

### **About Corrour**

Our family is a newcomer to the Highlands. We bought Corrour in 1995 from Donald Maxwell MacDonald. Corrour is 23,000 hectares (57,000 acres) of hill, moor, forest and lochs, with no public roads, centered on Loch Ossian. It has a perimeter of 86 kilometres (54 miles). Most of Corrour is above 300 metres (984 feet) and more than a quarter is above 600 metres (1,968 feet). We have six munros, or hills above 936 metres (3,070 feet). The highest point is Beinn Eibhinn at 1,102 metres (3,615 feet).

We have built and now operate three hydro schemes (Creagaich, 100 kilowatts; Uisge Labhair, 1.2 megawatts; and Chamabhreach, 1.15 megawatts). We are presently building a fourth (Ghulbinn, 2.8 megawatts).

We do not farm in hand, and we have no crofters or tenants. Corrour is our family holiday home, as well as a medium-sized forestry and tourism business. We grow timber, let stalking, rent out cottages and the lodge, and run the station restaurant. Nine people work full-time at Corrour: an estate manager; three stalkers; a forester; a housekeeper; a handyman and butcher; and a couple who manage the lodge. An administrator for our holiday lets, an accountant, and an accounts assistant work part-time. We also employ seasonal team members on the hill, in our forests, in the lodge and in the station restaurant, and we are grateful for the help of volunteers, such as those from the Scottish Rhododendron Society.

Corrour is ecologically important. For example, we have red squirrel, pine marten, otter and water vole. There have been recent sightings of wild boar. Raptors seen at Corrour include golden eagle, peregrine falcon, hen harrier, buzzard, osprey, kestrel and merlin. Loch Ossian is a Site of Special Scientific Interest for its black-throated divers; the rare dwarf birch (*Betula nana*) is abundant; and there is a nationally important colony of small cow wheat (*Melampyrum sylvaticum*).

The diverse woodland by Loch Ossian was established from the 1890s on by Sir John Stirling Maxwell, who bought Corrour in 1891, when he was 24 years old. Maxwell was one of the founding Forestry Commissioners. At Corrour he experimented with planting methods and tree species to reforest Britain's uplands.

### **History**

In 2007 Dick Balharry, then Chair of the John Muir Trust, helped us draw up a management plan that focused on whole habitats and on allowing natural processes to take place. We made a baseline assessment of habitats, and have regularly measured progress since then.

Our stalkers stopped killing meso-predators (or 'vermin'), such as foxes, crows and stoats. We began reducing deer numbers, and to leave some carcasses on the hills for

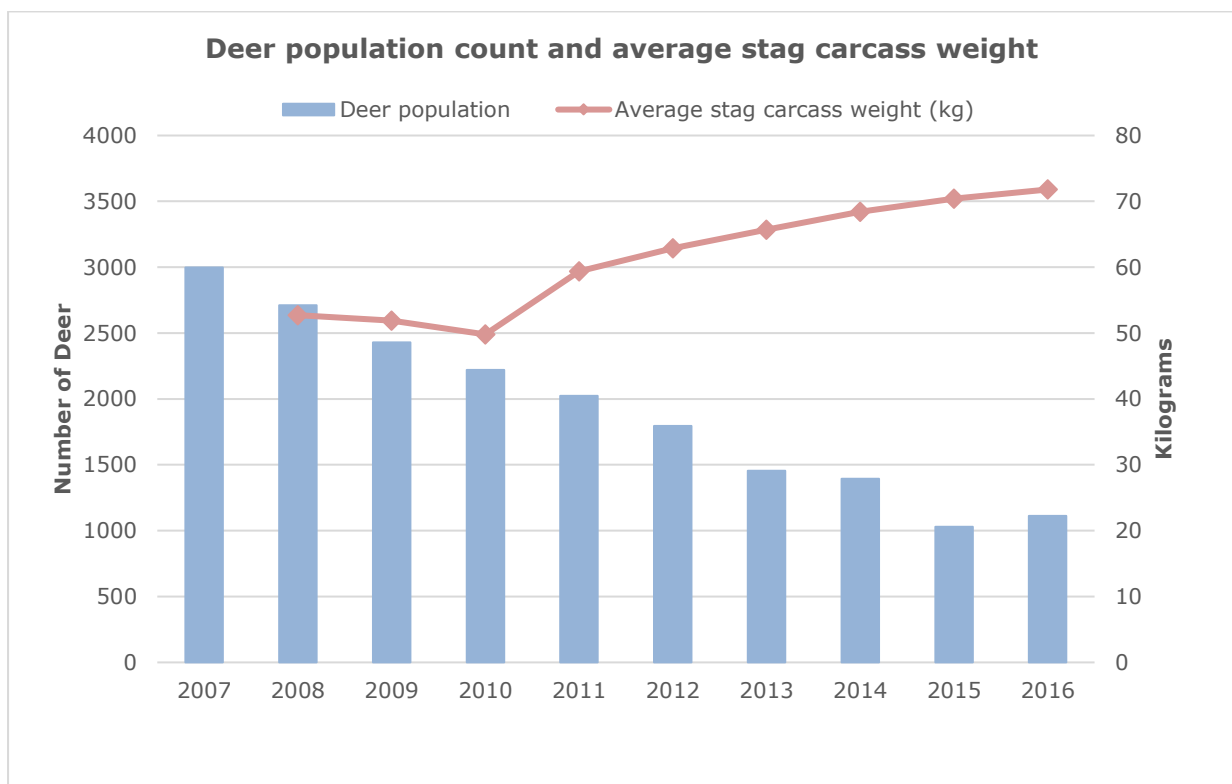
the eagles, ravens and pine martens. We put in Argo tracks, so we drive less over fragile moor. In 2006 we removed a neighbor's flock of 350 ewes (with lambs). But today this local farmer runs his beef cattle through Corrour each summer, echoing past transhumance.

### Progress

Our work is guided by habitat response. We now have nine years of data since our baseline assessment. We use Scottish Natural Heritage's best practice guidance to measure the impact of deer on the habitat: having selected random plots in each habitat area as the baseline, we take measurements from these same plots annually.

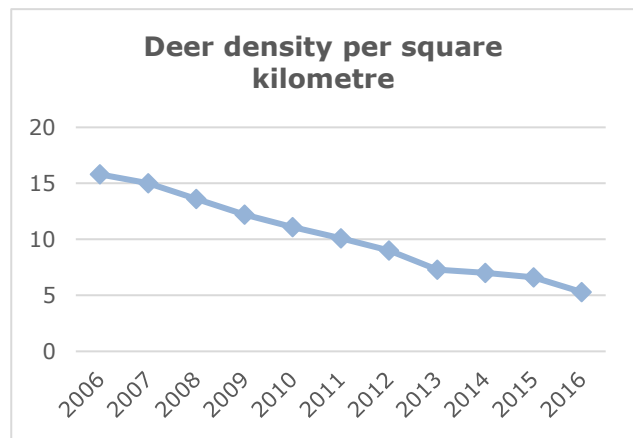
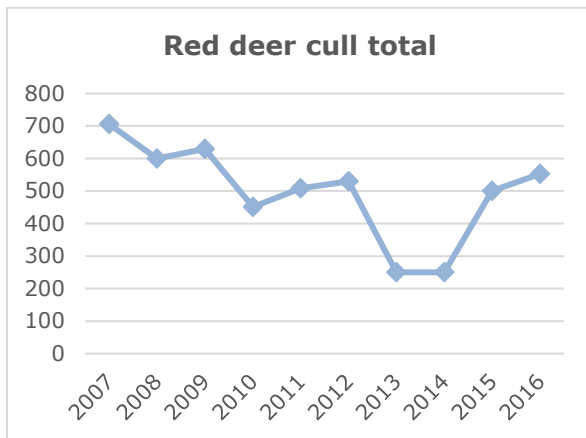
In 2006, Corrour deer numbers were 15.8 per square kilometre. By 2016, ten years later, we had reduced them to 5.3. Corrour today has c. 1,000 deer, versus c. 3,000 deer in 2007. Our stalkers tell us our calf mortality rates and winter mortality rates are lower. We cannot quantify that. But it tallies with how our antlers and heads are better, and how Corrour stags' average dressed carcass weight has increased from 52.7kg (116 pounds) in 2008 to 71.8kg (158 pounds) in 2016.

We still have a way to go. In south-west Norway, which has the same geology, rainfall, and climate as the Scottish Highlands, the average red deer stag dressed carcass weight is more than 90kg (198 pounds). And in Norway, dressed carcasses are weighed without skin, which adds 8 to 10kg (18 to 22 pounds) to Scottish weights.

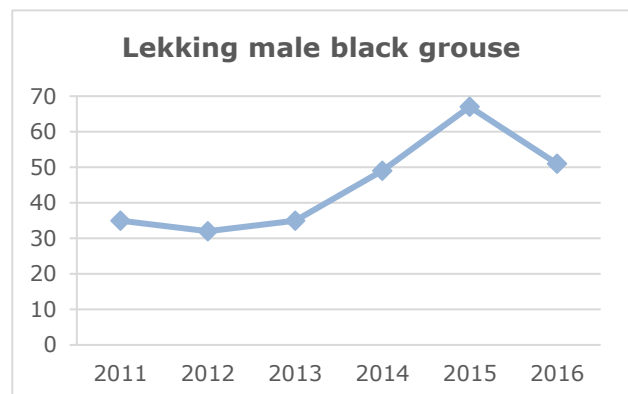
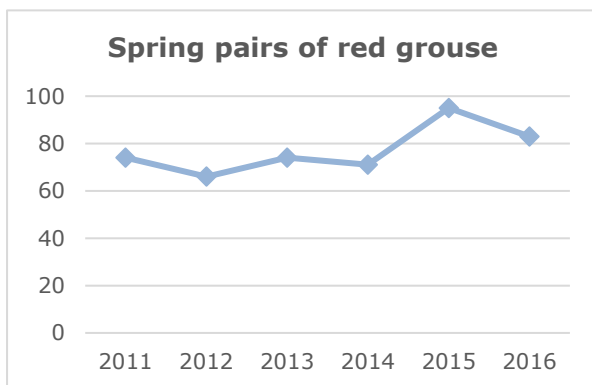


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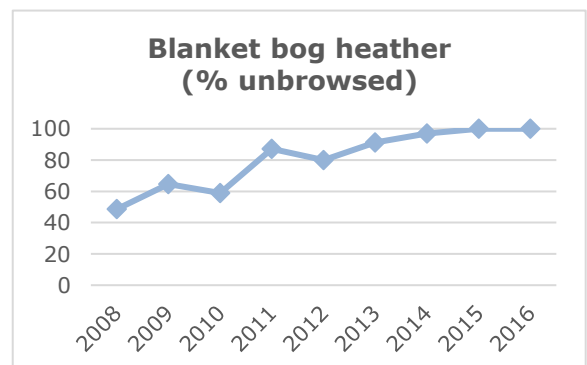
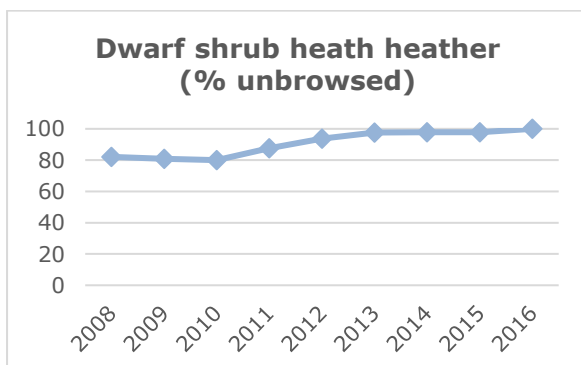
## ESTATE HISTORY, PROGRESS AND PLANS



Corrour's spring pairs of red grouse rose from 74 in 2011 to 83 in 2016, across 12 square-kilometre count sites. Lekking male black grouse increased from 35 to 51.

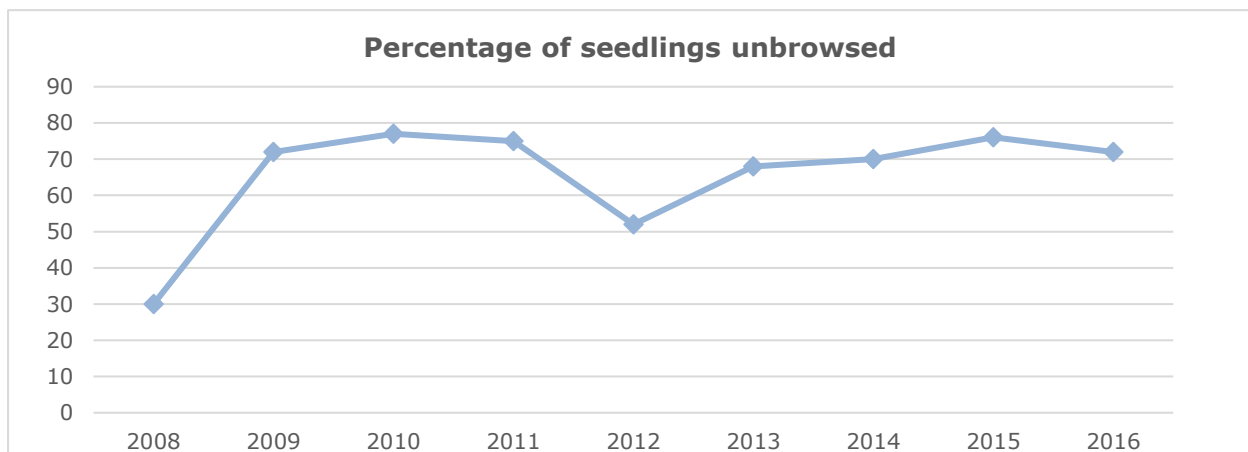
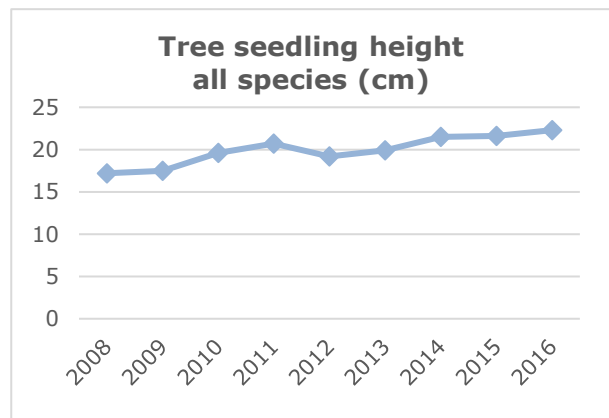
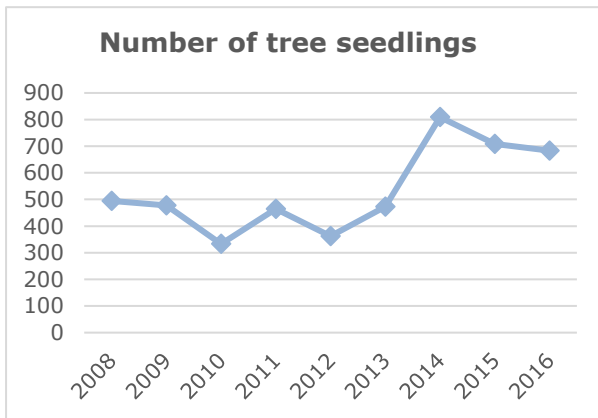


Corrour stalkers annually measure fixed (and randomly selected) plots in representative vegetation habitats, too. We now have more and higher dwarf shrub heather (82% un-browsed in 2008, and 100% un-browsed in 2016). Our un-browsed blanket bog heather increased, too, from 49% to 100%.



## ESTATE HISTORY, PROGRESS AND PLANS

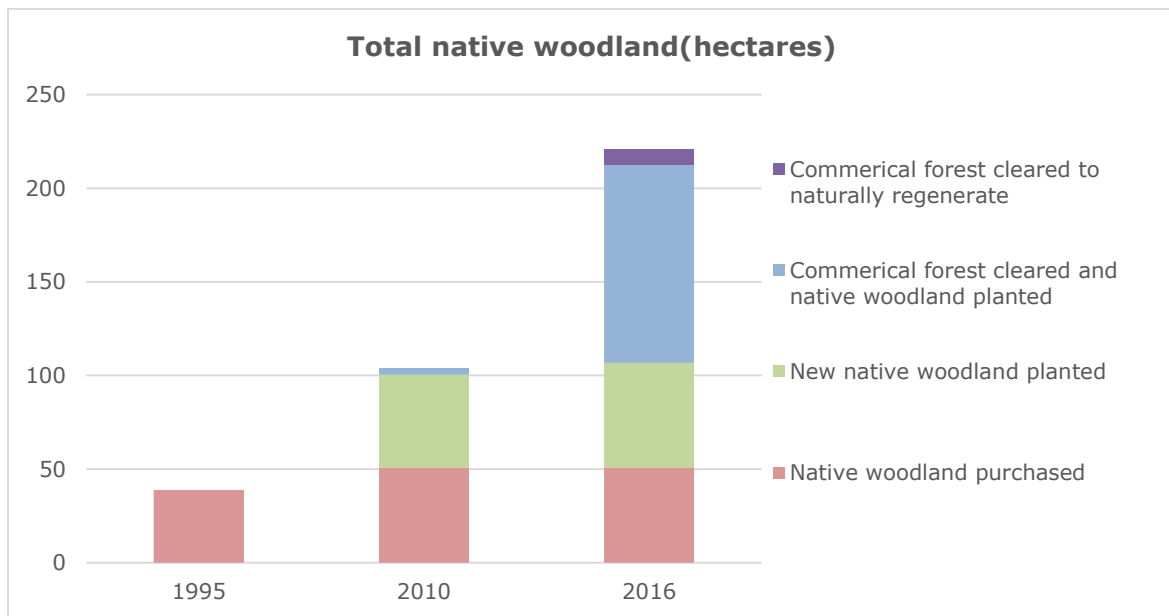
By 2016, 72% of Corrour's tree seedlings were unbrowsed, up from 30% in 2008. The number of tree seedlings has increased too, by 28%.



When we came in 1995, Corrour had few natural woods: 39 hectares (96 acres) of birch, with some rowan, alder, aspen, willow and bird-cherries, at Leitir Dubh and around Loch Ossian. Between 2008 and 2011 we purchased a further 12 hectares (30 acres) of natural woodland at Corrour Forest, Inverlair, and Dun Dearg from the Forestry Commission. These remnant woods are now regenerating. Since 1998, we have planted 158 hectares (390 acres) of native woodland by Ossian Woods and on the moor, and 4 hectares (10 acres) of native woodland in place of felled commercial conifers.

All in all, Corrour now has 213 hectares (527 acres) of native woodland, up from 39 hectares (96 acres) 21 years ago.

Since 2012 we have also cleared 8 hectares (20 acres) of commercial conifers, to allow natural tree generation. Trees are spreading naturally over the moors, too, especially by Loch Treig.



Over the last few years, we have removed 7.2km (4.1 miles) of deer fences, and erected 3.2km (2 miles), meaning a net reduction of 4km (2.1 miles) across the estate. We now have 59.4km (37.3 miles) of fences, so we have removed 6%.

We are also restoring peat bogs. So far, we have cleared 171 hectares (423 acres) of commercial conifers from Corrou Forest peat bogs. We have approval to restore an additional 446 hectares (1,102 acres) of Corrou Forest back to peatland habitat with some native woodland. Work will begin in 2017 and will take five years.



Together with two Scottish firms, D. A. MacDonald from Lochgilphead and G. S. Campbell from Newtonmore, we are constructing four hydro-electric 'run-of-river' schemes. Three are complete, and the fourth will be completed in 2017. Once all four schemes are running they will provide enough renewable energy to power Corrour and, via the National Grid, 3,500 homes. The schemes are designed to minimize impact on the landscape. At times of low river flow, for example during droughts or when the rivers freeze, the hydro automatically shuts down to preserve the natural ecology of the burns. The turbine houses and other hydro buildings are crafted from locally-quarried stone, in the Scottish rural vernacular style.

All estate buildings are renovated and maintained to the highest standards, using both traditional and modern techniques. We protect the traditional materials, styles and look of our nineteenth-century buildings, but we improve their energy performance.

In 2015 Lochaber Fisheries Trust, a charity based in Fort William, surveyed fish across Corrour's watercourses. They chose 14 sites to form a long-term monitoring network. The initial survey, using electrofishing, found just three species of fish, native brown trout and brook lamprey and non-native minnows. We also have pike, char and stickleback in Loch Treig. The Lochaber Fisheries Trust is training the Corrour team so that we can do future surveys ourselves. We want to find out how our forestry work, peatland restoration and deer management affect fish numbers.

In 2015, Upland Ecology – local consultants – carried out a baseline survey of aquatic invertebrates and aquatic plants. To survey invertebrates, they took samples at ten evenly spaced sites along the Allt Loraich, and five further points along the Allt Creagain na Seanhaig. For plants, they surveyed 112 contiguous sections of the Allt Loraich. These initial surveys found numerous invertebrates – including mayflies, stoneflies, beetles, caddis flies, true flies, mites and worms. They also found many plant species, including Delicate Stonewort *Chara virgata*, previously unknown at Corrour, and Red Pondweed *Potamogeton alpinus*, known only at one other site on our land. Both species are rare in east Lochaber.

### Plans

Our fragile mountain habitats mean that natural responses may take many years. We will continue our monitoring, and our work will continue to be driven by habitat response, our plans developing according to the data we collect.

We have plans to link up our existing native woodland and to protect and expand our remnant woodland. We are surveying in detail 437 hectares (1,080 acres) where we will plant new native woodland (295 hectares; 729 acres) or allow woodland to naturally regenerate (142 hectares; 351 acres). We think that land that has seedbanks, and so can naturally regenerate, will have greater ecological value than planted areas.

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8 December 2016

Our planting will be based on the National Vegetation Classification system of woodland types, ground flora and soil types indicating what we should plant.

We will also change how we manage our commercial, non-native woodland. Where we fell commercial conifers, we will replant with native trees. Where we cannot harvest our non-native trees (for example, in areas without timber roads), we will just let them be, and allow natural processes to restructure them with minimal intervention.

We are also going to put a few small Norwegian-style eco-huts in our forests. We will invite experienced hunters to stalk deer alone, at low cost. And families with children can enjoy cheap adventure holidays, without having to buy tents. Imagine, after a day exploring the wilderness, returning to a small, wood-fired hut!