

the shore in shallow water (ca. 5 cm deep), which was 27.8°C. Although many *B. boreas halophilus* larvae were observed that day (estimated at > 100,000 individuals) and other trips to the area have been conducted, this was the only event of cannibalism observed.

Because the prey was dead at the time of the observation, it is impossible to state that the observed feeding was cannibalism rather than scavenging. Other factors suggest active cannibalism, however. Besides being partially eaten, the observed prey item appeared normal (with no anatomical abnormalities or signs of disease, and it was similar in size to the predators). Additionally, desiccation seems unlikely at the observation location and water depth, and no other dead conspecifics were observed in the area. Taken together, this observation most likely indicates a cannibalistic event, rather than one of scavenging. The small aggregation of eight individuals cannibalizing a conspecific is quite similar to events described by Jordan et al. (2004, *op. cit.*) in *B. boreas boreas* tadpoles, but this is the first account of apparent cannibalism in larvae of *B. boreas halophilus*.

We thank Richard Block, Nancy McToldridge, Alan Varsik, Sheri Horiszny, James Traverse, and Patrick Martin of the Santa Barbara Zoological Gardens (SBZG) for helping develop a partnership between SBZG and the USDA Forest Service on *Bufo californicus* and *Rana draytonii* conservation efforts.

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BUFO BUFO (Common Toad). **FORAGING BEHAVIOR.** Two individual *Bufo bufo* recorded were observed climbing on Lamiaceae shrubs (genus *Rosmarinus*) in Falmouth (50°08'52"N, 05°04'45"W) Cornwall, United Kingdom. These individuals were observed actively foraging during the night (2217–2346 h) of 12 July 2006. Air temperature was 14°C. One individual was observed for more than 10 minutes moving on the top of the shrub; the other was observed while climbing. The common toad has largely been recognized as a terrestrial species, assembling in ponds and streams almost exclusively during the breeding season (Arnold 2002. Reptiles and Amphibians of Europe. Princeton Univ. Press, Princeton and Oxford. 288 pp.). This note provides the first record of *Bufo bufo* selecting shrubs as microhabitat to forage.

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BUFO BUFO (Common Toad). **DEPTH RECORD.** In temperate climates, several anuran species are known to spend the winter months hibernating underwater, often below a layer of ice (Emery et al. 1972. Copeia 1972:123–126; Matthews and Pope 1999. J. Herpetol. 33:615–624). Even during the activity season, some adult (Hutchison et al. 1976. Respirat. Physiol. 27:115–129) and larval



FIG. 1. *Bufo bufo* elevating its body off of the substrate in response to approach of submersible vehicle at 99 m depth in Loch Ness, Scotland, on 9 Sept 2005.

(Richmond et al. 1999. Herpetol. Rev. 30:90–91) frogs have been observed at depths of 3–8 m. Herein, we describe an observation of *Bufo bufo* at nearly 100 m depth in the Loch Ness of Scotland.

On 9 Sept 2005, at 1037 h local time, we were surveying the bottom of Urquhart Bay of Loch Ness, ca. 57°11'36"N, 4°35'36"W, ca. 250 m from the nearest shoreline. We were using a remote operating vehicle (ROV) with a mounted video camera. The surface air temperature was ca. 15°C, and the water temperature at the ROV depth (between 95–100 m) was 5.6°C. A toad was observed on the substrate, with its limbs splayed out slightly away from its body. The specimen was recorded on video for 78 sec, during which time it elevated its torso from the substrate (Fig. 1) and attempted to move away from the ROV. The toad's movements resembled lunges, but were very sluggish. The upper layers of sediment were disturbed with each of the toad's movements, indicating the loose substrate texture. Although the specimen was not collected, the species was inferred because it is the only bufonid known to occur in that part of Scotland (Gasc et al. 1997. Atlas of Amphibians and Reptiles in Europe. SEH and MNHN, Paris. 494 pp.).

The oligotrophic nature of the Loch Ness keeps oxygen saturation levels at around 80% and surface ice rarely forms during the winter months (Shine and Martin 1988. Scottish Nat. 100:111–199). In addition to a low metabolic rate inherent to the constant 5.6°C, the toad experienced pressures approaching 10 atm at 99 m. As such, its lungs would be completely deflated and the animal is negatively buoyant. We did not observe any swaying behaviors that would facilitate cutaneous respiration as have been documented in other species of anurans underwater (Hutchison et al., *op. cit.*).

We thank Gordon Ultsch and Richard Wassersug for discussing aspects of amphibian physiology with us, and the EIU herpetology group for their review of an earlier draft of this manuscript.

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