

## NATIVE WOODLANDS DISCUSSION GROUP - FIELD VISIT April 2009

A brief history of *Rhododendron ponticum* at **Doire Donn** Wildlife Reserve, Conaglen Estate, Ardgour – and the **Lever & Mulch** method of eradicating it.

**1992:** All exotic species on the reserve were surveyed for SWT by D Kennedy. *R. ponticum* distribution mapped. Approx 15 ha affected (<0.5ha dense cover, mainly semi-mature plants).

**1993:** Estate owner very reluctant for SWT to remove *Rhododendron*, but compromise agreed - scattered plants spreading through woodland north of the road could be reduced.

**1994-2000:** Very little work done. Occasional 1-day training-team visit. Seedlings & some small plants uprooted. A few larger plants uprooted with Tirfor hand winch. A few others cut down with hand saws, but no follow-up (no herbicides used). Meanwhile, estate (factors) agreed that *R. ponticum* could be more widely attacked across the reserve by SWT, if resources allowed.

**2001 & 2002:** Gordon French arrives! 6 week contract with SWT as Seasonal Butterfly Surveyor. Worked on *Rhododendrons* when weather too poor for butterfly monitoring. Began by uprooting satellite plants (mainly seedlings and small plants) across the entire site, narrowing the infestation down to leave only the main, most dense, mature stands. Discovered that he could dismantle some bigger individual plants surprisingly easily (using only a bow saw when required) and either uproot entire stems (with root connections) or lever them off their root systems with all or most of their root-collars (and therefore bud-bearing material) intact. Any stumps left with buds were mulched with immediately-local material (leaf litter, etc.) and their own brash. This appeared to finish-off the majority of them. Highly efficient. Effective. 'Green'.

**2003:** Ground covered in previous years was gone over again to remove new recruits and any missed plants. Most stumps were dead, but any shoots that had managed to push through the brash mulches from surviving stumps were broken off. This proved easy, quick, efficient and (mainly) effective, but has now been improved upon (see later). The biggest problem was the number of new seedlings emerging, especially in the ravine at the SW corner of the reserve (where mature plants remained untreated just outside the boundary) and along the roadsides.

Some 60% of the dense stands remaining were tackled this year, in the same way. Only some of the biggest stems couldn't be levered out (or off their root bases) and were cut down at ground level. These were heavily mulched, where possible. There was no stopping the man now!



**Before:** "I'll just turn all these upside down, like this...!"

**After:** The same spot, next winter

The site was visited by Colin Edwards (& others) in autumn 2003 and the method demonstrated for the first time – in the hope that it might be included in the (at the time) forthcoming Practice Guide, and in a planned comparative evaluation trial of different methods.

**2004:** All remaining mature patches dealt with. Many stems again too big to uproot and were cut down. **Note** that the method as now developed reduces the need for this (see later). Some were left unmulched to allow easier access for follow-up work (also now a more frequent tactic).

**2005:** Follow-up work on cut stumps was trivial. Seedlings were again the biggest problem. Most time this year was spent removing as many as possible, plus one 'extra' stand of about 150m<sup>2</sup> (just outside the reserve boundary beyond the SW ravine) was taken out, to reduce seed ingress from this major source.

**No further follow-up work has been undertaken on this site since a brief visit in autumn 2005. It is now somewhat urgently required – and we will be demonstrating this part of the technique on the NWDG visit.**

In **2004**, the Lever & Mulch method was used for the first time under a specific contract - to remove *R. ponticum* from some 2ha of **Achnaha Community Wood**, in Morvern. The wood, owned by FCS, is managed under agreement by Morvern Community Woodlands Company. Funding for this (and other work in the wood) was provided through the Morvern Woodlands Project – a project of the Sunart Oakwoods Initiative (part-funded by EAGAFF). Annual follow-up sessions were undertaken over the next three years, after which time the plant had been (all-but) eradicated. This took some 200 man-hours (almost entirely done by GF) and cost **£3,500/ha all-in** (including all follow-up work).

In March **2006**, with a colleague in SWT, DK & GF ran a 1-day promotional workshop/ 'training course' at **Rowardennen**, by Loch Lomond. This included a preliminary day in which we cleared a few hundred sq m of dense material. Later in **2006** GF & DK began work on scattered small dense stands (amounting to perhaps 2ha) on knolls and crags (and a small island) amongst upland oak/birch woodland in a remote PAWS site on FCS land near **Barr** in NW Morvern (part of the Sunart SAC). **Tree-surgeons' pull saws** (one for stems & another for roots) were trialled here for the first time – proving to be *perfect* for the job. **Crowbars** were also trialled (for some extra leverage), but were a pain in the ass. They were rarely of benefit, couldn't easily be carried (on person), were often 'lost' & had always to be retrieved from where they were left (usually over rough ground & brash piles, etc) when wanted. Many thousands of plants in much younger stands were more widespread across this site and individual bushes (of all sizes & ages, including seedlings) were scattered even more widely - across some 20 ha. Some conifer stands adjacent to mature Rhododendron (on crags) had been felled some years before the *R ponticum* was tackled – leaving at least one hectare of highly receptive ground that quickly became colonised by a dense cover of Rhododendron seedlings/saplings. Another new tool was introduced here in **2008** – the humble **hammer**. This proved ideal to snap the roots of small plants before uprooting them (with minimal disturbance to other vegetation) AND for **destroying all buds** on root collars (of any cut or snapped stems) in **follow-up work**. It has now become THE tool for follow-up operations. [*Note: in 2009 we began to make even more use of the hammer – finding it excellent in initial operations as well - clearing soil etc. around stem bases, breaking roots, damaging root-collars, etc.*] The last big plants on crags at Barr have finally been destroyed this year (**2009**) - via **roped access** - and follow-up operations have now covered the whole site, including the ex-spruce stands. This was rapidly becoming a very serious infestation across an important site, but it is now completely under control. The method has proved to be absolutely ideal for **big &/or remote sites** - since every tool can be easily carried (on one's person – leaving hands free) at all times, and all shapes and sizes of plants or stands (except on cliffs!), can be killed outright whenever they are encountered. You 'survey' and kill plants on the same visit.

In winter **06/ 07**, work began on one 'half' of **Fiunary** wood – another FCS-owned mixed ex-'policy' wood (also PAWS), in Morvern – with some 2.5ha dominated by dense, mature (often **massive**), Rhododendron. Many fallen trees, old fences, previously-cut (but not killed) plants – all produced extra difficulties here. With Achnaha, this site was used (in **spring 2007**) to demonstrate the method and provide 'training' under the "Local Biodiversity Action Plans & Community Woodlands Programme", administered by CWA. **Chainsaw use** (as part of the technique) was also trialled here, on some of the biggest plants and stems. However, since most dismantling cuts are *highly strategic* and the saw so fast and relatively large & unwieldy (compared to the pullsaws) it was always extremely difficult to avoid 'over-cutting', or cutting stems in the wrong place - thereby failing to create ideal levers - whenever the saw was running. As for crowbars, similar hassles of retrieval when wanted (compounded by protective-gear, fuel & toolkit requirements) reduced their effectiveness & efficiency. Although not entirely rejected (they can be good under *some* circumstances – and perhaps small modern cordless machines could be trialled), they have so far not proved to be worth the extra effort & hassle to use them widely as a Lever & Mulch tool. On large &/or remote sites, or sites with widespread scattered plants (any size)... just leave them at home!

Also in **spring 2007**, with a tree-surgeon colleague (who used the cut & stump herbicide method), DK trialled Lever & Mulch techniques (without the mulch!) from ropes and harness - on an infestation on the cliffs of a ravine in Ardtornish estate. Many stumps had survived previous (cut/ herbicide) treatment in parts of this ravine, but plants that were completely levered out have no chance of survival. This was undoubtedly effective, although more disruptive to the cliff face & probably somewhat more dangerous.

In **summer 2008**, DK undertook a comprehensive survey of *R ponticum* for the Sunart Oakwoods Initiative – covering all Ardgour, Morvern, Sunart & Ardnamurchan and Moidart. Of 69 sites where control work had been established, Achnaha Wood proved to have been one of the (if not the) most thoroughly treated of all - and quite possibly the *only* one where Rhododendron could be claimed to have been eradicated. Hopefully, the survey report & maps will be available from FCS Lochaber (Torlundy) and the SOI website?... still need to arrange this!

In **2008/ 2009**, the second 'half' of **Fiunary** wood was selected as the '**demonstration hectare**' to which the method has now been applied, and a **Forest Research/ Technical Development Branch** study undertaken - as part of the 'Communities Project for Highland Biodiversity'. This project is one of 24 being undertaken in Highland with assistance from the Highland Biodiversity Partnership. It is supported by the National Lottery through the Heritage Lottery Fund, and receives match funding from Highland Council, Scottish Natural Heritage, Highlands & Islands Enterprise and RSPB Scotland. The research study report is now completed and is shortly to be published (as **Internal Project Information Note 27/08**). It will be available from the FC website and, **with a follow-up study by GF & DK**, on the MCW website [www.morverncommunitywoodlands.org.uk](http://www.morverncommunitywoodlands.org.uk) . *Colin E will come to this NWDG Doire Donn visit, with all the facts at his fingertips.*

A 2-day training course and series of workshops have been included in this project – the last of which is on **14<sup>th</sup> May 2009**, at Achnaha and Fiunary. If you're still skeptical about the method after visiting Doire Donn, then Contact DK (01967 421203, [organictrees@tiscali.co.uk](mailto:organictrees@tiscali.co.uk) ) – or visit the MCW website for further info & to **book your place**. Fiunary is the first site to have received the technique as now fully developed – and is the most impressive in many ways. Don't miss it!

Donald Kennedy  
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