Tree and scrub clearance from lowland heathland at Great Ovens, Dorset, England

Liley D.
Footprint Ecology, Court House, Binnegar Lane, East Stoke, Wareham, Dorset BH20 6AJ, UK

SUMMARY

An area of about 13 ha of former open heathland in southern England was cleared of Scots pine *Pinus sylvestris*, maritime pine *P. pinaster* and birch *Betula spp.*; prior to management it contained 50-75% scrub and mature tree cover. Clearance was conducted using chainsaws; brash was burnt. Five years later, there was considerable evidence of pine regeneration (2,600 seedlings per ha). To maintain open heath, control of tree seedlings is required after tree clearance.

BACKGROUND

Encroachment of trees and scrub onto heathland areas poses a major problem for heathland managers. Without removal, tree species such as silver birch *Betula pendula* and Scots pine *Pinus sylvestris* can dominate and shade out the characteristic ericaceous dwarf shrub community, resulting in a loss of many of the species associated with open heath. Although desirable, removal of mature trees can be time consuming and controversial.

The success of pine cutting and removal by the RSPB Heathland Project on privately owned land at Great Ovens in Dorset, southern England, is documented here. The site is a component of the 660 ha Morden and Hyde Heaths Site of Special Scientific interest (SSSI) and part of the Dorset Heaths Special Areas of Conservation (SAC). The management work was carried out by the RSPB's Heathland Project as part of a wider programme of heathland management and restoration work conducted across the nationally important Dorset Heaths of southern England

ACTION

Scrub clearance: The site at Great Ovens (National Grid ref: SY 922907) totals approximately 32 ha, and most of the area (former open heathland) was cleared of pine *Pinus* and birch *Betula* scrub over the winter of 2000–2001. The areas cleared included dense areas of maritime pine *P. pinaster* and open heathland (both wet and dry) with invading dense self-sown scrub. The results of clearance from one part of the site (an area of dry heath) are described.

Scrub clearance on dry heath: The area of dry heath cleared, totalled about 13 ha and prior to management contained 50-75% scrub and mature trees, mostly of Scots pine *Pinus sylvestris*. Clearance was conducted using chainsaws, and the cut material burnt and chipped on site. The burning was conducted both by adding brash by hand and also using a tractor mounted grab. Most of the material was chipped using a wood chipper mounted on a standard agricultural tractor. A small number of mature trees were left, both within small clumps and single trees.

CONSEQUENCES

Tree regeneration: Five years later, in July 2005, there was considerable evidence of pine regeneration. The number of pine seedlings in ten 10 x 10 m plots, selected at random from open dry heath, was counted. None of the plots contained mature trees or were within 20 m of mature trees. All regeneration recorded in the plots is therefore assumed to have resulted from germination within the seed bank.

The number of seedlings (all less than five years old), per plot, ranged from 18 – 45, with a median of 26 (equating to 2,600 seedlings per ha).

Conclusions: The results of the monitoring suggests that to maintain an open heath and prevent succession back to scrub and woodland, control of tree seedlings is required after tree clearance.