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Abstract - Dickman

Bad things happen: Impacts of wildfires on wildlife

Fire has long been a part of the Australian environment and remains a potent force in shaping the adaptations of species, the dynamics of populations, and the structure of ecological communities. However, climate change is upon us. Fire seasons are longer, wet vegetation types that do not usually burn are now at risk, and fire intensity and severity are currently greater than in the recent past. A particularly widespread event occurred in the forest and woodland regions of Australia over the summer of 2019–2020. Termed the 'Black Summer' bushfires, remotely sensed data indicate that 11.5 million hectares of forest were burned, as well as more than six million hectares of grassland and savanna.

The unprecedented geographical scale of the Black Summer fires, as well as the severity and speed of fire spread, led to widespread concern about the ecological damage that was caused. Estimates suggest that almost three billion vertebrates were affected by the fires, with some animals killed directly by fire but many more dying later due to resource shortages, starvation and predation. Fires were experienced in part of the geographical ranges of 832 vertebrate species and 37 threatened ecological communities, with some entities feared to be at risk of extinction. Huge numbers of injured and displaced animals were brought into care, overwhelming capacity and leading to burn-out and stress among carers.

Field assessments of ecological recovery have been slowed by COVID-19 restrictions, and also by a diminution in ecological monitoring that occurred before the last fire season. Still, the bush is now regenerating and populations of many species are showing strong signs of recovery. In this talk, I propose a series of steps, including establishment of a Biodiversity Bureau, to help achieve ecological recovery and mitigate the effects of future mega-fires for both people and wildlife.

Abstract - Godde

Northern Australian rangelands under climate change: Threats and adaptation strategies

Northern Australia can be broadly defined as the land area north of the tropic of Capricorn. In that region, beef production covers about 60% of the land and plays a key socio-economic role. The beef sector is also entrusted with the responsibilities to preserve the environment and ensure animal welfare.

Climate change represents a major threat for the northern Australian beef industry. It can adversely affect the sector at a range of levels, from farm production to processing, storage, transportation, retailing and human consumption, with implications for rangeland ecosystems, animal welfare, human labour, the economy, and livelihoods.

In this seminar, we explore what the future climate may look like in northern Australia, the potential climate impacts along the supply chain and the adaptation options that might be required in the face of climate change and future inherent uncertainties.

Abstract - Hughes

Australia’s changing climate: Impacts on animals and ecosystems

The Earth’s climate is changing at a rate and scale almost unprecedented in its geological history. As the planet warms, the frequency and severity of extreme climate events, such as heatwaves, bushfires, floods and drought, are increasing. While all natural and human sectors are being affected, our wildlife and dependent animals are particularly vulnerable. The talk will briefly summarise global and Australian climate trends and outline the direct and indirect impacts on wildlife, livestock and pets.

Abstract - McShane

Toward a more complete assessment of climate impacts.

Climate change poses a great threat to welfare of animals, but the literature on climate impacts almost entirely ignores animal welfare. Using the IPCC's 5th Assessment Report as a case study, I consider what the assessments of climate impacts do contain: careful studies of the projected effects of climate change on economies, ecosystem services, biodiversity, and human welfare. None of these, however, is a good proxy for animal welfare. Whereas discussions of climate impacts on human welfare detail the various ways that quality of life for humans will be affected, in the case of animals all that is considered is whether they will exist, in what numbers, and with what degree of diversity. I argue that there is no justification for ignoring impacts on the quality of life for animals in this way.

Abstract - Meredith

One Health: Wildlife health and welfare – a human responsibility

One Health recognises the interconnections between animal and human health and the health of the environment on which we all depend. Since the 1990s, One Health is an increasingly recognised and unifying concept and approach for a wide range of governmental and non-governmental organisations concerned with animal and human health, wildlife conservation and environmental sustainability. This is most recently evidenced and emphasised by the 2021 global announcement of a newly formed unified operational definition of One Health from the WHO, FAO, OIE and UNEP.

Human activities create an ever-increasing interface between humans and wildlife and are the drivers of global wildlife population declines and extinctions, which are increasing at an alarming and exponential rate. The recent COVID19 pandemic has further highlighted the role of wildlife health in a One Health approach, and zoonotic disease spillover from wildlife reservoirs accounts for the majority of emerging infectious diseases in humans and livestock. Wildlife are not only potential sources of disease, but also victims of disease, and sentinels for disease and ecosystem health. The major threats to wildlife are the result of many other drivers alongside pathogens and parasites, including habitat loss, globalisation of trade, land-use pressure, and climate change. Thus, healthy wildlife populations are of vital importance for human and animal health and welfare, and for conservation of biodiversity and wildlife management.

Whilst there is much focus on wildlife populations, the impacts of human activities, including disease, also have major effects on individual wild animal welfare. This presentation will provide a high-level overview from a One Health perspective, to demonstrate that wildlife health and welfare is not simply a human responsibility, but an absolute human necessity for our own health and the sustainability of the planet.

Abstract - Squance

Is connection the missing link to multiagency collaboration in animal emergency management?

Growing interest and activity in animal emergency management (AEM) across a range of organisations suggests that AEM is increasingly recognised as a vital component of emergency management systems. This is especially so in countries where agriculture has a significant contribution to Gross Domestic Product (GDP) and where the protection of animals in emergencies is linked to food security and the protection of livelihoods, biodiversity, human wellbeing and communities.

As animals become included in emergency management frameworks, various government agencies and non-government organisations play important mandated and voluntary roles in supporting animal owners before, during and after disasters. However, frequently post-incident reports and reflections on disasters, such as the 2009 Victorian Black Saturday bushfires, 2016 Kaikoura earthquake, 2017 Port Hill fires and the recent 2019-20 NSW bush fire, express concerns over the lack of collaboration between agencies including those who experience the human-animal interface.

This presentation will explore AEM multiagency collaboration challenges and enhancements through action research based on three case studies: wildfire and flood events. The research findings highlight how professional silos and a failure to understand the importance of human-animal-environment (h-a-e) interdependencies has resulted in AEM being largely disconnected from emergency management overall. Additionally, we will discuss how the adoption of a One Welfare (OW) approach will support a shift from a focus on individual emergency management domains towards a transdisciplinary approach that acknowledges the interdependencies of the h-a-e interface, a range of knowledge systems (including indigenous knowledge) and, ultimately, optimises outcomes for AEM.

Abstract - Taylor

Animal Ready Communities (ARCs) Community-based best practice in animal emergency management

Communities are increasingly being placed at the centre of emergency management doctrine. Phrases referring to ‘community values’ and ‘protecting what the community values’ are increasingly common and are driving new approaches in emergency management and community recovery.

Australian household pet ownership is high and we are regarded as an animal-loving nation; typically considering our pets part of our families, and valuing them as such. A recent study, commissioned by Animal Medicines Australia, estimates that since 2019 (during the COVID19 pandemic) pet ownership levels have increased from 61 to 69 per cent of households, with the numbers of cats and dogs alone estimated to be in excess of 11 million. Therefore, it is evident that, in emergency situations, individuals need to accept primary responsibility for their animals, as this would clearly be beyond the capacity of emergency services and other entities to manage, such as local government, NGOs, or agricultural departments. The emergency management system is, however, complex and can be tough to navigate without support.

This presentation will review the role of communities in animal emergency management, identifying challenges and providing case studies of two approaches currently being used in New South Wales to engage communities in emergency preparedness for their animals. The concept of ‘Animal Ready Communities’ will be outlined and the two case studies, one in the Blue Mountains primarily focussed on smally household pets, and the other in the Hawkesbury- Nepean Valley focussed on horses and larger animals, will be discussed.

Abstract - Trigg

Examining the role of national planning principles for animals in Australian disaster response

Introduction. Animals' place in disaster planning was tested during Australia's 2019-20 bushfire season, with the unprecedented loss of animal life emphasising connections between human and animal welfare. The National Planning Principles for Animals in Disasters are a publicly accessible tool designed to guide effective animal integration into disaster response arrangements. In this project, Australian organisations with a stake in animal emergency management were surveyed and interviewed to examine awareness and implementation of these Principles in disaster planning.

Methodology. A national survey was distributed in emergency and animal management networks in late 2020. Analyses described differences in implementation of the Principles in disaster planning, relating to owned animals, across organisation types and animal categories. Respondent descriptions of implementing the Principles were categorised for further analysis, with perspectives on the Principles qualitatively analysed.

Main Results. Stakeholders (n=137) worked in local government, emergency services, and animal-focused non-profits, interacted with animal owners (74.5%), and had oversight for animal management (78.1%), and understood emergency animal arrangements for their state or territory (73.0%). For stakeholders aware of the Principles (58.1%), half had implemented them (53.8%). Implemented Principles for creating plans most often related to welfare benefits to humans and animals from animal inclusion in plans, and to identifying responsibilities for animals. Principles relating to need for animal welfare consultation, acknowledging local government expertise, and use of accessible language were less often implemented. Disaster planning arrangements indicated a need to focus on prevention and recovery arrangements for animal welfare. Plans supported Principles for animal management logistical challenges in disaster response. However less implementation of formalised animal welfare support arrangements and plan testing requirements was seen.

Implications. Emergency animal management stakeholders see value in applying the Principles, although there is a need to further promote and monitor implementation of specific Principles in animal welfare planning arrangements.