

HERPETOFAUNA OF SIGNIFICANT LANDSCAPE “SUTINA”

Stjepan Mekinić ¹, Gvido Piasevoli ¹, Dalibor Vladović ², Nediljko Ževrnja ², Lucija Šimić ³ & Tija Damjanović ⁴

INTRODUCTION

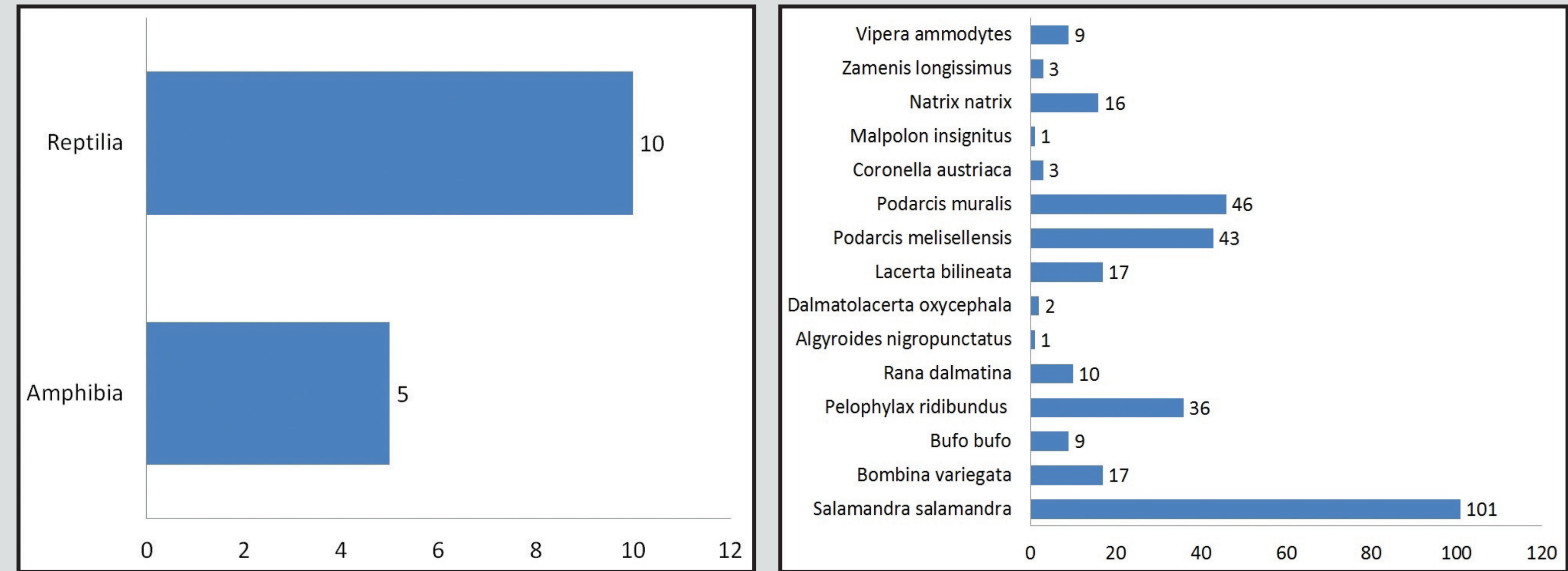
The Sutina area (Figure 1) was protected in 2000 as significant landscape and it covers the canyon part of the Sutina stream, tributary of the Cetina river, and surrounding area, with total surface of 462,8 ha (Figure 2). The Sutina stream itself is a torrent stream, most of the year with little or no water. By geomorphological composition the Sutina canyon is made of limestone and dolomite. The canyon of the mountainous Sutina stream, with its unusual plant cover stratification, is the typical example of vegetation inversion. The aim of the research was to display an overview of amphibian and reptilian fauna of the Sutina significant landscape for the first time. Therefore, the results of the researches carried out during 2016 and 2017 are displayed in the article, and also, although deficient, literature data for the area researched.

¹ Public Institution for the Management of Protected Areas in the County of Split and Dalmatia – „Sea and karst“, Prilaz bruce Kaliterna 10, 21000 Split, Croatia (E-mail: smgata@yahoo.com, gvido.piasevoli@dalmatian-nature.hr)
² Natural History Museum and Zoo, Kolombatovićevo šetalište 2, 21000 Split, Croatia (E-mail: dalibor@prirodoslovni.hr, nediljko@prirodoslovni.hr.)
³ Rudera Boškovića 22, 21000 Split, Croatia (E-mail: lucija.simic@gmail.com)
⁴ Pujanke 1, 21000 Split, Croatia (E-mail: tija.damjanovic@gmail.com)



MATERIALS AND METHODS

During field research, we tried to explore as larger area as possible (Figure 3). Research was carried out in all weather conditions, except during heavy precipitations (heavy rain and snow) and exceptionally cold weather. No animals were hurt or killed during research and all the observations were made on living specimens. The only exception were specimens found switched on the road or dead from other reasons. When necessary, animals were caught by hand, noose or grab, and then released at the same place after identification. Each specimen recorded was noted with GPS coordinates (GPS device), altitude (GPS device), exposition, date, weather conditions and remark. The data collected were processed by Arc Info GIS 9.2 computer programme. That enabled us to make a map of the distribution for each species.



RESULTS AND DISCUSSIONS

Based on the data collected during the research (Figure 5) and literature data of the area of the significant landscape “Sutina”, five (5) species of amphibians, five (5) species of lizards and five (5) species of snakes have been recorded so far; a total of 15 species of amphibians and reptiles, representing 25% of the herpetofauna of Croatia (Table 1, Figure 4). According to the previous research, 20 species of amphibians and 39 + 2 species of reptiles were recorded in the territory of Croatia, altogether 59 + 2 species (Jelić /ed./ 2012). From the results of the research it can be concluded that 25% of amphibian species and 24% of reptile species of Croatia are present in the area of significant landscape “Sutina”. In the investigated area, as well as in Croatia, genera Lacertidae and Colubridae are dominant in the number of species (Figure 6). Work and data analysis were made on the species level for easier analysis. Mainland populations of *Podarcis melisellensis* belong to ssp. *fiumana*. *Bombina variegata* is represented with the ssp. *kolombatovici* and *Natrix natrix* with the ssp. *persa*. Two out of 15 recorded species are included in the Red List of Amphibians and Reptiles of Croatia: *Bombina variegata kolombatovici* and *Podarcis melisellensis* in the category of least concern species (LC). This paper is the first systematic contribution to the knowledge of the spatial distribution of herpetofauna in the area of significant landscape “Sutina”. The aim was to establish the exact composition of the herpetofauna of this research area and to show its distribution in the research area. Taking into account the range of species, especially the reptiles, in Croatia, and the existence of certain types of habitats in the research area, it is expected that, by investing in additional research efforts, the number of species in the research area would be higher. This is particularly applicable to the *Lacerta trilineata* type. Namely, during the study, a juvenile individual was identified in the bush and watched briefly. However, as during the two years of exploration this was the only finding of this species and the individual was not photographed or captured for detailed determination, we can assume that it might also have been the juvenile specimen of *Lacerta bilineata*; a species that is often recorded in the Sutina canyon.

Table 1. Overview of recorded species of amphibians and reptiles

AMPHIBIA	CAUDATA	Salamandridae	<i>Salamandra salamandra</i>
	ANURA	Bombinatoridae	<i>Bombina variegata</i>
		Bufo	<i>Bufo bufo</i>
		Ranidae	<i>Pelophylax ridibundus</i> <i>Rana dalmatina</i>
REPTILIA	SAURIA	Lacertidae	<i>Algyroides nigropunctatus</i> <i>Dalmatolacerta oxycephala</i> <i>Lacerta bilineata</i> <i>Podarcis melisellensis</i> <i>Podarcis muralis</i>
	SERPENTES	Colubridae	<i>Coronella austriaca</i> <i>Zamenis longissimus</i> <i>Natrix natrix</i> <i>Malpolon insignitus</i>
			<i>Vipera ammodytes</i>

