

Pigs in Conservation

Use of pigs in nature conservation is very understudied. The following text gives examples of what has been reported concerning the effects of pigs.

Foraging characteristics

1. Impact on vegetation structure

Rooting behaviour is the most obvious impact of pigs kept on an area of land. Depending on the stocking density, rooting can be beneficial or devastating. At low densities, pigs will dig some areas untouched. More intensive rooting resulting from higher stocking densities can be useful in forestry plantations for preparing the soil for planting or natural regeneration.

Rooting tends to be localised but not always predictable and is strongly dependant on pasture size, stocking density and biotic site parameters. Thus apart from areas with abundant acorns, nuts and berries which are usually favoured first, rooting may be determined by factors, such as whether the soil is soft or not, rather than as a result of any plant community which may be growing in an area.

Pigs love suitable wet, muddy patches for wallowing. Where readily available they will use existing puddles or damp depressions and enlarge them. In dry weather it is desirable to help pigs create a wallow or they will adapt the area around their water trough! Wallows are essential; pink-skinned breeds are easily sun burned.

Rooting may not only kill unwanted invasive species, but the bare ground created as a result may be suitable for colonisation by some preferred plant species and favoured by some invertebrates and reptiles.

2. Feeding preferences

Pigs are omnivores; they mainly consume roots, rhizomes and tubers as a result of rooting, although they will also take invertebrates and fungi, as well as grazing grass (pigs favour Couch-grass) and other vegetation. The impact of grazing is negligible in comparison to the rooting effect. They will pick berries (e.g. black berries) off bushes and root underneath bushes and trees for fallen fruits. Their impact on fungi is unknown although they are known to feed on truffles. Shore areas of ponds are also utilised for foraging if they are shallow and rich in food. (E.g. molluscs, rhizomes).

If plenty of varied food is available there may be no need for supplementary feeding. However, some supplements may be necessary for breeding pigs and feed can help to keep animal's more manageable. Some breeds can live on grass from May-September; dependent upon stocking rates and biomass produced.

Pigs readily take Bracken rhizomes in the autumn when other obvious food sources are finished. It seems that the various toxins and carcinogens in Bracken do not affect pigs as they do in other animals but thiamine deficiencies can be a real problem' other food should always be available to them.

Pigs have been used to break up thick litter layer left after clearance of Rhododendron. Rhododendrons can be toxic to some animals and not enough is known of the effects of the plant on pigs so care should be exercised and other food always available.

Control of Gaultheria, an introduced plant species, has been achieved in the New Forest by using pigs.

3. Impact on trees and shrubs

Leaves of some trees (fresh if in reach or fallen) are readily taken at certain times of the year. Bark stripping also occurs. Rooting and chewing on the roots as well May also damage trees and shrubs, particularly if there are only a few trees/shrubs on site.

Pigs may also use trees as rubbing posts; continual rubbing can damage tree bark and kill trees and shrubs. In native woodland, where pigs are confined to rooting in a small area the first to be rooted out are oak followed by hazel.

4. Social behaviour and its effect on foraging

In general, pigs are social animals and on large sites will usually be found in small groups. This heightens the localised impact of rooting. Favoured parts of the site will thus begin to show signs of rooting very quickly whilst other areas will take longer to show any impact. Boars need to be kept singly, but can be easier to handle than sows with piglets if treated gently.

5. Sex and dietary differences

Male pigs seem to root more deeply. Boars are less easy to handle so it is usually gilts (females that have not yet had piglets) and sows that have been used on conservation sites.

6. Impact of age on foraging

Older pigs show more pronounced rooting behaviour and are generally more effective at rooting in densely vegetated areas. Piglets start rooting at an age of approximately two weeks.

7. Dunging behaviour

Dung is not usually left in specific areas. However, if the animals receive supplementary food and if they have small huts, they probably concentrate dung deposition in 'favourite' areas. Also a tendency seems to emerge that the pigs 'prefer' to dung close to the fences. By moving feeding areas, one can exercise a limited control.

Different types of pig

Within the UK, pigs are largely kept for commercial production of meat. The majority of those kept are the domesticated pig (*Sus domesticus*) but there are a few producers rearing Wild boar (*Sus scrota*). Most commercial pigs kept are from a small number of breeds that have been selected for high reproductive rates, quick rearing and low fat levels on the carcass. Whilst increasing numbers of pigs are now reared outside or partly outside, these breeds are probably less suitable for use in conservation grazing than the traditional breeds.

Traditional British breeds of pig tend to be hardier, more suitable for feeding on a variety of food that they find for themselves and some are less prone to sun burn. They may also be more placid temperament. The traditional breeds are also more varied in their appearance and may be more interesting to look at. Older breeds have usually been developed under different commercial requirements to modern breeds. For example, fatty pigs were at one time preferred so these pigs usually have higher fat levels, which may account for their better hardiness. The disadvantage is that the carcasses tend to be less saleable. However, selling offspring not required for conservation work to a specialist meat-marketing Scheme (TBMMS), can help to overcome this issue.

A small number of animals are kept as pets and these are often pot-bellied Vietnamese pigs or sometimes the New Zealand Kune Kune. These are also a small number of 'Iron age pigs' kept for interest in museums and farm parks. These are usually a cross between a Wild Boar and a domestic pig (usually Tamworth).

Previously, Wild Boar occurred naturally in Britain and would carry out similar functions to a traditional breed of pigs on conservation sites. Wild boars are however much more difficult to handle and it is essential to have suitable areas to catch and handle them. There are a few animals loose in the wilder countryside in parts of Southern England and the numbers may rise with increased interest in farming them. The meat is very lean, quite different flavour to domestic pig and there is an expanding niche market for it.