

# WILD LAND NEWS 68

Spring 2007



## COMMENT - Windfall gains

*Article*

It would have been difficult to escape the debate about renewable energy over recent months. The arguments rage in the press over the Lewis windfarm, while, closer to home for most people, turbines sprouting from hillsides around the Central Belt have changed many a familiar view.

Just before Christmas, news coverage was given to a report by the German Energy Agency denouncing wind farms as too expensive and inefficient. With over 15,000 turbines, Germany has more wind farms than any other nation worldwide, yet the report concluded that it would have been better to target energy efficiency and to equip fossil-fuel power plants with modern filters.

Not surprisingly, our own Department of Trade and Industry was quick to insist that the report "does not directly translate to UK circumstances", and that although it recommends that Germany should focus on energy efficiency, the UK had been doing this "for some time".

Such a statement can only produce a hollow laugh from those of us who see little evidence of it in our everyday lives. In his new book "Heat - how to stop the planet from burning", George Monbiot laments our failure in so many departments - for example, our inefficient houses and the lack of incentives for builders and occupants to improve them. Monbiot acknowledges the role of renewable energy, but as part of a much wider initiative to reduce carbon emissions by 90%.

With man-made climate change now acknowledged as a reality rather than a hypothesis, politicians steer a muddled course around what they know they should do and what they realise would be electorally disastrous, simultaneously assuring us of their green credentials while planning for airport and motorway expansion.

We have commented before in WLN on the way the energy debate has concentrated so much on the generation rather conservation of energy. More generation, of course, is synonymous with economic growth and prosperity, while conservation might seem to imply shrinkage and austerity. Development means profits for someone, and there is one aspect of this that is particularly irksome.

When the debate about wind energy began seriously in Scotland in the mid 1990s, we were told that the going rate was between £1500 and £2200 per turbine per annum into the pockets of the landowner as rent, and we believe it is many times greater than that today. No landowner can claim to take the credit for the way the wind blows over the hills, yet he can make a handsome profit out of what is simply a natural phenomenon.

This ought to revive the whole debate about who owns natural resources - a debate that began in the early days of the Scottish Parliament with the feudal reform legislation but which is still unfinished business. MSPs across the board recognised in principle the need to safeguard the public interest in the land resource, but Parliament has so far failed to give effect to it by capturing land values for the public purse through appropriate fiscal measures. The result is that a wind farm on private land means cash in the bank for the landowner in the form of enhanced land values, but at the expense of the taxpayer.

The tercentenary of the Act of Union has re-opened the arguments about separatism and the old grudge about revenues from Scottish oil leaking south of the Border. But the politicians who make the most noise seem happy to allow revenues from "Scottish wind" to haemorrhage into a few private pockets. We might berate the power companies that build the turbines, but at least they have to work for their profits. The landowner on the other hand, does nothing - his is the most literal windfall gain.

If only there was a financial killing to be made out of energy conservation there might be more interest shown in it!

## LINK 'Everyone' campaign

Article

*Alistair Cant*

Scottish Environment LINK has been running the 'Everyone' campaign on a number of occasions - to engage the Scottish Public in environmental issues - sometimes around election time, sometimes around key issues such as climate change and planning legislation.



The campaign - based at [www.everyonecan.org](http://www.everyonecan.org) provides information, advice, action and contacts for people to get involved and lobby MSPs and others. It is gearing up for the forthcoming Scottish Parliament elections in May.

Wild Land News readers are encouraged to use this website for information and action tips, as the Environment needs to be pushed up the priority list for MSP re-standing and for new candidates. With climate change now coming on to the agenda in a big way, we need to ensure that action taken helps protect and enhance Scotland's hugely important environment. Log on now! Lobby all MSP candidates standing/re-standing in May.

## Beaulay - Denny Transmission Line

Article

*"Beaulay-Denny is the thin end of a very thick and ugly wedge - a wedge of power lines and wind factories - a wedge that is already dividing Highland communities within and between each other, a wedge that will split up the magnificent Highlands that all good Scots cherish until only meaningless fragments of their former sea-to-sea glory remain."*

*With the Public Inquiry now under way, SWLG **David Jarman** has submitted a 16,000 word precognition on behalf of the Beaulay-Denny Landscape Group which comprises six national organisations. The following is a summary of its main points.*



Pylons make a gruesome foreground to the hills, such as here at Glen Strae, and the proposed line would open up the potential for further industrialisation of the Highlands.

*Photo: John Digney*

## Section 1 CONTEXT - SCOTLAND'S MOUNTAIN LANDSCAPE

The Highlands are internationally recognised as an exceptional mountainous landscape. They merit protection in their entirety against large-scale intrusions. Designations such as NSAs and National Parks exclude many important ranges and scenic landscapes. Landscape needs to be rated as highly as our cultural and wildlife heritage.

Scotland's mountain landscape (essentially north of the Highland Boundary Fault) is seen, visited, explored, and understood as an indivisible entity, and that damage to any part damages the whole. . This entity is today widely perceived by

- visitors
- countless publications,
- general recognition of 'The Highlands' as an umbrella term, covering the Western Highlands; 'the Grampians' the Great Glen & 'The Cairngorms.
- recognition of 'The Munros', as shorthand for all the major mountains extending across most of the Highlands (and Islands)
- the popularity of the annual coast-to-coast trek, spanning the Highlands.

It is both invidious and dangerous to designate selected parts of the Highlands as more worthy than others. "Boundaries are the enemy of good planning' because as soon as a line is drawn on a map, it creates the impression that the area outside it is fair game. Nature, tends to work in shades of variation, and only sometimes offers clear and obvious boundaries for planners.

In Scotland, the core of the Cairngorms clearly merits top-level designation but the western and southern boundaries lack landscape distinction. Of particular concern for this Inquiry is the landscape illogic of including the Drumochter-Gaick passes and adjacent plateaux and rounded summits, while excluding the vastly more dramatic trench of Loch Ericht) and more impressive and important Ben Alder massif.

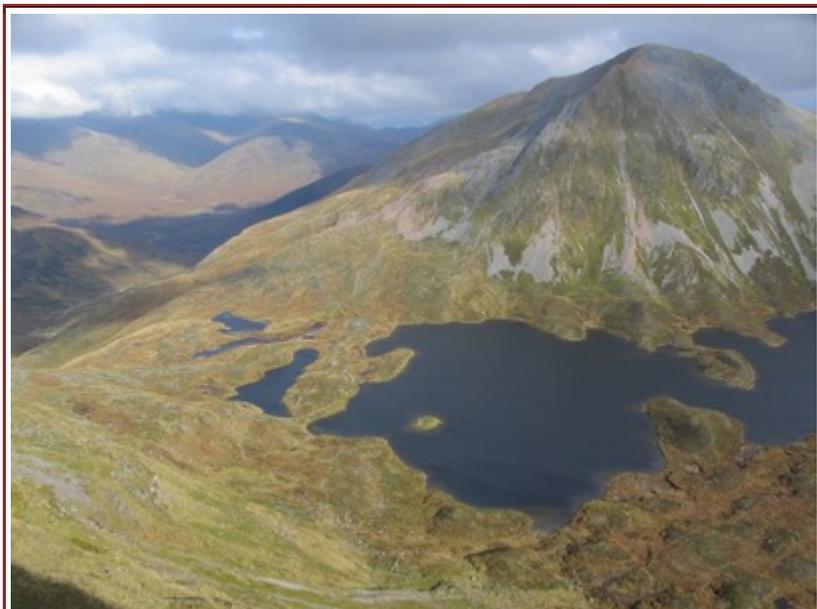
Recent moves are to give statutory force to National Scenic Areas (NSAs).which appear at first glance to cover a large proportion of the more mountainous and rugged coastal areas. They turn out to omit areas which no hill walker would regard as second-rate.

Hill walkers would find it invidious to have to draw any arbitrary line and say that those mountains falling below Munro level are unworthy of protection and can be sacrificed to the exigencies of development.

The whole of the Highlands should be recognised as a National Treasure and accorded a high degree of in-principle protection against despoliation. The whole of the mountain area embracing Munros, the key lower mountains, the scenic coasts, and their settings and approaches, should be recognised as a collective entity meriting protection as a whole considerably greater than the sum of its parts. This should not and need not be defined by a sharp boundary, but rather by a broad brush. It is encouraging to see decisions now being taken primarily on landscape grounds where the site is not within a special designation.

## **Section 2 LONG-TERM ATTRITION OF HIGHLAND LANDSCAPE QUALITIES AND PERCEPTIONS OF REMOTENESS AND TRANQUILITY**

The Highlands are small as mountain ranges go, and have only a limited capacity to absorb large-scale developments without compromising their perceived remoteness and tranquility. Large sacrifices have already been made. A further wave of intrusive 'renewable energy' developments takes visual impact to a different scale again, and must be appraised in the light of the already heavily-debased and fragmented landscape resource.



Sgurr Eilde Mor in the Mamores. Scotland's mountains may be relatively small, but it is their wild character compared with over-developed ranges elsewhere that defines their international appeal.  
*Photo:John Digney*

During the last century, the Highlands have lost a very large proportion of their 'inherent' landscape qualities, partly been by slow and imperceptible attrition. The Highlands were 30 years ago still markedly 'wilder' than anywhere in southern Britain. Since then a long catalogue of encroachments and debasements has taken place. This has important consequences for how the Highlands are perceived and experienced.

Thirty years ago, the Highlands seemed, to a new arrival from the smaller mountains of South Britain, vast - it was possible to work gradually northwards, range by range, with the end far distant in space and time. Scotland is a small country, and that the Highlands are but a fragment of the original Caledonian mountain chain, puny in scale if not in character by comparison with world ranges. The Highlands are not a limitless scenic resource, which can be shaved away time and again to satisfy this or that commercial demand or public exigency.

The Highlands are already too degraded. Enough sacrifices have been made. The rate of attrition of Highland landscape quality is such that before long it will be very difficult to find any remnants free of industrial-era intrusions.

### **Section 3 WHO ARE "WE"?**

To what extent can I reasonably speak on behalf of

- Landscape groups
- Hillgoers
- Highland residents
- Residents of Scotland
- Visitors from further afield?

Why is their profound concern for the landscape of the Highlands unlikely to be directly expressed but needs to be voiced via a tacit collective mandate?

Inurement to insidious degradation is the greatest threat to any environment, as with global warming.

This 'we' is an extraordinarily broad and impossibly diverse spectrum whose love of Highland landscape deserves to be represented to this Inquiry.

### **Section 4 WHAT DO WE MEAN BY 'WILDNESS' AND 'REMOTENESS'?**

We experience the Highlands as 'wild' to greatly varying degrees, depending on our physical capabilities, our experience, the weather, the season, the presence or absence of other people, our special interests in nature, and so on.

Remoteness is likewise a relative concept. Nowhere in Scotland is 'remote' if you can afford to hire a helicopter, and very few parts are if you have permission to use an ATV. Arguments over what counts as wild or remote are a distraction. All the Highlands possess these qualities in varying degrees at different times. Trying to define such areas only exposes everywhere to greater threats. What matters is people's perceptions. If the Highlands are widely valued and promoted as the place to get away from it all, they have to remain 'different' and unsullied. Remote areas visited by few people may be just as highly prized as popular destinations.

The government recognises that 'wildness' exists and deserves safeguarding. As soon as attempts are made to define it we inevitably lose some of it, and worse we can expose it to greater risks.

### **Section 5 LANDSCAPE IMPACTS OF THE BEAULY-DENNY PROPOSAL (B-D)**

1. Direct intrusion of B-D This is one of the largest and most intrusive single projects ever proposed in the Highlands. The towers, insulators, and wires are leadenly conspicuous, and their utilitarian design compounds, not alleviates, dullness and bleakness.

My concern is with the impact of the route as a whole. Deviations or undergroundings are not the answer, they are mere tinkering. The route traverses the geographical heart of the Highlands, and runs close to several of the main routes followed by visitors. It will be an unavoidable presence on many journeys into the hills and tourist circuits. Yet it contrives to avoid the vicinity of National Scenic Areas. To wound one part is to wound the whole. The list of affected areas is long, a cross-section of the Highlands.

2. Indirect perceptions of B-D as an intrusion B-D will be seen by many residents and visitors as symptomatic of the progressive wholesale 'industrialisation' of the Highlands, which has until now been largely confined. The unprecedented volume of protest cannot be dismissed as 'nimby'. It is an indication of deeper concern that if this is allowed, the ramifications will be unending. It is not possible to treat B-D as a one-off, and even people who might find it relatively bearable in itself will think that 'if they can allow that in the heart of the Highlands, there's no stopping them'.
3. Wind energy installations within the Highlands facilitated by B-D One of the main justifications for B-D is to open up the potential for onshore wind energy in the Highlands, particularly in a broad corridor along the route, and further north and west by extensions and feeders. It is thus wholly germane to this Inquiry to consider the landscape impact of large-scale wind installations in the mountain areas.

Wind generators are, especially for hill goers, intrusive, requiring to occupy high ground and skylines, densely clustered together so as to consume large areas of land as against narrow ribbons, and (usually) eye-catching and unignorable by virtue of their motion.

They require a lengthy access road and a web of tracks to each turbine site. The tracks are built to a high, semi-permanent standard, required for continual maintenance access. They will thus not blend back in readily. We do not believe that they will generally be removed after expiry of turbine life, whatever planning conditions and restoration bonds may exist, as either planning consent will be readily obtainable for renewal of turbines, or landowners will find other 'agricultural' or sporting uses for them which are unlikely to be resisted.

4. Additional power lines across the Highlands paralleling and feeding to B-D If B-D is constructed and its capacity is taken up, demand will arise for additional capacity in order to further tap the renewable energy potential of the Highlands. The existence of the existing B-D line is being presented as paving the way for a much larger line across the Highlands along a similar route. By extension, if new B-D is approved, the principle will have been laid for successors.

The maze of possible routes considered serves to demonstrate that there is no way for a high-voltage transmission line to cross the heart of the Highlands without inflicting great damage on its landscape and Scotland's scenic heritage. A 'Wellsian' intrusion around the next corner, in every other glen, is the worst of all worlds. An entirely overground transmission line will be seen by all travellers up and down the A9 and main railway for many miles, and that it will cross the main gateway to the Cairngorms National Park.

## **Section 6 ECONOMIC-ENVIRONMENTAL IMPACTS OF B-D AND CONSEQUENTIAL DEVELOPMENTS**

Government policies for national and regional economic development have a bearing on this proposal. I support the principles of sustaining local economies and of securing economic benefits to Scotland and especially its less-favoured areas. A proper evaluation of the full range of economic benefits and disbenefits of the proposal would be at least matched if not outweighed by the economic benefits of alternative arrangements such as those outlined in the next Section

## **Section 7 THE STRATEGIC ALTERNATIVES TO BEAULY DENNY - A LANDSCAPE OVERVIEW**

The proposal is not predicated on the needs of the Highlands, which should be capable of self-sufficiency in renewable energy. If the Highlands and Islands are to contribute large-

scale renewable energy to the rest of Britain without sacrificing their landscape heritage, a viable alternative with minimal adverse landscape impacts appears to exist in tapping the abundant off-shore potential, linked by a subsea cable system off the east-coast. Possible strategic alternatives include:

- 'marine hydro' generation (wave/tidal/ocean stream) as prime baseload source
- offshore wind as secondary contribution
- subsea cable transmission to the main centres

Great climate threats do not require great landscape sacrifices

In my view:

- The present B-D proposal emerged as the easiest conventional way to meet an identified need, using conventional technology, and with a conventional attitude to the landscape of Scotland as a subordinate consideration capable of absorbing ever more intrusive exploitation.
- The proposed route, while the least-worst of all possible overland options across the central Highlands, nevertheless has direct and indirect impacts on and consequential implications for the landscape so adverse as to be irreconcilable with its safeguarding as an entity for posterity.
- The B-D proposal was a product of short-term imperatives within a particular set of financial incentives, targets, and management regimes which we will regard as sub-optimal, flawed or transient.
- An alternative offshore/subsea system is capable of achieving the same overall purpose, with substantially greater benefits and future potential, can be implemented expeditiously with existing or readily-attainable technology, and with minimal adverse landscape or other impacts.

## Landscape - Coming More Into Focus?

*Article*

*Alistair Cant reports on a significant initiative to put landscape protection on to the political map*

In June 2006, Scottish Natural Heritage, with the support of the Scottish Executive, established the Scottish Landscape Forum (SLF) to discuss, prepare advice and promote action to improve the care of Scotland's landscape. The Forum has met several times and is due to make a final report to the Deputy Minister for Environment & Rural Development in Spring 2007.

The Forum, comprising a number of public and Non-Governmental Organisation (NGO) bodies has come at an opportune time, with the UK ratifying the European Landscape Convention in November 2006 and with the Scottish planning policy guidance NPPG 14 on Natural Heritage currently being revised.

To promote the debate, SNH held a major seminar on 19 January on Landscape at its Battleby centre. Over 70 people including the Wild Land Group's Co-ordinator, Alistair Cant, attended. Much effort by SNH and others had been put into producing briefing and discussion papers on the strands of: Legislative issues; Policy issues; Practice and application; Landscape values and benefits; Awareness and Education.

### The European Landscape Convention

The European Landscape Convention defined landscape as "...an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors."

Thus landscape covers not just wild land, not just rural areas/countryside, but also urban areas and involves humans as well as natural forces, and human perceptions as well as factual attributes.

The Convention has no legal status, compared to say the Habitats directive, so there is no European designation system and no European Committee. It is up to individual countries to assess their policies and systems in relation to the Convention. The UK Government has already stated that it deems itself to meet the Convention. Clearly the delegates at the SNH seminar felt more could be done to enhance our landscapes. Scotland both had a wide range of excellent landscapes, and with its Scottish Parliament and Executive, we could take a lead on landscape.

### **Recipe for making landscape - start with a bit of sea?**

The day was excellent for raising the issue and bringing together a wide range of participants, and also raised the key issue of the quality of urban centres and well as the urban fringes - often where most people interact with landscape. Niek Hazendonk, a keynote speaker from the Netherlands, outlined how his Government sees landscape as something to mould, shape and manage - the Netherlands of course being famous for making land, out of the sea.

The SNH seminar recognised that all landscapes are processes with change as the constant. Climate change adds to this dynamic. Being able to manage these processes carefully and proactively is a real skill, barely understood by many.

### **A duty of care for landscape ?**

On the aspect of protecting landscape through legislative means, the workshop on this topic felt that a key target to progress was to push for a refreshed Landscape Duty for public bodies that endorses the Convention's definition of landscape and modernises Scotland's approach. Such a Duty could require local authorities and others to consider landscape when evaluating policies and proposals. Whilst this in itself may not bring many new obligations, such a Duty was seen as a key bedrock upon which to build a comprehensive approach to landscape protection and enhancement.

Some were in favour of a Landscape Act in the future, to define and protect landscapes; however, it was recognised that thinking, definitions and support would need to be developed considerably before any such proposal could be fleshed out.

### **What about threats to wild land?**

All this talk and healthy debate took place at a time when in the real world, wild land is still under tremendous threat from a range of sources. The Planning etc (Scotland) Act 2006 has seen more protection for National Scenic Areas (NSAs); however, the production of Management Plans for NSAs has not been placed on a statutory basis at present. The onslaught of renewable energy schemes in many fine wild places continues, and the Public Inquiry into the Beaulieu-Denny power line gears up too.

The Scottish Wild Land Group was pleased to see this greater focus onto Landscape, but we still have a long way to go. Some sectors such as business and enterprise groups do not see landscape protection as a key proposal, despite many rural and tourist businesses benefiting enormously from our landscape. SNH staff and Scottish Executive officers need support from

the public and from politicians / political parties to push Landscape up the policy agenda hierarchy. Such support was seen in the Land Reform debate and the Access Forum and assisted considerably in getting well rounded and effective Scottish legislation.

Wild Land in Scotland has many overlapping perceptions - rugged grandeur, unproductive wasteland, repository of past cultural and historical roots, e.g. pre-clearance communities, untapped base for renewable energy, places for inspiration and re-generation of the human spirit, croft-land and community-owned resource, etc, etc.

Scotland needs to develop a stronger more refined approach to its landscape, incorporating all the strands above. We need to be more cautious in some places, bolder in others. We have the opportunity and means through the political and civic systems of policy development and debate. Let us kick-start the process and press for the European Landscape Convention to become a beacon of light in Scotland, for Scotland.

## **What do hillgoers think of renewables in the wilds?**

*Article*

*A straw poll on Ben Wyvis by David Jarman*

On Christmas Eve, we had done enough shopping and cooking to be allowed out for half a day in the pure blue calm Ross-shire 'wilds'. For a quick training trip I lit upon Beinn nan Cabag, a curious hillock only 474m high in the middle ground west of Garve between the Achnasheen road and the Ullapool road - curious because it is a rare outlier of Old Red Sandstone far from its usual haunts around the Moray Firth. Once up in the heart of Corriemoillie Forest, tall masts began appearing, overtopping even 600m hills nearby. Fionn asked what they were for - 'they're anemometers, for the proposed 'wind farm' here'. "No way !"

### **The view from Corriemoillie**

On the bold wee spine of Cabag, we revolved through a full 360 of fine mountains - the delectable high catenary arcs of the Strathfarrars; Moruisg; the Achnashellach Coullins; Fionn Bheinn; Beinn Eighe behind; the great eastern rampart of the splendid Fannaichs; Beinn Dearg and Am Faochagach; the Vaich Corbetts; and Ben Wyvis close to the east. If we can see them so clear, all within 10-40 km, they will see the turbines. Through the only wide gap, the Cairngorms completed the mountainous skyline. In front of them, brightly lit by the westering sun, the new Farr windfarm was quite distinct despite being 55 km away.

### **The view of Corriemoillie**

A few days later, the final weather window before New Year storm season saw us heading up Ben Wyvis by the tourist route, high cloud cover but still great visibility - virtually all the far west and north peaks from Monar and Torridon up to Ben Hope and Loyal and round to Morven in Caithness. Wyvis may be a smooth lump, but it is one of our finest viewpoints, and becoming very popular as it is so accessible. Throughout the ascent (and even more so the descent) and from the summit, the choicest sector of view is west. The Lochluichart wind factory in Corriemoillie will sit smack dab in the middle of it, pretty much in full view 12 km away. From higher up at least the giant turbines won't break the skyline, but their whiteness and motion will make them inescapable in any decent conditions.

### **The straw poll**

Since the hill was well populated, I decided to accost everyone I could (giving the fell-runner a break) to see what they thought of it. If (even as this WLN is being stuffed into envelopes) I am giving evidence against Beauy-Denny and all it is intended to open up, it might help to

know what a few random hillgoers think. The wind was light enough on the ridge to chat for a minute or so, but it's a disheartening process - people go up hills to escape worries and threats and pollsters.

Even so, of about 15 soloists, couples or threesomes asked, only one gave me an in-yer-face 'it wouldn't bother me'; he lived near Beauly, and the rest of the family opted to stay silent. Most troubling is that only one couple knew of the proposals (and had already objected); they lived locally but had to find their work in London; how can decisions on projects with such wide impacts be taken properly if people are simply unaware of them until they go up?

It is nigh-impossible to get a balanced, considered opinion from a snap question with no fore-knowledge and no opportunity to rehearse the arguments (let alone demonstrate what it will actually look like). All the same, it is reassuring that in the course of these fleeting encounters almost the entire spectrum of issues and solutions that we have been so closely engaged in was covered. Most people mentioned the Novar wind installation, visible 8km east of Wyvis, as being pretty acceptable because from up here, a thousand feet higher, it is almost part of an industrial scene - with oil rigs in the Cromarty Firth, installations at Invergordon, Nigg, Ardersier... although at its present dinky scale, pre-expansion, it's a bit like comparing fairy lights with street lamps. Most people would prefer to see wind energy developments concentrated around Novar and the Moray Firth fringes, with sites inside the mountain area seen as a last resort if ever. Most people liked the idea of putting wind factories out in the North Sea, or suggested bleak Buchan around Peterhead, or nearer the cities (why not on the North Downs? said one, that would teach them).

And several people mentioned the proposed pylon lines, unprompted, saying they would be really intrusive. Nearly everyone agreed subsea cables, and harnessing marine energy like the Pentland Firth, would be much better. Several talked about the need to save energy; I warmed to the lady who demanded to know why we should sacrifice our scenery just so people in Surrey can leave their TVs on standby? No-one mentioned the N-word, since we couldn't quite see Dounreay.

Me, I go with the two old guys from Glasgow, P-reg banger like mine (it was a good year, we agreed back at the forestry car park as the rain came in), sitting in the lee of the summit - on the west side for a change - come up here every year at this time, stay in a hostel; 'what would you think if there was a big wind farm out there, between us and the Fannaichs?' 'Well, it would bother me'. Nuff said.

### **All these intrusions add up**

With Wyvis-goers from Inverness, the Central Belt, England, and the commonwealth countries all snapping happily away, no-one said they would be put off coming again by windfarms etc. That's not the point. The point is that most people's experience will be that little bit diminished, and further diminished by all the other little bits, increasingly with no escape from them, when we didn't need to make all these sacrifices, and didn't know about them until it was too late, and they were all there. Just like all the existing intrusions...

...at the foot of An Cabar, a non-committal member of my sample accosted me, turning the tables, and pointed out that never mind Corriemoillie, the view was already debased by big hydro dams (Glascarnoch and Fannich), and by the ugly, sharp-edged forests and clearfells. As we walked down amicably (the reward of straw-polling), he said he had been thinking about my question, and now felt it was an intrusion too far, that we didn't need to make. We got onto the new-fangled notion of 'rewilding' which I see in the States is heading towards demolition of dams such as Hetch-Hetchy, and as an ex-SEPA man, he could see this in the context of restoring flows to over-abstracted rivers. 'If you could remove one hydro dam which would you choose?' 'Mullardoch, it's too big, that must have been a wonderful through valley to the west in the old days.'

*John Digney reports on further meetings with Lorne Forest District staff*



The end of the ridge that forms the northern half of the Cruach Ardrain horseshoe, where access is impeded by dense forestry. FCS have undertaken to improve the situation for hillwalkers.

*Photo: John Digney*

In the last issue of WLN we reported on the Forestry Commission scoping meetings to which David Jarman and I had been invited following David's forestry articles in previous issues. After the Crianlarich meeting that I attended last September, a site visit was arranged for November to discuss improvements to the hillwalking route options for Cruach Ardrain and Ben More where commercial forestry has caused access problems. As well as FCS staff there were representatives from the Mountaineering Council of Scotland (MCoFS) and the Loch Lomond and the Trossachs National Park Area Access Officer.

### **Cruach Ardrain**

The traditional route from the Crianlarich side crosses the railway bridge just south of the village and heads for Grey Height through a fire break. This route is now in a diabolical state and has been omitted in the most recent guidebooks. We agreed that a better option is to start from the village itself at the Community Woodland car park and use a forest road that terminates below Grey Height. FCS would then construct a path across wet ground to the open hill to connect with the original path. Some tidying work would be carried out, the car park would be enlarged and the initial section of the route waymarked within the forest.

For those completing the Cruach Ardrain-Stob Garbh horseshoe, an uninterrupted line of descent to the forest road is needed, and although we did not have time to investigate the options here, FCS agreed to accommodate the most suitable route.

### **Ben More**

In the afternoon we went over to Coire Choraich, where tracks through an extensive plantation give access to Ben More's north-east ridge. Traditionally the start has been on the east side of the main burn which then has to be forded to reach a forest track on the west side. This track can now be reached from the main network of forest roads on the west side,

so to avoid the burn crossing which can be awkward in spate, FCS will build a car park in a disused quarry near the start of the main forest road and waymark the route. They will improve the track, particularly the upper section which has become a quagmire, and construct a path beside the Allt Coire Chlach to give a more pleasant and direct exit from the forest to open ground.

### Ben Lui

Although there wasn't time for a site visit, FCS are looking at improving the western approach path from Glen Lochy that threads through a dense conifer plantation. This would be also of great benefit to walkers heading for Beinn A' Chleibh.

### Glenachulish Scoping Meeting

Prior to the Crianlarich site visit there had been a scoping meeting in Glencoe to discuss the restructuring plans for Glenachulish. This was also attended by representatives from MCoFS, SNH and the local community as well as several FCS staff, although many more individuals and organizations had been invited.

The extensive planting on the northern slopes and corries of Beinn a'



Beinn a'Bheithir is almost encircled by forestry, and even from its summit the hard, unnatural edges of the plantations are conspicuous. FCS now have radical proposals to restructure the forests on the northern slopes.

*Photo: John Digney*

Bheithir has attracted criticism from many quarters, including several of the popular guidebook writers, as the trees have caused major access problems as well as changing the character of the landscape. The FCS response has been extremely positive - the proposals are for the quantity of broadleaves to be increased more than fourfold, and the sitka to be reduced to a sixth of its present levels. This is all the more laudable when the ground has proved to be very productive commercially, and the proposals were agreed enthusiastically with relatively minor suggestions. FCS have already done some path work, but in the shorter term will look at increasing the access options to the ridges and corries.

## Gaia and the energy debate

*Article*

*With man-made climate change now officially acknowledged, Fiona Anderson examines the latest ideas of James Lovelock*

James Lovelock published his book *The Revenge of Gaia* last year. It is a fascinating read, as well as being accessible to a non-scientist, and has some messages of interest to SWLG. He first presented his Gaia theory in the 1970s. Its hypothesis about how the earth regulates its own temperature, as if it were a living organism, was then widely disputed. Now at the age of 86 he has synthesised all his books and findings on Gaia into just 159 pages for the 21st century - very timely in view of the recent publication of the Government's commissioned Stern Report into climate change and the very late conversion of the United States!

Gaia comprises the living part of the Earth, including all the creatures in it, which extends from the rocks of the crust out through the soil, the ocean and the atmosphere to the edge of space. It is a dynamic interconnected system, which appears to have the unconscious goal of regulating its own climate and chemical composition to a comfortable state for life. The existence of an Earth System as a working model was accepted by scientists in Europe in 2001.

All life forms have lower, upper and optimum criteria for growth. When the surface waters of the ocean exceed 10°C from the Sun's heat as a result of global warming, algae and other nutrients for birds and fish, which have a cooling effect, die as the temperature rises in the spring. The surface layers do not mix with the cooler, nutrient-rich waters below and become a desert, covering 80% of the world's water surface, short of the polar regions and the edges of continents where cold rich waters well up from the depths. This alone would account for seabird deaths around the Scottish coast in recent years.

On land living organisms flourish up to 40°C, but the water they need evaporates rapidly above 25°C. The eco-system of tropical rain forest adapts to this to an extent by recycling water to the atmosphere as clouds and rain, but a 4°C rise in temperature, coupled with changes in wind patterns, would destabilize the rainforests and turn them into scrubland.

There are other intricate links in chemical composition between the gases produced by algae in the oceans and climate that are currently being uncovered in dozens of laboratories around the world - these gases when oxidised with air make the tiny particles that cause clouds to condense - one of Gaia's air-conditioning mechanisms. Modelling of the ocean and land eco-systems shows that ocean temperature suddenly jumps when carbon dioxide approaches 500 parts per million, which scientists say is now almost inevitable within 40 years. This is close to the temperature rise of 2.7°C predicted by the Intergovernmental Report on Climate Change (IPCC) as sufficient to start irreversible melting of Greenland's ice.

Arguments like this may not by themselves be strong enough, Dr Lovelock says, to justify political action, but they become serious when taken in conjunction with evidence that nearly all systems that affect climate are now in "positive feedback", meaning any addition of heat from any source will be amplified. Examples include:

- as the oceans warm and the area of sea that can support the growth of algae grows smaller as it is driven closer to the poles, there is less take up of carbon dioxide(CO<sub>2</sub>) from the atmosphere which normally generates marine stratus clouds, reflecting back the sun's heat.
- land or sea covered by snow or ice normally reflects sunlight, but once the edges begin to melt, dark ground or sea emerges which absorbs sunlight and therefore melts more snow. The IPCC predicted in 2001 that the sea ice in the Arctic, which polar bears need to survive, would go first. This is now happening as well as melting of the perma-frost in Siberia; which will release huge amounts of methane;
- as forest and algal eco-systems die their decomposition releases CO<sub>2</sub> and methane into the air. Methane is 24 times more potent as a greenhouse gas than CO<sub>2</sub> .

What has upset Gaia's temperature regulation is that in the last 200 years we have turned up the heat by massively increasing greenhouse gases and simultaneously removing the natural systems that helped to regulate it, particularly the vast tropical and temperate forests, (and the woodlands and hedgerows which were extensive in Britain even 100 years ago,) and replacing them with barren farmland and overstocked fields to feed the world's 6 billion population which do not absorb CO<sub>2</sub> . These actions have also irreparably reduced bio-diversity in the world and is causing severe loss of wildlife in Britain - a "silent spring" worse than the use of pesticides in the 1950s.

Lovelock has strong views about renewable energy, particularly "bio-fuels." We would need the land area of several Earths just to grow the bio-fuel for our transport systems alone. The problems with wind power are its intermittency - at best energy is available only 25% of the time and the most recent reports from Germany and Denmark put it at 16% and 3% (Scotland is a windier country!), and how to store it where pump storage reservoirs like Cruachan are not available. He says there are many parts of the world, like the great plains of Russia and USA, where wind farms could co-exist perfectly well with large scale agriculture, but in the densely populated parts of Europe like Britain there is no place for 100+m high towers on a large scale. 276,000 of them, about 3 per square mile, if national parks, urban and industrial areas are excluded, would be needed to supply the UK's present electricity needs. Offshore wind is a better idea as the wind is more powerful and reliable, and they could be out of sight, but the costs of maintenance are much higher.

Solar energy though ideal, is still too costly for widespread use. Wave and tidal energy schemes seem well worth while but are likely to take decades to develop. Hydro-electricity, our oldest renewable energy source, is less damaging than on-shore wind, but there are too many of us and too few rivers to satisfy more than a fraction of our needs. Burning natural gas halves the emission of greenhouse gases compared with coal, but leaks reduce this advantage. Which leaves nuclear energy. Lovelock sees no alternative to nuclear fission until fusion energy and sensible forms of RE arrive. He considers the benefits of nuclear power as far outweighing its alleged dangers, and the widespread fear of it as having been built up in the public's mind ever since the intense fears during Cold War in the 1960s.

Lovelock concludes that we must stop using the land surface as if it was ours alone. It is not: it belongs to the community of eco-systems that support life on Earth. By massively taking land to feed people - he speculates on the possibility of synthesising food production - and by fouling the air and water, we have stumbled into a war with Gaia that we have no hope of winning, and all we can do is make peace while we are still strong.

But Al Gore, the former US vice-president (whose documentary film *An Inconvenient Truth* you may have seen last autumn, and is to be shown in Scottish schools) considers Lovelock is very pessimistic, and wrong in presuming people are incapable of changing their behaviour. David Attenborough also interpreted the findings of the Stern Report as meaning that we cannot change the warming effects that will happen in 20 years, but if each one of us responds now in 2007 by reducing our personal use of fossil fuel energy we can improve the situation in 40 years time, by around 2050. If not, within 10 years we will have passed the threshold of irreversible heating.

## **Book Review: Hostile Habitats, Scotland's mountain environments**

*Article*

**Editors: Nick Kempe / Mark Wrightham, SMT 2006. ISBN: 0907521932. Price: £15**

Never mind the daft title, this is the book I have been waiting 30-odd years for, puzzling as to why no-one could spot the market for a simple guide to what we see as we go about the mountains. Or might see if our eyes were opened. Until now, you would need a shelf of guides to span the geology, the climate, the natural history, the archaeology - some dull textbooks, others covering the whole of northern Europe. This brings it all together in the usual SMT hard covers, too heavy for a rucksack, but durable enough for a thousand thumbings through. Every bothy should have one, and the glossy paper won't kindle a fire.

I dipped first into the chapter I know least about - the humble invertebrates (which includes that class of politicians who would sell out our world-class if only sometimes-hostile habitats to imperial demands from furth of Scotland). Keith Miller alerts us to their uncoun-

numbers, from glamorous beasties I've yet to see like the Magpie Moth (widespread, locally common) to the itchy-crawling deer ked, a new one on me. But his figure of 'up to 2400 midge larvae per square metre' surely must be an underestimate.

A nice touch is to give the Gaelic names for the species (so why not for the rock-types and landforms?). There are odd exceptions - didn't they notice the exotic Green Tiger Beetle or mountain azalea, let alone the omnipresent tufted hairgrass *deschampsia cespitosa*? So many mountain placenames include these species - Meall Corranaich, the bracken corrie, of course - that it's strange I can't think of one featuring that landmark, the rowan (luis), or those yellow havens of tormentil (*cara-mhil-a'-choin*), or even the high-ranging pine marten (taghan) - perhaps unlike the otter (*dobhran*) it roams too wide to be placed.

These are all solid accounts by the best experts - yet happily they sometimes reveal their mountain-going roots, as when Mark Wrightham admits to the high proportion of fieldwork conducted from pub doorsteps (mapping the vegetation of Meall a' Chrulaiste from the Kingshouse), or to the value of heather and rowan to the struggling climber. It is good to have a single chapter on Vegetation Cover, by habitat types, rather than dividing it into trees, flowers, and the squidgy stuff; although the next edition should really go further beyond species recognition. It needs a chapter showing how the flora and fauna all inter-relate in living landscapes, and open up the debate on how we should manage and rewild them - or leave them to nature.

It will take a long time for even such a fine book as this to eradicate the folk myths we have imbibed. Amusingly, Nick Kempe goes too far the other way, knocking down the 'rock of ages' myth - "even our oldest rocks are less than half as old as the earth itself", and asserting that the landscape is actually all very recent - "almost all our mountain scenery is a legacy of the last Ice Age, or only 11,500 years old at most". Yet Kathryn Goodenough has just told us that Scotland's geology spans two-thirds of the lifetime of the earth, and John Gordon has stressed that the overall topography of the Scottish hills reflects the processes shaping the landscape prior to the Ice Age. Mercifully, Kathryn suggests the Highlands were once the height of the Alps - not the Himalayas, as that BBC1 programme bragged a couple of years ago.

Most guidebooks favour the charismatic mountains and species. This one gives equal space to the humble voles, to LBJs (little brown jobs) such as the meadow pipit, to rushes and mosses, and to unobtrusive landforms like solifluction lobes. Likewise, it depicts the Luss Hills and the Cluanie whalebacks, as well as the Cairngorms, Cuillins, and Torridons. It even notices the Southern Uplands.

And most guides stick to the good news, while this one points out the dire effects of sporting-interest persecutions, of blanket afforestation, and of alien animal introductions such as sika deer; not, oddly, alien plants such as rhododendron and the fast-spreading waterborne plague of Japanese knotweed (now taking hold along Loch Lubnaig, and even spotted filling a remote bay up Loch Etive).

And it illuminates the seldom-noticed traces of man - I had no idea Ben Griam Beag was so remarkably crowned with an ancient settlement.

The odd chapter out is Nick Kempe's pithy take on the Future of Our Mountains. He makes explicit the link between nature conservation and informal outdoor recreation - this book aims to bring its readers, us hillgoers, up to speed on just what makes Scotland's mountains so special. Maybe then we will start to lobby for their scenic protection and better management. He bravely swims against the PC tide by remarking on the way that most privately-owned estates have remained fairly immune to the vagaries of grant-aided follies like forestry and sheep overstocking, thus tending to preserve traditional ways. I fear this is changing, as cash incentives for wind generators reach bank-buster proportions, and wacky ideas such as wolf

safari parks emerge. He quips that the dotterel, once rare, suddenly became common when Sweden joined the EU - the glum message being that progress is through a quagmire of quangos and committees, unless a charismatic leader cuts through it all by changing slogan - maybe from 'it's Scotland's oil' to 'it's Scotland's natural and cultural landscape inheritance and tourist-pound earner'. OK, could be snappier.

As for that daft title - which all my contacts fear will put off buyers - the gallery of brilliant pictures in glorious sunshine betrays it. Here is a verdant mountainscape burgeoning with wildlife. It only looks hostile if you're a deer (two bloody images, and the joy of being parasitized by 44 species of flatworms and roundworms). All the chapters depict a mountain environment rich in the essentials for life - water, soil, nutrients, warmth, shelter, diversity, ease of movement. The maritime climate is benign, compared with hot or cold deserts or continental interiors, and not even especially wet. Much of the terrain is pretty close to sea-level (below 300 metres), and the mountains are sliced through with low passes (no tunnels or alpine hairpins are needed to cross them in any direction). Only the eastern plateaux have any tiny claim to hostility on a global scale, and even there shielings are found up to 800 metres. Indeed Andy Dugmore and Ian Ralston's fascinating chapter on human traces brings home how widely colonised the Scottish uplands have been colonised, although more on recent decline and current resurgence would be welcome, as Scotland becomes an ever more attractive resort under the climate change squeeze.

There is just one picture of two twits up in the clag, when the rest of nature would be chilling out in its burrows, nests, woods, and pubs - and carapaced in breathable waterproof shells and equipped with bird-mimicking GPS it's not even hostile for them. This is what makes the Scottish mountains so enduringly attractive and special to countless hillgoers - they are a proper but encompassable range, they offer amazingly varied landscapes in a microcosm, and they teem with wildlife (130 invertebrate species found on the Cairngorm summit snows!). They give a frisson of hostility, but what this grand book really shows is that they are pussycats up against extreme habitats like Ellesmere Island or the Tibesti.

*David Jarman*