

Importance of citizen science for the zoological researches in Bulgaria: Amphibians and reptiles in Bulgaria group at the social platform Facebook

Plamen Petrov¹, Emilia Vacheva², Dimitar Dimitrov¹, Anton Sokolov¹, Petar Petrov³, Atanas Grozdanov^{3*}

¹- Club Skorec, Faculty of biology, University of Sofia, 8 Dragan Tzankov blvd., Sofia

² IBER – BAS

³ Department of zoology and anthropology, Faculty of biology, University of Sofia, 8 Dragan Tzankov blvd., Sofia

*Corresponding author: atanas_grozdanov@biofac.uni-sofia.bg

The collaboration with non-professional contributors in zoological researches is a widespread practice in many scientific projects, monitoring schemes, etc. worldwide. In Bulgaria, one of the main sources for communication with such contributors in the recent years are the Facebook-based groups, dedicated to different taxon of organisms. The present study provides details on the functioning, scientific and social benefits of one of them: The amphibians and reptiles in Bulgaria. At present the group members number more than 6300. The significant amount of contributions resulted in the obtaining of new herpetological information, e.g. new locations of species, some of which were later published as scientific papers. Along with the scientific importance, the group proved as an educational source for people interested in herpetology and also had an impact on the attitude of people, concerning amphibians and reptiles, which in many cases can be a significant problem for their conservation.

I. Analysis of group activity

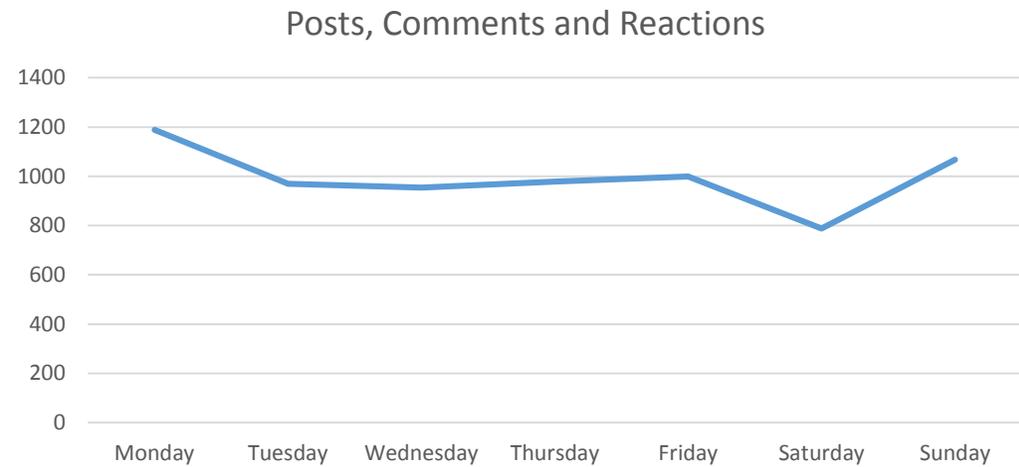


Fig.1 Number of posts, comments and reactions in a weekly base for 60 days period. (Source: Facebook)

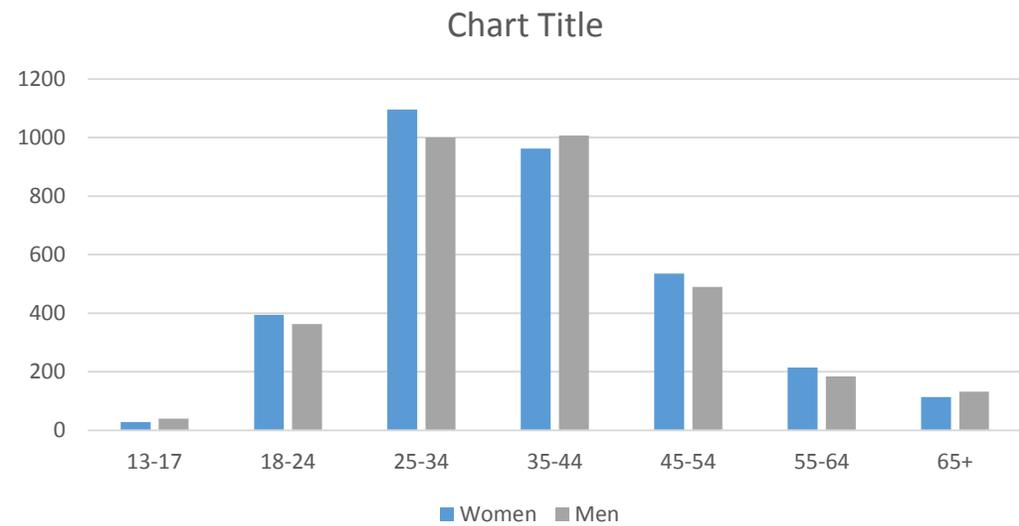


Fig.3 Age and gender of the group members (Source: Facebook)



Fig.2 Group membership growth for 60 days period. (Source: Facebook)

Bulgaria	6113
Great Britain	111
Germany	85
Spain	32
USA	21
Austria	20
Italy	18
Netherlands	18
Belgium	18
Greece	16

Fig.4 Top 10 countries by the number of contributors (Source: Facebook)

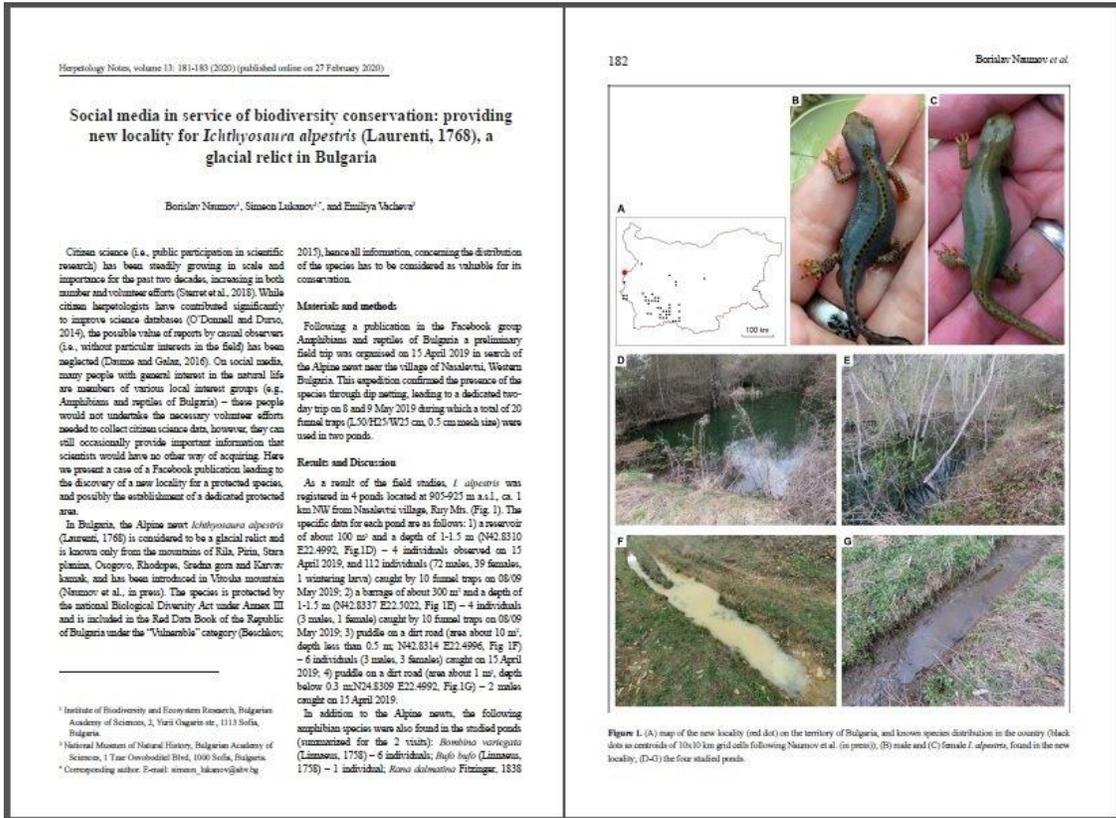


Fig. 5 A scientific publication by Naumov et al., based of data, obtained by the group. Herpetology notes, 2020

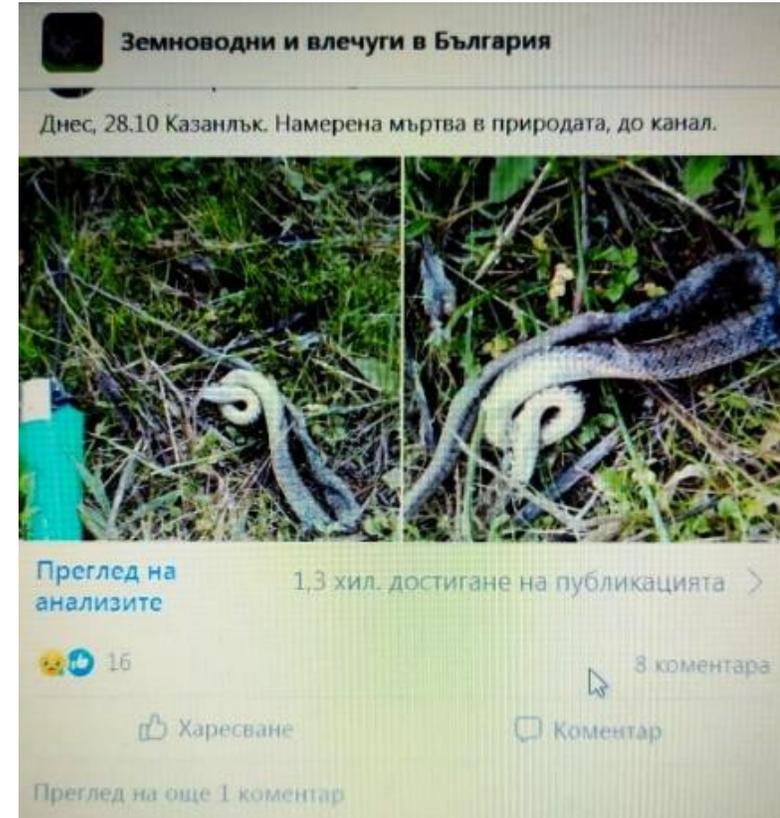


Fig. 6 Many group publications provide conservation valuable information on roadkills, impacted species, problematic attitude towards reptiles. All posts are attributed with dates and geographical locations, according to the group rules.

The Facebook-based groups, dedicated to biodiversity could provide a significant amount of information for distribution, ecology, conservation threats, etc. of species. Along with the scientific valuable data, they can be used for moderating of attitude and for motivation of their members to research and protect the wildlife. We recommend to the moderators to start detailed analysis of the publications in their groups in order to achieve the benefits, stated here.