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Scotland's
National Nature
Reserves

Ben Lawers National Nature Reserve Newsletter 2011

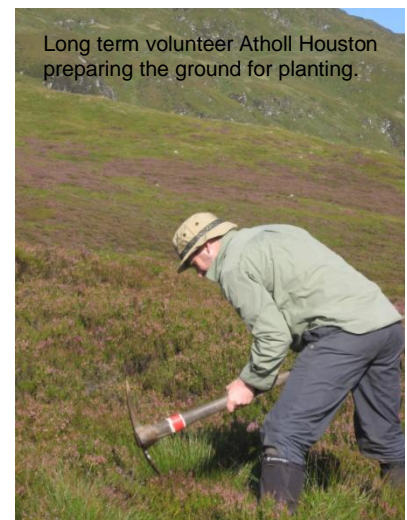


Welcome to the annual Ben Lawers NNR newsletter which briefly summarises and illustrates some of the conservation work on the Reserve during the last year. If you would like to receive future editions please contact us at the National Trust for Scotland, Lynedoch, Main Street, KILLIN, FK21 8UW, 0844 4932136 or email: benlawers@nts.org.uk.

East Morenish habitat restoration

2011 got off to an exciting start when the Trust signed a contract for funding through the Scottish Rural Development Programme (SRDP) to extend our habitat restoration on the lower slopes of the Tarmachan range, referred to as East Morenish. This will build on previous work connecting up woodland and scrub exclosures and forming, mostly riparian corridors into the open hill. The project commits us to planting an additional 75 hectares (almost 100,000 native trees and shrubs) within an area of over 350ha over 2 years and maintenance for a further 5 years to ensure establishment. We were able to employ Paul Thompson, who had been with us in a seasonal position for a number of years, on a full time contract for 2 years to assist with delivery of this ambitious project.

The first year of the project necessitated upgrading over 4km of stock fence to electric deer fencing which has all been done by staff and volunteers. Another 4.5km of electric deer fence had



previously been modified. Over 50,000 trees and shrubs have been planted, more than a third of these by ranger led volunteer groups. Many of these were on weekend tasks by Trust Conservation Volunteer groups or Thistle Camps but we were also pleased to have the assistance of several groups of young volunteers staying at the Abernethy Ardeonaig Centre whilst doing their Duke of Edinburgh Awards.

The project will continue in 2012 with further fencing and planting.

New visitor facilities



Removal of the former car park; surfacing is exchanged for turf

Work on creating the new car park began in October. We had planned the job outwith the main visitor season to minimise inconvenience to the public and a condition of the planning permission pushed back the starting date. As a result, it was always likely that there would be some delay due to inclement weather, but contractors McGowan Outdoor Access made good progress despite some pretty awful conditions. The almost complete car park was useable by the Christmas holiday period although it had not been possible to install the cattle grid. This necessitated the erection of a temporary gate to prevent deer and sheep entering the enclosure. The contractors will be returning to the site early in 2012 to complete the work.

As much material as possible was salvaged from the former car park and vegetation stripped from the new site will be used to restore this area. What at the moment looks like a battlefield will be transformed by careful landscaping!

The remaining work includes construction of two dry stone enclosures, inspired by the ruined shielings which abound on the hill, on the path leading to the nature trail. One will provide basic information and orientation for visitors and the second, new minimal interpretation more in keeping with the surrounding landscape. The content has been developing throughout the year and we hope to present the stories of Ben Lawers in unique and provocative ways, while seeking to enhance the sense of solitude and wildness in the landscape. To this end, artist Tim Chalk has been engaged to produce some environmental artworks.



Two of the parking bays close to completion

2011 Species of the Year: Drooping saxifrage

Drooping saxifrage (*Saxifraga cernua*) is one of our Red Data List species; considered to be vulnerable within Britain as it is known from only five locations in Scotland. It is a perennial herb, confined to sheltered crevices and ledges on basic rocks, at altitudes of between 950 and 1190m and often with late lying snow.



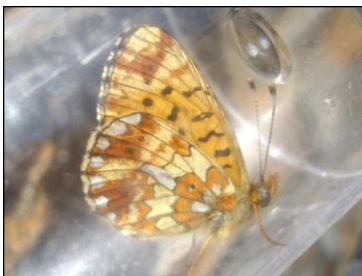
It can be recognised by its deeply lobed leaves and stems of 3-15cm bearing bright red bulbils. These are effectively small bulbs which drop off and overwinter before producing new plants which are clones of the parent. It flowers only sporadically, producing a terminal white flower (often incomplete) but never setting seed. On Ben Lawers, the population is confined to a relatively discrete area of small crags and rocky outcrops close to the summit.

Regular monitoring of the Ben Lawers population has taken place every five or six years since the late 1980's and, within the limitations of the methods

used, the population appears to be holding its own. The convoluted site can make relocating known colonies difficult and the mat-forming growth of the plant complicates deciding what constitutes an individual plant. Given its association with snow, the long term survival of the species may be threatened by climate change, but there is no evidence for this at the moment. As with other of our high altitude species, there seem to be fluctuations in numbers of plants within colonies, which can probably be attributable to localised environmental factors.

New butterfly for Ben Lawers

On 9th May our ecologist, Dan Watson, was carrying out a survey of ferns around the pipeline below the slopes of Meall Liath. On a rare sunny day, a fritillary butterfly was seen flying about. It was too early in the season for the two fritillaries known to occur on the reserve, those being small pearl-bordered fritillary (*Boloria selene*) or dark green fritillary (*Argynnis aglaja*). The most likely species seemed to be pearl-bordered fritillary (*Boloria euphrosyne*). Unfortunately the butterfly disappeared before a positive identification could be made.



Identification of the pearl-bordered fritillary was confirmed on capture.

The next sunny day which coincided with a chance to return was on the 3rd of June, so armed with butterfly nets Dan returned with seasonal ecologist Eamonn Flood and volunteers Rebecca Donnelly and Gwen Raes. By this time small pearl-bordereded were also flying, so any fritillary found had to be examined closely as the two species can only be easily separated by the patterns on their underwings. It wasn't long before a butterfly was caught and put in a pot, although it took a few minutes before it settled down enough to let us see that our suspicions were correct and a new butterfly species was confirmed for Ben Lawers. A second one was caught soon after,

although slightly higher up the hill it seemed only small pearl-borderededs were flying.

The pearl-bordered fritillary is regarded as endangered in Britain due to a worrying population decline in recent decades. It has been recorded from Glen Lochay, so it is possible that those found on Meall Liath are part of what is termed a 'metapopulation'. We are planning to increase the tree cover in this area. Hopefully this will benefit the butterfly as its preferred habitat is in woodland clearings. It is likely that one of the main causes of decline in Britain has been the cessation of coppicing in many woodlands. If we get some sunshine in May we hope to return to the area and search further afield in the hope of finding a larger population.

Bryophyte ID training

Back in June a week's bryophyte ID training took place at Ben Lawers and the Trust's property at Glencoe. This was led by Oliver Moore, who had spent some time at both properties the previous summer during his time as British Trust for Conservation Volunteers (BTCV) Natural Talent bryophyte apprentice. From this, we knew that his combination of knowledge of and boundless enthusiasm for all things bryological would make for a lively week!

The first day was an introductory session open to any keen NTS staff and volunteers. After a short but fascinating presentation and an hour or so testing out the keys in the British Bryological Society Field Guide on some common mosses, we headed out to look at a variety of bryophytes in mixed woodland within walking distance of our base in Killin. It wasn't long until that familiar field bryologists' phenomenon made its first occurrence: a circle of kneeling people, their backsides in the air, noses inches from the ground, all peering intently at something utterly insignificant, in this case



Drummond's thread-moss *Pohlia drummondii*, crenulated flapwort *Jungermannia gracillima* and ladder flapwort *Nardia scalaris*. Both are pioneering liverworts, often found in disturbed habitats.

For the next three days we focussed on particular habitats. At Ben Lawers we potted around the crags above Lochan na Lairige, looking at base-rich flushes and dripping crag communities above the dam. Highlights included rufous beard-moss *Bryoerythrophyllum ferruginascens* and red leskea *Orthothecium rufescens*. We spent a bit of time trying to sort out the dense cushion formers often found on upland crags: summer-moss *Anoetangium aestivum*, Mougeot's yoke-moss *Amphidium mougeotii* and twisted grimmia *Grimmia torquata*.

Most participants didn't last the week, so Oliver helped with some bryophyte monitoring at Ben Lawers, the target being the nationally rare Vaucher's plait-moss *Hypnum vaucheri*, up on the crags of An Stuc above Lochan nan Cat. It was re-found at its known location there, and it seems to be hanging on alright, with six distinct clumps on a small area of rock-face.

Many thanks to Oliver for his patience and enthusiasm. Hopefully this will be enough to get at least some of the participants keen to learn more about these fascinating plants.

Fungus new to Scotland found at Ben Lawers

In October 2010 Ali Murfitt carried out a grassland fungi survey at Ben Lawers. Ali was a BTCV Natural Talent Apprentice, placed with the NTS and the Royal Botanic Gardens Edinburgh for eighteen months. On taking specimens back for microscopic identification, Ali was excited to find that one of them, *Entoloma vinaceum* var. *Vinaceum*, pictured left, was a first for Scotland, and is listed as 'dubious' on the current British checklist. Ali also found seventeen different species of waxcaps, a good result for a single visit. The highest diversity of such fungi is found in areas of unimproved grassland, ranging from hill pasture like at Ben Lawers to ancient lawns and meadows. Many of these habitats are found at other Trust properties.



Ali returned to carry out more surveys at Ben Lawers this year, and made another interesting discovery, this time on a decomposing sheep horn. The tiny white mushrooms, known as horn stalkballs (*Onygena equina*), pictured right, are only a few millimetres in height and are rarely recorded, but their presence is given away by a terrible smell. It took some dedication to take the horn back to the laboratory and find out what species it was! The stalkball grows on the keratin present in horns and hooves and is classed as "near threatened" on the Red Data list for conservation of fungi. It's one of a number of very specialist species that grow only in very particular places - there are other very rare species in this remarkable group which grow on feathers and bone.



Green Team Birthday Barbie

Members past and present of the Ben Lawers Green Team and parents gathered on Friday 6th May to celebrate 20 years of the Young Naturalists Club. Fifty three people attended a barbecue at Coilaig in Glen Lochay and enjoyed the fantastic setting despite the showers. Many of them remained for a night under canvas and a barbie breakfast too! We caught a few moths in our harmless trap, saw a few bats and heard owls as the light faded and enjoyed the dawn chorus from our tents.

The Green Team has been running as a partnership between the National Trust for Scotland Rangers and Killin Primary School since May 1991. Linda Frost, who was the main contact at the school from that time until her retirement, cut the birthday cake and said a few words. Many pupils from Killin have attended at one time or another and over the years we have also had members from Crianlarich and currently have several from Kenmore and Strathyre Primaries. We look forward to the next 20 years!



Busmans holiday for Rabbie's staff

A team of 12 staff and family members from Rabbie's enjoyed a weekend's hard graft enhancing the habitat around Kiltyrie pond, despite wet and windy weather. Participants enthusiastically tackled upgrading over 450m of stock fence to deer fence and planted native trees, shrubs and wildflowers. The final touch was the construction of a floating nesting platform to encourage nesting by birds like little grebes. Highlights for some included the chance to wear toolbelts and drive the power barrow.



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In addition to providing the labour, Rabbie's also generously donated £1500 to cover the cost of materials without which the project would not have been possible.

Minimal Impact Mountain Day

In June we teamed up with Hebe Carus, Access and Conservation Officer for the Mountaineering Council for Scotland (MCofS) to offer a guided walk for mountaineers keen to find out how to minimise their impact on fragile mountain environments. The walk was one of a series organised to publicise the launch of MCofS's Minimal Impact Mountaineering Advice (MIMA), developed to raise awareness of the choices that those using the hills for recreation can make to minimise their impact. Participants talked about many things including rare plant conservation and footpath erosion.

We are pleased to have regular liaison with MCofS which enables us to raise issues relating to access and conservation with the mountaineering fraternity. They have publicised the Trust's concern over the increased use of walking poles without protective tips, the ongoing improvements to the visitor facilities at Ben Lawers and we have recently been in discussion about reducing the potential for damage to rare species by winter climbing on crags.



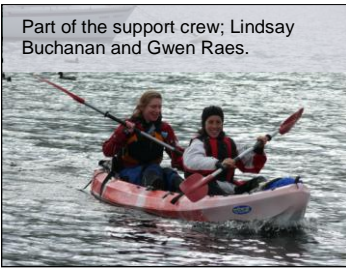
Participants hear about high altitude revegetation on Ben Lawers.

The MIMA can be found at www.mcofs.org.uk/advice-and-policies.asp

Ben Lawers benefits from event donation

Upland footpath management at Ben Lawers got a boost this year as £2000 was pledged to the Footpath Fund. The Artemis Foundation made the donation after the Great Kindrochit Quadrathlon, a leg of which takes place over the mountains of the reserve. As part of the

gruelling endurance race, participants walk or run up seven Munros in the Ben Lawers and Tarmachan ranges, as well as swimming and kayaking in Loch Tay before cycling around it.



Part of the support crew; Lindsay Buchanan and Gwen Raes.

The organisers also offered the staff a free place in the event, an offer which was hastily taken up by Ecologist Dan Watson and Glencoe volunteer Callum Gilhooley. Unfortunately, owing to last minute injury they were not able to take part on the day, but having been sponsored by many colleagues and friends Dan was determined



to cover the ground. With support from family, Ben Lawers colleagues and joined by friend Stephen Rawlinson for all but the swim, Dan completed the course in an impressive 9 hours and 2 minutes. His online sponsorship was included in the generous donation from Artemis and he was able to add a further £350 to the Footpath Fund from sponsors who preferred to deal in hard cash.

Munro Challenge

In October 2010 two of our colleagues from Central Office, David McKinnon and Angus McKinnon (no relation), began their self imposed challenge to climb all 46 Trust owned Munros by climbing Beinn Ghlas and Ben Lawers. The venture was aimed at publicising the fact that the Trust owns countryside as well as castles and the management work carried out on them. The challenge also ended on Ben Lawers on 16th October 2011 to coincide with the 155th anniversary of Sir Hugh Munro's birth. Ben Lawers was the mountain he first chartered, creating what has since become a popular goal for many mountaineers to 'bag' nearly 300 mountains categorised over 3000 feet (914m).

The final day started with 18 friends, family and colleagues gathering in the Trust offices in Killin where a welcome cup of tea/coffee and biscuits was waiting. The party, ranging from 11 to 65 years of age (McKinnons being at either extreme of the range), was joined by Nan Morris of the Mountain Footpath Management Team. On route she who was able to tell the party about the vital work that she and her team mates carry out on the 35km of footpaths on Ben Lawers but also at Glencoe, Ben Lomond, Goatfell and Torridon. Just below the summit, Stevie McLaren (from the HR department) played the pipes and the five McKinnons were allowed to lead the way to the top where we toasted the memory of Sir Hugh Munro.



Deer larder for Ben Lawers NNR

In May this year, we were offered a small ex Forestry Commission deer larder which had been located further along Loch Tay. Ben Lawers has never had its own larder and the existing rental agreement with a local estate was becoming less economic with a much lower deer population on the estate meaning lower annual cull targets. The Trust at Ben Lawers is part of the Breadalbane Deer Management Group which has been culling deer to agreed targets as part of a Government Agencies instigated management agreement on designated sites. We have achieved their desired population already and the closer proximity of the new larder makes the greatly reduced, but proportionally more time consuming cull much easier.

The new larder has been installed on Tombreck farm, located below the reserve and next door to the Big Shed, a community owned building with short term rentable kitchen/ food processing space and a remit for promoting local food. To compliment this venture we have successfully



applied to become a registered venison dealer and can now sell carcasses to individuals who can choose to use the facility next door to butcher them, or hire a local butcher in. We hope to sell packaged venison locally in the future ourselves, adding some value to our produce.

In December we received a hand-me-down Argo Cat from Mar Lodge Estate, which has plenty of life left in it, to assist with winter access to parts of the reserve and further assist with the deer cull. It will no doubt find many other uses in the summer too!

Would you like to befriend Ben Lawers?

We have been considering forming a Friends of Ben Lawers group and would like to gauge the potential interest. There are various models of friends groups, but our initial suggestion would be for an informal forum for Ben Lawers enthusiasts to share their passion(s) and with the flexibility to evolve if there was a desire to do so. Suggestions for such a forum include offering walks, talks, e-newsletters with more detailed information on various aspects of management and opportunities to become involved by volunteering in various aspects of property management.

If you would be interested in becoming a Friend of Ben Lawers or have any other suggestions as to what a forum of this sort could offer please email us at benlawers@nts.org.uk or phone 0844 4932 136.

Publications and Reports

Cole, H. 2011. Ben Lawers: More than a Munro. *Scottish Mountaineer, Issue 5, pp 66-68.*

Cole, H. 2011. Experimental high altitude re-vegetation around eroded footpaths on Ben Lawers NNR. *Looking to the Hills, Issue 17, pp 8-10. JNCC Inter-agency Newsletter*

Cole, H. 2011. Ben Lawers Sheep Count 2011. Unpublished NTS report.

Flood, E. 2011. Site Condition Monitoring of Chasmophytic Calcareous Vegetation 2011. Unpublished NTS report.

Flood, E. 2011. Tall Herb Site Condition Monitoring 2011. *Unpublished NTS report.*

Flood, E. 2011. The Status of *Cystopteris montana* on Ben Lawers NNR, 2011. *Unpublished NTS report.*

Flood, E. 2011. The Status of *Saxifraga cernua* L. on Ben Lawers NNR, 2011. *Unpublished NTS report.*

Watson, D. 2011. Allt a' Mhoineas Water Vole Survey, Ben Lawers NNR. *Unpublished NTS report.*

Watson, D. 2011. *Campylophyllum halleri* monitoring, 2011. *Unpublished NTS report.*

Watson, D. 2011. *Hypnum vaucheri* monitoring, 2011. *Unpublished NTS report.*

Watson, D. 2011. Ben Lawers NNR *Saxifraga rivularis* species recovery project; Monitoring 2009-2011. *Update to unpublished NTS report.*

Watson, D. 2011. The Status of *Cerastium nigrescens* (H.C. Watson) on Ben Lawers NNR. *Unpublished NTS report.*

Watts, S. 2011. Ben Lawers Water Vole Survey, 2011. *Unpublished NTS report.*

Watts, S. 2011. Monitoring *Salix lanata*, Ben Lawers NNR 2011. *Unpublished NTS report.*

Watts, S. 2011. Monitoring *Salix lapponum*, Ben Lawers NNR 2011. *Unpublished NTS report.*

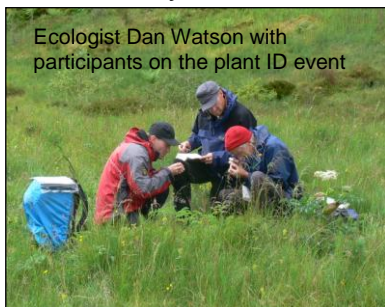
Watts, S. 2011. Monitoring *Salix myrsinites*, Ben Lawers NNR 2011. *Unpublished NTS report.*

Snippets

Following a re-audit, Ben Lawers National Nature Reserve has achieved the **Gold GBTS award**. The great work that the team carry out on the reserve, including planting not far off 200,000 trees and shrubs mainly grown from the onsite nursery, was highlighted. We were also commended for promoting our work to visitors at Lynedoch, via our annual newsletter and through the Green Team, which we run in partnership with the local primary school. The long-term benefits of recent energy saving measures, such as draught proofing of windows at Lynedoch, were also recognised

Staff led their first weekend event for visitors keen to improve their **plant identification**. Participants, some travelling from as far away as Devon, made the most of the huge diversity of species growing on the Reserve to hone their skills. Several stayed at the Trust's operational base, Lynedoch, which also provides accommodation for seasonal staff and volunteers, and where introductory talks were given.

All agreed that the weekend had been a great success, and some vowed to return for more practice next year!



Volunteer ecologist, Sarah Watts, spent a few days over the summer monitoring known sites for **water voles**. She also managed to find a couple of new locations. Using a standard formula, data on burrows, runs, feeding stations and latrines is converted into an estimate for the number of voles present. In May, when the population is at its lowest after winter deaths, the total was 11 and in August, when numbers are boosted by the youngsters who by this time

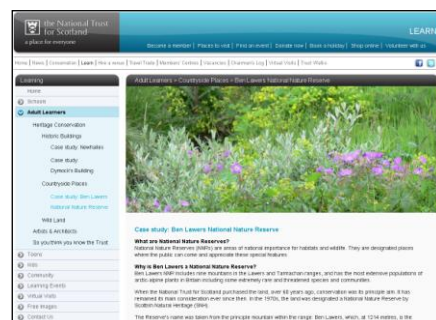
have left their nests, this rose to 50. This was the highest count since monitoring began in 2002.

Staff continued **moth trapping** on occasions when the conditions seemed promising. Despite our National Moth Night event being a total washout for participants we managed to record reasonable numbers of the rare Cousin German. Other sessions produced mostly previously recorded species but we also began to identify a few micro moths including *Epinothia ramella* (pictured below) the larva of which feed on birch and willow catkins.



Exterior work to **Lynedoch**, including redecoration, took place in the spring, part funded by the Loch Lomond and Trossachs National Park Conservation Area Regeneration Scheme, which is supported by Historic Scotland. The building is a key feature of the Main Street in Killin, and as well as housing Ben Lawers NNR office, provides accommodation for seasonal staff, long term volunteers and groups of short term volunteers, has an onsite laboratory and is the site for exhibitions, talks and other local events.

A number of **information papers** about Ben Lawers are now available to download from www.nts.org.uk/Learn/adult_benlawers.php



Acknowledgements

The Trust gratefully acknowledges ongoing support from Scottish Natural Heritage for the management of Ben Lawers NNR. We are also grateful to Loch Lomond and the Trossachs National Park for their contribution to the external fabric repairs to Lynedoch, the Albert Reckitt Trust for the donation which facilitated re-printing of the NNR leaflet, the Artemis Foundation for their donation towards footpath repairs on Ben Lawers via the Footpath Fund and to all those who sponsored Dan (and to Dan of course for his fantastic efforts) and to Rabbie's for their donation towards the habitat enhancement at Kiltyrie pond and for their assistance completing the work.

As usual, much of the work would not been possible without the help of volunteers, both short and long term. Regular volunteers Atholl Houston, Alicja and Don Fraser, David Mardon, Gina Angus and Sarah Watts all continued to contribute to various aspects of our work. Rebecca Donnelly joined us for 3 months principally to assist with biological monitoring and Gwen Raes was also with us for 3 months helping with practical estate management, education and ecological monitoring.

The Trust's Conservation Volunteer groups, two Thistle Camps and a Trailblazer contributed over 104 days of work throughout the year. Added to the Ardeonaig Duke of Edinburgh groups' contribution of 75 days, that's almost 80% of a full time equivalent.

The National Trust for Scotland

The Trust is a national **conservation charity**, not a government agency. As such it depends on its members, currently about 310,000. The future of the natural heritage at Ben Lawers, and that at all our properties, which include a total of some 74,000 hectares (183,000 acres) of countryside, depends on meeting ever-increasing financial demands. Please support our work: we depend on membership subscriptions, donations and legacies. Purchase of the Meall nan Tarmachan part of the property was made possible by a successful public appeal in 1996.

Join the Trust at Ben Lawers and contribute directly to the management work on the Reserve or online at www.nts.org.uk .