

Supplementary Material

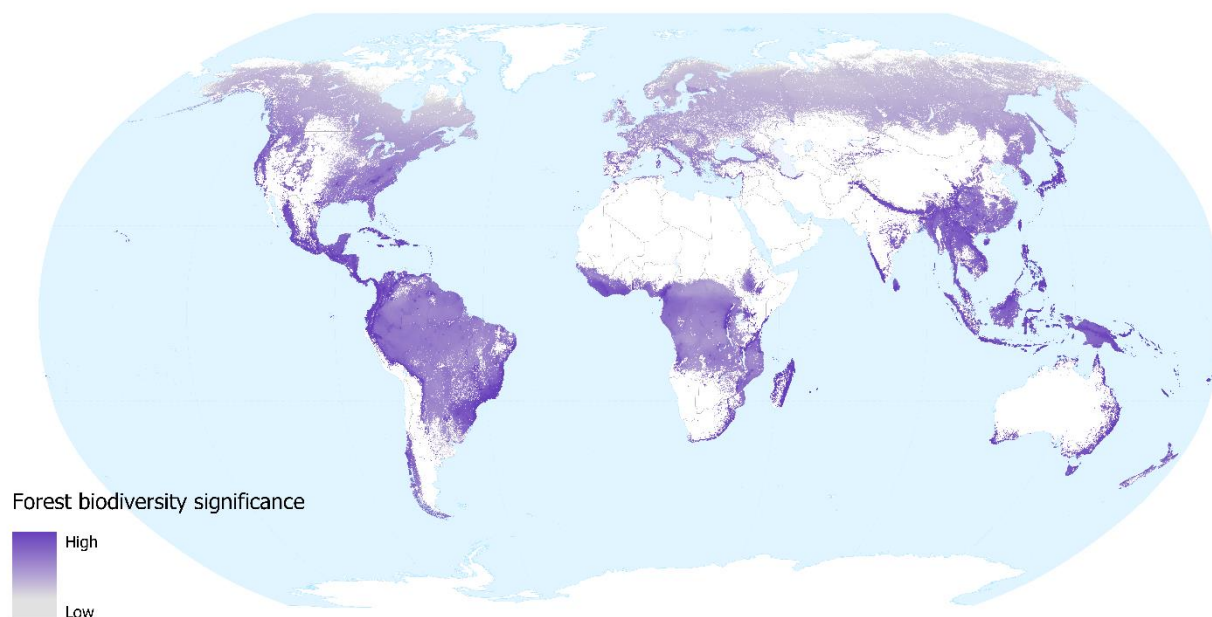
SM Table 1. Boolean conditions used to define land use.

Symbol	Description
B	Hoskins et al. 2016 records show grid cell is dominated by pasture ($U' \cdot C'$)
C	Hoskins et al. 2016 records show grid cell is dominated by cropland ($B' \cdot U'$)
D	Hoskins et al 2016 shows converted land use comprises $>50\%$ of grid cell
G	Forest gain recorded
I	Tropical biome (Temperate = I')
L	Total forest losses 2000 to 2018
M	% cover in 2000 less than 10%
P	Plantation in SDPT
R	"Recent" loss from 2009-2018 ($L \cdot O'$)
T	Forest cover $\geq 60\%$ in 2010
U	Hoskins et al. 2016 records show grid cell is dominated by urban ($B' \cdot C'$)
V	Instability: $\pm 20\%$ cover in 2000-2012

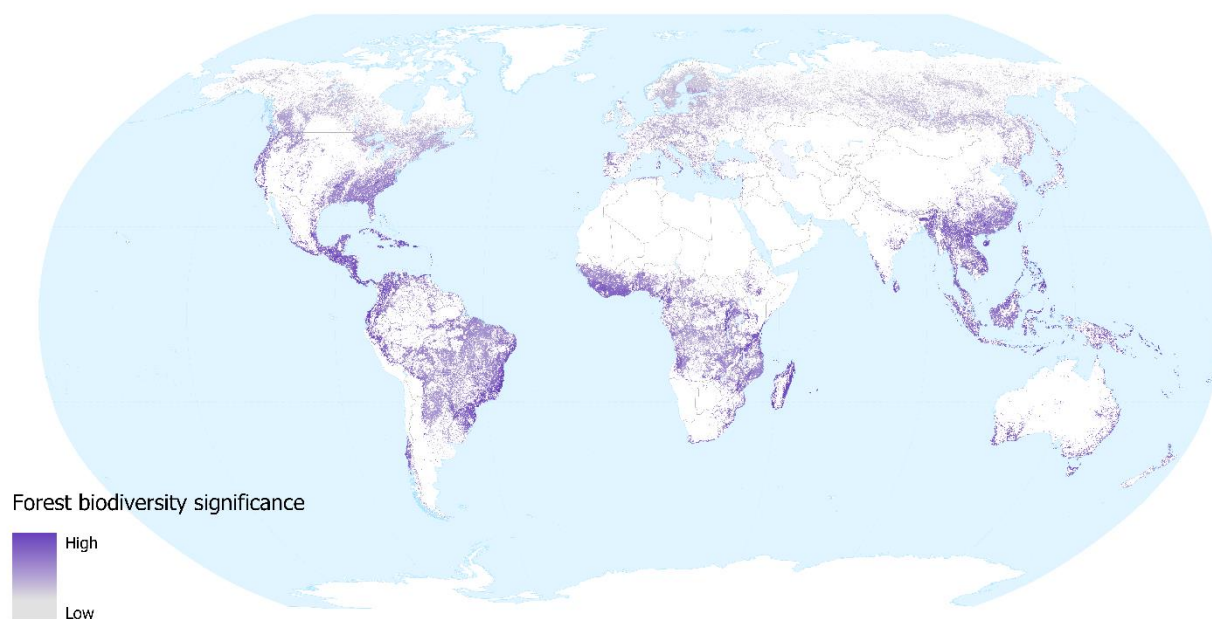
SM Table 2. Spatial inputs to derived layers.

Dataset	Reference	Spatial resolution	Temporal resolution
PREDICTS database	Hudson et al. (2017)	Site-level	Data collected between 1997 and 2016.
HYDE 3.1	Klein Goldewijk et al. (2011)	5'	2005
IUCN range maps	IUCN (2017)	Polygon	Last updated 2017
Downscaled land use	Hoskins et al. (2016)	30''	2005
Global Forest Watch	Hansen et al. (2013)	30m	2000-2018

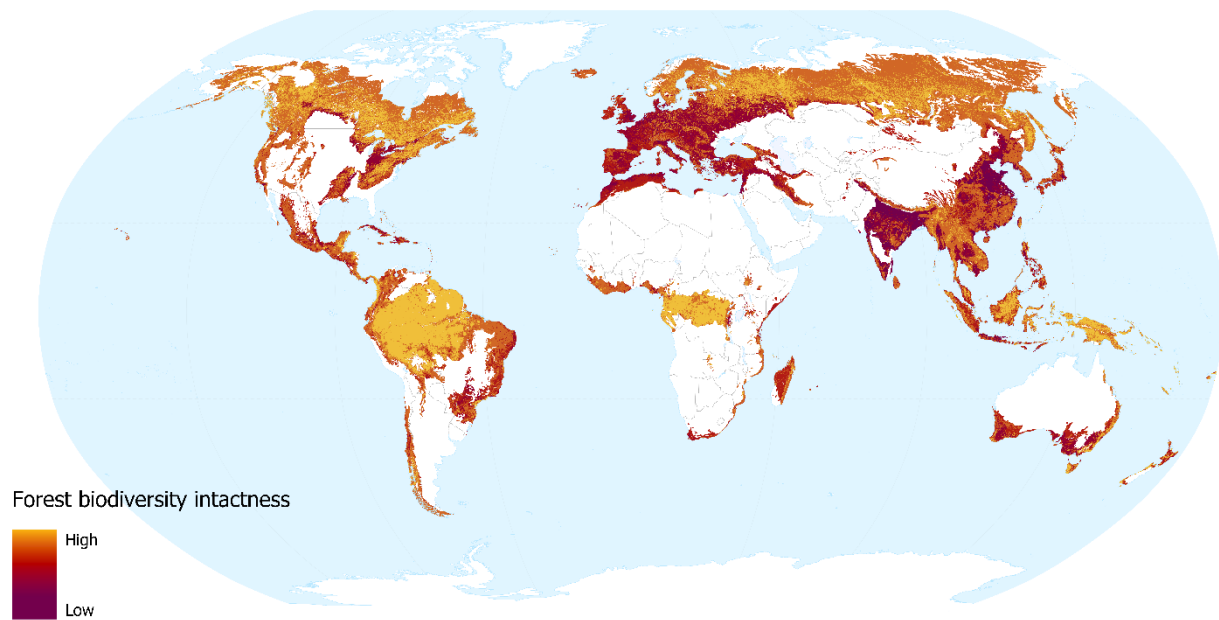
Tree cover 2010	USGS Land Cover Institute (2017)	30m	2010
Global multi-resolution terrain elevation data	Danielson, & Gesch (2011)	7.5''	2010
Spatial Database of Planted Trees	Harris et al. (2019)	Polygon	1995-2017



SM Figure 1: Forest biodiversity significance in 2018, in terms of the contribution of each location to the distributions of forest mammal, bird, amphibian and conifer species occurring in them. Grey shows low and dark purple shows high significance values. White areas are not classified as forest (i.e. tree cover values were <25% in 2000, lost between 2000 and 2018, or mapped as plantations).



SM Figure 2: Forest biodiversity significance for areas of forest loss during 2000-2018, in terms of the contribution of each location to the distributions of forest mammal, bird, amphibian and conifer species occurring in them. Values are for the year 2000 in areas where forest was subsequently lost. Grey shows low and purple shows high significance. White areas are not classified as forest in 2000 (i.e. tree cover was <25% in 2000, or area was mapped as plantation), or where forest remains in 2018 (i.e. no loss during 2000-2018).



SM Figure 3: Forest biodiversity intactness, showing the impacts of forest change and human population density. Yellow shows more intact areas and dark red shows more degraded areas. This map uses a lower cover threshold of $\geq 25\%$ threshold for distinguishing remaining forest.