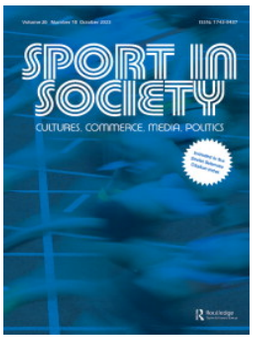

Routledge
Taylor & Francis Group

Sport in Society
Cultures, Commerce, Media, Politics

ISSN: (Print) (Online) Journal homepage: www.tandfonline.com/journals/fcss20

Envisioning a green modernity? The future of cricket in an age of climate crisis

Brett Hutchins, Simon Troon, Toby Miller & Libby Lester

To cite this article: Brett Hutchins, Simon Troon, Toby Miller & Libby Lester (2023) Envisioning a green modernity? The future of cricket in an age of climate crisis, Sport in Society, 26:10, 1723-1737, DOI: 10.1080/17430437.2023.2190516

To link to this article: https://doi.org/10.1080/17430437.2023.2190516

Published online: 23 Mar 2023.

SPORT IN SOCIETY
2023, VOL. 26, NO. 10, 1723–1737
https://doi.org/10.1080/17430437.2023.2190516

Routledge
Taylor & Francis Group

Envisioning a green modernity? The future of cricket in an age of climate crisis

Brett Hutchins[a], Simon Troon[a], Toby Miller[b,c*] and Libby Lester[d]

[a]Monash University, Melbourne, Australia; [b]Universidad Complutense de Madrid, Madrid, Spain; [c]Graduate Division of the University of California, Riverside, CA, USA; [d]University of Tasmania, Hobart, Australia

ABSTRACT

This article responds to the recent call made in *Sport in Society* for scholarship that examines the social and political tensions of the age *through* cricket. Cricket is shown to be an international sport that emphasises the material, political and symbolic realities of the global climate crisis. Drawing on the concept of social futures, we argue that cricket is a significant site for the staging and perception of climate risks for worldwide audiences, and that a constellation of sporting, political, media and environmental actors are working to establish and communicate a new normative consensus about the game's role in averting the worst impacts of climate change. As the evidence presented suggests, the urgency of these efforts is underpinned by the sport's particular susceptibility to extreme heat, drought, rain and flooding, now and into the future.

ARTICLE HISTORY
Received 10 January 2023
Accepted 4 March 2023

KEYWORDS
Climate change; social futures; extreme weather; politics; activism

A constellation of sporting, political, media and environmental actors are working to establish and communicate a new normative consensus about cricket's role in averting the worst impacts of climate change. Their activities are directed towards the realisation of a cricketing 'green modernity' (Beck 2010, 254); that is, widely agreed upon institutional objectives, processes, actions, values, cultures and practices that confront the legacy of carbon capitalism and the threat it represents to cricket and the wider 'geosocial formations' and worlds that sustain the game at all levels (Clark and Yusoff 2017, 6; Murdock 2017; Urry 2011). Published recently in *Sport in Society*, the arguments of Souvik Naha and Malcolm (2021) suggest that cricket is uniquely suited to this mission given it is a storied international sport that reflects and reproduces the social and political 'tensions of the age' and, from an environmental perspective, is especially susceptible to extreme heat, water shortages, rain and flooding (Naha and Malcolm 2021, 1271) (see also Malcolm, Gemmell, and Mehta 2009). As a result, the game's events and narratives offer profound insights into the features of (green) modernity and show 'just how social the social world is' as it struggles to respond and adapt to the global climate crisis (Naha and Malcolm 2021, 1271).

In responding to the call of Naha and Malcolm (2021) and the special issue they edited, this article details the threats posed to cricket by this crisis and highlights that the stories and images circulated about its consequences are almost always projected forward into

CONTACT Brett Hutchins Brett.Hutchins@monash.edu
*Universidad de la Frontera, Chile.

imagined social and environmental futures. For the purposes of our analysis, we categorise these futures into dynamically interacting spheres: the *material* (as highlighted by the challenges faced by grounds people and curators charged with preparing pitches and playing arenas amidst changing meteorological patterns) and the *political and sub-political* (politicians and environmental activists drawing attention to the impacts of the climate crisis). Both spheres are permeated by the *symbolic* power of news media and/or the communication of stories and images, including the publicised statements of environmentally aware players and the reporting of cricket journalists on climate change impacts (Hutchins, Lester, and Miller 2021; Smith and Howe 2015). The futures generated by social, environmental, political and media actors in these spheres are designed to motivate individual and collective action in order to avoid projected catastrophic scenarios, thereby protecting the future of the game in the coming decades.

Drawing on the concept of *social futures* (Urry 2011, 2013, 2016), this article argues that cricket has become a setting for the staging and perception of climate risks for worldwide audiences, and in which sustainable futures and a green modernity are communicated to (and sometimes by) fans, viewers, audiences, players and administrators (cf. Beck 2009). While far from uniformly successful or uncritically accepted, efforts to connect the interests of the game with that of the planet are working to construct an image of the future that repositions cricket as a sporting *and* pro-environmental presence on the international stage.

Social futures

John Urry's concept of 'social futures' describes the projection and elaboration of the future by the exercise of human power and decision-making in social institutions, relations, practices and lives (Urry 2011, 2013, 2016). This concept acknowledges the materiality of human and non-human life and its reliance on functioning ecosystems, but also emphasises the centrality of social responses and action if threats to these systems are to be combatted. The urgent need for such responses and action is prompted by the organised irresponsibility of carbon capitalism and its violence towards nature (including humans), which are reordering the boundaries between the natural and social worlds through the ceaseless and unsustainable extraction of value from both (Moore 2015, 2016; Latour 2017; Miller 2018). In seeking to change the trajectory of this seemingly 'suicidal modernity (capitalism)' (Beck 2016, 35), the creation and distribution of compelling social futures function to reorient human understanding by constructing plausible possibilities from existing realities.

The social and political power of future scenarios is based on the fact that positive change is possible and extends from a noteworthy distinction: 'there are no past possibilities, and there are no future facts' (Brumbaugh cited in Bell and Mau 1971, 9). It is this distinction that allows the formulation of changes in the present to create alternative future states. Such formulations inscribe individual and collective human agency onto the future because, in seeking to predict and alter it, 'our attempts to change it become part of that future' and the stories we tell about it (Giddens 2009, 98). Based on the evidence presented in this article, we suggest that the climate crisis is a catalyst for this pattern in cricket. It serves as an 'activating presence' for an emancipatory impulse that intervenes in how the future might be organised, realised, and distributed (Bauman 2009 [1974], 6; Beck 2015, 2016; Urry 2016). The empirical effects of such thinking and actions are real, even if the 'preferred futures'

they anticipate change shape and direction as time passes (Wilson and Millington 2020, 1).onto

One of the world's leading public service media outlets, the BBC, offers a high-profile and widely publicised example of an imagined future scenario for cricket that channels negative, even dystopian imagery. Featuring as part of a widely promoted series, 'Sport 2050: Future News, from a Warmer World' (BBC 2021a), the purpose of such imagined futures is to make:

> … the abstract future impacts of climate change more real for people by looking at how it might impact on their everyday lives. Sport – one of the most universally relatable areas of life across the globe that raises passions like no other – presents an ideal opportunity to do this … The imagined scenarios are *not* predictions; they are creatively imagined and for illustrative purposes only – but are based on both the science and collective thoughts of how sport might adapt. (BBC 2021a [emphasis in original])

Cricket's scenario appears under the headline: 'Sport 2050. Beneath the dome – how cricket could look due to climate change' (BBC 2021b). It is extrapolated from existing climate patterns and extreme weather, including the horrific Australian Black Summer bushfires of 2019–2020 that burnt an estimated seven million hectares of forests and woodlands, and killed, injured or displaced an estimated three billion koalas, kangaroos and other animals. Cities and towns across large parts of Australia's south east were shrouded in heavy smoke. In Victoria alone, this led to an estimated 120 excess deaths and increased hospitalisations and presentations at emergency departments for asthma and cardiovascular and respiratory problems (Australian Institute for Disaster Resilience (AIDR) 2020, 22).

We summarise the BBC's scenario here for the purposes of illustration. Test cricket between Australia and England in Melbourne in the year 2050 is played under a 'bio-dome' that protects players and fans from extreme heat and smoke from bushfires. The Boxing Day Test (December 26) no longer exists as the match is now scheduled later in the summer to avoid the hottest days of the year and to reduce the likelihood that playing days will be lost to bushfire smoke blanketing the city and stadium. Tests are played over six days to allow more breaks for players and to reduce the length of sessions. Costing AU$3 million to construct and powered by solar panels, the 'intelligent' bio-dome struggles to regulate heat and humidity because of variable crowd sizes over the course of the match, even as it protects players and fans from the conditions outside. The pitch in the indoor arena does not deteriorate in the way players are accustomed to when playing outdoors, affecting the progress of the match. Off the field, environmentalists campaign to transform the bio-dome from a sporting venue into a rescue centre for animals injured and displaced by bushfires (BBC 2021b).

The BBC's image of cricket in 2050 is not real, but it nonetheless possesses social and political currency because it is grounded in climate science, a long-standing cricket rivalry, an iconic stadium and contemporary media power. The notion of an intergenerational risk community is invoked to maximise the relevance of this scenario by making it 'relatable to people's own lives as well as their children and grandchildren's' (BBC 2021b, n.p.; Burke 2019 [1790]). Those presently controlling, playing and following cricket are prompted to consider the need for change if the well-being of the game, and the wider social and physical worlds on which it relies, are to be protected in the years to come. This way of thinking is evident and promoted by leading international players such as the Australian men's Test

captain and International Cricket Council (ICC) 2019 men's Test Player of the Year, Pat Cummins. He recently launched a 'Cricket for Climate (2022)' campaign to install rooftop solar power in grade and local cricket club facilities across Australia, as well as expressing ethical objections to the sponsorship of cricket by fossil fuels companies (Brettig 2022). Cummins links his public advocacy to a responsibility for children and the yet to be born:

> It is the responsibility of us all to leave this planet in better shape for future generations. I've thought about that so much more since my fiancée Becky and I welcomed our son into the world in late 2021. The reality is, the impact of climate change on sport, our way of life and the legacy we leave for our kids will continue to worsen if we don't take action now. (Cummins 2022)

It is a theme returned to repeatedly in the construction and presentation of the game's social futures, as the remainder of this article details.

Cricket and climate

The relationship between cricket and the climate has been examined from three main scholarly perspectives: geography and weather, management and organisational issues, and physiology and health.

Reflecting the fascination of many cricket fans with statistics and statistical patterns, Andrew Hignell's 2002 book, *Rain Stops Play: Cricketing Climates*, details the history of rainfall, temperatures and hours of play at county club grounds across England and Wales. It is a book possessing renewed relevance given that five of the County Championship seasons in the last 10 years have lost at least 175 days of play, while Sophia Gardens in Wales has flooded six times (Witney 2023). Hignell draws on sport geography to offer advance notice of such problems in chapters such as 'Global Warnings and Global Warming' (149) and 'Greenhouse Cricket: The English Game in a Warmer World' (161). In discussing the scientific literature about ice coverage in the Greenland Sea and the Arctic Circle and its effect on ocean currents, Hignell writes:

> The overall conclusion from this scientific research is that Britain's climate will become warmer, but at the same time more variable, with the chance of extremely hot summers, but also very cool and wet ones, especially if the Odden Feature is disturbed. This increased variability could severely affect both county and Test cricket … (Hignell 2002, 165)

His observation about the effects of climate variability extends to all outdoors sports in the UK, including golf, football and the rugby codes (Joyce and Vamplew 2006).

Marked variability in weather presents obvious organisational challenges for administrators tasked with managing competitions and staging events. Often embedded within wider studies of environmental sustainability, management scholars such as Greg Dingle (2015; Dingle and Mallen 2021; Dingle and Stewart 2018) and Andrew Carmichael (2011) outline the challenges faced by cricket venues and clubs in terms of water and resource management, waste diversion and disposal, recycling, the monitoring and measurement of environmental performance, and insurance against extreme weather events. The iconic Lord's Cricket Ground in London is a leading example in this regard, although its status as an exclusive English colonial institution controlled by social elites means sustainability efforts are interwoven with the production of highly stylised images of the cricket green

designed to appeal to wealthy audiences in Commonwealth countries such as India (McCullough, Orr, and Watanabe 2020; Waldman and Weedon 2020). According to the widely cited sport geographer, John Bale, such images are tied to an historically potent 'cricket landscape myth' (Bale 1994, 162). Built upon the continuation of class and racial privilege in late capitalism, this myth sees the iconography of the picturesque and bucolic English cricket green subsume the industrialised landscapes and urban communities in which the sport is often played (Bale 1994).

Elsewhere, Dingle concludes that major Australian cricket grounds lack 'systematic climate change plans' (with perhaps the exception of the Melbourne Cricket Ground) (Dingle 2015, 244). The lack of such plans is concerning given that this omission occasionally extends to the coordinated monitoring of athlete physical health during play, particularly in conditions of extreme heat and humidity. With the possible exception of fast bowlers, sport scientists observe that the physiological demands of cricket on the body are not as great as some contact sports (Noakes and Durandt 2000). However, given cricket is a sport played regularly in summer, the risk of exertional heat stress and illness for players at all levels is well-known (Gamage 2021). Climate change, therefore, represents a 'threat' to 'physical activity participation' at all levels of the sport (Townsend et al. 2003, 263). The remainder of this article details the reality of this threat by presenting evidence of how cricket's social futures are being thought about and communicated materially and politically in an overheating world.

The material and political

Drawn from a multi-year funded research project that investigates the communication of environmental messages across the sports industries (see Funding details), the examples and stories presented about cricket in this article are taken from information and quotations housed in a searchable sport and environmental news database that has been maintained weekly since January 2017 (using a combination of Google Alerts and email subscriptions). Covering a range of sports, the database contains, at the time of writing, 2,772 entries from national and international news media, sport industry trade sources, and environmental and activist group blogs and newsletters. Entries are organised according to an evolving range of categories and keywords, enabling the thematic identification, grouping and analysis of the evidence presented throughout this article. This database is complemented by a program of 40 in-depth semi-structured interviews with sport journalists, NGO representatives, environmental campaigners, athletes and sport professionals based in Australia, the UK, South Africa and Europe.[1] Following transcription and a process of inductive thematic coding using the NVivo software package, representative quotations from seven key interviews focused specifically on and/or dealing extensively with cricket were ultimately selected for presentation in the sections that follow. The quotations are drawn from interviews conducted with three head curators of first-class or Test cricket grounds, a leading cricket journalist, a professional sustainability manager, an environmental campaign manager, and a climate change activist. The themes and content contained in the remaining interview transcripts also inform the analysis and arguments presented, especially in terms of how sporting, industry and environmental actors understand and articulate the link between the deteriorating state of the climate with the future of cricket and sport more generally.

Material conditions

Cricket shares similarities with golf and skiing as sports that are undergoing uneven and contested processes of 'greening' as industries, sports and recreational pastimes (Millington and Wilson 2016, 202; Stoddart 2012, 21). All three sports are visible sites of material interaction between human and non-human environments, and are subject to symbolically mediated power relations that generate accounts of what these interactions mean in terms of consequences (Stoddart 2012). Like golf in particular, cricket is reliant on the preparation of grass surfaces, turf and soil to create predictable conditions for play, which involves the use of chemicals (including pesticides), water, drainage systems, and covers (Millington and Wilson 2016).

Cricket grounds people and curators in major cricketing nations are 'dealing with climate change' by anticipating and managing changing meteorological and seasonal conditions (Wisden Staff 2018). Depending on the country or region in question, this involves coping with more or less rain, unpredictable and changing water supplies, hotter temperatures for longer periods, varying levels of humidity, different types of insects, pollution events, and extreme weather events such as floods, drought, and hurricanes (Aldred 2021a; Interview by author 2021; Wisden Staff 2018). Brian Bloy is Head Groundsman at SuperSport Park in Centurion, South Africa, which hosts first-class and international fixtures. His approach to water management shifted following the crippling drought and water crisis that affected Cape Town in 2017 and 2018, despite the considerable distance that separates the two locations:

> Just from a water point of view, since we had that big drought in the Cape, I think it made us all well aware of what can happen if you run out of water. So when I irrigate my field, I try to water longer cycles, less frequently, to encourage roots to go deeper, as opposed to just watering the top bits and then you'll have very shallow roots that don't handle stress very well. I try and monitor water usage closely. (Interview by author 2021)

This approach to water management is linked to changing temperature extremes experienced over the summer months:

> … heatwaves are common. We normally get a couple of heatwaves. But heatwaves now seem to be not just two or three days. They're more like four or five days. So I feel they are getting longer and possibly a little bit more frequent. The only way to combat that is to just add moisture, which can be tricky depending on what stage of [pitch] preparation you're at. So cracks are the problem. If it gets too hot, it takes up all the moisture in your pitch and then it begins to crack. (Interview by author 2021)

Similar challenges are faced by curators of Australian first-class and Test venues, although, like South Africa, their features vary according to the geography, weather and temperatures of cities and grounds spread across a large country. The head curator of a major Australian Test venue stressed his increasing focus on sustainability across all areas:

> Without the data in front of me it's hard to comment, but it feels like the temperatures are getting slightly warmer. We know we get quite dry and harsh conditions in summer and can go through extended or extreme periods of heat, 35-plus, over multiple days, if not weeks, at times. We know we can have little rain during January-February, probably even through December … We know we've had droughts before and we've been on water restrictions. So we know that they're real and they're concerning and we've got to be responsible in the way we

> manage our turf and the way we operate really … Sustainability is a key word in my language now. Whatever we do – managing the turf, managing our parklands, whether it's the turf, whether it's the trees, our gardens, everything we do – we need to have a sustainable mindset. (Head Groundsman, Australian international and first-class venue, Interview by author 2021)[2]

The Head Groundsman at Essex County Cricket Club in Chelmsford in the UK, Stuart Kerrison, combats a different set of problems to his colleagues in South Africa and Australia: heavy rain, drainage and lost playing time. Having worked at Essex since 1984 and been Head Groundsman for 30 years, Kerrison observes:

> We've noticed that the rains now are heavier. You still get the same sort of amount of rain days, but the volume of rain has changed. It's torrential rain rather than dribs and drabs … the rain we've been getting is coming hard and fast and the grounds just can't cope with it. Our ground is set up to cope with five-to-six millimetres an hour for drainage, but when it comes like that, it's going to take several hours or days even [to drain]. (Interview by author 2021)

Kerrison went on to stress that these patterns produce financial pressures for the Club due to lost playing time during which fans are not paying to enter the ground and/or purchasing food and drinks once inside (Interview by author 2021).

Given their unique professional expertise, grounds people and curators are akin to farmers in spending their professional life 'bearing witness' to weather patterns and their consequences (Anderson 2014, 96); that is, monitoring, responding and adapting to what is currently happening and preparing for what might transpire in the future both near and far. The stories and observations of curators therefore possess considerable authority as first-hand accounts of changing environmental conditions, with the results of their work observed by spectators and audiences nationally and globally. They are, for example, required to front the news media and answer questions from cricket journalists about the state of the pitch and outfield prior to the commencement of major international fixtures (Head Groundsman, Australian international and first-class venue, Interview by author 2021). A leading UK-based cricket journalist and writer, Tanya Aldred, has focused on the work of curators as part of a series of stories written since 2018 about the growing impacts of climate change on the sport (Aldred 2018, 2020, 2021a, 2021b). According to Aldred, the explicit purpose of this reportage is to underline the threat posed by the climate emergency to the future of cricket:

> … it's raising awareness, and also trying to raise awareness of the threat that climate change is going to make to all our lives. Sport speaks to people at a different level, and it is a way of getting people's attention … I suppose people have an almost guttural response to sport in some ways. It comes from the heart. The thought that something that you love so much might be threatened, I think that does bring a response from people. (Interview by author 2021)

In contemplating the future, she observes that the work of grounds people is uniquely situated 'at the sharp end' of 'sport's climate crisis' given the careful and sometimes tricky adaptations required to effectively manage water, soil, chemicals and insects (Aldred 2021a).

When discussing future curation practices that may need to be implemented, all three grounds people interviewed identify hybrid or artificial pitches and surfaces, rainwater harvesting, the responsible use of boreholes, and the installation of solar panels for power generation. Such possibilities are motivated by considerations such as resource and budget

management. Kerrison also nominated the now familiar notion of an intergenerational risk community when contemplating climate change and the future:

> My concern is what my boy's going to be left with. Is it going to be a mess? … is there going to be a turf industry? Is everything going to be sand-based tracks and all this sort of thing? I don't know. Where will it end? Cricket could disappear as a sport because you can't produce the facilities. (Interview by author 2021)

These questions lead back to where we began: negative images of cricket's future and the motivation, thinking and actions required to avoid them. Similar images and calls for action are evident in the spheres of politics and sub-politics, settings in which the material and symbolic dimensions of climate change converge.

Politics and sub-politics

The then-Prime Minister of Grenada, Dr Keith Mitchell, delivered the 21st Frank Worrell Memorial Lecture on 'Sport and Climate Change' for the University of the West Indies on 28 June 2021 (Mitchell 2021). Playing international cricket between 1948 and 1963, Worrell was labelled a 'cricket Bolshevik' by the West Indian cricket board for his insistence on fair remuneration (among other things) (James 1986 [1963], 228). He went on to become the first black player to captain the West Indies for an entire Test series in 1960–61; a famous five match series played in Australia that featured the first ever tied Test. It is notable that a national political leader such as Mitchell should invoke Worrell's legacy in calling for action on 'the climate crisis that is threatening our existence' (Mitchell 2021). Mitchell places environmental degradation alongside racism, apartheid and human rights violations. He emphasises that the impacts of climate change are stratified according to race, class and geography, particularly for 'small island developing states' that face rising sea levels throughout the Caribbean (Mitchell 2021; see also Murfree 2022).

Mitchell's address returns repeatedly to the question of leadership and the urgent need for action to secure a liveable future for the game and the region, especially given the memory of Hurricane Maria and the damage left in its wake throughout the north-eastern Caribbean in September 2017:

> Here now is an opportunity for us, as underdogs in this war on climate change, to bring the same fight to this particular crisis that threatens our very existence. Our lives depend on it, as well as the future of our children and grandchildren …
>
> Cricket accounts for a fair amount of this through emissions from travel, construction and operation of playing facilities and emissions from its support networks. Making a carbon-zero world the common sense priority of the sports world would make a huge contribution towards achieving the overall objective …
>
> We have to make climate change one of the most important agenda items for our region. We must do better in explaining to our people how this can dramatically impact their lives. And we must lead on the global stage. (Mitchell 2021)

The response of the sport's governing body in the region, Cricket West Indies (CWI), to Mitchell's call to arms is mixed. The CWI is yet to become a signatory to the United Nations Sport for Climate Action Framework (United Nations Climate Change (UNCC) 2018). However, recognising that 'climate change is a real and present danger', CWI recently entered

into a major three-year sponsorship arrangement with Apex Group to provide carbon footprint assessments and reduction and offset plans (Cricket West Indies 2021).

Much of the most significant work in publicly legitimating and communicating the need for climate action occurs at the level of sub(system)-politics, or politics beyond formal representative or state-based institutions (Beck 1992, 2009). A prime example of this phenomenon in cricket is the high-profile report *Hit for Six: The Impact of Climate Change on Cricket* (British Association for Sustainable Sport (BASIS) 2019), published by the British Association for Sustainable Sport (BASIS) in cooperation with the Priestly International Centre for Climate at the University of Leeds and the Extreme Environments Laboratory at the University of Portsmouth. Launched at Lord's Cricket Ground and attracting media attention in cricketing nations worldwide, the Foreword of this 38-page report is authored by the Founder and Chief Executive of BASIS, Dr Russell Seymour. The purpose of a report such as *Hit for Six*, according to Seymour, is to highlight the risks faced by a popular sport such as cricket and communicate them to different audiences:

> It might be incredibly hot temperatures affect players and their performance, but they could also affect the spectators. Equally, in an amateur context, young people playing sport on a crazy hot day has potential health implications … even storms causing damage to facilities. There are myriad [climate change] impacts on sport. We're being impacted by changes that are happening now which were meant to happen in 10, 20, 30 years time. There's an opportunity to say, "This is a risk to us, it's a risk to what we do, and it's a risk for our fans." … You're also probably reaching a demographic which doesn't always engage directly in environmental issues. (Interview by author 2021)

The report summarises the existing and likely effects of heat, drought, floods and extreme weather on the game and the physiological consequences of changing conditions for players around the world. Most strikingly, it offers a country-by-country profile of specific climate impacts on cricket in India, Sri Lanka, South Africa, Australia, the West Indies, and England and Wales in the coming years, as well as recommendations and advice for governing bodies (the omission of Pakistan and Aotearoa New Zealand here is curious given their cricketing history and on-field successes). In underlining the seriousness of the situation and need for international leadership, it recommends that the ICC consider establishing a 'global climate disaster fund' to prepare for 'the increased likelihood of global climate disasters' (British Association for Sustainable Sport (BASIS) 2019, 33).

In anticipating the likelihood of further disasters, cricket is now an area of attention for the wider environmental and climate justice movements, as shown by the activities of the Australian Conservation Foundation (ACF) and Extinction Rebellion (XR) in the UK. Utilising the appeal and visibility offered by the game, these very different groups prosecute agendas designed to transform national politics and government policy (in the case of the ACF) and/or disrupt carbon-intensive capitalist systems through organised non-violent civil disobedience and 'eventful' protest (in the case of XR and its transnationally distributed network of local chapters) (Gardner, Carvalho, and Valenstain 2022, 426; Kinniburgh 2020; Warhurst 1994).[3]

The ACF combines a focus on the grassroots level of the game with online petitions and media campaigns calling for action at the national level, including petitioning Cricket Australia (CA) to speak out for climate action (Australian Conservation Foundation (ACF) 2019a). A major sponsor of CA is Alinta Energy, an electricity and natural gas company owned by the country's sixth-largest carbon emitter, Pioneer Sail Holdings (Clean Energy

Regulator 2021). In drawing attention to this fact and leveraging the popularity of cricket in Australia, the ACF has produced reports on cricket, climate change and renewable energy generation for stadiums (Australian Conservation Foundation (ACF) 2019b, 2021).[4] In advocating for changes to industry and government policy, the ACF's Director of Campaigns, Dr Paul Sinclair, explains the unique role of cricket at all levels in raising awareness about the need for climate action:

> I'm a big fan of CLR James. He had this great line about Shannon cricket club in Trinidad. He said if a terrible catastrophe struck and the game was eradicated from the earth, all the tradition and all that was good about the game would emerge from Shannon on this island in the Caribbean and would then rise up and colonise the rest of the earth … I think part of the challenge is opening the eyes of people at all levels to say, "You're a part of this." If you take seriously the ability of your club to rise up and encapsulate all that's good, you need to take action to protect it from these existential threats. (Interview by author 2021)

Having been founded in 1965, the ACF's approach combines extensive experience in environmental campaigning with, as the invocation of CLR James (1986 [1963]) suggests, respect for and understanding of cricket as a sport with its own traditions and cultures.

The intersections between sport and protests by Extinction Rebellion activists in the UK rose to public prominence in April 2022. The British Olympians, Etienne Stott (gold medal winning canoeist and MBE) and Laura Baldwin (sailor), were both arrested for scaling an oil tanker in London (BBC 2022). A less noticed antecedent to their actions is the formation and operation of XR Cricket Club Bristol (XRCCB), which was lauded in *Wisden* for combining 'a love of cricket and a desire to mitigate damage to the planet' caused by 'global heating' (Chevallier 2021, 214). Featuring around 30 signed-up members, the club has two arms: community outreach in Bristol (including regular informal matches open to anyone who wants to play and/or learn more about the climate emergency), and 'Rebellion Cricket' in which attempts are made to play spontaneous matches in the physical spaces opened by XR activism (Extinction Rebellion Cricket Club Welcome Pack 2021, 1). A founder of the club, Xeena Cooper, describes a successful effort to play Rebellion Cricket in London in 2019. The game unfolded during a major protest that sought to transform the space of the city by disrupting the streets and blocking roads:

> We took our kit and we decided to go play on Parliament Square in London … We ended up playing on the street, and it was fine because there were no cars going through anyway except emergency vehicles. All the Rebels had blocked off the roads so it was free to play. We just set up our wicket and started playing. Everyone wanted to play and people who weren't sat on walls having their lunch, just watching us. We changed the space. We had the space and it was so joyous. It was like being a kid playing in the street again. And whenever the police would come on their horses, we'd have to stop play to let them through and they loved us! … It broke down all the barriers, even with the police. (Interview by author 2022)

The idealism evident in this statement is reflected in the how the club articulates its mission. An ethic or spirit of cricket is enlisted in the interests of protecting the planet's future:

> We are concerned citizens; not just for ourselves, but for the future of the planet we call home, the country we cherish and the game we love is all under threat (sic). We are Cricketers – trying to the do the right thing in a world gone wrong. If this isn't the embodiment of the '*Spirit of the Game*' (original emphasis) then we don't know what is! (Extinction Rebellion Cricket Club Welcome Pack 2021, 1)

It is a mistake, however, to assume that this credo is devoid of critical reflection and awareness of the game's past. The Welcome Pack for XRCCB also stresses 'the dark history' of 'Cricket, Empire and Colonisation' and its ongoing legacies for the 'oppressed and under-represented' (Extinction Rebellion Cricket Club Welcome Pack 2021, 1; cf. Wagg 2017, 2021). It is a telling acknowledgement, given the role of colonialism and colonial legacies in creating the contemporary global climate and biodiversity crisis, a fact now recognised by the Intergovernmental Panel on Climate Change (IPCC) (Raja 2022).

Conclusion: Cricket in the Anthropocene

An increasing focus of the future of cricket in the midst of a climate emergency paradoxically reveals an ever-present truth about the game throughout its history: play is reliant upon deep and stable interrelationships between land, soil, air, water, hydrology, weather, atmosphere, human and non-human actors, physiology, sustainable processing of natural materials for equipment, and so on (Hutchins, Lester, and Miller 2021). As the evidence detailed throughout this article shows, observation of and intensified awareness about the impacts of extreme heat, pollution, drought, floods and hurricanes speak to cricket's existence *in* nature (Olive 2022). The assumed separation between modern cricket and nature that prevailed throughout much of the 20th century is replaced by an acute vulnerability to the porousness of 'the web of life', and the upending of relations between 'humanity-in-nature, and nature-in-humanity' in the climatic regime of the Anthropocene (Moore 2016, 5; Latour 1993, 2017; Olive 2022). As a result, romanticised images and stories of great games and on-field rivalries are joined by multiplying images and stories of powerful and unpredictable environmental forces impacting cricket at all levels (by way of example, consider the widely circulated news reports of Indian and Sri Lankan players wearing anti-pollution masks, struggling to breathe and vomiting during a 2017 Test Match in Delhi because of hazardous pollution levels; or a 2019 Australian first-class T20 match in Canberra being abandoned due to bushfire smoke and a former Test player, Peter Siddle, being treated for smoke inhalation).

Environmentally calamitous events exist beyond the control of players, coaches, spectators, audiences, curators, administrators, control boards, sponsors, news media and broadcasters. For some in the cricketing fraternity, they also prompt an ominous question that prefigures the envisioning and realisation of a green modernity: 'Is our sport actually going to be able to be played in 20–30 years?' (Cooke 2021).[5] Dovetailing with the BBC's scenario of cricket in 2050 in which a Test match is played under a bio-dome, questions like this are, as we have shown, a motivating force in the positioning of cricket as a *pro*-environmental presence in the international sporting landscape. Occurring in different ways and at different speeds across interlocking material, political and symbolic dimensions, it is cricket's immense popularity *and* particular vulnerability to a changing climate that make it a setting in which the staging of climate risks can be achieved and popularised. It also affords the stories told about the game's social futures, and the questions posed about and through them, a potentially transformative or activating capacity. The urgent need for such stories and questions is motivated by the rapacious extractive appetites and destruction of carbon capitalism. Without wholesale challenge and redirection, these appetites only lead to another older geological and historical truth articulated by the German philosopher Friedrich Engels in the same year that the first ever Ashes Test series between Australia and England concluded (1883): nature 'possesses a history in time', 'comes into being and also passes away'

(Engels 1946 [1925], 9; Miller 2018, 4). In actively mirroring, constituting and perpetuating the climate crisis, cricket's social and environmental futures seek to anticipate and avoid such a passing.

Notes

1. Interview data has been collected, analysed and presented in accordance with the conditions of clearance provided by a University Human Research Ethics Committee (HREC).
2. This interviewee chose to be de-identified in accordance with the options available to research project participants under the terms of HERC clearance.
3. It should be noted that XR formed in 2018 in response to the claimed failure of existing climate action movements (Kinniburgh 2020). XR's recent announcement that they will 'temporarily shift away from public disruption as a primary tactic' highlights the movement's 'constantly evolving tactics' that also focus on creating 'collective power', 'bridge building', and applying direct pressure on politicians (Extinction Rebellion 2022). At the time of writing, it is not clear how these evolving tactics will manifest or for how long the temporary shift away from public disruption will last.
4. The lead author of this article served as an advisor on the ACF's 2019 report (Australian Conservation Foundation (ACF) 2019b), which was produced by the ACF and the Monash Climate Change Communication Research Hub. This work involved a discussion in which a member of the team responsible for the report asked questions about potential examples prior to writing, as well as offering brief verbal feedback on a draft when nearing publication. He did not author the report and is not named in it.
5. This question was asked by Glamorgan first-class cricketer and 'sustainability champion', Joe Cooke, during the COP26 UN Climate Change Conference in Glasgow. He was speaking in a Sport@COP session titled, 'How Sport Can Kick Carbon', hosted by Sky Sports in the UK (Cooke 2021).

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

The research presented in this article is supported by the Australian Research Council Discovery Program – DP200103360 'Fields of Green? Sport as a Communications Platform for Environmental Issues and Sustainability'.

ORCID

Libby Lester http://orcid.org/0000-0003-1046-2412
Simon Troon http://orcid.org/0000-0002-9400-8251
Toby Miller http://orcid.org/0000-0002-4957-7770

References

Aldred, Tanya. 2018. "Cricket is Natural Choice to be a World Leader on Climate Change." *The Guardian*, May 29. Accessed 2 December 2020. https://www.theguardian.com/sport/2018/may/29/cricket-natural-choice-world-leader-climate-change

Aldred, Tanya. 2020. "Cricket Must Make Bold Climate Choices in Post-COVID World." *The Guardian*, December 2. Accessed 2 December 2020. https://www.theguardian.com/sport/2020/dec/02/cricket-must-make-bold-climate-choices-in-post-covid-world
Aldred, Tanya. 2021a. "Climate Change: Cricket's Groundkeepers on Tackling the Sport's Climate Crisis." *BBC Sport*, November 5. Accessed 6 November 2021. https://www.bbc.com/sport/cricket/59166403
Aldred, Tanya. 2021b. "Boundary View: Whalley Range are Green Pioneers." *The Cricketer*, September 24. Accessed 12 October 2021. https://www.thecricketer.com/Topics/premiumfeatures/boundary_view_whalley_range_are_green_pioneers.html
Anderson, Deb. 2014. *Endurance: Australian Stories of Drought*. Collingwood: CSIRO Publishing.
Australian Conservation Foundation (ACF). 2019a. "Ask Cricket Australia and Other Sports Leaders to Advocate for Climate Action." Australian Conservation Foundation. Accessed 4 January 2020. https://www.acf.org.au/cricket_australia_petition_original
Australian Conservation Foundation (ACF). 2019b. *Caught behind: Climate Change, Extreme Heat and the Boxing Day Test*. Melbourne: Australian Conservation Foundation and the Monash Climate Change Communication Research Hub.
Australian Conservation Foundation (ACF). 2021. *Powering a Sporting Nation: Rooftop Solar Potential of Australian Cricket*. Melbourne: Australian Conservation Foundation, Australian PV Institute and UNSW Sydney.
Australian Institute for Disaster Resilience (AIDR). 2020. *2019–20 Major Incidents Report*. Canberra, ACT: Australian Government, Department of Home Affairs.
Bale, John. 1994. *Landscapes of Modern Sport*. Leicester: Leicester University Press.
Bauman, Zygmunt. 2009 [1974]. *Socialism: The Active Utopia*. London: Taylor & Francis e-Library.
BBC. 2021b. "Sport 2050: Beneath the Dome – How Cricket Could Look Due to Climate Change." *BBC Sport*. Accessed 17 May 2021. https://www.bbc.com/sport/56972368
BBC. 2021a. "Sport 2050: Why Are We Doing This – And Why Does it Matter Today." *BBC Sport*. Accessed 17 May 2021. https://www.bbc.com/sport/56972366
BBC. 2022. "Extinction Rebellion: Six Arrested after Olympians Scale Oil Tanker." *BBC News,* 16 April. Accessed 4 August 2022. https://www.bbc.com/news/uk-england-london-61120185
Beck, Ulrich. 1992. *Risk Society: Towards a New Modernity*. London: Sage.
Beck, Ulrich. 2009. *World at Risk*. Cambridge: Polity Press.
Beck, Ulrich. 2010. "Climate for Change, or How to Create a Green Modernity?" *Theory, Culture & Society* 27 (2–3): 254–266. doi:10.1177/0263276409358729.
Beck, Ulrich. 2015. "Emancipatory Catastrophism: What Does It Mean to Climate Change and Risk Society?" *Current Sociology* 63 (1): 75–88. doi:10.1177/0011392114559951.
Beck, Ulrich. 2016. *The Metamorphosis of the World*. Cambridge: Polity Press.
Bell, Wendell, and James A. Mau. 1971. "Images of the Future: Theory and Research Strategies." In *The Sociology of the Future: Theory, Cases and Annotated Bibliography*, edited by Wendell Bell and James A. Mau, 6–44. New York: Russell Sage Foundation.
Brettig, Daniel. 2022. "Cummins Raised Objection to Cricket Australia's Alinta Deal." *The Sydney Morning Herald*, 18 October. Accessed 6 January 2023. https://www.smh.com.au/sport/cricket/cummins-raised-objection-to-cricket-australia-s-alinta-deal-20221017-p5bqei.html
British Association for Sustainable Sport (BASIS). 2019. *Hit for Six: The Impact of Climate Change on Cricket*. Reading: British Association for Sustainable Sport.
Burke, Edmund. 2019 [1790]. "Edmund Burke on Society as an Intergenerational Partnership." *Population and Development Review* 45 (4): 923–925.
Carmichael, Andrew. 2011. "Investigating the Environmental Sustainability of Cricket Clubs." Masters Thesis, Cranfield University.
Chevallier, Hugh. 2021. "Extinction Rebellion Cricket Club. The Westminster Test." In *The Wisden Review*, 214. London: Bloomsbury.
Clark, Nigel, and Kathryn Yusoff. 2017. "Geosocial Formations and the Anthropocene." *Theory, Culture & Society* 34 (2–3): 3–23. doi:10.1177/0263276416688946.
Clean Energy Regulator. 2021. "Australia's 10 Highest Greenhouse Gas Emitters 2019–20." *Australian Government*, February 25. Accessed 3 February 2022. http://www.cleanenergyregulator.gov.au/

NGER/National%20greenhouse%20and%20energy%20reporting%20data/Data-highlights/2019-20-published-data-highlights/australias-10-highest-greenhouse-gas-emitters-2019-20
Cooke, Joe. 2021. "How Sport Can Kick Carbon." Sky and UN Climate Change Conference 2021. Accessed 7 November 2021. https://www.youtube.com/watch?v=7ly-GszYTIg.
Cricket for Climate. 2022. "Cricket for Climate: It's Game on for Our Planet." *Cricket for Climate*. Accessed 3 February 2022. https://cricketforclimate.org/
Cricket West Indies. 2021. "CWI Announces Sustainability Partnership with Apex Group." *The Home of West Indies Cricket*, October 22. Accessed 29 October 2021. https://www.windiescricket.com/news/cwi-announces-sustainability-partnership-apex-group/
Cummins, Pat. 2022. "The Climate Crisis Is Wreaking Havoc but Sport Can be Part of the Solution." *The Guardian*, February 3. Accessed 3 February 2022. https://www.theguardian.com/sport/2022/feb/03/the-climate-crisis-is-wreaking-havoc-but-sport-can-be-a-part-of-the-solution
Dingle, Greg, and Bob Stewart. 2018. "Playing the Climate Game: Climate Change Impacts, Resilience and Adaptation in the Climate-Dependent Sport Sector." *Managing Sport and Leisure* 23 (4–6): 293–314. doi:10.1080/23750472.2018.1527715.
Dingle, Greg, and Cheryl Mallen. 2021. "Community Sports Fields and Atmospheric Climate Impacts: Australian and Canadian Perspectives." *Managing Sport and Leisure* 26 (4): 301–325. doi:10.1080/23750472.2020.1766375.
Dingle, Greg. 2015. "Playing the Carbon Game: A Study of Climate Change Impacts and Responses at Organisations Managing Major Australian Sport Stadia." PhD Thesis, Victoria University.
Engels, Friedrich. 1946 [1925]. *The Dialectics of Nature*. Translated and edited by C. P. Dutt. Preface and notes by J. B. S. Haldane. London: Lawrence and Wishart.
Extinction Rebellion Cricket Club Welcome Pack. 2021. "XRCC Bristol."
Extinction Rebellion. 2022. "We Quit." December 31. Accessed 9 January 2023. https://extinctionrebellion.uk/2022/12/31/we-quit/
Gamage, Prasanna J. 2021. "Making Junior Cricket Safer for Sri Lanka (PhD Academy Award)." *British Journal of Sports Medicine* 55 (8): 451–452. doi:10.1136/bjsports-2020-101988.
Gardner, Peter, Tiago Carvalho, and Maria Valenstain. 2022. "Spreading Rebellion? The Rise of Extinction Rebellion Chapters across the World." *Environmental Sociology* 8 (4): 424–435. doi:10.1080/23251042.2022.2094995.
Giddens, Anthony. 2009. *The Politics of Climate Change*. Cambridge: Polity Press.
Hignell, Andrew. 2002. *Rain Stops Play: Cricketing Climates*. London: Routledge.
Hutchins, Brett, Libby Lester, and Toby Miller. 2021. "Greening Media Sport: Sport and the Communication of Environmental Issues." In *Communication and Sport*, edited by Michael L Butterworth, 369–386. Berlin: De Gruyter Mouton.
James, C. L. R. 1986 [1963]. *Beyond a Boundary*. London: Stanley Paul.
Joyce, Kay, and Wray Vamplew. 2006. "Under the Weather: Combating the Climate in British Sport." *Sport in Society* 9 (1): 94–107.
Kinniburgh, Colin. 2020. "Can Extinction Rebellion Survive?" *Dissent* 67 (1): 125–133. doi:10.1353/dss.2020.0007.
Latour, Bruno. 1993. *We Have Never Been Modern*. Translated by Catherine Porter. Cambridge, MA: Harvard University Press.
Latour, Bruno. 2017. *Facing Gaia: Eight Lectures on the New Climatic Regime*. Translated by Catherine Porter. Cambridge, UK: Polity Press.
Malcolm, Dominic, Jon Gemmell, and Nalin Mehta. 2009. "Cricket and Modernity: international and Interdisciplinary Perspectives on the Study of the Imperial Game." *Sport in Society* 12 (4–5): 431–446. doi:10.1080/17430430802702715.
McCullough, Brian P., Madeleine Orr, and Nicholas M. Watanabe. 2020. "Measuring Externalities: The Imperative Next Step to Sustainability Assessment in Sport." *Journal of Sport Management* 34 (5): 393–402. doi:10.1123/jsm.2019-0254.
Miller, Toby. 2018. *Greenwashing Sport*. London: Routledge.
Millington, Brad, and Brian Wilson. 2016. *The Greening of Golf: Sport, Globalization and the Environment*. Manchester: Manchester University Press.

Mitchell, Keith. 2021. "Sir Frank Worrell Memorial Lecture 2021 – Climate Change and Sport." Accessed 12 July 2012. https://www.youtube.com/watch?v=hO-TiWBmS6w
Moore, Jason W. 2015. *Capitalism in the Web of Life: Ecology and the Accumulation of Capital*. London: Verso.
Moore, Jason W. 2016. "Introduction. Anthropocene or Capitalocene? Nature, History and the Crisis of Capitalism." In *Anthropocene or Capitalocene? Nature, History and the Crisis of Capitalism*, edited by Jason W. Moore, 1–11. Oakland: PM Press.
Murdock, Graham. 2017. "Conclusion: One Month in the Life of the Planet – Carbon Capitalism and the Struggle for the Commons." In *Carbon Capitalism and Communication: Confronting Climate Crisis*, edited by Benedetta Brevini and Graham Murdock, 207–219. New York: Palgrave Macmillan.
Murfree, Jessica. 2022. "Why the impact of climate change on sport is an environmental justice problem." *Global Sport Matters,* April 21. Accessed 3 October 2022. https://globalsportmatters.com/health/2022/04/21/climate-change-sport-environmental-justice-problem/
Naha, Souvik, and Dominic Malcolm. 2021. "Cricket at the Beginning of the Long Twenty-First Century." *Sport in Society* 24 (8): 1267–1273. doi:10.1080/17430437.2021.1932307.
Noakes, T. D., and J. J. Durandt. 2000. "Physiological Requirements of Cricket." *Journal of Sports Sciences* 18 (12): 919–929. doi:10.1080/026404100446739.
Olive, Rebecca. 2022. "Swimming and Surfing in Ocean Ecologies: Encounter and Vulnerability in Nature-Based Sport and Physical Activity." *Leisure Studies* 1–14. doi:10.1080/02614367.2022.2149842.
Raja, Nussaibah B. 2022. "Colonialism Shaped Today's Biodiversity." *Nature Ecology & Evolution* 6 (11): 1597–1598. doi:10.1038/s41559-022-01903-y.
Smith, Philip, and Nicholas Howe. 2015. *Climate Change as Social Drama: Global Warming in the Public Sphere*. New York: University Press.
Stoddart, M. C. J. 2012. *Making Meaning out of Mountains: The Political Ecology of Skiing*. Vancouver: UBC Press.
Townsend, M., M. Mahoney, J.-A. Jones, K. Ball, J. Salmon, and C. F. Finch. 2003. "Too Hot to Trot? Exploring Potential Links between Climate Change, Physical Activity and Health." *Journal of Science and Medicine in Sport* 6 (3): 260–265. doi:10.1016/S1440-2440(03)80019-1.
United Nations Climate Change (UNCC). 2018. *Sports for Climate Action Framework*. Bonn: UNCC Secretariat.
Urry, John. 2011. *Climate Change and Society*. Cambridge: Polity Press.
Urry, John. 2013. *Societies beyond Oil: Oil Dregs and Social Futures*. London: Zed Books.
Urry, John. 2016. *What is the Future?* Cambridge: Polity Press.
Wagg, Stephen. 2017. *Cricket: A Political History of the Global Game, 1945–2017*. London: Routledge.
Wagg, Stephen. 2021. "Towards a Safer past: Thoughts on the Invocation of English Cricket's Soul." *Sport in Society* 24 (8): 1455–1471. doi:10.1080/17430437.2020.1815709.
Waldman, Devra, and Gavin Weedon. 2020. "Postcolonialism, Pristine Natures, and Producing the Village Green: Pastoral Englishness in Indian Cricket-Themed Gated Communities." In *Sport, Development and Environmental Sustainability*, edited by Rob Millington and Simon C Darnell, 64–78. London: Routledge.
Warhurst, John. 1994. "The Australian Conservation Foundation: The Development of a Modern Environmental Interest Group." *Environmental Politics* 3 (1): 68–90. doi:10.1080/09644019408414125.
Wilson, Brian, and Brad Millington. 2020. "Introducing a Sociological Approach to Sport, Environmental Politics, and Preferred Futures." In *Sport and the Environment: Politics and Preferred Futures*, edited by Brian Wilson and Brad Millington, 1–28. Bingley: Emerald Publishing.
Wisden Staff. 2018. "How Cricket Groundsmen Are Dealing with Climate Change." *Wisden*, June 19. Accessed 15 September 2019. https://wisden.com/stories/features/how-cricket-groundsmen-are-dealing-with-climate-change
Witney, Katya. 2023. "Timed Out: Cricket and the Climate Crisis." *Wisden Monthly*, February, 30–32.