‘Let everything that has breath praise the Lord’:¹
The Bible and biodiversity

by David Bookless

We have an important moral and ethical decision to make: Do these [endangered] species have a right to survive or do we have a right to drive them to extinction? Professor Jonathan Baillie, Zoological Society of London²

Summary
The ethical foundations which underpin the wildlife conservation movement face a crisis: what gives nature its value? Anthropocentric views (which see the world as here to serve human interests) and ecocentric views (which aim to value all species equally) compete but are flawed. In contrast, a biblical perspective emphasises that both human and non-human creatures are made for the glory of God and have value directly in relation to God. This has significant implications for Christian attitudes to biodiversity conservation and for the conservation movement, which are briefly explored.

Introduction
In secular western cultures, where religion is often relegated to the private sphere, it is unusual to encounter scientists requesting assistance from people of faith. Yet, in the field of wildlife conservation, recent years have seen a growing stream of such approaches. Beginning with a gathering of global faith leaders at Assisi for the 25th anniversary of the World Wildlife Fund in 1986, this process has gathered momentum. It includes a major five-year programme on World Faiths and the Environment sponsored by the World Bank working with the WWF; partnerships or discussions initiated by major conservation bodies such as Conservation International, BirdLife International, the RSPB and the Sierra Club; and serious academic engagement with the place of world faiths in conservation at Yale and Oxford Universities.³

The reasons why secular conservationists are engaging with world faiths are various. They include the significant overlap between specific faith communities and the world’s biodiversity hotspots⁴ (the two per cent of global land containing 60 per cent of the world’s plant and animal species)⁵ and significant landholdings of faith groups. However, the most significant reason is the recognition that the biodiversity conservation movement faces a crisis, and many within it believe the ethical resources of world faiths can help. Despite a century of conservation science, advocacy and education, extinction rates and habitat loss have increased greatly. Current extinction rates are about 1,000 times higher than estimated background rates,⁶ leading some scientists to speak of ‘defaunation’⁷ caused by humanity’s impact within a new geological era.

1. Ps. 150:6.
2. http://www.iucn.org/about/work/programmes/species/?11007/The-100-most-threatened-species--Are-they-priceless-or-worthless
3. A full bibliography for this paper, including papers relating to these initiatives, can be found at www.jubilee-centre.org/bible-and-biodiversity
labelled the 'anthropocene'.

At the heart of the crisis within biodiversity conservation is a simple question which divides the global conservation movement: What gives nature its value? Is conservation’s raison d’être purely instrumental, preserving habitats and species because of the ‘ecosystem services’ they provide for human thriving, or can we speak of intrinsic or inherent values within species and ecosystems and, if so, on what are these values based? Can Christianity help with the search for ethical values or, as some assert, has the doctrine of humanity as ‘the image of God’ caused such a divide between people and the rest of nature that Christianity is part of the problem?

The central thesis of this paper is that a biblical perspective questions the polarity within the conservation and environmental movements, between those anthropocentric views which see the world as simply here to serve human interests, and ecocentric views which see humanity as simply one species amongst many with the primary ‘good’ being the survival of ecosystems. Based on a fresh look at familiar passages and a spotlight on often neglected ones, this paper argues that the biblical witness is profoundly theocentric, putting both humanity and biodiversity within the orbit of God’s wider purposes and plans.

In this context, we need to distinguish different senses in which the term ‘anthropocentric’ can be used. The Bible is, of course, an anthropocentric text insofar as it is written for and by human beings (under the inspiration of the Holy Spirit). Moreover, salvation history turns on the damage human sin has done, the saving work of God-become-man in Christ, and God’s creation and calling of a new humanity in Christ. So the unique place of human beings within God’s purposes is not in dispute. Indeed, the special value of a human life is made clear: we are each worth ‘more than many sparrows’ (Matthew 10:31). However, these specific anthropocentric characteristics of the biblical text should be distinguished from what has been labelled ‘anthropomonism’, the view that ‘human interests are exclusively important and creation exists only to serve those interests.

The issue before us, then, may be simply expressed: are animals created purely for human use, or do they have independent value to God, and if so, how should humans treat them?

**Humanity in Genesis: ‘image of God’ or ‘dust of the earth’?**

Traditionally, most Christian thinking on the relationship between humanity and other creatures has started with Genesis 1 and 2. These are complex, theologically rich passages with implications for numerous doctrines, but here we focus on implications for the place of non-human creatures. Firstly, the ordering of creation, with humanity created last, has led some to see a simple hierarchy of value in Genesis 1. However, in the text humans share Day Six with all other land animals. The Sabbath, rather than humanity, is the true crown of creation (Genesis 2:2–3), meaning that the value of creation is set within God’s own purposes. Significantly, when God, having already proclaimed each part ‘good’, declares the whole creation ‘very good’, this is not simply because humans have been added. It is the completion or fullness of ‘all that he had made’ (including the rich biodiversity on earth) which God proclaims ‘very good’. Humanity’s arrival is the final piece that completes a ‘very good’ jigsaw.

Secondly, both humans and other creatures alike have the ‘breath of life’ from God. The same Hebrew phrase, ‘nishmat chayyim’ is used in Genesis 2:7 of Adam, and in 2:19 for the animals and birds which Adam names. Older translations, including the King James Version, conceal this by translating the phrase ‘living soul’ for humans and ‘living creature’ for animals, but the Hebrew is identical. The Hebraic biblical worldview integrated material and spiritual reality but in contrast Greek philosophy, which heavily influenced translation and interpretation, was deeply dualistic. Aristotle’s Great Chain of Being was a hierarchical ladder with the Ultimate (God or gods) at the apex, beneath whom were spiritual beings (angels, demons), humans (rational spirits in a material body), irrational animals, plants, and finally insensible items such as rocks. As developed by Philo of Alexandria, this influenced early Christian theologians seeking to convey the Christian message to a world dominated by Greek philosophy. Origen spoke for many when he wrote: ‘The

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Creator, then, has made everything to serve the rational being and his natural intelligence. And for some purposes we need dogs, for example for guarding flocks … or as house-dogs; for others we use beasts to carry burdens or baggage. Similarly the species of lions and bears … have been given to us in order to exercise the seeds of courage in us. Animals’ only value related to their usefulness in resourcing, assisting or entertaining humanity. Whilst the Reformers rejected the Great Chain of Being, its influence lingered. Calvin’s commentary on Genesis 1 states that the creation of animals and plants was simply so that ‘none of the conveniences and necessities of life might be wanting’ to human beings.14

Awareness of this Greek philosophical background is important, thirdly, when considering humanity as created in the ‘image of God’ (Genesis 1:26–28). Many interpretations of this phrase have been based on philosophical speculation rather than biblical exposition. There is no mention in the text that ‘image of God’ refers to being ‘en-souled’ (Ambrose), rationality (Athanasius), intellect and will (Augustine), moral righteousness (the Reformers), physically upright form (Von Rad et al.) or many other speculative ideas. Any interpretation of ‘imago Dei’ stemming directly from the immediate context of Genesis 1:26 must embrace humanity’s relationship with other creatures: ‘image’ is, at least in part, a job description. Humanity as a whole is created in God’s image and likeness to reflect God’s character and ‘rule over the fish in the sea and the birds in the sky, over the livestock and all the wild animals, and over all the creatures that move along the ground.’ (Genesis 1:26, 28). At the same time, God forms Adam from the ‘adamah’ (Genesis 2:7), Hebrew for soil or earth. Humans are both/and creatures: created from ‘the dust of the earth’ and made ‘in the image of God’. We are carbon-based life-forms, like all other living creatures ‘the dust of the earth’ and made ‘in the image of God’. We so soil or earth. Humans are both/and creatures: created from adamah and all the wild animals, and over all the creatures that move along the ground.’ (Genesis 1:26, 28). At the same time, God forms Adam from the ‘adamah’ (Genesis 2:7), Hebrew for soil or earth. Humans are both/and creatures: created from ‘the dust of the earth’ and made ‘in the image of God’. We are carbon-based life-forms, like all other living creatures in our contingency and physicality, and yet uniquely called apart within (although never separated from) the diversity of creatures, with a divine calling to reflect God’s image.

Understanding that we are both ‘of the earth’ and ‘in God’s image’, fourthly, sets the context for interpreting the nature of humanity’s ‘rule’ over fellow creatures. Some have accused Christianity’s doctrine of ‘dominion’ as justifying the unfettered exploitation of the earth and its creatures. Lynn White famously alleged that, for Christians, ‘No item in the physical creation had any purpose save to serve man’s purposes.’16 However, the meanings of ‘have dominion’ (‘radah’) and ‘subdue’ (‘kabas’) in Genesis 1:26–28, must be seen in the context of all creation being declared ‘very good’ and made for God’s Sabbath enjoyment, and of humanity as an integral part of creation, sharing with other creatures in their dusty origins and sharing God’s gift of the ‘breath of life’. Both ‘radah’ and ‘kabas’ are terms where meaning can vary according to context but, as John Rogerson has stated, ‘Whatever they may mean in other contexts, in Genesis 1 they occur in the context of a non-violent world’,17 in which a vegetarian diet prevails (Genesis 1:29–30). The Fall in Genesis 3 was to change things, but God’s original purpose was for humanity to reflect God’s character in developing and looking after God’s world. To ‘subdue’ (‘kabas’) means to bring into shape or put in order, and the hermeneutical key is surely the purpose of such work: to enable fruitfulness and productivity so that all God’s good creatures might flourish.

Similarly, ‘radah’ denotes authority and leadership such as that of the head of a household or a king’s representative. Israel was warned against royal tendencies to turn dominion into domination.18 The biblical ideal of a king was the shepherd-leader, and for Christians kingship was redefined in Christ, who came ‘not be served but to serve’.19 Thus ‘dominion’ is not permission for humanity to exploit and drive fellow creatures towards extinction. It is rather a calling to exercise responsible servant-hearted leadership within the community of creation. God called Adam to ‘till and keep’ the garden of God’s creation (Genesis 2:15): the terms used, ‘abad and ‘shamar’, may be translated as ‘serve’ and ‘preserve’ and speak of restraint, protection and careful nurture.

Thus, in summary, Genesis 1 and 2 are finely-balanced narratives, emphasising humanity’s commonality with other creatures, and also drawing out the unique privileges and responsibilities incumbent on being human. Our first ‘great commission’ is directly related to how we treat the birds, animals, sea-creatures and the earth itself, along with which we were created. Our vocation as human creatures is to glorify God in assisting in the flourishing of the whole good creation. Thus, biodiversity conservation becomes a missional task20 and a key means of reflecting God’s image.

16 White Jr., ‘The Historical Roots of Our Ecologic Crisis,’ p.1205.
18 1 Sam. 8:10–18.
Creation in the Psalms

In addition to Genesis, there are theologically important passages about creation in the Psalms and Wisdom literature. Many psalms affirm that, according to their kind, non-human creatures worship and praise God and also that God cares and provides for all creatures. Psalm 145:9, for instance, states 'The Lord is good to all; he has compassion on all he has made.' This is the God whose character humanity is to reflect. Psalm 8 echoes Genesis 1 in speaking of humanity's kingly role within creation (6–8). Yet the context is theocentric since the psalm opens and closes extolling the supreme majesty of God's name 'in all the earth', before whose creation of the stars and planets human beings are infinitesimally small (3–4). If God's kingly rule exalts the human creature so highly, does this not suggest that humanity's leadership within nature should echo this pattern of active concern for the interests of those under our rule?

In Psalm 104, humans are but one of the many works of God and no mention is made of any privilege or authority with regards to other creatures. God has made plants for people to cultivate so that they may produce wine, oil and bread to sustain and gladden their hearts (14–15). Yet God also provides running water for donkeys, trees for nesting birds, rain for the soil, grass for cattle, and mountains for goats and hyrax. The psalmist chooses to spend three stanzas (20–22) describing creatures that live and eat by night and only one stanza (23) on humans who work by daylight. The world of Psalm 104 is anything but anthropocentric. Yet, neither is the psalm ecocentric. The earth does not belong to any or all created species. It belongs in its totality to God, a God who provides for all creatures and rejoices in all his works (31). The natural world is to provide for all species and, by implication, its riches are to be shared by all, not accumulated by one at the expense of all others.

God's wisdom in creation

In the Old Testament Wisdom literature, wisdom arises out of the 'fear of the Lord' (Proverbs 9:10) and a close study of the world. This examination of the world around us includes the natural world: witness Solomon's nature-based wisdom (1 Kings 4:33) and Proverbs' injunction to observe wise but small creatures such as ants (Proverbs 30:24–28).

Job 38–41 is the longest passage in the Bible about creation, with a particular focus on phenomena and creatures beyond human understanding and control. God mocks Job's, and humanity's, inability to comprehend the scale and scope of nature's vastness. God delights in wild, weird and wonderful creatures: the lion, raven, mountain goat, wild ass (onager), wild ox (auroch), ostrich, warhorse, hawk or vulture, Behemoth and Leviathan (perhaps respectively hippopotamus and crocodile). Some of these species threaten human life; others live beyond the orbit of human concerns; even the warhorse, used by humanity, cannot be controlled. Job 38:25–27 is explicit that God's purposeful action extends beyond providing natural resources for humanity's use, watering and providing grazing 'on a land where no one lives, on the desert, which is empty of human life'. The world is overseen and cared for by God, who takes interest and delight in creatures and happenings that, from a human perspective, appear irrelevant or even threatening.

Noah and the place of stewardship

The Noah account in Genesis 6–9 deserves more serious theological attention than it has often received. It reveals a God who cares not only about the salvation of human beings but who is passionate about biodiversity conservation. The ship of salvation contains four pairs of humans, up to seven pairs of some species, and at least one breeding pair of each, 'So that their kind might continue upon the earth' (Genesis 7:1–4). In other words all these creatures, including presumably those that were unclean, harmful, or irrelevant to human beings, have value rooted in how God sees them. This ancient text cuts across contemporary conservationists' talk of 'natural capital', 'ecosystem services', and 'putting a price on nature', all of which are based on instrumental value and economic viability. From Noah we learn that the value of the creatures resides neither in their value to humanity nor in some absolute intrinsic value. Their value, as with the value of every human being, is contingent. It lies in terms of their importance to God.

The safe arrival of the ark establishes a tension in the relationship between humans and other creatures. On the one hand, in a sinful post-diluvian world, God declares that animal-kind will now 'fear and dread' humans and that all creatures 'are given into your hands' (Genesis 9:2–3). Human stewardship of a fallen world is in the context of

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fear, suffering, and broken relationships; the integrity of the natural order created by God is marred by the effects of human sin. Yet God’s covenant confirmed in the sign of the rainbow gives new hope for all creatures on the ark. God’s everlasting redemptive covenant is not only with people but also — as Genesis 9 states repeatedly — with ‘all living creatures of every kind’ (‘clean’ or ‘unclean’), even with the earth itself (Genesis 9:13). There is hope for animals and even the earth itself in God’s ultimate purposes.

The New Testament and creation
Although the New Testament says less about animals and their place in God’s purposes, to conclude that the Bible’s concern for the natural world disappears with Jesus would be mistaken. Firstly, the New Testament does not destroy but fulfils and builds upon the Old: the covenant with Noah was an everlasting covenant and remains intact.

Secondly, Jesus’ parables, his references to fig trees, foxes and flowers, arise from and model a deep attentiveness to the natural world. He urged the disciples to ‘consider’ the birds and flowers (Matthew 6:25–34); as Luther put it, ‘Let the birds be your schoolmasters.’ Moreover, in the wilderness Jesus is described as being ‘with the wild animals’ (Mark 1:13), which Richard Bauckham argues probably references Isaiah 11’s vision of the peaceful Kingdom and ‘indicates Jesus’ peaceable presence with the animals’.23

Thirdly, Christ’s death and resurrection not only demonstrate God’s grace in the redemption of human beings, but also encompass the restoration of a broken creation. Colossians 1:15–20 and Romans 8:19–28 are amongst several Pauline passages which make explicit the continuity between God’s work in creation and consummation. All things, people and animals, were made very good, have been damaged by sin, are included in the scope of Christ’s reconciling work on the cross, and can potentially be incorporated in the final renewal and reintegration of heaven and earth. On the role of redeemed humanity within God’s purposes, as N. T. Wright says, ‘The whole creation is waiting in eager longing … for God’s children to be revealed: in other words, for the unveiling of those redeemed humans through whose stewardship creation will at last be brought back into that wise order for which it was made.’24

Fourthly, the biblical vision of new creation incorporates human and animal life (Isaiah 11:6–9, 65:17–25; Hosea 2:14–23) in harmonious coexistence. Wolves, lambs, leopards, goats, calves, lions, cows, bears, snakes and small children are pictured living side-by-side in peace. It is described as a ‘holy mountain’ (Isaiah 11 and 65), a concept that continues in Revelation 21:14–23 and Romans 5:17: ‘The whole creation is waiting in eager longing for God’s children to be revealed: in other words, for the unveiling of those redeemed humans through whose stewardship creation will at last be brought back into that wise order for which it was made.’


Environmental concerns need not dilute Christian priorities in evangelism, loving our neighbours and seeking justice for the poor.

Christians should work with others to seek ways of living which give witness to a sustainable and biodiverse future for God’s world.

23 Richard Bauckham, Living with Other Creatures: Green Exegesis and Theology, Waco, TX: Baylor University Press, 2011, p.76.
24 Ibid p.213.
25 Ibid p.177.

Conclusion: principles and practical applications
A key finding of this paper is that a biblical response to the crisis of biodiversity loss will be essentially theocentric rather than anthropocentric or ecocentric. Such a perspective avoids both ecolatry (eco-idolatry) and ecophobia (fear of ecological concerns). The Bible, from Genesis to Revelation, reveals that God’s purposes for humanity must be seen within the context of God’s care and concern for every living creature. The implications are far-reaching for a range of issues affecting animals, including their use for food, in scientific research, in hunting and as pets. This paper, however, focuses on the Bible and biodiversity, and concludes with biblical principles based on the material discussed:

1. This world and all its creatures (human and non-human) belong to God and exist to bring glory to God.

2. The value and purpose of every species derives from God alone, and is tied to God’s plans in creation, covenant, redemption and reconciliation.
3. Species have value independently of their usefulness to humanity, so ecological decisions should not be made on anthropocentric or economic grounds alone.

4. Every species matters, irrespective of its usefulness to humanity. Avoidable extinctions damage the integrity of God’s world, erase something of God’s self-revelation in creation, and silence elements of creation’s worship of God.26

5. Humanity has a divine vocation in reflecting God’s character towards the animal kingdom through encouraging the flourishing of biodiversity and resisting its depletion. This is both a missional task to be fostered as a special vocation for some, and part of the wider calling of all Christ’s disciples.

6. In an age of ecological depletion, Christianity offers ultimate hope both for people and biodiversity, rooted in the redeeming work of Christ for all creation.

Evangelical Christians urgently need to recover a biblical vision of caring for other creatures. Early evangelicals including Wesley, Spurgeon, Wilberforce, Shaftesbury and Carey were each active in animal welfare or conservation.27 Their examples demonstrate that environmental concerns need not dilute Christian priorities in evangelism, loving our neighbours and seeking justice for the poor. Rather, an integral biblical worldview loves and cares for everything that God created and sustains in love and is included in Christ’s redeeming work. If, as the Lausanne Movement’s Cape Town Commitment states, creation care is ‘a gospel issue within the Lordship of Christ’,28 it cannot be ignored or marginalised but must be fully integrated into Christian discipleship and mission. This includes challenging the idols of consumerism and materialism which not only drive species towards extinction, but exploit the poor and damage us spiritually. It means recognising that our resource use, energy consumption, food ethics, and purchasing power all need to become subject to the Lordship of Christ. In all these areas, Christians should work with others to seek ways of living which give witness to a sustainable and biodiverse future for God’s world. As evangelicals recover their lost heritage in witnessing to a biblically theocentric worldview and supporting practical initiatives for biodiversity conservation,29 they will discover that Christ’s Lordship is proclaimed, and creation’s worship is magnified as everything that has breath praises the Lord.

26 In some cases, of course, species threaten human welfare (e.g. malaria-carrying mosquitoes) or the balance of particular ecosystems (e.g. invasive introduced species) and we have noted the existence of background rates of extinction. So, while the concept of ‘avoidable extinctions’ requires some unpacking, and nuanced, it would take another paper to do justice to that topic.


29 Currently, A Rocha is ploughing a lonely furrow as an evangelical biodiversity conservation organisation participating in secular conservation debate and action.

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