

Scotland's landslips and the climate and environment emergencies – citizen science to the rescue?

Description



South west flank of Capel Fell from Croft Head, Ettrick Hills, May 2021

Watching the torrential rain showers in Glasgow over the last ten days, I have been wondering about what impact they have been having in hills, both in our National Parks and more widely.

Erosion is a natural process but the impact of increased heavy rainfall due to climate change on eroded slopes such as that pictured above should be obvious. My OS map 79, dating from 1985, shows two separate erosion features half-way up the slope: they have now joined at the bottom and reach almost to the top. The isolated clump of turf at the top of the right hand erosion feature, and the jagged line of turf running down its right-hand side, show how the vegetation is being stripped away. Much of the left hand feature has now eroded back to the bedrock and the erosion runnels on the right

hand feature show it's only a matter of time before this happens there too. Maybe one downpour will be sufficient?

The horizontal lines across the vegetation almost certainly mark former pathways used by grazing animals (one would need to walk over the slope to be 100% sure). The erosion features have now cut off access to grazing animals and that is enabling the vegetation, marked by the darker patches, to regenerate (particularly noticeable on the shoulder to the right). Whether this will prevent the whole of this slope eroding back to the bedrock remains to be seen.



Landslip Andrew Gannel Hill, Ochils 12th August. I did not get close enough to get a sense of how old this was though there appeared some signs of recent erosion.

Whenever I go into the hills now, I look for landslips and, particularly on grassy hills, heavily grazed by sheep or deer, I expect to see them (photo above).

Where a landslip has occurred, it should be obvious that the land is particularly vulnerable to further erosion and extreme rain events. A very good example is at the Rest and Be Thankful ([see here](#)), where Transport Scotland is now having to close the A83 when high rainfall is predicted (twice in the last few weeks – [see here](#)). Despite publishing a landslide study in 2005 ([see here](#)), they failed to act and let the grazing continue. That should serve as a warning to us all and particularly to those bodies responsible for holding landowners to account for the way they use the land: NatureScot; our National Park Authorities; the Scottish Government.

What I had not appreciated until I observed the landslips off Glen Banchor a few weeks ago ([see here](#)) was that one isolated cloudburst after a not particularly wet period could trigger so many new landslips. I had assumed that most of the landslips I have been observing were triggered by longer rain events, a few hours at least. It seems that the land is in an even worse state than I had thought.



Five landslides visible on the east side of the Spear (the Merrick) and Kirriereoch Hill Galloway. Photo taken on 25th July from Mullwharchar.

Unfortunately, the powers that be still have their eyes closed and most of the people responsible probably never go into the hills. Despite the Rest and Be Thankful and despite all the coverage parkswatch has given to the landslides around Loch Katrine and Glen Falloch, [see here](#) and [here](#) for example, Loch Lomond and Trossachs National Park Authority have never discussed them at a Board Meeting and have never, to the best of my knowledge been to visit them (there is so much secrecy you can never be quite sure what the LLTNPA actually do do) . Boards appear to find it much easier to discuss anodyne papers on climate change on Zoom (convenient for the two LLTNPA Board Members who live in England) rather than witness at first hand the impact of the worsening climate and environmental crises.

Part of the reason organisations like the LLTNPA and the Scottish Government still get away with this is lack of data. “Scotland has had 20 major landslips in the last two weeks and 120 in the last year” might hit the headlines. But at present we don’t have that information. The only organisation I know that is making a serious attempt to study the problem is the British Geological Society which has a

database on landslides ([see here](#)). A quick look at their online map shows that not a single one of the landslips featured in this post are currently on their data base. In fact, in the core Galloway Hills only five are recorded in total. There are that many in the photo I took of Kirriereoch a couple of weeks ago! In fact I have seen three times that many this year in Galloway alone.....

That is where citizen science and you, the reader, can help. If you see signs of a recent landslip, take a photo and the grid reference and send this to landslides@bgs.ac.uk . While its worth checking the BGS on-line map before doing so, even if its an older landslip and has already been recorded, recent photos may help scientists work out whether the initial area affected by a landslip is expanding. The more landslips are reported, the harder it will be for our politicians and public authorities to ignore what is going on and the easier it will be to make the case for research and action to tackle the way land in Scotland is being mis-managed at present.

Both our National Park Authorities and Forest and Land Scotland should be assisting with the research. The LLTNPA Ranger Service, for example, drives every day past sites where I have seen evidence of recent landslips, but there are no signs of those being logged on the BGS database. Our National Park Authorities could also be helping fund research with their climate emergency monies. Citizen science data can help show them up so and shame them into action so, if you are going for a walk in the hills, please record landslips and report them to BGS. And, if they are in one of our two National Parks (or even if not), I would be very interested in seeing them nickkempe@parkswatchscotland.co.uk .

More on the landslips that have been taking place in the Loch Lomond and Trossachs National Park soon!

Category

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