

There are no translations available.

PROTEUS AFTER FLOODING: SHOULD WE SAVE THE ANIMALS OR LET THEM BE?

Gregor Aljančič & Magdalena Năpăruș

(Proceedings of the 19th International Karstological School “Classical Karst”: Karst underground protection, Postojna, Slovenia, p. 20)

Proteus anguinus (Amphibia: Urodela: Proteidae), an endemic dweller of the subterranean waters of the Dinaric karst, is restricted to its cave habitat. However, during seasonal flooding, some specimens get washed out of their subterranean environment. While this may be considered as a highly hazardous way for *Proteus* to disperse into new habitats, it is obvious that all these individuals present a constant loss to their population.

Seasonal flooding has probably been an important selective force in the evolution of *Proteus* behaviour. We presume that

Proteus

has developed several responses to reduce

the danger of being washed out of its subterranean habitat as well as to adapt its feeding and reproduction behaviour. Due to an extreme lifespan of

Proteus

(nearly 100 years in captivity) on one hand and long reproduction cycles (approx. every 8 years in captivity) on the other, loss of every individual has a considerable influence on the size of its population. Although this periodic loss has been well balanced through the evolution, a concern is raised when possible effects of climate change are considered: timing, frequency and magnitude of flood events are expected to be changed.

The Tular Cave Laboratory has extensively studied this phenomenon since 2008, and documented 14 cases in Slovenia. All animals were found by chance and reported by local people. Through this research we unexpectedly became involved in a rescue mission: six of

these animals were saved and returned to their source population.

In Slovenia, *Proteus* has been protected since 1922. So far it has not been adequately discussed how to deal with specimens being washed out onto surface after floods. According to the Slovenian present nature conservation legislation and practice, these animals should be left to their natural destiny (in most cases to dry out or being eaten by birds/fishes).

We suggest that all necessary actions should be taken to preserve these rare and highly endangered animals. It is the intention of this paper to present facts – for and against – saving these animals, and to raise a new discussion on this important but neglected phenomenon.

Keywords: *Proteus anguinus*, floods, conservation actions