

PIGS IN BRACKEN

A photo study of land management using pigs on the Dunlossit Estate, Isle of Islay by Chloe Randall



DUNLOSSIT ESTATE, ISLE OF ISLAY

PIGS IN BRACKEN **(no, this is not a recipe . . .)**¹

This is not a scientific report: it is a narrative, a (curly) tale. Our pig project started because Dunlossit Estate's owner, Bruno Schroder, wanted pigs; and so we felt we ought to give him pigs. He had apparently been saying for twenty years that "pigs are the best answer to managing the woodland" and everyone had laughed. I checked my job description and found that laughing was specifically excluded, so we imported traditional breeds of pig from Dorset – all the way to Islay, not the easiest of journeys for them (which is why later imports were flown in whenever possible).

We had some marvellous effects in the woodland, and started to breed our own to keep the work rolling (it is very difficult to get replacements on a non-pig island). By chance, we put a young boar (future stud) in a convenient corner of moorland to grow to the months of maturity with four male companions (future pork). On a routine visit, we suddenly noticed that – given a wide choice of ground – they had selected and thoroughly trashed a knoll of bracken. And had ignored everything else.



Where it all started

Keen to explore this phenomenon further, I commandeered a recently fenced but otherwise unwanted piece of ground bordering a loch as a pig laboratory.

¹ . . . although that's not a bad idea! If you can cook lamb in hay, surely pork in bracken??



The pig laboratory

The ground had everything: a scrubby gorge; heather moorland; dense bracken slopes, grassy terraces; boggy peat, gorse thickets, rushy wetland. This area (about 3.75 hectares) has been systematically pigged for five years now, with greater and lesser densities of pig; older and younger animals, and – obviously – at different seasons of the year.

Simultaneously, pigs were deployed on a shorter-term basis to areas other than forest where bracken was a problem. These included:

- A a field coming out of rape and due to be reseeded; featuring unploughable bracken slopes
- B recently coppiced hazel woodland where bracken had taken advantage of the sudden access of daylight
- C heather moorland interspersed with bracken (electric fenced for the pig purpose – but with little success!)
- D a large coastal “woodland” compartment featuring extensive bracken-infested open ground, and bracken within a tree-lined gorge

The results have been fascinating and inconsistent – although generally good. The pigs never do quite what you expect, but when you stop to think about it, they have achieved exactly what you wanted. My unscientific observations (supported by photographs) are as follows:

A) A field coming out of rape and due to be reseeded; featuring unploughable bracken slopes

The pigs ignored the rape roots entirely and trashed the bracken bank very thoroughly, reducing the bank to bare brown soil. Three years later, the bracken regrowth is noticeably weaker than in neighbouring fields. Unfortunately we cannot return the pigs for fear of the re-seed suffering (although why should it? but can we afford to risk it?) but even without further work, we have increased the grass content in the field for the benefit of the sheep



Above: the bracken bank in the field, showing pig preferences very clearly



Left: the same field from another angle, confirming that the bracken is the forage of choice

B) Recently coppiced hazel woodland where bracken had taken advantage of the sudden access of daylight

Again the pigs stripped back the undergrowth to the brown soil; and two years later there is dramatically reduced bracken presence within the area. Presumably this was more recently established bracken (following the coppicing) and thus easier to dislodge than in the rape field



The fenceline between the coppiced compartment and the unpigged area clearly revealing the impact of the pigs' work



A section of the coppiced compartment, showing the absence of bracken on the slopes

C) Heather moorland interspersed with bracken (electric fenced for the pig purpose – but with little success!)

the pigs appeared to ignore the heather in favour of the bracken – although we did find a nest built of heather (resembling a pig-sized hill fort), we have some reason to think this was heather which had died due to heather beetle and was thus easy material to gather; elsewhere pigs use rushes and (more rarely) docks for their architectural works. Where the bracken has been removed, there is evidence of regenerating heather; also self-seeded tree regeneration (conifers and hardwood, standing proud in bare soil, unmolested by pigs)



Above: Pigs on moorland – the dense bracken pasture is in the background
Below: Bracken moorland after pig treatment





A large Middle White pig firmly repudiating accusations of eating heather



The same pig admitting to a little bit of damage associated with wallowing



Above: pig nest made from dead heather – actually in the pig laboratory
Below: not the same location, but an illustration of pigs ignoring young trees – these are planted – during their weeding activities



D) a large coastal “woodland” compartment featuring extensive bracken infested open ground, and bracken within a tree-lined gorge

probably because it was winter, the primary pig effort was contained in the gorge, where already-senescent bracken was thrown far and wide. The bracken plateau was attacked, but only when feeding was distributed there, and the seaweed on the beach proved of greater allure. Careful searching reveals self-seeded birch and rowan in the plateau area, but whether it has enough bracken-free space to become established is not yet clear. Better containment is needed before the pigs can be returned – at one stage they went AWOL for forty-eight hours and apparently wandered a mile or so down the coast before returning (a traumatic time, of course, but the absence of twenty-four pigs is really rather less worrying than the absence of one)

Right: A camera shy pig at work in a wintry bracken-infested gorge – they enjoyed the shelter while they worked



Below: the same gorge later in the winter showing pig effects





One of the pig team at work, far too appealing to leave out



But the seaweed on the beach proved to be a tempting diversion



Rowan regeneration amongst once-pigged bracken on the plateau

And in the pig laboratory? A permanent state of change appears to have been achieved. There is strong evidence that the bracken is receding in favour of grass and heather; the scrub is extending beyond the gorge; a variety of plants are still present on the grassy plateaux (although I am not enough of a botanist to know if we have lost anything valuable, or are being fooled by a pleasing variety of unwelcome dominant weeds). Frankly, I am thrilled with the results and jealously proud of the pigs' achievements.



Clear evidence of bracken destruction



The fenceline shows the demarcation between pig-worked ground and sheep-grazed field



....and if you couldn't make it out in the last picture, this is the difference at the end of the winter. On the left, the dead bracken is smothering the grass, harbouring tick and doing nothing constructive; on the right, the soil is waiting to burst into spring action with plants other than bracken.



Heather growing in the space created by the destruction of bracken and the opening of the mat



Self-seeded conifer unaffected by the passing of pigs



willow
flourishing
with pig
weeding and
– if you look
carefully –
fertilising



mature scrub is largely undamaged; new growth is surviving; spring flowers are unaffected



Pig land manager patrolling an area containing quite a lot that is not bracken

The next step is to loose a substantial herd of pigs on the hill, to prove that what has happened in the pig laboratory can be replicated on a much larger scale to make a real impact on bracken infestation on open moorland. We are currently awaiting a comment from the Scottish Executive as to whether they think this is consistent with our Moorland Management Plan (it is, of course) and whether it needs an Environmental Impact Assessment.



The future: wilderness pigs. These are three Middle Whites (generally considered one of the “softer” traditional breeds) careering through a moorland compartment where they have been seeking out bracken)

Our conclusions to date are:

- pigs prefer rooting amongst bracken to any other vegetation we can offer
- the effect is long term and marked differences can be discerned up to four years later (possibly more, we don't know yet)
- pig work is successful because it does not just kill bracken, it fundamentally changes the ecological balance of the area by:
 - pressurising an otherwise untroubled species
 - breaking through the mat left by generations of bracken
- don't be fooled by comments about specific breeds: any pig will root for joy, as long as it is not fed to the point where it is too fat to move (a common and foolish error)
- the pig tool is powerful, but – like all craftsmen's tools – it requires careful handling. You need to be skilled and sensible in the use of pigs, although the

skill is not difficult to acquire (every cottager had a pig at one time) and the sense requires a relatively short period of thoughtful reflection

Some frequently asked questions:

Q: *What stocking density do I need?*

A: *If it is a small piece of ground, you have too many pigs; if it is a large piece, too few.*

Q: *Why aren't you using wild boar?*

A: *Why aren't you using pigs?*

Q: *Is pig management a miracle cure for bracken problems?*

A: *It is hard work, but fascinating, addictive and provides wonderful pork.*

Q: *What about the "toxic effect" of bracken?*

A: *We have researched this as extensively as we can, and cannot find any evidence that bracken roots in the quantities ingested by pigs are any cause for concern. Please will someone let me know if I have missed something . . . before it is too late?*

Q: *What about the welfare of the pigs?*

A: *A diet of nothing but bracken can lead to thiamine deficiency (the first sign of which is sudden death – we are still waiting to find out what the second sign is). But effective pig management demands feeding a third to half of their diet in pig nuts, so it should not be a problem – if all pigs get equal shares. Obviously there are certain considerations to be given to the roughness of the ground and protection from tick, but these problems also apply to cattle and sheep and solutions are out there*

Q: *What are the biggest problems arising from the use of pigs?*

A: *1) finding pigs
2) containing pigs where you want them to be
3) disposing of pigs (not the actual eating, but getting them to slaughter, and saying "goodbye")*

For further information:

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