



## High-resolution bioclimate map of the world

*This technology is available to access under the University's Open Technology initiative*

### Description of Technology

The Global Environmental Stratification (GENs) is a statistically derived global bioclimate classification, providing a novel global spatial framework for the integration and analysis of ecological and environmental data. The dataset distinguishes 125 strata that are relatively homogeneous in bioclimatic conditions and can be aggregated into 18 environmental zones. The classification procedure is described in Metzger *et al.*, (2013a).

The GENs is available as a raster and vector spatial dataset for use with a Geographical Information System, and has a 30 arcsec resolution (equivalent to 0.86 km<sup>2</sup> at the equator).

The GENs provides a robust spatial analytical framework for the aggregation of local observations, identification of gaps in current monitoring efforts and systematic design of complementary and new monitoring and research.

### Potential Applications

- Gap analyses
- Systematic design of observation networks
- Environmental and agro-ecological assessments

### Key Publications

Metzger MJ, Bunce RGH, Jongman RHG, Sayre R, Trabucco A, Zomer R. (2013a). **A high-resolution bioclimate map of the world: a unifying framework for global biodiversity research and monitoring.** *Global Ecology and Biogeography* (in press). <http://dx.doi.org/10.1111/geb.12022>

Metzger MJ, Brus DJ, Bunce RGH, Carey PD, Gonçalves J, Honrado JP, Jongman RHG, Trabucco A, Zomer R. (2013b). **Environmental stratifications as the basis for national, European and global ecological monitoring.** *Ecological Indicators* (in press). <http://dx.doi.org/10.1016/j.ecolind.2012.11.009>

### Open Technology

Access to the Global Environmental Stratification dataset will be provided following acceptance of the University's Open Technology standard terms and conditions.

### University Services Available

Support is available from the University for integration and use of this technology through consultancy. Please get in touch to discuss your requirements.

### Further Information

Stuart Simmons  
School of GeoSciences  
The University of Edinburgh  
Telephone: +44 (0)131 650 8516  
Email: [Stuart.Simmons@ed.ac.uk](mailto:Stuart.Simmons@ed.ac.uk)