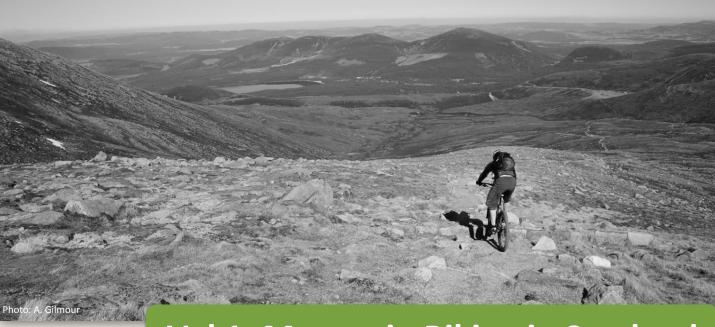


Understanding & Resolving Land-Use Conflicts











ISSN ---Volume 1 Summer 2013

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About the James Hutton Institute

The James Hutton Institute brought together the Macaulay Land Use Research Institute and Scottish Crop Research Institute (SCRI) on 1 April 2011. The new organisation combines existing strengths in crops, soils and land use and environmental research.

The James Hutton Institute is an internationally networked organisation and operates from multiple sites, including two main ones in Scotland at Aberdeen and Dundee. It employs more than 600 scientists and support staff, making it one of the biggest research centres in the UK and the first of its type in Europe. The institute is one of the Scottish Government's main research providers in environmental, crop and food science and will have a major role in the Scottish knowledge economy.

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Author Biographies

Dr Katrina Myrvang Brown is a senior researcher in human-environment relations at the interdisciplinary James Hutton Institute. She has led and contributed to a number of projects relating to outdoor access and recreation, dealing with issues such as participation, benefits to economy and health, implementation of new legislation (the Land Reform (Scotland) Act 2003), and conflict management. A key goal of her research is to understand the formal and informal mechanisms that regulate behaviour, especially the interplay between law and cultural norms. One focus is how such mechanisms can allow a balance to be struck between outdoor recreation and land management objectives. To explore the practical and context-depend aspects of outdoor recreation, Katrina and colleagues have developed innovative mobile and visual methods, including 'go-along' interviewing and 'headcam' video techniques.

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Nicki Diggins is currently a full-time lecturer of Sport and Outdoor Studies with the University of the Highlands and Islands (UHI Inverness) who completed a part time Postgraduate Diploma in Outdoor Education from Edinburgh University in 2011. Nicki was commissioned by Scottish Enterprise in 2011 to conduct a qualifications audit and mapping exercise to inform the Mountain Biking Knowledge Transfer Project. This project aims to capitalise on the knowledge economy behind the sport by increasing the number of products designed, developed and manufactured in Scotland. This was a desk-based research project drawing upon her understanding of qualifications and their frameworks borne from over 25 years experience working within Secondary, Further and Higher Education, and as an accredited Mountain Bike Leadership Tutor and National Governing Body Coach in a wide range of outdoor pursuits. Additionally, Nicki has collaborated with colleagues within the UHI on the 'Highlands Cluster: Developing Mountain Biking in Scotland' Report; a subsequent report focussing on the remaining regions of Scotland; and a Strategic Review on Developing Mountain Biking in Scotland (DMBinS) Project. Her role within the latter project involved mixed methods including; qualitative and quantitative analysis of data from stakeholders and mountain bikers, supplemented with data from focus groups conducted by colleagues. Nicki's current interest are in teaching and learning in outdoor leadership and adventure sports coaching.

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Fran Pothecary has been an Outdoor Access Officer at the Cairngorms National Park Authority since 2004. Last year she completed an MSc. in Sustainable Mountain Development through the Centre for Mountain Studies, UHI. Her thesis looked at the contested area of mountain biking in mountain environments and she was able to draw extensively on professional contacts with land managers and recreational users in pulling together two focus groups to address this topic. The focus group - with its ability to capture detailed, iterative discussion and qualitative data - was the choice of research methodology. Fran's current work focuses on the development and management of outdoor access and related issues through-out the Cairngorms National Park – including resolving conflict, promoting responsible outdoor practices, encouraging sustainable travel and active lifestyles and creating opportunities for people to enjoy the outdoors

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Dr Steve Taylor is a Research Fellow at the University of the Highlands and Islands' Centre for Recreation and Tourism Research (CRTR), at West Highland College, Fort William. He has a background in sustainable travel, having worked for Aberdeenshire Council for five years developing transport policy/strategy, writing European funding applications and managing projects such as the Interreg IIIC 'Concept' sustainable transport project. A move into the private sector, working as Principal Consultant for Capita Symonds, saw him developing further project management experience in the sustainable transport sector. At this time he developed a great passion for mountain biking. Seeking his next challenge, Steve left the UK to undertake his adventure tourism PhD in New Zealand. He interviewed mountain bikers in New Zealand and the UK to try to understand the range of psychological, sociological and physiological factors, along with site characteristics and information sources, which influence their participation. Steve's current workload is centred on consultancy and applied research. The CRTR has recently undertaken knowledge exchange projects with businesses such as Glencoe Mountain Resort, Glenmore Lodge, Vertical Descents and Wild by Nature. Steve oversees the 'LANDsARE' trans-national LEADER project, with partners in Italy and Germany, and is project manager for the NORA-funded project 'Nordic Slow Adventure', with partners in Norway, Iceland and the Faeroes. His current research interests, applied and academic, include: autonomously-controlled adventure recreation; mountain biking; sustainable travel/transport; psychological elements of adventure sports; and, peer pressure/social recognition of recreational participation.

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Editorial

By Guest Editor, Fran Pothecary



With an increasing diversity of pressures on our rural landscapes in Scotland - for example, urban migration, changing patterns and modes of access taking, and demand for renewable energy – land-use conflicts are inevitable. Conflict can arise in and between interests such as environmental conservation, development, agriculture, forestry, recreation, communities and land owners. Thus, it is clear that the need for us to understand and build upon our knowledge of how to manage/resolve conflicts is omnipresent. In this, the first edition in a series exploring the understanding and resolution of rural land-use conflicts, we examine the case of mountain biking as a recreational activity which has a high conflict potential, both in the recreational sphere and in the context of broader land-use interests.

Mountain biking has seen an ascendancy in the last 10-15 years throughout the UK. In Scotland, liberal access legislation - now in its tenth year - has supported a right of responsible public access to most land and water in Scotland for non-motorised forms of recreation. For land



Editorial by Guest Editor, Fran Pothecary

managers and access managers, mountain biking (like any novel and fast-developing recreation form) poses challenges and can create the potential for conflict to arise, especially in the context of established use and unforeseen impacts. Notable challenges which are currently being tackled relate to the integration of mountain bikers with other users and land management objectives, and the potential damaging impacts of mountain biking on the physical environment.

Collated here are a number of articles documenting recent research into mountain biking – either in a Scottish setting or presented by researchers familiar with the Scottish context and its specific challenges and opportunities (e.g. large upland areas and liberal access laws). A number of the articles are intended to give the reader a better sense of the 'state of play' of biking in Scotland, as well as giving context to the remaining articles, which more explicitly address the issue of conflict.

Taylor et al's work captures the provision, value of and the future for mountain biking in Scotland and the Highlands in particular, particularly flagging its economic value, with a nod to health benefits as well – providing a context for the subsequent articles. His single authored piece looks at the range of factors which influence mountain bikers participation in the sport and this provides the basis of understand some of the attitudes and perceptions that inform the other articles. Pothecary's work addresses the question of whether mountain bikes really are appropriate in upland or mountain areas through examining 'what is responsible riding practice?' and brings the perspectives of land managers in the Cairngorms National Park into the mix. Brown's research stems from a social geographer's perspective and, using pioneering 'head-cam' technology, takes as its starting place people's place in the outdoors, how they negotiate and stake their claims to it, and the mechanisms they use to reinforce this.

Each paper (either a report, thesis, or journal submission) has been summarised by its author in plain English, and four to five bullet points flagged up as implications for policy and practice. Through the dissemination of these articles we hope to achieve three things:

- Recognition of the need for evidence-based decision-making whilst acknowledging the lack of rigorous scientific information on mountain biking to date;
- Raise awareness of what is going on in the academic world with regards to mountain biking in the hope that the audience can translate these findings into a practical context, and;
- In the longer term, highlight to the audience current academic work exploring broader land-use conflicts to facilitate a better exchange of information and ideas.



'Extending the Dream Machine': understanding people's participation in mountain biking

Dr Steve Taylor

The aim of this research was to identify the range of factors that determine people's participation in mountain biking.

The specific research objectives were to identify: first, people's motivations for participation; second, the site attributes that attract bikers to certain locations; and third, other factors that influence participation. Figure One shows the factors identified.





'Extending the Dream Machine': understanding people's participation in mountain biking by Dr Steve Taylor

Semi-structured and open-ended interviews were employed to interview mountain bikers, in Nelson, New Zealand, and Shrewsbury, England, chosen because they have large populations, vibrant mountain biking scenes and a range of purpose-built trails and rights-of-way within easy reach. Experienced cross-country mountain bikers who ride regularly and on both types of trails were interviewed.

Mountain biker's motivations

While some motivations are inherently more important, a mountain bike ride can satisfy a number of different reasons for participating. While it is apparent that these influences are very personal and their importance varies between bikers, a number of core motivations to ride have been identified.

Nearly all the interviewees mentioned how they are motivated by the physical nature of mountain biking. A proven workout, some participants commented how mountain biking is more fun than running and more experiential than going to the gym. Mountain biking can perform such a functional role, but most of the core reasons for enjoyment are intrinsic motivations related to the experiential nature of riding.

Mountain biking can also be an opportunity to access the great outdoors and facilitate both a physical escape and mental release from routine. Catharsis can be found in riding alone, with opportunities to reflect on life or escape the routine of everyday life. Most of the interviewees do prefer riding with other people however, for the opportunities for social interaction, improving their technique and sharing experiences on the trail.

Mountain bikers can be perceived as a community of riders, where participation can have mutual benefits through these adventurous narratives they tell, increasing self-esteem and social status. Conversely, riding with others can generate sufficient peer pressure to move riders out of their comfort zone



and create anxiety. While responses suggested that peer pressure and social recognition are not in themselves motivations to mountain bike, they do nonetheless affect how people ride.

Mastering the physical and psychological challenges posed by technical trails or self-navigation in wilder areas was identified as a key motivation. Overcoming these tests, however, is an attraction in itself for many riders, not least because it can result in optimal experiences for riders, where they can lose themselves 'in the moment' for example.

Desired settings for participation

The research also identified a diverse range of physical attributes that serve to attract mountain bikers to destinations. Responses suggested that just as people are influenced by more than one motivation, mountain bikers do not generally seek one particular attribute, even on a single ride.

A diversity of opportunities to ride was cited as a core site attribute, as having a variety of trails available or being able to access trails with different features can realise diverse motivations. Those destinations that offer diverse 'natural' landscapes and offer grand vistas of upland scenery are perceived as desirable settings, even if for many riders scenery plays a secondary role to the quality of the riding. The sense of adventure engendered by such wild, natural landscapes is considered a particularly desirable property of traditional trails.



'Extending the Dream Machine': understanding people's participation in mountain biking by Dr Steve Taylor

Conversely, purpose-built mountain biking centres are considered by some participants to be manipulated recreational landscapes that have removed an element of adventure from mountain biking. While extensive sign-posting and urbane facilities that can characterise these settings arguably softens mountain biking's image as a 'hard' adventure recreation activity, trail centres can offer riding free from conflict with other users. Such user-group conflict, while confirmed as a relatively minor issue for interviewees, still has the potential to dilute the wilderness experience offered by many traditional trails.

Trail centres universally are perceived by participants as great riding environments, where the emphasis is on the quality of the trails and the condensed experiences that fit into many people's time-constrained contemporary lives. Traditional and purpose-built trails are often perceived as representing diverse mountain biking opportunities, offering different experiences and satisfying different motivations.

Information sources: linking motivations and site attributes

Proven to be the most relevant sources of external information to mountain bikers are informal word-of-mouth recommendations. Interviewees use these sources more than any other. Some riders cautioned that it is important to know the person; however, many interviewees would still take on recommendations from people that they didn't know.

While magazines have been the most important sources in the past, they are less well used by participants today. In the past few years, the Internet has become the principal source of travel planning information for many people. It is also starting to alter the buying experience as it even enables some products to be vicariously sampled before purchase, videos of heli-biking in New Zealand for example.

Another influence on a person's motivation to visit is image: perceptions people have about a place. The opinions of others, through word-of-mouth testimonials about destinations, are an important factor in image promotion, and those with a great image are more likely to be chosen.

The use of imagery is an important means of creating a destination image, on websites and in other media. While most interviewees felt that photographs alone are insufficient to persuade them to try a new trail or destination, and textual descriptions are still primary, many feel that decisions to visit a destination can be swayed by the power of such imagery.

Constraints on mountain biking activity

Interviewees introduced a number of issues which, rather than encouraging their participation, can potentially inhibit it. These factors can manifest themselves spatially, temporally or in terms of socio-demographic factors. Spatial constraints include legal access rights for instance, or decisions about where to ride in poor weather. More temporally-oriented are constraints such as seasonality or work commitments affecting the time available to ride. Socio-demographic issues such as familial patterns, income and activity-related costs may be other factors that can potentially constrain riders' ability to engage in mountain biking.



'Extending the Dream Machine': understanding people's participation in mountain biking by Dr Steve Taylor

Implications for policy and practice

- Planners should be aware that many mountain bikers like to see a diverse range of physical attributes at biking destinations.
- Mountain biking is generally a sociable activity, and there are opportunities taking advantage of this desire to spend time together, not only on the trails but swap post-ride stories.
- Destinations that offer natural landscapes, a range of settings and have great views are perceived as
 desirable.
- Trail centres are perceived as great riding environments, where a range of quality purpose-built trails and associated facilities can provide a great experience for riders of all abilities.
- Many more experienced riders, however, relish the adventure and challenge of riding on tracks and paths
 away from purpose-built centres, and appropriate information for planning, but not necessarily 'on the
 ground' should be provided.
- Destinations should facilitate and encourage means for bikers to share their positive experiences through informal word-of-mouth, or increasingly 'word-of-mouse', recommendations.
- Creating positive images or perceptions of destinations is important, to create the necessary consumer desire
 to visit.

Taylor, S. (2010) 'Extending the dream machine': Understanding people's participation in mountain biking. Annals of Leisure Research, 13(1&2), 259 – 281). This research was undertaken as part of a doctoral thesis completed at the University of Otago, 2009.



What does 'responsible access' in the uplands mean conceptually and in practise for mountain bikers and land managers in the Cairngorms National Park?

Fran Pothecary



Are mountain bikes really bikes for the mountains? Certainly this question has been raised in the past few years as advances in bike and GPS technology, and social media have rolled back the boundaries of where people are able to ride, and equipped them with the means to explore further and further into some of the remotest parts of the UK. Nowhere more than the Cairngorms characterises this environment, and nowhere are the tensions more acute between 'protected land' and growing recreational pressure.

In an effort to examine the perspectives of two key stakeholder groups – land managers and mountain

bikers – this piece of research used focus groups to explore the issue.

The groups independently considered the following questions:

- What is the significance of the Cairngorms for recreation
- What are the perceptions of mountain biking impact in upland areas – both environmental and social
- Who uses upland paths and how should upland path infrastructure be managed for that use
- What is the role of the Scottish Outdoor Access
 Code and wider education in decision making
- How is mountain biking, and it's associated issues, promoted and to what effect



What does 'responsible access' mean to mountain bikers and land managers in the Cairngorms National Park by Fran Pothecary

What did land managers and mountain bikers think?

As a broad generalization, the land managers focused more on the whether to ride; the mountain bikers on the how to ride

The land managers focused on the limitations and general impossibility of achieving responsible mountain biking in the mountains. Quite a few felt that some places – the uplands in general – should really be out of bounds to mountain biking.

The mountain bikers felt that responsible riding on mountains was legitimate and achievable, and dependent on context that could change according to climatic or topographic conditions. They focused on the barriers — both physical (gates, path construction) and educational — that stood in the way of achieving this.

Perceptions of place

Conflict is based on the subjective and internalized values that people hold about the use of, and 'ownership' of land

From both groups, on the one hand there was a reverence for. and respect of mountain environments; on the other recognition of them as living, working, and occasionally despoiled landscapes. Frequent comparisons were made with other land developments - hill tracks, energy and transport developments - as well as other forms of recreation - like hill walking and horse riding - in terms of impact. In this both interest groups had common interests and concerns, but when it came down to it, land managers found it easier to justify the impacts of large-scale developments like hill tracks and wind farms on the basis of their economic imperative.

The mountain bikers did not tend to view landscapes

as unchanging entities and some of them pointed out the schism between apparently unsullied hills and the reality, commenting thus about the Cairngorm Mountain ski area, "It's not as if it's a pristine upland environment". Nevertheless some bikers did regard the Cairngorms Plateau in particular as a place where biking did not 'feel' quite right.

Modern path work practices

Responsible access isn't simply about how and where people choose to ride, but how others choose to control and manipulate the surfaces on which they ride

The question of for whom and what paths are for was the area of greatest contention. On one hand, a path is an invitation to users, and responsible behaviour was often cited by both groups as that which remains on the path. On the other hand, the existence of a path - especially if it has been subject to repair - indicates that there has been an attempt to manage or direct access, and any activities that are perceived to further damage it are frowned upon.

The mountain bikers made the assertion that path work that does not account for established bike use (either deliberately or unwittingly) can render responsible biking practices more difficult.

Modern improvements tend to create more homogenized surfaces which have the effect of making access easier for less skilled and experienced people. A mountain biker's speed increases on these smoothed out surfaces but when they come across impassable obstacles — large cross drains for example — they have to stop and start far more. More braking means more wear and tear on the path surface and more chance of erosion. Rougher or unimproved surfaces tend to keep speeds much slower and the bikers can pick their way down technical sections.



What does 'responsible access' mean to mountain bikers and land managers in the Cairngorms National Park by Fran Pothecary

The mountain bikers did not appear to have an appetite for constructed dedicated bike trails (like Wolftrax) in upland areas — they valued the unique and natural nature of upland riding, in fact there was a strong feeling against the type of "conveyor belt footpath to take me into the heart of a wild place". However they were keen to see path work that genuinely caters for multi-use and doesn't exclude bikers, especially where such use already exists.

Scottish Outdoor Access Code

Responsible access is as much about what is 'read' on the ground as 'written' in the Code

Respondents in both groups felt that the 'fuzziness' of the Code e.g. terminology like "care for the environment" is too vague to help people in making assessment of suitable ground conditions. However it was acknowledged that even the detail can be difficult because of the subjectivity that it invites e.g. what is a *suitable* path; how *wet and boggy* is wet and boggy ground and whose view counts the most? In a nutshell, when does responsible behaviour become irresponsible?

The mountain bikers felt that the Code is weighted towards favouring certain activities over others – for some this is an example of the further cultural dominance of 'walking'; for others it is simply a pragmatic response to the fact that some activities are faster and more risky than others, and hence the onus is on them to exercise more care. But it is clear that there is a contradiction between what the Code says and what often happens on the ground e.g. giving way to other users. This is further explored in Article 4 (page 17).

The research found that the terms of responsible biking are driven by the conditions encountered on the ride, rather than reference to a pre-determined set of do's and don'ts, or guidance as provided by the Code. During a ride, a biker will engage in an on-

going reflection on the riding experience and its potential impact on others or the landscape. The mountain bikers in the study had a strong attunement to terrain and looked for *physical* clues to help them assess whether their access was responsible or not. Indicators of sensitivity that can't be 'seen', such as a natural heritage designation or a land management objective, were less likely to influence the 'on-the-go' decision making.

The place of technology

Using a bike to reach the back country is more acceptable than using a bike to explore the back country

The visual intrusiveness and out of place-ness of a bike evoked the strongest reaction amongst the land managers. A sense was expressed that technology distances people from the environment. In this way walking was considered the ideal way of engaging with the environment, and environmental engagement the ideal aspiration of countryside recreation. Using a bike to reach the back country is more acceptable than using a bike to explore the back country - several of the land managers expressed that there was a notional point at which a bike should be left behind, and access by foot should take over.

Education v. regulation

Responsible access was seen as part of an apprenticeship - an ongoing process of learning, whether manifested in developing an emotional attachment to the Cairngorms, or a physical skill like learning to 'scrub' speed without leaving trace

The mountain bikers expressed a view that education is more than the where, what and how to



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take access – it is a collective and on-going undertaking to educate for the future. It is education 'by doing', not by 'avoiding'.

The concern from the land managers was that the education of mountain bikers, and by default, the promotion of mountain biking, will multiply bike use in upland areas. The mountain bikers countered that if opportunities to educate are lost; activity goes underground and more irresponsible behaviour surfaces. "I just wonder whether as a National Park there's a reluctance to put up signs explaining how bikers should ride in an upland environment because that admits that it happens."

There was also a tension expressed equally by both interest groups that the desire to promote and educate sits uncomfortably alongside the need to keep impacts to a sustainable level and retain a quality of mountain biking (or other recreational) experience which might be affected by 'too many people'.

Implications for policy and practice

- The subjectivity of what responsible access means in practice makes it hard to provide simple, clear cut written guidance and any effort to buttress the Code with more detail should consider this.
- Management measures based on temporal zoning will be hard to 'sell' given that the practice of responsible access may change on a much more rapid timescales. Likewise, fixed spatial zones or designated areas (e.g. Special Protection Area or a Special Area of Conservation) are also unlikely to provide credible justification for blanket bans. Any efforts to restrict or curtail mountain biking in upland areas (whether seasonally or spatially) should aim to be even—handed in their consideration of the impacts of other recreational use relative to, and alongside, mountain biking.
- In using a path, recreational users are generally considered to be acting responsibly. However if that use
 results in damage to the path, they may be accused of acting irresponsibly. This tension between the
 action of responsible access using a path and a concept of irresponsible access damaging a path
 through the act of using it is one that path managers should be aware of.
- Path improvements in some places have made access into the hills for all users easier but have in the process sanitised paths and have spoilt the experience not only for bikers.

Pothecary, F. (2012) "Are mountain bikes really bikes for the mountains?" Thesis submitted as part of MSc in Sustainable Mountain Development, University of Highlands and Islands



Citizen or hooligan? The place of the mountain biker in the great outdoors

Dr Katrina Brown



The acceptability of mountain biking depends on where it takes place. Mountains are paradoxically where mountain biking is tolerated least. Reporting on recent research by the James Hutton Institute, Katrina Brown explores how the informal zoning of mountain biking comes about, and some of the possible implications.

Putting mountain biking in its place

You are out for a pleasant stroll in the great outdoors, when you meet a mountain biker. What is your first thought? Do you appreciate a chance to commune with a fellow nature worshipper? Do you admire their adventuring spirit? Or do you regard them as a delinquent treating nature like a playground? Prevailing stereotypes suggest the

latter. In fact the mountain biker has become set up as the quintessential anti-citizen of the outdoors; a hooligan and a nuisance who does not truly belong in countryside primed for 'quiet enjoyment'.

For some, the mountain biker has become the outdoor 'anti-citizen', symbolising all that is feckless and reckless

Evidence from recent research confirms a simmering tension between some mountain bikers and other recreational users. For some established outdoor users, mountain bikers symbolise all that is feckless and reckless. Riders themselves are aware that there is an image of them as 'young hoodlums tearing up the ground and out to knock everyone over', and that they can cause alarm and discomfort to those they share the trail with. By the same token, some mountain bikers see their detractors as 'old duffers' or 'whingeing grannies' who grudge



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sharing the outdoors - and especially the mountains - because they 'just want the remote parts for themselves'.

As non-motorised forms of transport, both walking and mountain biking qualify for legal rights of access to most land under Part I of the Land Reform (Scotland) Act 2003, as long as exercised 'responsibly'. Yet there is clearly a struggle going on here over who really counts as a legitimate citizen of the outdoors, especially in terms of who is (most) 'responsible'. Are mountain bikers valid citizens or unwanted hooligans?

A Tale of Two Outdoors: Wild and Domestic

Our research suggests that the question of *who* is acceptable is inseparable from the question of *where* they are acceptable. There are hierarchies of outdoor spaces, ranging from urban parks to national parks, from back gardens to wilderness. A number of people regard mountains as a particularly sacred type of outdoors where only 'those who know what they're doing' – in terms of how to treat the environment and other users - have a right to be there. And in the eyes of some, mountain bikers do not qualify. They are seen as a uniform group of people who are not 'responsible' and do not understand how to appreciate and operate in a fragile, hostile and challenging environment.

The question of which recreational users are acceptable has become inseparable from the question of where they are acceptable. Mountain bikers are generally not associated with the responsible behaviour required of upland environments. They are assumed to belong to the 'domesticated' outdoors

Yet they are warmly welcomed in the outdoors of purpose-built trail centres. Here mountain bikers are specifically catered for by carefully crafting the terrain into the shapes and surfaces conducive to

peak riding experiences, and by effectively excluding other forms of recreation. Here the feeling is that riders can do little harm to the environment or other users, and indeed will boost the local economy. But why consider mountain bikers acceptable citizens in trail centres (the 'domesticated' outdoors) whilst unacceptable in the mountains (the 'wild' outdoors)? What is it that makes certain ways of being and moving appropriate (or not) in different outdoors? Any easy answers relating to the robustness of the trail or the environment do not alone explain the disparity.

The place of play and responsibility

The bikers and walkers we interviewed for the study suggested that mountain bikers' associations with trail centres - together with commercial and media stereotypes - only fuels their lack of belonging and exclusion from mountains. A key part of the process is the separation of play and responsibility into their own outdoor realms, and assigning those realms as places where particular recreational identities belong (or not). As one participant explained with regard to trail centres: 'It's like the equivalent of running round the playground at school screaming ... it's like playing as opposed to a challenge or pushing yourself ... unless you're really stupid, you're not going to get yourself into that much trouble ...[...]... you don't really need to be that responsible, you don't need to consider that much'.

Because trail centres are perceived as foolproof, many believe they foster foolish behaviour or even fools. The possibility of riders adjusting their behaviour to the specifics of wilder environments is then overlooked

Alluding to the controlled, standardised, riskassessed (and some say 'sanitised') experience, trail centres are seen as places of play where people can let go of restrictions and express themselves in a way that would be difficult or inadvisable in other outdoor areas. Because these environments are perceived as 'foolproof', people believe they foster



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'foolish' behaviours, and fail to demand or cultivate 'responsibility'. Mountain bikers are positioned as lacking knowledge because in the purpose-built habitat of trail centres there is not much they need to know, at least about certain aspects, such as navigation, judging the terrain or working around other users. As a result, the broader community of mountain biking becomes associated irresponsible behaviour, which is not considered befitting of mountain environments. Little room is made for the possibility of riders tailoring their behaviour to the specifics of 'wild' environments, although there was abundant evidence that some riders do indeed do this.

Ghettoizing forms of outdoor recreation

But is there a danger the assumption that a produces outdoors domesticated ignorant participants might become a self-fulfilling prophecy? Do trail centres engender foolish, ignorant and irresponsible outdoor citizens? Certainly many mountain bikers believe this is happening: 'you get people coming who have no idea how to ride natural trails. They don't know anything about assessing conditions or reading a map. But then, why would they know if they've only ever ridden in trail centres. They're not bad people, they're just ignorant. They don't have the experience'. Some riders even try to disassociate themselves with those 'brought up on Glentress' (the most popular and well-known trail centre in Scotland) to make a distinction between the different ways of being a mountain biker. They distinguish responsible and irresponsible ways of being a mountain biker, including in upland environments.

There is a tension over whether or not playful and responsible ways of being outdoors are mutually exclusive

The key danger, nevertheless, is that playful and responsible ways of doing the outdoors become cordoned off into separate spaces. In such a divergence mountain bikers might become ghettoized. Riders 'brought up on trail centres' may

never develop the capacity to behave 'responsibly' in wilder outdoors, so could, in effect, be stuck in more domesticated outdoors. Even if not strictly the case, there may be a risk of creating a zoning trap where people can only belong in certain outdoors. That is to say, they are deemed 'out of place' and unwelcome in one particular outdoors because their characters have been forged in another. This notion would only be reinforced if mountain bikers did not have the opportunity to develop the knowledge and skills to ride in places considered 'wilder'. In such ways people can become culturally and physically confined to particular kinds of environment.

It is possible that those brought up in the 'domesticated outdoors' may never learn how to be responsible in the wilder outdoors. A question arising is whether and how this might matter

Seeing mountain bikers as acceptable in some outdoors but not others is illustrative of a potentially broader process in which people may struggle to operate outwith the boundaries of the outdoors to which they have been assigned. Creating dichotomies of 'wild' and 'domestic' outdoors, and making generalisations about which kinds of users belong there can have implications for outdoor participation, as well as how 'responsible' that participation is. It could be that the kinds of outdoors to which certain people have been symbolically assigned are not found locally to them, or are not found inspiring to them. Therefore they may only be willing or able to take outdoor access if it is in the 'wilder' outdoors, but be inhibited from doing so because they are deemed ineligible and out of place there. Or it could be simply that exploring new and different outdoors is desirable for people at times.

Unwittingly cleaving apart play and responsibility, and associating them with particular people and places — especially 'wild' and 'domestic' outdoors - also has implications beyond mountain biking. Both



Citizen or hooligan? The place of the mountain biker in the great outdoors by Katrina Brown

adults and children are being urged to *play* more, particularly outdoors. Yet access to the outdoors is only legal when done 'responsibly'. Therefore, we should be aware of the need to allow the mixing of play and responsibility - encouraging responsible play or indeed play that helps generate the knowledge and experience from which responsibility grows - rather than encouraging their separation into different places and different kinds of people.

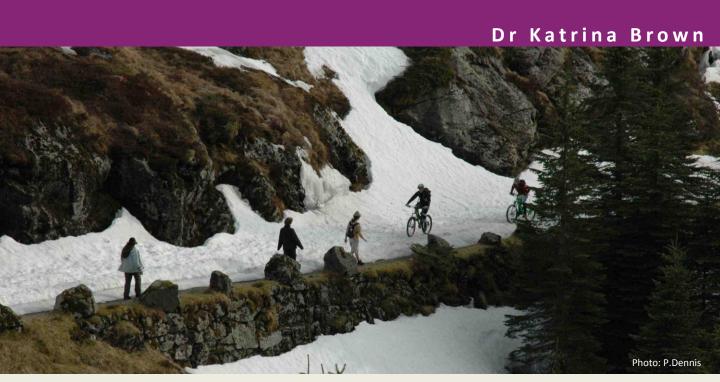
Implications for policy and practice

- It is useful for policymakers and managers to consider how they influence outdoor citizenship, and how
 that might matter, including: whether they inadvertently encourage irresponsible ways of enjoying the
 outdoors, and; which outdoors different users become 'placed' in. Domesticated environments e.g. trail
 centres encourage access and responsibility in some ways, but can also limit them too. Being able to take
 access beyond overtly 'domesticated' outdoors may matter for outdoor participation.
- There is a need to identify ways in which playful and responsible ways of being outdoors are being separated (a) *socially* (keeping apart different kinds of people), and (b) *spatially* (in relation to different kinds of outdoors), and where this may be working against policy objectives, especially health, social inclusion and environmental literacy.
- Access management strategies may be more successful if they can identify and build on circumstances
 where playful and responsible ways of being outdoors can be cultivated together: responsible play and
 play that generates responsibility.

Article drawn from academic paper: Brown KM (forthcoming) Spaces of play, spaces of responsibility: creating dichotomous geographies of outdoor citizenship, *Geoforum*



Sharing a multi-use trail: how walkers and mountain bikers learn to co-exist



How do increasingly diverse outdoor users, moving in increasingly different ways, learn to share trail space with each other? A study by the James Hutton Institute identifies some of the key factors affecting the ability of walkers and mountain bikers to share the trail.

As societies become more diverse the world over, the ability to share public space becomes an ever more pressing issue. Outdoor space to which public rights of access apply is no exception. Diversifying cultures and modes of mobility of outdoor recreation prompt the question of how established and new outdoor citizens can all be accommodated. Zoning is one management response to coping with difference. But increasingly varied ways of moving and being in, and feeling about, finite outdoor spaces – especially the most valued and popular

areas – point to a growing imperative to learn to share them with different users. This is especially critical in places like Scotland and Scandinavia, which have inclusiveness and multi-use at the heart of their access rights systems.

Increasingly diverse ways of moving through and experiencing finite outdoor spaces point to a growing imperative to learn to share across difference

To be able to co-exist on multi-use paths, different users have to find ways of choreographing their various movements, so as to avoid a physical or psychological clash. Some guidance on this is given in the Scottish Outdoor Access Code, but what people do often departs from this script, or goes beyond its detail and scope. For example, although the Code suggests that cyclists should always give way to walkers, there are regularly circumstances where both users find it more workable the other way



Sharing a multi-use trail: how walker and mountain bikers learn to co-exist by Dr Katrina Brown

round. However some users report the advantages of a starting 'bargaining position' that favours slower users. Much has to be worked out in practice, and depends on the habits, expectations and norms of reciprocity. The JHI study shed light on how walkers and mountain bikers negotiate a workable choreography.

Assumptions of encountering only similar users do not hold in today's outdoors

It is important to grasp some general asymmetries underpinning specific trail encounters. established recreational users, walkers have historically had the outdoors more or less to themselves, and therefore could reasonably assume they would only encounter their own kind (whose movements and motivations they could anticipate). In contrast, newer users, such as mountain bikers, have only ever experienced an outdoors that has to be shared with other, different users (1). Despite many aspects of experience in common (e.g. relaxation, escape, scenic pleasure), there are important distinctions between the ways of moving and the aesthetics of different forms of recreation.

Walkers and mountain bikers move at different speeds and place different emphases on their visual and kinaesthetic (2) senses, and therefore on different terrain characteristics (see Article 5, page 20). Walkers step whilst cyclists roll, which shapes their desired experiences (e.g. the ideal of mountain biking is to keep rolling – and avoid 'dabbing' a foot down – whatever the type and gradient of terrain encountered). The fact that most cyclists also walk but fewer walkers also bike creates a further asymmetry of experience.

The research highlights four key behavioural factors affecting the capacity to share the trail:

1. EXPECTATIONS of meeting different users: Some users expect to encounter a variety of recreational types, and adapt their behaviour accordingly. Those expecting difference tended to be more accommodating of it. Currently, the Code and prevailing norms do not cultivate expectations of encountering difference equally across user types. There is often less of an onus on established users to expect or anticipate newer users. For example, cyclists are encouraged to slow down before a blind corner, but walkers are not encouraged to refrain from walking abreast across the whole track around such a corner.

2. AWARENESS and UNDERSTANDING of different users: Some users are more aware of other recreationists in terms of how they move (e.g. style, speed, effort) and the emotional and sensory experiences that those others are seeking. example, sometimes walkers were aware that cyclists wanted to get to the top of a steep or rocky section without putting their foot down, and cyclists sometimes understood that walkers appreciated significant advance warning of their approach, or that they needed more than just the bare minimum of room to be passed comfortably. Those more familiar with the likely and desired movements and experiences of others tended to be more accommodating of it, and were better able to anticipate and co-ordinate their actions.

People in the outdoors use body language and movement to stake their claim to the trail

COMMUNICATING APPROPRIATELY with different users: It emerged as crucial that users were able to communicate not only their own presence, but also their acknowledgement and of others' experience. awareness Such communication occurred especially through body language, which on the trail often 'speaks' for people before there is a chance for verbal exchange. For example, when cyclists visibly reduce their speed, it demonstrates to walkers that they are in

^{1 -} The exception is riders who have only ever used Trail Centres (see Article 3, page 13)

²⁻ Kinaesthesia: the sensation of bodily perception, including the sense of body position, weight, movement and muscular tension



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in control, and acknowledges their vulnerabilities when being passed.

4. RECIPROCITY and CONCEDING to different users:

Harmonious trail encounters tend to feature oftenunspoken reciprocity or trade-off between different users. Goodwill is generated and maintained when one user forgoes some of the experience they seek for the realisation of another's (e.g. when someone slows down for another, or steps aside to allow them past). Acknowledging that a concession has been made, such as through a nod or 'thank you' is vital to the recirculation of this goodwill. Such a trade cannot be made or recognised if people do not grasp what is at stake for other users. It is difficult to take account of the fears, capacities and desires of others if one is not (made) aware of them.

The study underlines that newer and established users are part of an evolving *process*; one of learning the awareness, skills and knowledge to co-exist. This process involves trial and error with mistakes and misunderstandings (e.g. mountain bikers wrongly trying to do the right thing by passing horses as quietly as possible) on the way to greater mutual awareness. Underlying this development lurks the sometimes contested issue of who bears the burden of choreographing encounters with different users. Who looks out for whom? Who has the onus to 'read' or communicate to others? Who concedes their preferred ways of moving and experiencing to whom?

Implications for policy and practice

- How people use their bodies and movement to negotiate their claim to the outdoors is crucial to the functioning of a space as multi-use.
- With increasing diversity in outdoor recreation, users must learn how to co-exist or accept they do not fully understand different users, and act accordingly.
- Experience of access is asymmetrical across different users. It may be helpful for land managers to think about precisely what is different and the same between users in terms of the expectations, modes of movement, and experiences sought, when planning and managing access.
- Sharing space requires the development of skills and capacities in relation to specific contexts, not only knowledge of principles and guidelines. This is more easily developed through practical, situated learning (e.g. through peer groups or a ranger/guide) than through written guidance.
- Advice might usefully extend 'respect for other users' to include mutual awareness, understanding, communication and give-andtake with other users.
- Policy could usefully identify and encourage effective mechanisms through which users might develop better mutual awareness, understanding, communication and reciprocity.

Article drawn from academic paper: Brown KM (2012) Sharing public space across difference: attunement and the contested burdens of choreographing encounter, *Social & Cultural Geography*, 13(7), 801-820

Link: http://dx.doi.org/10.1080/14649365.2012.728614



The texture of the terrain: a neglected dimension of landscape appreciation

Dr Katrina Brown

The visual appreciation of landscape is a outdoor paramount concern in recreation and its management, reflecting the primacy of the visual senses in Western society. Yet, as found in research done by the James Hutton Institute, other senses and non-scenic aspects of landscape play a bigger part of recreational experience than are usually accounted for. In mountain biking, the kinaesthetic appreciation of landscape (i.e. using and enjoying the sense of movement, shape and pressure felt through the body) in particular is sought after.

Mountain bikers are often assumed to have a less intimate engagement with nature and landscape than more established recreationists. Their association with speed, noise and adrenalin seeking — contrasting with the 'quiet enjoyment' and contemplation of scenic splendour - often reinforce this view. Certainly the ways of engaging with landscape emphasised by the mountain bikers in the research differed in important ways from those expressed by walkers in the study. However, in common, they had the delight taken in a good view or in spotting wildlife, and to some extent the challenge of overcoming gradient, distance and the elements.

Landscape and nature appreciation happens through all the senses, not just the visual. Kinaesthetic and tactile experiences are often overlooked



The findings highlighted mountain biking experience as an intimate sensory and emotional engagement with landscape centring on a kinaesthetic exchange with the shape and texture of terrain, often involving whole body sensation. Experiences sought and celebrated were not only or necessarily, about speed or adrenalin but about the feeling and mastery involved in the movement of wheels rolling over, against and around contoured and patterned ground, and the way they give varying opportunities for traction. In fact, texture played a key role in enhancing sensations of speed whilst keeping actual speed low.



The texture of the terrain: a neglected dimension of landscape appreciation by Dr Katrina Brown

Assumptions that bodily sensation is a less intimate way of appreciating landscape than visual sensation are called into question

So we must ask: is mountain biking a more superficial way of engaging with the landscape or is it merely different from the prevailing notion of the 'romantic sublime' that has so influenced mainstream modes of outdoor recreation? Complicating this question is the fact that walkers demonstrated forms of kinaesthetic appreciation of landscape texture, but at a more implicit level, and with a less-developed vocabulary for it. Mountain bikers, on the other hand, are as likely to talk about their outdoor experience in terms of how 'gnarly', 'swoopy' or 'rooty' a route is, as much as the good views it afforded. It is possible then that mountain biking serves to flag up dimensions of multi-sensory experience important many outdoor recreationists but that have become dominated by a longstanding emphasis on visual appreciation.

Mountain biking highlights dimensions of multi-sensory experience important to many outdoor recreationists but eclipsed by a longstanding emphasis on visual appreciation

This sensory politics – where particular practices are considered more or less worthy ways of appreciating landscapes – matters because outdoor recreation is all about experiences. Different people place different emphasis on aesthetic forms of different experience. Therefore, thorny questions are raised of which ways of making sense of landscape are considered most appropriate, and ought to take precedence. They come to the fore in path design, raising issues of the kinds of surfaces that can satisfy different sensory needs and desires, where these surfaces ought to be found, and who will resource them.

Implications for policy and practice

- If we act as if outdoor recreation is mainly about visual aesthetics, we will miss other important sensory dimensions of landscape experience valued by a range of users. Kinaesthetic appreciation of texture has been particularly neglected.
- If we assume paths are only for getting people to scenic vantage points, or as an environmental management tool, we miss much of the enjoyment had in the act of using them.
- It is misleading to assume mountain bikers simply seek speed, when kinaesthetic appreciation of the texture and shape of terrain are found to be paramount. Some mountain bikers seek sensations of speed or adrenalin relative to the terrain rather than absolute speed.
- Such insights could be innovatively applied to trail design to influence the dynamics of user interactions, and ecological impact, as well as quality of recreational experience itself.

Article drawn from academic paper: Brown KM (forthcoming) The corporeal politics of landscapes: making sense of nature, movement and texture in outdoor recreation, *Environment & Planning D*



Reading surfaces: imprints, erosion and the politics of environmental impacts of different recreational users



Outdoor recreationists continuously read and make judgements about the ground they travel over. But what does it tell them? And how might this matter? This research has found that terrain plays a much greater role than just punctuating the passage from A to B. Surfaces and how they are inscribed – whether by use (footprints, tyre tracks) or by infrastructure (built paths) – affect perceptions of who belongs or is 'out of place' in particular outdoor areas.

Judging irresponsible environmental impact

Environmental impact affects the ability to legitimately exercise the right of outdoor access, and has both a legal and moral dimension. Preventing environmental damage is an explicit part of 'responsible' access as stated in the Scottish Outdoor Access Code. Yet defining the 'damage' that can be ascribed to particular uses or users can be difficult, and the scientific evidence on the environmental impacts of recreation, mountain biking especially, is limited. It's also subject to many variables (like climate, soil type), and difficult to extrapolate across the varied contexts of use and geography found in UK uplands. Science cannot readily define which users are most damaging because there is no one answer for all combinations of factors.



Reading surfaces: imprints, erosion and the politics of environmental impact of different recreational users by Dr Katrina Brown

Perceptions of impact

Judgements of what counts as 'erosion' or other unacceptable impact are therefore often based primarily on people's own reading of the imprints they *create* and the traces of use they *encounter*, including sometimes hotly contested verdicts about the relative impact of different kinds of user. In evaluating the ground ahead and underfoot (or under tyre or hoof), outdoor recreationists are not only working out how best to traverse the ground safely and enjoyably, whether smooth, uneven, loose, boggy, or slippery. They are also assessing – sometimes subconsciously - whether the imprints they see or are making represent acceptable or unacceptable environmental impact.

What counts as unacceptable 'damage' depends not only on an assessment of biophysical condition, but also on who is thought to have caused this 'damage'

These markings therefore serve, literally, as the grounds for judging which recreationists belong in particular areas or not. But they do not correspond in a direct or absolute sense with the physical ground disturbance made. For example, imprints made in a forestry plantation are not judged as harshly as the same ones made on a mountain plateau. Nor is erosion made by walkers always treated on a par with the same degree of erosion made by mountain bikers.

How traces on the ground are mobilised as devices to decide who belongs

There are two key elements: (a) the imprints people notice, and; (b) the meanings attached to them. Tyre-tracks were found to have a particular visibility: physically, because of their continuous linear nature and their tendency to go through rather than around puddles and muddy sections; and, symbolically, by representing for some an urban and technological dimension that jars with wild and natural uplands. Footprints are not materially or symbolically visible

in the same way, only arising as an issue when ground conditions reach a critical point.

What matters is how causal links are made – sometimes implicitly - between particular traces, users, and degrees of (un)acceptable impact, in relation to particular places, and how 'natural' or 'wild' these places are perceived to be. Certain associations then contribute to lay and managerial views of where particular recreationists belong. Sometimes this encourages a broad-brush drawing of informal territorial boundaries relating to particular user types, such as mountain bikers being perceived as not belonging in mountains (see Article 2, page 9).

In this way, traces become mobilised as one of a number of key devices for asserting who belongs where in the outdoors. The notion that mountain bikers are out of place in mountains - at least on the grounds of their terrestrial impact – requires certain dis/associations in order to become taken-for-For example, it is necessary to see mountain paths and surfaces always as natural and fragile, and to see mountain biking as an inherently 'damaging' activity, and therefore inappropriate. What is contested is whether these assumptions Reinforced mountain paths and always hold. assertions of walking as an equally, or more, damaging activity are sometimes used to question the assumed disassociation between bikes and mountains.

Managing unacceptable environmental impact

The management response to 'unacceptable damage' differs depending upon which users are deemed most culpable. It is rarely suggested that walkers' impacts justify excluding them from mountain areas, whereas mountain bike impacts are commonly used to recommend prohibiting them. In fact the issue of 'erosion' caused by walking is largely construed as expression of demand for participation, therefore 'a good thing' and in turn a case of funding appropriate remedial infrastructure like upgrading a path surface.



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Appropriate infrastructure has to be justified based on expression of demand. Yet expression of demand e.g. erosion/damage may be considered 'irresponsible' and therefore illegal. Chicken and egg.

Surrounding conflicts are complicated further depending on whether impact is considered per user or cumulatively for a user type. A common perception is that mountain bikers have a more negative trail impact per person, but that the overall impact of walking is greater because their numbers are far greater. Each activity can then be described as 'most damaging' depending on the criteria used.

Tensions also arise over the infrastructure changes implemented to tackle recreational impacts. Whilst many changes are seen as 'improvements', both walkers and bikers also expressed a sense of loss that the modified trail surfaces did not have the same character or provide the same sensory experience as before (see Article 5, page 20).

Hence, how particular ground conditions are constituted as 'damage' or 'erosion' affects who can legitimately access that area, as well as what can and should happen to that terrain, with implications for patterns of recreational use and quality of recreational experience.

Implications for policy and practice

When surfaces and impacts upon them have become deemed unacceptable in some way - whether based on ecological or aesthetic criteria - the managerial response can be consequential.

- Decisions have to be made about whether to:
 - Modify movement (through regulation or social norms e.g. by changing the way different users approach a particular area or type of ground; by excluding particular kinds of users; by excluding use at particular times)
 - Modify physical terrain (e.g. through building or altering path infrastructure)
- Either way there will be important implications to consider for:
 - Which users can physically traverse that ground
 - Which users can 'responsibly' (and therefore legally) traverse that ground (when, how frequently, and so on)
 - The experience of different people using that surface
- Decision-making could reflect more clearly upon for whom outdoor surfaces are made and remade, for what purpose, with which outcomes, and in turn, how they should be designed, and who should resource their maintenance and repair.

Article drawn from academic paper: Brown KM (forthcoming) Appropriating space through movement and materiality: the contested inscription of surfaces in outdoor recreation, *Cultural Geographies*



Developing mountain biking in Scotland — the Highlands Cluster Study

Dr Steve Taylor, Dr Peter Varley & Nicki Diggins



Developing Mountain Biking in Scotland commissioned the Centre for Recreation and Tourism Research at the University of the Highlands and Islands to undertake a desk-based research exercise that sought to: map the current provision of mountain biking in the Highlands area; identify the principal gaps in that provision; quantify the economic benefits of Highlands mountain biking, and; make recommendations for its future development. A parallel exercise was also simultaneously carried out for the area administered by the Cairngorms National Park Authority.



Developing mountain biking in Scotland — the Highlands Cluster Study by Dr Steve Taylor, Dr Peter Varley & Nicki Diggins

Current provision

The exercise to map mountain biking provision identified:

- A vast number of natural trails in all areas of the Highlands and a number of purpose-built trail centres across the region.
- A reasonable support network for mountain biking tourism in the Highlands with some areas being especially well equipped with bike-friendly accommodation and bike shops.
- Fantastic events, including the UCI Downhill World Cup at Fort William and endurance events such as Strathpuffer and 10 Under the Ben.
- Supporting participation and sport development across the Highlands there was a busy programme within schools, led by Active Schools, and a number of mountain biking clubs which are at various degrees of maturity.

Gaps in provision

The Highlands has a wealth of iconic landscapes and names – from Loch Ness to the Isle of Skye – and wild landscapes unparalleled in the UK. The mountain biking sector needs to capitalise on these assets in a range of ways to ensure its sustainable future.

As well as specific gaps in provision, a series of generic gaps was also identified:

- Navigation issues with signage and mapping.
- Lifecycle issues, a lack of promoted beginner and family trails and underdeveloped youth provision in some areas.

- Sustainability issues of liability, responsibility and maintenance.
- Networking and integration the lack of an identifiable brand and integrated marketing and promotion for Highlands mountain biking.

Economic value of mountain biking in the Highlands

Using an established methodology and figures, the value of mountain biking as being the main reason to visit, the Highlands is estimated at:

- An annual expenditure of £8.14m;
- Employment of 238 FTEs:
- Gross Value Added of £4.65m.

It was projected that growth of 30% over the next five years could be achieved, which would see the value of the Highlands mountain biking sector rise in value to:

- An annual expenditure of £10.58m;
- Employ another 71 FTEs:
- Gross Value Added of £6.06m.

The parallel exercise for the Cairngorms NPA suggests that a full growth scenario would see the sector rise in value from £1.86m to £2.42m, employment rise from 54 FTEs to make a total of 70 FTEs, and have a GVA of £1.38m.

It was also identified the value mountain biking can make within communities to achieve health outcomes. This was especially relevant where communities have considerable 'assets' such as facilities and facilitators. The report identifies there is great potential to increase participation especially in and around Fort William, Aviemore, Grantown and Eastern Cairngorms and, with development, in and around Inverness.



Developing mountain biking in Scotland — the Highlands Cluster Study by Dr Steve Taylor, Dr Peter Varley & Nicki Diggins

Recommendations

A number of key suggestions were made to enable appropriate levels of sectoral growth to be achieved, split into practical and more strategic recommendations. Strategic recommendations include:

- A need to develop local multi-stakeholder groups to bring together relevant and interested parties, from landowners and managers to local residents and trail riders, to overcome the challenges and find workable solutions that may appease all parties.
- Greater use of volunteer groups for trail maintenance (modelled on good practice elsewhere).
- The redefinition of paths as 'multi-use', in order to facilitate understanding regarding access rights among different users
- The creation and promotion of easier routes, perhaps linking attractions and facilities, to encourage family
 use.
- The more formal designation of mountain biking centres or hubs.
- Clarifying the position on landowners' liability on non-promoted, promoted and purpose built routes.

In order to achieve the full growth potential, however, it is proposed that a number of key short-term recommendations need to be implemented:

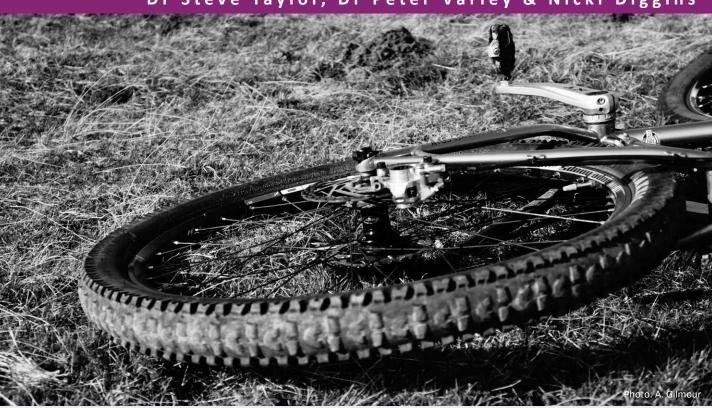
- Lack of an identifiable brand for mountain biking for the Highlands, one that can be as evocative to existing mountain bikers as the 7Stanes, whilst also actively promoting mountain biking to the family market.
- In tandem a single Highlands web portal for information related to all things mountain biking, from trails to bike shops and cafes.
- More comprehensive signage to and around trails and trail centres needs to be developed, while better trail guides, and improved trail provision for family markets, would help to both broaden the market and encourage more tourists to undertake rides.
- Communicate a consistent message on responsible mountain biking to all participants.

Highlands Cluster Study (2012) Centre for Recreation and Tourism Research, University of the Highlands and Islands. Report for Developing Mountain Biking in Scotland



Review of mountain developments and potential opportunities in Scotland

Dr Steve Taylor, Dr Peter Varley & Nicki Diggins



In late 2012 the Centre for Recreation and Tourism Research at the University of the Highlands and Islands undertook a study of mountain biking in Scotland (outwith the Highlands) for Developing Mountain Biking in Scotland (DMBinS), and the Scottish Mountain Biking Development Consortium. Through a desktop exercise and a wideranging and extensive consultation process, involving face-to-face and online surveys with key stakeholders and organisations, cycle businesses and riders themselves, the team sought to establish the progress that has been made in the industry over the past few years, and deliver a series of recommendations for future development.



Review of mountain developments and potential opportunities in Scotland by Dr Steve Taylor, Dr Peter Varley & Nicki Diggins

The findings from these generally quantitative surveys of riders and key businesses were interrogated in order to allow the team to revisit the 2009 EKOS report and estimate the progress that has been made against the targets and scenarios set out in that report. As many of the conditions for 'full growth' of the sector, set out by EKOS, have not been realised, it is postulated that a) the increase in mountain bikers' trips over the past three years has been in the range of 7% - 10%, and b) £5.5 m - £8 m is considered to have been a more realistic estimation of the growth in the economic value of mountain biking in Scotland from 2009 - 2012. This equates to a value for the mountain biking market, where MTB is primary purpose for the trip, of £48.5m - £49.5m per annum.

It was also estimated that, if the conditions set out for *EKOS*'s original 'full growth' scenario are met over the next five years, economic growth will be in the region of £22 m - £26 m. If suggested developments are implemented to a lesser degree, growth over the next five years is suggested to be in the range of £14 m - £18 m.

This analysis fed into the development of a range of recommendations for the sustainable development of Scottish mountain biking, including: attracting visitors; strategic support and business development; participation; events; and developing bikers and facilities.

Strategic support

- Continued support for Developing Mountain Biking in Scotland.
- Seeking financial support for new DMBinS regional officers, to drive forward the regional development of mountain biking.
- Consideration should be given to the designation of a governmental cross-party working group, recognising the importance of mountain biking to health, sports development and economic growth.

 For new trails or associated development in the Central Scotland Green Network area, cognisance should be taken of its strategic aims.

Facilities and business development

- All Scottish cities, and other major centres, should have their own jump park/pump track/BMX park, one that is easily accessible, without requiring a vehicle, to the majority of their population.
- These developments should include safe cycle ways from the city/town centres and consideration of supporting public transport infrastructure.
- It is suggested that an audit of pertinent facilities, such as BMX parks, should be undertaken, and responsible bodies encouraged to upgrade them where necessary.
- The development of new trail centres should be prioritised to those areas currently lacking such facilities, for example close to Aberdeen and Glasgow, and in the Highland Perthshire area.
- New trail centre developments should include a range of supporting attractions and facilities to expand their popularity and help to ensure financial sustainability of the centres.
- To facilitate accessibility and encourage use, better signage and development of links and natural trails are required.
- Support should be given at a local/regional level for the organisation and development of local user groups, to aid liaison with landowners for example.

Attracting visitors

 Better co-ordinated marketing is required, with a comprehensive Internet guide to all key natural trails and trail centres in Scotland, with supplementary trip information.



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- Marketing should not only focus on the existing purpose-built centres but also promote the lesser-known centres and Scotland's natural trails.
- A number of Scotland's Great Trails offer great potential as iconic cycle routes, but some of their information, as potential mountain bike routes, needs to be improved.
- Make use of the social media generation wherever possible.
- The areas around the cities of Scotland, along with other key mountain biking centres of population, should form the focus of a roll out of mapped trail networks.
- These route cards should eventually be rolled out to other towns and appropriate settlements, according to demand.

Events

- Scotland should seek to host more national and international events, requiring a co-ordinated promotion campaign involving all key agencies.
- A national mountain biking day should be identified, supported at a local level through the development and hosting of events and/or supported rides.
- Each cluster area should seek to organise and host its own mountain biking festival.

Participation

- SMBDC should seek greater levels of co-operation from the multiple agencies involved with mountain biking participation and events to share, publish or undertake statistical reporting.
- Strategic guidance is required to ensure that all agencies align policies to enable participants to move between schemes that promote lifelong participation.

- A gap has been identified for a mass-participation programme to complement all of the existing schemes.
- Participant development should be based upon the concept of development of excellence in different contexts.
- As mountain biking incorporates skills and knowledge which are transferrable to other life situations, qualifications and training should be credit rated to ensure this learning is formally recognised, and offers candidates additional value.
- There is a clear and present need for greater 'joined-up thinking,' with reference in particular to integration between education systems.

Sports development

A number of strategic options could be investigated during phase two of the DMBinS Project to consider the benefits, including the consolidation and the alliance of agencies. One approach to consolidation has been adopted by British Cycling, a crossdepartmental approach to bring budgets together to benefit from combined investment. 'Alliance' is an approach anticipated to be launched mountaineering disciplines, bringing organisations to develop a more co-ordinated framework.

The relationship between 'natural' and 'purpose-built' trails

The characteristics of traditional (or 'natural') and purpose-built trails can offer diverse experiences to mountain bikers and satisfy different sets of rider motivations. Riding on a purpose-built track may be motivated by more dynamic motivations such as thrill, and offer a condensed biking experience. Most trail centres have unidirectional routes segregated from other users and offer a variety of trails and a diverse range of trail features built into the trails. Many centres in Scotland offer a diverse



Review of mountain developments and potential opportunities in Scotland by Dr Steve Taylor, Dr Peter Varley & Nicki Diggins

range of supporting facilities, from walking trails to a café, and a consequently more sophisticated and broadly appealing experience.

Natural trails can offer a very different riding environment, with a number of characteristics of their own that make them desirable settings for mountain biking. These include the natural landscapes in which they are often located, a more organic feel to their naturally-evolving trail surfaces, a greater challenge from both riding these trails and navigating one's way around them, and the greater sense of adventure that can result.

This study, and the complementary Highlands-based research, did not seek to ascertain demand for these different types of settings, and it was apparent that mountain bikers in Scotland feel that gaps in the provision of *both* natural and purpose-built trails exist (39% and 37% of respondents respectively). It is therefore difficult to draw conclusions about patterns of use, and their implications.

It is suggested, however, that wilder upland areas in Scotland can offer a more challenging and adventurous experience of the type that motivates many more experienced riders. The report recommended that greater emphasis in marketing and provision of easily-accessible information should be placed on Scotland's natural trails, as well as the lesser-known and less-well used trail centres.

It is acknowledged, naturally, that fulfilling riders' desires for more and better promoted natural trails will have implications in terms of trail development and sustainability, and potential user conflict. However, as the mountain biking market broadens to include more families for example, trail centres or natural trails in 'honeypot' sites may become increasingly attractive and accessible venues for the mainstream market and will naturally draw the majority of riders.

The nature of many trails in wilder upland areas surely suggests that their use will always be more

limited, appealing to more experienced riders who are attracted by the very attributes that differentiates them from the trail centres. This lower level of use would imply fewer negative issues in terms of impinging upon perceptions of wildness or conflict with other users, and suggest that resources, beyond the provision of better trail information, should be oriented towards the development of trails and facilities that support the wider existing mountain biking market and attract a broader range and new generation of mountain bikers.

Review of Mountain Biking Developments and Potential Opportunities in the Scottish Enterprise Area (2013) Centre for Recreation and Tourism Research, University of the Highlands and Islands. Report for Developing Mountain Biking in Scotland



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