

# Carabidae

Đerdap National Park  
- diversity and conservation -



The  
**Rufford**  
Foundation  
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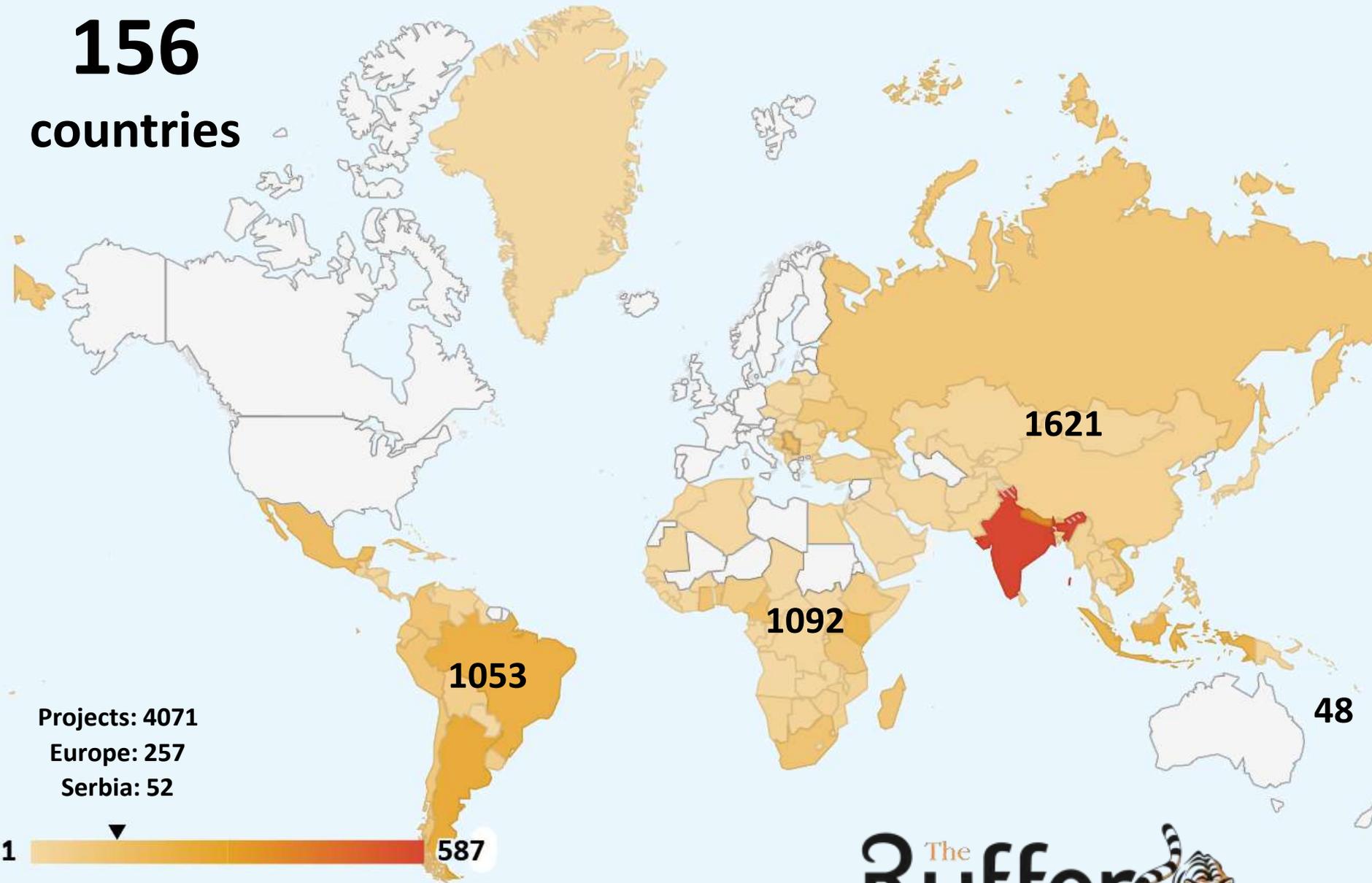


UNIVERSITY OF  
BELGRADE

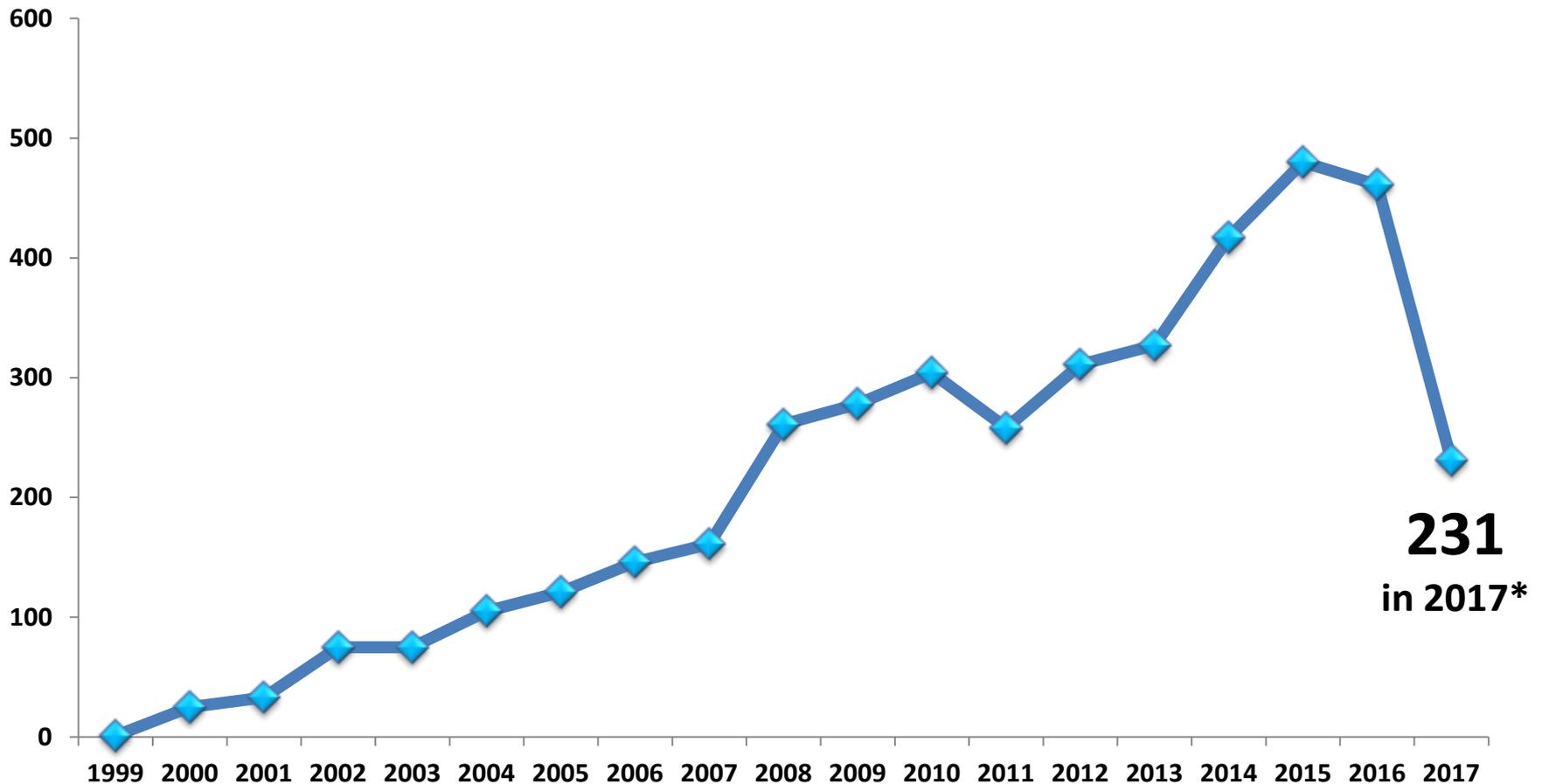


*Carabus (Morphocarabus) versicolor simulator* Kraatz, 1876

# 156 countries



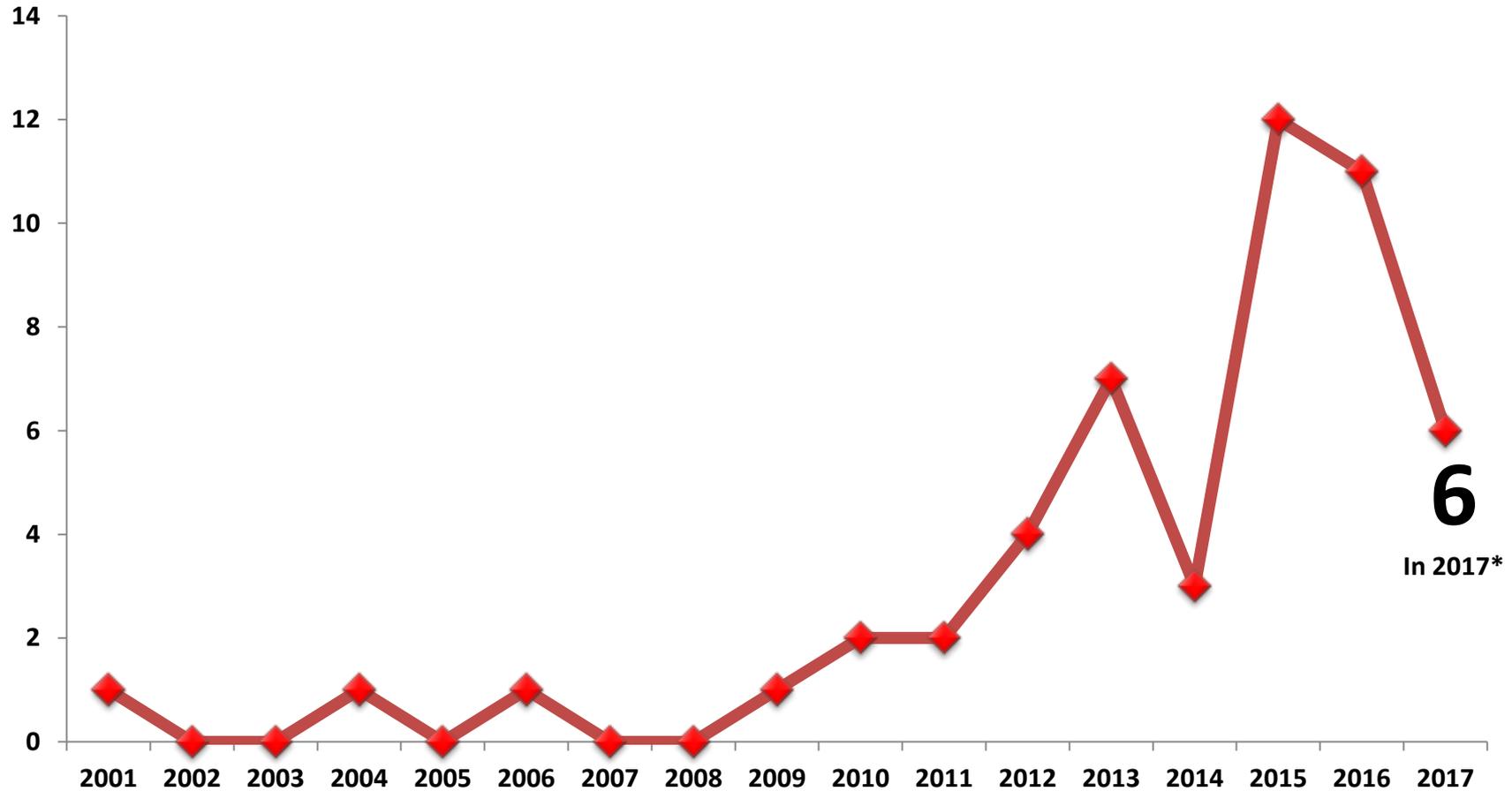
# Projects - World



**231**  
in 2017\*

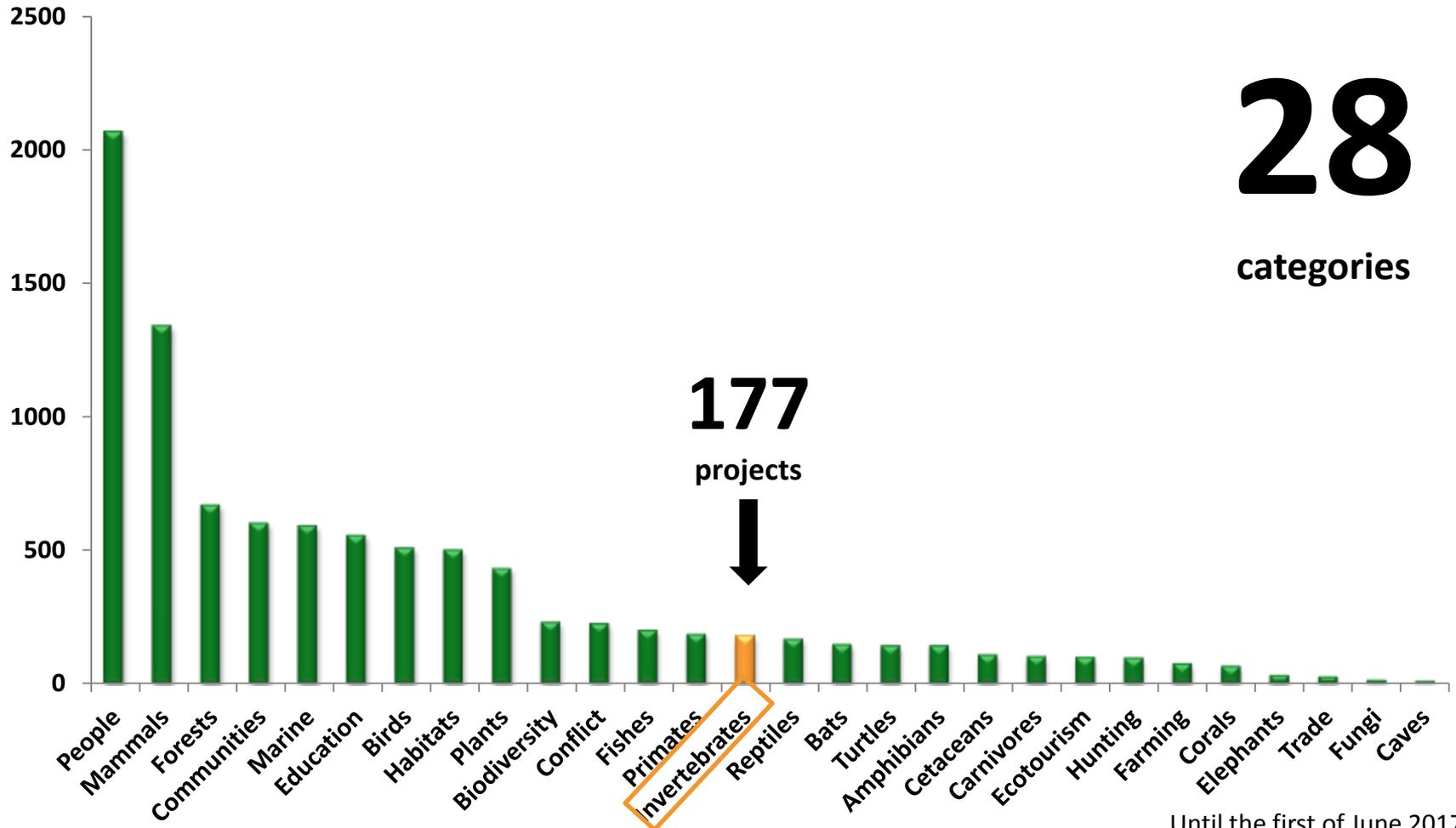
\*Until the first of June 2017

# Projects- Serbia



\*Until the first of June 2017

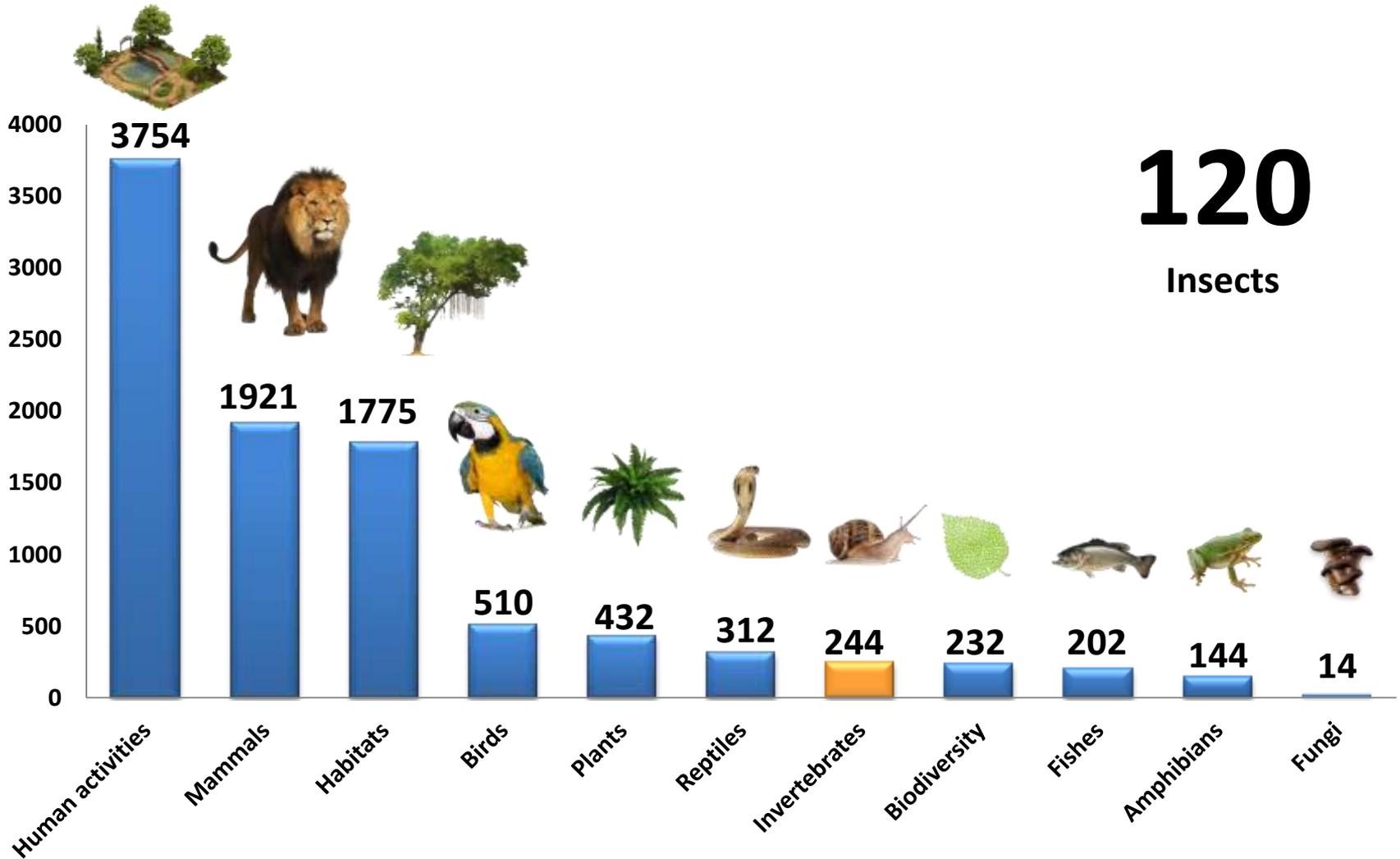
# Categories



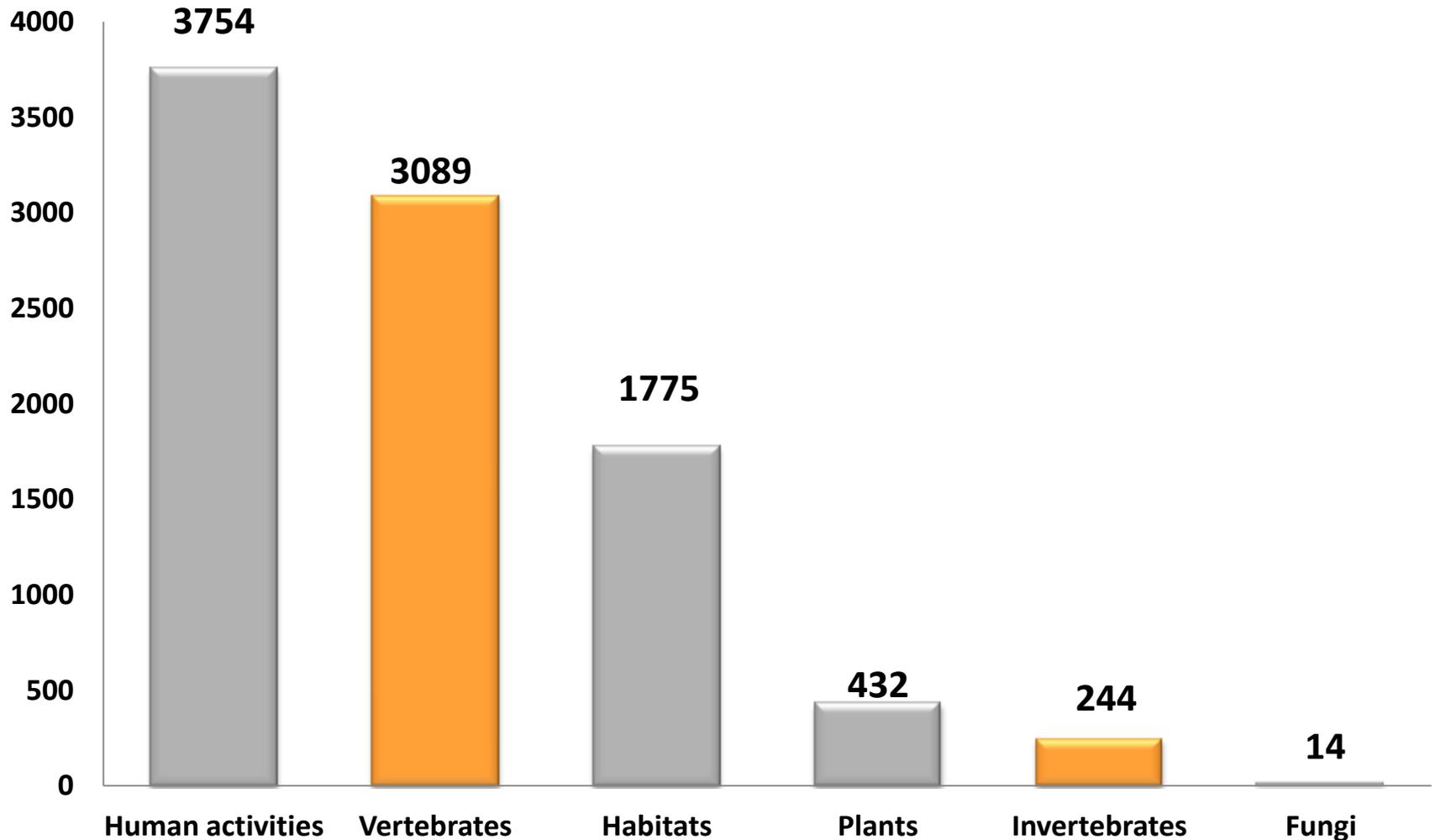
**28**  
categories

Until the first of June 2017

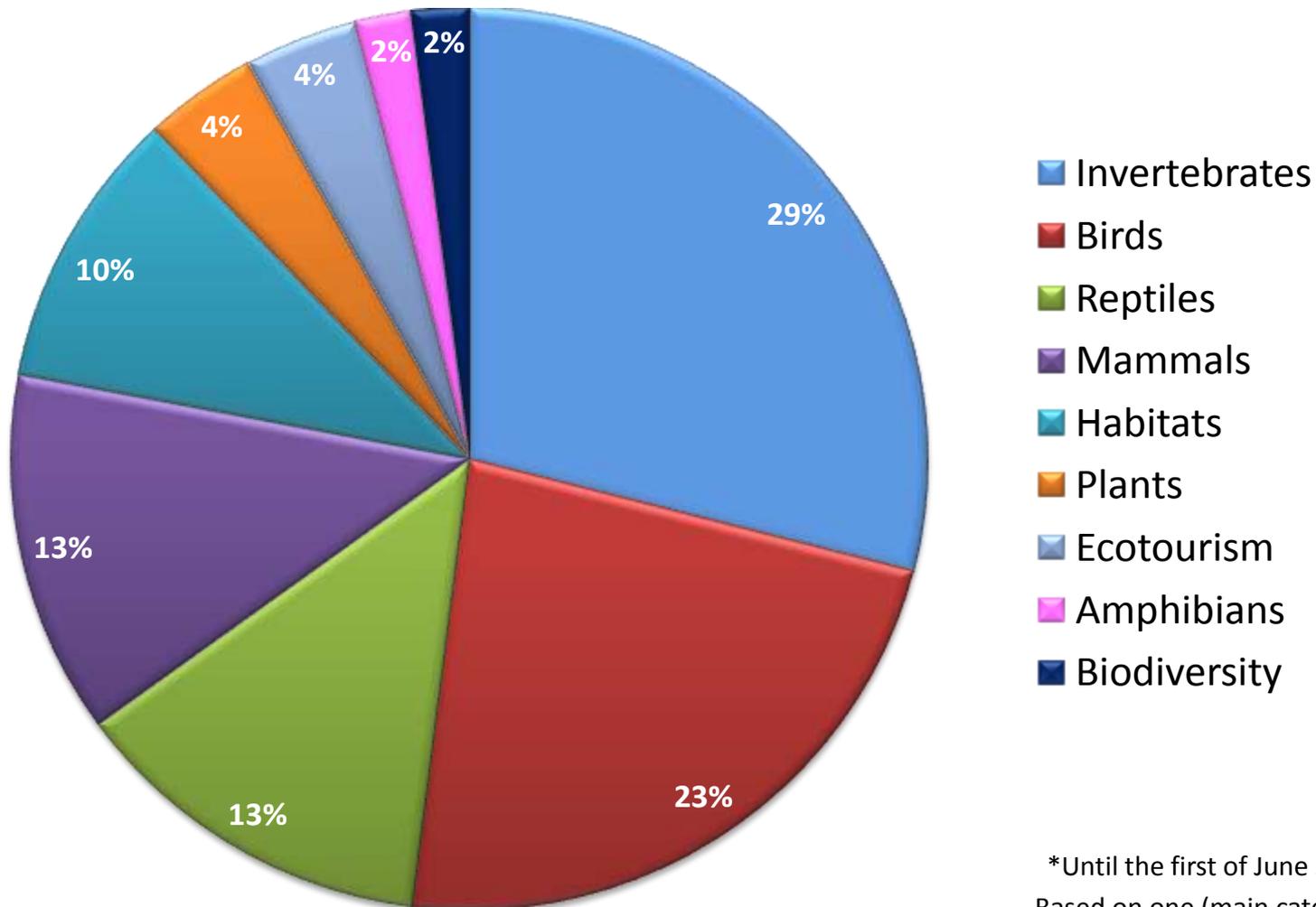
# Categories - simplified



# Categories - simplified



# Projects in Serbia



\*Until the first of June 2017  
Based on one (main category)

# Đerdap National Park

Established: **1974.**

Area: **636.1 km<sup>2</sup>**

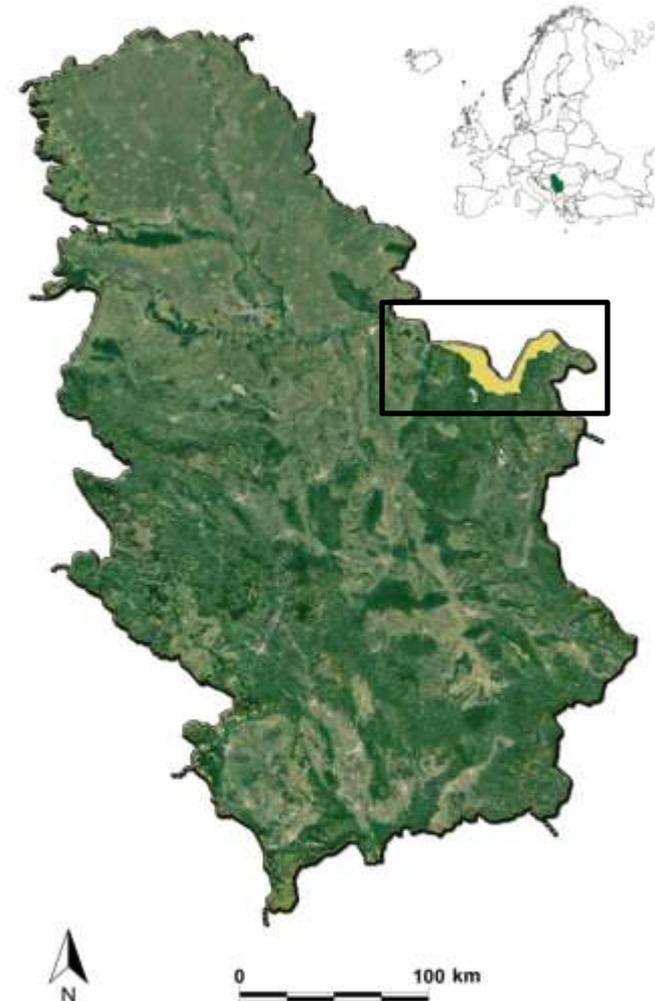
Altitudinal range: **50 – 803 m**

Length: **100 km**

Width: **2 – 8 km**



**7.2 %**  
of Serbia



# Derdap National Park



# Flora and fauna of Derdap

**43**

Strictly  
protected species

**124**

Protected species

**1013**

Plants  
(IPA)



**13**

Relicts

**14**

Balkan  
endemics

**57**

Forest and shrub  
communities

**200**

Birds  
(IBA)



**60**

Fishes



**Insects**

**50**

Mammals



**14**

Reptiles



**13**

Amphibians



**100**

Butterflies  
(PBA)



**300+**

Moths



# About the project

- Rufford Small Grant (first level)
- Categories: - Invertebrates  
- Biodiversity
- 12 months (2017-2018)
- Carabidae on Rufford?

2

## Nikola Vesović

*Ground Beetles (Coleoptera: Carabidae) of the Đerdap National Park (Northeastern Serbia): Preliminary Diversity Assessment and Conservation*

Nature conservation is essential everywhere on the planet and is one of the burning issues in modern biology. Ground beetles are very important insects in terms of ecology and the environment's economy. The Đerdap National Park is the largest and one of the most valuable natural heritage areas in Serbia. Despite this fact, no systematic integrative investigation of its ground beetles has ever been carried out. The park's plants and vertebrates are well-documented, but knowledge about its insects is scanty (they have been the subject of only two recent studies, on longhorn beetles and on butterflies). The biota known to inhabit the park includes a number of endemic and relict forms and even certain sub-Mediterranean and Mediterranean plant species. This gives us a right to expect there an equally rich and interesting entomofauna worth protecting. The Balkan Peninsula is above all interesting as one of Europe's main biodiversity hotspots – a relictual area with a considerable percentage of endemic taxa. For this reason, there is a great need to explore the Balkan fauna of carabids and protect all rare species. We will assess threatening factors in the National Park and their effects on carabid assemblages.

The objectives of the work are as follows:

- to create a check-list of ground beetle taxa inhabiting the Đerdap National Park;
- to obtain additional data on the biology and ecology (abundance, sex structure, intraspecific variability, habitats, seasonal activities, possible abnormalities) of the park's carabids;
- to remove some taxa in the Serbian entomofauna from the "data deficient" (DD) category and propose a new list of candidate taxa potentially worthy of protection from among the country's epigeal, eudogean and troglomorphic carabids;
- to examine possible habitat-disrupting circumstances in the national park and propose ways to overcome them in order to protect potentially endangered ground beetle populations;
- to stimulate the scientific enthusiasm of biologists for nature conservation and emphasise the urgent need for it to a wider audience by organising lectures and giving promotional material to citizens;
- to present our results and then prepare them to be published.

For further information contact:

Email: [nikola.vesovic@bio.bg.ac.rs](mailto:nikola.vesovic@bio.bg.ac.rs)



*Carabus ulrichi* (Germar, 1824)



*Molops piceus* (Panzer, 1793)

Other Projects in: [Biodiversity](#) [Europe](#) [Invertebrates](#)

## Contact:

[nikola.vesovic@bio.bg.ac.rs](mailto:nikola.vesovic@bio.bg.ac.rs)

## For more information visit:

[http://www.rufford.org/projects/nikola\\_vesovic](http://www.rufford.org/projects/nikola_vesovic)

# Project activities

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## ✓ Faunistic-ecological study

Check list, sex composition, seasonal activity, habitat preference

## ✓ Conservation

Taxa of interest, threatening factors, conservational measures

## ✓ Education

Increasing awareness of the need to protect natural habitats and these insects

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# Localities

## Pitfall traps:

**I** - Golo brdo

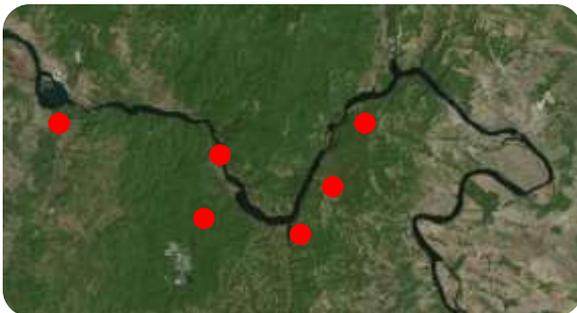
**II** - Mt. Miroč

**III** - Poreč Bay

**IV** - Mt. Liškovac

**V** - Boljetinska Reka Canyon

**VI** - Golubac



# Localities

## Manual collecting:

I - Donji Milanovac

II - Lepenski Vir

III - Dobra

IV - Golubinje

V - Ploče

VI - Veliki Štrbac



# Localities

## Speleological objects:

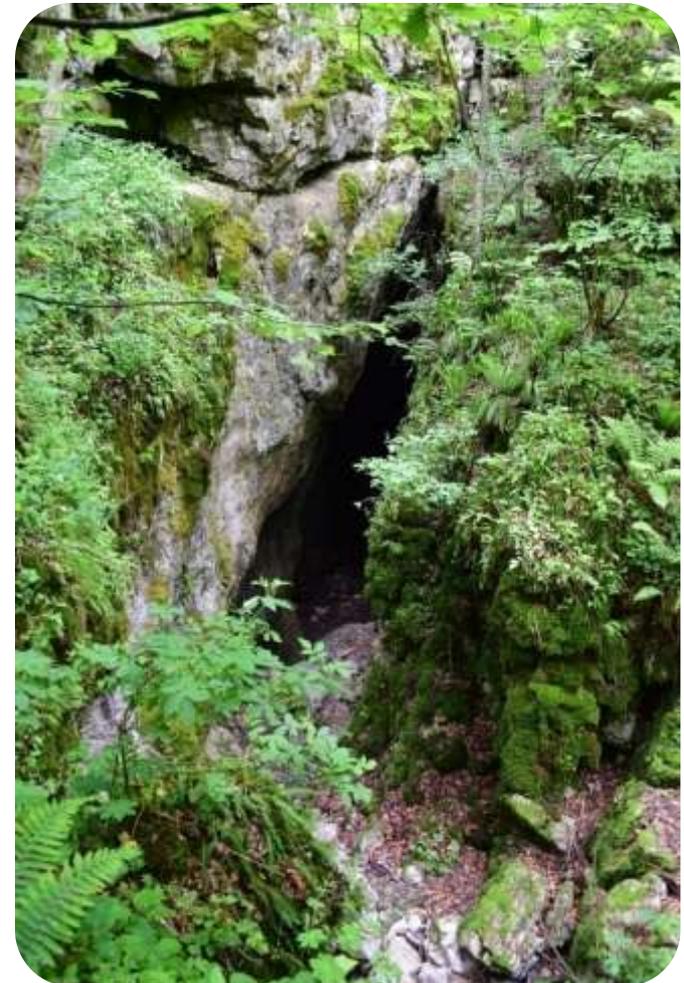
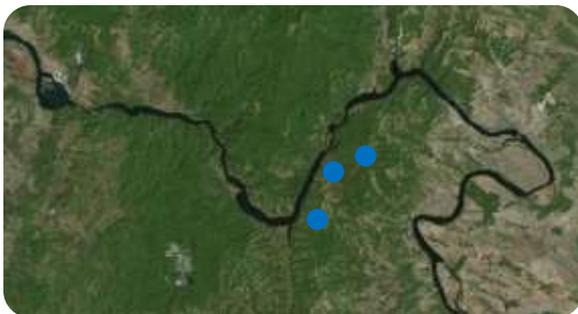
I - Gradašnica Cave

II - Buronov ponor Pit

III - Ibrin ponor Pit

Troglophiles

Troglobites



# Fieldwork

## Expeditions:

- 8 April ✓
- 25 April ✓
- 18 May ✓
- **7 June**
- **July (2)**
- **August (2)**
- **September**



Locating collecting site



Mt. Liškovac



Village of Tekija



Pitfall trap in beech forest

# Ground beetles - diversity

April – May

**50**  
species



*Harpalus dimidiatus*



*Carabus ullrichii arrogans*



*Carabus coriaceus cerisyi*



*Cychrus semigranosus balcanicus*



*Anchomenus dorsalis*



*Leistus spinibarbis*

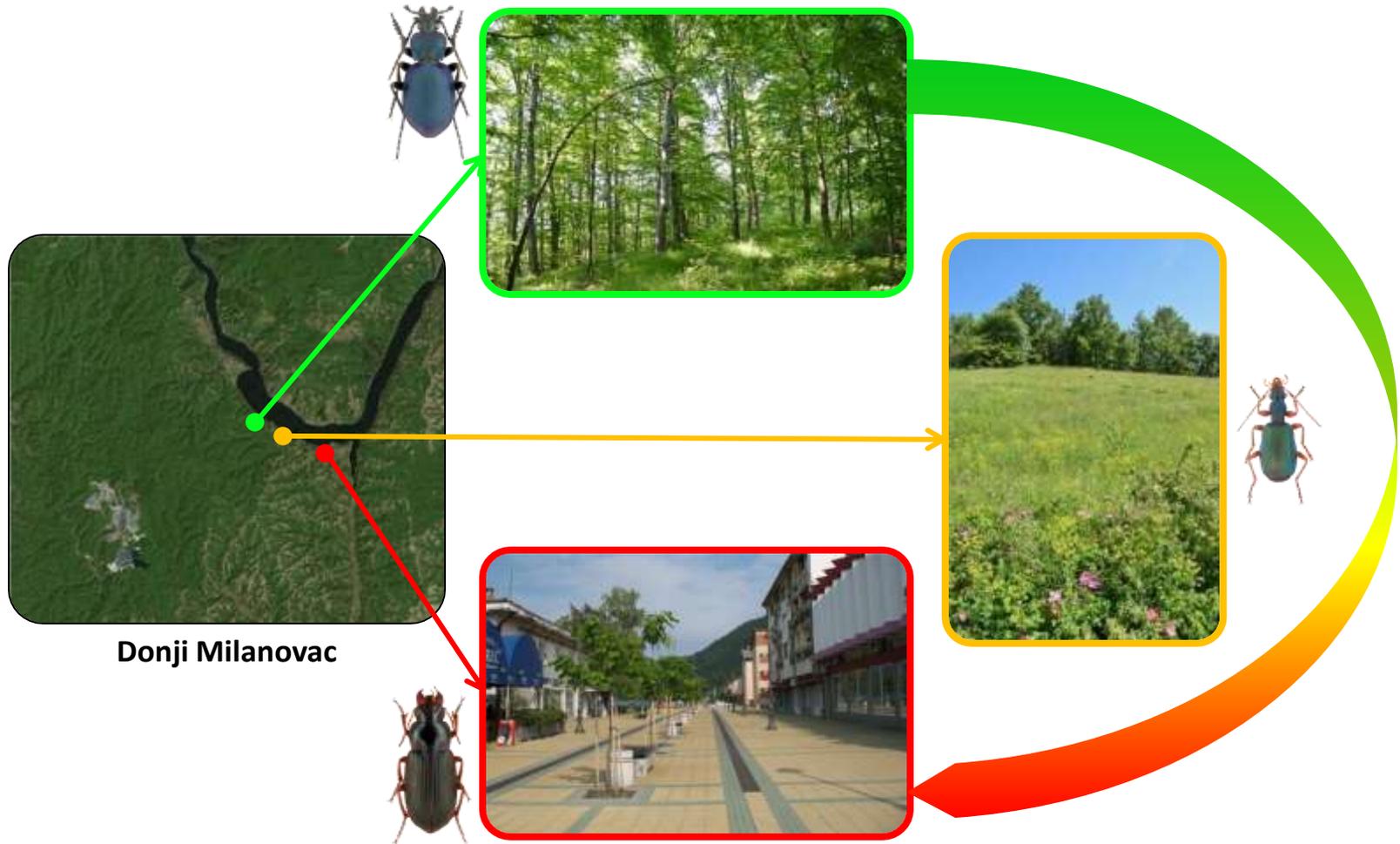


*Cicindela campestris campestris*

Serbia

**615**  
species

# Anthropogenic factor



Donji Milanovac

# Conservation

Habitat protection



Education



*Carabus intricatus*



# Conservation

Education of the population ↔ Habitat protection



- ↓ Forest fires
- ↓ Deforestation
- ↓ Illegal constructions
- ↓ Agriculture
- ↓ Traffic routes
- ↓ Municipal waste

# Plans

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- Presenting results on **Symposium of entomologists of Serbia** in September 2017
- Involvement of **students volunteers** in fieldwork and laboratory activities
- Preparing **scientific publication** during 2018
- Encouragement of **scientific enthusiasm among young biologists**
- Application for **2<sup>nd</sup> Rufford Small Grant**
- Long-term studies in Đerdap National Park – **monograph** on park's ground beetles

**Contact:**

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# Thank you for attention

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