



DEBATE PACK

Number CDP 2016/0198, 28 October 2016

Global Biodiversity

This pack has been prepared ahead of the debate on global biodiversity, to be held in Westminster Hall on Tuesday 1 November 2016 at 2.30pm. The Member in charge of this debate is Dame Caroline Spelman MP.

The House of Commons Library prepares a briefing in hard copy and/or online for most non-legislative debates in the Chamber and Westminster Hall other than half-hour debates. Debate Packs are produced quickly after the announcement of parliamentary business. They are intended to provide a summary or overview of the issue being debated and identify relevant briefings and useful documents, including press and parliamentary material. More detailed briefing can be prepared for Members on request to the Library.

Oliver Bennett
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1. News Items

BBC News

World's largest marine protected area declared in Antarctica

Matt McGrath 28 October 2016

<http://www.bbc.co.uk/news/science-environment-37789594>

Guardian

World on track to lose two-thirds of wild animals by 2020, major report warns

Damian Carrington 27 October 2016

<https://www.theguardian.com/environment/2016/oct/27/world-on-track-to-lose-two-thirds-of-wild-animals-by-2020-major-report-warns>

Farming UK

Scientists believe crucial food sources in danger of extinction due to climate change

30 September 2016

https://www.farminguk.com/news/Scientists-believe-crucial-food-sources-in-danger-of-extinction-due-to-climate-change_44322.html

Independent

Eighty per cent of the world's most precious habitats are unprotected, experts warn

Charlotte England 3 September 2016

<http://www.independent.co.uk/news/world/national-parks-environment-endangered-species-habitats-deforestation-climate-change-key-areas-a7223686.html>

Guardian

Biodiversity is below safe levels across more than half of world's land – study

Adam Vaughan 14 July 2016

<https://www.theguardian.com/environment/2016/jul/14/biodiversity-below-safe-levels-across-over-half-of-worlds-land-study>

Nature

Global biodiversity report warns pollinators are under threat

Natasha Gilbert 26 February 2016

<http://www.nature.com/news/global-biodiversity-report-warns-pollinators-are-under-threat-1.19456>

2. Press releases

Foreign & Commonwealth Office

UK set to protect 4 million square kilometres of ocean

15 September 2016

Foreign Office Minister announces significant increase in UK Overseas Territory Marine Protected Areas.

The announcement will protect help preserve important marine life

Foreign Office Minister Sir Alan Duncan will today announce plans to double the area of ocean under marine protection around the UK Overseas Territories to around 4 million square kilometres – greater than the landmass of India.

This will involve the permanent closure of an additional 1 million square kilometres of ocean to commercial fishing, to preserve important marine life.

The UK will pledge £20 million over the next four years to support the implementation, management, surveillance and crucially the enforcement of these new Marine Protected Areas (MPAs).

Speaking ahead of the conference, Sir Alan Duncan said:

Protecting 4 million square kilometres of ocean is a fantastic achievement, converting our historic legacy into modern environmental success. This demonstrates our commitment to delivering the Blue Belt pledge.

Hosted by US Secretary of State John Kerry, the 2-day Our Ocean conference will bring together governments, scientists, business leaders and NGOs from around the world to tackle threats to the ocean, including from marine pollution and the climate.

The UK and the Overseas Territories are custodians to the fifth-largest marine estate in the world. In 2015 the UK government committed to creating a 'Blue Belt' around the 14 UK Overseas Territories.

Note to editors:

- The announcements include the designation of protected areas around St Helena and Pitcairn and a commitment to designate marine protection zones around Ascension by 2019 and Tristan da Cunha by 2020.
- St. Helena's 444,916km² maritime environment is home to over forty endemic species and supports a diverse array of marine life including whale sharks, humpbacks and turtles.
- Ascension Island's 445,390km² maritime environment hosts globally important biodiversity, including the largest green turtle rookery in the Atlantic. At least half of this area will be permanently closed to commercial fishing by 2019.

- At 750,510km², Tristan da Cunha's future protected area will be the largest in the South Atlantic. It will also surround Gough Island – a UNESCO World Heritage Site and home to the Northern Rockhopper penguin and the Tristan albatross.
- The Pitcairn Islands host a marine environment covering around 840,000 km². Pitcairn's waters provide an exceptionally well preserved ecosystem of corals and species of fish, some of which are found nowhere else on earth. The new MPA will permanently close this entire area to commercial fishing.
- In 2013, South Georgia & the South Sandwich Islands (SGSSI) declared a sustainable use MPA across more than 1 million km².

[\[link to speech\]](#)

Imperial College

Protected areas do benefit a wide range of species

by [Hayley Dunning](#) 28 July 2016

Global protected areas for conservation do help species, despite doubts over management and effectiveness, a huge new study reveals.

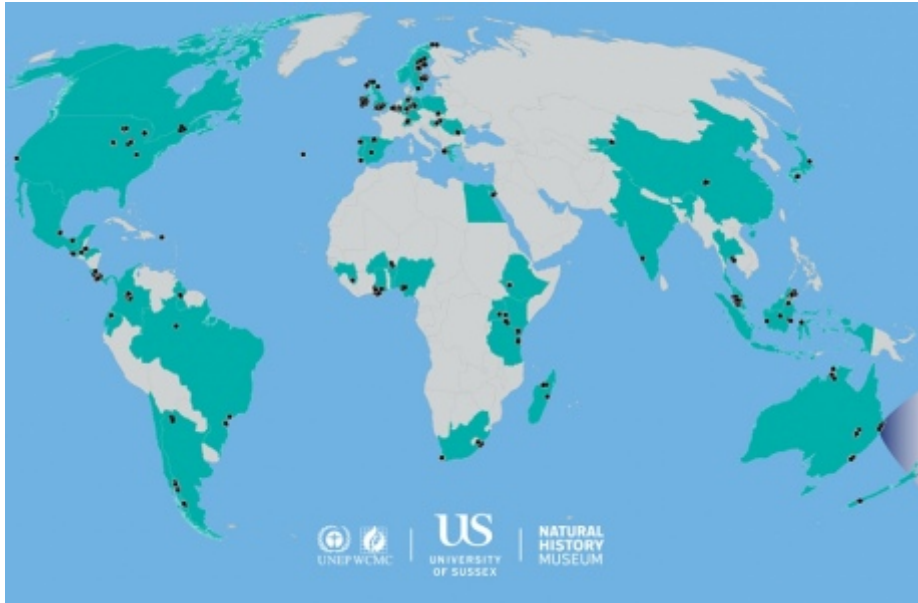
Protected areas refer to regions that are dedicated to conservation and receive protection because of their ecological value. There are more than 161,000 protected areas worldwide, but the exact management of each depends on the resources available and the pressures faced by local governments.

Previous studies have shown declines in numbers of plants and animals within some protected areas and others suggest a significant number of protected areas are ineffective.

The new research was carried out by using a global biodiversity database called [PREDICTS](#), which contains data for over one percent of all known plant and animal species and spans 48 countries and 101 ecoregions - the most comprehensive biodiversity sample of terrestrial protected areas to ever be examined.

Scientists analysed biodiversity surveys taken from 359 protected areas - 1,939 sites inside the areas and 4,592 sites outside. They discovered that the samples inside protected areas contain 15 percent more individuals and 11 percent more species compared to samples from unprotected sites.

The species that benefitted were from a wide range of groups, including plants, mammals, birds and insects.



Map of protected areas globally

The study, published today in the journal *Nature Communications*, was led by the University of Sussex and includes researchers from Imperial College London, the Natural History Museum and the UNEP – World Conservation Monitoring Centre.

Protected areas currently cover 15 percent of the global land surface and 1.7 percent of the ocean, with global targets to expand the network by 2020 looking to be met.

Study co-author Dr Jörn Scharlemann, from the University of Sussex, said: "Protected areas are widely considered essential for biodiversity conservation, but our results show for the first time that they do actually benefit a wide range of species. Our results reinforce recent commitments by governments for increased support and recognition of the importance of protected areas worldwide."

From the study, scientists also discovered protection is most effective when human use of land for crops, pasture and plantations is minimised. The results suggest that better management across the existing protected area network could more than double its effectiveness.

Previous studies of protected areas have relied on satellite images to look at changes in forest cover, but the PREDICTS database gathers information collected on the ground by hundreds of scientists worldwide.

Study co-author Professor Andy Purvis from the Department of Life Sciences at Imperial and the Natural History Museum said: "This study shows how important questions in conservation biology can be tackled by joining forces.

"Hundreds of scientists from dozens of countries have generously shared their hard-earned data with us. Each one of those data sets is

like a piece of a jigsaw: the overall picture only becomes clear when you have all the pieces and can put them together.”

This work was funded by the School of Life Sciences at the University of Sussex and the UK’s Natural Environment Research Council (NERC). This is a contribution from the Imperial College Grand Challenges in Ecosystem and the Environment Initiative, and the Sussex Sustainability Research Program.

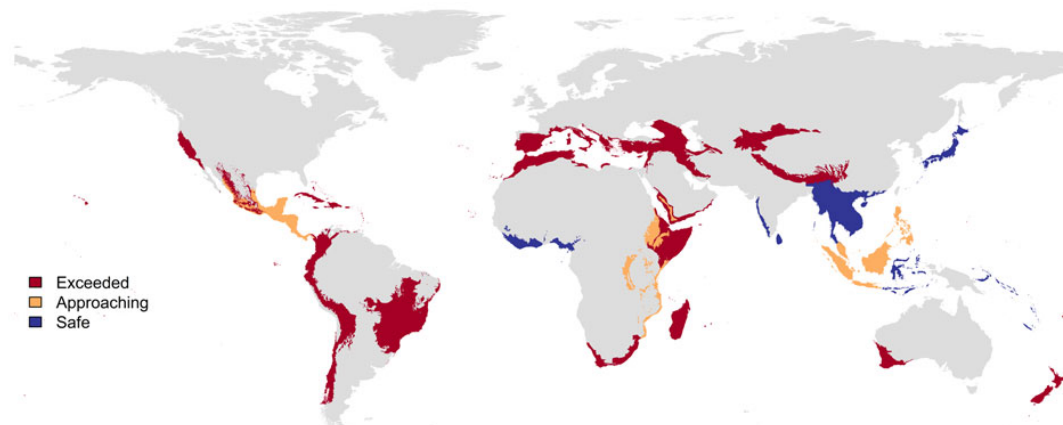
[‘Local biodiversity is higher inside than outside terrestrial protected areas worldwide’](#) by Claudia L. Gray et al is published in *Nature Communications*.

University College London

Biodiversity falls below ‘safe levels’ globally

14 July 2016

Levels of global biodiversity loss may negatively impact on ecosystem function and the sustainability of human societies, according to UCL-led research.



“This is the first time we’ve quantified the effect of habitat loss on biodiversity globally in such detail and we’ve found that across most of the world biodiversity loss is no longer within the safe limit suggested by ecologists” explained lead researcher, Dr Tim Newbold from UCL and previously at UNEP-WCMC.

“We know biodiversity loss affects ecosystem function but how it does this is not entirely clear. What we do know is that in many parts of the world, we are approaching a situation where human intervention might be needed to sustain ecosystem function.”

The team found that grasslands, savannas and shrublands were most affected by biodiversity loss, followed closely by many of the world’s forests and woodlands. They say the ability of biodiversity in these areas to support key ecosystem functions such as growth of living organisms and nutrient cycling has become increasingly uncertain.

The study, published today in *Science*, led by researchers from UCL, the Natural History Museum and UNEP-WCMC, found that levels of biodiversity loss are so high that if left unchecked, they could undermine efforts towards long-term sustainable development.

For 58.1% of the world's land surface, which is home to 71.4% of the global population, the level of biodiversity loss is substantial enough to question the ability of ecosystems to support human societies. The loss is due to changes in land use and puts levels of biodiversity beyond the 'safe limit' recently proposed by the [planetary boundaries](#) – an international framework that defines a safe operating space for humanity.

"It's worrying that land use has already pushed biodiversity below the level proposed as a safe limit," said Professor Andy Purvis of the Natural History Museum, London, who also worked on the study. "Decision-makers worry a lot about economic recessions, but an ecological recession could have even worse consequences – and the biodiversity damage we've had means we're at risk of that happening. Until and unless we can bring biodiversity back up, we're playing ecological roulette."

The team used data from hundreds of scientists across the globe to analyse 2.38 million records for 39,123 species at 18,659 sites where are captured in the database of the [PREDICTS project](#). The analyses were then applied to estimate how biodiversity in every square kilometre land has changed since before humans modified the habitat.

They found that biodiversity hotspots – those that have seen habitat loss in the past but have a lot of species only found in that area – are threatened, showing high levels of biodiversity decline. Other high biodiversity areas, such as Amazonia, which have seen no land use change have higher levels of biodiversity and more scope for proactive conservation.

"The greatest changes have happened in those places where most people live, which might affect physical and psychological wellbeing. To address this, we would have to preserve the remaining areas of natural vegetation and restore human-used lands," added Dr Newbold.

The team hope the results will be used to inform conservation policy, nationally and internationally, and to facilitate this, have made the maps from this paper and all of the underlying data publicly available.

Links

- [Research paper in *Science*](#)
- [Dr Tim Newbold's academic profile](#)
- [UCL Genetics, Evolution & Environment](#)

Image

Hotspot biodiversity safe limits (credit: Tim Newbold, UCL)

3. Parliamentary Material

3.1 Ministerial Statement

[December Environment Council](#)

Department for Environment, Food and Rural Affairs

12 January 2016 HCWS462

Rory Stewart (Parliamentary Under Secretary of State for Environment and Rural Affairs)

<http://www.parliament.uk/written-questions-answers-statements/written-statement/Commons/2016-01-12/HCWS462>

3.2 Debate in the House of Lords on World Biodiversity

24 November 2015 HLDeb 767 GC126

Asked by Lord Blencathra:(Con):

To ask Her Majesty's Government what steps they are taking to tackle the loss of world biodiversity caused by human activity.

My Lords, the matters that I wish to discuss today are largely taken from the excellent report by the IUCN Red List. By sheer coincidence, the latest list was published last Friday. It states that because of the melting ice at the North Pole, polar bear populations were expected to decline by 30%, confirming their vulnerable status. That was the headline announcement from the IUCN last week.

So, what is the IUCN and its Red List? The International Union for Conservation of Nature and Natural Resources is the world's oldest and largest global environmental organisation, with almost 1,300 government and NGO members and more than 15,000 volunteer experts in 185 countries. Their work is supported by almost 1,000 staff in 45 offices and hundreds of partners in the public, NGO and private sectors around the world. Of crucial importance is the fact that it is absolutely neutral; no one has ever challenged its findings or criticised its integrity. It is the most respected and thorough conservation organisation in the world and is free from political or personal bias.

The Red Lists are the most comprehensive sources on the global conservation status of animals, fungi and plant species. They are the starting point for conservation action. By 2000 the IUCN had assessed slightly more than 15,000 species. By 2015 it had assessed 79,859 species, and it has set itself the ambitious target of 160,000 species by 2020. The assessments are carried by a global network of scientists who

have access to the best scientific data and knowledge available on the species being assessed. Each assessment then goes through a review process involving scientists who were not directly involved in the first assessment. (Debate continues).

<http://www.publications.parliament.uk/pa/ld201516/ldhansrd/text/151124-gc0001.htm#15112467000093>

3.3 Paris Climate Change Conference

19 Nov 2015 : Col 856 876

Debate extract mentioning biodiversity:

Rebecca Pow (Taunton Deane) (Con): I too welcome this cross-party debate. It is essential that we work together not just nationally, but internationally, as so many of my colleagues have said. Climate change is bigger than the internal political debate. It was my work over many years as a television environment correspondent that really put climate change on my radar, which is why I wanted to speak in today's debate. It showed me that tackling this issue is pivotal to the future of the planet.

I congratulate the hon. Member for Bishop Auckland (Helen Goodman) on securing this debate, but we should also be praising the Pope for focusing on this issue in his encyclicals. It is the Pope who has raised the issue of climate change and its inextricable links to poverty, as mentioned earlier, and that has put the issue right at the top of the agenda—and amen to that. As a good convent girl, although not a Catholic, I know that when the Pope speaks, we listen.

Speaking as a member of the Environmental Audit Committee, I am heartened that the Pope has made the direct link between climate change and the sustainability of the planet. If we do not tackle climate change, the biodiversity of our environment will be in jeopardy, and if we do not look after our land, our soil and our water for the long term, not the short term, we will not be able to feed the population. There will be increased famine and floods, our natural world will be decimated, and we will head for environmental disaster. There is no beating about the bush on this.

By setting a new set of sustainable development goals running until 2030, I am pleased to say that the UN has recognised that we must act in this area. I am also pleased that we have a 25-year environment strategy right here in

the Department for Environment, Food and Rural Affairs, in which climate change is firmly embodied. I shall press to ensure that we have a firm strategy for putting that into place. Lord Krebs, chairman of the Climate Change Committee, specifically highlighted that recently in a sustainability conference. I am confident that our Government are taking this on board.

<http://www.publications.parliament.uk/pa/cm201516/cmhan/srd/cm151119/debtext/151119-0002.htm#15111928000548>

3.4 Parliamentary Questions

Overseas Territories Joint Ministerial Council Column 537 3 Dec 2015 :

Asked by Oliver Colvile (Plymouth, Sutton and Devonport) (Con):

As the Minister knows, the Chancellor announced in the March Budget that the waters around the Pitcairn Islands would be a marine protected area, something in which Plymouth Marine Laboratory, the university and the Marine Biological Association take a great deal of interest. Will my hon. Friend explain how this process is moving forward, so that other overseas territories are able to consider becoming marine conservations areas, too?

Answered by the Parliamentary Under-Secretary of State for Foreign and Commonwealth Affairs (James Duddridge):

Marine biodiversity around overseas territories is enormous. In fact, a large percentage of global biodiversity, on both land and sea, is in and around the overseas territories. The Pitcairn Islands provide a strong example of how a marine protection area can work. There are similar investigations on Ascension Island. We are working collaboratively with other territories to consider how this scheme might be extended. It was in the Conservative party manifesto to extend a blue belt across the overseas territories. In reality, I think that will mean a different type of solution for some islands, but this issue is discussed every time we meet and every time we meet we make further progress in protecting biodiversity.

Developing Countries: Biodiversity

PQ 8337-8

Asked by Barry Gardiner: To ask the Secretary of State for International Development, what her Department's total spending on projects to improve or conserve biodiversity was in (a) 2010-11, (b) 2011-12, (c) 2012-13, (d) 2013-14

and (e) 2014-15; and what such spending is expected to be in each of the next five years.

Answered by Grant Shapps Secretary of State for International Development

07 September 2015

DFID funding focused on biodiversity was £29.1 million in 2010-11, £20.6 million in 2011-12, £18.3 million in 2012-13 and £35.1 million in 2013-14. This includes our relevant contributions to the Global Environment Facility. Data for 2014/15 and 2015/16 will be published once available.

DFID has also transferred £5.5 million per annum since 2011 to DEFRA for the Darwin Initiative. This is not accounted for in the above numbers.

Future funding levels for biodiversity will be determined as part of the current Spending Review process.

<http://www.parliament.uk/business/publications/written-questions-answers-statements/written-question/Commons/2015-07-21/8337/>

Biodiversity: PQ 8096-7

Asked by Albert Owen: To ask the Secretary of State for Environment, Food and Rural Affairs, if she will publish a 25-year plan to restore biodiversity in the UK that includes (a) the biodiversity of the UK Overseas Territories and (b) an impact assessment on the effect of UK production and consumption on biodiversity in other countries.

Answered by: Rory Stewart

07 September 2015

The Government is developing a 25 year environment plan for England, which will include biodiversity. Biodiversity policy is a devolved matter but we will continue to talk to the devolved administrations throughout the development of the plan, including through the Four Countries Biodiversity Group.

UK Overseas Territory (OT) Governments are constitutionally responsible for the protection and conservation of their natural environments. The Government cherishes the environmental assets of the OTs and we work with the Territory Governments to provide the support needed to

ensure these are maintained. The 2012 White Paper on the UK's OTs "Security, Success and Sustainability" and the UK Overseas Territories Biodiversity Strategy are key tools in achieving this. The Government hopes to provide its next report on its activity to support this strategy in the autumn.

We have studied the evidence about displacement of environmental impacts associated with a global economy and this will be considered as part of our work to develop the 25 year environment plan. The Government already works to reduce the effect of UK production and consumption on the environment, for example through specific policies which promote the sustainable production and trade of palm oil, timber and woodfuel, thereby reducing the impact of their production on biodiversity in other countries.

Grouped Questions: [8096-7](#)

<http://www.parliament.uk/business/publications/written-questions-answers-statements/written-question/Commons/2015-07-20/8097/>

4. Aichi Biodiversity Targets

Strategic Plan for Biodiversity 2011-2020, including Aichi Biodiversity Targets

<https://www.cbd.int/sp/>

In decision X/2, the tenth meeting of the Conference of the Parties, held from 18 to 29 October 2010, in Nagoya, Aichi Prefecture, Japan, adopted a revised and updated Strategic Plan for Biodiversity, including the Aichi Biodiversity Targets, for the 2011-2020 period.

This plan provides an overarching framework on biodiversity, not only for the biodiversity-related conventions, but for the entire United Nations system and all other partners engaged in biodiversity management and policy development.

Parties agreed to translate this overarching international framework into revised and updated national biodiversity strategies and action plans within two years. Additionally, in decision X/10, the Conference of the Parties decided that the fifth national reports, due by 31 March 2014, should focus on the implementation of the 2011-2020 Strategic Plan and progress achieved towards the Aichi Biodiversity Targets.

Some examples of the Aichi Biodiversity Targets are:

- At least halve and, where feasible, bring close to zero the rate of loss of natural habitats, including forests
- Establish a conservation target of 17% of terrestrial and inland water areas and 10% of marine and coastal areas
- Restore at least 15% of degraded areas through conservation and restoration activities
- Make special efforts to reduce the pressures faced by coral reefs

Global Biodiversity Outlook 2014: A mid-term assessment of progress towards the implementation of the Strategic Plan for Biodiversity 2011-2020

<https://www.cbd.int/gbo/gbo4/publication/gbo4-en.pdf>

Key messages

There has been significant progress towards meeting some components of the majority of the Aichi Biodiversity Targets. Some target components, such as conserving at least 17 per cent of terrestrial and inland water areas, are on track to be met. However, in most cases this progress will not be sufficient to achieve the targets set for 2020, and additional action is required to keep the Strategic Plan for Biodiversity 2011–2020 on course. Key potential actions for accelerating progress towards each target are listed below.

Extrapolations for a range of indicators suggest that based on current trends, pressures on biodiversity will continue to increase at least until 2020, and that the status of biodiversity will continue to decline. This is despite the fact that society's responses to the loss of biodiversity are increasing dramatically, and based on national plans and commitments are expected to continue to increase for the remainder of this decade. This may be partly due to time lags between taking positive actions and discernable positive outcomes. But it could also be because responses may be insufficient relative to pressures, such that they may not overcome the growing impacts of the drivers of biodiversity loss.

Each of the Aichi Biodiversity Targets cannot be tackled in isolation, as some targets are strongly dependent on other targets being achieved. Actions towards certain targets will have an especially strong influence on the achievement of the rest. In particular there are targets relating to addressing the underlying causes of biodiversity loss (generally those targets under Strategic Goal A), developing national frameworks for implementing the Aichi Biodiversity Targets (Target 17), and mobilizing financial resources (Target 20).

Meeting the Aichi Biodiversity Targets would contribute significantly to broader global priorities addressed by the post-2015 development agenda; namely, reducing hunger and poverty, improving human health, and ensuring a sustainable supply of energy, food and clean water. Incorporating biodiversity into the sustainable development goals, currently under discussion, provides an opportunity to bring biodiversity into the mainstream of decision-making.

Plausible pathways exist for achieving the 2050 vision for an end to biodiversity loss, in conjunction with key human development goals, limiting climate change to two degrees Celsius warming and combating desertification and land degradation.

However, reaching these joint objectives requires changes in society, including much more efficient use of land, water, energy and materials, rethinking our consumption habits and in particular major transformations of food systems.

Analysis of the major primary sectors indicates that drivers linked to agriculture account for 70 per cent of the projected loss of terrestrial biodiversity. Addressing trends in food systems is therefore crucial in determining whether the Strategic Plan for Biodiversity 2011–2020 will succeed. Solutions for achieving sustainable farming and food systems include sustainable productivity increases by restoring ecosystem services in agricultural landscapes, reducing waste and losses in supply chains, and addressing shifts in consumption patterns.

5. Useful links and further reading

DEFRA *United Kingdom overseas territories biodiversity strategy* updated May 2014

<https://www.gov.uk/government/publications/uk-overseas-territories-biodiversity-strategy-update>

Joint Nature Conservation Commission *Interdepartmental Overseas Territories Biodiversity Group*.

<http://jncc.defra.gov.uk/default.aspx?page=4080>

UKOT Biodiversity data access project

<http://jncc.defra.gov.uk/default.aspx?page=5817>

Parliamentary Office of Science and Technology POSTnote 427 *Biodiversity in overseas territories* January 2013

<http://researchbriefings.files.parliament.uk/documents/POST-PN-427/POST-PN-427.pdf>

Blue Marine Foundation: *UK Overseas Territories*

<http://www.bluemarinefoundation.com/project/uk-overseas-territories/>

WWF *Living Planet Report* 2016

http://www.wwf.org.uk/sites/default/files/2016-10/LPR_2016_full%20report_spread%20low%20res.pdf?_ga=1.267371214.1564022059.1477654923

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