The aim of this project was to test the practical use of the smartphone application ‘Invasive Alien Species Europe’ developed by the European Commission’s Joint Research Centre (JRC) in the Lower Danube River basin (Bulgaria, Romania, Serbia). The app contains detailed information and photos about the IAS of European Union (EU) concern in Europe, and gives possibility to citizens to capture and share information about these species by using their phones’ GPS system and camera. Eleven information and field testing campaigns with the participation of 235 stakeholders were organised during the project. Nine IAS of EU concern and 37 sightings were recorded with the app.

The DIAS Strategy and Work Plan

The DIAS Strategy provides the goals and objectives, possible measures and recommendations, and defines relevant actors on seven key topics:

1) IAS – Species and interactions/ impact in the Danube River Basin
2) Pathways of introduction and spread in the Danube River Basin
3) Information system and knowledge dissemination
4) Risk assessment and prioritisation
5) Early detection and rapid eradication
6) Management of established IAS and restoration, and
7) Awareness raising, communication and policy.

The DIAS Strategy:

- Follows the requirements of the EU Strategy for the Danube Region
- Follows the guidance document of the International Commission for the Protection of the Danube River (ICDPR) on IAS within the Danube River Basin
- Considers the specific demands of the Upper, Middle and Lower Danube Region with the adjacent Black Sea Region
- Considers the IAS national legislation of the countries in the Danube Region.

The North American red-eared slider (Trachemys scripta elegans) is a popular pet species, which has been commonly released into the wild by humans in the Danube River Basin. Impact: competition for food and basking sites, and transmission of pathogens to native turtle species. The red-eared sliders are also potential vectors of Salmonella.

The Asian topmouth gudgeon (Pseudorasbora parva) was accidentally introduced to the Danube River Basin by stocking or aquaculture with Asian carp species. It was first reported in 1961 from Romania, in a fish farm at the Dâmboviţa River system, near Bucharest. Currently, widely spread in the Danube countries, establishing dense populations in standing waters, overgrown with vegetation. Impact: competition for food, predation on eggs of other fish, and transmission of pathogens.
The Danube Region Invasive Alien Species Network (DIAS) was established in 2014 in Sofia, Bulgaria, within the frame of the Priority Area 06 of the European Union Strategy for the Danube Region (EUSDR), and have been supported by the Bavarian State Ministry of Environment and Consumer Protection (Munich, Germany), the Institute of Biodiversity and Ecosystem Research, Bulgarian Academy of Sciences (IBER-BAS), the International Association for Danube Research (IAD), and the East and South European Network for Invasive Alien Species (ESENIAS).

**DIAS Mission**

DIAS promotes an improved coordination among all actors in the thematic field of invasive alien species (IAS) within the Danube Region. Politically independent, it brings together scientists, authorities and stakeholders and

- Supports sharing of knowledge
- Formulates a strategy and work plan to efficiently tackle the issue of IAS in the Danube Region
- Considers and cooperates with existing European and global IAS networks and organisations
- Develops individual but coordinated projects in the single regions,
- and
- Promotes the transfer of knowledge and expertise to actors on all administrative levels

in a transnational context in order to contribute to a sustainable and livable future of the Danube Region.

**DIAS Structure**

The DIAS structure reflects both the scientific complexity of the topic and the heterogeneity of the region.

**Thematic structure:** connection and cooperation of experts in working groups and pool of experts

**Regional structure:** informal, decentral and interdisciplinary cooperation in the Upper, Middle and Lower Danube Region with the adjacent Black Sea Region

**Participating countries:** Germany, Austria, Czech Republic, Slovakia, Hungary, Slovenia, Croatia, Bosnia and Herzegovina, Montenegro, Serbia, Bulgaria, Romania, Moldova, Ukraine, and Turkey.

**DIAS Research Projects**

**Danube – IAS Corridor**

**Potential threats to environmental and economic sustainability in the Danube and Black Sea Region: the Danube River as invasive alien species corridor**

Coordinator: IBER-BAS  
Funding: Within the frames of IAD, ESENIAS, DIAS and PA 06 EUSDR  
Duration: 2012-ongoing

The main aim of this project is to analyse the role of IAS (occurrence, pathways of introduction and spread, impact, measures) for the sustainable development in the Danube and Black Sea Region (in environmental and economic aspects). A pilot study includes monitoring of aquatic IAS in the Lower Danube River – the Bulgarian sector. This is the first step of a regular monitoring, risk assessment and management of the IAS of EU and regional concern, and contribution to the development of the DIAS strategy and work plan and regional sustainable development plans.

**The Chinese (Amur) sleeper (Perccottus glenii)** was reported for the first time in 1995 from the Danube River Basin in Ukraine, and in 2003 from the Danube River in Serbia. Currently, occurs in all countries from the Lower Danube River. **Impact:** competition for food and predation on invertebrates, amphibians and other fish, transmission of pathogens, and disruption of trophic interactions, especially in standing waters (oxbow lakes, ponds, canals).

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