

Free satellite data crucial for research

Biodiversity is in crisis, with extinction rates orders of magnitude higher than background levels (1). Underfunded conservationists need to target their limited resources effectively. Over the past decade, satellite remote sensing has revolutionized our ability to monitor biodiversity globally, and is now used routinely, especially by nongovernmental organizations, to detect changes, set priorities, and target conservation action. The U.S. Geological Survey (USGS) unlocked high-resolution Landsat data in 2008 (2), making data now available online (3), and the Copernicus program from the European Commission subsequently made their data available too (4). These resources have been instrumental to biodiversity research. Assessments of environmental changes such as deforestation are now readily available. The current spatial and spectral resolution of Landsat data make them appropriate to many conservation applications, and although they are not always ideal, pragmatic researchers with limited resources use them regularly. Conservationists have already called for these data to remain free (5). Consequently, the news that USGS may charge for data (6) is deeply troubling.

A recent USGS survey on Landsat 9 design asks whether users would be prepared to pay \$50 to more than \$3000 for increased spectral and spatial resolution images (7). This pricing would put these images beyond the reach of conservationists. It would halt time-series analyses that have been useful in monitoring the effects of climate change, land-cover change, and ocean surfaces, likely hindering the achievement of the Sustainable Development Goals (8). We urge the USGS to reconsider their position and continue to provide data from the Landsat program freely to all users.

G. M. Buchanan,¹* A. E. Beresford,¹ M. Hebblewhite,² F. J. Escobedo,³ H. M. De Klerk,⁴ P. F. Donald,⁵ P. Escribano,⁶ L.P. Koh,⁷ J. Martínez-López,⁸ N. Pettorelli,⁹ A. K. Skidmore,¹⁰ Z. Szantoi,⁴ K. Tabor,⁷ M. Wegmann¹¹, S. Wich¹²

¹RSPB Centre for Conservation Science, Royal Society for the Protection of Birds, Edinburgh, EH12 9DH, UK. ²Wildlife Biology Program, Department of Ecosystem and Conservation Sciences, W.A. Franke College of Forestry and Conservation, University of Montana, Missoula, MT 59812, USA. ³Faculty of Natural Sciences and Mathematics, Universidad del Rosario, Bogotá D.C., 11122, Colombia. ⁴Department of Geography and Environmental Studies, Stellenbosch University, Stellenbosch 7602, South Africa. ⁵BirdLife International, David Attenborough Building, Pembroke Street, Cambridge, CB2 3QZ, UK. ⁶CAESCG, University of Almería, Cañada de San Urbano s/n 04120 Almería, Spain. ⁷Betty & Gordon Moore Center for Science, Conservation International, Arlington, VA 22202, USA. ⁸BC3-Basque Centre for Climate Change, University of the Basque Country, 48940, Leioa, Spain. ⁹Institute of Zoology, Zoological Society of London, Regent's Park, London, NW1 4RY, UK. ¹⁰University of Twente, Faculty of Geo-

Information Science and Earth Observation, 7500 AE Enschede, Netherlands. ¹¹Institute of Geography and Geology, 97074 Würzburg, Germany. ¹²School of Natural Sciences and Psychology, Liverpool John Moores University, Liverpool, L33AF.

*Corresponding author. Email: graeme.buchanan@rspb.org.uk

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