 2 | | | | | | | - | | | Medium (all year) |
| * Peștera de la Podul Natural | | | | | 0 | 0 | 7 | | 0 | Medium (except winter: low) |
| Peștera Despicătura | | | | | 0 | | 1 | | | High (all year) |
| * Peștera Dubova | | | | | | 0 | 5 | 0 | 0 | Low (all year) |
| * Peștera Epuran | | | | | 0 | 0 | 5 | | 0 | Low (all year) |

Table 6. (cont.)

| Roost name | Rm | Rb | Re | Re/Rb | Rh | Rf | Nr. of species | Summer | Winter | Anthropic impact |
|--|----|----|----|-------|----|----|----------------|--------|--------|-----------------------------|
| Peștera Fusteica | | 0 | | 0 | 0 | 0 | 8 | 0 | 0 | High (all year) |
| Peștera Galeria de Prospecțiune | | | | | | 0 | 2 | | 0 | Low (all year) |
| Peștera Gaura cu Muscă | | | | | | 0 | 7 | 0 | 0 | High (all year) |
| Peștera Gaura de la Capu Baciului | | | | | 0 | | 1 | | | Low (all year) |
| Peștera Gaura Haiducească | | | | | 0 | 0 | 7 | 0 | 0 | Medium (except winter: low) |
| Peștera Gaura Pârșului de la Capu Baciului | | 0 | 0 | | 0 | | 4 | | | Low (all year) |
| Peștera Gaura Turcului | | | | | | | 1 | | | Low (all year) |
| Peștera Grota Haiducilor | | 0 | | | 0 | 0 | 2 | | | High (all year) |
| Peștera Gura Ponicovei | | | | | 0 | 0 | 6 | 0 | 0 | Medium (except winter: low) |
| Peștera Isverna | | | 0 | | 0 | 0 | 6 | 0 | 0 | Low (all year) |
| Peștera La Adam | | | | | | 0 | 2 | | | High (all year) |
| Peștera Lazului | | | | | 0 | 0 | 7 | | 0 | Medium (all year) |
| Peștera Lilecilor de la Gura Dobrogei | | | | | | 0 | 5 | 0 | 0 | High (all year) |
| Peștera Limanu | 0 | | | | 0 | 0 | 4 | 0 | 0 | High (all year) |
| Peștera Mare de la Balta | | | | | 0 | 0 | 7 | | 0 | Low (all year) |
| Peștera nr. 1 din Cheile Dobrogei | | | | | | 0 | 1 | | | High (all year) |
| Peștera nr. 3 din Dealul Luna | | | | | | | - | | | Low (all year) |
| Peștera Padina Matei | | | 0 | | | 0 | 1 | 0 | 0 | High (all year) |
| Peștera Pisica Neagră | | | | | | 0 | 1 | | | High (all year) |
| Peștera Porcariului | | | | | 0 | 0 | 6 | | 0 | Low (all year) |
| Peștera Porcariului nr. 2 | | | | | | 0 | 1 | | | Low (all year) |
| * Peștera Șălitrani | | | | | | 0 | 3 | | 0 | Low (all year) |
| * Peștera Topolnița | | | | | 0 | 0 | 2 | 0 | 0 | Low (all year) |
| Peștera Ungurului de la Pecenișca | 0 | 0 | 0 | | 0 | | 11 | 0 | 0 | Medium (except winter: low) |
| Tunelul de la Hagieni | 0 | | | | 0 | 0 | 6 | 0 | 0 | High (all year) |

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Communication outputs:

Facebook page: <http://www.facebook.com/clp.rhinolophus>

Articles on Think Outside the Box:

Hungarian: <http://think.transindex.ro/?p=35161>

Romanian: <http://totb.ro/ce-faci-cand-te-trezesti-in-casa-cu-o-familie-de-lilieci/>

Article on www.foter.ro:

Hungarian: http://foter.ro/cikk/20150508_szantai_janos_drakula_batman_denever

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ADDRESS LIST AND WEB LINKS (AND REPORT DISTRIBUTION)

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Web: <http://www.conservationleadershipprogramme.org/>

Email: clp@birdlife.org

Romanian Bat Protection Association

Web: <http://www.aplr.ro>

Email: office@aplr.ro

Mehediñti Plateau Geopark

Web: <http://www.facebook.com/pages/Geoparc-Platoul-Mehedinti/408603485904655>

Email: geoparcmehedinti@gmail.com

Underwater and Speological Explorer Club (G.E.S.S.)

Web: <http://www.gess.ro/>

Email: office@gess.ro

Exploratorii Caver Association

Web: <http://www.exploratorii.ro/>

Email: aser_ro@hotmail.com

Nerei Gorge - Beușnița National Park

Web: <http://www.infocheileneroi.ro/>

Email: apnchnerei@gmail.com

Domogled - Cerna Valley National Park

Web: <http://www.domogled-cerna.ro/>

Email: domogled@resita.rosilva.ro

Semenic - Carașului Gorge National Park

Web: <http://www.pnscc.ro/>

Email: apnscc@gmail.com

Iron Gates Natural Park

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