

First record of the Balkan-Anatolian crested newt (*Triturus ivanbureschi* Arntzen & Wielstra, 2013) on the territory of the Nature Park “Shumensko plato”

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Abstract. In a four-year monitoring period, numerous permanent and temporary water basins on the territory of the Habitat Protected Site BG0000382 and the Nature Park “Shumensko Plato” (NE Bulgaria) were identified as possible habitats for amphibians. We inspected the water bodies for presence of Urodela, included in the inventory documentation of the protected territories. Despite intense field surveys and use of traps, we were able only recently to identify one specimen of the Balkan-Anatolian crested newt. This is the first official record of the species for the protected site.

Key words: caudate, range, habitat, protected site.

Introduction

From the south and south-west, Shumen town is surrounded by the Habitat Protected Site BG0000382 “Shumensko Plato” and a Nature Park bearing the same name (see Order RD-79, 1980; Decision 122, 2007). In the inventory documents of the Protected Site and the Nature Park (see Tzankov 2007, SDF 2015) three caudate species were listed: the Common Fire Salamander (*Salamandra salamandra* L. 1758), the Smooth Newt (*Lissotriton vulgaris* L., 1758), and the Balkan-Anatolian crested newt (*Triturus ivanbureschi* Arntzen & Wielstra, 2013). The Common fire salamander and the Smooth newt were regularly registered on the territory of the Nature Park “Shumensko plato” (Kovachev 1912, Stojanov *et al.* 2011). The Balkan-Anatolian crested newt (of course under the older scientific name) was reported for “Shumen” by Kovachev (1912).

Material and Methods

Since the late winter of 2014, we studied the distribution of caudates on the territory of the Nature Park “Shumensko Plato” (Figure 1a). The field surveys were performed in irregular intervals from 4 to 12 days from the end of February to the end of July (2014-2018) and from the beginning of September to the end of October (2014-2017). We provided direct observation and also used standard traps for newts (see Bock *et al.* 2009).

We mapped and inspected all water basins which we were able to find on the territory of the Park and specially concentrated our efforts on the investigation of two particular water basins indicated by us as “L_04” (N43.24888889; E26.89333333) and

“L_06” (N43.24888889; E26.89277778). These were the only water bodies which retained permanent aquatic volumes and did not dry out before the end of every spring. Both water basins are located in habitat of high conservation priority (European Directive 92/43/EEC), which may be classified as habitat type 41.2B Pannonic oak-hornbeam forests according to the Palearctic habitat classification of Moss & Davies (2002).

Results

During the field surveys, on the territories of the Natura Park “Shumensko Palto”, “Bukaka” Reserve and the Protected Site BG0000382 (Figure 1 a), we recorded the presence of eggs, larvae and adult specimens of the Smooth Newt and the Common Fire Salamander.

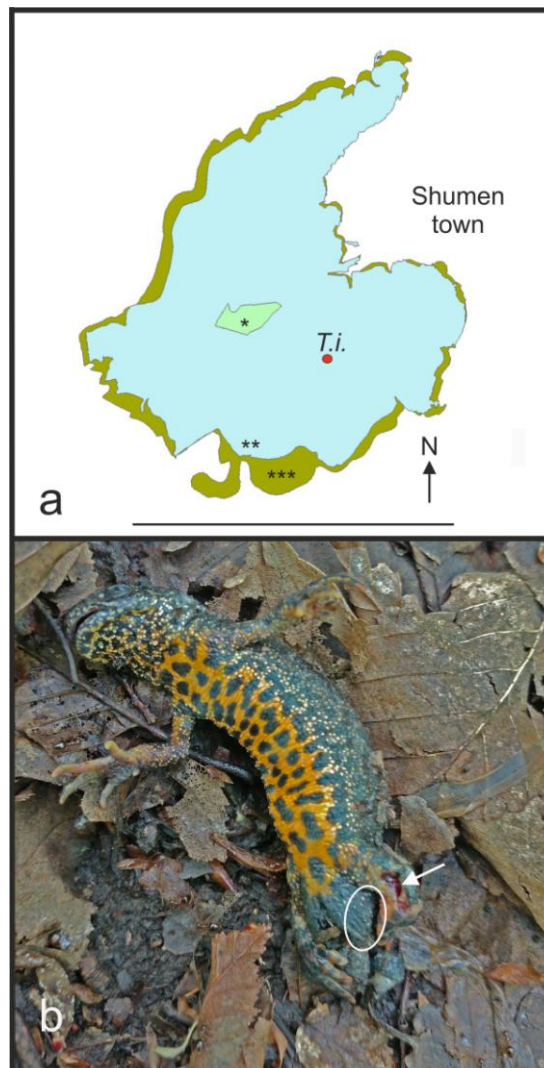


Fig. 1. Carcass of a male Balkan-Anatolian Crested Newt (*Triturus ivanbureschi*); a. map of the site where the body of the newt was found: *, indicates the territory of the “Bukaka” Reserve; **, indicates the territory of the Nature Park “Shumensko Plato”; ***, indicates the territory of Protected Site BG0000382; *T.i.*, position of the dead newt; scale bar 7 km (figure based on the data of the EEA at MoEW); b. photo of the dead male *T. ivanbureschi*: the white circle indicates the missing tail; the white arrow indicates the wound on the left hind leg.

The body of an adult male specimen of *T. ivanbureschi* (Figure 1b) was found on 12 May 2018 at 13.03 pm between the water bodies L_04 and L_06 (exact coordinates of the spot N43.24916667; E26.89305556). The newt was detected on the ground lying on its side in the close vicinity of three tree stems. The animal was probably freshly killed by a predator. The tail was missing and an open laceration of the skin and musculature was visible on the left hind limb (Figure 1b).

Discussion

The investigations on the amphibians in the region of Shumen are rather scarce (see Tzankov 2007, Stojanov 2012). Information on the presence of crested newts near the Nature Park “Shumensko Plato” was first provided by Kovachev (1912). That author indicated the presence of “*Triturus cristatus*” or “Large triton” (for discussion on the scientific name synonyms see Stojanov *et al.* 2011; Wielstra *et al.* 2014) at (or in) the town, as the only geographic landmark used was “Shumen”. There is no exact information whether the species was found on land or in water, or whether the species was found at the territory of the plateau, which is currently an object of environmental protection, or somewhere in the town. Vasilev *et al.* 2006 reported the presence of “*Triturus karelini*” in the region of Kabjuk Mogila (square MG 90). By more recent field surveys, the Balkan-Anatolian crested newt was not found on the territory of Protected Site BG0000382 and the Nature Park “Shumensko plato” (Tzankov 2007, Stojanov 2012). Concerning the status of *T. ivanbureschi*, in the Standard Data Form of the Protected Site 0000382 it is indicated as “Data Deficiency DD” (SDF 2015).

The lack of exact data concerning distribution and the ecology of the Balkan-Anatolian Crested Newt in the protected territories is limiting the effectiveness of the efforts for the protection of the species on a local level. According to the deductive model proposed by Popgeorgiev & Tzankov (2012), the spot where the newt was found is located on a territory which is classified as “suitable” for the species. The inductive models of Popgeorgiev & Tzankov (2012), provided after the field surveys in the protected site were performed, indicated that the dead specimen was located in the vicinity to spots with “optimal” conditions for the species. The connectivity between the populations in the protected site is indicated as “average” (Popgeorgiev & Tzankov 2012). In this context, our finding is demonstrating that the provided models are adequate and can be excellently fine-tuned in case more specimens can be found. According to Stojanov (2012), the conservation status and population dynamics in species with complex seasonal activity and cryptic way of life like *T. ivanbureschi*, may be rather challenging. Barely after an intense, regular and prolonged monitoring we were able to register the presence of the Balkan-Anatolian crested newt in the Protected Site BG0000382. This can be interpreted as an indication of the low density of the population of the Balkan-Anatolian Crested Newt in the region, but may be a result of the low encounter potential of the species. For further investigations, the capture of as many as possible specimens will be crucial for calculation of important ecological parameters like geographic distribution, habitat preferences, abundance, sex and age structure, mortality, level of different threats, etc.

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