Ring-barking of Scots pine *Pinus sylvestris* trees to create standing deadwood on heathland at Great Ovens, Dorset, England

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SUMMARY

Two adjacent mature Scots pine *Pinus sylvestris* trees were ring-barked using a chainsaw. Five years later, both trees had died. One tree had blown over just above the ring-bark cuts, leaving a jagged stump 1.25 m high; the other tree had lost its crown, resulting in 10 m of standing deadwood. Saproxylic invertebrates had colonised and great spotted woodpeckers *Dendrocopus major* had used the taller ring-barked stump for nesting. This management method proved to be a low-cost and easy way to produce standing deadwood.

BACKGROUND

Dead wood is an important invertebrate habitat, and the saproxylic species associated with the decay of timber are very diverse and of exceptional value for conservation. Dead wood occurs in a wide variety of forms including standing dead wood (Kirby 1992) which is often an uncommon habitat.

One simple method available to site managers to create standing deadwood is to ring bark trees. Here we describe the results of ring barking by the RSPB Heathland Project as part of heathland restoration work by the RSPB Heathland Project at Great Ovens, Dorset, southern England.

Photo 1. Smaller stump in the foreground and taller stump missing crown, in the background.

ACTION

Locality: As part of heathland restoration work at Great Ovens (National Grid ref: SY 921908) in Dorset, southern England, approximately 60 ha of Scots pine *Pinus sylvestris* scrub and mature pine were cleared over a two year period (2000 - 2001).

Ring-barking: Within this area, a variety of mature trees were left, including several small clumps. On the south-east side of one such clump, two adjacent mature (40 cm diameter at breast height) Scots pine trees were ring-barked in an area where, at that time, there was no public access. The ring-barking is believed to have been conducted in November 2000, and the trees ring-barked using a chainsaw.

Photo 2. Detail of ring-barking showing recent invertebrate activity.

Two parallel cuts were made all the way round the diameter of the tree and to a depth well past the bark. The cuts were approximately 20 cm apart; the lower cut about 80 cm from the ground. The bark between the two cuts was then prised out. The other trees nearby provided some shelter to the ring-barked trees (prevailing winds being from the south-west) yet the standing wood was exposed to the south, ensuring that the south side of the trees was in direct sunlight.

CONSEQUENCES

The two ring-barked trees were re-visited approximately four and a half years later in July 2005. Both trees had clearly died. One tree had blown over just above the ring-bark cuts, leaving a torn jagged stump, about 1.25 m high. The other tree had lost its crown, leaving about 10 m of standing deadwood, with a number of side branches and a jagged, torn top (Photo 1). The taller tree contained two great spotted woodpecker *Dendrocopus major* nest holes and both stumps showed signs of considerable invertebrate activity.

There were a range of small holes , up to 5 mm in diameter (created by wood boring invertebrates) both recent and old, on all faces of both stumps (Photo 2). The only saproxylic invertebrate species seen was believed to be common wood wasp *Sirex juvencus*.

Conclusions: Ring-barking proved a low-cost, quick and easy method to produce standing dead wood. Within five years saproxylic invertebrates had colonised and great spotted woodpeckers had used the taller of the two ring-barked trees for nesting.

REFERENCES

Kirby P. (1992) *Habitat management for invertebrates: a practical handbook*. RSPB, Sandy, Bedfordshire, UK.