

Personality and sex explain learning ability in a lizard

March 12 2014, by Amy Macintyre



(Phys.org) —Researchers have discovered that the sex and personality of lizards can influence their learning ability, with males faring better than females in spatial learning, and bold or conversely shy personalities faring better than intermediate personalities.

"Animals, like humans, can be highly variable in their [learning ability](#)," said researcher Associate Professor Martin Whiting.

"They can also vary in their [personality](#) such that some individuals are shy while others are bold. These two elements of an animal's biology are thought to be linked, but this has rarely been tested."

A team of researchers in the Lizard Lab at Macquarie University measured spatial learning in male and female eastern water skinks – a lizard species common in suburban Sydney – while at the same time measuring their personality.

"The results were somewhat surprising. First, male lizards were better at spatial learning than females, likely because they spend more time moving through the landscape searching for females.

"Second, the best learners were the shy and bold individuals, while the intermediates performed the poorest."

The researchers pose a novel hypothesis to explain this result. Some male [lizards](#) defend territories (requiring boldness) while others adopt a sneaker strategy (consistent with being shy), and it may be that [spatial learning](#) ability is tied to these strategies.

The next instalment of their work will be a test of this new hypothesis.

More information: Pau Carazo, Daniel W. A. Noble, Dani Chandrasoma, and Martin J. Whiting. "Sex and boldness explain individual differences in spatial learning in a lizard." *Proc. R. Soc. B* May 7, 2014 281 1782 20133275; [DOI: 10.1098/rspb.2013.3275](https://doi.org/10.1098/rspb.2013.3275) 1471-2954

Provided by Macquarie University

Citation: Personality and sex explain learning ability in a lizard (2014, March 12) retrieved 24 April 2024 from <https://phys.org/news/2014-03-personality-sex-ability-lizard.html>

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