

DUMF1043 Earth System Science

Full reading list for Earth System Science on University of Glasgow Dumfries campus

View Online



1.

Kump, L.R., Kasting, J.F., Crane, R.G.: The earth system. Pearson, Harlow, Essex (2014).

2.

Holden, J., Dawson Books: An introduction to physical geography and the environment. Pearson, Harlow, Essex (2012).

3.

Diamond, J.M.: Collapse: how societies choose to fail or survive. Allen Lane (2005).

4.

Benn, D.I.: Glaciers and Glaciation. Arnold (1998).

5.

Bell, M.: Late Quaternary Environmental Change: physical and human perspectives. Prentice Hall (2005).

6.

Kump, L.R.: Chapter 2, Daisyworld An Introduction to Systems. In: The Earth System. Pearson (2014).

7.

Swindles, G.T., Morris, P.J., Mullan, D., Watson, E.J., Turner, T.E., Roland, T.P., Amesbury, M.J., Kokfelt, U., Schoning, K., Pratte, S., Gallego-Sala, A., Charman, D.J., Sanderson, N., Garneau, M., Carrivick, J.L., Woulds, C., Holden, J., Parry, L., Galloway, J.M.: The long-term fate of permafrost peatlands under rapid climate warming. *Scientific Reports*. 5, (2015). <https://doi.org/10.1038/srep17951>.

8.

NASA - Daisyworld - This World Is Black and White, <https://www.youtube.com/watch?v=sCxlqgZA7ag>, (18)AD.

9.

Daisyworld pt.1 : James Lovelock and Gaia, <https://www.youtube.com/watch?v=-gVERGaieng>, (2009).

10.

Daisyworld pt.2: Gaia and Daisyworld, <https://www.youtube.com/watch?v=1glQShSrK1I>, (2009).

11.

Daisyworld pt.3: Self regulation, https://www.youtube.com/watch?v=4_IszR3B8xl, (2009).

12.

Daisyworld Pt.4: Gaia theory and the real world, https://www.youtube.com/watch?v=4_IszR3B8xl, (2009).

13.

Lovelock, J.: *Gaia: a new look at life on earth*. Oxford University Press, Oxford (1982).

14.

Lovelock, J.: *The revenge of Gaia: why the earth is fighting back - and how we can still save*

humanity. Penguin, London (2007).

15.

Lovelock, J.: The vanishing face of Gaia: a final warning. Allen Lane, London (2009).

16.

NASA - Daisyworld - This World Is Black and White,
<https://www.youtube.com/watch?v=sCxlqgZA7ag>, (18)AD.

17.

Monastersky, R., Sousanis, N.: The fragile framework. *Nature*. 527, 427–435 (2015).
<https://doi.org/10.1038/527427a>.

18.

The explosive science of volcanoes and peat bogs | Bogology,
<http://bogology.org/2014/08/28/the-explosive-science-of-volcanoes-and-peat-bogs/>.

19.

A Robust Response of the East Asian Monsoon Rainband to Solar Variability | Musings on Quantitative Palaeoecology,
<https://quantpalaeo.wordpress.com/2015/02/01/a-robust-response-of-the-east-asian-monsoon-rainband-to-solar-variability/>.

20.

Animation: Satellite images of surging glaciers in Asia - Carbon Brief,
http://www.carbonbrief.org/animation-satellite-images-of-surging-glaciers-in-asia?utm_content=buffer98022&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer.

21.

How A Simple Truth Can Be A Most Effective Lie - Dan's Wild Wild Science Journal - AGU

Blogosphere,
<http://blogs.agu.org/wildwildscience/2015/12/06/half-the-truth-can-be-a-most-effective-lie/>.

22.

The Nitrogen Cascade, <https://www.youtube.com/watch?v=FCuuibZR6NQ>, (19)AD.

23.

The most influential climate change papers of all time - Carbon Brief,
<http://www.carbonbrief.org/the-most-influential-climate-change-papers-of-all-time>.

24.

Dessler, A.E.: A Determination of the Cloud Feedback from Climate Variations over the Past Decade. *Science*. 330, 1523–1527 (2010). <https://doi.org/10.1126/science.1192546>.

25.

Kump, L.R., Kasting, J.F., Crane, R.G., ProQuest (Firm): *The earth system*. Pearson, Harlow, Essex (2014).

26.

James Hansen: Why I must speak out about climate change | TED Talk | TED.com,
http://www.ted.com/talks/james_hansen_why_i_must_speak_out_about_climate_change.

27.

CERES Brochure, http://ceres.larc.nasa.gov/ceres_brochure.php.

28.

Brienen, R.J.W., Phillips, O.L., Feldpausch, T.R., Gloor, E., Baker, T.R., Lloyd, J., Lopez-Gonzalez, G., Monteagudo-Mendoza, A., Malhi, Y., Lewis, S.L., Vásquez Martínez, R.,

Alexiades, M., Álvarez Dávila, E., Alvarez-Loayza, P., Andrade, A., Aragão, L.E.O.C., Araujo-Murakami, A., Arets, E.J.M.M., Arroyo, L., Aymard C., G.A., Bánki, O.S., Baraloto, C., Barroso, J., Bonal, D., Boot, R.G.A., Camargo, J.L.C., Castilho, C.V., Chama, V., Chao, K.J., Chave, J., Comiskey, J.A., Cornejo Valverde, F., da Costa, L., de Oliveira, E.A., Di Fiore, A., Erwin, T.L., Fauset, S., Forsthofer, M., Galbraith, D.R., Grahame, E.S., Groot, N., Hérault, B., Higuchi, N., Honorio Coronado, E.N., Keeling, H., Killeen, T.J., Laurance, W.F., Laurance, S., Licona, J., Magnussen, W.E.: Long-term decline of the Amazon carbon sink. *Nature*. 519, 344–348 (2015). <https://doi.org/10.1038/nature14283>.

29.

Lisiecki, L.E., Raymo, M.E.: A Pliocene-Pleistocene stack of 57 globally distributed benthic δ O records. *Paleoceanography*. 20, n/a-n/a (2005). <https://doi.org/10.1029/2004PA001071>.

30.

Bell, M.: Late Quaternary environmental change: physical and human perspectives (Chapter 2). Prentice Hall (2005).

31.

Roberts, N.: Holocene: an environmental history. Wiley Blackwell, Chichester, England (2014).

32.

Mann, M.E., Zhang, Z., Hughes, M.K., Bradley, R.S., Miller, S.K., Rutherford, S., Ni, F.: Proxy-based reconstructions of hemispheric and global surface temperature variations over the past two millennia. *Proceedings of the National Academy of Sciences*. 105, 13252–13257 (2008). <https://doi.org/10.1073/pnas.0805721105>.

33.

Catalyst: Snowball Earth - ABC TV Science, <http://www.abc.net.au/catalyst/stories/2377133.htm>.

34.

Plant macrofossils, <http://mires-and-peat.net/pages/volumes/map07/map0706.php>.

35.

Oxygen Isotopes and the Paleoclimate Record,
<https://www.youtube.com/watch?v=YfRDNyB1XOY>, (16)AD.

36.

Oxygen Isotopes and the Paleoclimate Record,
<https://www.youtube.com/watch?v=YfRDNyB1XOY>, (16)AD.

37.

Kump, L.R., Kasting, J.F., Crane, R.G.: Chapter 14, Pliostocene Glaciations. In: The Earth System (Third Edition). Kump, Kasting, Crane. Pearson (2014).

38.

Milankovitch Tutorial,
<http://www.sciencecourseware.org/eec/GlobalWarming/Tutorials/Milankovitch/>.

39.

Swindles, G.T., Watson, E., Turner, T.E., Galloway, J.M., Hadlari, T., Wheeler, J., Bacon, K.L.: Spheroidal carbonaceous particles are a defining stratigraphic marker for the Anthropocene. *Scientific Reports*. 5, (2015). <https://doi.org/10.1038/srep10264>.

40.

James Balog: Time-lapse proof of extreme ice loss | TED Talk | TED.com,
http://www.ted.com/talks/james_balog_time_lapse_proof_of_extreme_ice_loss.

41.

Kjeldsen, K.K., Korsgaard, N.J., Bjørk, A.A., Khan, S.A., Box, J.E., Funder, S., Larsen, N.K., Bamber, J.L., Colgan, W., van den Broeke, M., Siggaard-Andersen, M.-L., Nuth, C., Schomacker, A., Andresen, C.S., Willerslev, E., Kjær, K.H.: Spatial and temporal distribution of mass loss from the Greenland Ice Sheet since AD 1900. *Nature*. 528, 396–400 (2015). <https://doi.org/10.1038/nature16183>.

42.

Are ice sheet losses overestimated?,
<http://www.skepticalscience.com/Are-ice-sheet-losses-overestimated.html>.

43.

Bamber, J.: Ice sheet modelling proves a slippery subject.

44.

GEF - Bhutan: Silent Tsunami, <https://www.youtube.com/watch?v=BexXgQakves>, (25)AD.

45.

Holden, J.: An introduction to physical geography and the environment. Pearson, Harlow, Essex (2012).

46.

MacGregor, J.A., Colgan, W.T., Fahnestock, M.A., Morlighem, M., Catania, G.A., Paden, J.D., Gogineni, S.P.: Holocene deceleration of the Greenland Ice Sheet. *Science*. 351, 590–593 (2016). <https://doi.org/10.1126/science.aab1702>.

47.

Holden, J.: Chapter 7: Soil and the Environment. In: An introduction to Physical geography and the Environment. Pearson Prentice Hall (2010).

48.

Brady, N.C.: The nature and properties of soils. Prentice Hall (1998).

49.

Welcome to the British Society of Soil Science | British Society of Soil Science,
<http://soils.org.uk/>.

50.

Bellamy, P.H., Loveland, P.J., Bradley, R.I., Lark, R.M., Kirk, G.J.D.: Carbon losses from all soils across England and Wales 1978–2003. *Nature*. 437, 245–248 (2005).
<https://doi.org/10.1038/nature04038>.

51.

Kump, L.R., Kasting, J.R., Crane, R.G.: Chapter 5, The Ocean Circulation. In: *The Earth System*. Pearson (2014).

52.

Cai, W., Santoso, A., Wang, G., Yeh, S.-W., An, S.-I., Cobb, K.M., Collins, M., Guilyardi, E., Jin, F.-F., Kug, J.-S., Lengaigne, M., McPhaden, M.J., Takahashi, K., Timmermann, A., Vecchi, G., Watanabe, M., Wu, L.: ENSO and greenhouse warming. *Nature Climate Change*. 5, 849–859 (2015). <https://doi.org/10.1038/nclimate2743>.

53.

Kump, L.R., Kasting, J.F., Crane, R.G.: Chapter 4. The Atmospheric Circulation System. In: *The Earth System*. Pearson (2014).