

BS3190: Climate Change: Plants and the Environment

View Online



1.

Morison, J.I.L., Morecroft, M.D.: Plant Growth and Climate Change. Blackwell, Oxford (2006).

2.

Morison, J.I.L., Morecroft, M.D.: Plant Growth and Climate Change. Blackwell, Oxford (2006).

3.

Wang, W., Vinocur, B., Altman, A.: Plant Responses to Drought, Salinity and Extreme Temperatures: Towards Genetic Engineering for Stress Tolerance. *Planta*. 218, 1-14 (2003). <https://doi.org/10.1007/s00425-003-1105-5>.

4.

Bohnert, H.J.: Abiotic Stress. In: *Encyclopedia of Life Sciences*. Wiley Interscience (2007). <https://doi.org/10.1002/9780470015902.a0020087>.

5.

Sreenivasulu, N.: Deciphering the Regulatory Mechanisms of Abiotic Stress Tolerance in Plants by Genomic Approaches. *Gene*. 388, 1-13 (2007). <https://doi.org/10.1016/j.gene.2006.10.009>.

6.

Midgley, G.F.: Plant Physiological Responses to Climate and Environmental Change. In: Encyclopedia of Life Sciences. Wiley Interscience (2017).
<https://doi.org/10.1002/9780470015902.a0003205.pub2>.

7.

Smirnoff, N.: Plant Stress Physiology. In: Encyclopedia of Life Sciences. Wiley Interscience (2014). <https://doi.org/10.1002/9780470015902.a0001297.pub2>.

8.

Cushman, J.C., Bohnert, H.J.: Genomic Approaches to Plant Stress Tolerance. *Current Opinion in Plant Biology*. 3, 117–124 (2000).
[https://doi.org/10.1016/S1369-5266\(99\)00052-7](https://doi.org/10.1016/S1369-5266(99)00052-7).

9.

Mittler, R.: Abiotic Stress, the Field Environment and Stress Combination. *Trends in Plant Science*. 11, 15–19 (2006). <https://doi.org/10.1016/j.tplants.2005.11.002>.

10.

Vinocur, B., Altman, A.: Recent Advances in Engineering Plant Tolerance to Abiotic Stress: Achievements and Limitations. *Current Opinion in Biotechnology*. 16, 123–132 (2005).
<https://doi.org/10.1016/j.copbio.2005.02.001>.

11.

Grover, A., Sahi, C., Sanan, N., Grover, A.: Taming Abiotic Stresses in Plants Through Genetic Engineering: Current Strategies and Perspective. *Plant Science*. 143, 101–111 (1999). [https://doi.org/10.1016/S0168-9452\(99\)00025-4](https://doi.org/10.1016/S0168-9452(99)00025-4).

12.

Ferguson, I.B.: The Plant Response: Stress in the Daily Environment. *Journal of Zhejiang University-SCIENCE A*. 5, 129–132 (2004). <https://doi.org/10.1007/BF02840912>.

13.

Mahajan, S., Tuteja, N.: Cold, Salinity and Drought Stresses: An Overview. *Archives of Biochemistry and Biophysics*. 444, 139–158 (2005).
<https://doi.org/10.1016/j.abb.2005.10.018>.

14.

Balbi, V., Devoto, A.: Jasmonate Signalling Network in *Arabidopsis Thaliana*: Crucial Regulatory Nodes and New Physiological Scenarios. *New Phytologist*. 177, 301–318 (2007).
<https://doi.org/10.1111/j.1469-8137.2007.02292.x>.

15.

Knight, H., Knight, M.R.: Abiotic Stress Signalling Pathways: Specificity and Cross-Talk. *Trends in Plant Science*. 6, 262–267 (2001).
[https://doi.org/10.1016/S1360-1385\(01\)01946-X](https://doi.org/10.1016/S1360-1385(01)01946-X).

16.

Singh, K.: Transcription Factors in Plant Defense and Stress Responses. *Current Opinion in Plant Biology*. 5, 430–436 (2002). [https://doi.org/10.1016/S1369-5266\(02\)00289-3](https://doi.org/10.1016/S1369-5266(02)00289-3).

17.

Latchman, D.S.: Transcription Factors. In: *Encyclopedia of Life Sciences*. Wiley Interscience (2007). <https://doi.org/10.1002/9780470015902.a0005278.pub2>.

18.

Mahajan, S., Tuteja, N.: Cold, Salinity and Drought Stresses: An Overview. *Archives of Biochemistry and Biophysics*. 444, 139–158 (2005).
<https://doi.org/10.1016/j.abb.2005.10.018>.

19.

Matys, V.: TRANSFAC(R): Transcriptional Regulation, From Patterns to Profiles. *Nucleic Acids Research*. 31, 374–378 (2003). <https://doi.org/10.1093/nar/gkg108>.

20.

Vinocur, B., Altman, A.: Recent Advances in Engineering Plant Tolerance to Abiotic Stress: Achievements and Limitations. *Current Opinion in Biotechnology*. 16, 123–132 (2005). <https://doi.org/10.1016/j.copbio.2005.02.001>.

21.

Zhu, J.-K.: Salt and Drought Stress Signal Transduction in Plants. *Annual Review of Plant Biology*. 53, 247–273 (2002). <https://doi.org/10.1146/annurev.arplant.53.091401.143329>.

22.

Bailey-Serres, J.: Waterproofing Crops: Effective Flooding Survival Strategies. *Plant Physiology*. 160, 1698–1709 (2012).

23.

C. Mariano Cossani, Reynolds, M.P.: Physiological Traits for Improving Heat Tolerance in Wheat. *Plant Physiology*. 160, 1710–1718 (2012).

24.

Ort, D.R., Ainsworth, E.: Focus on Climate Change. *Plant Physiology*. 160, 1675–1676 (2012).

25.

Pirkkala, L., Sistonen, L.: Heat Shock Proteins (HSPs): Structure, Function and Genetics. In: *Encyclopedia of Life Sciences*. Credo Reference (2006). <https://doi.org/10.1038/npg.els.0006130>.

26.

Camagna, M., Takemoto, D.: Hypersensitive Response in Plants. In: *Encyclopedia of Life Sciences*. Wiley Interscience (2018).

<https://doi.org/10.1002/9780470015902.a0020103.pub2>.

27.

Rietz, S., Parker, J.E.: Plant Disease and Defence. In: Encyclopedia of Life Sciences. Wiley Interscience (2007). <https://doi.org/10.1002/9780470015902.a0004036>.

28.

Corrion, A., Day, B.: Pathogen Resistance Signalling in Plants. In: Encyclopedia of Life Sciences. Wiley Interscience (2015). <https://doi.org/10.1002/9780470015902.a0020119.pub2>.

29.

Xiao, X., Kachroo, A.: Plant Defences Against Fungal Attack: Perception and Signal Transduction. In: Encyclopedia of Life Sciences. Wiley Interscience (2019). <https://doi.org/10.1002/9780470015902.a0003438.pub3>.

30.

Whitney, H.M., Glover, B.J.: Coevolution: Plant-Insect. In: Encyclopedia of Life Sciences. Wiley Interscience (2013). <https://doi.org/10.1002/9780470015902.a0001762.pub2>.

31.

Kessler, A.: Plant Defences against Herbivore Attack. In: Encyclopedia of Life Sciences. Wiley Interscience (2017). <https://doi.org/10.1002/9780470015902.a0001324.pub3>.

32.

Zhu, Z., Piao, S., Myneni, R.B.: Greening of the Earth and Its Drivers. *Nature Climate Change*. 6, 791–795 (2016). <https://doi.org/10.1038/nclimate3004>.

33.

Wullschlegel, S.D., Strahl, M.: Climate Change: A Controlled Experiment. *Scientific*

American. 302, 78–83 (2010).

34.

Midgley, G.F.: Plant Physiological Responses to Climate and Environmental Change. In: Encyclopedia of Life Sciences. pp. 1–12. Wiley Interscience (2001). <https://doi.org/10.1002/9780470015902.a0003205.pub2>.

35.

Long, S.P.: Food for Thought: Lower-Than-Expected Crop Yield Stimulation with Rising CO₂ Concentrations. *Science*. 312, 1918–1921 (2006). <https://doi.org/10.1126/science.1114722>.

36.

Sykes, M.T.: Climate Change Impacts: Vegetation. In: Encyclopedia of Life Sciences. Wiley Interscience (2009). <https://doi.org/10.1002/9780470015902.a0021227>.

37.

NASA: A Year in the Life of Earth's CO₂ | YouTube, <https://www.youtube.com/watch?v=x1SgmFa0r04>, (2014).

38.

Bonan, G.B.: Forests and Climate Change: Forcings, Feedbacks, and the Climate Benefits of Forests. *Science*. 320, 1444–1449 (2008).

39.

Brienen, R.J.W.: Long-Term Decline of the Amazon Carbon Sink. *Nature*. 519, 344–348 (2015). <https://doi.org/10.1038/nature14283>.

40.

Hemp, A.: Climate Change-Driven Forest Fires Marginalize the Impact of Ice Cap Wasting

on Kilimanjaro. *Global Change Biology*. 11, 1013–1023 (2005).
<https://doi.org/10.1111/j.1365-2486.2005.00968.x>.

41.

Kurz, W.A., Dymond, C.C., Stinson, G., Rampley, G.J., Neilson, E.T., Carroll, A.L., Ebata, T., Safranyik, L.: Mountain Pine Beetle and Forest Carbon Feedback to Climate Change. *Nature*. 452, 987–990 (2008). <https://doi.org/10.1038/nature06777>.

42.

Hungate, B.A., Stilling, P.D., Dijkstra, P., Johnson, D.W., Ketterer, M.E., Hymus, G.J., Hinkle, C.R., Drake, B.G.: CO₂ Elicits Long-Term Decline in Nitrogen Fixation. *Science*. 304, 1291–1291 (2004).

43.

Gibbard, S., Caldeira, K., Bala, G., Phillips, T.J., Wickett, M.: Climate Effects of Global Land Cover Change. *Geophysical Research Letters*. 32, (2005).
<https://doi.org/10.1029/2005GL024550>.

44.

Bala, G., Caldeira, K., Wickett, M., Phillips, T.J., Lobell, D.B., Delire, C., Mirin, A.: Combined Climate and Carbon-Cycle Effects of Large-Scale Deforestation. *UNT Digital Library*. 104, 6550–6555 (2007). <https://doi.org/10.1073/pnas.0608998104>.

45.

Naudts, K., Chen, Y., McGrath, M.J., Ryder, J., Valade, A., Otto, J., Luysaert, S.: Europe's Forest Management Did Not Mitigate Climate Warming. *Science*. 351, 597–600 (2016).
<https://doi.org/10.1126/science.aad7270>.

46.

Smetacek, V., Klaas, C., Strass, V.H., Assmy, P.: Deep Carbon Export From a Southern Ocean Iron-Fertilized Diatom Bloom. *Nature*. 487, 313–319 (2012).
<https://doi.org/10.1038/nature11229>.

47.

Griscom, B.W., Adams, J., Ellis, P.W., Houghton, R.A.: Natural Climate Solutions. *Proceedings of the National Academy of Sciences*. 114, 11645–11650 (2017).
<https://doi.org/10.1073/pnas.1710465114>.

48.

Birch, H.: Where the Ocean Meets the Sky,
<https://www.chemistryworld.com/feature/where-the-ocean-meets-the-sky/3004890.article>.

49.

Poorter, H., Navas, M.-L.: Plant Growth and Competition at Elevated CO₂: On Winners, Losers and Functional Groups. *New Phytologist*. 157, 175–198 (2003).
<https://doi.org/10.1046/j.1469-8137.2003.00680.x>.

50.

Liu, Y., Oduor, A.M.O., Zhang, Z., Manea, A., Tooth, I.M., Leishman, M.R., Xu, X., van Kleunen, M.: Do Invasive Alien Plants Benefit More From Global Environmental Change Than Native Plants? *Global Change Biology*. 23, 3363–3370 (2017).
<https://doi.org/10.1111/gcb.13579>.

51.

Schwartz, M.D., Ahas, R., Aasa, A.: Onset of Spring Starting Earlier Across the Northern Hemisphere. *Global Change Biology*. 12, 343–351 (2006).
<https://doi.org/10.1111/j.1365-2486.2005.01097.x>.

52.

Menzel, A., Fabian, P.: Growing Season Extended in Europe. *Nature*. 397, 659–659 (1999).
<https://doi.org/10.1038/17709>.

53.

Fitter, A.H., Fitter, R.S.R.: Rapid Changes in Flowering Time in British Plants. *Science*. 296, 1689–1691 (2002).

54.

Gange, A.C., Gange, E.G., Sparks, T.H., Boddy, L.: Rapid and Recent Changes in Fungal Fruiting Patterns. *Science*. 316, 71–71 (2007).

55.

Braschler, B., Hill, J.K.: Role of Larval Host Plants in the Climate-Driven Range Expansion of the Butterfly *Polygonia C-Album*. *Journal of Animal Ecology*. 76, 415–423 (2007).
<https://doi.org/10.1111/j.1365-2656.2007.01217.x>.

56.

Hickling, R., Roy, D.B., Hill, J.K., Fox, R., Thomas, C.D.: The Distributions of a Wide Range of Taxonomic Groups Are Expanding Polewards. *Global Change Biology*. 12, 450–455 (2006).
<https://doi.org/10.1111/j.1365-2486.2006.01116.x>.

57.

Visser, M.E., Both, C.: Shifts in Phenology Due to Global Climate Change: The Need for a Yardstick. *Proceedings: Biological Sciences*. 272, 2561–2569 (2005).

58.

Thackeray, S.J., Sparks, T.H., Frederiksen, M., Burthe, S.: Trophic Level Asynchrony in Rates of Phenological Change for Marine, Freshwater and Terrestrial Environments. *Global Change Biology*. 16, 3304–3313 (2010). <https://doi.org/10.1111/j.1365-2486.2010.02165.x>.

59.

Atkinson, A., Hill, S.L., Pakhomov, E.A., Siegel, V., Reiss, C.S., Loeb, V.J., Steinberg, D.K., Schmidt, K., Tarling, G.A., Gerrish, L., Sailley, S.F.: Krill (*Euphausia Superba*) Distribution Contracts Southward During Rapid Regional Warming. *Nature Climate Change*. 9, 142–147 (2019). <https://doi.org/10.1038/s41558-018-0370-z>.

60.

Lenoir, J., Svenning, J.C.: Climate-Related Range Shifts - a Global Multidimensional Synthesis and New Research Directions. *Ecography*. 38, 15–28 (2015).
<https://doi.org/10.1111/ecog.00967>.

61.

Garrett, K.A., Dendy, S.P., Frank, E.E., Rouse, M.N., Travers, S.E.: Climate Change Effects on Plant Disease: Genomes to Ecosystems. *Annual Review of Phytopathology*. 44, 489–509 (2006). <https://doi.org/10.1146/annurev.phyto.44.070505.143420>.

62.

DeLucia, E.H., Nabity, P.D., Zavala, J.A., Berenbaum, M.R.: Climate Change: Resetting Plant-Insect Interactions. *Plant Physiology*. 160, 1677–1685 (2012).

63.

Jamieson, M.A., Trowbridge, A.M., Raffa, K.F., Lindroth, R.L.: Consequences of Climate Warming and Altered Precipitation Patterns for Plant-Insect and Multitrophic Interactions. *Plant Physiology*. 160, 1719–1727 (2012).

64.

Yuan, J.S., Himanen, S.J., Holopainen, J.J., Chen, F., Stewart Jr., C.N.: Smelling Global Climate Change: Mitigation of Function for Plant Volatile Organic Compounds. *Trends in Ecology & Evolution*. 24, 323–331 (2009).

65.

Welcome to Carbon Atlas | Global Carbon Atlas,
<http://www.globalcarbonatlas.org/en/content/welcome-carbon-atlas>.

66.

Young, H., Somerville, C.: Growing Better Biofuel Crops | *The Scientist*,

<http://www.the-scientist.com/?articles.view/articleNo/32264/title/Growing-Better-Biofuel-Crops/>.

67.

Somerville, C.: Biofuels. *Current Biology*. 17, R115–R119 (2007).
<https://doi.org/10.1016/j.cub.2007.01.010>.

68.

Harrabin, R.: Biomass May Hinder Climate Fight | BBC News,
<https://www.bbc.co.uk/news/science-environment-20303668>.

69.

Sucking Up Carbon: Greenhouse Gases Must Be Scrubbed From the Air. *The Economist*. (2017).

70.

Rosling, H.: Hans Rosling: Global Population Growth, Box by Box | TED,
https://www.ted.com/talks/hans_rosling_on_global_population_growth, (2010).

71.

Benton, T.: What Will We Eat in 2030? | World Economic Forum,
https://www.weforum.org/agenda/2016/11/what-will-we-eat-in-2030?utm_content=bufferf4318&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer.

72.

Fitter, A.: People, Plants and Planet,
http://www.gatsbyplants.leeds.ac.uk/tree/uploads/Lectures/Fitter_A_SS12/player.html.

73.

Baulcombe, D.: Reaping the Benefits,
http://www.gatsbyplants.leeds.ac.uk/tree.2.0/view_lecture.php?permalink=MTA0NQ.

74.

Godfray, H.C.J., Beddington, J.R., Cote, I.R., Haddad, L., Lawrence, D., Muir, J.F., Pretty, J., Robinson, S., Thomas, S.M., Toulmin, C.: Food Security: The Challenge of Feeding 9 Billion People. *Science*. 327, 812–818 (2010).

75.

Ort, D.R., Merchant, S.S., Alric, J., Berkan, A.: Redesigning Photosynthesis to Sustainably Meet Global Food and Bioenergy Demand. *Proceedings of the National Academy of Sciences*. 112, 8529–8536 (2015). <https://doi.org/10.1073/pnas.1424031112>.

76.

Farre, G., Twyman, R.M., Zhu, C., Capell, T., Christou, P.: Nutritionally Enhanced Crops and Food Security: Scientific Achievements Versus Political Expediency. *Current Opinion in Biotechnology*. 22, 245–251 (2011). <https://doi.org/10.1016/j.copbio.2010.11.002>.