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## Part II: nature sports: current trends and the path ahead

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### Introduction

In the editorial (part one) of this special issue about nature sports (Melo, Van Rheenen, and Gammon 2019), we presented the main characteristics of nature sports and the connections between its related activities and other sectors, such as leisure, tourism, the environment, health and education. By providing an extensive review of the literature, we mapped out the numerous terms connected to nature sports in order to assemble them within a single unifying concept.

Moving on from the definitional and conceptual complexities of the term, the second part of the editorial will explore the developmental trends of nature sports – both in participation and scholarship. Furthermore, we will discuss the changing demographic taking place in nature sports involvement and participation, and reflect on how a more socially encompassing market may impact how these sports are managed and experienced.

### The growth of nature sports

Evolving in a unique historical conjuncture, especially associated with global communication, corporate sponsorship and transnational entertainment industries, nature sports have experienced an exceptional growth, both in participation and their increased visibility across public and private space (Wheaton 2013). Since their emergence in the 1960s, these new forms of sport spread around the world much faster than most traditional sports (Wheaton 2016). The visibility of nature sports has been enhanced by media, through TV shows and broadcasts, specialist magazines, films and internet-based sites (Wheaton 2013). The most prominent examples are ESPN's X Games, which commanded a global audience of 50 million in 2003 (Wheaton 2013) and the movie 'Free Solo', winner of the 2019 Academy Awards for Best Documentary Feature. This is not to suggest that the origins of many nature sports, such as mountaineering and orienteering, did not evolve much earlier (Reinhart, part two of this special issue). Rather, it is only to highlight that current popularity figures have been fuelled by more recent cultural and technological developments.

The growth and development of some nature sports activities has led to a process of sportivisation (Aubel, Hoibian, and Defrance 2002; Suchet 2011), resulting in the incorporation of these activities into the Summer and Winter Olympic Games. Examples include sailing (since the first modern Olympic Games in Athens in 1896), skiing (since the first Winter Olympic Games in Chamonix in 1924), windsurfing (since the Los Angeles Olympic Games in 1984), mountain bike racing (since the Atlanta Olympic Games in 1996), snowboarding (since Nagano Winter Olympic Games in 1998), surfing (scheduled for the Tokyo Olympic Games in 2020), and rock-climbing (scheduled for the Tokyo Olympic Games in 2020).

The mediatization of some of these nature sports has helped to create global celebrities such as Shaun White (snowboarder), Kelly Slater (surfer), and, more recently, Alex Honnold (rock-climber) 'who, like other sport celebrities, transcend their subcultures and inhabit and apprise national and international space' (Wheaton 2013, 3).

Wheaton (2013) provides examples of the ever-expanding and diversifying ways in which consumers experience nature sports today, such as

those who play video games, buy clothing and accessories, and devour the vast array of media products (from social media and internet based products to more traditional forms, such as DVDs, films and television shows) and experience activities through adventure tourism or as spectators. (3)

In short, like many other leisure pursuits, nature sports are now a multi-platform experience that helps support, sustain, and build worldwide markets.

## A global phenomenon

The increased cultural visibility of nature sports has attracted a significant number of participants from all geographies (Rinehart and Sydnor 2003; Wheaton 2004, 2013). While the informal and itinerant structure of nature sports makes it hard to accurately measure participation levels (Melo 2013; Gomes et al. 2017), several examples demonstrate that the growth of nature sports participation has been consistent and widespread around the globe, outpacing the increase of most traditional sports in many Western nations (Wheaton 2013; Brymer and Schweitzer 2017).

In 1996, snowboarding was the fastest growing sport in the United States, with over 3.7 million participants (Howe 1998). By 2002, it was estimated that approximately 86 million individuals had taken up some sort of nature sports (Ostrowski 2002). In 2003, approximately 30 percent of all sporting goods sold in the USA, equating to a US\$14 billion market, were nature sports-related (Liberman 2004). More recently, the *Outdoor Recreation Participation Report* (The Outdoor Foundation 2018) shows that 146.1 million (almost half of) Americans ages 6 and over participated in an outdoor activity at least once in 2017, a slight increase from 48.8% of the US population in 2016–49.0% in 2017. This continues three years of growth in outdoor participation.

In England, the *Getting Active Outdoors* study (Sports England and Outdoor Industries Association 2015) points to the increasing popularity of nature sports participation, highlighting that a total of 8.96 million citizens are active outdoors. 2.5 million (28%) of these are regularly active (once per week or more), and approximately 70% (1.7 million) of regular participants are engaged in nature 'adventure sports'. Moreover, the study by

Sports England (2015) stated that: (i) the British Mountaineering Council reported an overall 2% increase in membership (although club membership declined) in 2013, climbing competitions increased (18% increase from 2012 to 2013), as did social media and online traffic; (ii) Snowsport England had a 12% increase on domestic slopes for the period February to April 2013–2014 and an 11% increase for the period May to August 2013–2014; (iii) the Mountain Training Association has grown 15% in the last 12 months, demonstrating an example of the growth in independent niche providers; (iv) market research suggests that the outdoor activity industry continues to expand, demonstrated in recent years by the growth in outdoor activity tourism and the increase in the number of outdoor mass participation events (e.g. Great North Run, cycling challenges, and open water swimming challenges). There has likewise been an increase in the number of climbing walls (30% increase from 2010 to 2014) and total number of climbing wall visitors; (v) revenue sales across the outdoor commercial sector has grown in recent years. Indicators from commercial sales of equipment suggest outdoor sports enjoyed a 3% rise in 2014, while over 2013 and 2014 there has been a 39% increase in canoe and kayak sales.

In France, the Ministry of Health, Youth and Sports (MSJS 2015) reported in 2010 that 25 million of its citizens participated in some sort of nature sports. In 2014, more than 2.4 million licenses were issued by sports federations in the field of nature sports (unisport and multisport estimation), a growth trend over the past several years. Also in 2014, nearly thirty thousand (28,012) nature sports clubs were registered with national sports federations, corresponding to 23% of the total number of sports clubs. In addition, nearly 75,000 facilities, spaces and sites related to nature sports were identified (23% of the total number). Finally, one-third of all sporting events in France are estimated to involve nature sports activities.

In Portugal, similar indicators reflect an increasing number of participants and the sector's growth (Melo 2013). These indicators include: (i) higher participation rates of informal participants, which indicate a growing independence and autonomy in participation; (ii) greater participation of young people who begin to practice these activities at an earlier age, influenced by the integration of these activities in the curricula of primary and secondary education; (iii) women's increasing participation, particularly in younger age groups; (iv) diversified supply, offering different sport participation opportunities, ranging from more formal activities under the federative model (e.g. canoeing sports clubs, oriented for competition), to the more informal structures (e.g. mountain biking clubs oriented towards recreational practices), depending on the different motivations of the participants; (v) growth of a specialized market, targeted towards education and training of the participants, as in the case of most surf clubs; (vi) increases in the number of formal or organized sport events, such as orienteering federative competitions, but also informal events, such as mountain biking events organized by participants' clubs and associations; (vii) creation of new spaces for practice, such as networks of walking paths, nautical centres and centres of surfing high performance; (viii) creation of a positive image in the territories associated with mediatic sport events such as the case of Peniche from the surf world championship or Nazaré from the largest wave surfed (by Garrett McNamara); and (ix) growth tendency of the sector pointed to by the leaders of the nature sports organizations (Melo 2013).

This is not only a Western trend. There has been considerable growth in nature sport participation in other regions of the world (Brymer and Schweitzer 2017). Examples that reflect the penetration of nature sports in other geographies include, in 2016, approximately 130 million people engaged in nature sports activities in China. Also, Iran Surfing Federation became the 100th member of the International Surf Association (Brymer and Schweitzer 2017).

### Nature sports participation: a shifting demographic

The rapid expansion of nature sports has been accompanied by a cultural fragmentation that supports a new profile of participation (Wheaton 2013). Initially, nature sports activities were predominantly practiced by young, educated males with highly qualified jobs and, consequently, high income levels (Dolnicar and Fluker 2003a; Barbieri and Sotomayor 2013; Portugal et al. 2017; Melo and Gomes 2017b) and high social capital (Pociello 1981). Today, the nature sports industry has witnessed a demographic shift as participation rates across the generations have grown (Brymer and Schweitzer 2017), thereby creating new and profitable niche markets that include not only teenage boys but also girls, women, men and an aging population, who have a broad range of interests and experiences (Wheaton 2016; Brymer and Schweitzer 2017). As Wheaton (2013) has stated:

They range from occasional participants, perhaps taking part via the array of 'taster' activities being marketed through the adventure sport and travel industries, to the 'hard-core' committed practitioners who are fully familiarised to the lifestyle, argot, fashion and technical skill of their activity(ies), and spend considerable time, energy and often money doing it. (Wheaton 2013, 4)

Examples of this fragmentation in participation are given in the studies of Buckley (2018, part one of this special issue) about the transition of nature sports with trajectories of aging, and Hickman et al. (2018) about older adult participation in climbing and sea kayaking, giving expression to what Brymer and Schweitzer (2017) have stated about baby boomers who are enthusiastic participants of nature sports more generally.

The work of Kerr and Houge Mackenzie (part two of this special issue) demonstrates the significant opportunities for women to participate in nature sports on an equal footing with men, as previously suggested by Brymer and Schweitzer (2017). Statistical figures (Jarvie 2006; Comer 2010) support what Wheaton (2016) has claimed, that there has been a boom in women's and girls' interest in nature sports, including sports like surfing, previously seen as a bastion of hegemonic masculinity.

This growth and diversification of nature sports participation is linked to the technological evolution, which has allowed a greater fragmentation, development, differentiation and specialization within the many practices subsumed within nature sport activities. The materials and equipment are, in most cases, indispensable for the realization of participation, serving to mediate the relationship between the individual and the environment. This process of mediation allows for the transformation of nature's energy, such as wind speed (paragliding), the force of waves (surfboard), and the height or slope of the terrain (snowboard). The materials and equipment also help to promote safety (climbing ropes) and/or protection from meteorological agents (clothing for rain or snow). When analyzing these technological advances, there is a growing tendency towards the

development of new materials and equipment to provide increasing individual adaptability, a greater ease of auto transport, and a greater personalization of nature sports activities (Melo 2013).

The diffusion of nature sports activities in society has been pointed out by Bessy and Naria (2005) as a series of historical phenomena: (i) manufacturers indicate that the revenue of sporting goods sales, positioned in the outdoor segment, has witnessed steady progression from 15% to 20% per year; (ii) there has likewise been an increase in the planning of numerous natural sites (routes, climbing routes, take-off and landing areas, etc.) and innovative sports equipment, such as surfing stations and artificial water multi-leisure parks; (iii) finally, there has been a multiplication of a new generation of sports events with a participative vocation (raids, challenges, adventure races, etc.). The growing number of commercial service providers associated with nature sports (e.g. the nature sport tourism sector), as evidenced in France (Corneloup and Bourdeau 2004) and Portugal (Gomes et al. 2017; Melo and Gomes 2017c).

In addition, the diversification of the nature sport market has in no small way been driven by global concerns over environmental and ecological sustainability (Mallen and Chard 2011). As detailed in part one of the editorial, a key motive for those participating in nature sports is a desire to get closer to the environment. However, sport-related interaction with the environment has the potential to damage it, an outcome that generates considerable disquiet among participants. Such anxieties have resulted in a call for more sensitive management approaches to particularly vulnerable sites, such as zoning and access-reduction initiatives (Bailey and Hungenberg 2018; Mach et al. 2018, part two of the special issue; Hutson and Howard 2015).

Increased diversification can also cause intra- and inter-generational conflict over how the environment should be used and managed. Whilst disagreement can often be resolved through cross-educational dialogue (King and Church 2019, part two of this special issue), we must be mindful that nature sport's sites will continue to raise disputes as participation numbers grow.

The following section highlights the contributions made for this second part of the special issue and, in this regard, we would like to thank the authors for their contributions that offer conceptual and empirical heft to the field of research on nature sports.

## **Volume two contributions**

The second part of this special issue focuses on the benefits and outcomes of nature sport participation through selected case studies. For example, this collection of papers highlights the meaningful and challenging experiences of participants across numerous activities, ranging from surfing, mountain climbing, ultramarathon running and BASE jumping. These contributions address concerns of environmental impact and the need for an integrated approach to resource management and stakeholder engagement within the growing nature sport industry.

The first paper in the second part of this special issue follows the emergence, development and eventual politicization of rock climbing in the region of Saxon Switzerland. Kai Reinhart explains how in the nineteenth century Saxon Switzerland became one of the birth places of modern climbing. By 1911, the many clubs operating in the region founded the Saxon Mountaineering Federation, which adhered to the strong ethical

traditions integral to free climbing. However, after the Second World War the region became part of the newly formed German Democratic Republic. The new socialist regime viewed climbing as a sport that prepared individuals as productive members of society. This led to much conflict with the climbers who saw climbing as an activity that transcended sport, viewing it as a pastime that represented freedom, friendship and adventure.

Andrew W. Bailey and Eric Hungenberg's paper draws attention to the complexities of economic impact assessment inherent in natural environments. Their study focuses on determining the economic stimulus that visiting climbers bring to the city of Chattanooga in Tennessee. As with many commodified natural environments across the world, the authors highlight the importance of maintaining a balance between the much needed income that active sport tourists bring to the area and the potential environmental damage that such activities can bring. The study finds that continued successful management of the natural adventure sites are largely dependent upon the involvement of a range of stakeholders from both inside and outside the region.

The paper by Leon Mach, Jess Ponting, James Brown and Jessica Savage discusses the impact of intra-seasonal demand upon natural environments, focussing primarily on surf tourism. The authors point out that whilst broad climatic factors undoubtedly influence travel to specific sites, it is the intra-seasonal demand, (predominantly influenced by domestic forecasts) which can accentuate the negative consequences surf-related crowding can cause. As a result, the paper recommends that destinations should consider utilizing the surfing forecasts in order to better prepare, and so benefit from, a sudden increase in visitor numbers.

The fourth paper of this special issue highlights the complex conflicts that arise between young mountain bikers and site managers. Katherine King and Andrew Church shed light on the importance of freedom and autonomy in young mountain biker's site choices and behaviours – and how such conduct is perceived and managed by those responsible for these leisure spaces. The authors recommend that a positive and inclusive dialogue be sought between both parties that encourages collective decision making, as well as opportunities for young people to learn trail building and design skills.

The paper by John H. Kerr and Susan Houge Mackenzie delves into the experiences of a veteran BASE jumper. Taking a case-study design of researching just one individual (a refreshing approach, that is underutilized) the study reveals that whilst such an activity is perceived as being high risk, the numerous psychological and emotion benefits help assuage any potential dangers. Furthermore, these positive experiences help the individual to cope palliatively with negative life events outside the sport. The key respondent in the research makes it clear that BASE jumping, for them, is not about having a death wish – but is more about life affirmation and celebration.

In the final paper of this special issue, Jim Cherrington, Jack Black and Nicholas Tiller adopt a collaborative auto-ethnographic approach to gain insights into the complex and dynamic experiences of an ultramarathon runner. The authors counter popular notions that emphasize the positive feelings of closeness and aesthetic appreciation that sport in a natural environment offers against alternative experiences that dwell in the darker, unforgiving features of nature, brought on by extreme exertion. By positioning these punishing experiences within dark ecology, the natural environment is perceived as a foe rather than a friend and can highlight the athlete's vulnerability and mortality. Whilst this paper

focusses on experiences during an ultramarathon event, it would be fascinating to explore how such extreme practices impact on the athlete's life after the event is long over.

## The path ahead

Just as there has been tremendous growth in nature sport participation globally, there has also been a growing body of literature on the subject area designed to better understand this social and historical phenomenon. To date, the body of work produced on nature sports has been dominated by Anglophone scholars, especially from the United States of America and the United Kingdom (Durán-Sánchez, Álvarez-García, and Del Río-Rama 2019, part one of this special issue).

The contributions developed by authors of other countries, especially those produced by French scholars, have tended to be overlooked by Anglophone scholars (Wheaton 2013), often because these publications have not been translated into English. As Wheaton (2013) has stated, a North American dominance is not surprising as the USA is considered the home of the nature sport phenomenon. Similarly, as Bourdieu (1979) pointed out, the spiritual base of many nature sports evolved in the United States, where commercialization and institutionalization processes developed rapidly and thoroughly, as demonstrated by the emergence and meteoric success of ESPN's X Games (Beal and Wilson 2004; Wheaton 2013).

Empirical work written in English (and other languages) is now emerging from all around the world. As we can see in this special issue (parts 1 and 2), the authors represent a diverse number of countries, including Europe (Germany, Italy, Portugal, Spain, United Kingdom), the Americas (Canada, Costa Rica, Panama, USA) and Oceania (Australia, New Zealand), illustrating both commonalities and differences in participants' experiences and outcomes (Durán-Sánchez, Álvarez-García, and Del Río-Rama 2019, part one of this special issue; Wheaton 2013).

Especially in the last decade, the academic interest in nature sport has broadened, encompassing a range of different academic (inter)disciplines, including leisure studies (Davidson and Stebbins 2011; Stebbins 2019, part one of this special issue), management and economy (Bayley & Hungenberg, part two of this special issue; Mach et al. 2018, part two of this special issue; King and Church 2019, part two of this special issue), philosophy (e.g. Booth 2018, part one of this special issue; McNamee 2006; Krein 2008, 2014, 2015, 2018), psychology (e.g. Kerr and Houge Mackenzie 2018, part one of this special issue; Houge Mackenzie and Brymer 2018, part one of this special issue; Lyng 1990; Thorpe 2009) and sociology (e.g. Pociello 1981, 1995, 1999; Wheaton 2004, 2013, 2014, 2016; Lyng 2005; Melo and Gomes 2017a, 2017b). This is stimulating the emergence of new theoretical developments and productive avenues of enquiry (Wheaton 2013; Melo, Van Rheenen, and Gammon 2019).

This two-part special issue on nature sports is an effort to encourage and stimulate, and document the most recent scholarship in this emerging field of enquiry. We expect that research into this unique area will continue to develop, challenging scholars to think globally and creatively to balance participation demand with environmental sustainability. Nature sports, a unifying set of physical practices experienced in relation to the natural environment, will continue to emerge in new forms and configurations. These configurations will certainly be in response to social, demographic and environmental changes

and upheavals rapidly unfolding in the twenty-first century. While these practices will seek to preserve and/or foster a balance or harmony with our natural world, these activities will also embody the desire to stretch boundaries and defy the ever-dynamic contours of human limitation.

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