

DICE CONFERENCE 2023



#DICECON23

Welcome to the DICE 2023 Twitter Conference

Thank you to all the DICE members who've
agreed to showcase their research &
special thanks to our session chairs:

Mohammad Farhadinia (DICE)

Claire Raisin (Chester Zoo)

Helen O'Neill (DICE)


Humphrey Crick (Natural England)

Gail Austen (DICE)

DICE

University of Kent

Time	Session	Presenter	Twitter Handle
9.00 – 9.15 am	Welcome	DICE and Bob Smith	@DICE_kent @AnotherBobSmith
9.15 – 9.30	Ecological Landscapes and Seascapes (#LandSea)	Katie Spencer	@katiespencer229
9.30 – 9.45		Matt Struebig	@mattstruebig
9.45 – 10.00		Luis Santiago	@PratasSantiago
10.00 – 10.15		Will Hayes	@naturewilling
10.15 – 10.30		Tally Yoh	@TallyYoh
10.30 – 10.45	Species Monitoring and Conservation (#SpsMon)	Nicolas Deere	@NicolasJDeere
10.45 – 11.00		Anna Jemmett	@annajemmett
11.00 – 11.15		Esra Per	@papagansay
11.15 – 11.30		Jim Groombridge	@jim_groombridge
11.30– 12.30	Break		
12.30 – 12.45	Nature and People (#Natppl)	Jess Fisher	@jessjessfisher
12.45 – 1.00		Michaela Lo	@mic_lo1
1.00 – 1.15		Ffion Jones	@FfionJ199
1.15 – 1.30		Rosa Deen	@deen_rosa
1.30 – 1.45		Faye Whiley	@FayeWhiley
1.45 – 2.00		Alex Ortega-Argueta	@AlexO46456
2.00 – 2.15	Tea Break		
2.15 – 2.30	Conservation Effectiveness (#ConEffect)	Sophus zu Ermgassen	@sophusticated
2.30 – 2.45		Megan Kocina	@MeganKocina
2.45 – 3.00		Nuwi Dharmaratne	@Nuwanthika_SL
3.00 – 3.15		Kelvin Steven Floyd	@CalvinSFloyd
3.15 – 3.30	Outreach (#ConEngage)	Katherine McKee	@KatherineKMckee
3.30 – 3.45		Laura Thomas-Walters	@LauraThoWal
3.45 – 4.00		Maddy Owens Dufek	@MaddyO831
4.00 – 4.15		Charlotte Farmer	@UoKBioBlitz
4.15 – 4.30		Alicia Hallatt	@AliciaHallatt
4.30 – 5.00	Break		
5.00 – 5.15	Prize Giving		
5.15 – 5.30	Thank you		

A sun bear is visible in a lush, green forest. The bear is partially obscured by a semi-transparent white text box. The background shows dense foliage and sunlight filtering through the trees.


Katie Spencer

@KatieSpencer229

Bearly connected? Impacts of infrastructure and deforestation on sun bear connectivity.

Indonesian Borneo will undergo rapid land transformation over the coming decades due to infrastructure expansion and deforestation in pursuit of economic development. However, Borneo is also a vulnerable biodiversity hotspot, home to many endemic and threatened species. The Bornean sun bear is a large, wide-ranging carnivore that will need well-connected forests outside of the protected area network to support their population viability in the long-term. Therefore, the impact of infrastructure and deforestation on forest connectivity needs to be assessed so that mitigation strategies can be incorporated into development plans. Here, we use the largest camera-trap network in Kalimantan alongside an omnidirectional connectivity model to quantify the impact of land use change on sun bear connectivity, identify high-risk regions, and also provide recommendations to mitigate the severest impacts. In addition to being useful for policy makers and land use planners, this work will also contribute to the IUCN Sun Bear Action Plan

#LandSea



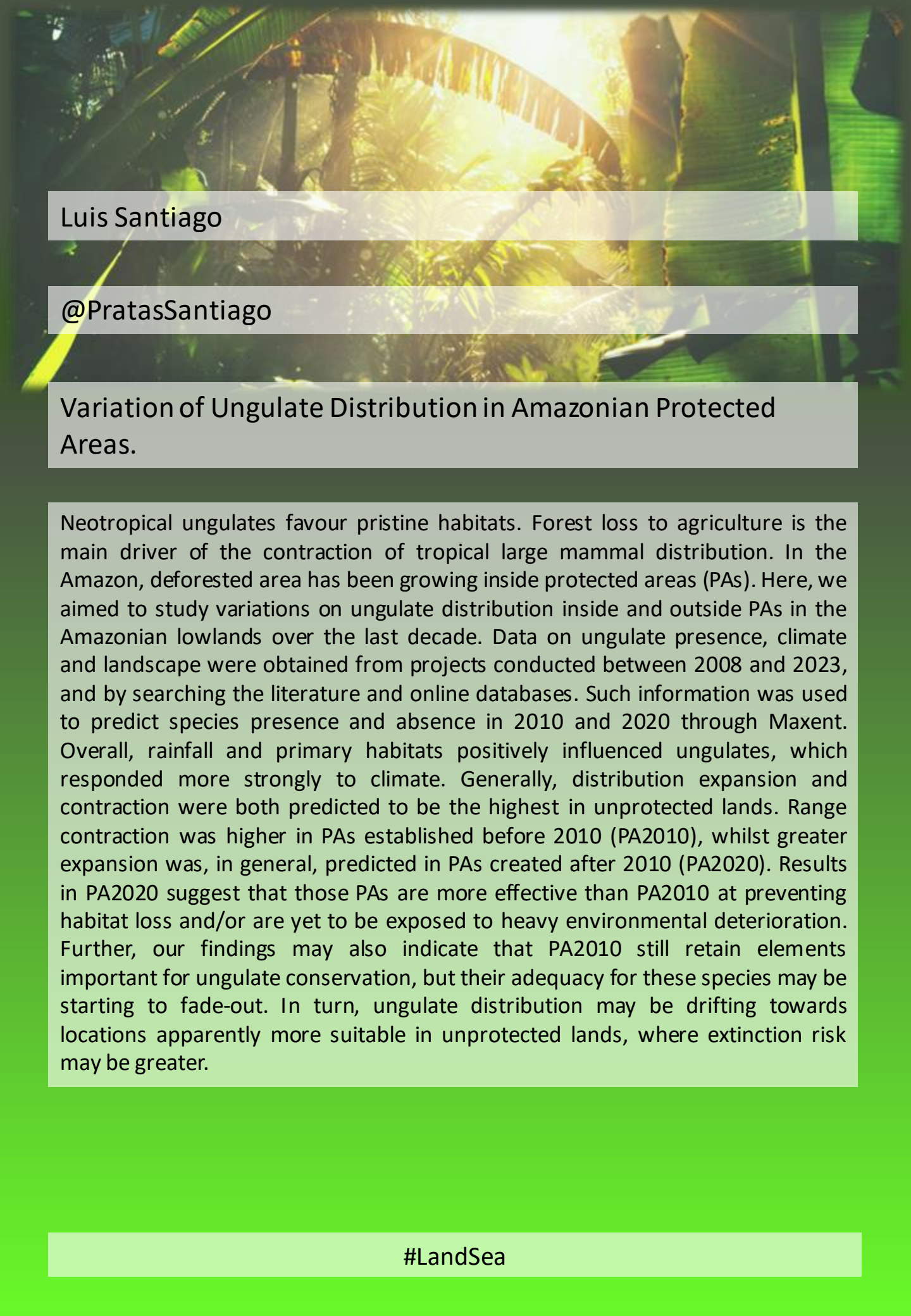
Matt Struebig

@mattstruebig

Bird diversity in the forests and coconut farms of Sulawesi, Indonesia

Coconut farming contributes to livelihoods of millions of people in tropical countries but is rarely considered a threat to biodiversity compared to other palm commodities such as oil palm. The expansion of coconut farming alongside other smallholder agriculture in Sulawesi, Indonesia, is of potential concern as the region is a centre of species endemism. We studied bird diversity and community structure in forests, coconut palm plantations and mixed farmland in Gorontalo Province, northern Sulawesi. Forest and non-forest sites supported similar numbers of species overall, but compared to agricultural areas, forest sites had communities that were more diverse and more even (i.e. different species were present at similar abundances). We found far fewer endemic species in agricultural areas compared to forests, and the communities in palm plantations and mixed farmland sites were dominated by generalist birds, with few indicator taxa. Nevertheless, there was a higher number of endemic species in coconut palm plantations than in mixed farmland sites. These findings mirror patterns of biotic homogenization documented elsewhere in the Wallacea centre of endemism, and imply that coconut palm plantations have comparable biodiversity value to other farmland systems. Increased protection of lowland forests and improved management of coconut farms could be important for supporting the conservation of the endemic birds of Sulawesi in the long term, but this warrants further study.

#LandSea




Luis Santiago

@PratasSantiago

Variation of Ungulate Distribution in Amazonian Protected Areas.

Neotropical ungulates favour pristine habitats. Forest loss to agriculture is the main driver of the contraction of tropical large mammal distribution. In the Amazon, deforested area has been growing inside protected areas (PAs). Here, we aimed to study variations on ungulate distribution inside and outside PAs in the Amazonian lowlands over the last decade. Data on ungulate presence, climate and landscape were obtained from projects conducted between 2008 and 2023, and by searching the literature and online databases. Such information was used to predict species presence and absence in 2010 and 2020 through Maxent. Overall, rainfall and primary habitats positively influenced ungulates, which responded more strongly to climate. Generally, distribution expansion and contraction were both predicted to be the highest in unprotected lands. Range contraction was higher in PAs established before 2010 (PA2010), whilst greater expansion was, in general, predicted in PAs created after 2010 (PA2020). Results in PA2020 suggest that those PAs are more effective than PA2010 at preventing habitat loss and/or are yet to be exposed to heavy environmental deterioration. Further, our findings may also indicate that PA2010 still retain elements important for ungulate conservation, but their adequacy for these species may be starting to fade-out. In turn, ungulate distribution may be drifting towards locations apparently more suitable in unprotected lands, where extinction risk may be greater.

#LandSea



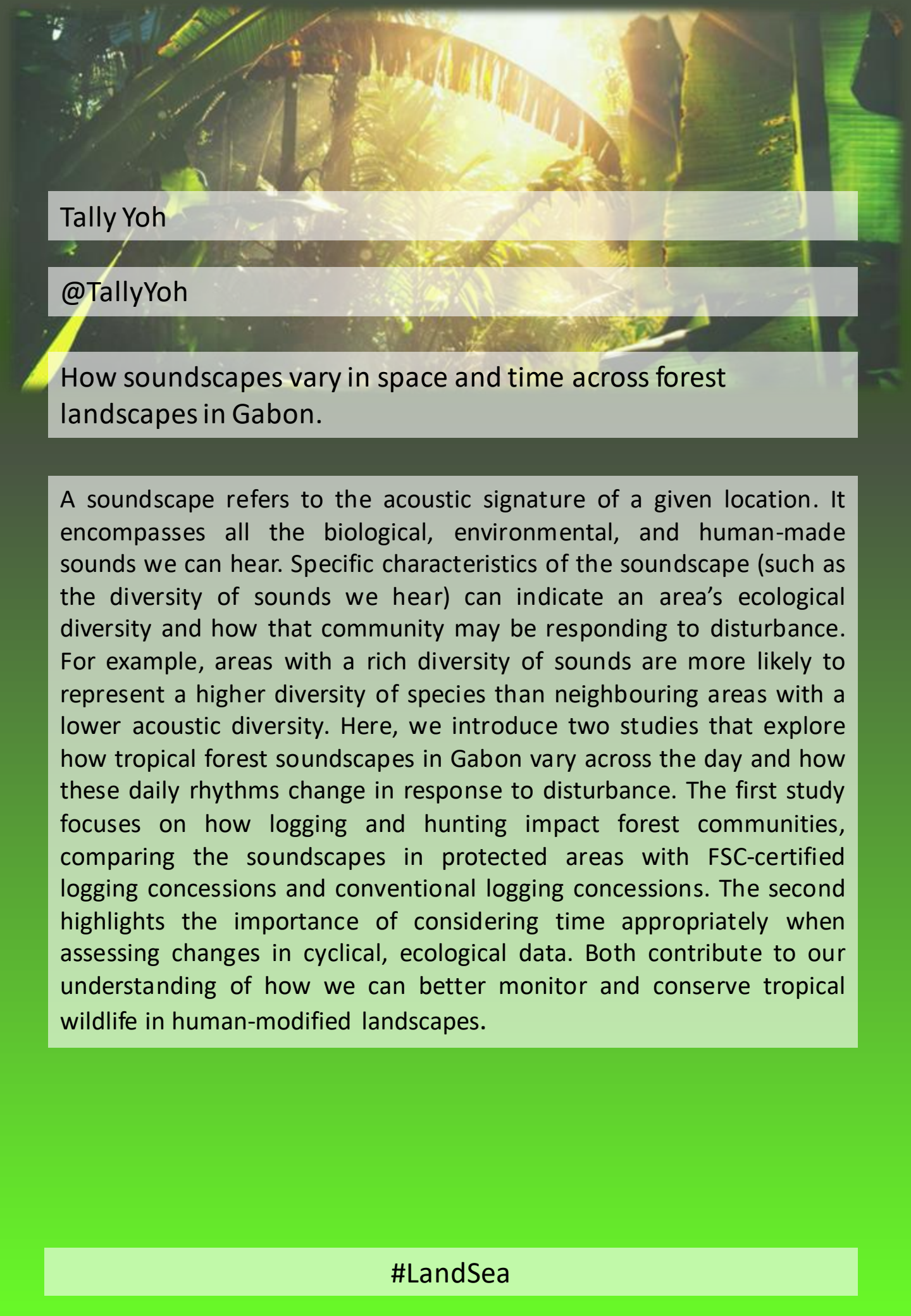
Will Hayes

@naturewilling

Bird communities across different levels of human settlement: A comparative analysis from two northern Amazonian ecoregions

Urban ecosystems increasingly dominate landscapes globally, so it is critical to understand the effects of human settlements on biodiversity. Bird communities are effective indicators because they are impacted by the size and expansion of human settlements. Existing studies on bird community responses to human settlements have mainly focused on single ecoregions and large cities, leaving a gap in comparative research on how differently sized human settlements affect bird communities across various ecoregions. To address this gap, we examine species richness, bird abundances and community composition in human settlements, which exhibit variable sizes, populations, landscape configurations, and overall intensity of settlement in two tropical ecoregions in Guyana, Amazonia: forest and savannah. In each ecoregion we explored how different groupings of urban tolerance in birds responded to human settlements of differing population size and building densities. Overall, we found significant differences in bird communities across the varying levels of human settlement intensity in both ecoregions, with greater differences in bird community composition in the forest ecoregion than the savannah region. In both ecoregions, species richness and abundance were highest at the medium level of settlement of human settlement. Our findings suggest that bird tolerance to human settlements varies based on ecoregion and site-level factors. Our comparative analysis reveals for the first time that the impact of human settlements on avian communities in northern Amazonia varies among ecoregions, indicating that species evolved to live in a savannah may be more tolerant to human settlements than those more evolved to a forest system.

#LandSea



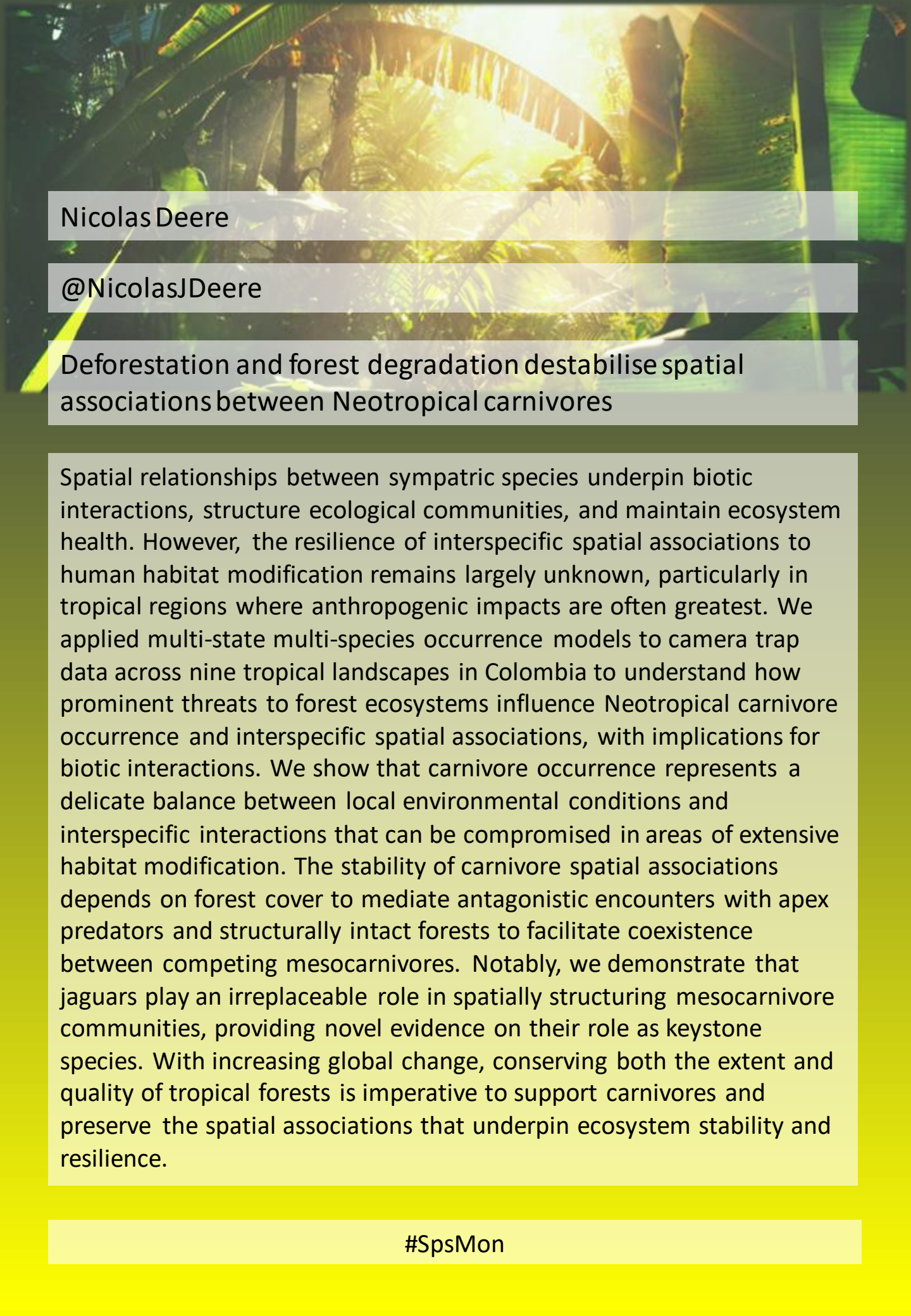
Tally Yoh

@TallyYoh

How soundscapes vary in space and time across forest landscapes in Gabon.

A soundscape refers to the acoustic signature of a given location. It encompasses all the biological, environmental, and human-made sounds we can hear. Specific characteristics of the soundscape (such as the diversity of sounds we hear) can indicate an area's ecological diversity and how that community may be responding to disturbance. For example, areas with a rich diversity of sounds are more likely to represent a higher diversity of species than neighbouring areas with a lower acoustic diversity. Here, we introduce two studies that explore how tropical forest soundscapes in Gabon vary across the day and how these daily rhythms change in response to disturbance. The first study focuses on how logging and hunting impact forest communities, comparing the soundscapes in protected areas with FSC-certified logging concessions and conventional logging concessions. The second highlights the importance of considering time appropriately when assessing changes in cyclical, ecological data. Both contribute to our understanding of how we can better monitor and conserve tropical wildlife in human-modified landscapes.

#LandSea



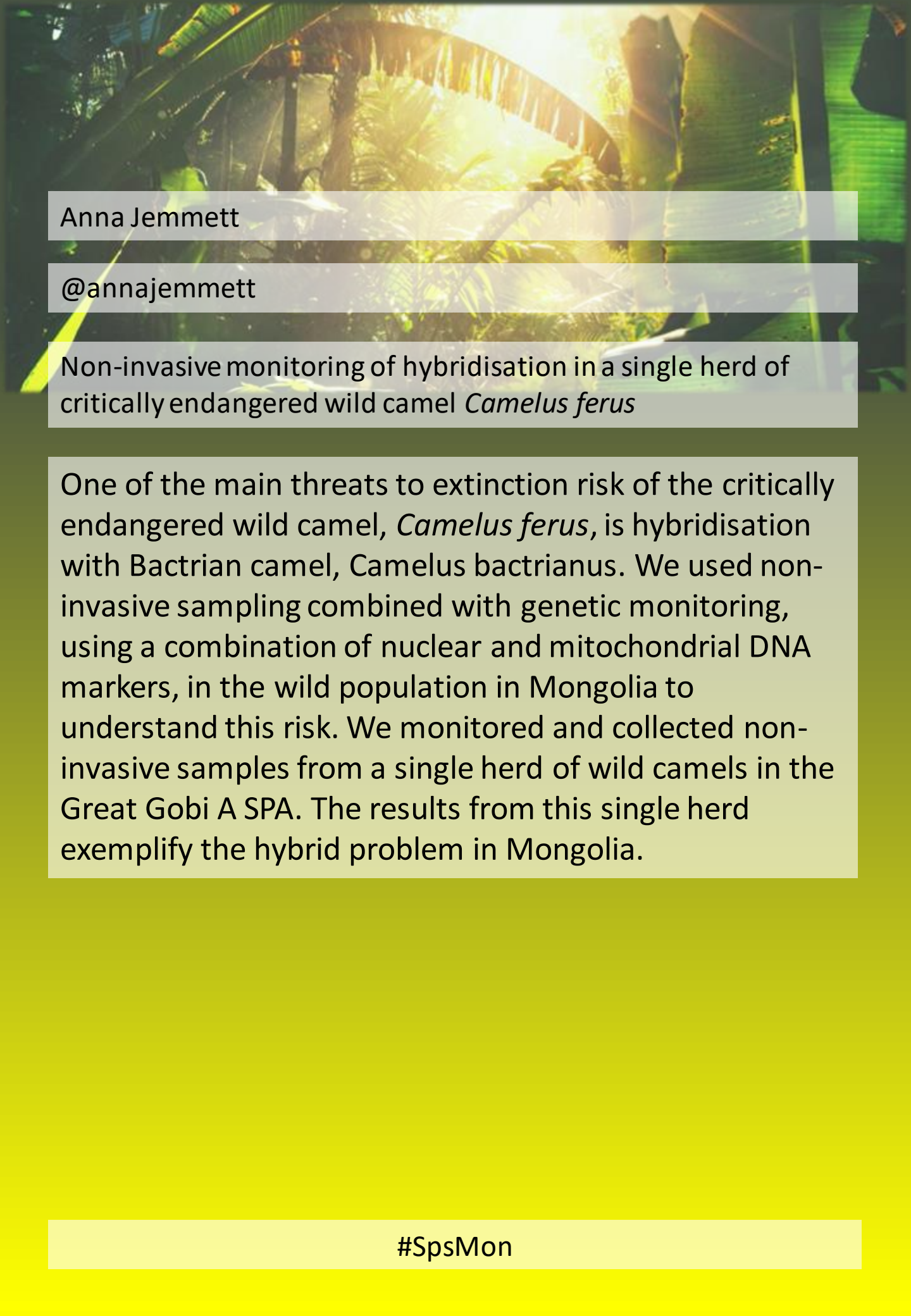
Nicolas Deere

@NicolasJDeere

Deforestation and forest degradation destabilise spatial associations between Neotropical carnivores

Spatial relationships between sympatric species underpin biotic interactions, structure ecological communities, and maintain ecosystem health. However, the resilience of interspecific spatial associations to human habitat modification remains largely unknown, particularly in tropical regions where anthropogenic impacts are often greatest. We applied multi-state multi-species occurrence models to camera trap data across nine tropical landscapes in Colombia to understand how prominent threats to forest ecosystems influence Neotropical carnivore occurrence and interspecific spatial associations, with implications for biotic interactions. We show that carnivore occurrence represents a delicate balance between local environmental conditions and interspecific interactions that can be compromised in areas of extensive habitat modification. The stability of carnivore spatial associations depends on forest cover to mediate antagonistic encounters with apex predators and structurally intact forests to facilitate coexistence between competing mesocarnivores. Notably, we demonstrate that jaguars play an irreplaceable role in spatially structuring mesocarnivore communities, providing novel evidence on their role as keystone species. With increasing global change, conserving both the extent and quality of tropical forests is imperative to support carnivores and preserve the spatial associations that underpin ecosystem stability and resilience.

#SpsMon



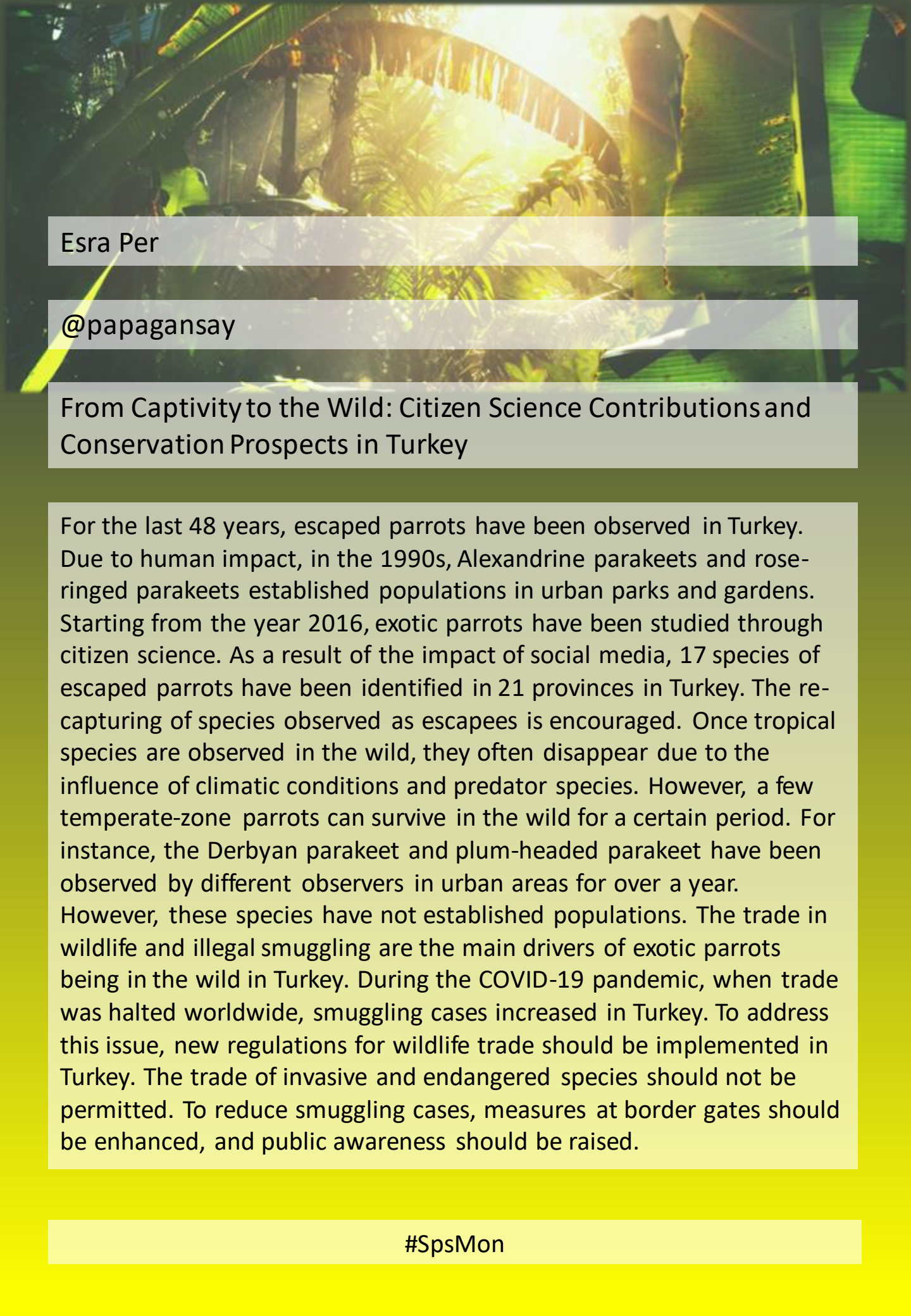
Anna Jemmett

@annajemmett

Non-invasive monitoring of hybridisation in a single herd of critically endangered wild camel *Camelus ferus*

One of the main threats to extinction risk of the critically endangered wild camel, *Camelus ferus*, is hybridisation with Bactrian camel, *Camelus bactrianus*. We used non-invasive sampling combined with genetic monitoring, using a combination of nuclear and mitochondrial DNA markers, in the wild population in Mongolia to understand this risk. We monitored and collected non-invasive samples from a single herd of wild camels in the Great Gobi A SPA. The results from this single herd exemplify the hybrid problem in Mongolia.

#SpsMon




Esra Per

@papagansay

From Captivity to the Wild: Citizen Science Contributions and Conservation Prospects in Turkey

For the last 48 years, escaped parrots have been observed in Turkey. Due to human impact, in the 1990s, Alexandrine parakeets and rose-ringed parakeets established populations in urban parks and gardens. Starting from the year 2016, exotic parrots have been studied through citizen science. As a result of the impact of social media, 17 species of escaped parrots have been identified in 21 provinces in Turkey. The re-capturing of species observed as escapees is encouraged. Once tropical species are observed in the wild, they often disappear due to the influence of climatic conditions and predator species. However, a few temperate-zone parrots can survive in the wild for a certain period. For instance, the Derbyan parakeet and plum-headed parakeet have been observed by different observers in urban areas for over a year. However, these species have not established populations. The trade in wildlife and illegal smuggling are the main drivers of exotic parrots being in the wild in Turkey. During the COVID-19 pandemic, when trade was halted worldwide, smuggling cases increased in Turkey. To address this issue, new regulations for wildlife trade should be implemented in Turkey. The trade of invasive and endangered species should not be permitted. To reduce smuggling cases, measures at border gates should be enhanced, and public awareness should be raised.

#SpsMon



Jim Groombridge

@jim_groombridge

Genomics for the recovery of threatened species

As populations of species decline to small population sizes, they suffer a loss of genetic diversity, accumulation of levels of inbreeding amongst individuals, and accumulation of deleterious mutations which in turn exposes them to the negative effects of inbreeding depression, such as reduced fitness and survival and increased susceptibility to infectious disease. Conservation genomic studies are beginning to provide exciting insights into our understanding of the genetic consequences of small population size and a population's potential to recover. Genomic studies are revealing the importance of genetic load in threatened species recovery and how this effect is influenced by the ancestral population size (ancestral N_e) of the species. One recent example is the recovery of the Seychelles paradise flycatcher, a critically endangered species endemic to the Seychelles. Genomic analyses of this species as part of a collaboration between DICE, Professor C. van Oosterhout at UEA and Associate Professor Hernan Morales at University of Copenhagen, has involved analysis of DNA from modern blood samples and from historical museum specimens collected before the bottleneck. Our research has revealed how this flycatcher recovered from its severe population bottleneck despite a 10-fold loss of genomic diversity. Comparison of modern and historical genomes indicates that the proportion of mildly deleterious mutations increased in the population following the bottleneck in the 1960s. Reconstruction using genomic data of the species' demographic history suggests a long period of small ancestral N_e . The flycatcher's recent recovery is in part likely to be explained by its small ancestral N_e which simulations indicate has reduced the masked load, enabled the recovering population to be more resilient to effects of inbreeding. These genomic insights into the recovery of threatened species are rapidly transforming our understanding of genomic erosion and extinction risk.

#SpsMon




Jess Fisher

@jessjessfisher

Human wellbeing responses to species' traits

We rely on well-functioning ecosystems to provide services that underpin human health and wellbeing. Consequently, biodiversity loss has profound negative implications for humanity. Interactions with biodiversity can deliver individual-level wellbeing gains, equating to substantial healthcare cost savings when scaled up across populations. However, critical questions remain about which species and/or traits (for example, colours, sounds and smells) elicit wellbeing responses. Traits that influence well-being can be considered effect traits. Using community ecology techniques, we analyse a database of species effect traits articulated by people, identifying those that generate different types of wellbeing (physical, emotional, cognitive, social, spiritual & global well-being, the latter being akin to whole-person health). Effect traits have a predominately positive impact, influenced by the identity and taxonomic kingdom of each species. Different sets of effect traits deliver different wellbeing types. However, traits cannot be considered independent of species because multiple traits can be supported by a single species. Indeed, we find that numerous effect traits from across the ecological community elicit multiple types of wellbeing, illustrating the complexity of biodiversity experiences. Our empirical approach can help to implement interdisciplinary thinking for biodiversity conservation and nature-based public health interventions designed to support human wellbeing.

#Natppl



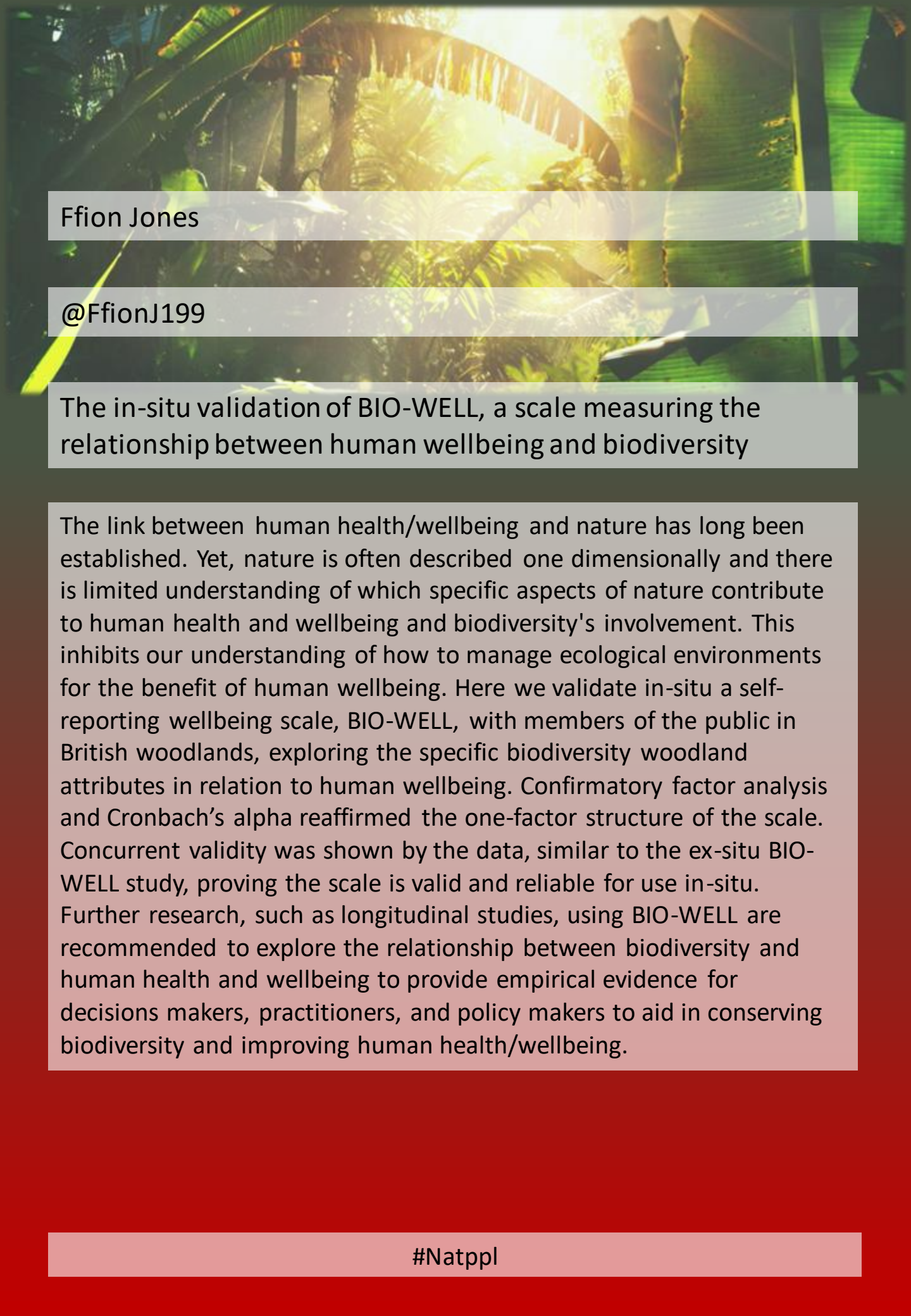
Michaela Lo

@mic_lo1

Visualising the foodscape - social-ecological resilience of mangrove fishers in West Borneo, Indonesia

Climate change, malnutrition, and social inequity are all intertwining global challenges within our current food systems. International forums are increasingly recognising the importance of place-based approaches, and resilience thinking to address the complexity of these social-ecological systems. In this study, we use participatory photography to examine place-based understandings of food systems resilience within a mangrove fishing foodscape in Indonesia. We used mixed methods (participant generated photographs, semi-structured interviews, and focus group discussions) to determine the importance of the foodscape (food places, food activities, and food) from the perspective of mangrove fishing households. We also discuss how the foodscape has changed overtime, and how people respond to and navigate with/through these changes. Findings highlighted the existence of four multiple and interconnecting temporalities of resilience: i) the life-course of fishers navigating to the social fabric of village life ii) adapting to the collapse of the timber industry at the turn of the 21st century iii) the everyday resilience to uncertainties in fish harvests and iv) and challenges of building capacity for resilience within future generations. Including the perspectives of key food system actors allowed for deeper insights into the issues that were pertinent to place, and further illuminated the multi-temporal processes of resilience that are layered across the foodscape. We propose that temporalities of resilience in place creates a better understanding of how people and communities operate within their social-ecological context. Such insights can help tailor context-specific policies that work towards achieving more resilient food systems.

#Natppl



Ffion Jones

@FfionJ199

The in-situ validation of BIO-WELL, a scale measuring the relationship between human wellbeing and biodiversity

The link between human health/wellbeing and nature has long been established. Yet, nature is often described one dimensionally and there is limited understanding of which specific aspects of nature contribute to human health and wellbeing and biodiversity's involvement. This inhibits our understanding of how to manage ecological environments for the benefit of human wellbeing. Here we validate in-situ a self-reporting wellbeing scale, BIO-WELL, with members of the public in British woodlands, exploring the specific biodiversity woodland attributes in relation to human wellbeing. Confirmatory factor analysis and Cronbach's alpha reaffirmed the one-factor structure of the scale. Concurrent validity was shown by the data, similar to the ex-situ BIO-WELL study, proving the scale is valid and reliable for use in-situ. Further research, such as longitudinal studies, using BIO-WELL are recommended to explore the relationship between biodiversity and human health and wellbeing to provide empirical evidence for decisions makers, practitioners, and policy makers to aid in conserving biodiversity and improving human health/wellbeing.

#Natppl




Rosa Deen

@deen_rosa

Where the Wild Dogs are: Human-African wild dogs relations in South Africa.

In this interdisciplinary study the biocultural entanglements between people and African wild dogs (*Lycaeon pictus*), across four study locations in the provinces KwaZulu-Natal and Limpopo in South Africa is researched. By focusing specifically on the historical and cultural layers of conflict and coexistence it tries to expand the field of human-wildlife conflict. Wild dogs, an endangered species with large home-ranges, are particularly interesting subjects to follow in their movements and relations, as they routinely cross a patchwork of physical boundaries, provoking varying conclusions as to where they belong, especially when predation on livestock occurs. Conflicts often conceal a diversity of underlying issues, especially in South Africa, a country with a long history of spatial orderings, starting in colonial times and solidified during the Apartheid regime (1948-1994). Each human-wild dog encounter occurs in a historical, social and cultural context, and carries meanings with it derived from past conservation interactions. Today, wild dogs are heavily managed in SA through the metapopulation management plan and range expansion project, which entails monitoring, translocations, artificial pack formation and reintroductions across small protected areas. In some places they are reintroduced after being locally extinct, while in others the free-roaming wild dogs disappear, leading to an interplay between embodied interactions, collective memory and rewilding.

#Natppl



Faye Whiley

@FayeWhiley

Understanding Perspectives on a Eurasian lynx Reintroduction through Stakeholder Narratives.

Large carnivore reintroduction can be a sensitive topic in Britain, as people have adapted to living without these species for hundreds of years. Understanding the social dimensions surrounding Eurasian lynx (*Lynx lynx*), as well as other species identified as reintroduction candidates, assists conservation projects in approaching the possible reintroduction of a species aptly. The objectives of this research was to understand the perceived impacts of a Eurasian lynx (hereafter lynx) reintroduction, the drivers influencing these perceptions and future scenarios where stakeholders feel a lynx reintroduction would be feasible. To address the objectives of this research, 34 unstructured interviews were conducted with stakeholders in areas, or in surrounding areas, of potentially suitable lynx habitat in Scotland. Thematic analysis of narratives was undertaken on each interview transcript. Preliminary analysis of qualitative data suggested that perceived impacts of a lynx reintroduction in Scotland include economic, ecological, emotional, political, social and cultural impacts. Effective public engagement activities can be developed by identifying and understanding the perceived impacts and the drivers influencing these perceptions surrounding species reintroduction. Addressing stakeholder concerns leads to a build in trust and confidence between reintroduction projects and other interest groups and contributes in reducing negative attitudes towards species reintroduction.

#Natppl



Alex Ortega-Argueta

@AlexO46456

The importance of the OECMs in global conservation

After the definition of the global conservation goals of the Convention on Biological Diversity, the debate on the role that the other effective area-based conservation measures (OECMs) will have in the future of conservation has increased. With this new mechanism for managing conservation areas, it is expected to achieve greater recognition of the contributions of private, community and indigenous lands globally. However, this new management approach brings a series of challenges for the subnational governments in charge of establishing the OECMs, mainly due to the lack of legal, institutional and governance mechanisms. Other challenges for governments imply co-management processes, respect for equity and justice of landowners, and the implementation of effectiveness evaluation mechanisms. In this opportunity to dialogue via Twitter, the anticipated challenges and some lines of future research will be exposed that may inform the science and practice of conservation.

#Natppl




Sophus zu Ermgassen

@sophusticated

For private nature markets to work, we need a larger, not smaller, role for the state.

The Kunming-Montreal Global Biodiversity Framework envisages an increasing reliance on large-scale private finance to fund biodiversity targets. We warn that this may pose contradictions in delivering conservation outcomes, as there are inherent trade-offs between the way that financial instruments need to be designed and structured in order to attract investment, and the needs of conservation. Financial instruments that optimise for profitability often achieve this by undercutting some of the fundamental properties that are essential to ensure and evaluate good conservation outcomes, such as using rigorous impact evaluation methods. We argue that the only way that these trade-offs can be mitigated, thereby directing private finance towards genuinely additional and robust conservation outcomes, is through a strong, proactive and entrepreneurial role for the state in shaping these markets, directing them towards the public good. In addition, there are many aspects of conservation that cannot be effectively commoditised and financialised, so we make the case for increasing direct state spending on conservation, alongside the upscaling of private financial flows. We propose a critical ongoing role for direct public funding of conservation and public oversight of private nature-related financial mechanisms.

#ConEffect



Megan Kocina

@MeganKocina

Organisational Capacity and Personal Capabilities - Challenges and Opportunities in Agricultural Trade

Creating sustainable agricultural trade is important for maintaining economic stability, biodiversity, and will help to meet Sustainable Development Goals 10, 11, and 13. However, low- and middle-income countries have organisational capacity and individual capability gaps that prevent this from being achieved. I used questionnaires and interviews to determine what challenges and opportunities exist within trade that are not addressed or being utilised. The most impactful and prevalent themes include partnerships and lack of resources, although they can be difficult to address. The easiest way to implement solutions is by utilising opportunities mentioned by participants that directly solve challenges. By doing so, trade can become sustainable in low- and middle-income countries.

#ConEffect



Nuwi Dharmaratne

@Nuwanthika_SL

Tracking progress towards area-based conservation targets

Area-based conservation is a key approach used to address the biodiversity crisis. Since the Convention on Biological Diversity (CBD) came into force in 1993, several targets have been set in relevance to area-based conservation. The latest target relevant to this is Target 3 of the Kunming Montreal Global Biodiversity Framework. It calls for at least 30% of the terrestrial, inland and coastal and marine areas to be under conservation. In order to inform future debates on setting new targets, it is vital to have evidence on the world's progress towards existing targets. We know from official datasets that 17.2% of the land and 8.3% of the sea is in conservation areas. But we also know that some countries have other conservation area types that might contribute towards Target 3 but aren't yet included in their official estimates. To address this, Sykes et al. (2023) developed a method for estimating global conservation area coverage using a sampled approach underpinned by spatial prioritization algorithms. In my PhD, I will use this approach to collect data on all conservation area types from a sample of countries. I'll then produce updated estimates of how well the combined conservation area networks meet species representation targets.

#ConEffect



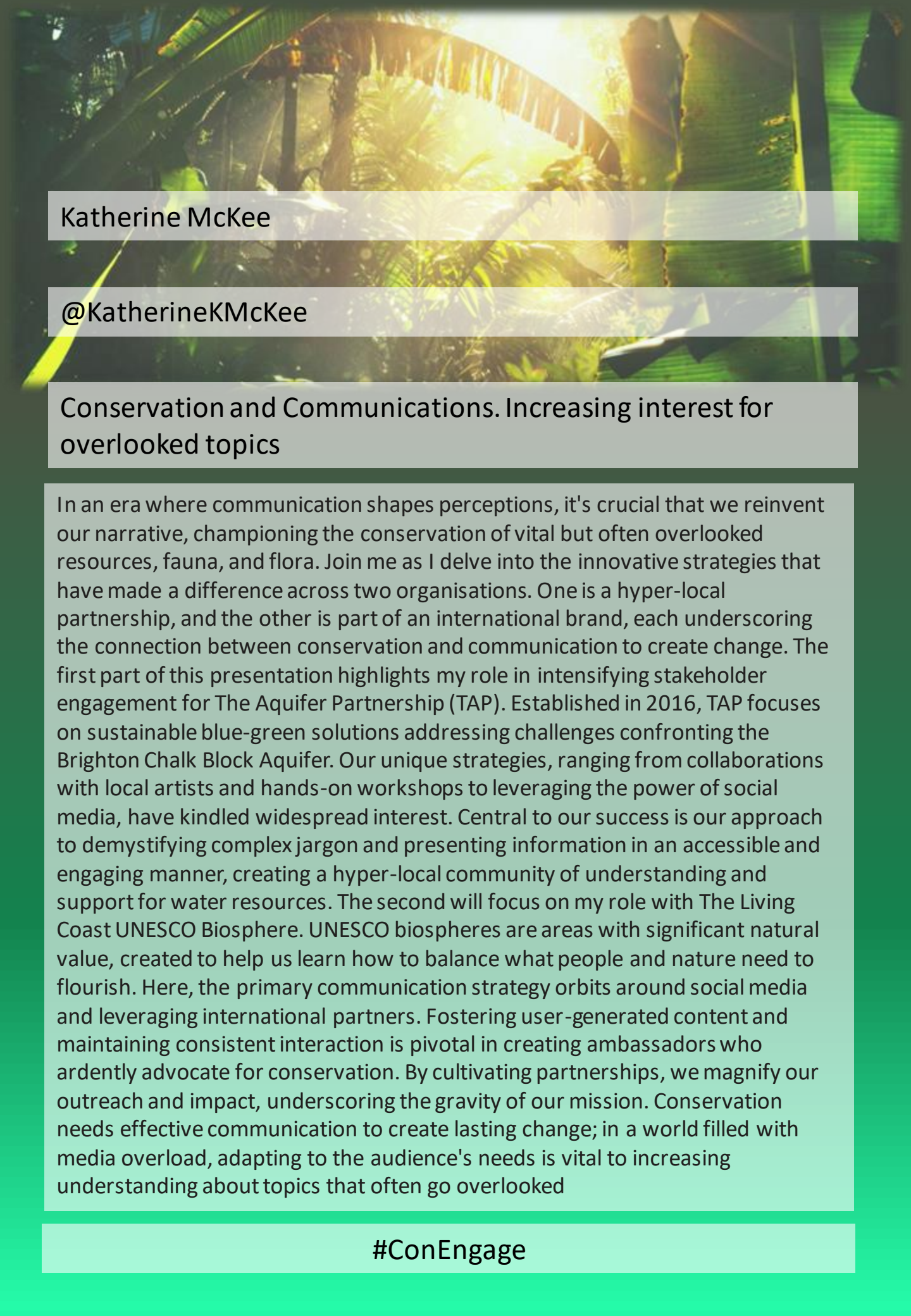
Kelvin Steven Floyd

@CalvinSFloyd

Comparison of Red-billed chough (*Pyrrhocorax pyrrhocorax*) breeding success between captive and free populations.

Breeding success is a valuable indicator of ecosystem robustness, providing insights into the effects of various factors, including habitat conditions, food availability, predation, and human interactions, and is fundamental in understanding reproductive health and viability in avian populations. Exploring how breeding success differs in red-billed choughs (*Pyrrhocorax pyrrhocorax*) between captive and free populations is important for future conservation management. I compared clutch sizes, hatching, and fledging success for three captives and one wild population. I also examined the link between female age and breeding success for the four populations. I used GLMs to predict factors that influenced fledging. Clutch sizes and fledging did not differ significantly between the captive populations but between captive and free red-billed chough populations. There was no correlation between clutch size, hatching, and fledging with female age. My study demonstrated that breeding success varies between different red-billed chough populations and several factors such as feeding, habitat quality, quality mates, and others that were not within the scope of this study should be considered to have robust conclusions. For example, clutches were higher in the captive population possibly due to a constant supply of feed, but fledging success in general was higher in the wild population potentially due to a natural diet and naturally selected traits in the wild population that enhance it.

#ConEffect



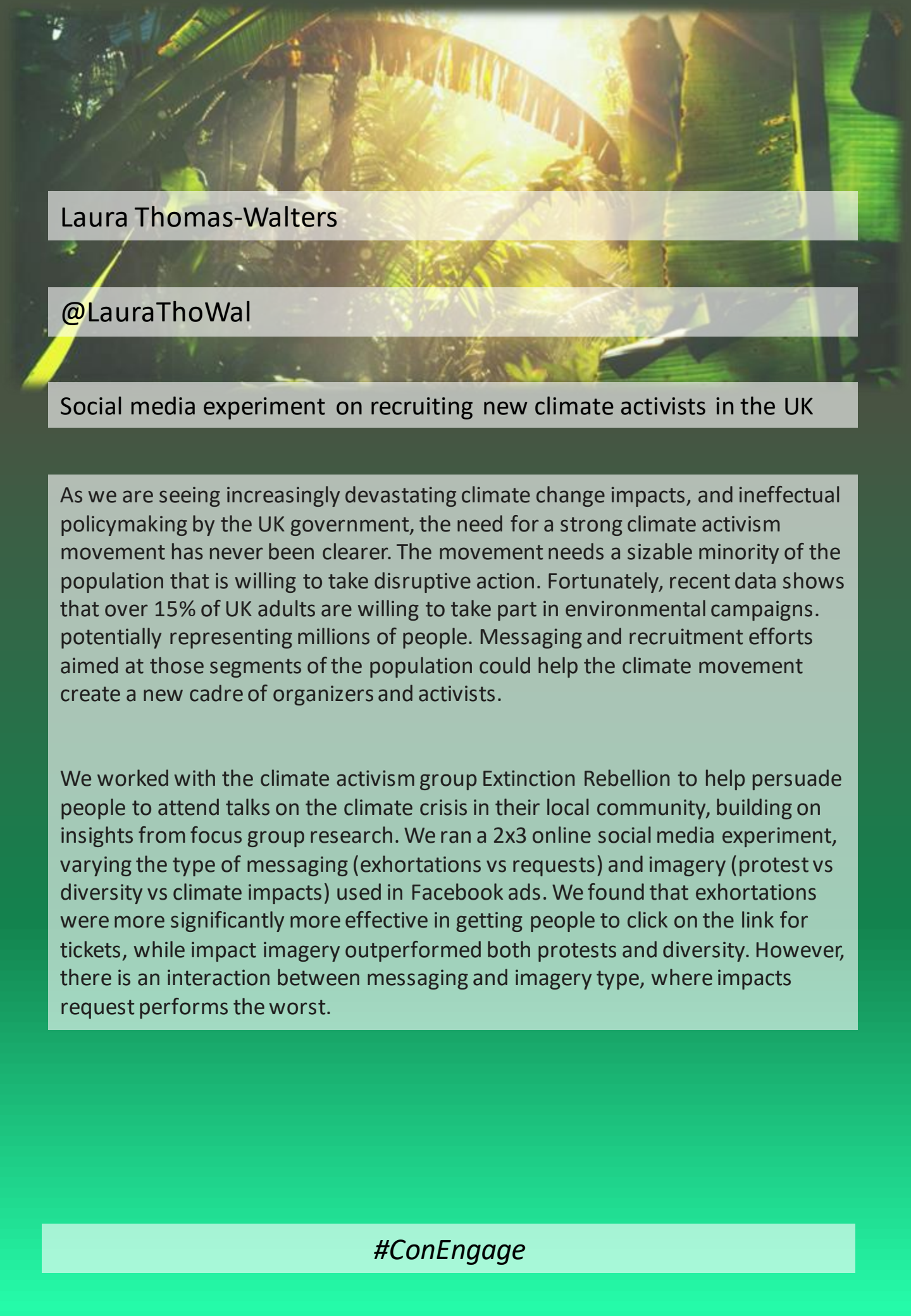
Katherine McKee

@KatherineKMckee

Conservation and Communications. Increasing interest for overlooked topics

In an era where communication shapes perceptions, it's crucial that we reinvent our narrative, championing the conservation of vital but often overlooked resources, fauna, and flora. Join me as I delve into the innovative strategies that have made a difference across two organisations. One is a hyper-local partnership, and the other is part of an international brand, each underscoring the connection between conservation and communication to create change. The first part of this presentation highlights my role in intensifying stakeholder engagement for The Aquifer Partnership (TAP). Established in 2016, TAP focuses on sustainable blue-green solutions addressing challenges confronting the Brighton Chalk Block Aquifer. Our unique strategies, ranging from collaborations with local artists and hands-on workshops to leveraging the power of social media, have kindled widespread interest. Central to our success is our approach to demystifying complex jargon and presenting information in an accessible and engaging manner, creating a hyper-local community of understanding and support for water resources. The second will focus on my role with The Living Coast UNESCO Biosphere. UNESCO biospheres are areas with significant natural value, created to help us learn how to balance what people and nature need to flourish. Here, the primary communication strategy orbits around social media and leveraging international partners. Fostering user-generated content and maintaining consistent interaction is pivotal in creating ambassadors who ardently advocate for conservation. By cultivating partnerships, we magnify our outreach and impact, underscoring the gravity of our mission. Conservation needs effective communication to create lasting change; in a world filled with media overload, adapting to the audience's needs is vital to increasing understanding about topics that often go overlooked

#ConEngage



Laura Thomas-Walters


@LauraThoWal

Social media experiment on recruiting new climate activists in the UK

As we are seeing increasingly devastating climate change impacts, and ineffectual policymaking by the UK government, the need for a strong climate activism movement has never been clearer. The movement needs a sizable minority of the population that is willing to take disruptive action. Fortunately, recent data shows that over 15% of UK adults are willing to take part in environmental campaigns, potentially representing millions of people. Messaging and recruitment efforts aimed at those segments of the population could help the climate movement create a new cadre of organizers and activists.

We worked with the climate activism group Extinction Rebellion to help persuade people to attend talks on the climate crisis in their local community, building on insights from focus group research. We ran a 2x3 online social media experiment, varying the type of messaging (exhortations vs requests) and imagery (protest vs diversity vs climate impacts) used in Facebook ads. We found that exhortations were more significantly more effective in getting people to click on the link for tickets, while impact imagery outperformed both protests and diversity. However, there is an interaction between messaging and imagery type, where impacts request performs the worst.

#ConEngage



Maddy Owens Dufek

@MaddyO831

Assessing Integrity and Congruency in U.S. Fish & Wildlife Hunting Organization Partners. Purported Conservation Objectives through Visions, Missions, and Public Engagement

Hunting is a recreational and wildlife management practice in America, with hunters having been heralded as ecological stewards and conservationists for decades. Assessing the ways in which hunting organizations work to engage the public in their conservation mission is an essential part of assessing conservation effectiveness in North America. The U.S. Fish & Wildlife Service (USFWS) maintains thousands of partnerships with both national and international non-governmental agencies, tribal commissions, state and provincial agencies, and private enterprises to manage natural resources and protect wildlife. To assess the conservation relevance of USFWS partner NGOs and state agencies which promote hunting as part of their environmental ethic, vision and mission statements and public engagement events were reviewed from 4 national NGOs and 11 state fish, game, and wildlife agencies. Events were categorized based on a set of 10 key attributes, and geo-located to visualize distributions of event hotspots relative to their proximity to USFWS-managed protected areas. Conservation represented just 15.5% of all events reviewed despite all organizations stating conservation as a priority in their vision and mission statements. This study identifies points of intervention in which hunters and non-hunters can work in greater partnership to promote a nuanced valuation of nature beyond its consumptive value and unite communities in effective conservation action.

#ConEngage



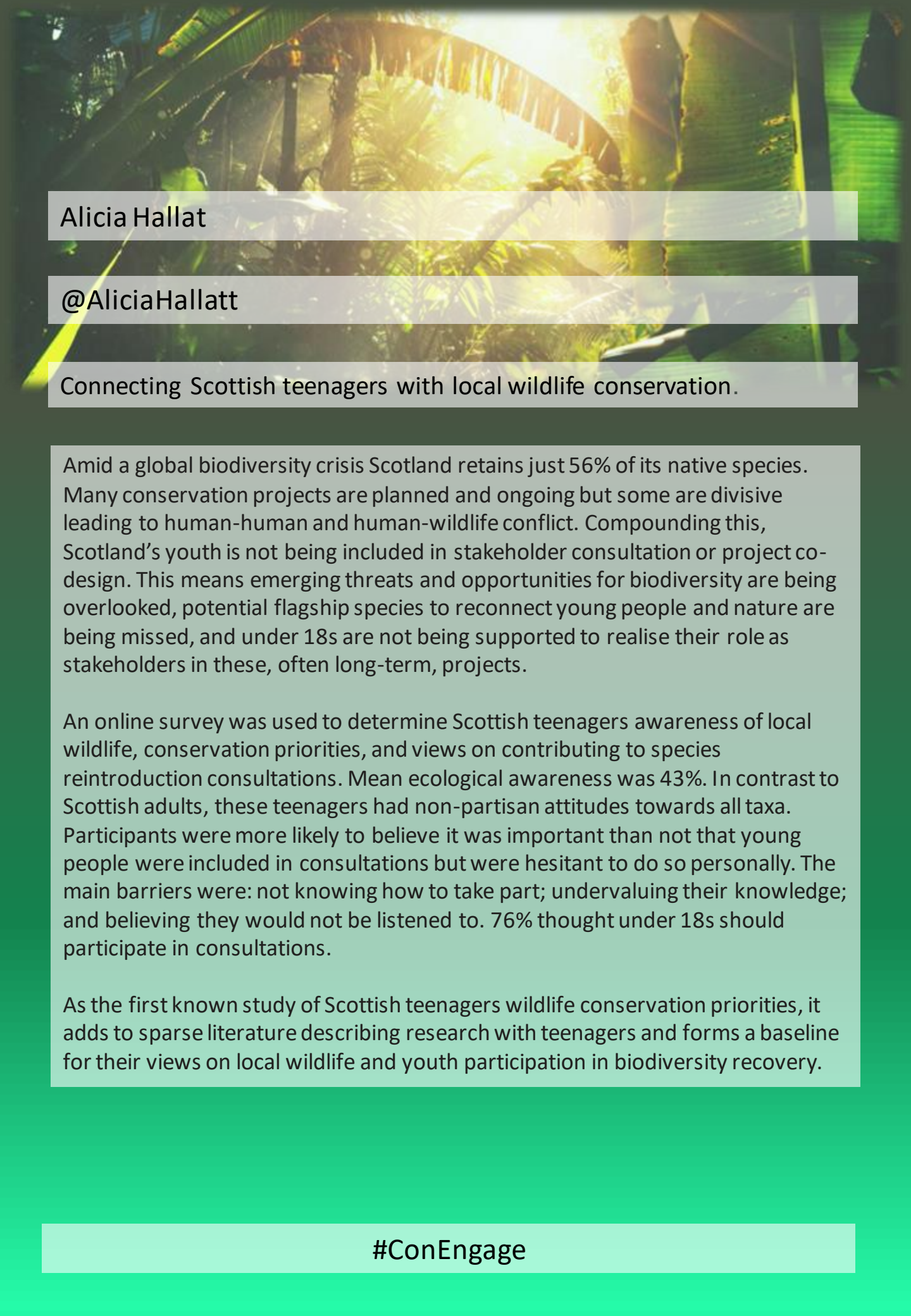
Charlotte Farmer

@UoKBioBlitz

University of Kent BioBlitz

A BioBlitz is a 24 hour surveying event that aims to identify as many species as possible in a given area. At the University of Kent this was an opportunity for us to engage with the public about the wildlife in their area and how they can do their part for nature. We recorded 321 species using iNaturalist across twenty surveys including butterfly and moth surveys, pond dipping and tree surveys as well as family oriented activities such as our mini blitz. These were led by professionals in their fields and participants included public participants and their families, students at the university and staff members. With an attendance of 469 people, our engagement continues to grow. We look forward to sharing more detail on our findings.

#ConEngage



Alicia Hallat

@AliciaHallatt

Connecting Scottish teenagers with local wildlife conservation.

Amid a global biodiversity crisis Scotland retains just 56% of its native species. Many conservation projects are planned and ongoing but some are divisive leading to human-human and human-wildlife conflict. Compounding this, Scotland's youth is not being included in stakeholder consultation or project co-design. This means emerging threats and opportunities for biodiversity are being overlooked, potential flagship species to reconnect young people and nature are being missed, and under 18s are not being supported to realise their role as stakeholders in these, often long-term, projects.

An online survey was used to determine Scottish teenagers awareness of local wildlife, conservation priorities, and views on contributing to species reintroduction consultations. Mean ecological awareness was 43%. In contrast to Scottish adults, these teenagers had non-partisan attitudes towards all taxa. Participants were more likely to believe it was important than not that young people were included in consultations but were hesitant to do so personally. The main barriers were: not knowing how to take part; undervaluing their knowledge; and believing they would not be listened to. 76% thought under 18s should participate in consultations.

As the first known study of Scottish teenagers wildlife conservation priorities, it adds to sparse literature describing research with teenagers and forms a baseline for their views on local wildlife and youth participation in biodiversity recovery.

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