Frog uses different strategies to escape ground, air predators

April 15 2015

Frogs may flee from a ground predator and move towards an aerial predator, undercutting the flight path, according to a study using model predators published April 15, 2015 in the open-access journal *PLOS ONE* by Matthew Bulbert from Macquarie University, Australia and colleagues.

Escape from a predator is often the last line of defense for an organism. The authors of this study evaluated the effectiveness of different escape strategies of the ground-dwelling túngara frog from two types of predators, one approaching from the air and one from the ground. Researchers selected two disparate predators known to prey on calling túngara frogs. The aerial predator, modeled after a fringed-lipped bat, was deployed using a zip-line, which passed directly over the frog. The ground predator, a rubber snake modeled after a cat-eye snake, was pulled toward the calling frog along the ground. Both model predators were only deployed while males were actively calling.

Túngara frogs showed consistently distinct escape responses when attacked by ground versus aerial predators. The frogs fled away from the snake models. In stark contrast, the frogs moved toward the bat models, effectively undercutting the bat's flight path. The authors results reveal that prey escape direction reflect the type of predators' attacks. The authors suggest that this study emphasizes the flexibility of strategies used by prey to escape predators with diverse modes of attack.

More information: Bulbert MW, Page RA, Bernal XE (2015) Danger

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Comes from All Fronts: Predator-Dependent Escape Tactics of Túngara Frogs. *PLOS ONE* 10(4): e0120546. DOI: 10.1371/journal.pone.0120546

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