

The same type of forest is good for both birds and people

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Erik Heyman's studies are based on large-scale field experiments in five deciduous forest areas close to three mid-size cities in southwestern Sweden
Credit: University of Gothenburg

Birds and people both enjoy urban woodlands that have been cleared to just the right degree. This is the conclusion of scientists at the University of Gothenburg who have carried out large-scale field experiments in urban woodlands in south-western Sweden.

"Three out of four people want a mixture of open and untouched forest for rambling. At the same time, we can see that [birds](#) do well and continue to nest in woodlands where less than 50% has been cleared", says Erik Heyman of the Department of Plant and Environmental Sciences at the University of Gothenburg.

The natural environment close to [urban areas](#) is becoming evermore important as more people choose to live in cities. [Biological diversity](#) is relatively high in Swedish urban woodlands, while these areas are important also for recreation and outdoor activities. The woodlands must be managed correctly, in order to preserve their ecological and social values.

Erik Heyman's studies are based on large-scale [field experiments](#) in five deciduous forest areas close to three midsize cities in south-western Sweden: Alingsås, Borås and Skövde. Two different types of clearance were carried out: a 90% clearance of the understory, and a 50% clearance that was carried out in a grid pattern of squares of size approximately 50 x 50 m. The two types of clearance were carried out over an area of 3-5 hectares, and areas of corresponding size were left undisturbed in each forest area as control areas.

"The number of nesting birds fell in the areas of 90% clearance, while the 50% clearance did not have any detrimental effect on the number of birds. Predation by birds had a large effect on arthropods in the understory, and this means that an important food resource for insect-eating birds is removed when the understory is cleared."

The recreational value of the forest has also been investigated by Erik Heyman in two types of experiment. In the first, photographs of the cleared forests were shown to experimental subjects, who were then asked to assess them. In the second, cameras were given to subjects, who were then asked to photograph liked and disliked places along a rambling path through the woodlands.

"Analysis of the photographs showed that both open and dense forests were appreciated, while visible traces of humans impact such as litter and evidence of clearance activity were perceived negatively. Clearance of understory and small trees can increase the recreational value of the

woodlands but it should be carried out in small areas in order to create variation and avoid detrimental impact on birdlife. Forest management, permanent signposts, rubbish bins, benches, etc., should be designed to blend into the forest as far as possible.

Provided by University of Gothenburg

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