

Curriculum Vitae
Ruth S. DeFries

Contact information

Ecology, Evolution, and Environmental Biology
Columbia University
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Current Appointment

Denning Professor of Sustainable Development, Columbia University, New York

Previous Appointments

Associate Professor and Professor (1999 - 2008), University of Maryland, College Park
Joint appointment in Department of Geography and Earth System Science Interdisciplinary Center
Associate Research Scientist (1992-1999), Department of Geography, University of Maryland, College Park
Senior Project Officer (1983 - 1992), National Research Council, Washington, D.C.
Research Associate (1981 - 1983), Environmental Science and Engineering Group, Indian Institute of Technology, Bombay, India
Hydrologist (Oct 1979 - Oct 1980), United States Geological Survey, Baltimore, MD

Education

Ph.D. (1980), Dept of Geography and Environmental Engineering, Johns Hopkins University, Baltimore, MD
B.A., *summa cum laude* (1976), Washington University, St. Louis, MO (major in earth science)

Areas of Expertise

Consequences of land use change on ecological processes; Characterization of land cover and anthropogenic land use change with remote sensing; Interactions between human activities, the land surface, and ecosystem services that regulate the Earth's habitability.

Fellowships and Honors

MacArthur Fellowship "genius" award, 2007
Member, National Academy of Sciences (elected 2006)
Fellow, Ecological Society of America (elected 2012)
Fellow, American Association for the Advancement of Science (elected 2008)
Fellow, American Geophysical Union (elected 2009)
Fellow, Aldo Leopold Leadership Program of the Ecological Society of America (2001)
Fulbright Award for Research in India (2007)

Representative Recent Publications

DeFries, R., M. Herold, L. Verchot, M. Macedo, and Y. Shimabukuro. 2013. Export-oriented deforestation in Mato Grosso: Harbinger or exception for other tropical forests? *Philosophical Transactions of the Royal Society B* **368**.
DeFries, R., E. C. Ellis, F. S. I. Chapin, P. A. Matson, B. L. Turner II, A. Agrawal, P. J. Crutzen, C. Field, P. Gleick, P. Kareiva, E. Lambin, D. Liverman, E. Ostrom, P. Sanchez, and J. Syvitski. 2012. Planetary opportunities: A social contract for global change science to contribute to a sustainable future. *BioScience* **62**:603-606.
DeFries, R. and C. Rosenzweig. 2010. Toward a whole-landscape approach for sustainable land use in the tropics. *Proceedings of the National Academy of Sciences* 107(46): 19627-19632.
DeFries, R., Rudel, T.K., Uriarte, M., and Hansen, M., 2010. Deforestation driven by urban population growth and agricultural trade in the twenty-first century. *Nature Geoscience*, 3, 178-181.
DeFries, R., and D. Pandey. 2010. Urbanization, the energy ladder and forest transitions in India's emerging economy. *Land Use Policy*. 27(2): 130-138.
DeFries, R., Karanth, K., and Pareeth, S., 2010. Interactions between protected areas and their surroundings in human-dominated tropical landscapes. *Biological Conservation*, 143, 2870-2880.

Books for Popular Audience

DeFries, R. 2014. *The Big Ratchet: How Humanity Thrives in the Face of Natural Crisis*. Basic Books. 288 pp.
Silver, C and DeFries, R. 1990. *One Earth, One Future: Our Changing Global Environment*. National Academy Press. Washington, D.C. 196 pp. (translated into French, Portuguese, Arabic, and Japanese)