

East and South European Network for Invasive Alien Species-a Tool to Support the Management of Alien Species in Bulgaria (ESENIAS-TOOLS)

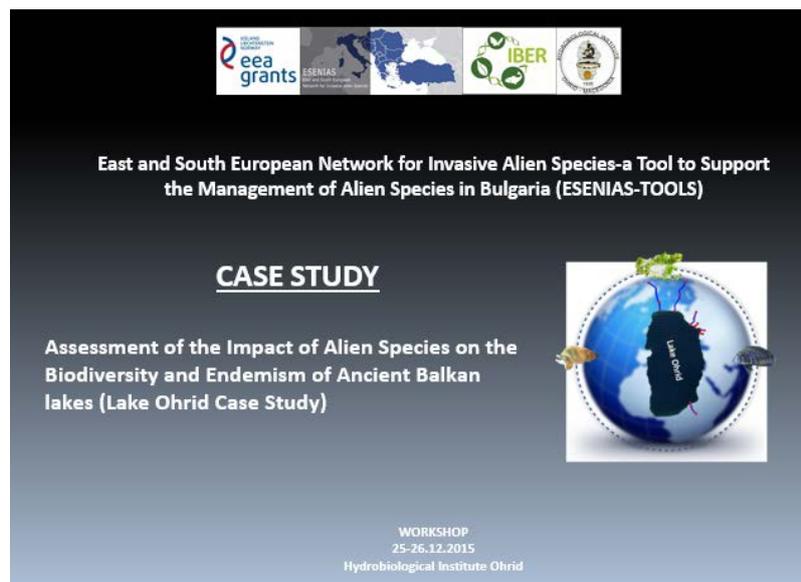
Case Study: Assessment of the Impact of Alien Species on the Biodiversity and Endemism of Ancient Balkan lakes (Lake Ohrid Case Study)

REPORT

Kick-off Workshop 25-26 December 2015
Ohrid, Republic of Macedonia

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27/12/2015



The slide features a dark background with a light blue gradient at the bottom. At the top, there are four logos: 'eea grants' (Iceland, Liechtenstein, Norway), 'ESENIAS' (East and South European Network for Invasive Alien Species), 'IBER' (Invasive Biological Emergency Response), and the 'Hydrobiological Institute Ohrid' logo. The main title is 'East and South European Network for Invasive Alien Species-a Tool to Support the Management of Alien Species in Bulgaria (ESENIAS-TOOLS)'. Below this, the word 'CASE STUDY' is underlined. The subtitle is 'Assessment of the Impact of Alien Species on the Biodiversity and Endemism of Ancient Balkan lakes (Lake Ohrid Case Study)'. To the right of the subtitle is a graphic of a globe with a map of the Balkans overlaid, showing Lake Ohrid. At the bottom, it says 'WORKSHOP 25-26.12.2015 Hydrobiological Institute Ohrid'.



The kick-off workshop of the project case study "Assessment of the Impact of Alien Species on the Biodiversity and Endemism of Ancient Balkan lakes (Lake Ohrid Case Study)" within the project "East and South European Network for Invasive Alien Species - A Tool to Support the Management of Alien Species in Bulgaria (ESENIAS-TOOLS)" was organized in Ohrid, Republic of Macedonia in the period of 25-26 December, 2015 at the Hydrobiological Institute in Ohrid. The organization of this workshop was delayed due to technical reasons. However, a so-called constitutive meeting had been held previously, on 24 October 2015, when the team members had been informed about the project's goals and their responsibilities within the related activities.

The kick-off workshop was organized in order to inform the team members about the current progress of the entire project, to inform them about the outcomes of the already organized meetings and workshops, and to inform them about the definitions, protocols and forms which have been developed and discussed within the project, as well as about the outcomes of the organized workshop in Zagreb of the WG3, to which the Case study 3 belongs. Furthermore, the workshop had the following objectives:

- Discussion on working plan, expected results, technical and other issues.
- Standardization and harmonization of methodology, which is going to be applied, i.e. terminology, sampling, data collection and processing.
- Discussion on the list of alien aquatic species in Lake Ohrid and its watershed, as well as within the boundaries of the country.
- Discussion on prioritization of alien aquatic species.
- Discussion on early warning of aquatic alien species.
- Time tables, due dates, dissemination of results.

25.12.2015 - Friday

The national team leader Sasho Trajanovski delivered presentations about the goals, objectives and planned activities within the case study. He pointed out that these activities will continue and develop a previous study undertaken within the project "Invasive Alien Species – growing threat to biodiversity and ecosystem functionality in ancient Lake Ohrid and its watershed", which finished in 2014. Konstantin Zdraveski delivered presentation concerning the Project's background, the case studies within the project and related matters including partners, working groups, deadlines, etc. Zdraveski also presented the "Prioritisation lists (criteria) and Early warning system for IAS" and information useful for the team members throughout the duration of the activities.



Following these presentations, each department presented information about the current situation concerning alien and invasive species in the corresponding groups: benthic diatoms, hydrobotany, macroinvertebrates and fish. These presentations were delivered by team members and were based on previous research results, as follows:

1. Benthic diatom department - Tatjana Loskoska
 - No alien benthic diatoms have been recorded so far.
2. Hydrobotany department - Sonja Trajanovska
 - According to the presentation of this department the following alien species have been recorded in Lake Ohrid and its watershed until present time: *Elodea canadensis* (Rich & Michx, 1803)
3. Macroinvertebrate department - Biljana Budzakoska Gjoreska
 - No alien or invasive macroinvertebrates have been recorded so far.
4. Fish department - Trajce Talevski
 - According to the presentation of this department the following alien species have been recorded in Lake Ohrid and its watershed until present time: *Alosa falax La Capede*, 1803; *Carassius gibelio* Bloch, 1782; *Cyprinus carpio* Linnaeus, 1758; *Pseudorasbora parva* (Temminck & Schlegel, 1846); *Rhodeus amarus* (Bloch, 1782); *Oncorhynchus mykiss* Walbaum, 1792; *Gambusia holbrooki* Girard, 1859; and *Lepomis gibbosus* Linnaeus, 1758.

The first day of the organized workshop ended with a group discussion on issues related to definitions, current status of certain species, and prioritization and early warning practices.

26.12.2015 - Saturday



The second day of the workshop was dedicated to group discussion on the methodology, sampling dynamics, sampling localities and other technical issues. In addition, during the second day, a field work was organized to take GPS coordinates and select sampling sites in the River Sateska, including its upper, middle and lower reaches.

The discussions regarding the mentioned issues resulted with the following decisions:

- Methodology: During the research that is going to be undertaken within the Project and the Case study, standard limnological methods for sampling and data analysis will be used in accordance with the EU Water Framework Directive.
- The sampling dynamics, due to the technical delay of the beginning of the project and the activities in R. Macedonia, as well as the changes in the duration that have been set by the programme operator and due to financial means will be: once per year, i.e. in May 2016. The sampling is going to be conducted mutually by all departments and together with Bulgarian partners at 6 sampling sites of the River

Crn Drim and 5 sampling sites of the River Sateska, including one littoral point in the lake corresponding to the rivers` outflow and inflow, respectively.

- Sampling localities were selected as mentioned above, i.e. 5 at the River Sateska, which is the largest tributary of the lake and 6 at the River Crn Drim, which is the only outflow of Lake Ohrid. The following tables show the sampling sites with their corresponding codes, coordinates and names.

River Crn Drim				
No.	LATITUDE	LONGITUDE	CODE	Locality Name
SS1	41°10'17.01"	20°40'39.53"	DO	Drim istek
SS2	41°11'51.46"	20°40'35.09"	RD1	Moroiski most
SS3	41°15'14.71"	20°39'10.67"	RD2	Dobovjani
SS4	41°17'1.15	20°37'3.89"	RD3	Globocica
SS5	41°29'21.52"	20°30'42.99"	RD4	DebarskoK
SS6	41°31'25.78"	20°34'15.05"	RD5	DebarskoM

River Sateska				
No.	LATITUDE	LONGITUDE	CODE	Locality Name
SS1	41°10'2.61"	20°43'36.36"	SI	Sateska Vliv
SS2	41°13'33.33"	20°44'44.60"	S1	Staro korito
SS3	41°14'28.74"	20°45'50.43"E	S2	Mesheishta
SS4	41°15'38.71"	20°46'39.53"E	S3	Crkva Sv. Petka
SS5	41°18'40.77"	20°48'47.71"	S4	Sini Viroj

- Several technical issues were discussed, such as transportation, using of small vessel for sampling in certain deeper points of the rivers and the accumulations on the River Crn Drim. It was concluded that the Institute`s research vessel is going to be used for sampling in the littoral, and small vessels will be used for sampling in Globocica and Lake Debar, while the rest of the sampling sites are easily reachable and shallow, thus a car will be used to arrive at each of those.

At the end of the day, a field trip to the River Sateska (upper, middle and lower course) was organized. During the visit of these localities, some of which correspond to the selected sampling sites, some changes in natural habitats in the river`s flow, especially in the middle reaches, were observed. Information from local fishermen was collected. The visited sites will be further studied during the field trip in May 2016.