

MUDANÇA CLIMÁTICA: OS FATOS COMO VOCÊ NUNCA VIU ANTES



DAVID NELLES E CHRISTIAN SERRER

BIBLIOGRAFIA

- ABEGG, Bruno. *Klimaänderung und Tourismus: Klimafolgenforschung am Beispiel des Wintertourismus in den Schweizer Alpen* (vdf Hochschulverlag AG, 1996).
- ACIA. *Impacts of a warming Arctic: Arctic climate assessment report* (Cambridge University Press, 2004).
- ACKERMANN, R. O. et al. *Pollution prevention and abatement handbook 1998: Toward cleaner production* (World Bank Group, 1999).
- ADGER, W. N. et al. "2014: Human security". In: FIELD, C. B. et al. (orgs.). *Climate change 2014: Impacts, adaptation, and vulnerability. Part A: Global and sectoral aspects*. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, pp. 755-791 (Cambridge University Press, 2014).
- AKBARI, H. "Energy saving potentials and air quality benefits of urban heat island mitigation". First International Conference on Passive and Low Energy Cooling for the Built Environment (2005).
- ALCAMO, J. et al. *Ecosystems and human well-being: A framework for assessment* (Island Press, 2003).
- ALFRED Wegener Institut (AWI) – Helmholtz Zentrum für Polar und Meeresforschung. "Albedo". Disponível em: <http://www.eskp.de/albedo/> (Acesso em 01.jul.2017).
- _____. "Meereisdicke". Disponível em: <http://www.meereisportal.de/meereisbeobachtung/beobachtungsgroessen/meereisdicke/> (Acesso em 29.mar.2018).
- _____. "Meereis und Strahlungsbilanz" (2017). Disponível em: <http://www.meereisportal.de/meereiswissen/die-globale-bedeutung-von-meereis/wechselwirkungen-von-meereis-mit-anderen-komponenten-des-klimasystems/meereis-und-strahlungsbilanz/> (Acesso em 1.jul.2017).
- _____. "Was ist Meereis?" Disponível em: <http://www.meereisportal.de/meereiswissen/was-ist-meereis/> (Acesso em 29.mar.2018).
- ALLABY, M. *A dictionary of Earth sciences* (Oxford University Press, 2008).
- ALLEN, A. G. et al. "Primary sulfate aerosol and associated emissions from Masaya volcano, Nicaragua". *Journal of Geophysical Research: Atmospheres* 107, ACH 5 1-8 (2002).
- ALLEY, K. E., SCAMBOS, T. A., SIEGFRIED, M. R. e Fricker, H. A. "Impacts of warm water on Antarctic ice shelf stability through basal channel formation". *Nature Geoscience* 9, pp. 290-293 (2016).
- AMELUNG, B., NICHOLLS, S. e VINER, D. "Implications of global climate change for tourism flows and seasonality". *Journal of Travel Research* 45, pp. 285-296 (2007).
- AMSTRUP, S. C. et al. "Greenhouse gas mitigation can reduce sea-ice loss and increase polar bear persistence". *Nature* 468, pp. 955-958 (2010).
- ANDEREGG, W. R. L. et al. "Expert credibility in climate change". *Proceedings of the National Academy of Sciences* 107 (2010).
- ANDERSEN, S. O., HALBERSTADT, M. L. e BORGFORD-PARNELL, N. "Stratospheric ozone, global warming, and the principle of unintended consequences: An ongoing science and policy success story". *Journal of the Air & Waste Management Association* 63, pp. 607-647 (2013).
- ANDREAE, M. O. e ROSENFELD, D. "Aerosol-cloud-precipitation interactions. Part 1: The nature and sources of cloud-active aerosols". *Earth-Science Reviews* 89, pp. 13-41 (2008).
- ARC Centre of Excellence for Coral Reef Studies. *2016 global coral bleaching: Never a greater need for coral reef research* (2016).
- ARCTIC Monitoring and Assessment Programme (AMAP). *Arctic climate issues 2011: Changes in Arctic snow, water, ice and permafrost. SWIPA 2011 overview report* (2012).

- ARENT, D. J. *et al.* "2014: Key economic sectors and services". In: FIELD, C. B. *et al.* (orgs.). *Climate change 2014: Impacts, adaptation, and vulnerability. Part A: Global and sectoral aspects*. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, pp. 659-708 (Cambridge University Press, 2014).
- ARMITAGE, K. "Climate change and the conservation of marmots". *Natural Science* 5, pp. 36-43 (2013).
- AUGUSTIN, J. *et al.* "Gesundheit". In: BRASSEUR, G. *et al.* (orgs.). *Klimawandel in Deutschland: Entwicklung, Folgen, Risiken und Perspektiven*, pp. 137-150 (2017).
- AYDIN, M. *et al.* "Recent decreases in fossil-fuel emissions of ethane and methane derived from firm air". *Nature* 476, pp. 198-201 (2011).
- BAKAN, S. e RASCHKE, E. "Der natürliche Treibhauseffekt. Numerische Klimamodelle – Was können sie, wo müssen sie verbessert werden? Teil I: Das Klimasystem der Erde". *Promet* 28, pp. 85-94 (2002).
- BAKER-AUSTIN, C. *et al.* "Emerging vibrio risk at high latitudes in response to ocean warming". *Nature Climate Change* 3 (1), pp. 73-77 (2012).
- BAMBER, J. L., GRIGGS, J. A. *et al.* "A new bed elevation dataset for Greenland". *Cryosphere* 7, pp. 499-510 (2013).
- BAMBER, J. L., RIVA, R. E. M. *et al.* "Reassessment of the potential sea-level rise from a collapse of the West Antarctic ice sheet". *Science* 324, pp. 901-903 (2009).
- BASAGANA, X. *et al.* "Heat waves and cause-specific mortality at all ages". *Epidemiology* 22, pp. 765-772 (2011).
- BATES, N. R. *et al.* "Detecting anthropogenic carbon dioxide uptake and ocean acidification in the North Atlantic ocean". *Biogeosciences* 9, pp. 2509-2522 (2012).
- BAUMÜLLER, J. "Wie verändert sich das Stadtklima". In: LOZÁN, J. L. *et al.* (orgs.). *Warnsignal Klima: Gefahren für Pflanzen, Tiere und Menschen* (2014).
- BEAUCHEMIN, K. e MCGINN, S. M. "Methane emissions from beef cattle: Effects of fumaric acid, essential oil, and canola oil 1". *Journal of Animal Science* 84, pp. 1489-1496 (2006).
- BECKLEY, B. D. *et al.* "On the 'cal-mode' correction to TOPEX satellite altimetry and its effect on the global mean sea level time series". *Journal of Geophysical Research: Oceans* 122, pp. 8371-8384 (2017).
- BEER, J., MENDE, W. e STELLMACHER, R. "The role of the sun in climate forcing". *Quaternary Science Reviews* 19, pp. 403-415 (2000).
- BEEVER, E. A., PERRINE, J. D. *et al.* "Pika (*Ochotona princeps*) losses from two isolated regions reflect temperature and water balance, but reflect habitat area in a mainland region". *Journal of Mammalogy* 97, pp. 1495-1511 (2016).
- BEEVER, E. A., RAY, C. *et al.* "Contemporary climate change alters the pace and drivers of extinction". *Global Change Biology* 17, pp. 2054-2070 (2011).
- BELLARD, C. *et al.* "Impacts of climate change on the future of biodiversity". *Ecology Letters* 15, pp. 365-377 (2012).
- BENGTTSSON, L. *et al.* "How may tropical cyclones change in a warmer climate?". *Tellus A* 59, pp. 539-561 (2007).
- BENN, D. I. *et al.* "Glacier calving in Greenland". *Current Climate Change Reports* 3, pp. 282-290 (2017).
- BEREITER, B. *et al.* "Revision of the EPICA dome C CO₂ record from 800 to 600 kyr before present". *Geophysical Research Letters* 42, pp. 1955-1963 (2014).
- BERGSTROM, C. T. e DUGATKIN, L. A. *Evolution* (W. W. Norton & Company, Inc., 2012).
- BERNER, R. A. "The long-term carbon cycle, fossil fuels and atmospheric composition". *Nature* 426, pp. 323-326 (2003).
- BERRITTELLA, M. *et al.* "A general equilibrium analysis of climate change impacts on tourism". *Tourism Management* 27, pp. 913-924 (2006).
- BODIN, X. *et al.* "Mountain permafrost and associated geomorphological processes: Recent changes in the French Alps". *Journal of Alpine Research* 103(2) (2015).
- BOLAJI, B. O. e HUAN, Z. "Ozone depletion and global warming: Case for the use of natural refrigerant – a review". *Renewable and Sustainable Energy Reviews* 18, pp. 49-54 (2013).
- BRADLEY, R. S. *Paleoclimatology: Reconstructing climates of the Quaternary* (Elsevier/Academic Press, 2014).

- BRITISH Antarctic Survey. "Provisional mean total ozone at Halley between 1956 and 2017 February" (2017). Disponível em: <https://legacy.bas.ac.uk/met/jds/ozone/> (Acesso em 5.abr.2018).
- BROECKER, W. S. "Thermohaline circulation, the Achilles heel of our climate system: Will man-made CO₂ upset the current balance?". *Science* 278, pp. 1582-1588 (1997).
- BRUNETTI, M. e PRODI, F. "The climate system". *EPJ Web of Conferences* 98 (2015).
- BRYDEN, H. L., LONGWORTH, H. R. e CUNNINGHAM, S. A. "Slowing of the Atlantic meridional overturning circulation at 25° N". *Nature* 438, pp. 655-657 (2005).
- BUCHNER, B. *et al.* *The landscape of climate finance 2012* (Climate Policy Initiative, 2012).
- BUNZ, M. "Psychosoziale Auswirkungen des Klimawandels". In: *Umwelt und Mensch – Informationsdienst* 02/2016, pp. 30-37 (Umweltbundesamt, 2016).
- BUNZ, M. e MÜCKE, H.-G. "Klimawandel – physische und psychische Folgen". *Bundesgesundheitsblatt – Gesundheitsforsch – Gesundheitsschutz* 60, pp. 632-639 (2017).
- CAMINADE, C. *et al.* "Suitability of European climate for the Asian tiger mosquito *Aedes albopictus*: Recent trends and future scenarios". *Journal of the Royal Society Interface* 9 (2012).
- CAMPBELL-LENDRUM, D. *et al.* "Climate change and vector-borne diseases: What are the implications for public health research and policy?". *Philosophical Transactions of the Royal Society B: Biological Sciences* 370, 20130552 (2015).
- CARDINALE, B. J. *et al.* "Biodiversity loss and its impact on humanity". *Nature* 486, pp. 59-67 (2012).
- CARDINALE, B. J. *et al.* "The functional role of producer diversity in ecosystems". *American Journal of Botany* 98, pp. 572-592 (2011).
- CDIAC. "Recent greenhouse gas concentrations" (2016). doi:10.3334/CDIAC/atg.032
- CHAN, D. e WU, Q. "Significant anthropogenic-induced changes of climate classes since 1950". *Nature Scientific Reports* 5, 13487 (2015).
- CHAPMAN, J. A. e FLUX, J. *Rabbits, hares and pikas: Status survey and conservation action plan* (International Union for Conservation of Nature and Natural Resources, Lagomorph Specialist Group, 1990).
- CHEN, I.-C. *et al.* "Rapid range shifts of species associated with high levels of climate warming". *Science* 333, pp. 1024-1026 (2011).
- CHEN, X. *et al.* "The increasing rate of global mean sea-level rise during 1993-2014". *Nature Climate Change* 7, pp. 492-495 (2017).
- CHURCH, J. A. *et al.* "2013: Sea level change". In: STOCKER, T. F. *et al.* (orgs.). *Climate change 2013: The physical science basis*. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (Cambridge University Press, 2013).
- CIAIS, P. *et al.* "2013: Carbon and other biogeochemical cycles". In: STOCKER, T. F. *et al.* (orgs.). *Climate change 2013: The physical science basis*. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (Cambridge University Press, 2013).
- CLARKSON, M. O. *et al.* "Ocean acidification and the Permo-Triassic mass extinction". *Science* 348, pp. 229-232 (2015).
- COLÓN-GONZÁLEZ, F. J. *et al.* "The effects of weather and climate change on dengue". *PLoS Neglected Tropical Diseases* 7, e2503 (2013).
- CONNELL, J. H. "Diversity in tropical rain forests and coral reefs". *Science* 199, pp. 1302-1310 (1978).
- COSTELLO, A. *et al.* "Managing the health effects of climate change". *Lancet* 373, pp. 1693-1733 (2017).
- COUMOU, D. e RAHMSTORF, S. "A decade of weather extremes". *Nature Climate Change* 2, pp. 491-496 (2012).
- COUMOU, D., ROBINSON, A. e RAHMSTORF, S. "Global increase in record-breaking monthly-mean temperatures". *Climatic Change* 118, pp. 771-782 (2013).
- CRIMMINS, A. *et al.* *The impacts of climate change on human health in the United States: A scientific assessment* (U. S. Global Change Research Program, 2016).
- DAHINDEN, F., FISCHER, E. M. e KNUTTI, R. "Future local climate unlike currently observed anywhere". *Environmental Research Letters* 12, 84004 (2017).
- DAI, A. "Drought under global warming: A review". *WIREs Climate Change* 2, pp. 45-65 (2011).
- _____. "Increasing drought under global warming in observations and models". *Nature Climate Change* 3, pp. 52-58 (2013).

- DARA. *Climate vulnerability monitor 2nd edition. A guide to the cold calculus of a hot planet* (Fundación DARA Internacional, 2012).
- DELWORTH, T. "The potential for abrupt change in the Atlantic meridional overturning circulation". In: *Abrupt Climate Change* (2008).
- DICKE, R. H. "Why are sunspots dark and faculae bright?". *Astrophysical Journal* 159, pp. 25-38 (1970).
- DIFFENBAUGH, N. S., SCHERER, M. e TRAPP, R. J. "Robust increases in severe thunderstorm environments in response to greenhouse forcing". *Proceedings of the National Academy of Sciences* 110, pp. 16361-16366 (2013).
- DIJK, D.-J. "Regulation and functional correlates of slow wave sleep". *Journal of Clinical Sleep Medicine* 5, S6-15 (2009).
- DLUGOKENCKY, E. "NOAA/ESRL trends CH4" (2018). Disponível em: www.esrl.noaa.gov/gmd/ccgg/trends_ch4 (Acesso em 4.abr.2018).
- DONAT, M. G. *et al.* "More extreme precipitation in the world's dry and wet regions". *Nature Climate Change* 6, pp. 508-513 (2016).
- DORE, J. E. *et al.* "Physical and biogeochemical modulation of ocean acidification in the central North Pacific". *Proceedings of the National Academy of Sciences* 106, pp. 12235-12240 (2009).
- DUNN, P. O. e WINKLER, D. W. "Effects of climate change on timing of breeding and reproductive success in birds". In: *Effects of climate change on birds*, pp. 113-128 (Oxford University Press, 2010).
- DUTTON, G. S., ELKINS, J. W. e HALL, B. D. "Nitrous oxide data from the NOAA/ESRL halocarbons in situ program" (2018). Disponível em: ftp://aftp.cmdl.noaa.gov/data/hats/n2o/insituGCs/CATS/monthly/spo_N2O_MM.dat (Acesso em 5.abr.2018).
- EBI, K. L. e NEALON, J. "Dengue in a changing climate". *Environmental Research* 151, pp. 115-123 (2016).
- ECK, T. F. *et al.* "Wavelength dependence of the optical depth of biomass burning, urban, and desert dust aerosols". *Journal of Geophysical Research: Atmospheres* 104, pp. 31333-31349 (1999).
- EIS, D., HELM, D., Laußmann, D. e STARK, K. *Klimawandel und Gesundheit: Ein Sachstandsbericht* (Robert Koch Institut, 2010).
- ELROD, M. J. "Greenhouse warming potentials from the infrared spectroscopy of atmospheric gases". *Journal of Chemical Education* 76, pp. 1702-1705 (1999).
- EMANUEL, K. A. "The dependence of hurricane intensity on climate". *Nature* 326, pp. 483-485 (1987).
- ERDNER, D. L. *et al.* "Centers for oceans and human health: A unified approach to the challenge of harmful algal blooms". *Environment Health* 7 Suppl. 2, S2 (2008).
- ETHERIDGE, D. M. *et al.* "Atmospheric methane between 1000 A.D. and present: Evidence of anthropogenic emissions and climatic variability". *Journal of Geophysical Research: Atmospheres* 103, pp. 15979-15993 (1998).
- ETHERIDGE, D. M. *et al.* "Law dome ice core 2000-Year CO₂, CH₄, and N₂O data" (2010).
- ETHERIDGE, D. M. *et al.* "Natural and anthropogenic changes in atmospheric CO₂ over the last 1000 years from air in Antarctic ice and firn". *Journal of Geophysical Research: Atmospheres* 101, pp. 4115-4128 (1996).
- EUROPEAN Centre for Disease Prevention and Control. *Guidelines for the surveillance of invasive mosquitoes in Europe* (ECDC, 2012). doi:10.2900/61134
- EUROPEAN Commission; Joint Research Centre (JRC)/PBL Netherlands Environmental Assessment Agency. "Emission database for global atmospheric research (EDGAR), release version 4.3.2 (EDGARv4.3.2)" (2016).
- FAO. *Global forest resources assessment 2010* (2010).
- FEARNSIDE, P. M. "Deforestation in Brazilian Amazonia: History, rates, and consequences". *Conservation Biology* 19, pp. 680-688 (2005).
- FELGENTREFF, C. e GEIGER, M. "Klima und Umwelt als Determinanten räumlicher Mobilität?" In: *IMIS-Beiträge. Heft 44/2013. Themenheft: Migration und Umwelt* (Vorstand des Instituts für Migrationsforschung und Interkulturelle Studien [IMIS] der Universität Osnabrück, 2013).
- FENG, S., KRUEGER, A. B. e OPPENHEIMER, M. "Linkages among climate change, crop yields and Mexico-US cross-border migration". *Proceedings of the National Academy of Sciences* 107, pp. 14257-14262 (2010).
- FERRETTI, D. F. *et al.* "Unexpected changes to the global methane budget over the past 2000 years". *Science* 309, pp. 1714-1717 (2005).

- FETTERER, F. *et al.* "-2002, updated daily. Sea ice index, version 2.1. [September 1979 to 2016, N: 90, S: 30.98, E: 180, W: -180]" (Boulder, Colorado USA: National Snow and Ice Data Center). Disponível em: <http://dx.doi.org/10.7265/N5QJ7F7W>. (Acesso em 5.jul.2017).
- FEULNER, G. "The Smithsonian solar constant data revisited: No evidence for a strong effect of solar activity in ground-based insolation data". *Atmospheric Chemistry and Physics* 11, pp. 3291-3301 (2011).
- FEULNER, G. e KIENERT, H. "Climate simulations of Neoproterozoic snowball Earth events: Similar critical carbon dioxide levels for the Sturtian and Marinoan glaciations". *Earth and Planetary Science Letters* 404, pp. 200-205 (2014).
- FIELD, C. B. *et al.* "Summary for policymakers". In: *Climate change 2014: Impacts, adaptation, and vulnerability. Part A: Global and sectoral aspects*. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (2014).
- FISCHER, E. M. e KNUTTI, R. "Anthropogenic contribution to global occurrence of heavy-precipitation and high-temperature extremes". *Nature Climate Change* 5, pp. 560-564 (2015).
- FLEISCHHAUER, M. *et al.* "Handlungsfeld Menschliche Gesundheit". In: *Vulnerabilität Deutschlands gegenüber dem Klimawandel*, pp. 602-633 (Umweltbundesamt, 2015).
- FOLLAND, C. K. *et al.* "High predictive skill of global surface temperature a year ahead". *Geophysical Research Letters* 40, pp. 761-767 (2013).
- FRIEDLINGSTEIN, P. *et al.* "Climate-carbon cycle feedback analysis: Results from the C4MIP model intercomparison". *Journal of Climate* 19, pp. 3337-3353 (2006).
- FRIELER, K. *et al.* "Consistent evidence of increasing Antarctic accumulation with warming". *Nature Climate Change* 5, pp. 348-352 (2015). doi:10.1038/NCLIMATE2574
- FRIIS-CHRISTENSEN, E. e LASSEN, K. "Length of the solar cycle: An indicator of solar activity closely associated with climate". *Science* 254, pp. 698-700 (1991).
- GANACHAUD, A. e WUNSCH, C. "Improved estimates of global ocean circulation, heat transport and mixing from hydrographic data". *Nature* 408, pp. 453-457 (2000).
- GEIST, H. J. e LAMBIN, E. F. "Proximate causes and underlying driving forces of tropical deforestation: Tropical forests are disappearing as the result of many pressures, both local and regional, acting in various combinations in different geographical locations". *Bioscience* 52, pp. 143-150 (2002).
- GIFFORD, E. e GIFFORD, R. "The largely unacknowledged impact of climate change on mental health". *Bulletin of the Atomic Scientists* 72, pp. 292-297 (2016).
- GILABERTE-BÚRDALO, M. *et al.* "Impacts of climate change on ski industry". *Environmental Science and Policy* 44, pp. 51-61 (2014).
- GILLETT, N. P. *et al.* "Improved constraints on 21st-century warming derived using 160 years of temperature observations". *Geophysical Research Letters* 39 (2012).
- GISTEMP Team. "GISS surface temperature analysis (GISTEMP)". NASA Goddard Institute for Space Studies, 2017. Disponível em: <https://data.giss.nasa.gov/gistemp/> (Acesso em 30.jun.2017).
- GLOBAL Humanitarian Forum. *Human impact report: Climate change – The anatomy of a silent crisis* (2009).
- GONZALEZ, P. *et al.* "Global patterns in the vulnerability of ecosystems to vegetation shifts due to climate change". *Global Ecology and Biogeography* 19, pp. 755-768 (2010).
- GONZÁLEZ-DÁVILA, M. *et al.* "The water column distribution of carbonate system variables at the ESTOC site from 1995 to 2004". *Biogeosciences* 7, pp. 3067-3081 (2010).
- GRACE, J., BERNINGER, F. e NAGY, L. "Impacts of climate change on the tree Line". *Annals of Botany* 90, pp. 537-544 (2002).
- GRASBY, S. E., SANEI, H. e BEAUCHAMP, B. "Catastrophic dispersion of coal fly ash into oceans during the latest Permian extinction". *Nature Geoscience* 4, pp. 104-107 (2011).
- GRAY, L. J. *et al.* "Solar influences on climate". *Reviews of Geophysics* 48 (2010).
- GRISE, K. M. *et al.* "The ozone hole indirect effect: Cloud-radiative anomalies accompanying the poleward shift of the eddy-driven jet in the Southern Hemisphere". *Geophysical Research Letters* 40, pp. 3688-3692 (2013).
- GÜNTHER, F. *et al.* "Short- and long-term thermo-erosion of ice-rich permafrost coasts in the Laptev Sea region". *Biogeosciences* 10, pp. 4297-4318 (2013).

- HALL, A. e MANABE, S. "The role of water vapor feedback in unperturbed climate variability and global warming". *Journal of Climate* 12, pp. 2327-2346 (1999).
- HANSEN, J. e SATO, M. "Regional climate change and national responsibilities". *Environmental Research Letters* 11, 34009 (2016).
- HANSEN, J., SATO, M. e RUEDY, R. "Perception of climate change". *Proceedings of the National Academy of Sciences* 109, pp. 2415-2423 (2012).
- _____. "Radiative forcing and climate response". *Journal of Geophysical Research: Atmospheres* 102, pp. 6831-6864 (1997).
- HANSEN, J., SATO, M., RUEDY, R. e LO, K. "Global surface temperature change". *Reviews of Geophysics* 48, RG4004 (2010).
- HARRIES, J. E. *et al.* "Increase in greenhouse forcing inferred from the outgoing longwave radiation spectra of the Earth in 1970 and 1997". *Nature* 410, p. 1124 (2001).
- HARRIS, J. M., ROACH, B. e CODUR, A.-M. *The economics of global climate change*. (Global Development and Environment Institute – Tufts University, 2017).
- HATFIELD, J. L. *et al.* "Climate impacts on agriculture: Implications for crop production". *Agronomy Journal* 103, pp. 351-370 (2011).
- HAWKINS, E. e SUTTON, R. "The potential to narrow uncertainty in regional climate predictions". *Bulletin of the American Meteorological Society* 90, pp. 1095-1108 (2009).
- HAYWOOD, J. M. *et al.* "The mean physical and optical properties of regional haze dominated by biomass burning aerosol measured from the C-130 aircraft during SAFARI 2000". *Journal of Geophysical Research: Atmospheres* 108 (2003).
- HEEDE, R. "Tracing anthropogenic carbon dioxide and methane emissions to fossil fuel and cement producers, 1854-2010". *Climatic Change* 122, pp. 229-241 (2014).
- HENRY, L.-A. *et al.* "Global ocean conveyor lowers extinction risk in the deep sea". *Deep Sea Research Part I: Oceanographic Research Papers* 88, pp. 8-16 (2014).
- HOEGH-GULDBERG, O. *et al.* "Coral reefs under rapid climate change and ocean acidification". *Science* 318, pp. 1737-1742 (2007).
- HOFFMANN, A. A. e SGRÒ, C. M. "Climate change and evolutionary adaptation". *Nature* 470, pp. 479-485 (2011).
- HOUE Jr., R. A. "Chapter 7 – Basic cumulus dynamics". In: *Cloud Dynamics*, 2ª edição, pp. 165-185 (Academic Press, 2014).
- HOWARD, P. H. e STERNER, T. "Few and not so far between: A meta-analysis of climate damage estimates". *Environmental and Resource Economics* 68, pp. 197-225 (2017).
- HUBER, M. e KNUTTI, R. "Anthropogenic and natural warming inferred from changes in Earth's energy balance". *Nature Geoscience* 5, pp. 31-36 (2011).
- HUFNAGEL, L. e ÁGNES, G. "Impacts of climate change on vegetation distribution no. 2-climate change induced vegetation shifts in the new world". *Applied Ecology and Environmental Research* 12 (2014).
- HUPFER, P. *Witterung und Klima: Eine Einführung in die Meteorologie und Klimatologie*. (Springer-Verlag, 2005).
- INTERNAL Displacement Monitoring Centre (IDMC). *Global report on internal displacement* (2017).
- INTERNATIONAL Organization for Migration (IOM). *Making mobility work for adaptation to environmental changes: Results from the MECLEP global research* (2017).
- IPCC. *Revised 1996 IPCC guidelines for national greenhouse gas inventories workbook – Volume 2: Agriculture* (1996).
- IPCC / EDENHOFER, O. *et al.* (orgs.). *Climate change 2014: Mitigation of climate change*. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (Cambridge University Press, 2014).
- IPCC / STOCKER, T. F. *et al.* (orgs.). *Climate change 2013: The physical science basis*. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (Cambridge University Press, 2013). doi:10.1017/CBO9781107415324

- ISBELL, F. *et al.* "Biodiversity increases the resistance of ecosystem productivity to climate extremes". *Nature* 526, pp. 574-577 (2015).
- IUCN Polar Bear Specialist Group. "Global polar bear population estimates" (2014). Disponível em: <http://pbsg.npolar.no/en/status/pb-global-estimate.html> (Acesso em 30.dez.2017).
- JACKSON, L. C. *et al.* "Global and European climate impacts of a slowdown of the AMOC in a high resolution GCM". *Climate Dynamics* 45, pp. 3299-3316 (2015).
- JAKOBY, O. *Borkenkäfer im Klimawandel* (2015). Disponível em: <https://www.ethz.ch/de/news-und-veranstaltungen/eth-news/news/2015/08/borkenkaefer-im-klimawandel.html> (Acesso em 29.dez.2017).
- JAKOBY, O., WERMELINGER, B., STADELANN, G. e LISCHKE, H. *Borkenkäfer im Klimawandel: Modellierung des künftigen Befallsrisikos durch den Buchdrucker* (Ips typographus) (Eidg. Forschungsanstalt WSL, 2015).
- JOKIEL, P. L. "Temperature stress and coral bleaching BT". In: ROSENBERG, E. e LOYA, Y. (orgs.). *Coral reef health and disease*, pp. 401-425 (Springer-Verlag, 2004). doi:10.1007/978-3-662-06414-6_23
- JOLLY, W. M. *et al.* "Climate-induced variations in global wildfire danger from 1979 to 2013". *Nature Communications* 6, 7537 (2015).
- JONES, B. M. *et al.* "Increase in the rate and uniformity of coastline erosion in Arctic Alaska". *Geophysical Research Letters* 36 (2009).
- JOOS, F. "Growing feedback from ocean carbon to climate". *Nature* 522, pp. 295-296 (2015).
- JOUZEL, J. e MASSON-DELMOTTE, V. "EPICA dome C ice core 800Kyr deuterium data and temperature estimates". Supplement to "Orbital and millennial Antarctic climate variability over the past 800,000 years". *Science*, 317, pp. 793-797 (2007). Disponível em: <https://doi.org/10.1126/science.1141038>. doi:10.1594/PANGAEA.683655
- JOUZEL, J. *et al.* "Validity of the temperature reconstruction from water isotopes in ice cores". *Journal of Geophysical Research: Oceans* 102, pp. 26471-26487 (1997).
- KAICUN, W. e SHUNLIN, L. "Global atmospheric downward longwave radiation over land surface under all-sky conditions from 1973 to 2008". *Journal of Geophysical Research: Atmospheres* 114 (2009).
- KAPLAN, J., KRUMHARDT, K. e ZIMMERMANN, N. "The prehistoric and preindustrial deforestation of Europe". *Quaternary Science Reviews* 28 (2009).
- KAPPAS, M. *Klimatologie: Klimaforschung im 21. Jahrhundert: Herausforderung für Natur und Sozialwissenschaften* (Spektrum Akademischer Verlag, 2009).
- KARELL, P. *et al.* "Climate change drives microevolution in a wild bird". *Nature Communications* 2, 208 (2011).
- KEELING, R. F., KÖRTZINGER, A. e GRUBER, N. "Ocean deoxygenation in a warming world". *Annual Review of Marine Science* 2, pp. 199-229 (2009).
- KIRTMAN, B. *et al.* "2013: Near-term climate change: Projections and predictability". In: STOCKER, T. F. *et al.* (orgs.). *Climate change 2013: The physical science basis*. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (Cambridge University Press, 2013).
- KLOTZ, S. e SETTELE, J. "Biodiversität". In: BRASSEUR, G. *et al.* (orgs.). *Klimawandel in Deutschland*, pp. 151-160 (2017). doi:10.1007/978-3-662-50397-3_15
- KNOX, J., HESS, T., DACCACHE, A. e WHEELER, T. "Climate change impacts on crop productivity in Africa and South Asia". *Environmental Research Letters* 7, 34032 (2012).
- KNUTSON, T. R., McBRIDE, J. L. *et al.* "Tropical cyclones and climate change". *Nature Geoscience* 3, pp. 157-163 (2010).
- KNUTSON, T. R. e TULEYA, R. E. "Impact of CO₂-induced warming on simulated hurricane intensity and precipitation: Sensitivity to the choice of climate model and convective parameterization". *Journal of Climate* 17, pp. 3477-3495 (2004).
- KONDRATYEV, K. J. e MOSKALENKO, N. I. "The role of carbon dioxide and other minor gaseous components and aerosols in the radiation budget". In: HOUGHTON, J. T. (org.). *The global climate*, pp. 225-233 (Cambridge University Press, 1984).
- KÖSSEL, H., WÜLKER, W. e BONK, M. "Vektoren". In: *Lexikon der Biologie* (Spektrum Akademischer Verlag, 1999).

- KOSSIN, J. P., OLANDER, T. L. e KNAPP, K. R. "Trend analysis with a new global record of tropical cyclone intensity". *Journal of Climate* 26, pp. 9960-9976 (2013).
- KOVATS, R. S. *et al.* "2014: Europe". In: BARROS, V. R. *et al.* (orgs.). *Climate change 2014: Impacts, adaptation, and vulnerability. Part B: Regional aspects*. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, pp. 1267-1326 (Cambridge University Press).
- KRÄMER, M. e STRATMANN, F. "Wolkenforschung" (2015).
- KROEZE, C., DUMONT, E. e SEITZINGER, S. P. "New estimates of global emissions of N₂O from rivers and estuaries". *Environmental Science* 2, pp. 159-165 (2005).
- KUHLBRODT, T. *et al.* "On the driving processes of the Atlantic meridional overturning circulation". *Reviews of Geophysics* 45 (2007).
- KULLMAN, L. "Rapid recent range-margin rise of tree and shrub species in the Swedish Scandes". *Journal of Ecology* 90, pp. 68-77 (2002).
- KUNZ, M., MOHR, S. e WERNER, P. "Niederschlag". In: BRASSEUR *et al.* (orgs.). *Klimawandel in Deutschland*, pp. 57-66 (2017). doi:10.1007/978-3-662-50397-3_7
- KURN, D. M. *et al.* *The potential for reducing urban air temperatures and energy consumption through vegetative cooling* (1994).
- KUTTLER, W. "Climate change in urban areas, Part 1, Effects". *Environmental Sciences Europe* 23, 11 (2011).
 ———. "Climate change on the urban scale – Effects and counter-measures in Central Europe". In: CHHETRI, N. (org.). *Human and social dimensions of climate change*, pp. 105-142 (InTech, 2012). doi:10.5772/50867
- KWOK, R. e CUNNINGHAM, G. F. "Variability of Arctic sea ice thickness and volume from CryoSat-2". *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences* 373 (2015).
- LANDAUER, M., PRÖBSTL, U. e HAIDER, W. "Managing cross-country skiing destinations under the conditions of climate change – Scenarios for destinations in Austria and Finland". *Tourism Management* 33, pp. 741-751 (2012).
- LANGENFELDS, R. L. *et al.* "Archiving of Cape Grim air". In: *Baseline Atmospheric Program Australia*, p. 48 (2004).
- LANGENFELDS, R. L. *et al.* "Atmospheric methane, carbon dioxide, hydrogen, carbon monoxide and nitrous oxide from Cape Grim flask air samples analysed by gas chromatography". In: *Baseline Atmospheric Program Australia*, pp. 46-47 (2004).
- LANGENFELDS, R. L. *et al.* "The Cape Grim air archive: The first seventeen years, 1978-1995". In: *Baseline Atmospheric Program Australia*, pp. 53-70 (1996).
- LANTUIT, H. *et al.* "The Arctic coastal dynamics database: A new classification scheme and statistics on Arctic permafrost coastlines". *Estuaries and Coasts* 35, pp. 383-400 (2012). doi:10.1007/s12237-010-9362-6
- LATIF, M. *et al.* *Zukunft der Golfstrom Zirkulation* (2017).
- Le QUÉRÉ, C. *et al.* "Global carbon budget 2015". *Earth System Science Data* 7 (2015).
- Le QUÉRÉ, C. *et al.* "Global carbon budget 2017". *Earth System Science Data* 10 (2018).
- LEAN, J. L. e RIND, D. H. "How natural and anthropogenic influences alter global and regional surface temperatures: 1889 to 2006". *Geophysical Research Letters* 35 (2008).
- LEHMANN, J., COUMOU, D. e FRIELER, K. "Increased record-breaking precipitation events under global warming". *Climatic Change* 132, pp. 501-515 (2015).
- LENTON, T. M. *et al.* "Tipping elements in the Earth's climate system". *Proceedings of the National Academy of Sciences* 105, pp. 1786-1793 (2008).
- LESK, C., ROWHANI, P. e RAMANKUTTY, N. "Influence of extreme weather disasters on global crop production". *Nature* 529, pp. 84-87 (2016).
- LEXIKON der Biologie: Phänologie (Spektrum Akademischer Verlag, 1999). Disponível em: <http://www.spektrum.de/lexikon/biologie/phaenologie/50876> (Acesso em 29.dez.2017).
- LIU, W., XIE, S.-P., LIU, Z. e ZHU, J. "Overlooked possibility of a collapsed Atlantic meridional overturning circulation in warming climate". *Science Advances* 3 (2017).

- LIU, X., LYU, S., ZHOU, S. e BRADSHAW, C. J. A. "Warming and fertilization alter the dilution effect of host diversity on disease severity". *Ecology* 97, pp. 1680-1689 (2016).
- LOCKWOOD, M. e FRÖHLICH, C. "Recent oppositely directed trends in solar climate forcings and the global mean surface air temperature". *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences* 463, pp. 2447-2460 (2007).
- LOEB, N. G. *et al.* "Toward optimal closure of the Earth's top-of-atmosphere radiation budget". *Journal of Climate* 22, pp. 748-766 (2009).
- LOMBARD, A. *et al.* "Contribution of thermal expansion to present-day sea-level change revisited". *Global and Planetary Change* 47, pp. 1-16 (2005).
- LONG, S. P. *et al.* "Food for thought: Lower-than-expected crop yield stimulation with rising CO₂ concentrations". *Science* 312, pp. 1918-1921 (2006).
- LOULERGUE, L. *et al.* "Orbital and millennial-scale features of atmospheric CH₄ over the past 800,000 years". *Nature* 453, pp. 383-386 (2008).
- LOZIER, M. S. "Overturning in the North Atlantic". *Annual Review of Marine Science* 4, pp. 291-315 (2011).
- MACFARLING MEURE, C. *et al.* "Law dome CO₂, CH₄ and N₂O ice core records extended to 2000 years BP". *Geophysical Research Letters* 331 (2006).
- MALCOLM, K. *et al.* "Atmospheric lifetime and global warming potential of HFC-245fa". *Journal of Geophysical Research: Atmospheres* 104, pp. 8173-8181 (1999).
- MARINI, L. *et al.* "Climate drivers of bark beetle outbreak dynamics in Norway spruce forests". *Ecography* 40, pp. 1426-1435 (2017).
- MARQUES, A. *et al.* "Climate change and seafood safety: Human health implications". *Food Research International* 43, pp. 1766-1779 (2010).
- MARTINEZ, J., VEGA-GARCIA, C. e CHUVIECO, E. "Human-caused wildfire risk rating for prevention planning in Spain". *Journal of Environmental Management* 90, pp. 1241-1252 (2009).
- MARTIN-PUERTAS, C. *et al.* "Regional atmospheric circulation shifts induced by a grand solar minimum". *Nature Geoscience* 5, pp. 397-401 (2012).
- MAYEWSKI, P. A. *et al.* "Holocene climate variability". *Quaternary Research* 62, pp. 243-255 (2004).
- MAYHEW, S. *A dictionary of geography* (Oxford University Press, 2015). doi:10.1093/acref/9780199680856.001.0001
- MCGRATH, J. e LOBELL, D. B. "Regional disparities in the CO₂ fertilization effect and implications for crop yields". *Environmental Research Letters* 8, 14054 (2013).
- MCGRAW-HILL. *Dictionary of Earth science* (McGraw-Hill, 2003). doi:10.1036/0071417982
- MCKENZIE, N. R. *et al.* "Continental arc volcanism as the principal driver of icehouse-greenhouse variability". *Science* 352, pp. 444-447 (2016).
- MCKENZIE, R. L. *et al.* "Ozone depletion and climate change: impacts on UV radiation". *Photochemical and Photobiological Science* 10, pp. 182-198 (2011).
- MCKINNEY, A. M. *et al.* "Asynchronous changes in phenology of migrating broad-tailed hummingbirds and their early-season nectar resources". *Ecology* 93, pp. 1987-1993 (2012).
- MEEHL, G. A. *et al.* "Combinations of natural and anthropogenic forcings in twentieth-century climate". *Journal of Climate* 17, pp. 3721-3727 (2004).
- MILLER, G. H. *et al.* "Abrupt onset of the Little Ice Age triggered by volcanism and sustained by sea-ice/ocean feedbacks". *Geophysical Research Letters* 39 (2012).
- MINPENG, H., DINGJIANG, C. e DAHLGREN, R. A. "Modeling nitrous oxide emission from rivers: A global assessment". *Global Change Biology* 22, pp. 3566-3582 (2016).
- MOHR, S. e KUNZ, M. "Recent trends and variabilities of convective parameters relevant for hail events in Germany and Europe". *Atmospheric Research* 123, pp. 211-228 (2013).
- MOHR, S., KUNZ, M. e KEULER, K. "Development and application of a logistic model to estimate the past and future hail potential in Germany". *Journal of Geophysical Research: Atmospheres* 120, pp. 3939-3956 (2015).
- MOLINA, M. J. e ROWLAND, F. S. "Stratospheric sink for chlorofluoromethanes: Chlorine atom-catalysed destruction of ozone". *Nature* 249, pp. 810-812 (1974).

- MOLNÁR, P. K., DEROCHER, A. E., KLANJSCEK, T. e LEWIS, M. A. "Predicting climate change impacts on polar bear litter size". *Nature Communications* 2, 186 (2011).
- MOLNÁR, P. K., DEROCHER, A. E., THIEMANN, G. W. e LEWIS, M. A. "Predicting survival, reproduction and abundance of polar bears under climate change". *Biological Conservation* 143, pp. 1612-1622 (2010).
- MONTZKA, S. A., DLUGOKENCKY, E. J. e BUTLER, J. H. "Non-CO₂ greenhouse gases and climate change". *Nature* 476, pp. 43-50 (2011).
- MORIN, C. W., COMRIE, A. C. e ERNST, K. "Climate and dengue transmission: Evidence and implications". *Environmental Health Perspectives* 121, pp. 1264-1272 (2013).
- MYERS, S. S. *et al.* "Increasing CO₂ threatens human nutrition". *Nature* 510, pp. 139-142 (2014).
- NASA. *Clouds and the energy cycle* (1999).
- NATCATSERVICE – Munich Re. "5 Costliest convective storm events worldwide 1980 – 2016 ordered by nominal overall losses" (2017). Disponível em: <http://natcatservice.munichre.com/topten/1?filter=eyJ5ZWZyRnJvbSI6MTk4MCIwVWVhclRvIjoyMDE2LCJmb2N1c0FuYWx5c2lzSWQiOjIsImZvY3ZvZW5hbHlzaXNBcmVhSWQiOj9&type=1> (Acesso em 5.dez.2017).
- NATIONAL Academies of Sciences, Engineering, and Medicine. *Attribution of extreme weather events in the context of climate change* (The National Academies Press, 2016). doi:10.17226/21852
- NATIONAL Snow and Ice Data Center. "Glacier types: Ice caps" (2017). Disponível em: <https://nsidc.org/cryosphere/glaciers/gallery/icecaps.html> (Acesso em 1.dez.2017).
- _____. "Quick facts on ice shelves" (2017). Disponível em: <https://nsidc.org/cryosphere/quickfacts/iceshelves.html> (Acesso em 28.dez.2017).
- NICHOLLS, R. J. *et al.* "Sea-level rise and its possible impacts given a 'beyond 4 degrees C world' in the twenty-first century". *Philosophical Transactions of the Royal Society A: Mathematical, Physical, and Engineering Sciences* 369 (2011).
- NOAA National Centers for Environmental Information. "Climate at a glance: Global time series" (2018). Disponível em: <http://www.ncdc.noaa.gov/cag/> (Acesso em 4.abr.2018).
- NOERDLINGER, P. D. e BROWER, K. R. "The melting of floating ice raises the ocean level". *Geophysical Journal International* 170, pp. 145-150 (2007).
- NORDHAUS, W. D. e MOFFAT, A. *A survey of global impacts of climate change: Replication, survey methods, and a statistical analysis* (National Bureau of Economic Research Working Papers Series 23646, 2017).
- OECD / International Energy Agency. *Climate change in the European Alps: Adapting winter tourism and natural hazards management* (OECD Publishing, 2007).
- _____. *CO₂ emissions from fuel combustion: Highlights* (2017).
- OKAMOTO-MIZUNO, K. e MIZUNO, K. "Effects of thermal environment on sleep and circadian rhythm". *Journal of Physiological Anthropology* 31, 14 (2012).
- ØKLAND, B., NETHERER, S. e MARINI, L. "The Eurasian spruce bark beetle: The role of climate". In: BJÖRKMAN, C. e NIEMELÄ, P. (orgs.). *Climate change and insect pests*, pp. 202-219 (CAB International, 2015).
- OLBERS, D., WILLEBRAND, J. e EDEN, C. *Ocean dynamics* (Springer-Verlag, 2012). doi:10.1007/978-3-642-23450-7
- OLESEN, J. E. "Agriculture". In: *Climate change, impacts and vulnerability in Europe 2016: An indicator-based report* (European Environment Agency, 2017). doi:10.2800/534806
- OLIVIER, J. G. J. *et al.* *Trends in global CO₂ emissions: 2016 report* (2016).
- OLTMER, J. "Global migration in the future". *Focus Migration* 23 (2013).
- ORGANIZAÇÃO Meteorológica Mundial (WMO). *Scientific assessment of ozone depletion: 2014* (WMO – Global Ozone Research and Monitoring Project Report No. 55, 2014).
- _____. *WMO statement on the status of the global climate in 2010* (2011).
- ORGANIZAÇÃO Pan-Americana da Saúde (OPAS) / Ministério da Saúde – Secretaria de Vigilância em Saúde. *Mudança climática e saúde: Um perfil do Brasil* (2009). Disponível em: http://bvsms.saude.gov.br/bvs/publicacoes/mudanca_climatica_saude.pdf (Acesso em 4.jun.2020).
- OTTO, F. E. L. "Attribution of weather and climate events". *Annual Review of Environment and Resources* 42, pp. 627-646 (2017).

- PAGE, S. E. *et al.* "The amount of carbon released from peat and forest fires in Indonesia during 1997". *Nature* 420, pp. 61-65 (2002).
- PAOLO, F. S., FRICKER, H. A. e PADMAN, L. "Volume loss from Antarctic ice shelves is accelerating". *Science* 348, pp. 327-331 (2015).
- PARMESAN, C. "Ecological and evolutionary responses to recent climate change". *Annual Review of Ecology, Evolution, and Systematics* 37, pp. 637-669 (2006).
- _____. "Influences of species, latitudes and methodologies on estimates of phenological response to global warming". *Global Change Biology* 13, pp. 1860-1872 (2007).
- PARRENIN, F. *et al.* "Synchronous change of atmospheric CO₂ and Antarctic temperature during the last deglacial warming". *Science* 339, pp. 1060-1063 (2013).
- PELSTER, D. E. *et al.* "Methane and nitrous oxide emissions from cattle excreta on an East African grassland". *Journal of Environmental Quality* 45, pp. 1531-1539 (2016).
- PETIT, J. R. *et al.* "Climate and atmospheric history of the past 420,000 years from the Vostok ice core, Antarctica". *Nature* 399, pp. 429-436 (1999).
- PHILIPONA, R. *et al.* "Anthropogenic greenhouse forcing and strong water vapor feedback increase temperature in Europe". *Geophysical Research Letters* 32 (2005).
- PIEBER, S. M. *Organic vapors from combustion emissions and their oxidative aging to form secondary organic aerosol investigated using online mass spectrometry* (Tese de doutorado, ETH Zürich, 2017). doi:10.3929/ethz-b-000218802
- PLANTICO, M. S. *et al.* "Is recent climate change across the United States related to rising levels of anthropogenic greenhouse gases?". *Journal of Geophysical Research: Atmospheres* 95, pp. 16617-16637 (2012).
- POKHREL, Y. N. *et al.* "Model estimates of sea-level change due to anthropogenic impacts on terrestrial water storage". *Nature Geoscience* 5, pp. 389-392 (2012).
- POMOWSKI, A. *et al.* "N₂O binding at a [4Cu:2S] copper-sulphur cluster in nitrous oxide reductase". *Nature* 477, pp. 234-237 (2011).
- PÜTZ, M. *et al.* "Winter tourism, climate change, and snowmaking in the Swiss Alps: Tourists' attitudes and regional economic impacts". *Mountain Research and Development* 31, pp. 357-362 (2011).
- RAES, F. *et al.* "Formation and cycling of aerosols in the global troposphere". *Atmospheric Environment* 34, pp. 4215-4240 (2000).
- RAHMSTORF, S. "Ocean circulation and climate during the past 120,000 years". *Nature* 419, pp. 207-214 (2002).
- RAHMSTORF, S. e SCHELLNHUBER, H. J. *Der Klimawandel* (C. H. Beck, 2006).
- RAHMSTORF, S. *et al.* "Exceptional twentieth-century slowdown in Atlantic ocean overturning circulation". *Nature Climate Change* 5, pp. 475-480 (2015).
- RALEIGH, C., JORDAN, L. e SALEHYAN, I. *Assessing the impact of climate change on migration and conflict* (The World Bank Group, 2008).
- REGEHR, E. V. *et al.* "Effects of earlier sea ice breakup on survival and population size of polar bears in western Hudson bay". *Journal of Wildlife Management* 71, pp. 2673-2683 (2007).
- RIBES, A. *et al.* "A new statistical approach to climate change detection and attribution". *Climate Dynamics* 48, pp. 367-386 (2017).
- RIETBROEK, R. *et al.* "Revisiting the contemporary sea-level budget on global and regional scales". *Proceedings of the National Academy of Sciences* 113, pp. 1504-1509 (2016).
- RITTNER, D. e MCCABE, T. L. *Encyclopedia of biology* (Facts on File, 2004).
- ROBINSON, D. A., ESTILOW, T. W. e NOAA CDR Program. "NOAA climate data record (CDR) of Northern Hemisphere (NH) snow cover extent (SCE), Version 1. [Monthly area of extent, Northern Hemisphere]" (NOAA National Centers for Environmental Information, 2012). doi:10.7289/V5N014G9 [28.jul.2017]
- RODE, K. D., AMSTRUP, S. C. e REGEHR, E. V. "Reduced body size and cub recruitment in polar bears associated with sea ice decline". *Ecological Applications* 20, pp. 768-782 (2010).
- RODE, K. D., ROBBINS, C. T., NELSON, L. e AMSTRUP, S. C. "Can polar bears use terrestrial foods to offset lost ice-based hunting opportunities?". *Frontiers in Ecology and the Environment* 13, pp. 138-145 (2015).

- ROEDEL, W. e WAGNER, T. *Physik unserer Umwelt: Die Atmosphäre* (Springer-Verlag, 2011).
- ROOT, T. L. *et al.* "Fingerprints of global warming on wild animals and plants". *Nature* 421, pp. 57-60 (2003).
- ROSENZWEIG, C. *et al.* "Assessing agricultural risks of climate change in the 21st century in a global gridded crop model intercomparison". *Proceedings of the National Academy of Sciences* 111, pp. 3268-3273 (2014).
- ROSENZWEIG, C. *et al.* "Increased crop damage in the US from excess precipitation under climate change". *Global Environmental Change* 12, pp. 197-202 (2002).
- ROTH, T., PLATTNER, M. e AMRHEIN, V. "Plants, birds and butterflies: Short-term responses of species communities to climate warming vary by taxon and with altitude". *PLoS One* 9, e82490 (2014).
- ROYER, D. *et al.* "CO₂ as a primary driver of Phanerozoic climate". *GSA Today* 14 (2004).
- RUBEN, H. *et al.* "Opposite latitudinal gradients in projected ocean acidification and bleaching impacts on coral reefs". *Global Change Biology* 20, pp. 103-112 (2013).
- RUTTY, M. e SCOTT, D. "Will the Mediterranean become 'too hot' for tourism? A reassessment". *Tourism and Hospitality Planning & Development* 7, pp. 267-281 (2010).
- RUTTY, M. *et al.* "Using ski industry response to climatic variability to assess climate change risk: An analogue study in Eastern Canada". *Tourism Management* 58, pp. 196-204 (2017).
- SANDER, J. *Extremwetterereignisse im Klimawandel – Bewertung der derzeitigen und zukünftigen Gefährdung* (2011).
- SANDRADEWI, J. *et al.* "A study of wood burning and traffic aerosols in an Alpine valley using a multi-wavelength aethalometer". *Atmospheric Environment* 42, pp. 101-112 (2008).
- SANTAMOURIS, M. *et al.* "On the impact of urban heat island and global warming on the power demand and electricity consumption of buildings: A review". *Energy and Buildings* 98, pp. 119-124 (2015).
- SANTER, B. D. *et al.* "Human and natural influences on the changing thermal structure of the atmosphere". *Proceedings of the National Academy of Sciences* 110, pp. 17235-17240 (2013).
- SASGEN, I. *et al.* "Antarctic ice-mass balance 2003 to 2012: Regional reanalysis of GRACE satellite gravimetry measurements with improved estimate of glacial-isostatic adjustment based on GPS uplift rates". *The Cryosphere* 7, pp. 1499-1512 (2013).
- SASGEN, I. *et al.* "Joint inversion estimate of regional glacial isostatic adjustment in Antarctica considering a lateral varying Earth structure (ESA STSE Project REGINA)". *Geophysical Journal International* 211, pp. 1534-1553 (2017).
- SCHAEFER, K., LANTUIT, H., ROMANOVSKY, V. e SCHUUR, E. A. G. *Policy implications of warming permafrost* (United Nations Environment Programme [UNEP], 2012).
- SCHEFCHZYK, L. e HEINEMANN, G. "Climate change impact on thunderstorms: Analysis of thunderstorm indices using high-resolution regional climate simulations". *Meteorologische Zeitschrift* 26, pp. 409-419 (2017).
- SCHUTZ, C. *et al.* "Microbial methane oxidation processes and technologies for mitigation of landfill gas emissions". *Waste Management and Research* 27, pp. 409-455 (2009).
- SCHIMMEL, D. S. "Terrestrial ecosystems and the carbon cycle". *Global Change Biology* 1, pp. 77-91 (2006).
- SCHLENKER, W. e ROBERTS, M. J. "Nonlinear temperature effects indicate severe damages to U. S. crop yields under climate change". *Proceedings of the National Academy of Sciences* 106, pp. 15594-15598 (2009).
- SCHOLLES, R. J. "Climate change and ecosystem services". *WIREs Climate Change* 7, pp. 537-550 (2016).
- SCHÖNWIESE, C.-D. *Klimatologie* (UTB GmbH, 2013).
- SCHOOF, C. "Ice sheet grounding line dynamics: Steady states, stability, and hysteresis". *Journal of Geophysical Research: Earth Surface* 112, F03S28 (2007). doi:10.1029/2006JF000664
- SCHUUR, E. A. G. *et al.* "Climate change and the permafrost carbon feedback". *Nature* 520, pp. 171-179 (2015).
- SCHWARTZ, S. E. "The whitehouse effect – Shortwave radiative forcing of climate by anthropogenic aerosols: An overview". *Journal of Aerosol Science* 27, pp. 359-382 (1996).
- SCHWEIGER, A. *et al.* "Uncertainty in modeled Arctic sea ice volume". *Journal of Geophysical Research: Oceans* 116, pp. 1-21 (2011).

- SEAGER, R., NAIK, N. e VECCHI, G. A. "Thermodynamic and dynamic mechanisms for large-scale changes in the hydrological cycle in response to global warming". *Journal of Climate* 23, pp. 4651-4668 (2010).
- SEALE, A. *et al.* "Ocean forcing of the Greenland ice sheet: Calving fronts and patterns of retreat identified by automatic satellite monitoring of eastern outlet glaciers". *Journal of Geophysical Research: Earth Surface* 116 (2011).
- SEARLE, K. e GOW, K. "Do concerns about climate change lead to distress?". *International Journal of Climate Change Strategies and Management* 2, pp. 362-379 (2010).
- SECRETARIAT of the Convention on Biological Diversity. *Handbook of the convention on biological diversity including its Cartagena Protocol on Biosafety* (Montreal, Canadá, 2005, 3ª edição).
- SENEVIRATNE, S. I. *et al.* "Changes in climate extremes and their impacts on the natural physical environment". In: *Managing the risks of extreme events and disasters to advance climate change adaptation* (Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change [IPCC]), pp. 109-230 (Cambridge University Press, 2012).
- SERQUET, G. e REBETEZ, M. "Relationship between tourism demand in the Swiss Alps and hot summer air temperatures associated with climate change". *Climatic Change* 108, pp. 291-300 (2011).
- SHAKUN, J. D. *et al.* "Global warming preceded by increasing carbon dioxide concentrations during the last deglaciation". *Nature* 484, pp. 49-54 (2012).
- SHAN, W. *et al.* "Landslides caused by climate change and groundwater movement in permafrost mountain" (InTech, 2016). doi:10.5772/63068
- SHEPHERD, A. *et al.* "A reconciled estimate of ice-sheet mass balance". *Science* 338, pp. 1183-1189 (2012).
- SHINE, K. P. *et al.* "Alternatives to the global warming potential for comparing climate impacts of emissions of greenhouse gases". *Climatic Change* 68, pp. 281-302 (2005).
- SILSO World Data Center. "The international sunspot number". *International Sunspot Number Monthly Bulletin and Online Catalogue*.
- SMITH, A. T. e BEEVER, E. "Ochotona princeps. The IUCN red list of threatened species 2016: e T41267A45184315" (2016). Disponível em: <http://dx.doi.org/10.2305/IUCN.UK.2016-3.RLTS.T41267A45184315.en> (Acesso em 30.dez.2017).
- SMITH, T. B. *et al.* "A depth refugium from catastrophic coral bleaching prevents regional extinction". *Ecology*, 95, pp. 1663-1673 (2014).
- SOBOTKA, G. e WEBER, A. *Geometrische und Physikalische Eigenschaften von Human-Haar* (2003).
- SOLOMON, S. *et al.* *Climate change 2007: The physical science basis*. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (Cambridge University Press, 2007).
- STATISTIK Austria. *Österreich. Zahlen. Daten. Fakten* (2017).
- STATISTISCHES Bundesamt. *Geografie und Klima. Statistisches Jahrbuch* (2017).
- STEININGER, K. *et al.* "Multiple carbon accounting to support just and effective climate policies". *Nature Climate Change* 6, pp. 35-41 (2015).
- STEPHENS, G. L. *et al.* "The albedo of Earth". *Reviews of Geophysics* 53, pp. 141-163 (2015).
- STEPHENS, G. L. *et al.* "The global character of the flux of downward longwave radiation". *Journal of Climate* 25, pp. 2329-2340 (2011).
- STERN, N. "The structure of economic modeling of the potential impacts of climate change: Grafting gross underestimation of risk onto already narrow science models". *Journal of Economic Literature* 51, pp. 838-859 (2013).
- STERN, N. (org.). "Summary of Conclusions". In: *The economics of climate change: The Stern review*, pp. xv-xx (Cambridge University Press, 2007). doi:10.1017/CBO9780511817434.003
- STEWART, J. A. E. *et al.* "Revisiting the past to foretell the future: Summer temperature and habitat area predict pika extirpations in California". *Journal of Biogeography* 42, pp. 880-890 (2015).
- STEWART, J. A. E., WRIGHT, D. H. e HECKMAN, K. A. "Apparent climate-mediated loss and fragmentation of core habitat of the American pika in the Northern Sierra Nevada, California, USA". *PLoS One* 12, e0181834 (2017).

- STONE, D. *et al.* "The detection and attribution of climate change using an ensemble of opportunity". *Journal of Climate* 20, pp. 504-516 (2007).
- STURROCK, G. A. *et al.* "Atmospheric histories of halocarbons from analysis of Antarctic firn air: Major Montreal Protocol species". *Journal of Geophysical Research: Atmospheres* 107, D24, ACH 12, pp. 1-14 (2002).
- SUSAN, S. "Stratospheric ozone depletion: A review of concepts and history". *Reviews of Geophysics* 37, pp. 275-316 (1999).
- TANG, I. N. *et al.* "Thermodynamic and optical properties of sea salt aerosols". *Journal of Geophysical Research: Atmospheres* 102, pp. 23269-23275 (1997).
- TAUB, D. R. "Effects of rising atmospheric concentrations of carbon dioxide on plants". *Nature Education Knowledge* 3 (2010).
- TAUB, D. R., MILLER, B. e ALLEN, H. "Effects of elevated CO₂ on the protein concentration of food crops: A meta-analysis". *Global Change Biology* 14, pp. 565-575 (2008).
- TEDESCO, M. *et al.* "Greenland ice sheet". In: *Arctic report card 2016* (2016).
- TETT, S. F. B. *et al.* "Estimation of natural and anthropogenic contributions to twentieth century temperature change". *Journal of Geophysical Research: Atmospheres* 107, D16, ACL 10, pp. 1-24 (2002).
- THACKERAY, S. J. *et al.* "Trophic level asynchrony in rates of phenological change for marine, freshwater and terrestrial environments". *Global Change Biology* 16, pp. 3304-3313 (2010).
- THIEBLEMONT, R. *et al.* "Solar forcing synchronizes decadal North Atlantic climate variability". *Nature communications* 6 (2015).
- THOMAS, C. D. *et al.* "Extinction risk from climate change". *Nature* 427, pp. 145-148 (2004).
- TILMAN, D., REICH, P. B. e KNOPS, J. M. H. "Biodiversity and ecosystem stability in a decade-long grassland experiment". *Nature* 441, pp. 629-632 (2006).
- TINKER, P. B., INGRAM, J. S. I. e STRUWE, S. "Effects of slash-and-burn agriculture and deforestation on climate change". *Agriculture, Ecosystems and Environment* 58, pp. 13-22 (1996).
- TOL, R. S. J. "The impacts of climate change according to the IPCC". *Climate Change Economics* 7, 1640004 (2016).
- TORY, K. J. e DARE, R. A. "Sea surface temperature thresholds for tropical cyclone formation". *Journal of Climate* 28, pp. 8171-8183 (2015).
- TRENBERTH, K. E. "Changes in precipitation with climate change". *Climate Research* 47, pp. 123-138 (2011).
- TRENBERTH, K. E., FASULLO, J. T. e KIEHL, J. "Earth's global energy budget". *Bulletin of the American Meteorological Society* 90, pp. 311-324 (2009).
- TRENBERTH, K. E. *et al.* "Global warming and changes in drought". *Nature Climate Change* 4, pp. 17-22 (2013).
- TRNKA, M. *et al.* "Agroclimatic conditions in Europe under climate change". *Global Change Biology* 17, pp. 2298-2318 (2011).
- TRUDINGER, C. M. *et al.* "Reconstructing atmospheric histories from measurements of air composition in firn". *Journal of Geophysical Research: Atmospheres* 107, pp. ACH 15 1-13 (2002).
- UEFA. *UEFA stadium infrastructure regulations edition 2010* (2010).
- U. S. Department of Agriculture (USDA). *U. S. forest resource facts and historical trends* (2014).
- UNITED STATES Environmental Protection Agency (EPA). "Climate change indicators: Sea level" (2018). Disponível em: <https://www.epa.gov/climate-indicators/climate-change-indicators-sea-level> (Acesso em 5.abr.2018).
- VAN EVERDINGEN, R. O. "Multi-language glossary of permafrost and related ground-ice terms" (National Snow and Ice Data Center/World Data Center for Glaciology, 1998).
- VANDERMEER, J. H. e PERFECTO, I. *Breakfast of biodiversity: The political ecology of rain forest destruction* (Food First Books, 2013).
- VAUGHAN, D. G. *et al.* "2013: Observations: Cryosphere". In: STOCKER, T. F. *et al.* (orgs.). *Climate change 2013: The physical science basis*. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (Cambridge University Press, 2013).
- VELDERS, G. J. M. *et al.* "The importance of the Montreal Protocol in protecting climate". *Proceedings of the National Academy of Sciences* 104, pp. 4814-4819 (2007).

- VELLINGA, M. e WOOD, R. A. "Global climatic impacts of a collapse of the Atlantic thermohaline circulation". *Climatic Change* 54, pp. 251-267 (2002).
- VEZZULLI, L., COLWELL, R. R. e PRUZZO, C. "Ocean warming and spread of pathogenic vibrios in the aquatic environment". *Microbial Ecology* 65, pp. 817-825 (2013).
- VEZZULLI, L. *et al.* "Long-term effects of ocean warming on the prokaryotic community: Evidence from the vibrios". *ISME Journal* 6, pp. 21-30 (2012).
- VISSER, M. E. e BOTH, C. "Shifts in phenology due to global climate change: The need for a yardstick". *Proceedings of the Royal Society B: Biological Sciences* 272, pp. 2561-2569 (2005).
- VOLOSCHUK, C. *et al.* "Rising Mediterranean sea surface temperatures amplify extreme summer precipitation in Central Europe". *Scientific Reports* 6, 32450, pp. 1-7 (2016).
- WALDOCK, J. *et al.* "The role of environmental variables on *Aedes albopictus* biology and chikungunya epidemiology". *Pathogens and Global Health* 107, pp. 224-241 (2013).
- WANG, C. e LEE, S.-K. "Global warming and United States landfalling hurricanes". *Geophysical Research Letters* 35 (2008).
- WANG, C. *et al.* "A global perspective on CMIP5 climate model biases". *Nature Climate Change* 4, 201 (2014).
- WEINSTOCK, J. A. "Rattan: Ecological balance in a Borneo rainforest swidden". *Economic Botany* 37, pp. 58-68 (1983).
- WEISMAN, M. L. e KLEMP, J. B. "The dependence of numerically simulated convective storms on vertical wind shear and buoyancy". *Monthly Weather Review* 110, pp. 504-520 (1982).
- WIGLEY, T. M. L. e SANTER, B. D. "A probabilistic quantification of the anthropogenic component of twentieth century global warming". *Climate Dynamics* 40, pp. 1087-1102 (2013).
- WILCOVE, D. S. e KOH, L. P. "Addressing the threats to biodiversity from oil-palm agriculture". *Biodiversity and Conservation* 19, pp. 999-1007 (2010).
- WILLIAMS, R. S., Jr. e FERRIGNO, J. G. (orgs.). *State of the Earth's cryosphere at the beginning of the 21st century: Glaciers, global snow cover, floating ice, and permafrost and periglacial environments* (U. S. Geological Survey Professional Paper 1386-A, 2012). Disponível em: <https://pubs.usgs.gov/pp/p1386a>.
- WORLD Bank. Population, total (2018). Disponível em: <https://data.worldbank.org/indicator/SP.POP.TOTL> (Acesso em 20.fev.2018).
- WORLD Glacier Monitoring Service (WGMS). "Fluctuations of glaciers database" (WGMS, Zurich, Switzerland, 2017). doi:10.5904/wgms-fog-2017-10. Disponível em: <http://dx.doi.org/10.5904/wgms-fog-2017-10>.
- WORLD Resources Institute. "CAIT climate data explorer (2015)". Disponível em: <http://cait.wri.org> (Acesso em 4.mai.2018).
- WORLD Tourism Organization. *Tourism towards 2030: Global overview* (2011).
- WORLD Tourism Organization/United Nations Environment Programme. *Climate change and tourism: Responding to global challenges* (2008).
- YACOB, S. *et al.* "Baseline study of methane emission from anaerobic ponds of palm oil mill effluent treatment". *Science of the Total Environment* 366, pp. 187-196 (2006).
- ZACHARIAS, S. (2012) *Literaturstudie zum Einfluss des Wetters auf die menschliche Gesundheit: Anlage 1* (2012).
- ZHANG, J. L. e ROTHROCK, D. A. "Modeling global sea ice with a thickness and enthalpy distribution model in generalized curvilinear coordinates". *Monthly Weather Review* 131, pp. 845-861 (2003).
- ZHANG, T. e SMITH, J. "Northern Hemisphere seasonal and intermittent frozen ground areas 1901-2001, Version 1 [N: 90, S: 0, E: 180, W: -180]" (NSIDC: National Snow and Ice Data Center, 17.jul.2017).
- ZHANG, T. *et al.* "Statistics and characteristics of permafrost and ground-ice distribution in the Northern Hemisphere". *Polar Geography* 31, pp. 47-68 (2008).
- ZIELINSKI, G. A. "Use of paleo-records in determining variability within the volcanism-climate system". *Quaternary Science Reviews* 19, pp. 417-438 (2000).
- ZIELINSKI, G. A. *et al.* "Record of volcanism since 7000 B.C. from the GISP2 Greenland ice core and implications for the volcano-climate system". *Science* 264, pp. 948-952 (1994).
- ZIMOV, B. W. A. *et al.* "Biomass offsets little or none of permafrost carbon release from soils, streams, and wildfire: An expert assessment". *Environmental Research Letters* 11, 34014 (2016).