

BS3190: Climate Change: Plants and the Environment

View Online



Anon. 2014. 'NASA: A Year in the Life of Earth's CO₂ | YouTube'.

Anon. 2017. 'Sucking Up Carbon: Greenhouse Gases Must Be Scrubbed From the Air'. The Economist.

Anon. n.d. 'Welcome to Carbon Atlas | Global Carbon Atlas'. Retrieved (<http://www.globalcarbonatlas.org/en/content/welcome-carbon-atlas>).

Atkinson, Angus, Simeon L. Hill, Evgeny A. Pakhomov, Volker Siegel, Christian S. Reiss, Valerie J. Loeb, Deborah K. Steinberg, Katrin Schmidt, Geraint A. Tarling, Laura Gerrish, and Sévrine F. Sailley. 2019. 'Krill (*Euphausia Superba*) Distribution Contracts Southward During Rapid Regional Warming'. *Nature Climate Change* 9(2):142–47. doi: 10.1038/s41558-018-0370-z.

Bailey-Serres, Julia. 2012. 'Waterproofing Crops: Effective Flooding Survival Strategies'. *Plant Physiology* 160(4):1698–1709.

Bala, G., K. Caldeira, M. Wickett, T. J. Phillips, D. B. Lobell, C. Delire, and A. Mirin. 2007. 'Combined Climate and Carbon-Cycle Effects of Large-Scale Deforestation'. *UNT Digital Library* 104(16):6550–55. doi: 10.1073/pnas.0608998104.

Balbi, Virginia, and Alessandra Devoto. 2007. 'Jasmonate Signalling Network in *Arabidopsis thaliana*: Crucial Regulatory Nodes and New Physiological Scenarios'. *New Phytologist* 177(2):301–18. doi: 10.1111/j.1469-8137.2007.02292.x.

Baulcombe, David. n.d. 'Reaping the Benefits'. Retrieved (http://www.gatsbyplants.leeds.ac.uk/tree.2.0/view_lecture.php?permalink=MTA0NQ).

Benton, Tim. 2016. 'What Will We Eat in 2030? | World Economic Forum'. Retrieved (https://www.weforum.org/agenda/2016/11/what-will-we-eat-in-2030?utm_content=buffer4318&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer).

Birch, Hayley. 2011. 'Where the Ocean Meets the Sky'. 82–88. Retrieved (<https://www.chemistryworld.com/feature/where-the-ocean-meets-the-sky/3004890.article>).

Bohnert, Hans J. 2007. 'Abiotic Stress'. in *Encyclopedia of Life Sciences*. Wiley Interscience.

- Bonan, Gordon B. 2008. 'Forests and Climate Change: Forcings, Feedbacks, and the Climate Benefits of Forests'. *Science* 320(5882):1444-49.
- Braschler, Brigitte, and Jane K. Hill. 2007. 'Role of Larval Host Plants in the Climate-Driven Range Expansion of the Butterfly *Polygonia C-Album*'. *Journal of Animal Ecology* 76(3):415-23. doi: 10.1111/j.1365-2656.2007.01217.x.
- Brienen, R. J. W. 2015. 'Long-Term Decline of the Amazon Carbon Sink'. *Nature* 519(7543):344-48. doi: 10.1038/nature14283.
- C. Mariano Cossani, and Matthew P. Reynolds. 2012. 'Physiological Traits for Improving Heat Tolerance in Wheat'. *Plant Physiology* 160(4):1710-18.
- Camagna, Maurizio, and Daigo Takemoto. 2018. 'Hypersensitive Response in Plants'. in *Encyclopedia of Life Sciences*. Wiley Interscience.
- Corrion, Alex, and Brad Day. 2015. 'Pathogen Resistance Signalling in Plants'. in *Encyclopedia of Life Sciences*. Wiley Interscience.
- Cushman, John C., and Hans J. Bohnert. 2000. 'Genomic Approaches to Plant Stress Tolerance'. *Current Opinion in Plant Biology* 3(2):117-24. doi: 10.1016/S1369-5266(99)00052-7.
- DeLucia, Evan H., Paul D. Nability, Jorge A. Zavala, and May R. Berenbaum. 2012. 'Climate Change: Resetting Plant-Insect Interactions'. *Plant Physiology* 160(4):1677-85.
- Farre, Gemma, Richard M. Twyman, Changfu Zhu, Teresa Capell, and Paul Christou. 2011. 'Nutritionally Enhanced Crops and Food Security: Scientific Achievements Versus Political Expediency'. *Current Opinion in Biotechnology* 22(2):245-51. doi: 10.1016/j.copbio.2010.11.002.
- Ferguson, Ian B. 2004. 'The Plant Response: Stress in the Daily Environment'. *Journal of Zhejiang University-SCIENCE A* 5(2):129-32. doi: 10.1007/BF02840912.
- Fitter, A. H., and R. S. R. Fitter. 2002. 'Rapid Changes in Flowering Time in British Plants'. *Science* 296(5573):1689-91.
- Fitter, Alastair. n.d. 'People, Plants and Planet'. Retrieved (http://www.gatsbyplants.leeds.ac.uk/tree/uploads/Lectures/Fitter_A_SS12/player.html).
- Gange, A. C., E. G. Gange, T. H. Sparks, and L. Boddy. 2007. 'Rapid and Recent Changes in Fungal Fruiting Patterns'. *Science* 316(5821):71-71.
- Garrett, K. A., S. P. Dendy, E. E. Frank, M. N. Rouse, and S. E. Travers. 2006. 'Climate Change Effects on Plant Disease: Genomes to Ecosystems'. *Annual Review of Phytopathology* 44(1):489-509. doi: 10.1146/annurev.phyto.44.070505.143420.
- Gibbard, S., K. Caldeira, G. Bala, T. J. Phillips, and M. Wickett. 2005. 'Climate Effects of Global Land Cover Change'. *Geophysical Research Letters* 32(23). doi: 10.1029/2005GL024550.

Godfray, H. Charles J., John R. Beddington, Ian R. Cute, Lawrence Haddad, David Lawrence, James F. Muir, Jules Pretty, Sherman Robinson, Sandy M. Thomas, and Camilla Toulmin. 2010. 'Food Security: The Challenge of Feeding 9 Billion People'. *Science* 327(5967):812-18.

Griscom, Bronson W., Justin Adams, Peter W. Ellis, and Richard A. Houghton. 2017. 'Natural Climate Solutions'. *Proceedings of the National Academy of Sciences* 114(44):11645-50. doi: 10.1073/pnas.1710465114.

Grover, Anil, Chandan Sahi, Neeti Sanan, and Anita Grover. 1999. 'Taming Abiotic Stresses in Plants Through Genetic Engineering: Current Strategies and Perspective'. *Plant Science* 143(1):101-11. doi: 10.1016/S0168-9452(99)00025-4.

Harrabin, Roger. 2012. 'Biomass May Hinder Climate Fight | BBC News'. Retrieved (<https://www.bbc.co.uk/news/science-environment-20303668>).

Hemp, Andreas. 2005. 'Climate Change-Driven Forest Fires Marginalize the Impact of Ice Cap Wasting on Kilimanjaro'. *Global Change Biology* 11(7):1013-23. doi: 10.1111/j.1365-2486.2005.00968.x.

Hickling, Rachael, David B. Roy, Jane K. Hill, Richard Fox, and Chris D. Thomas. 2006. 'The Distributions of a Wide Range of Taxonomic Groups Are Expanding Polewards'. *Global Change Biology* 12(3):450-55. doi: 10.1111/j.1365-2486.2006.01116.x.

Hungate, Bruce A., Peter D. Stilling, Paul Dijkstra, Dale W. Johnson, Michael E. Ketterer, Graham J. Hymus, C. Ross Hinkle, and Bert G. Drake. 2004. 'CO₂ Elicits Long-Term Decline in Nitrogen Fixation'. *Science* 304(5675):1291-1291.

Jamieson, Mary A., Amy M. Trowbridge, Kenneth F. Raffa, and Richard L. Lindroth. 2012. 'Consequences of Climate Warming and Altered Precipitation Patterns for Plant-Insect and Multitrophic Interactions'. *Plant Physiology* 160(4):1719-27.

Kessler, André. 2017. 'Plant Defences against Herbivore Attack'. in *Encyclopedia of Life Sciences*. Wiley Interscience.

Knight, Heather, and Marc R. Knight. 2001. 'Abiotic Stress Signalling Pathways: Specificity and Cross-Talk'. *Trends in Plant Science* 6(6):262-67. doi: 10.1016/S1360-1385(01)01946-X.

Kurz, W. A., C. C. Dymond, G. Stinson, G. J. Rampley, E. T. Neilson, A. L. Carroll, T. Ebata, and L. Safranyik. 2008. 'Mountain Pine Beetle and Forest Carbon Feedback to Climate Change'. *Nature* 452(7190):987-90. doi: 10.1038/nature06777.

Latchman, David S. 2007. 'Transcription Factors'. in *Encyclopedia of Life Sciences*. Wiley Interscience.

Lenoir, J., and J. C. Svenning. 2015. 'Climate-Related Range Shifts - a Global Multidimensional Synthesis and New Research Directions'. *Ecography* 38(1):15-28. doi: 10.1111/ecog.00967.

Liu, Yanjie, Ayub M. O. Oduor, Zhen Zhang, Anthony Manea, Ifeanna M. Tooth, Michelle R.

- Leishman, Xingliang Xu, and Mark van Kleunen. 2017. 'Do Invasive Alien Plants Benefit More From Global Environmental Change Than Native Plants?' *Global Change Biology* 23(8):3363–70. doi: 10.1111/gcb.13579.
- Long, S. P. 2006. 'Food for Thought: Lower-Than-Expected Crop Yield Stimulation with Rising CO₂ Concentrations'. *Science* 312(5782):1918–21. doi: 10.1126/science.1114722.
- Mahajan, Shilpi, and Narendra Tuteja. 2005a. 'Cold, Salinity and Drought Stresses: An Overview'. *Archives of Biochemistry and Biophysics* 444(2):139–58. doi: 10.1016/j.abb.2005.10.018.
- Mahajan, Shilpi, and Narendra Tuteja. 2005b. 'Cold, Salinity and Drought Stresses: An Overview'. *Archives of Biochemistry and Biophysics* 444(2):139–58. doi: 10.1016/j.abb.2005.10.018.
- Matys, V. 2003. 'TRANSFAC(R): Transcriptional Regulation, From Patterns to Profiles'. *Nucleic Acids Research* 31(1):374–78. doi: 10.1093/nar/gkg108.
- Menzel, Annette, and Peter Fabian. 1999. 'Growing Season Extended in Europe'. *Nature* 397(6721):659–659. doi: 10.1038/17709.
- Midgley, Guy F. 2001. 'Plant Physiological Responses to Climate and Environmental Change'. Pp. 1–12 in *Encyclopedia of Life Sciences*. Wiley Interscience.
- Midgley, Guy F. 2017. 'Plant Physiological Responses to Climate and Environmental Change'. in *Encyclopedia of Life Sciences*. Wiley Interscience.
- Mittler, Ron. 2006. 'Abiotic Stress, the Field Environment and Stress Combination'. *Trends in Plant Science* 11(1):15–19. doi: 10.1016/j.tplants.2005.11.002.
- Morison, James I. L., and Michael D. Morecroft. 2006a. *Plant Growth and Climate Change*. Vol. Biological sciences series. Oxford: Blackwell.
- Morison, James I. L., and Michael D. Morecroft. 2006b. *Plant Growth and Climate Change*. Vol. Biological sciences series. Oxford: Blackwell.
- Naudts, K., Y. Chen, M. J. McGrath, J. Ryder, A. Valade, J. Otto, and S. Luysaert. 2016. 'Europes Forest Management Did Not Mitigate Climate Warming'. *Science* 351(6273):597–600. doi: 10.1126/science.aad7270.
- Ort, Donald R., and Elizabeth Ainsworth. 2012. 'Focus on Climate Change'. *Plant Physiology* 160(4):1675–76.
- Ort, Donald R., Sabeeha S. Merchant, Jean Alric, and Alice Berkan. 2015. 'Redesigning Photosynthesis to Sustainably Meet Global Food and Bioenergy Demand'. *Proceedings of the National Academy of Sciences* 112(28):8529–36. doi: 10.1073/pnas.1424031112.
- Pirkkala, Lila, and Lea Sistonen. 2006. 'Heat Shock Proteins (HSPs): Structure, Function and Genetics'. in *Encyclopedia of Life Sciences*. Credo Reference.
- Poorter, Hendrik, and Marie-Laure Navas. 2003. 'Plant Growth and Competition at Elevated

CO2: On Winners, Losers and Functional Groups'. *New Phytologist* 157(2):175–98. doi: 10.1046/j.1469-8137.2003.00680.x.

Rietz, Steffen, and Jane E. Parker. 2007. 'Plant Disease and Defence'. in *Encyclopedia of Life Sciences*. Wiley Interscience.

Rosling, Hans. 2010. 'Hans Rosling: Global Population Growth, Box by Box | TED'.

Schwartz, Mark D., Rein Ahas, and Anto Aasa. 2006. 'Onset of Spring Starting Earlier Across the Northern Hemisphere'. *Global Change Biology* 12(2):343–51. doi: 10.1111/j.1365-2486.2005.01097.x.

Singh, K. 2002. 'Transcription Factors in Plant Defense and Stress Responses'. *Current Opinion in Plant Biology* 5(5):430–36. doi: 10.1016/S1369-5266(02)00289-3.

Smetacek, Victor, Christine Klaas, Volker H. Strass, and Philipp Assmy. 2012. 'Deep Carbon Export From a Southern Ocean Iron-Fertilized Diatom Bloom'. *Nature* 487(7407):313–19. doi: 10.1038/nature11229.

Smirnoff, Nicholas. 2014. 'Plant Stress Physiology'. in *Encyclopedia of Life Sciences*. Wiley Interscience.

Somerville, Chris. 2007. 'Biofuels'. *Current Biology* 17(4):R115–19. doi: 10.1016/j.cub.2007.01.010.

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

Sykes, Martin T. 2009. 'Climate Change Impacts: Vegetation'. in *Encyclopedia of Life Sciences*. Wiley Interscience.

Thackeray, Stephen J., Timothy H. Sparks, Morten Frederiksen, and Sarah Burthe. 2010. 'Trophic Level Asynchrony in Rates of Phenological Change for Marine, Freshwater and Terrestrial Environments'. *Global Change Biology* 16(12):3304–13. doi: 10.1111/j.1365-2486.2010.02165.x.

Vinocur, Basia, and Arie Altman. 2005a. 'Recent Advances in Engineering Plant Tolerance to Abiotic Stress: Achievements and Limitations'. *Current Opinion in Biotechnology* 16(2):123–32. doi: 10.1016/j.copbio.2005.02.001.

Vinocur, Basia, and Arie Altman. 2005b. 'Recent Advances in Engineering Plant Tolerance to Abiotic Stress: Achievements and Limitations'. *Current Opinion in Biotechnology* 16(2):123–32. doi: 10.1016/j.copbio.2005.02.001.

Visser, Marcel E., and Christiaan Both. 2005. 'Shifts in Phenology Due to Global Climate Change: The Need for a Yardstick'. *Proceedings: Biological Sciences* 272(1581):2561–69.

Wang, Wangxia, Basia Vinocur, and Arie Altman. 2003. 'Plant Responses to Drought, Salinity and Extreme Temperatures: Towards Genetic Engineering for Stress Tolerance'. *Planta* 218(1):1–14. doi: 10.1007/s00425-003-1105-5.

Whitney, Heather M., and Beverley J. Glover. 2013. 'Coevolution: Plant-Insect'. in Encyclopedia of Life Sciences. Wiley Interscience.

Wullschleger, Stan D., and Maya Strahl. 2010. 'Climate Change: A Controlled Experiment'. Scientific American 302(3):78-83.

Xiao, Xueqiong, and Aardra Kachroo. 2019. 'Plant Defences Against Fungal Attack: Perception and Signal Transduction'. in Encyclopedia of Life Sciences. Wiley Interscience.
Young, Heather, and Chris Somerville. 2012. 'Growing Better Biofuel Crops | The Scientist'. Retrieved (<http://www.the-scientist.com/?articles.view/articleNo/32264/title/Growing-Better-Biofuel-Crops/>).

Yuan, Joshua S., Sari J. Himanen, Jarmo J. Holopainen, Feng Chen, and C. Neal Stewart Jr. 2009. 'Smelling Global Climate Change: Mitigation of Function for Plant Volatile Organic Compounds'. Trends in Ecology & Evolution 24(6):323-31.

Zhu, Jian-Kang. 2002. 'Salt and Drought Stress Signal Transduction in Plants'. Annual Review of Plant Biology 53(1):247-73. doi: 10.1146/annurev.arplant.53.091401.143329.

Zhu, Zaichun, Shilong Piao, and Ranga B. Myneni. 2016. 'Greening of the Earth and Its Drivers'. Nature Climate Change 6(8):791-95. doi: 10.1038/nclimate3004.