



Wildlife Conservation Society



Socioeconomic Data and Applications Center



Columbia University in the City of New York



World Data Center for Human Interactions in the Environment



The Human Footprint and Last of the Wild

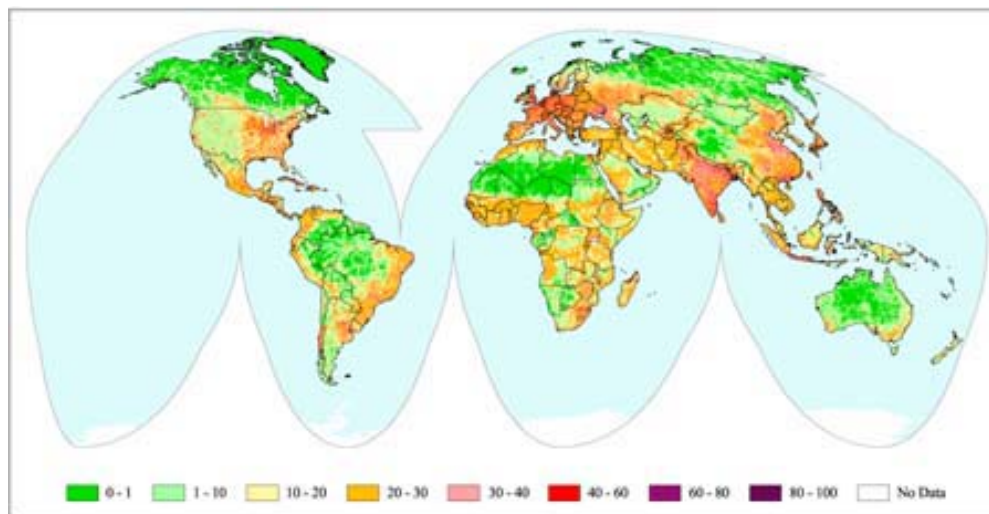
http://www.ciesin.columbia.edu/wild_areas/

Overview

Human influence on the earth's land surface is a global driver of ecological processes on the planet, on par with climatic trends, geological forces and astronomical variations. The Wildlife Conservation Society (WCS) and the Center for International Earth Science Information Network (CIESIN) at Columbia University joined together to systematically map and measure the human influence on the earth's land surface.

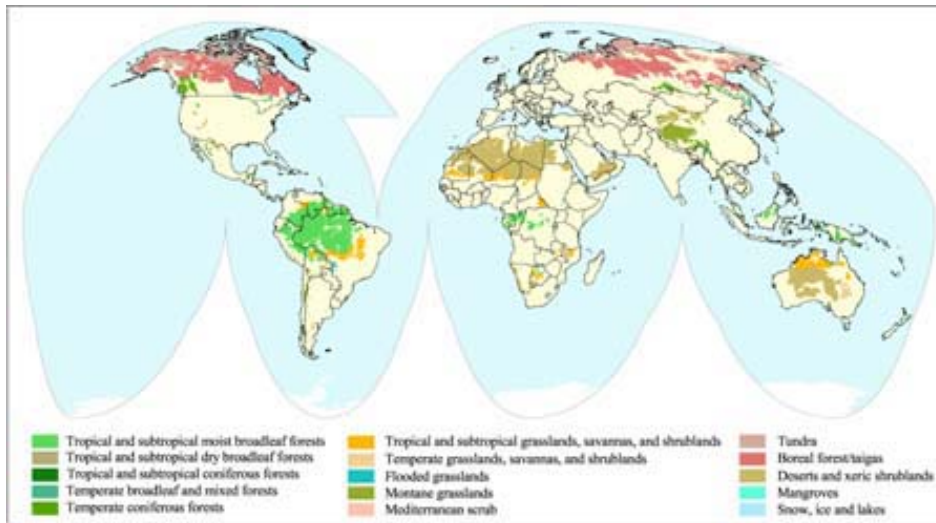
Data

From the above referenced website users can download the Human Footprint dataset in Band Interleaf (BIL) format and the Last of the Wild dataset in BIL and ArcInfo Exchange (.e00) formats. A "readme" file explains how to use the data, and a full metadata record in HTML format provides additional information on data sources and methodologies.



The Human Footprint. The analysis indicates that 83% of the Earth's land surface (excluding Antarctica) is influenced directly by human beings, whether through direct occupancy or human land uses (e.g., roads, infrastructure).

The Human Footprint and Last of the Wild



Last of the Wild. Through analysis of the human footprint, CIESIN and WCS identified 569 wild places, representing the largest wild areas in each of the biomes of the world. Although these wild places vary enormously in their biological productivity and diversity, they represent the least influenced or "wildest" areas in each of their respective biomes.

The best conservation opportunities lie within the approximately 17% of the earth's land's surface relatively less influenced by human beings. In these few places, conservation may be less hampered by conflicts and the targets of conservation may continue to thrive into the future. These areas are termed the "Last of the Wild." They include the major biomes described in the following table.

Biome	Biome area still "wild" (sq. km.)	% of the remaining wild area protected*	Country with greatest % of wild area in biome
Tropical & Subtrop. Moist Broadleaf Forests	6,513,781	14.34	Brazil
Tropical & Subtropical Dry Broadleaf Forests	545,062	8.24	Bolivia
Tropical & Subtropical Coniferous Forests	66,455	5.80	Mexico
Temperate Broadleaf & Mixed Forests	971,552	19.73	Canada
Temperate Conifer Forests	1,621,619	17.78	Canada
Boreal Forests/Taiga	11,623,667	6.66	Russia
Trop. & Subtrop. Grass/Shrublands & Savannas	5,913,951	10.32	Australia
Shrublands	2,395,263	2.68	Argentina
Flooded Grasslands & Savannas	221,897	14.02	Brazil
Montane Grasslands & Shrublands	1,842,254	15.74	China
Tundra	6,926,701	13.32	Russia
Mediterranean Forests, Woodlands & Scrub	415,245	11.20	Australia
Deserts & Xeric Shrublands	15,794,302	6.23	Australia
Mangroves	4,971	44.99	Bahamas
Snow & Ice	154,405	34.97	Canada

* "protected" = in protected areas.

For more information on the methodology and results, see Sanderson, E.W., M. Jaiteh, M.A. Levy, K.H. Redford, A.V. Wannebo, and G. Wolmer. 2002. "The Human Footprint and the Last of the Wild," *BioScience*, Vol. 52, No. 10, pp. 891-904.



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