



VERDERERS OF THE NEW FOREST

Fire and New Forest Heathlands



Every year the Verderers participate in discussions on the management of the heaths of the New Forest.

These discussions are held in Forestry England's Open Forest Advisory Committee with teams from Forestry England carrying out the agreed work. An important part of the committee's work is to agree the annual burning programme. Traditionally, heaths were burnt in winter to reduce the risk of uncontrolled summer wildfires and to improve the forage for livestock. In recent years there has been a growing awareness of the importance of a prescribed burning programme in sustaining the wildlife of the Forest and the ability of the Forest's habitats to capture carbon.



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The heathland landscapes of the New Forest are naturally flammable. Fire can be catastrophic to wildlife, particularly when it happens in summer and burns down into the soil. In contrast, prescribed winter fires can be beneficial to livestock, wildlife, and the landscape as they rejuvenate the habitats of many of the Forest's special species whilst freshening-up the forage of cattle and ponies.

The archaeological record shows us that fire has been a feature of the Forest's landscape since the end of the Ice Age, over ten thousand years ago. Charcoal layers preserved in the deep peats of Forest bogs illustrate conflagrations which once swept across the Forest. The deliberate burning of heathland has been a part of Forest management for well over a century. Today, prescribed winter burns are the result of detailed surveys, reviews, and informed debate. The wildlife of the Forest has evolved alongside this history with most species being able to cope with fire, many species benefiting from fire and a few rarities needing fire to complete their life cycles. Prescribed fires are a respected part of the annual cycle of Forest management. The expertise that has been developed in the Forest is now helping train heathland managers elsewhere in England.



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What fire does

Fire naturally disrupts ecological processes through which a few coarse species can grow to dominate a landscape. Tall flowering stands of heather are beautiful but they provide little food for the animals of the Forest and they are a relatively species-poor habitats when compared to younger vegetation. Similarly, there are some grasses which can grow to smother everything else without providing much nourishment for animals or space for other wildlife. Once burnt, the grasses and heathers are rejuvenated, their fresh growth providing excellent forage for wild animals and commoners' livestock. In a few weeks after a prescribed burn, there will be a flush of young blades of grass with buds breaking-out from the singed stems of heather and gorse.

Wildlife of open habitats thrive in the newly-made spaces between burnt heather bushes and tussocks of grass. In time these open spaces grow-over so that different communities of plants, animals and fungi will colonise the maturing heath. The Forest supports an unrivalled diversity of heathland wildlife because its heaths are managed in a traditional manner. These cycles of growth, fire and renewal are quite long when compared to our memories. A patch of heath may only be burnt two or three times over the course of a human lifetime, whilst some areas may never be burnt, particularly where grazing animals keep the vegetation short. In any one year, less than 3% of the heaths of the Forest may be burnt.



Carbon and heathland fires

Since the growth of our industrial economy, carbon gases which have been released into the atmosphere through the burning of fossil fuels. Atmospheric carbon is one of the drivers of climate change. The landscape of the New Forest is particularly effective in capturing carbon. In the old-growth woods there are stores of carbon held in the timber and roots of ancient trees. The carbon stores in heaths and bogs are less obvious as they are bound up in the soil. The plants of heaths and bogs capture carbon gases through their leaves, transforming them into solid compounds and depositing them as soil organic matter.

When a heath is burnt there is a release of carbon into the atmosphere. The rapid regrowth of grasses and heathers following a prescribed fire takes back that carbon and stores it in the soil, along with a fresh stock from that generation's growth. Over the centuries this carbon bank has grown to be several metres thick in the Forest's bogs, with heathland carbon deposits being shallower but supporting an equally impressive amount of carbon due to the scale of the habitat. The problem with summer wildfires is they can burn down into the soil, so releasing centuries of banked carbon.

Summer fires occur where there is a build-up of flammable material. This happens in stands of old gorse, tall heathers and rank grass. Under natural conditions, summer fires are rare but when they do happen they can be devastating. Today, most summer fires are associated with people, this is why there are restrictions on lighting fires and having barbeques in the Forest. Prescribed winter burns lessen the risk and severity of harmful summer fires by reducing the amount of flammable material on the Forest.

Clive Chatters
Natural England's Appointed Verderer
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