

# Home is a safe haven for female deer

January 29 2015

---



To female black-tailed deer, their home turf provides a safe haven and a refuge against possible predation by pumas. Credit: Tavis Forrester

To female black-tailed deer, their home turf provides a safe haven and a refuge against possible predation by pumas. Does that venture into unchartered territory are four times more likely to fall prey to these cats. After tracking deer in California's coastal mountains, a team of researchers led by Tavis Forrester, then at the University of California Davis in the US, has proven that the old adage 'home sweet home' holds true for deer. The findings are published in Springer's journal *Behavioral*

*Ecology and Sociobiology.*

Animals familiar with the risks and resources of the [home](#) territories they frequent are believed to be better able to survive in the wild than those venturing into the unknown. Much of what is currently known about the advantages of such site familiarity comes from the study of birds. Forrester and his team therefore set out to study black-tailed [deer](#) (*Odocoileus hemionus columbianus*), an animal that generally stays within its small seasonal home range.

To investigate the specifics behind their movements in more detail, the researchers placed GPS collars on 57 female black-tailed deer living in the coastal mountains of California's Mendocino National Forest. The does were tracked for one to two years each over the course of the four-year study. In doing so, Forrester's team determined the animals' seasonal movements, their home ranges, their survival rates and the reasons why some animals died.

The researchers found that the does' home ranges were very small and averaged 0.74 square kilometers - about one-tenth the size of California's Disneyland. The animals tended to spend most of their time within core areas of only 0.08 square kilometers - the size of Buckingham Palace. According to Forrester, the ability to survive in such a small area shows that deer know where the best places are to feed and stay alive. It also means, in general, enough good quality forage is available locally.

Forrester's team found that deer seldom died of hunger, but were forced to forage in risky territory when food was sparse. The chances of this happening was up to 65 percent greater in winter, when good quality forage is not as readily available as in summer.

Does that ventured further afield were four times more likely to die than

those who stayed put. Being attacked by a puma (*Puma concolor*) was the No. 1 cause of death for deer in the Mendocino National Forest. More deaths occurred among yearlings and older does than among female deer in their prime.

"These findings help us understand the link between site familiarity and survival and thus how animals use space," says Forrester. "The importance of site specific knowledge is rarely considered when scientists think about predator-prey dynamics, but our findings show that familiarity with an area affects which individuals die and which ones live."

**More information:** *Behavioral Ecology and Sociobiology*,  
[link.springer.com/article/10.1 ... 07/s00265-014-1871-z](https://link.springer.com/article/10.1007/s00265-014-1871-z)

Provided by Springer

Citation: Home is a safe haven for female deer (2015, January 29) retrieved 2 May 2024 from <https://phys.org/news/2015-01-home-safe-haven-female-deer.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.