

# **Welfare and conservation in captive canids: Analysis of enclosure use and general activity in socialised and unsocialised wolves (*Canis lupus*)**

**By Nadia Gunning**

## **Abstract**

Carnivores that naturally have a wide range in the wild are more vulnerable to welfare problems in captivity. Few studies have focused on enclosure utilisation in relation to improving the overall welfare of wolves in captivity. A useful way to understand and eventually develop the well-being of captive animals is to contrast different living and social conditions. In the present study, observations of three different wolf enclosures were carried out at two different locations. The enclosure utilisation and related general activity were used as welfare criteria in the three different packs of North American wolves (*Canis lupus*). Results show that the proportion of time resting was higher in large, comfortable enclosures. In each enclosure animals used only a part of the available space, the proportion being lower in large enclosures. With further research these results could be applied while planning enclosure design, resource allocation and reintroduction and captive breeding efforts for wolves and possibly other socially hierarchical species.