

Post-mortem amplexus with a marauded *Bufo bufo* (Linnaeus, 1758)

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Photos by the author

SHORT NOTE

During the monitoring of amphibian reproduction in Gandaras de Budiño e Ribeiras do Louro wetland (NW Spain), remains of several dead Common Toads, *Bufo bufo*, were found. These remains, described by AYRES & GARCIA (2007), were predated upon by otters (*Lutra lutra*). On January 18, 2008 one dead female Common Toad was found in shallow water, near the bank of a clay pit that the *B. bufo* use for oviposition. The body was partially consumed, mainly the hind limbs, which were skinned: the predator avoided eating the eggs that were clearly visible. This pattern of consumption, steering clear of toxic elements, was described as an adaptive behaviour by SLATER (2002).

The most interesting fact in this case was that the dead body had three males attached, all trying to grasp onto the remains of the female. We brought this aggregation to the shore to photograph it, which caused the males to leave the body and return to the water. But, as soon as the dead body



Bufo bufo in amplexus photographed on land.



The habitat where the observations on the post-mortem amplexus were made.

was returned to the water, two males again began to fight to get a grasp on the trunk of the dead female.

It seems that some kind of water-based chemical communication is involved in this behaviour, because the males lost their interest when the female was on the shore, but grasped the body of the female when it was returned to the water. On January 20, i.e. 48 hours later, there was still a male attached to the female remains floating in the clay pit. Evidence suggests that chemical cues can be important in the male choice of some amphibians (MARCO et al., 1998a; POSCHADEL et al., 2007). In some toads chemical cues are important for homing behaviour and orientation (TRACY & DOLE, 1969), and also for social communication (WALDMAN & BISHOP, 2004), but it is not clear if these play an important role in mating; I am interested in developing an experimental approach to evaluate such a hypothesis.

Interspecific mating attempts, or even mating attempts with inanimate objects, are well-known (e.g. EIBL-EIBESFELDT, 1950; DAVIES & HALLIDAY, 1979; READING, 1984;

LIZANA, 1990; MARCO et al., 1998b). In Central Spain *B. bufo* has been seen in amplexus with dead male or dead female Common Toads (LIZANA, 1990). The latter author cited episodes involving multiple males in an amplexus that caused drowning of females, and also *B. bufo* males clinging to *Rana perezi*, *Salamandra salamandra*, *Bufo calamita*, dead fish or even pieces of wood. Prolonged amplexus with non-conspecifics can cause the death of the animals clasped (LIZANA, 1990). It could be that such aberrant behaviour is caused by the lack of release calls from the mating pairs (MARCO & LIZANA, 2002).

In Galicia mixed mating pairs of *B. bufo* and *R. perezi* are found occasionally (Ayres, unpubl. data; Garcia-Ferreira, pers. comm.), and sometimes dead female toads are found presumed to be mating casualties, but this seems to be the first time that an amplexus with a female that has been marauded by otters is described.



Bufo bufo in amplexus in the water as described.

ACKNOWLEDGEMENTS

David Bird provided information about interspecific matings, Pablo Garcia helped with references about *B. bufo* behaviour, Francisco Javier Diego and Jens Poschadel gave me interesting advice about chemical communication.

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