

Abstract

The aim of this work is to contribute to the understanding of the activity and distribution of crayfish, particularly the spiny-cheek crayfish *Faxonius limosus*, at diving sites in the Czech Republic through field observations and the involvement of the diving community within the use of citizen science. Observations of crayfish activity were conducted at two popular diving sites, Lomeček and Barbora, where the diurnal and nocturnal activities of crayfish were monitored through scuba diving. The use of an underwater drone proved to be ineffective due to the low population density of crayfish and technical limitations.

Due to several unfavorable factors, only a limited amount of data was obtained. Nevertheless, the results of the monitoring showed that the activity of striped crayfish was significantly higher at night compared to daytime activity in all seasons, with the highest day and night activity recorded at Lomeček during the summer. Activity in autumn and spring at both monitored sites was likely associated with the mating season. High daytime activity was not observed during the winter period.

The diving community was involved in data collection through questionnaires, where they provided information on crayfish activity at individual sites. Although the response rate was low, it was possible to actively seek out information from available online sources and create a map of crayfish distribution at diving sites in the Czech Republic. Several sites with the presence of crayfish (noble and spiny-cheek crayfish) that are not covered by state nature protection were also documented.

The absence of the invasive signal crayfish at the sites is encouraging; however, consistent monitoring and education of the diving and fishing communities are necessary to prevent the further spread of invasive crayfish species and crayfish plague.

Key words:

spiny-cheek crayfish; daily activity; seasonality; citizen science; passive citizen science; crayfish distribution; scuba diving