

# Vision stimulates courtship calls in the grey tree frog

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Male tree frogs like to 'see what they're getting' when they select females for mating, according to a new study by Dr. Michael Reichert from the University of Wisconsin-Milwaukee in the US. His work, which is one of the first to test the importance of vision on male mating behaviors in a nocturnal anuran (frog or toad), is published online in *Behavioral Ecology and Sociobiology*.

Animals display a number of courtship behaviors and are able to modulate these behaviors depending on the likelihood of mating. For example, displaying males may increase the expression of a costly courtship behavior when receptive females are nearby. Male anurans also exhibit unique behaviors when females are in close proximity, including courtship calls.

Reichert's work looks at the role of vision on the production of courtship calls in the grey [tree frog](#), *Hyla versicolor*. Frogs are highly sensitive to motion so visual cues are likely to stimulate the production of courtship calls.

Male and female frogs were captured from local ponds in Boone County, Missouri. The males were then split into two groups - one group could see the female at close range; the other group were separated from the female by an opaque screen. Reichert recorded and compared the [vocal behavior](#) - both number of courtship calls and their duration - of both groups of male [frogs](#).

He found that males were highly responsive to the [visual cues](#) from the female, and they altered their calling behavior to be more attractive to the female. Specifically, males were significantly more likely to give courtship calls when they were able to see an approaching female, and their calls were longer.

Reichert concludes: "In the noisy chorus environment, males can only attract females from a limited distance; thus, a strategy of monitoring the environment for female cues, and only producing the highest performance calls when females are present, should balance the costs of high performance calls while maximizing the likelihood of attracting a mate."

**More information:** Reichert MS (2012). Visual cues elicit courtship signals in a nocturnal anuran. *Behavioral Ecology and Sociobiology*; [DOI 10.1007/s00265-012-1446-9](#)

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