



## Even a quiet stroll can upset an ecosystem

**Hiking, bird-watching or a stroll** through the woods might seem like the most harmless of activities but, according to a new study, such gentle recreation could be doing more damage to protected conservation areas than previously realised.

**A new balance needs** to be struck between the need for human access and the struggle to protect delicate habitats, new research suggests. The research shows that public access to protected parkland can cause the number of native carnivores living in the area to decline severely. This, in turn, leads to an increase in the number of non-native and domestic species, including dogs and cats. This change at the top of the food chain disrupts ecosystems, making protected areas less effective at conserving biodiversity.

A team of researchers carried out surveys in 28 US national parks. They compared areas of land open to the public, land with restricted access and land where no public access at all was permitted. By collecting samples of animal droppings and carrying out genetic analysis on the samples to confirm which species they came from, the team were able to estimate the population of each species within each area.

The focus of the study was on three native species – coyotes, bobcats and grey foxes – and three non-native species – red foxes, domestic dogs and domestic cats. The effects were dramatic. The population density of coyotes and bobcats was more than five times lower in areas where public access and recreation were permitted, compared to conserved land out of bounds to the public.

Where public access was allowed, there was also a significant increase in non-native species such as domestic dogs. This introduction of a new predator can unsettle an ecosystem.

The researchers point out that outdoor recreation is important for human health, as well as for generating popular support for the public funding needed to conserve and maintain protected areas. But, with biodiversity being lost at an increasing rate, conservation measures need to evolve. The researchers suggest that a balance needs to be struck between allowing public access and protecting native species and ecosystems.

Demand for outdoor public spaces is forecast to grow, putting even more pressure on habitats. Even a small number of human visitors can have a disproportionately high impact on sensitive species. New, more rigorous conservation planning should monitor ecosystems and take into account the compatibility of human recreation with the types of animals that inhabit protected areas – rather than simply set aside fixed areas of land that have a high density of biodiversity for special protection.

**Source:** Reed, S.A. and Mereniender, A.M. (2008). Quiet, Nonconsumptive Recreation Reduces Protected Area Effectiveness. *Conservation Letters*. DOI: 10.1111/j.1755-263X.2008.00019.x.

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