



ENVIRONMENT + SCIENCE & TECHNOLOGY

Published: Jan. 7, 2013

CAPTIVE HYENAS **OUTFOX** WILD RELATIVES

Contact(s): [Layne Cameron](#), [Sarah Benson-Amram](#), [Kay Holekamp](#)

When it comes to solving puzzles, animals in captivity are, well, different animals than their wild brethren.

Testing animals' ability to solve new problems has been historically conducted on animals in captivity. Only recently has a shift been made to run these tests on animals in their natural habitat. In a study appearing in *Animal Behaviour*, however, researchers at Michigan State University found vast differences in the problem solving skills between captive and wild spotted hyenas.

Applying lessons learned from captive animals is potentially problematic because they may not accurately portray how wild animals respond to novel challenges, said Sarah Benson-Amram, former MSU zoology graduate student and the study's lead author.

"We have to be careful when interpreting results from captive animals, as there may be extreme differences between how animals behave in captivity and in the wild," said Benson-Amram, who is now a research fellow at the University of St. Andrews (Scotland). "An animal that is successful at solving problems in the comfort of its cage may be unwilling to engage in similar problem-solving behavior in the wild."

Benson-Amram presented wild and captive spotted hyenas with the same novel problem – a steel puzzle box containing meat. Captive hyenas were significantly better at opening their boxed meals than their wild counterparts. The encaged mammals also were less afraid of the manmade puzzle, and they also were more creative, trying a variety of solutions.

"It doesn't appear that these differences result from captive hyenas having more time or energy," Benson-Amram said. "We conclude they were more successful because they were more willing to tackle the problem and were more exploratory."

Benson-Amram teamed up with Kay Holekamp, MSU zoologist and co-principal investigator at the BEACON Center for the Study of Evolution in Action, and Mary Weldele with the University of California Berkeley. The research was funded in part by the National Science Foundation.

###