



Fig. 1: Inguinal amplexus of *Pelobates fuscus* (LAURENTI, 1768) on a male *Bufo bufo* (LINNAEUS, 1758), observed on May 2016, in a fishpond named Broum near the village of Buková, Czech Republic.

Pelobates fuscus (LAURENTI, 1768),
amplexing male *Bufo bufo*
(LINNAEUS, 1758)

Anurans show a wide variety of mating behaviors including misguided sexual interactions such as male inter-specific amplexus (e.g., HÖBLE 2005). This latter phenomenon is seen if there is overlap in breeding phenology (see MOLLOV et al. 2010). Overall mating success depends on the local abundance of the individuals (ARAK 1983), and the capacity of males to recognize conspecific females (MARCO & LIZANA 2002). This can result in unproductive forms of amplexus as described in the literature (DÜRIGEN 1897; NÖLLERT & GÜNTHER 1996; MOLLOV et al. 2010; SIMOVIĆ et al. 2014).

Heterospecific amplexus between males is less often reported than between males and females (MOLLOV et al. 2010). In European anurans this phenomenon is known from variety of species, e.g., *Bufo bufo* (LINNAEUS, 1758) and *Pelophylax ridi-*

bundus (PALLAS, 1771); MOLLOV et al. 2010). Here the authors report the observation of an amplexus between *Pelobates fuscus* (LAURENTI, 1768) and *B. bufo*, synchronously breeding Middle European species and representatives of the anuran suborders Mesobatrachia and Neobatrachia, respectively, which differ in the posture taken during the amplexus.

On May 9, 2016, at 15:20 h (local time), a male *P. fuscus* was observed to engage in inguinal amplexus with a male *B. bufo* (Fig. 1). This incident occurred in a fishpond named Broum near the village of Buková, Czech Republic (49°19' N, 15° 27' E; 590 m a.s.l.). The strange pair was found floating near emergent vegetation in 0.5-0.75 m deep water. According to the authors' information, local populations are stable and large regarding to *B. bufo* and *Pelophylax lessonae* (CAMERANO, 1882), less numerous (dozens) in *P. fuscus* and small in other amphibian species.

Since the amplexus is inguinal in *P. fuscus* and axillar in *B. bufo* (ARNOLD &

OVENDEN 2002), the clasped Common Toad male may have failed to get rid of the male Spadefoot Toad due to mutual inability to correctly interpret (i) the meaning of the inguinal grasp by *Pelobates* (not interpretable by *Bufo*) and the toad's potentially uttered defensive vocalization (not interpretable by *Pelobates*).

ACKNOWLEDGMENTS: The authors are grateful to Tomáš Bukovský (Žďár nad Sázavou) for providing the photographic record. This work was supported by the Slovak Research and Development Agency under the contract no. APVV-15-0147.

REFERENCES: ARAK, A. (1983): Male-male competition and mate choice in anuran amphibians; pp. 181-120. In: BATESON, P. (Ed.): Mate choice. Cambridge (Cambridge University Press). ARNOLD, E. N. & OVENDEN, D. (2002): A field guide to the reptiles and amphibians of Britain and Europe. London (Collins), pp. 272. DÜRIGEN, B. (1897): Deutschlands Amphibien und Reptilien. Eine Beschreibung und Schilderung sämtlicher in Deutschland und den angrenzenden Gebieten vorkommenden Lurche und Kriechthiere. Magdeburg (Creutz'sche Verlagsbuchhandlung), pp. VIII, 676. HÖBLE, G. (2005): *Rana palustris* (Pickerel Frog) and *Ambystoma maculatum* (Spotted Salamander). Reproductive behaviour.- Herpetological Review, Salt Lake City; 36: 55-56. MARCO, A. & LIZANA, M. (2002): The absence of species and sex recognition during mate search by male common toads, *Bufo bufo*.- Ethology, Ecology and Evolution, Firenze; 14: 1-8. MOLLOV, I. A. & POPGEORGIEV, G. S. & NAUMOV, B. Y. & TZANKOV, N. D. & STOYANOV, A. Y. (2010): Cases of abnormal amplexus in anurans (Amphibia: Anura) from Bulgaria and Greece.- Biharean Biologist, Oradea; 4: 121-125. NÖLLERT, A. & GÜNTHER, R. (1996): Knoblauchkröte - *Pelobates fuscus fuscus* (LAURENTI,

1768), pp. 252-274. In: GÜNTHER, R. (Ed.): Die Amphibien und Reptilien Deutschlands. Jena, Stuttgart, Lübeck, Ulm (G. Fischer). SIMOVIĆ, A. & ANDERSON, N. & ANĐELKOVIĆ, M. & GVOZDENOVIĆ, S. & ĐORĐEVIĆ, S. (2014): Unusual amplexuses between anurans and caudates.- Herpetology Notes, Leiden; 7: 25-29.

KEY WORDS: Amphibia: Anura: Pelobatidae, Bufonidae; *Pelobates fuscus*, *Bufo bufo*, breeding ecology, behavior, mating, amplexus, mismatched pair

SUBMITTED: August 4, 2016

AUTHORS: Zdeněk MAČÁT (Corresponding author <zdenek.macat@gmail.com>) – Department of Ecology and Environmental Sciences, Palacký University in Olomouc, Šlechtitelů 27, 78371, Olomouc, Czech Republic; Daniel JABLONSKI – Department of Zoology, Comenius University in Bratislava, Mlynská dolina, Ilkovičova 6, 84215, Bratislava, Slovakia.