# Introducing Environmental Law

#### **CHAPTER OUTLINE**

This chapter introduces the approach and structure of the book, including four key dimensions of environmental law: its goals and principles, governance structures and actors, regulatory approaches and tools, and mechanisms for implementation and compliance. As an initial inquiry the chapter also canvasses:

- multidisciplinary understandings of 'the environment' that have shaped environmental law, including philosophical, scientific, economic, cultural and global constructs
- how law and institutions are structured and function in dealing with environmental issues
- how law—through its legislative, administrative and judicial processes—helps to 'frame' environmental issues and their management.

The final section of the chapter outlines general resources for learning more about, and conducting research, in this field.

#### **Contents**

- 1 Introduction 4
- 2 Approach and structure of book 5
  - 2.1 Key dimensions of environmental law 6
  - **2.2** Examples, case studies and further resources 7
  - 2.3 Outline of chapters 8
- 3 Notions of 'environment' 8
  - **3.1** Philosophical constructs 9
    - 3.1.1 Organicism, anthropocentricism and nature/human dualisms 10
    - **3.1.2** Ecocentric approaches 13
  - 3.2 Scientific constructs 14
    - **3.2.1** From rationalism to natural philosophy and ecology 15
    - 3.2.2 Balance and resilience 17
  - 3.3 Economic constructs 18
    - **3.3.1** Economic valuation of environment 19
    - 3.3.2 Addressing market failure 21
  - 3.4 Cultural constructs 22
    - **3.4.1** Indigenous peoples' perspectives 23
    - **3.4.2** Cultural heritage and environmental law
  - **3.5** Global constructs 26
    - **3.5.1** Globalisation of environmental law 26
    - **3.5.2** Harmonisation of environmental law 29
- 4 Law and institutions 30
  - 4.1 Legal process and institutions 31
  - **4.2** Form and functions 35
- 5 Framing the environment 37
  - 5.1 Judicial framing 38
  - 5.2 Legislative framing 40
  - **5.3** Determining the relevant environment 42
- 6 Conclusions 45
- 7 Review questions 46
- 8 Further resources 47

### 1 Introduction

Environmental issues feature prominently in contemporary public debate, scientific research and regulatory activity. Media headlines regularly report stories on a diverse range of environmental problems and controversies, including renewable energy and novel energy storage technologies, coral bleaching in the Great Barrier Reef and other impacts of climate change: new threats to agriculture from invasive species, coal and coal seam gas mining; and the logging of old growth forests. The environmental field is thus one of considerable breadth and complexity. Contemporary environmental problems—like anthropogenic climate change—interact with many fields of social activity and engage regulation and governance structures at multiple scales.¹ Potentially, this environmental issue may affect spheres as diverse as water conservation, biodiversity, energy production, infrastructure, human rights, and international peace and security.² The broad scope and complexity of environmental concerns poses significant challenges for devising policy and regulatory frameworks to manage environmental problems.

In Australia, as in many other countries, environmental law plays a central role in responding to these challenges. This field of law is highly dynamic, reflecting the need for legal rules to keep pace with evolving concepts of environment and regulatory approaches for dealing with environmental problems. Environmental law and governance structures must also accommodate the interests and inputs of a wide range of actors involved in environmental issues, including governments, businesses, landholders, communities, scientists, international organisations and environmental groups. Environmental law has therefore seen extensive experimentation with a variety of regulatory tools, especially as it seeks to manage increasingly complex, integrated problems of environmental protection and natural resource conservation. At the same time, environmental law faces significant challenges in implementing and enforcing existing legal requirements. Many governments favour a deregulatory agenda that targets environmental laws that are seen to burden business, environmental protection agencies are frequently under-resourced, and scientific uncertainty may compromise effective environmental management. These challenges are all the more pressing since, as the Australian Government's latest *State of* 

<sup>&#</sup>x27;Climate change law' has emerged as a prominent area of environmental study in its own right as evidenced by the publication of a number of books on climate change law and policy in the last decade: see Tim Bonyhady and Peter Christoff (eds), Climate Law in Australia (2007); David Hodgkinson and Renee Garner, Global Climate Change: Australian Law and Policy (2008); Wayne Gumley and Trevor Daya-Winterbottom (eds), Climate Change Law: Comparative, Contractual & Regulatory Considerations (2009); Nicola Durrant, Legal Responses to Climate Change (2010); Alexander Zahar et al, Australian Climate Law in Global Context (2013); Daniel Farber and Marjan Peeters (eds), Climate Change Law (vol 1, 2016). Yet many cogent arguments remain against viewing climate change law as a self-contained disciplinary and regulatory field. A sound understanding of environmental governance structures and legislative arrangements remains a necessary foundation for study, research and practice in all areas of climate change law.

<sup>2</sup> Phillip Warren, 'Climate Change and International Peace and Security: Possible Roles for the UN Security Council in Addressing Climate Change', Columbia University Academic Commons (2015) http://dx.doi.org/10.7916/D8SJ1JTF.

the Environment report makes clear, in many areas of Australia environmental quality is poor or deteriorating, threatening efforts to ensure a sustainable future.3

#### 2 Approach and structure of book

This book seeks to analyse the changes occurring in environmental law and the challenges of implementation, compliance, and effectiveness it faces. While the focus is on environmental law requirements in Australia, the book also takes account of international and comparative developments in the field, which increasingly affect domestic environmental law and policy. In order to understand and work with environmental law today, we believe that it needs to be situated against a contemporary backdrop encompassing much broader notions of environment, a greater range of environmental actors and regulatory approaches, and a growing permeability between traditional disciplinary areas and conventional national-international political boundaries.

At the same time, it is increasingly obvious that we need to broaden our concept of 'the law' when it comes to analysing environmental legal development. Environmental law combines what are traditionally thought of as legal mechanisms—for instance, penalties and court proceedings—with a liberal sprinkling of scientific notions, economic strategies and policy issues. Trying to analyse environmental law without reference to the wider context in which it is embedded risks an incomplete understanding of this branch of legal knowledge. A growing number of scholars recognise that the conventional boundaries between disciplinary areas of study are dissolving and reforming as interdisciplinary areas focused on broader topics like regulation or governance. 4 Moreover, its multidisciplinary foundations, coupled with the controversial nature of many environmental questions that engage a variety of different stakeholders and perspectives, make environmental law a 'hot' area of law. As Elizabeth Fisher notes, this frequently leads to contested framings of problems and a tendency for fragmented regulatory responses.5

For these reasons, the approach taken in this book is one that focuses on the conceptual foundations of environmental law. Rather than a treatment of discrete legal tools or mechanisms, or a discussion of laws within different environmental categories such as biodiversity conservation and pollution, we have instead organised this book around 'key dimensions' of environmental law; different parameters that provide a useful way to conceptualise the field and the dynamic shifts in its scope over time. While not neglecting important environmental legal issues conventionally treated in a book on 'environmental law' (for instance, federal versus state powers to regulate the environment or laws on environmental impact assessment (EIA)) this approach allows us to move beyond a simple examination of 'the law', in the sense of legislation and case law, to encompass

W J Jackson et al, Australia: State of the Environment 2016, overview, independent report to the Australian Government Minister for the Environment and Energy, Australian Government Department of the Environment and Energy, Canberra, vii.

<sup>4</sup> See eg Christine Parker et al, Regulating Law (2004).

Elizabeth Fisher, 'Environmental Law as "Hot" Law' (2013) 25(3) Journal of Environmental Law (JEL) 347.

important scientific, policy and regulatory aspects that impact on the formulation and implementation of legal rules. A broader approach also recognises the level of integration and interconnectedness present in prevailing notions of the environment and the ways in which environmental law is applied and practised. Governance and regulatory systems in environmental law must increasingly respond to the challenge of integrated and complex environmental problems, which also often traverse national boundaries.

## 2.1 Key dimensions of environmental law

The book examines four key dimensions of environmental law and the transitions in legal, philosophical, scientific and policy thinking that underlie them. These dimensions relate to (1) the principles and overarching goals of environmental law; (2) its governance structures and actors; (3) the approaches and tools of environmental regulation; and (4) mechanisms for ensuring effective implementation and compliance.

The overarching **goals and principles** of environmental law provide the field's conceptual architecture and guiding objectives. Sustainable development—or, in Australia, ecologically sustainable development—and its underpinning principles have served this role, although their failure to arrest serious environmental decline has raised questions over whether environmental law requires alternative or supplementary principles for its future development.

The dimension of **governance and actors** is concerned with who is authorised to participate in the making, implementation and enforcement of environmental law, their relative rights or powers in this regard, and processes for holding decision makers accountable. Australia, in common with many other countries, has a federal system of governance with government authorities (at the federal and state levels) as the primary actors, albeit with increasing roles for communities, environmental groups and the private sector.

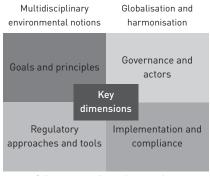
The dimension of environmental law concerned with **regulatory approaches and tools** focuses on the policy and legal models and mechanisms employed to address environmental problems, from those of the common law and private property regimes, to direct regulatory measures, market-based measures, voluntary schemes and government–community partnerships.

Finally, the dimension of **implementation and compliance** examines how environmental laws are given effect and the necessary contributors to such efforts (eg monitoring and data availability, resourcing and enforcement). This dimension also encompasses nascent debates about the effectiveness of environmental law, including whether it achieves its designated objectives, how this is monitored (if at all), and how better feedback mechanisms could be designed to improve the effectiveness of environmental legal interventions.

All four dimensions of environmental law sit within a broader dynamic context that includes: shifting multidisciplinary understandings of environment and environmental goals that shape legal notions; a greater recognition of environmental complexity and the need for more sophisticated processes for gathering scientific knowledge and

expertise to inform decision making; and progressive movements in the environmental area towards more globalised and harmonised responses to environmental problems (see Figure 1.1).





Science, expertise and uncertainty

## **2.2** Examples, case studies and further resources

The book's discussion of the four key dimensions of environmental law is intended to provide readers with the necessary conceptual tools for achieving a holistic understanding of the structure of environmental law in an Australian and global context. However, in order to come to grips with how this structure is applied in dealing with particular environmental issues, the examination of conceptual foundations is interspersed with short, illustrative examples or longer, more in-depth 'case studies' of seminal judgments, pieces of legislation or policy developments. The case studies, in particular, are designed to provide readers, teachers and students with the essential tools to explore the conceptual material introduced in chapters in a practical setting in order to gain a deeper understanding of the application of environmental legal rules. Additional sources of material, useful for continuing study or research into a topic discussed in a chapter, are listed in a 'Further resources' section at the end of each chapter.

As the examples and case studies considered in the chapters illustrate, while there have been strong trends in environmental law over the course of its development that have favoured greater uptake of ecological concepts and goals, greater regulatory diversity, plural governance systems, globalisation, and more flexible and integrated approaches for ensuring implementation and compliance, there have also been competing tensions that may sometimes pull environmental law in another direction. For example, efforts to deal with greenhouse gas emissions as a global problem may be challenged by those who advocate local, community-based concerns about the impacts of climate change.<sup>6</sup> The embrace of 'beyond-compliance' environmental performance strategies by industry may only be facilitated by maintaining conventional 'command and control' regulatory

For example, Cathleen Fogel, 'The Local, the Global, and the Kyoto Protocol' in Sheila Jasanoff and Marybeth Long Martello (eds), Earthly Politics: Local and Global in Environmental Governance (2004) 103.

frameworks.<sup>7</sup> Institution of participatory structures in environmental decision making may not only facilitate community input but also raise the problem of the weight such views should be given where they conflict with expert opinion. Calls for interdisciplinary approaches in environmental research and policy development cannot, by themselves, build bridges between very different fields like science and law. In many areas, therefore, there exists a dynamic interaction between law and environmental management such that legal and policy structures impact upon, but are also shaped by, different environmental management problems.

## 2.3 Outline of chapters

Each of the four key dimensions of environmental law examined in this book is the subject of a separate chapter: Chapter 2 (principles of environmental law), Chapter 3 (environmental governance and actors), Chapter 4 (environmental regulation and tools) and Chapter 5 (implementation and compliance). Chapters 6 and 7 deal with the broader context for operation of the four key dimensions, examining: the role of science and expertise in environmental law and the management of uncertainty (Chapter 6); and the global dimensions of environmental law, including the relationship of domestic law to international environmental law (Chapter 7). The remainder of this chapter considers the foundational questions of what we mean by 'environment' and 'law', and how multidisciplinary understandings of both have contributed to an expanding scope for the field of environmental law.

Since the first edition of this book was published, environmental law in Australia and in many other Western democracies has come under sustained pressure on a number of fronts. These include efforts to repeal or 'streamline' many long-standing environmental law protections, restrict environmental litigation by public interest groups, and decrease funding for environmental regulatory agencies. Consequently in this edition, even as we continue to explore innovations that expand the reach of environmental law, we also recognise the increasing challenges the field faces, particularly in the area of ensuring effective implementation and compliance with environmental laws. In the final chapter, Chapter 8, we revisit these challenges and consider future directions for development and reform of environmental law.

### 3 Notions of 'environment'

For those studying and working in the field of environmental law, an important initial inquiry is the scope of what is encompassed by the notion of environment. Lawyers are fond of definitions, and environmental legislation and the decisions of judges contain many attempts to give a firm legal shape to environmental concepts. The way these definitions have changed over time is itself revealing, evidencing broader transformations in scientific understanding, philosophical approaches, economic models, awareness of

<sup>7</sup> Neil Gunningham and Darren Sinclair, Leaders and Laggards: Next-Generation Environmental Regulation (2002) 39.

cultural diversity and global interconnectedness. A constant interplay between the law and other disciplines has done much to broaden understanding of the environment that is subject to different forms of legal regulation and management.

As a system of rules and procedures governing social conduct, law in a democratic country like Australia reflects, to a large extent, the values of the governed society.8 This is certainly the case for environmental law; indeed, it might be said to be particularly so, given the foundation of the majority of Australian environmental law in legislation and other forms of regulation laid down by democratically elected governments. Over the course of the second half of the twentieth century, recognition of the importance of environmental protection became entrenched in Western societies such that environmentalism is now 'as much a state of being as a mode of conduct or a set of policies ... [c]ertainly it can no longer be identified simply with the desire to protect ecosystems or conserve resources'.9

The social concerns environmental law embodies, in turn, reflect deeply rooted values, drawn from diverse sources such as religion, ethics, economics, science, politics, custom and culture. Over time, ideas about the environment in these various areas have changed, waxing and waning in their relative importance. As these changes have occurred, so too social values concerning environmental matters have also shifted, producing different notions of the nature of the environment itself and the importance of environmental protection. This evolution in notions of environment is dynamic, as demonstrated by current debates over how water should be perceived against a background of anthropogenic climate change in Australia (eg should water be regarded as a resource, an ecosystem service or a human right?). The following sections trace multidisciplinary notions or constructs of the environment and their implications for how we understand the subject matter of environmental law.

#### Philosophical constructs

Philosophies concerning the natural world, and the place of humans in it, have shaped the understanding of environment that underpins much of environmental law. The term 'environmental philosophy' (or environmental ethics) refers generally to beliefs about the character of the environment and the relationship of humankind to the environment and its constituent non-human elements. Even so, environmental philosophy is a highly disparate field that confounds any attempt to derive universally agreed ideas regarding the interrelationship of humanity and nature. Such ideas have evolved over time, strongly influenced by prevailing socio-cultural factors, such as religion, morality and aesthetic perceptions. 10 Indeed, the very term 'environment', as we use it today, only gained popular currency from the middle of the twentieth century. Nonetheless, similar concepts have an ancient lineage in Western societies, as well as in other cultures.

<sup>8</sup> Richard Chisholm and Garth Nettheim, Understanding Law: An Introduction to Australia's Legal System (7th ed, 2012).

<sup>9</sup> Timothy O'Riordan, Environmentalism (2nd ed, 1981) ix.

<sup>10</sup> Sven Arntzen and Emily Brady (eds), Humans in the Land: The Ethics and Aesthetics of the Cultural Landscape (2008); Emily Brady, Aesthetics of the Natural Environment (2003).

A general trend that can be discerned is the oscillation between a holistic view of the environment and a view of the natural world that emphasises separate components and discrete processes. Prominent among the latter has been the belief in a distinct dichotomy of the human and nature. 11 Western culture typically has been characterised by anthropocentric (human-centred) thought that emphasises the distinctness of humankind from nature. These views have been influential in shaping relevant legal concepts and rules, including environmental and planning law.12 The rise of environmentalism and the emergence of philosophies, such as deep ecology, 13 and ecofeminism 14 in the 1970s, and more recently wild law,15 have challenged these dominant modes for representing and governing the natural world. In a similar way, environmental law itself presents a challenge to prevailing legal, academic and professional cultures that prioritise human value over non-human entities.

#### Organicism, anthropocentricism and nature/human dualisms

Philosophical approaches to the environment that stress the interconnection and linking of all parts are often referred to as 'organicism'. An organic view of nature imputes a seamless quality between all living forms whose origins lie in a single creative force, which is continually and dynamically renewed. While it is something of a generalisation, classical and medieval thought predominantly adopted an organic paradigm for conceiving nature. Ancient Greek philosophers, for example, believed that life on Earth could be depicted as a specialised local organisation of an all-pervading vitality and rationality.<sup>16</sup> Organicism was significant in Christian creation stories, and in medieval thought.

The Earth's life force was worshipped as an Earth goddess in many agrarian societies: the central cyclical element around which human activity revolved. It represented the interconnectedness of natural objects, often symbolised by a web or a circle of life.17 In such societies, there was an emphasis upon acting with nature and bending to its rhythms. Concepts of a web of life have reappeared in contemporary environmental constructs. Where the Earth was considered alive and sensate, it was

<sup>11</sup> Roger King, 'Critical Reflections on Biocentric Environmental Ethics: Is It an Alternative to Anthropocentrism?' in Jonathan Smith and Andrew Light (eds), Space, Place, and Environmental Ethics (1997) 209, 210.

<sup>12</sup> Claire Williams, 'Wild Law in Australia: Practice and Possibilities' (2013) 30 Environmental and Planning Law Journal (EPLJ) 259.

<sup>13</sup> See generally, Arne Naess and the Deep Ecology Movement (short version)—YouTube available at www. youtube.com/watch?v=GJz2zVW9WHM (accessed 28 February 2018). For a more distinctly Christian approach, see the works of Thomas Berry, eg The Sacred Universe: Earth, Spirituality, and Religion in the Twenty-First Century (2009).

<sup>14</sup> While the origins of ecofeminism are debated, it is often attributed to Françoise d'Eaubonne, Le Féminisme ou la Mort (1974). The movement, which brings together feminism and ecology, has continued with a presence more recently in resistance to climate change.

<sup>15</sup> Again there are various origins to these concepts but the recent incarnation of these ideas is often attributed to Cormac Cullinan see eg https://therightsofnature.org/cormac-cullinan-on-wild-law/.

<sup>16</sup> Robin G Collingwood, The Idea of Nature (1960), 4. Notably, ancient Greek views also emphasised the ascendancy of the mind over the physical body.

<sup>17</sup> Virginia Marshall, 'Deconstructing Aqua Nullius: Reclaiming Aboriginal Water Rights and Communal Identity in Australia' (2013) 8 Indigenous Law Bulletin 26, 9.

contrary to ethical behaviour to carry out destructive acts against it. Religions such as Buddhism reflect a similar orientation, and the recent moves to ascribe legal personality to mountains and rivers in part captures these ideas. 18 Organic views of people and nature are shared by the creation myths of many indigenous peoples, including the Dreamtime stories of Australia's Aboriginal people that are integral to their law. 19 Indigenous peoples' law and custom similarly eschew the nature-culture division in favour of the holistic worldview of Indigenous societies.20

Aspects of an organic worldview have filtered into modern Western scientific culture. For instance, the notion of a cyclical life force underpins concepts of the Earth as a system governed by ultimate limits—a system that works towards equilibrium. The Gaia thesis, developed by James Lovelock, builds from an organic view of nature in that it conceptualises the biosphere as a single organism functioning in an integrated, self-regulating manner.<sup>21</sup> This view has experienced a renaissance in recent times, coalescing with systems thinking approaches stressing the 'planetary boundaries' that constitute the safe operating space for humanity to continue to develop and thrive.<sup>22</sup> Echoes of this approach are evident in successive assessment reports of the Intergovernmental Panel on Climate Change, which have issued increasingly strong warnings about exceeding global warming limits of more than 2°C of warming. Underlying such warnings is the suggestion that excessive anthropocentric greenhouse gas emissions may precipitate the globe into an era of inevitable, exponential warming. The concept of the Anthropocene has been coined in this context.<sup>23</sup>

In Western societies, the organic worldview was increasingly displaced from the sixteenth century as nature came to be seen, more and more, as inferior to humanity. In this respect, the Christian religious tradition provided a major source for evolving ideas about human-nature interactions. Man [sic] in the image of a transcendent God was able to disassociate himself from the natural objects beneath him in the hierarchy of beings.24 As a consequence, Christian religious belief placed humankind at the top of a natural order created by God, in a position of power over other living things and human surroundings. This hierarchical dominion model is implicit, but pervasive, in many legal models, such as the sovereignty principle that informs international law and which has, at times, been a formidable barrier to environmental protection.<sup>25</sup>

<sup>18</sup> See eg Te Awa Tupua (Whanganui River Claims Settlement) Act 2017 (NZ) and Record of Understanding between the NZ Crown and Eight Taranaki Iwi in Respect of Egmont National Park (Taranaki Maunga) re joint management by local Māori and the Government. See also James Morris and Jacinta Ruru 'Giving Voice to Rivers: Legal Personality as a Vehicle for Recognising Indigenous Peoples' Relationships to Water' (2010) 14 Australian Indigenous Law Reporter 49, 50.

<sup>19</sup> Christine Black, The Land is the Source of the Law (2011) 3-17.

<sup>20</sup> See eg Deborah Bird Rose, 'Dreaming Ecology', in Nourishing Terrains: Australian Aboriginal Views of Landscape and Wilderness (1996), 49-61.

<sup>21</sup> James Lovelock, Gaia: A New Look at Life on Earth (1979).

<sup>22</sup> This theory is advocated in the work of the Stockholm Resilience Centre, see www.stockholmresilience. org/research/planetary-boundaries/planetary-boundaries/about-the-research/the-nine-planetaryboundaries.html.

<sup>23</sup> See eg Tim Stephens, 'Reimagining International Environmental Law in the Anthropocene', Louis Kotzé (ed) Environmental Law and Governance for the Anthropocene (2017).

<sup>24</sup> John Passmore, Man's Responsibility for Nature: Ecological Problems and Western Traditions (1974), 6-16.

<sup>25</sup> On the sovereignty principle in international environmental law, see further Ch 7.

Nonetheless, the precise impact of religious views on Western attitudes towards the natural environment is debated.<sup>26</sup> On the one hand, support for the exploitation of nature is often ascribed to Judeo-Christian teachings, especially the biblical edict in Genesis, directing man to be fruitful and multiply, and fill the earth and subdue it.<sup>27</sup> By contrast, proponents of a less instrumental approach contend that the relevant interpretation of Genesis is to emphasise human 'dominion' as stewardship; an ideal embodying care for, and conservation of, the environment. Approaches along the spectrum between these two extremes have played an important role in framing our understandings of the environment and, in turn, have had an enduring influence upon the evolution of legal concepts.

In Europe, Enlightenment thought, which emerged after the medieval period, laid the foundation for our modern ideas of the natural environment. In the Enlightenment period, prominence was given to the concept of humans as rational beings. This philosophy, known as humanism, differentiated the human from the natural, and celebrated the individual. A dominant theme of humanism is anthropocentrism, that is, that human beings are the focal point of the world. Humanism and anthropocentricism remain prevailing influences in Western thought, underpinning familiar legal concepts such as human rights.

Strong parallels exist between the nature/human dualism of Enlightenment-era thinking and the view that elements of the natural world do not have the same legal status as humans. In a legal sense, this is made most apparent by assigning nature, including animals and plants, to the category of property.<sup>28</sup> Underlying property law is the notion that, if something is designated as property, then property owners have a legal right to use and control that object—whether land or natural resources—largely without restriction. Even though there has been qualification to these views regarding the absolute legal control over land and resources that property ownership confers, a powerful association is retained in the popular mind between property and use at will.

Moreover, Western legal systems, based on the common law, still largely reflect an anthropocentric position that prescribes an inferior status for nature. Typically, the environment itself and many of its components, such as animals, are not regarded as having legal rights and are devoid of legal protection under the common law as a result of being designated as property.<sup>29</sup> Even environmental protection legislation does not offer protection for individual animals; rather, the emphasis is on protection of species. Typically, also, where the law seeks to assign liability, as in tort, it is people who bear responsibility for any damage that may be caused by animals.

<sup>26</sup> Paul Babie, 'Why Should I Do This? Private Property, Climate Change and Christian Sacrifice', in Nadirsyah Hosen and Richard Mohr (eds), Law and Religion in Public Life: The Contemporary Debate (2011) 65.

<sup>27</sup> Lynn White, 'The Historical Roots of Ecological Crisis' (1967) 155 Science 1203, 1205.

<sup>28</sup> For discussion see Yoriko Otomo and Edward Mussawir, Law and the Question of the Animal: A Critical Jurisprudence (2012).

<sup>29</sup> For a contrary view see eg Stephen White, 'Animals and the Law: A New Legal Frontier?' (2005) 29(1) Melbourne University Law Review 298 as a response to and review of Cass R Sunstein and Martha C Nussbaum, (eds) Animal Rights: Current Debates and New Directions (2004). See, more recently, Nick James and Rochelle James, 'What Are We Trying to Do in Teaching Animal Law to Law Students?' [2017] 27 Legal Education Review 1.