# Ecological impact of new hill tracks in National Parks – by James Fenton

## Description

New tracks continue to be bulldozed into the hills at an alarming rate for access to forestry, livestock, shooting, windfarms, hydro dams, pylons & masts. Designation of the area as a National Park appears to make no difference, for new tracks have now recently been bulldozed into most of the side glens of Glens Falloch and Dochart within the Loch Lomond & The Trossachs National Park. These are for the construction of, and subsequent access to, run-of-river hydro schemes (see previous post by Nick Kempe)

Building such a track means breaking through the soil layers and disturbing the soil stratification which has built up over the previous millennia. It has been raining in Scotland since the end of the Ice Age which has caused the stratification and the leaching out of nutrients from the surface layers, and often also the development of an impermeable iron pan.



Photo credit James Fenton

The above picture show two adjacent soil types exposed by recently bulldozed track in the LLTNP: a drier soil on the left (podsol) with bracken, showing brown layers rich in oxidised iron below; a wetter soil on the right (gley) with bog myrtle, showing grey layers of reduced iron. Both have a surface layer

of organic humus.

Track ‘restoration’ can rarely recreate this soil detail so that any post-construction landscaping cannot recreate in full the original soil profile: some mixing of the different layers inevitable. Hence the restored ground represents a new habitat type in the locality, able to be colonised by plants which would not naturally be found in the locality. In effect they act as corridors for invasive species.

Photo credit James Fenton

An example of the ‘restored’ ground associated with a hydro scheme within the LLTNP (Glen Falloch), showing a mix of the organic and mineral soil layers – and also showing a ditch liable to gully eroson. How not to do it!


Photo credit James Fenton

Better quality track-side restoration above Glen Falloch within the LLTNP, showing how the organic layer has been reapplied over a mineral layer. However the track-bed itself will continue to be mineral soil, providing a habitat type new to the locality.

## Tracks as corridors for invasive species

The new habitat created along tracks allows plants not native to the locality to colonise the area. The pictures below, while not taken within National Parks, illustrate what could happen to many of the new National Park tracks.

One of the plants which most commonly invades new tracks at lower altitudes is gorse. It also uses roadsides to colonise, for example along the full length of the road from Drumrunie to Achiltibuie in Wester Ross.


Photo credit James Fenton

Gorse entering a new locality using a forestry track for colonisation (above picture).


Photo credit James Fenton

Spruce colonising a track edge, illustrating how soil disturbance provides ideal conditions for tree colonisation. Tracks provide ideal seedbeds for self-seeded trees from forestry plantations. Most upgraded roads in the Highlands, including those within both the Cairngorms and Loch Lomond & The Trossachs National Parks, now have a corridor of trees beside them owing to the ground disturbance from road construction – meaning you can no longer see the view from many roads. This will also occur along the A9 once dualled.

Photo credit James Fenton

Scots pine colonising a track, seeded from the nearby plantation. Note that the old growth heather is relatively resistant to tree colonisation, indicating how soil disturbance from track construction creates new habitat, akin to the postglacial soil conditions in Scotland before centuries of rainfall had leached out the nutrients from the surface layers. This illustrates one reason why the landscape was more suited to tree colonisation millennia ago.


Photo credit James Fenton

A windfarm access track built through blanket peat in the Monadhliath, the ‘restored’ area seeded with grass and being colonised by soft rush. This represents a new habitat type in this area, introducing species not found on blanket peat, and providing a route for additional species to enter.


Photo credit James Fenton

Two plants of broom (centre) colonising a new hydro track within the Wester Ross National Scenic Area. Broom was previously unknown in this locality. It could have been brought in on contractor's vehicles. Biosecurity of contractor's vehicles should be a key condition of any new hill track construction.

Photo credit James Fenton

A brassica species (yellow) colonising a new hydro track. Such brassicas would previously have been unknown in this glen.


Photo credit James Fenton

A hydro track up the Boor Burn within the Wester Ross National Scenic Area showing very poor restoration. Note a shoot of mullein in the foreground, abundant foxgloves, and the extent of disturbed ground.


Photo credit James Fenton

Gorse colonising the old construction site for this scheme – again introducing gorse into a new locality.

Other native plants which can enter ecosystems along access tracks include butterbur, coltsfoot, ragwort, thistles, rosebay willowherb and a variety of trees and shrubs.

## Long-term threats to our National Parks

This whole issue of tracks acting as corridors for invasive species is rarely discussed, although it is realised in other parts of the world that habitat destruction begins with the building of roads. The long-term ecological impact of all the new tracks being built within National Parks and elsewhere remains to be seen but we should be aware of the potential issues raised here. Additionally many non-native invasive plants are currently colonising roadsides, including Indian (Himalayan) balsam, Himalayan knotweed, Japanese knotweed, montbretia, cotoneasters, garden variety lady's mantle, rhododendron … Virtually no action is being taken on these, and we are creating suitable habitat for them also to colonise into the heart of our National Parks.

Note though, that vegetation colonisation can be a slow process, sometimes taking decades or centuries. Hence we will need to monitor these tracks for a long time. If nature conservation is about conserving naturalness, then tracks have the potential to compromise this. If anything, we are accelerating the rate of new track construction in our National Parks and other sensitive landscapes.

**Category**

1. Cairngorms
2. Loch Lomond and Trossachs
3. National Parks

**Tags**

1. CNPA
2. conservation
3. hill tracks
4. LLTNPA
5. restoration



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