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# Mountain biking: An opportunity to enhance economic development in Australian rural areas?

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**Mountain biking:  
An opportunity to enhance economic development in Australian rural areas?**

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## **Mountain biking:**

### **An opportunity to enhance economic development in Australian rural areas?**

**ABSTRACT:** *Mountain biking is assumed to have originated in California as a distinct recreational activity in the 1970s. By 2005, approximately 10 million Americans participated, and in 2006-2007 mountain/hybrid bikes represented 44% unit sales through speciality bicycle retailers. Subsequently, the popularity of the sport has continued on an upward trajectory. Such upward trend has also occurred in Australia. In other countries participation in mountain biking also continues to grow, and the International Mountain Biking Association (IMBA) is now represented in 17 countries including the United States of America (US), Australia, Canada, United Kingdom (UK), Spain, and Mexico. Demand for purpose-built facilities such as single track trails, and bike parks for freeriding/trials are also increasing internationally. For example, in US locations (e.g., Moab, Utah; Fruita, Colorado) hundreds of kilometres of single track mountain bike trails are available. In Canada, alpine resorts (e.g., Whistler Blackcomb) offer over 200 km of trails for mountain biking and, for some resorts, summer mountain biking provides 75% of the winter snow recreation revenue. The largest mountain biking resort complex in the UK (7Stanes) has around 600 km of single track trails of varying levels from 'easy' to 'severe', and mountain biking has had a marked economic impact on the economically depressed areas where it has been introduced. In Australia and New Zealand, many state, regional or local governments have recognised the economic potential of destination-based cycle tourism and are profitably promoting long-distance cycle routes such as Victoria's 100 km 'Murray to the Mountains' rail trail. Albury-Wodonga Region offers a wide range of potential destinations for bikers at all levels of expertise that encompass mountains, country lanes, history, wineries, agricultural landscapes, and the weir. Based on the success of mountain biking ventures internationally, and to date in Australia, there is the potential for substantial additional economic gains in rural regions of Australia from this activity. In this paper we provide a background on existing international successes, and use the Albury-Wodonga Region as an example to discuss potential additional opportunities for economically successful mountain biking in Regional Australia.*

**Keywords:** *Recreation management; Destination cycling; Off-road biking; Visitor impacts; Adventure recreation; Cycle tourism*

## **Introduction**

The business literature is replete with examples of industries that have failed to respond to changing trends and have lost their competitive advantage. Others adapt and often grow economically stronger as a consequence (Burgin and Hardiman, 2014). For example, within the Australian Regional tourist industry, the Blue Mountains has failed to maintain historic levels of tourism in the recent past. Despite the Greater Sydney population (major pool of tourists for the Region) growing from 4.0 to 4.6 million between 1999 and 2011, nature visitation (historically the major draw to the area) declined dramatically during the period. For example, the number of domestic day nature visits declined by 56.2% during 1998-2006 and although showing some subsequent recovery, the numbers were 36.7% below 1998 figures in 2012. Domestic overnight nature visits also declined, by 60.5% during 1998-2004, and had only recovered to 64.4% of 1998 levels by 2012. In contrast, the Hunter Valley (Central New South Wales) and the Cradle Coast (Tasmania) have both captured a greater segment of the tourism market over the same period (Hardiman and Burgin, in review).

To develop a strong tourism destination requires the building of destination brand identity at different scales (Dredge and Jenkins, 2003). To maintain competitive advantage requires being alert to emerging market trends and responding appropriately, especially in terms of new products and services offered and communicating such changes clearly and with impact to target customer audiences (Burgin and Hardiman, 2014). Here we provide a brief background to a recreational activity increasingly popular across many countries - mountain biking. This recreational activity is also successfully emerging as a popular pastime in Regional Australia. Mountain biking, as a destination-based tourism experience, may be an opportunity that could be further developed to enhance regional tourism, and Australia more generally, as a tourism biking destination.

### **The emergence of mountain biking**

The origin of mountain biking is considered to have occurred in the 1970s in California's Marin County in the United States of America (US; White et al., 2006). It is now estimated that 35.6 million people over the age of six cycled at least six times in 2013, and mountain biking has become one of the top 10 recreational activities in the US. By 2013, some 15 – 20 million bicycles were sold annually in the US with the total retail bicycle business estimated

to have been worth US\$7.5 billion [AUD\$8.05 billion] in that year (National Bicycle Dealers Association, 2013).

In other countries, such as Canada (Koepke, 2005), New Zealand (Cessford, 1995, 2003), Portugal (Campelo and Mendes, 2014; de Oliveira and Mendes, 2014), and the United Kingdom (UK; Gajda, 2008; Tourism Resources Company, 2005), participation in mountain biking continues to grow (Leung et al., 2014). For example, more than two million bikes were sold in the UK annually, and 5.7% of the population was estimated to participate regularly in mountain biking in 2005 (Tourism Resources Company, 2005). Other nations in which mountain biking is popular include Germany (3.5 million mountain bikers of 7.2 million recreational cyclists), and Switzerland and Austria where the total number of mountain bikers was estimated at 800,000 in 2005 (Koepke, 2005).

The first purpose-built, forest-based mountain bike venue in the UK was developed at Coed-y-Brenin (North Wales). It opened in the mid-1990s and its success quickly sparked similar developments elsewhere in the country. In 2006 and 2007, mountain bike tourists spent an estimated annual average of £24 [AUD\$43.2] million in Wales (Mountainbiking Wales, undated).

Today there are 42 purpose-built publicly-owned mountain biking/forest cycling Centres/Bases throughout the UK, most operated by the Forestry Commission of Great Britain; 15 in Scotland (Greenpeace, 2010), 15 in Wales (Forestry Commission Wales, 2010; Mountainbiking Wales, undated); and 12 in England with an additional five planned or under construction there (Forestry Commission of Scotland, undated). Throughout the country these venues, together with other cycle ways, provide more than 3,000 km of tracks on national forest estate lands (Tourism Resources Company, 2005). These include 'Centres' dedicated to single site mountain biking locations with a visitor centre and support facilities (e.g., café, bike repair shop, showers and toilets, trail guides), offering multiple-way, marked trails of varying difficulty. Alternatively, 'Bases' host several-way marked or mapped trails, together with independently operated support facilities (e.g., accommodation, restaurants/cafés, bike sale and/or repair shop; Tinch, 2010). Typically located in sparsely populated, poorer rural areas, their development has provided employment and, therefore, substantial economic benefits to local regions (Chi and Kriwoken, 2003; Tourism Resources Company, 2005).

Although use of the trails is free in the US and apparently elsewhere, supporting facilities are provided on a commercial basis. Public - private sector partnerships, led by the respective regional forestry commissions and comprising local governments, national and regional tourism bodies, together with local private enterprises are the core of such initiatives.

Although all centres have proved successful, those in Scotland have particularly prospered. For example, the Nevis Range and Leanachan Forest venues (Fort William, Scotland) hosted the annual World Cup Mountain Bike Series during 2002-2005 and again in 2010. In 2007 they also hosted the Mountain Bike World Championships with international competition for four mountain bike disciplines (Cross-Country, Downhill, Trials, 4-Cross). The Scottish town of Dumfries hosted the 2010 World Mountain Bike Conference and the mountain biking course at the Cathkin Braes Country Park, purpose-built just outside Glasgow by the City Council, attracted entrants from 18 different countries in the 2014 Commonwealth Games (Glasgow City Council, undated).

The largest of UK's mountain biking venues is the 7Stanes in Southern Scotland (Forestry Commission of Scotland, undated). Opened in 2001, this multi-agency, seven-centre network is a world-class mountain biking venue that attracts domestic and international visitors. Currently nearly 600 km of single track trails of varying levels from 'easy' to 'severe' are offered. The 'difficult' trails are most popular. There are also Action Trail Areas for freestyle enthusiasts, and additional non-way marked and ungraded forest trails (TRC, 2005; Tourism Resources Company, 2007). Forty-nine percent of visitors are 'intermediate' riders, 30% 'advanced', and 8% 'beginners' (Tourism Resources Company, 2007).

7Stanes commenced by targeting highly experienced mountain bike riders as 'early adopters'. At that stage the focus was on 'product' (e.g., trail building, infrastructure development). Subsequently, the strategy has been to widen the user base, attract new users into biking for recreation, and make cycling more accessible socially, especially to females, families, schools, and older visitors. This equates to the development of a true mass market tourism/recreation product. However, in addition to its popularity with biking enthusiasts, substantial economic benefits have been delivered to a predominantly rural region that has traditionally suffered from high unemployment (Tourism Resources Company, 2005). The initiative has been a success. For example, in 2007, 7Stanes attracted an estimated 395,000 visitors (increased from 172,000 in 2004), making it one of the 20 most popular tourist attractions in Scotland. Some 43% of visitors originate from within Scotland, 32% from elsewhere in the UK, and 5% from overseas. For 78% of visitors, 7Stanes was their primary reason for visiting the Region and more than one-third stayed at least overnight (up from 25% in 2004). The project's net economic benefits were estimated to be £9.18 million [AUS\$16.32] in tourism expenditure, creation of 212 full time equivalent jobs, and £3.72 million [AUS\$6.61] gross value added to the regional economy (Tourism Resources Company, 2007).

Cycle tourism in Scotland more generally is now widely recognised as a strategic tourism drawcard. In 2012, 17 cycle-related events in Scotland involved an estimated 33,409 participants and visitors. This generated an estimated economic income (directly and indirectly) for the Region of £5.6 million [AUS\$10.1]. Total monetised value of leisure cycle tourism in Scotland was estimated to be between £117.2 [AUD\$211] and £239 [AUS\$430] million per annum (depending on methodology and data used), with Annual Gross Value Added income estimated to be £58.5 (AUD\$105.3) million (Zovko, 2013).

### **Current status of recreational cycling**

The International Mountain Biking Association is now represented in 17 countries including the US, UK, Australia, Canada, Italy, Mexico, Spain, and the Netherlands, and their code of conduct is considered universal (IMBA, 2013).

As with many other forms of adventure recreation (e.g., snow skiing which, for example, has morphed into snowboarding and paraskiing), mountain biking has morphed into new forms in parallel with growth in participation. The traditional form of cross-country/recreational biking, rides typically last a few hours, and riders use lightweight bicycles. The emphasis for such riders is relaxation and exercise (IMBA, 2013). They often seek single-track trails where riders are segregated from cars and can enjoy a close connection with nature (Koepke, 2005). Although cross-country/recreational riding is still the most popular form of the sport (89% US, 97% UK), more physically challenging, extreme derivatives such as downhill (18% US, 22.2% UK), freeriding (23% US, 21.2% UK), and trials (14% US, 8.1% UK) are growing in popularity (Cessford, 1995; Gajda, 2008; Green, 2003; Koepke, 2005). Downhill riders descend steep, rough terrain at high speed using heavy, specialist bikes with long-travel suspension, and are often transported to the top of the (usually short) runs by ski lifts, 4WD vehicles or helicopter (Cessford, 1995; Tourism Resources Company, 2005). In free-riding, the focus is on technical skills needed to handle obstacles such as elevated, narrow wooden broadways, log rides, ladder bridges and teeter-totters, usually on purpose-built circuits (Cessford, 1995; Koepke, 2005; Leung et al., 2014).

Although the percentage of bikes used for off-road riding, and frequency of use for such activities is not known, available data suggest that mountain biking is expanding globally. Based on the gross difference between the number of formally built tracks and informal trails in peri-urban areas and data obtained from self-reporting web sources (e.g.,

Australia - Ballantyne and Pickering 2014; Wolf et al., 2014; Portugal - Campelo and Mendes, 2014; de Oliveira and Mendes, 2014; Mendes et al., 2014), it appears that the demand of tracks for bikers is probably at least an order of magnitude greater than recognised by local authorities.

### **Recreational cycling in Australasia**

Australasia is following the world trend. For example, New Zealand is a strong competitor in mountain biking and cycle tourism generally, and the potential economic benefits have clearly been identified by the authorities. For example, the New Zealand government has developed a Cycle Trail Initiative with the stated aim of developing a world-class cycle tourism network (Angus and Associates, 2013). As part of this initiative, New Zealand is actively developing 'rail trail' products, including the 150 km Otago Central Rail Trail. Annually, between 10,000 and 12,000 visitors complete the trail, and 20,000 to 30,000 visitors ride (or walk) at least one section of the trail annually (Sport and Recreation Tasmania, 2009; The Riesling Trail, undated). The recently constructed 82 km Hauraki Rail Trail, averaged approximately 7,000 cyclists per month in early 2013 (Hauraki Rail Trail, undated).

Research on four new bike trails in New Zealand, including the Hauraki Rail Trail, approximately seven months after their opening revealed that the average in-region expenditure per domestic (international) visitor per trip ranged from NZ\$171 [AUS\$154.0] / NZ\$127 [AUS\$114.4] to NZ\$637 [AUS\$574.0] / NZ\$948 [AUS\$854.3] and there was a respective per day regional expenditure of NZ\$133 [AUS\$114.9]; (NZ\$135 [AUS\$ 121.7] to NZ\$166 [AUS\$149.6] / NZ\$235 [AUS\$211.8]. These figures, applied to visitor numbers, suggested an estimated seasonal (December-March) per trail direct Regional economic contribution to the economy that ranged from NZ\$254,000 [AUS\$220.8] to NZ\$3,699,000 [AUS\$3,699,000] (Angus and Associates, 2013).

In Australia, the number of cyclists grew by 15.3% between 2001 and 2004 (Faulks et al., 2008), and of the 753,843 bikes sold in 2004, 70% were mountain bikes (Bradshaw, 2006). Biking tourism continues to be a growing market in Australia. For example, in 2012 - 2013, approximately 1.3 million domestic overnight visitors and over 1 million day visitors participated in cycling during their trip, representing 21% and 33% growth respectively from 2005 - 2006, with Victoria, New South Wales and Queensland being the most popular destinations (Tourism Research Australia, 2013). Cycle tourism is also becoming a well-defined product, and key travel motivator.

In recognition of the increasing demand, many State and regional governments, especially in Victoria and South Australia, have developed strategic plans to guide and support mountain biking development with investment in trails and associated products. Many of the associated initiatives are capitalising on old ‘rail trails’, which offer a range of cycling conditions attractive to a wide target market (Sport and Recreation Tasmania, 2009; Tourism Resources Company, 2014). Examples of existing rail trails in Australia include Victoria’s 100 km+ Murray to the Mountains Rail Trail (MMRT, 2014; Sport and Recreation Tasmania, 2009), and South Australia’s Riesling Trail of 25 km (but incorporating 35 km of side loops – Sport and Recreation Tasmania, 2009; The Riesling Trail, undated). As has occurred in many other areas of the world, although both of these trails are fee-free to use, local businesses along the routes benefit from tourists’ spend, with average visitor’s trip expenditure estimated at around \$482 on the Murray and \$216 on the Riesling (Sport and Recreation Tasmania, 2009). Tasmania has also experienced significant growth in cycle tourism in recent years and is actively pursuing this market. In 2012 - 2013, approximately 31,800 interstate visitors (mainly from NSW [Sydney] and Victoria [Melbourne] and 45,000 residents took overnight trips involving cycling (35.5% and 28.6% growth respectively on the previous year). Interstate cycle visitors provided a particularly high economic yield. They spent an average of \$2,072 per trip. To capitalise on such demand, the Tasmanian State Government is actively investing in trail development, including \$500,000 pledged to develop a new 89 km cycle rail trail in the north-east of the state with a target of annual local direct tourism expenditure of \$3.5 million and 40 jobs (full-time equivalent) five years post-construction (Tasmanian Greens, 2014; Tourism Resources Company, 2014).

### **The “trail” ahead**

Demand for development of infrastructure to support cycling generally (e.g., Sustrans, undated), and the various forms of mountain biking specifically (e.g., purpose-built single track trails, uplift facilities for downhill, bike parks for freeriding/trials), is increasing in many countries (Koepke, 2005; IMBA, 2013). In the US, locations such as Moab (Utah), and Fruita (Colorado) each offer hundreds of kilometres of single track mountain bike trails in desert ecosystems (Moab Area Travel Council, 2010; Over the Edge Sports, 2010). In Canada, alpine resorts such as Whistler Blackcomb offer more than 200 km of trails for mountain biking including 34 trails of lift-serviced downhill routes, and summer revenue represents

approximately 75% of winter snow recreation revenue (Tourism Resources Company, 2005; Whistler Blackcomb, undated).

The potential economic benefits of developing and promoting biking trails in its various forms have, therefore, been widely recognised. Examples include destination mountain biking tourism (Inspiring Place Pty Ltd, 2008; Koepke, 2005; Tourism Resources Company, 2005) and competitive sporting events, typified by the World Cup Mountain Bike Series (Tourism Resources Company, 2005), Union Cycliste Internationale Mountain Bike, and Trials Championship (Australian Capital Territory, 2010). Mountain biking also provides social networking opportunities and supports a substantial industry in both equipment and clothing (e.g., ABC of Mountain Biking, 2002-2008).

There is no doubt that mountain biking is growing globally and is especially popular in affluent, economically developed countries where governments are keen to promote healthy exercise and whose citizens are expected to enjoy increasing leisure time in the coming decades (Zovko, 2013). Mountain biking will probably continue to evolve into new derivatives undertaken for tourism/recreation and as competitive, formalised sports, evidenced, for example, by the current increasing popularity of night mountain biking in some areas of the UK (Tourism Research Australia, 2013).

With a widening diversity of participants seeking different experiences, and with the Victorian Government already recognising the economic benefits of biking tourism, the Albury-Wodonga Region, for example, is in an excellent position to link with established trails such as the 100 km+ Murray to the Mountains Rail Trail (Tourism Resources Company, 2014) and develop an attractive addition to tourism in the area. In addition to disused rail corridors there is also the potential to use travelling stock routes, a range of already formed (formally or informally) tracks and country laneways. There are few places in the world that could offer trails that incorporate everything from mountain vistas, agricultural and bushland landscapes, trails that hug the river and the weir, historic villages and regional towns, and wineries. With careful review of availability, the basis for an extensive network of trails could be developed that would provide enjoyment for a range of experiences that span rides that challenge the most experienced of riders to those who wish to meander through the landscape on 'easy' rides. Based on experience elsewhere in the world, including Australia, the outcome could well be beneficially economically to a wide range of businesses spread throughout the Region.

## **References**

- ABC of Mountain Biking. (2002-2008) *Mountain Biking Clothes and Gear*. ABC of Mountain Biking - available from <http://www.abc-of-mountainbiking.com/mountain-biking-gear/>
- Australia Capital Territory. (2010) *2009 UCI Mountain Bike and Trials World Championships: Post Event Report* - available from <http://www.stromloforestpark.com.au/documents/WCPostEventReport-Web.pdf>
- Angus and Associates. (2013) *Final Report-New Zealand Cycle Trail Evaluation – Four Cycle Trail Case Studies*. Angus & Associates in association with TRC Tourism - available from <http://www.med.govt.nz/sectors-industries/tourism/tourism-research-data/other-research-and-reports/four-case-studies-of-nz-cycle-trails-2013.pdf>
- Ballantyne, M., Pickering, C. and Guides, O. (2014) 'How formal and informal mountain biking trails result in the reduction, degradation and fragmentation of endangered urban forest remnants' in M. Reimann, K. Sepp, E. Parna, and R. Tuula (Eds.) *Proceedings of the 7<sup>th</sup> International Conference on Monitoring and Management of Visitors in Recreational and Protected Areas, August 20-23, 2014*, pp. 155-157, Tallinn, Estonia.
- Bradshaw, G. (2006) *The Australian Bicycle Industry Report 2006*, Melbourne: Graphyte Media Pty Ltd.
- Burgin, S. and Hardiman, N. (2014) 'Managing competitive tourism advantage with reference to the Greater Blue Mountains World Heritage Area' in M. Reimann, K. Sepp, E. Parna, and R. Tuula (Eds.) *Proceedings of the 7<sup>th</sup> International Conference on Monitoring and Management of Visitors in Recreational and Protected Areas, August 20-23, 2014*, pp. 300-302, Tallinn, Estonia.
- Campelo, M.B. and Mendes, R.M.N. (2014) 'Comparing webshare services to assess MTB use in protected areas. remnants' in M. Reimann, K. Sepp, E. Parna, and R. Tuula (Eds.) *Proceedings of the 7<sup>th</sup> International Conference on Monitoring and Management of Visitors in Recreational and Protected Areas, August 20-23, 2014*, pp. 161-163, Tallinn, Estonia.
- Cessford, G. (1995). *Off-Road Mountain Biking: A Profile of Participants and their Recreation Setting and Experience Preferences*. Ohakune: Department of Conservation.
- Cessford, G. (2003) 'Perception and reality of conflict: walkers and mountain bikes on the Queen Charlotte Track in New Zealand'. *Journal of Nature Conservation*, Vol. 11, No. 4: 310-316.
- Chiu, L. and Kriwoken, L. (2003) 'Managing recreational mountain biking in Wellington Park, Tasmania, Australia'. *Annals of Leisure Research*, Vol. 6, No. 54: 339-361.
- de Oliveira, J.N.C.G. and Mendes, R.M.N. (2014) 'Outdoor recreation and visitor profile of protected areas in Portugal' in M. Reimann, K. Sepp, E. Parna, and R. Tuula (Eds.) *Proceedings of the 7<sup>th</sup> International Conference on Monitoring and Management of Visitors in Recreational and Protected Areas, August 20-23, 2014*, pp. 25-26, Tallinn, Estonia.
- Dredge, D. and Jenkins, J. (2003) 'Destination place identity and regional tourism policy', *Tourism Geographers*, Vol. 5, No. 4: 383-407.
- Faulks, P., Ritchie, B., Brown, G. and Beeton, S. (2008) *Cycle Tourism and South Australia Destination Marketing* Gold Coast: Sustainable Tourism Cooperative Research Centre.
- Forestry Commission of Scotland. (undated) *Ride the 7stanes - Scotland's Biking Heaven*. Forestry Commission, Scotland - available from <http://www.forestry.gov.uk/forestry/achs-5rjky>
- Forestry Commission Wales. (2010) *Mountain Bike Trails*. Forestry Commission Wales - available from <http://www.forestry.gov.uk/forestry/infd-6rlfd3>
- Gajda, M.S. (2008) *U.K. Mountain Biking Tourism: An Analysis of Participant Characteristics, Travel Patterns and Motivations in the Context of Activity and Adventure Tourism*. M.Sc. Thesis. Edinburgh: Napier University.
- Glasgow City Council. (undated). *Cathkin Braes County Park Mountain Bike Trails* Glasgow City Council - available from <https://www.glasgow.gov.uk/index.aspx?articleid=6185>
- Green, D. (2003) *Travel Patterns of Destination Mountain Bikers*. available from [http://www.issueelab.org/resource/travel\\_patterns\\_of\\_destination\\_mountain\\_bikers](http://www.issueelab.org/resource/travel_patterns_of_destination_mountain_bikers)
- Greenpeace. (2010) *Landmark Pact Reached to Protect Canada's Boreal Forest*. Greenpeace - available from <http://greenpeace.org/international/en/news/features/Landmark-pact-reached-to-protect-Canadas-Boreal-Forest1/>

- Hardiman, N. and Burgin, S. (in review). 'Nature tourism trends in Australia with reference to the Greater Blue Mountains World Heritage Area'.
- Hauraki Rail Trail. (undated) available from <http://www.haurakirailtrail.co.nz/>
- International Mountain Biking Association. (2013) *International Mountain Biking Association, Official IMBA Mountain Bike Rules of the Trail*. International Mountain Biking Association - available from [http://mountainbike.about.com/od/tipsandtechniques/a/IMBA\\_Rules.htm](http://mountainbike.about.com/od/tipsandtechniques/a/IMBA_Rules.htm)
- Inspiring Place Pty Ltd. (2008) *Mountain Bike Tourism Market Profile for Tasmania*. Hobart: Inspiring Place Pty. Ltd.
- Koepke J. (2005) *Exploring the Market Potential for Yukon Mountain Bike Tourism*. Whitehorse: Cycling Association of Yukon.
- Leung, K.-F., von Ruschkoqski, E., Pickering, C., Mendes, R.M.N. and Kollar, C. (2014) 'Assessing technical trail features for mountain biking: Examples from four countries' in M. Reimann, K. Sepp, E. Parna, and R. Tuula (Eds.) *Proceedings of the 7<sup>th</sup> International Conference on Monitoring and Management of Visitors in Recreational and Protected Areas, August 20-23, 2014*, pp. 169-170, Tallinn, Estonia.
- Moab Area Travel Council. (2010) *Mountain Biking in MOAB*. Moab Area Travel Council - available from <http://www.discovermoab.com/biking.htm>.
- Mendes, R.M.N., Dias, P. and DSilva, C.P. (2014) 'Profiling MTB users' preferences within protected areas through Webshare services' in M. Reimann, K. Sepp, E. Parna, and R. Tuula (Eds.) *Proceedings of the 7<sup>th</sup> International Conference on Monitoring and Management of Visitors in Recreational and Protected Areas, August 20-23, 2014*, pp. 166-168, Tallinn, Estonia.
- Murray to Mountain Rail Trail. (2014) *Murray to Mountains Rail Trail* - available from <http://www.murraytomountains.com.au/the-rail-trail/>
- MountainbikingWales. (undated) *Centres and Bases*. MountainbikingWales - available from <http://mbwales.com/en/content/cms/Centres/Centres.aspx>
- National Bicycle Dealers Association. (2013) *The NBDA Statpak: A Look at the Bicycle Industry's Vital Statistics*. National Bicycle Dealers Association - available from <http://nbda.com/articles/industry-overview-2013-pg34.htm>
- Over the Edge Sports. (2010). *Homepage*. Over the Edge Sports - available from <http://www.fruitamountainbike.com/>
- Sport and Recreation Tasmania. (2009) *Tasmanian Mountain Bike Plan: Summary*. Sport and Recreation Tasmania, Department of Economic Development, Tourism and the Arts, Tasmania - available from [www.development.tas.gov.au/sportrec/mtbplan](http://www.development.tas.gov.au/sportrec/mtbplan)
- Sustrans. (undated) *Sustrans: Join the Movement*. Sustrans - available from <http://www.sustrans.org.uk/http://nbda.com/articles/industry-overview-2013-pg34.htm>.
- Tasmanian Greens. (2014). *Old Rail Trail to be Revitalised: A North-East Rail Trail*. Media Release, 28<sup>th</sup> February, 2014. Tasmanian Greens - available from <http://tasmps.greens.org.au/content/old-rail-trail-be-revitalized>
- The Riesling Trail. (undated) The Riesling Trail - available from <http://rieslingtrail.com.au/>
- Tinch, R. (2010). *The Economic Contribution of the Public Forest Estate in England*. London: Forestry Commission.
- Tourism Research Australia. (2013) *National Visitor Survey Trend Data 2000-2013*. Tourism Research Australia - available from <http://www.tra.gov.au/publications/latest-nvs-report.html>
- Tourism Resources Company. (2005) *Forestry Commission Scotland: An Ambition for Forest Cycling and Mountain Biking: Towards a National Strategy, Final Report*. Glasgow: Tourism Resources Company.
- Tourism Resources Company. (2007). *7stanes Phase 2 Evaluation: Report for Forestry Commission Scotland, October 2007*. Glasgow: Tourism Resources Company.
- Tourism Resources Company. (2014) *North East Rail Trail: Preliminary Demand and Economic Benefit Assessment*. Report prepared for Northern Tasmania Development, Tourism Resources Company - available from <http://www.northerntasmania.org.au/client-assets/NE%20Rail%20Trail%20Preliminary%20Demand%20and%20Economic%20Benefit%20Assessment%20Feb%202014.pdf>
- Whistler Blackcomb. (undated). *Whistler Mountain Bike Park*. Whistler Blackcomb - available from <http://www.whistlerbike.com/index.htm>

- White, D.D., Waskey, M.T., Brodehl, G.P. and Foti, P.E. (2006) 'A comparative study of impacts to mountain bike trails in five common ecological regions of the Southwestern US'. *Journal of Park Recreation Administration*, Vol. 24, No. 2: 21-41.
- Wolf, I.D., Wohlfart, T., Brown, G., Lasa, A.B. and Torland, M. (2014) 'Monitoring and management of mountain biking through public participation geographic information systems' in M. Reimann, K. Sepp, E. Parna, and R. Tuula (Eds.) *Proceedings of the 7<sup>th</sup> International Conference on Monitoring and Management of Visitors in Recreational and Protected Areas, August 20-23, 2014*. Tallinn, Estonia. pp. 158-160.
- Zovko, I. (2013) *The Value of Cycle Tourism: Opportunities for the Scottish Economy*. Transform Scotland - available from <http://www.transformscotland.org.uk/value-of-cycle-tourism-report.aspx>