

Developing monitoring in Serbia



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The Origins... (before 2016)



The Origins... (2016)



Butterfly Conservation

European Interests Group



1. Translation of BCE manual for butterfly monitoring to Serbian (PDF version).
2. Creating software workflow for transect data (preferably under existing Alciphron database).
3. Organising workshop for people interested in monitoring of butterflies.
4. Field studies for getting data on butterfly distribution in Serbia (published online in Alciphron).
5. Working with volunteers on defining transects, identifying species (i.e. through mailing list and offering field guides on Serbian butterflies) and publishing their results.
6. Promoting butterfly monitoring online (official web site and Facebook).

1. Manual for monitoring

Упутство за мониторинг
дневних лептира




Butterfly
CONSERVATION EUROPE

Упутство за употребу програма

Лариса: Издање 1.0



Полужић, М. (2017) Упутство за употребу програма Лариса: Издање 1.0. ХабиПрот, Београд, 10 стр.

2. Software solution

- Unfortunately, we were unable to use Alciphron.
- New software called Larissa was developed:
 - <http://monitoring.habiprot.org.rs>



2. Software solution

- Chalange: Habitat types
 - UKBMS codes + EUNIS habitat types
- Example:
 - UKBMS code 1
 - Marine saltmarshes/estuaries/saline reedbeds
 - EUNIS code A2
 - **Not present in Serbia**



2. Software solution

- Chalange: Habitat types
 - UKBMS codes + EUNIS habitat types
- Example:
 - **UKBMS code N.A.**
 - Inland salt steppes
 - EUNIS code E6
 - Predominantly present in Vojvodina

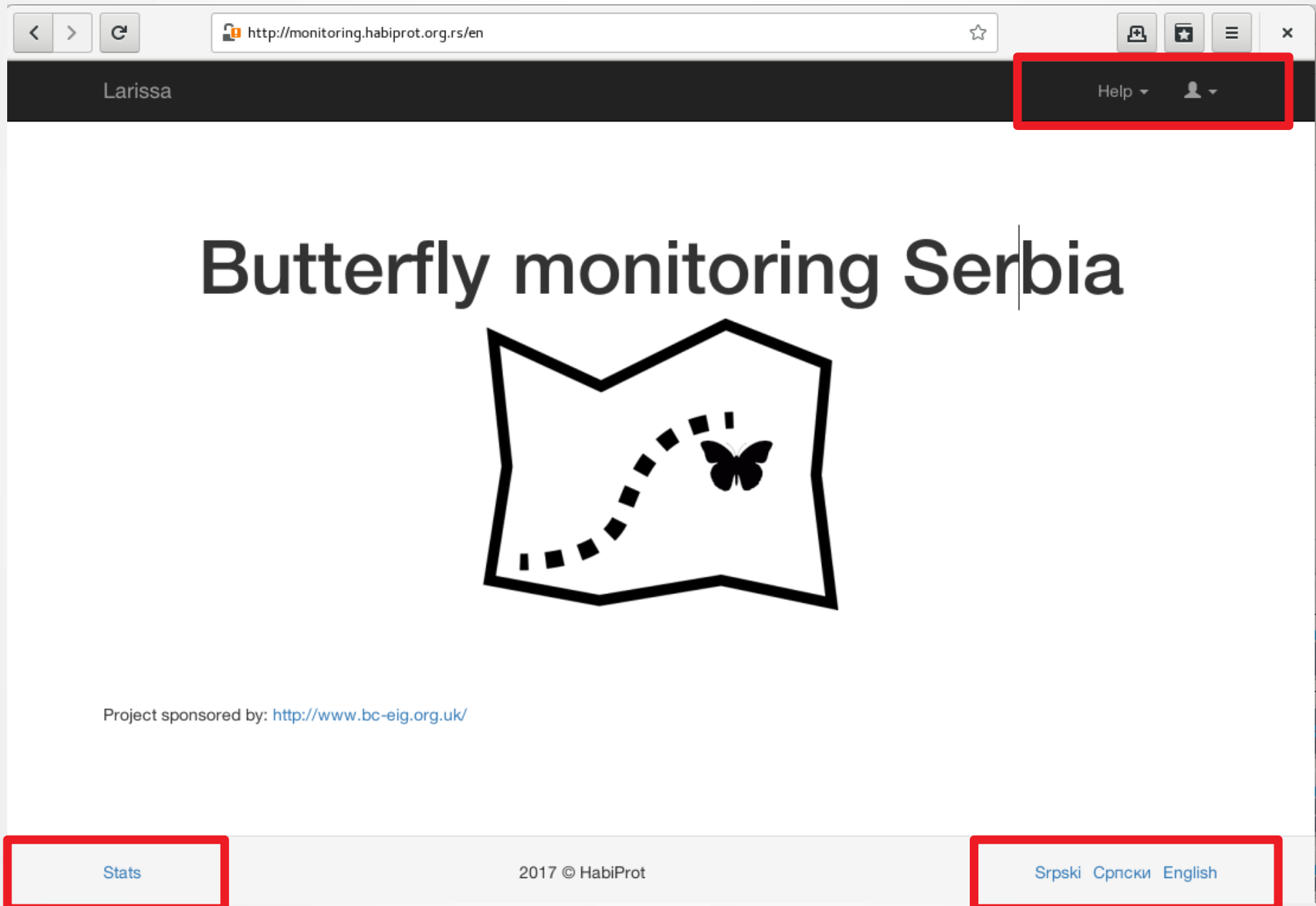


2. Software solution

- Chalange: Habitat types
 - UKBMS codes + EUNIS habitat types
- Example:
 - **UKBMS code N.A.**
 - Buildings and other objects in the villages and cities
 - EUNIS code J2/J3
 - Represents relatively good butterfly habitat in most of Serbia
 - Note: EBMS code 40; EUNIS code J3/J4/J6; Bare ground/weed communities of post-industrial sites e.g. quarries/pits/road/rail/landfill sites

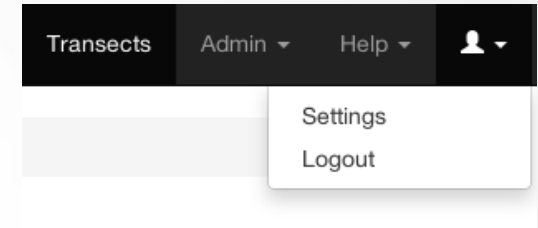


2. Software solution



2. Software solution

- Step 1: Register
- Step 2: Add transect
- Step 3: Add transect sections
- Step 4: Add transect visit
- Step 5: Add species entries to the visit



2. Software solution

- Step 2: Transect

[Home](#) / [Transects](#) / Зајечар, трансект изнад Милошеве куће

Зајечар, трансект изнад Милошеве куће

Details

[Sections](#)

[Transect Visits](#)

Details

Transect Name	Зајечар, трансект изнад Милошеве куће
Description	Трансект од моје куће у Зајечару до брда гладни врх.
Location	Зајечар, Гладни врх
Primary Habitat	Bare ground/weeds of arable field margins or fallow/recently abandoned arable crops (e.g. set-aside)
Attachments	1490294760_1484592444_Zaječar.jpg

Update

Delete

Add Transect Visit

2. Software solution

- Step 3: Transect section

Section Name*

T2

Description

Transect that goes from the end of the macadam road near the vineyard fields to the abandoned meadow.

Primary Habitat

Bare ground/weeds of arable field margins or fallow/recently abandoned ar... x ▾

Secondary Habitat

Orchards, hop gardens and vineyards x ▾

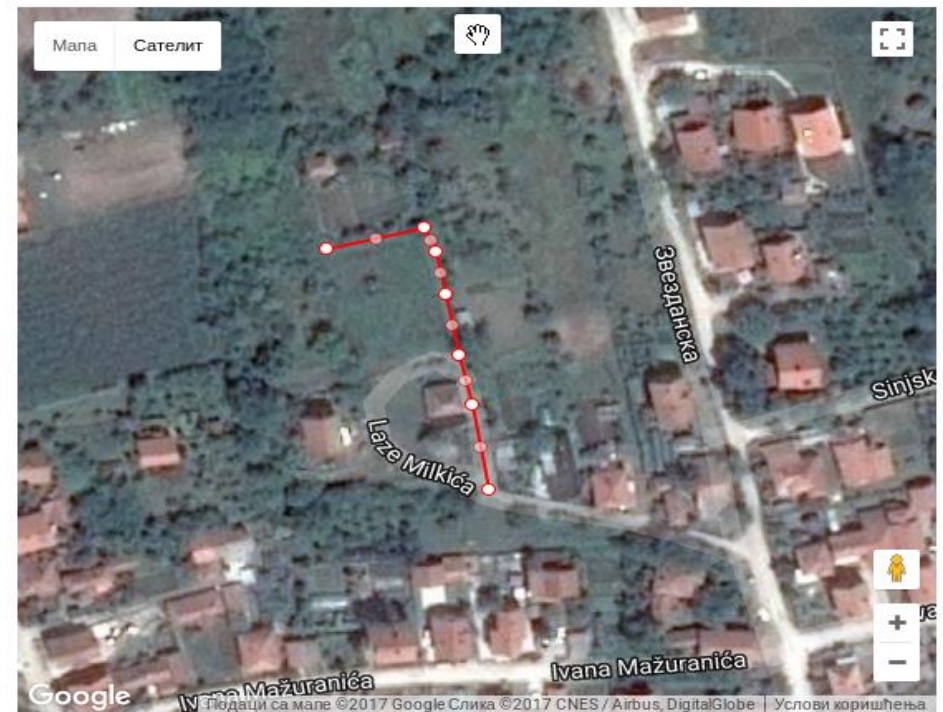
Land Tenure

Search for land tenure... ▾

Land Management

Search for land management... ▾

Save



2. Software solution



- Step 4: Transect visit


[Home](#) / [Transects](#) / [Зажечар, трансект изнад Милошеве куће](#) / [Transect Visits](#) / Add Transect Visit


Add Transect Visit


General Data


Date*


 


Start Time
 


End Time
 


Temperature
 

Percent Cloudy
 

Atmospheric Pressure
 

Humidity
 

Wind Direction
 

Wind Speed
 

2. Software solution

- Step 5: Species entry

[Home](#) / [Transects](#) / [Зајечар, трансект изнад Милошеве куће](#) / [Transect Visits](#) / [2017-08-16](#) / [Entries](#) / [Add Entry](#)

Add Entry

Transect Section*

Милош - деоница 1 ▼

Taxon*

Papilio machaon × ▼

Count*

15

[Save](#) [Save and continue](#)





































2. Software solution

- Step 5: Species entry

Entries

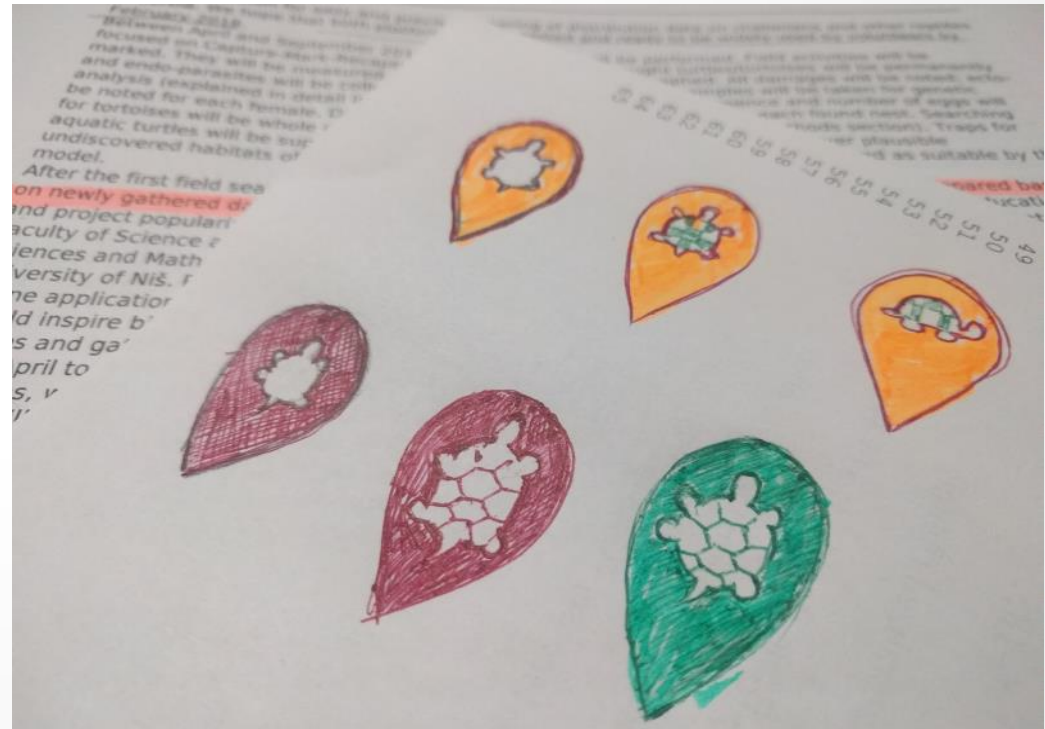
Add Entry

Showing 1-20 of 68 items.

Transect Section	Taxon	Count	
All	All		
Милош - деоница 1	Maniola jurtina	3	  
Милош - деоница 1	Satyrrium acaciae	3	  
Милош - деоница 1	Coenonympha pamphilus	1	  
Милош - деоница 2	Thymelicus lineola	2	  
Милош - деоница 2	Melanargia galathea	3	  
Милош - деоница 2	Kirinia roxelana	1	  
Милош - деоница 2	Maniola jurtina	5	  
Милош - деоница 2	Brintesia circe	3	  
Милош - деоница 2	Brenthis daphne	1	  
Милош - деоница 2	Polyommatus icarus	1	  
Милош - деоница 2	Pieris rapae	1	  
Милош - деоница 3	Maniola jurtina	9	  

2. Software solution

- Future plans:
 - New database for occurrence records (promoting open source software and open data).
 - Connection between the databases.
 - Android application.



2. Software solution

Alciphron



Logout

[Dashboard](#) / [My Field Observations](#) / [Edit](#)

MY

Field Observations

ADMIN

Taxa

Pending
Observations

Taxon

Date

Photos



Upload



Upload



Upload

Source

Location

Map



[Details](#)

3. Workshop

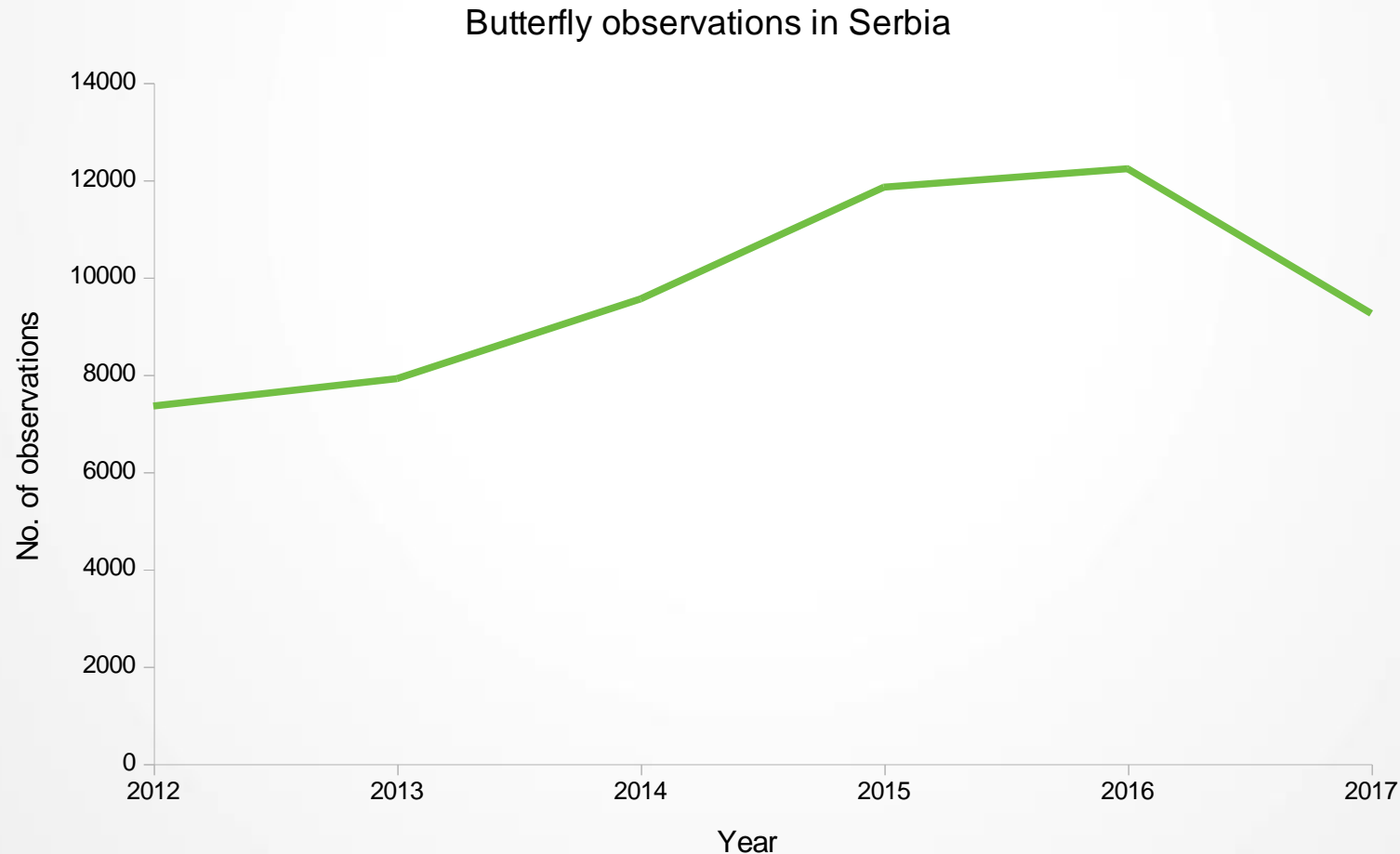
- Two workshops and several meetings.



4. Field studies

- The most successful year for butterflies!

Alciphron



5. Working with volunteers

- Help define the transects.
 - Close to your house.
 - Length of the sections.
 - Section borders.
- Help with habitat type selection.
- Reminding people about the need of regular transect counts.



6. Promoting butterfly monitoring

- Workshops.
- www.facebook.com/groups/butterflyserbia.
- www.facebook.com/groups/insectserbia.
- Google Group “[butterflyserbia](http://www.facebook.com/groups/butterflyserbia)”.
- Personam corespodention.



Results

- In 2016. we had 4 transects by 3 persons.
- In 2017. we had 3 transects by 2 persons.
- 6 transects in the database, with 1035 butterfly entries for 63 species.
- Export of data not solved yet!



Did we learn something?

- Compared to Western Europe we have much more species on a transect. Problems!
 - *Pieris rapae*, *P. napi*, *P. balcana*.
 - *Thymelicus lineola*, *T. sylvestris*, *T. acteon*.
 - *Polyommatus* sp. and *Plebejus* sp.
- Should we carry the butterfly net?
- Habitat could change within a 50 m.
- Short over the long transects.



Major problems

- One week transect count is more like two weeks... :)
- Problem in motivation. How to get more people? How to acknowledge their contribution?
- Volunteers (experience?)



Thank you!

