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EDITORIAL



Part I: nature sports: a unifying concept

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Introduction

Nature sports serve as the contextual reference for this special issue. These sports, also labelled action sports, adventure sports, alternative sports, Californian sports, extreme sports, gravity sports, lifestyle sports, nature challenge activities, new sports, outdoor sports, panic sports, risk sports or whiz sports, among others (Bourdieu 1979; Pociello 1981; Midol and Broyer 1995; Rinehart and Sydnor 2003; Wheaton 2004, 2013, 2016; Booth and Thorpe 2007; Davidson and Stebbins 2011; Melo and Gomes 2017a; Rinehart 2017; Durán-Sánchez, Álvarez-Garcia, and Del Río-Rama 2019), comprise a group of physical activities that have the potential to challenge participants in a novel way and provide an alternative to the traditional ways of seeing, doing and understanding sport (Wheaton 2004).

Despite their semantic differences, these terms represent distinctive ways of looking at this countercultural phenomenon (Collins and Brymer 2018; Melo and Gomes 2017a). As such, these terms have tended to highlight the socio-cultural characteristics of these sports that have emerged in contrast to traditional sports and their dominant values (Bourdieu 1979; Rinehart and Sydnor 2003; Wheaton 2004; Booth and Thorpe 2007; Breivik 2010; Melo and Gomes 2017a).

In this regard, modern sports are popular culture practices defined by political and ideological struggle (Bourdieu 1978; Van Rheenen 2014). That is, while dominant forms of sporting practices often reproduce dominant cultural ideologies, such as the reigning race, class and gender relations at a particular moment and place in time (Carrington and MacDonald 2009; Van Rheenen 2013), these cultural practices are also contested, providing the potential for resistance and counter-hegemonic expression (Fairclough 2001; Andrews 2006; Reinhart 2019; Whannel 2009).

Nature sports activities emerged in recent decades, especially after the flourishing of a new sport paradigm that had its origin in North America in the 1960s and 1970s (Bourdieu 1979; Pociello 1981; Wheaton 2016). These practices emerged in line with the new values and social demands that developed within the praxis of active leisure time (Betrán and Betrán 1995), significantly reshaping the field of modern sport. These transformations are reflected in the system of practices, where their evolutions can be identified globally (Durán-Sánchez, Álvarez-Garcia, and Del Río-Rama 2019; Pociello 1981) and that, in some way, explain the evolution of the concept of sport itself.

Nature sports involve either the creation of new activities such as windsurfing, mountain biking and hang-gliding or the adaptation of older residual cultural forms, such as the (re)emergence of surfing culture in California in the 1960s, or sport climbing in rock climbing (Camoletto and Marcelli 2019; Wheaton 2004). The emergence of these new sporting modalities in Europe took place through a dual and dynamic process. On the one hand, through the importation of new sports such as surfing, windsurfing and free flying, by the members of the great and new petty bourgeoisie (Bourdieu 1979; Pociello 1981). On the other hand, by the creation of new modalities through a process of internal differentiation of stabilized practices (Pociello 1981), such as skiing and canoeing, which have given rise to new modalities such as off-piste skiing or freestyle canoeing, respectively (Melo 2013).

These novel modalities tend to emphasize the risk factors – real or perceived – that are inherent in these sports (Breivik 2010), as well as the characteristics associated with the lifestyles of their practitioners (Wheaton 2004). However, as Collins and Brymer (2018) discuss the risk-focused perspective might assume that participants are only interested in thrills and excitement, ignoring the opportunities that these activities have for enhancing health, well-being and more meaningful connections to nature. In particular, as Houge Makenzie and Brymer (2018) argue a growing body of literature supports the proposition that a positive psychology framework can expand current conceptualisations of nature sport participation beyond thrill or sensation seeking.

Nature sports have experienced worldwide growth in the last several decades. The diffusion of these unique sporting practices globally has generated a desire to better understand this historical phenomenon. In particular, efforts at defining and conceptualizing this diverse set of physical activities has led scholars and practitioners to frame the boundaries and contours of this emerging field of enquiry. The following section highlights some of these key conceptual themes.

Key conceptualizations and characteristics of nature sports

What are nature sports? ‘Nature sports’ is an expression that has emerged in recent years as a sports field that is related to the leisure and tourism industries, but also with environment, health and education. Nature sports comprise a group of sporting activities that are developed and experienced in natural or rural areas, ranging from formal to informal practices, and which may contribute to sustainable local development (Melo and Gomes 2017a), although some question the assumed linkages between nature sports participation and a genuine ethic of care for the environment (Booth 2018). These practices are performed in a variety of natural contexts including in the air (paragliding and hang-gliding, etc.), on land (mountain biking, rock-climbing, trekking, etc.) and in water (kayaking, sailing, surfing, windsurfing, etc.).

According to Bessy and Mouton (2004), the nature sports designation only arose in the late twentieth century, and was associated with the emergence of new sports venues in nature and the increased number of participants taking part in a set of social and structural practices. Nature sports reflect the social and cultural changes of late capitalism that have taken place in the last decades, which have had repercussions in the economic, technological and hyper-mediated environment.

These changes have triggered a deep transformation within the system of sports practices (Melo 2013). Although each nature sport 'has its own specificity; its own history, (politics of) identities and development patterns, there are commonalities in their ethos, ideologies as well as the consumer industries that produce the commodities that underpin their cultures' (Wheaton 2004, 11). In this sense, nature sports is a complex concept which presents a set of specific characteristics that will be emphasized throughout the articles of this two part special issue. These themes and characteristics have also been found in the wider literature, as exemplified and embodied within specific sports and contexts:

Nature based activities – Nature sports are developed outdoors in natural (with or without environmental protection) or rural areas. These natural spaces constitute the base for the practice of nature sports activities even if, to facilitate their practice, these spaces are modified through the placement of equipment and/or the construction of infrastructure or facilities to support these activities (Melo 2013).

In this context, nature can be defined for the purpose of this definition as any natural setting perceived by practitioners as at most only minimally modified by human beings (Stebbins 2019). Examples of these spaces are the sea, rivers and other watercourses, canyons, mountains, snowfields, cliffs, rock faces, forests, caves, the sky, etc. Nature sports involve a dynamic interaction between participants and these natural features (Krein 2014), as well as the dynamic forces that create them – waves, gravity, thermal currents, wind, rain, sun (Booth 2018; Rinehart 2017). Contact with nature is also seen as the main reason for practice (Melo and Gomes 2017a), as a form of avoidance and escape from an everyday life that is routine, mundane and controlled, providing new sensations, emotions and other states of consciousness, and enabling experiences of which individuals do not have regular access to, especially in urban environments (Melo 2013).

Excluded from the scope of what we have termed nature sports activities here are those practices developed in urban (e.g. skateboarding), artificialized (e.g. bungee jumping) or indoor (e.g. indoor rock climbing) spaces, and also motorized sports (e.g. motocross), hunting and fishing, garden visits, and golf (Bessy and Naria 2005; Melo 2013). However, as Camoletto and Marcelli (2019) demonstrate the dichotomy between indoor and outdoor spaces within a sport such as climbing has become less rigid over time, recognizing 'nature' as a frame of reference rather than a fixed context and rigid analytical construct.

Sustainable activities – Nature is also related with sustainability and, in this regard, nature sports correspond to a set of activities, products, and services directly connected to nature, associating its practice with the new trend towards ecological consumption (Melo 2013). Nature sports have tended to become more sustainable, soft and discrete activities, representing a relationship of complementarity with nature (Joaquim 1997). These activities correspond to a clear manifestation of and a trend for eco-consumption (Gomes 2009), a green version of the adventure activities (Breivik 2010), following an ideological trend of the post-modern taste for the ecological (Betrán and Betrán 1995).

This dimension of participation in nature sports suggests that these practices are a recent historical phenomenon and a trend structurally anchored in contemporary ways of life (Bessy and Naria 2005). In this regard, Chazaud (2004) and Pociello (1981) point to the tendency of naturalization or greening of sports practices. Brymer and Gray (2009), in their empirical work on the representation of nature, also report that there is an ecocentric relationship between these sports and nature, a relationship that is

described by participants in these activities as omnipresent and ubiquitous, a source of innate power.

On the other hand, Gomes (2009) points out that eco-activities, such as eco-tourism, eco-leisure and eco-sports, represent the imaginary construction of a return to a wild nature, to a lost paradise, and a new search for the local roots of a given locale. Nature sports evoke the search for an identity rooted in an idealized territory or place (Melo 2013). The search for the perfect wave by surfers, the majestic place for flight by paragliders, or an unspoiled and exotic path for people who practice trekking is often connected to a kind of spiritual symbolism or quest, based simultaneously on a wandering and contemplative attitude (Gomes 2009; Melo 2013).

Adventure and risk activities – The search for new experiences, sensations of adventure, and the challenge to abilities associated with the risk factor (real or perceived) are, in addition to connections to nature, the most accentuated reasons for practicing nature sports (Melo and Gomes 2017b). The ‘voluntary risk taking’ (Lyng 2005) emerges as a form of compensation or adaptation to the imperatives of (post)modern society (Breivik 2010; Melo 2017) and, in this sense, nature sports activities appear as an ideal way of respecting these imperatives.

However, adventure and risk are presented in the field of nature sports practice in a paradoxical way. On the one hand, the challenge to test bodily limits has been observed in these practices. Ultra-marathons offer one such example, where participants travel more than 200 kilometers, over the course of more than 24 consecutive hours (Cherrington, Black, and Tiller 2018). The attempt to achieve new feats and new records (e.g. faster ascension of higher and higher mountains), practiced by experienced adventurers, acknowledges real risks and dangers. On the other hand, the market has witnessed the emergence of a set of commercialized activities that emphasize a high level of perceived risk, when in fact the risk is relatively small or non-existent (Melo 2013). Marketing efforts intentionally promote these activities for inexperienced individuals, who believe these activities pose a great challenge to their capabilities (Dolnicar and Dickson 2004; Palmer 2004; Melo 2013). In this regard, nature sports participants embrace and even fetishize notions of risk and danger (Lewis 2004; Wheaton 2004).

Hedonistic and non-competitive activities – Nature sports activities reveal a demand for other types of sports sociabilities, promoting comradeship, human connectedness and greater conviviality (Pociello 1981). Results of several studies (e.g. Melo 2013; Wheaton 2013) have revealed the hedonistic tendency of society, coupled with a greater demand for independent and informal activities that require less organizational commitment. Conversely there has been a decreased demand for organized activities that require a greater commitment (e.g. sport clubs).

Despite some nature sports activities which remain competitive in scope, even aspiring to Olympic modalities, such as sailing, windsurfing, mountain biking (cross-country) and more recently surfing and rock-climbing, the structure of nature sports activities often varies from traditional or dominant sporting practices. These activities involve interacting with a natural or material feature, rather than with other human beings, and participants gain the opportunity to strive, employ, and develop their skills in relationship to nature (Krein 2014). They are non-aggressive activities that involve no human bodily contact (Bourdieu 1979; Wheaton 2013). In this regard, nature sports participants’ behaviours, preferences and the benefits accrued differ from other sport participants.

Although nature sports participants seek health and fitness benefits, they have a different set of motivations that change the emotional state involved in the nature sports activities experience, quickly changing from a state of tension to one of calm (Butts 2001). This allows a sense of spirituality and transcendence (Watson 2007) that facilitates 'flow', 'thrill', the 'sublime' (Booth 2018; Stranger 2011), 'rush' (Buckley 2012), 'slow time' (Wittmann 2011; Arstila 2012; Buckley 2014), 'euphoria' (Buckley 2018), and 'hedonic' and 'eudaimonic' outcomes (Houge Mackenzie and Brymer 2018) rather than competition (Krein 2014).

Autonomous and individualistic activities – Nature sports are predominantly individualistic activities in form and attitude (Wheaton 2013), even if some nature sports are practiced collectively, such as kayaking, or create the formation of sporting sub-cultures, such as in surfing. Nature sports have a spontaneous nature, 'with participation predominantly taking place in informal settings, often without governing bodies or clubs or other forms of external regulation' (Wheaton 2016, 117).

In this regard, nature sports symbolize a sense of spatial, temporal and institutional autonomy (Melo 2013). Space autonomy refers to the freedom that practitioners seek to practice their respective activities in different locations and to gain new spaces for practice. The spaces correspond, in most circumstances, to open terrain, such as the sea, air, river or mountain, and are unbound (in a normalized and regularized way) by human action. Spatial boundaries are usually imposed by geographical accident (e.g. confluence between the sea and beach sand, or between sky and land), by physical ability (e.g. to reach the peak of a mountain or to ride a mountain bike course) or practitioners' technique (e.g. to climb a difficult path or to surf a larger or more dangerous wave). It is a phenomenon that Pociello (1981) has previously designated as the deterritorialization of nature sports practices.

Temporal autonomy refers to the possibility of a practice based on the individual's self-interest and decision-making, independently of others, during his or her free time, whether during the week or weekend, whether in the morning or afternoon. In spite of this autonomy, time remains, in contemporary society, one of the most critical factors in participant decision-making, as it is the main constraint for the practice of nature sports (Melo and Gomes 2017b).

Finally, institutional autonomy describes the possibility of participants' self-organization of these practices, including the size and make-up of social groups associated with these activities (Melo 2013; Wheaton 2013). Institutional autonomy also refers to the possibility of choosing between different sports activities, and socio-organizational contexts, ranging from the most informal to the most organized options (Melo 2013).

Active participation activities – Nature sports correspond mostly to a participatory ideology that contributes to an active lifestyle. These activities are predominantly about participation rather than spectating (Wheaton 2013), which implies a 'commitment in time, and/or money and a style of life and forms of collective expression, attitudes and social identity that develops in and around the activity' (11).

Nature sports relationships

The importance of nature sports is also evidenced by the growing attention given to other sectors, including, leisure, tourism, the environment, health and education. In this regard,

the following part of this editorial will explore the relationships between nature sports and these various sectors.

Nature sports and leisure

Leisure has generally been associated with terms such as relaxation, recuperation, triviality, frivolity, and freedom from obligation (Green and Jones 2005). These authors have argued that ‘the term “leisure” is, in contemporary society, now so broad ranging that it has little analytical usefulness as a concept with which to explain non-obligatory activities’ (Green and Jones 2005, 165), such as nature sports. However, for many individuals, participation in nature sports activities such as kayaking, mountain biking, mountain climbing, rock climbing, surfing, and snowboarding, among others (Bartram 2001; Kane and Zink 2004; Stebbins 2005; Dilley and Scraton 2010; Davidson and Stebbins 2011; Getz and McConnell 2011; Portugal et al. 2017), include involvement and progression in the form of a career, commitment and significant personal effort to acquire skills or knowledge, a sense of belonging and the acquisition of an ethos of a defined culture, the need to persevere in learning, the expectation of receiving benefits resulting from participating, and an identity that results from participating in the selected activities (Melo 2017).

This is what Stebbins (1992) has previously defined as serious leisure,

the systematic pursuit of an amateur, a hobbyist, or a volunteer activity that participants find so substantial and interesting that, in the typical case, they launch themselves on a career centred on acquiring and expressing its special skills, knowledge, and experience. (3)

From our perspective, nature sports can be classifiable in all four types of serious pursuits: amateur, hobbyist, career volunteer and occupational devotee. It should be noted, however, that Stebbins (2019) focuses on a lack of inter-human competition within what he refers to as nature challenge activities (NCAs) and categorizes them as a sub-type of ‘activity participation hobby’ rather than as a ‘hobbyist sport.’

Certainly some participation in nature sports activities can be considered casual rather than serious leisure, since effort and challenge are minimal and they occur in contexts where individuals only participate once or twice in a nature sports activity, either to have an introductory experience and/or to be able to say they have done it (Davidson and Stebbins 2011; Melo 2017).

It is also possible to undertake pre-planned projects in nature sports activities (Davidson and Stebbins 2011; Melo 2017). For example, nature sports participants can enrol in ‘a surf trip during a week that would have been planned in advance by booking ahead the accommodation, transport and other appropriate services, and putting aside the money and time needed to do it’ (Melo 2017, 236). This is directly related to tourism and the development of a specific type of tourism connected to nature sports.

Nature sports and tourism

Natural contexts (e.g. the environment) and nature sports are major components of tourism (Hall and Page 2006; Gammon 2015). The relationship between nature sports and place(s) is evident from the fact that a significant number of these sports are dependent on specific types of environments. These environments generally exist in places

located at a distance from participants' home, meaning that travel and tourism are required (Higham and Hinch 2009; Melo and Gomes 2016a, 2016b).

Indeed, the growing demand for travel related to sport has created the need for a new tourism segment, referred to as sport or sports tourism (Gammon and Robinson 2003; Weed and Bull 2004; Melo and Sobry 2017; Van Rheeën et al. 2017). Active participation in nature sports is directly associated with active sport tourism, one of three major components of sport tourism (Gibson 1998). Active nature sport tourism can be divided into five types of travel: (i) independent travel where nature sports participants take part in informal nature sports activities such as climbing, hang-gliding, surfing or snorkelling; (ii) organized travel where participants hire the services of a touristic company or agency to engage in specific nature sport tourism activities, such as white water rafting; (iii) travel to participate in nature sports competitions such as trail running events; (iv) travel to develop skills in a particular practice and/or prepare for sports competitions, such as surfing camps and (v) travel where tourists take advantage of nature sports facilities at a holiday destination, though nature sport is not the primary purpose of the trip, such as participating in kayaking, trekking, and mountain biking.

As Gammon and Robinson (2003) have argued, these types of active sport tourism travel refer to different motivations for the trip, ranging from primary (sport participation as the main motive for travel), to secondary and even tertiary motives (trips that follow other main motivations, such as the sun and sea).

Figures indicate that the nature-based tourism market, which includes soft (e.g. trekking) and hard nature sports (e.g. rafting, kayaking and hiking), is often presented as the fastest growing segment within the tourism industry, with an increase of between 10% and 30% per year (Mehmetoglu 2007; Balmford et al. 2009). Further, it is estimated that 10–20% of all global international travel, directly or indirectly, is related to the enjoyment of, and interaction with, nature (Centre for Responsible Travel 2015).

The relationship between nature sports and tourism has drawn considerable attention to the potential and real environmental, economic and socio-cultural impacts of these activities, both positive and negative. These impacts can be observed in surfing (Mach et al. 2018) and climbing (Bailey and Hungenberg 2018), as well as in other nature sports activities (Melo and Gomes 2016a, 2017c). In addition to these contributions, numerous leisure and tourism scholars have discussed these tripartite impacts in terms of the triple bottom line (Elkington 1997; Getz 2009; Dwyer 2015; Van Rheeën 2017), seeking to enhance positive outcomes while mitigating the negative impacts. Nature sports have a particular focus on these activities relative to the environment.

Nature sports and the environment

The development of nature sports has corresponded socially and historically with the articulation of environmental policies. Nature sports and other outdoor recreation activities developed in the USA in part because of the national policies regarding the preservation of land in the second half of the nineteenth century, conservation and management of natural spaces in the late nineteenth century, and in particular through the creation of the national park system in the beginning of the twentieth century (Jensen and Guthrie 2006). The creation of the park system in the USA, followed by

similar initiatives throughout the world, allowed the combination of wildlife protection with the practice of nature sports and other recreational opportunities (Bell 2008).

Recognizing the need for local and global strategies to address environmental concerns, the Brundtland Report – Our Common Future (WCED 1987), followed by the United Nations Conference on Environment and Development held in 1992 in Rio de Janeiro, in 1995 in Copenhagen, and in 2002 in Johannesburg, placed the concept of sustainable development on the world political agenda. Sustainable development is linked to three fundamental dimensions: economic development, social cohesion and protection of the environment, which are interconnected but also interdependent (Melo 2013). Nature sports are directly related with this concept of sustainability, as has been previously discussed within this editorial.

Despite the potential negative environmental impacts that may occur as a by-product of these activities, such as noise and visual pollution, soil erosion, water and air pollution, natural landscape destruction, fauna and flora destruction, and the deterioration of monuments and historic sites, nature sports promise the possibility of environmental conservation and protection when developed and managed in a sustainable and intentional manner (Melo and Gomes 2016a). The various sites and facilities developed for these activities (trails, tracks, routes, take-off and landing areas, mooring buoys, submerged paths, shops, parking, etc.) have contributed to sound conservation management practices, thus reducing the exploitative use of the natural environment, allowing nature sports participants to enjoy nature without harming it (Melo 2013).

As a first step, nature sports promote the active and sensitive discovery and appreciation of heritage sites. As a second step, these activities ensure an appropriation and defence of the latter, since participants who immerse themselves in nature (at least potentially) become aware of the beauty and grandeur of these places, creating the possibility for the construction of an eco-citizenship (Melo 2013). For example, Brymer, Downey, and Gray (2009) suggest that ‘feeling connected to nature leads to a desire to care for the natural world and contributes to more environmentally sustainable practices’ (193). In this regard, nature sports participants develop an intimate and reciprocal relationship with the natural world (Brymer and Gray 2010).

Nature sports guides and service providers have an important role in the promotion of sustainability, acting as environmental interpreters, role models and activists (Weiler and Davis 1993; Pereira and Mykletun 2012; Melo and Leite 2018).

Space and land management, as discussed in King and Church (2019), remain important areas for the conservation of the environment, where nature sports and conservation combine to create a symbiotic relationship based on sustainability. Ideally, a positive economic impact can help maintain ecosystem protection, while a healthy ecosystem provides the venue for sustainable market supply, even growth (Boley and Green 2016). Beyond these management strategies for environmental protection and conservation, another significant social benefit of nature sports participation is the potential positive impact on health.

Nature sports and health

The connection between nature sports and health has been highlighted by several authors (Frumkin et al. 2017; Buckley, Brough, and Westaway 2018; Kerr and Houge Mackenzie

2018; Hough Mackenzie and Brymer 2018). Buckley (2018) argues that contact with nature through the practice of nature sports contributes to physical, psychological and social health and well-being. Europarc Federation (2018) has stated that there is increasing evidence that access to the natural environment, including practicing nature sports activities, can help guard against, treat and manage key health issues such as depression, coronary heart disease and stroke, type 2 diabetes, obesity, and dementia. Other key benefits have also been highlighted, such as therapeutic and restorative qualities which enhance recovery, reduce social isolation, and lead to greater community cohesion and opportunities to establish lifelong healthy behaviours (Europarc Federation 2018).

Evidence from several reviews (Buckley and Brough 2017a, 2017b) has demonstrated that poor mental health imposes a range of social and economic costs on the economies of developed nations, in aggregate equivalent to around 10% of their GDP, but that these costs can be decreased or alleviated through increased exposure to nature, and by the practice of nature sports (Buckley 2018).

In this regard, several policy initiatives at the national, regional and/or local level have been established, connecting the natural environment and health (Europarc Federation 2018). For example, Scotland is making significant progress in the green health agenda and is seen as a front-runner within the UK and Europe in this important healthcare area (Europarc Federation 2018). Actions to encourage more use of Scotland's outdoors as 'Our Natural Health Service' are being strongly linked to public health and physical activity agendas within the Scottish Government and its health sector. Evidence indicates that green exercise can contribute to tackling physical inactivity, mental health challenges and health inequalities (Pretty et al. 2007; Hough Mackenzie and Brymer 2018; Europarc Federation 2018).

Finland provides another case in point, where the benefits of nature for human health and wellbeing are seen as an increasingly important topic in society. Cross-governmental cooperation and development between various sectors of the state administration and specialists from sports, outdoor and nature sectors have increased substantially over the last few years and, under the umbrella of Parks & Wildlife Finland (P&WF), the 'Healthy Parks, Healthy People Finland 2025' programme has been developed. The goal of this programme is to improve the social, physical and mental well-being of the Finnish population through the utilization of green space and contact with nature. The aim is to inspire people to become physically active and to spend more time in the natural environment during their leisure time (Europarc Federation 2018).

Nature sports and education

The educational link with nature (and nature sports activities) has a long tradition. This pedagogical tradition is rooted in the formative process that began during the sixteenth-seventeenth centuries (Melo and Gomes 2017a). Since that period, but especially since the beginning of the twentieth century, many people and organizations have engaged in nature (sports) activities by attributing educational benefits to them (Funollet 1989; Cubero 2008; Melo and Gomes 2017a). Examples are the naturalist movement in France, founded by Georges Hébert in the beginning of the twentieth century; the Scout Movement, which emerged in England in 1907 as an initiative of Robert Baden Powell, and; Outward Bound, originally created in England by Kurt Hahn, during World

War Two (Melo and Gomes 2017a). This last programme was imported later into the United States by Joshua Miner and is considered as a precursor of the outdoor adventure education concept, which includes trekking, mountaineering, climbing, orienteering, kayaking, and many other nature sports activities (Watters 1986; Berry and Hodgson 2011).

Outdoor adventure education programmes founded on nature sports activities include a

variety of teaching and learning activities and experiences usually involving a close interaction with a natural setting and containing elements of real or perceived danger or risk in which the outcome, although uncertain, can be influenced by the actions of the participants and circumstances. (Ewert and Sibthorp 2014, 12)

This kind of education conducted in natural and wilderness settings, involves ecologic relationships, physical skills to meet situational challenges, and interpersonal growth (Gilbertson et al. 2006). These learning experiences encourage direct, active, and meaningful social engagement with real-life, long-term consequences (Prouty 2007).

There has been sustained growth and interest in nature and adventure-based learning in recent years. The purposeful use of adventure and nature has now reached the point where there is a significant degree of interest in studying the subject at academic and professional levels. This is reflected in the large number of opportunities to study adventure and nature-related disciplines at post-sixteen, undergraduate and postgraduate levels in the UK, the USA, Australia, Canada, New Zealand and elsewhere (Hodgson and Berry 2011). This educational movement, using nature sports activities for intentional learning experiences, has evolved beyond narrowly defined sport and technical-based training, especially risk, danger, and disaster management. The movement now encompasses a broader, theoretically grounded understanding of what is necessary to plan and deliver educational experiences that aim to recognize and validate participant-centric approaches and outcomes that move beyond a singular focus on safety (Hodgson and Berry 2011; Collins and Brymer 2018).

Concluding remarks: nature sports as sports activities

Based on the foregoing discussion within this editorial, it may seem unnecessary, even rhetorical, to pose the following two questions: (i) can and should we consider a diverse set of physical activities that occur in relation to nature or the environment, such as mountaineering, surfing, and free-flight, among others, to be 'sports?'; (ii) does this diverse set of activities constitute a particular and novel form of modern sports today, a unifying form of practice we can and should designate as 'nature sports'? We believe the answer to both of these guiding questions is resoundingly affirmative.

As noted in our introduction, sport is highly ambiguous, socially constructed and contested, and continually emerging into new forms and configurations. Sport, as a social and cultural phenomenon, influences and is influenced by the socio-cultural context in which it has developed – sharing, showing, playing and setting the values of that very context (Melo 2017). Sport both becomes and accompanies the changes and developments of society, maintaining a systemic isomorphism relationship (Martin and Martin 2001).

The concept that is included in the European Sports Charter and which emerged in the postmodern period, presents sports as '[...] all forms of physical activity which, through casual or organised participation, aim at expressing or improving physical fitness and

mental well-being, forming social relationships or obtaining results in competition at all levels' (Council of Europe 1992, 3). This definition implies a broader notion of sport, encompassing a wider range of activities not included in previous definitions that besides the competitive side, makes sports a space of satisfaction of the new social needs, of escaping the routine, of looking for evasion, of adventure and of risk (Melo 2009). This definition is consistent with the ideas proposed by many authors, who argue that a broader definition of sport allows for increased significance in the relationship between sport and other areas of social life (e.g. Standeven and De Knop 1999; Melo and Gomes 2017a), offering myriad meanings attributed to new forms, including those that are associated with leisure, tourism, health, education, the environment and nature.

Nature sports activities meet precisely this new conception of sport, as they favour the development of novel and emerging sports projects, allowing participants to experience and perform varied practices, from the structured to the more informal, while favouring self-organized forms which are at least currently the most popular among nature sports participants (Bessy and Mouton 2004; Melo 2013; Melo and Gomes 2016b).

In accordance with Krein's (2014) proposition, competition against others is not an essential component of nature sports. Instead, natural features play at least one of the primary roles that human competitors utilize in traditional or standard sports (Krein 2014). As Booth (2018) describes nature sports participants interact with surfaces, textures and fluids of physical geographical features as well as the dynamic forces that create them. It is a reframing of the ontological assumptions grounded in dominant definitions of sport regarding both competition and nature, whereby social connections with the environment need not be antagonistic and one based on controlling and conquering nature.

Considering these factors, and contrary to traditional and dominant definitions of sport, we contend that nature sports must be included within the sport concept, culturally and analytically situated within its own unique body of literature. The following contributions within the first part of this special issue explore the dynamic, embodied intersection of nature and human beings engaged in a diverse collection of sporting activities.

We wish to thank the authors for their innovative and probing scholarship, as their contributions offer conceptual heft to this emerging field of research. The authors have challenged fellow scholars to question existing theoretical assumptions and heuristic biases within the field and to broaden our perspectives to be more inclusive, expansive, intentionally relational and participant-centred. In particular, these contributions have underscored the need to reconceptualise nature within the nature sport literature as a set of fluid positions and orientations through which embodied experiences inscribe and produce meaning and purpose.

Volume one contributions

The first part of this special issue, then, focuses on the current state of the nature sport literature, seeking to expand our conceptual understanding of this diverse array of activities. The authors in this collection examine existing analytical concepts and categories, challenging several theoretical assumptions, such as the separation of nature from culture and a heuristic bias on risk taking and risk management in nature sports.

In his critical commentary, Robert A. Stebbins seeks to unpack some of the terminological and conceptual challenges confronting scholars at the nature-sport nexus. The author defines nature challenge activities (NCAs) as leisure activities pursued in one or more of six elements of nature, including air, water, land, plants, animals and ice or snow. Stebbins distinguishes these activities from sport, which he defines as inter-human, competitive, physical activity with a recognized set of rules.

In the first article of this part of the special issue, Douglas Booth criticizes traditional and dominant definitions of sport as social constructions that render the natural environment passive and malleable for human meaning and use. He argues that social constructionism has obscured 'the sensuous experiences of embodiment.' As such, the author envisions nature sport as a potential vehicle for embodied and political enquiry, a transformative ontology in which nature and culture embrace and converge to form 'co-constitutive' relationships.

This dynamic relationship between human beings and nature expressed within these sporting practices is further complicated by the relocation of nature sports to artificial spaces, such as wave parks or indoor climbing walls and facilities. Utilizing interviews and participant observation in the second paper of this part of the special issue, Raffaella Ferrero Camoletto and Davide Marcelli explore the impact of indoorisation on the construction of authenticity among participants, questioning what constitutes a 'real climber?' While these authors argue that the dichotomy between indoor and outdoor practices has declined since artificial climbing walls were first introduced in the 1960's, their study investigates how climbers give meaning to the relative 'naturalness' of their practice. The process of indoorisation has prompted the development of new forms of climbing, increasingly spectacularised with shocking colours and unique shapes, where nature is now defined as 'a convertible and adjusted scenery.' As a result, nature becomes a frame of reference for articulated distinctions and hierarchies among climbers.

In 'Practice in Nature: State of the Art of Research,' Amador Durán-Sánchez, José Álvarez-García and María de la Cruz del Río-Rama conduct a descriptive and exploratory literature review that reveals disparate terminology across multiple academic disciplines with conflicting theoretical assumptions. While the vast majority of authors come from North America, Western Europe and Oceania, the most common terms found in the key word search for publications within this literature review were 'extreme' and 'risk' sports, highlighting an emphasis on danger, overcoming fear and conquering nature. Yet emerging scholarship, including contributions to this part of the special issue, contest traditional definitions and models that fail to capture a wide range of research outcomes, myriad motivations and lived experiences of nature sport participants.

For example, in the next contribution to this special issue, Susan Houge Mackenzie and Eric Brymer suggest that a positive psychology or well-being framework can expand current conceptualisations of nature sports. Rather than focusing on performance metrics and deficit models of risk seeking, the authors argue that adventurous nature sport activities facilitate both hedonic (pleasure, positive emotions and the avoidance of pain) and eudaimonic (well-being, self-realization and purpose/meaning) outcomes. Meta-analyses of adventure education and adventure therapy studies have found evidence of improved self-awareness, acceptance and resilience, as well as autonomous decision-making among participants. Nature sport activities have been successfully utilized to reduce emotional and behavioural symptoms, such as anger and anxiety, and

foster chemical dependence recovery, particularly among younger programme participants. According to these authors, these successes may be due to how adventurous nature sports help forge intimate and meaningful connections to others (social relatedness) and to nature, fundamental dimensions of human health and well-being.

While Houge Mackenzie and Brymer highlight the positive impact of nature sports on youth, Ralf Buckley suggests that these activities can make substantial contributions to the physical, psychological and social health (e.g. a cascade effect) of aging participants. Using an auto-ethnographic approach, the author analyses ageing trajectories within ten adventurous nature sports, finding that exercise and euphoria temporarily override chronic pain and psychological stress associated with aging. Buckley argues that older participants pay closer attention to their natural surroundings and savour these experiences more intensely than younger participants. In addition to the improved quality of life for older participants engaged in lifelong nature sports, the author points out the positive economic impact on national healthcare as an important public policy issue today despite the lack of literature on the subject.

In the final contribution to this first part of the special issue, Loel Collins and Eric Brymer articulate a participant centred approach for the design and facilitation of learning and participant experience within nature sports activities. The authors demonstrate that risk management and disaster prevention have been emphasized above all else in the content and training of adventure recreation providers while participation experiences have been largely ignored. In support of findings made by other contributors in this part of the special issue, Collins and Brymer argue that learning design must move beyond a risk-centric approach to one that recognizes individual differences and situational demands while intentionally promoting the relationship between learners and the environment. This novel approach of intentional collaboration and reflection among a community of practice will enhance the personal and social benefits of nature sports, firmly placing the participant at the centre of the learning process.

In the second part of this special issue, we continue to explore participant benefits and outcomes through selected case studies while also addressing concerns of environmental impact and the need for an integrated approach to resource management and stakeholder engagement within the growing nature sport industry. The second issue will highlight nature sports as a global phenomenon, a diversified market and sensory experience for a shifting demographic of participants.

This shifting demographic reflects a new profile of participation, far more inclusive and expansive than previously conceived. Like nature itself, these sporting activities have become an open and inviting terrain, a growth market for the many rather than the few – for boys as well as girls, men and women, young and the ageing, as well as opportunities for participants with varying degrees of ability. Increased demand and diversification challenges both public and private entities to balance potential economic growth with environmental and social sustainability. With growth we see opportunity but also the need for responsibility. This two-part special issue contextualizes the rise of nature sports within a global climate requiring ethical attention and intention.

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