



Free Public Lecture Series, Autumn 2010

Seas for Life'

Our oceans, their future and their biodiversity

Reading list

This reading list is a simple 'paste-in' of suggestions made by the lecturers concerned.

** = downloadable from <http://www.bbk.ac.uk/environment/materials/ecss>

15 October 'Vulnerable ecosystems in the deep ocean and threats from human activities'

Professor Alex Rogers, Conservation Ecology, Dept. of Zoology, University of Oxford

Up-to-date report on the management of deep-sea fisheries on the high seas and impacts on vulnerable marine ecosystems:

Rogers AD, Gianni M (2010) *The Implementation of UNGA Resolutions 61/105 and 64/72 in the Management of Deep-Sea Fisheries on the High Seas*. Report prepared for the Deep-Sea Conservation Coalition. International Programme on State of the Ocean, London, United Kingdom, 97pp. Available <http://www.stateoftheocean.org>

Review papers on the biology of seamounts:

Clark MR, Rowden AA, Schlacher T, Williams A, Conalvey M, Stocks KI, Rogers AD, O'Hara TD,

White M, Shank TM, Hall-Spencer J (2010) The ecology of seamounts: structure, function and human impacts. *Annual Review of Marine Science* 2: 253-278.

Rogers AD (1994) The biology of seamounts. *Advances in Marine Biology* 30: 305-350.

General report on seamounts and threats from human activities:

Clark MR, Tittensor D, Rogers AD, Brewin P, Schlacher T, Rowden A, Stocks K, Conalvey M (2006) *Seamounts, deep-sea corals and fisheries: vulnerability of deep-sea corals to fishing on seamounts beyond areas of national jurisdiction*. UNEP-WCMC, Cambridge, UK. ISBN 978-92-807-2778-4, 80pp. Available UNEP WCMC website.

Review on the biology of cold-water corals – can be difficult to access:

Rogers AD (1999) The biology of *Lophelia pertusa* (Linnaeus 1758) and other deep-water reef-forming corals and impacts from human activities. *International Review of Hydrobiology* 84 (4): 315-406.

Paper on the long-lasting impacts of fishing on seamounts to the south of Australia:

Althaus, F., A. Williams, T. A. Schlacher, R. J. Kloser, M. A. Green, B. A. Barker, N. J. Bax, P. Brodie, M. A. Schlacher-Hoenlinger (2009) Impacts of bottom trawling on deep-coral ecosystems of seamounts are long-lasting. *Marine Ecology Progress Series* 397: 279-294.

Review paper on cold-water corals:

Roberts, J.M., Wheeler, A.J., Freiwald, A. (2006) Reefs of the deep: The biology and geology of cold-water coral ecosystems. *Science*, 312, 543-547.

Good general text on cold-water corals:

Roberts, J.M., Wheeler, A., Freiwald, A., *et al.* (2009) *Cold Water Corals: The Biology and Geology of Deep-Sea Coral Habitats*, 352pp., Cambridge University Press, Cambridge, U.K.

Review of human impacts on the deep ocean now and in the future:

Glover A.G. & Smith, C.R. (2003) The deep-sea floor ecosystem: current status and prospects for anthropogenic change by the year 2025. *Environmental Conservation* 30(3):219-241

22 October 'The Chagos Archipelago – What does the future hold?'

Rachel Jones, Deputy Team Leader, Aquarium, Zoological Society of London

The main background reference for the Chagos lecture is:

Sheppard, C.R.C. and Seaward, MR.D. (1999) The Ecology of the Chagos Archipelago. Linnean Society Occasional Publications 2. ISBN: 1 84103 003 1

There is a paper in press which is very useful reading in the context of Chagos MPA so I'll give you the ref even though it isn't published yet:

Koldewey, H., Gollock, M., Harding, S., Curnick, D., Harrison, L., Rogers, A. (in prep). Benefits to fisheries of the Chagos Archipelago/British Indian Ocean Territory as a no-take marine reserve.

The paper is currently being prepared for submission to *Marine Pollution Bulletin* and while we are glad to send through a copy of the paper upon request please let the students know that the file will not be available for public download. I don't know if it's worth adding it to the list - it may have been published by the time of the lecture. If not I can always bring a few copies along with me.

But I have also attached a series of Pdf's that are directly relevant to the material I will be covering **

22 October 'Lundy Island – an underwater jewel in the Bristol Channel; and the urgent need for British Marine Reserves'

Paul Biggin, Chairman, Marine Conservation Society South East Group

5/7 email received with 5 PDF files **

29 October 'Living Seas, The Wildlife Trusts' vision for marine conservation'

Kirsten Smith, North Sea Marine Advocacy Manager, Yorkshire Wildlife Trust, York

Background reading:

<http://www.northseawildlife.org.uk/>

<http://www.wildlifetrusts.org/index.php?section=environment:marine:sealife>

The wildlife trusts - living seas vision - <http://www.wildlifetrusts.org/index.php?section=environment:marine:ourwork>

5 November 'There's more to sea than water: plankton biodiversity and our changing world'

Professor Peter H Burkill, Director of SAHFOS, University of Plymouth

Books:

Biological Oceanography (2004) C B. Miller Blackwells Publishing ISBN 0-632-05536-7. Price £42.50

Biological Oceanography: An Introduction (2006) C M Lalli & T M Parsons Elsevier Publishing. ISBN 0-7506-3384-0. Price 38.99

Websites:

www.sahfos.ac.uk

www.noc.ac.uk

Journal Papers

See <http://www.tos.org/oceanography/issues/archive.html> for free online articles

12 November 'The great ocean conveyor belt; benevolent current system or sleeping monster?'

Dr Agatha De Boer, Ocean and Climate Scientist, University of East Anglia

- The best summary of a lot of the issues of the thermohaline circulation is in the IPCC working group 1 report available online at <http://www.ipcc-wg1.unibe.ch/publications/wg1-ar4/wg1-ar4.html>

See especially chapters 5 on current observations and chapter 10 on prediction and look for sub-headings related to the Meridional Overturning Circulation.

- The AGU monograph 173, 2007: "Ocean Circulation: Mechanisms and Impacts"
Editors: Andreas Schmittner, John Chiang and Signey Hemming

have many journal articles related to almost all aspects of the thermohaline circulation. It may be difficult to obtain online but sometimes the articles are on author webpages and perhaps the course organizers can scan or copy some.

For an more simplistic and easier book look for instance in "Invitation to Oceanography" by Paul R. Pinet from Jones and Bartlett Publishers, 1998. This is very much a 1st year beginner's book

That's probably enough (three books with one containing many up to date articles) but I can supply more if requested.

19 November 'Islands' in the abyss - exploring life at volcanic vents on the ocean floor'

Dr Jon Copley, School of Ocean & Earth Science, University of Southampton

I'm afraid can't recommend a specific up-to-date textbook as background reading; I'm actually in the process of writing one...

Similarly, most review papers are somewhat out-of-date; however, I would suggest Van Dover et al. (2002) *Science* 295: 1253-1257.