IPBES GLOBAL/REGIONAL INDICATOR FACTSHEET

This factsheet is intended to provide the authors of IPBES assessments with the necessary information to include this indicator.

A separate follow-up will request indicator values with storylines, supplemented by graphs and maps as applicable. Indicator providers will be alerted when drafts of the regional and global assessments are available for review of indicator use.

Indicator Name	***Species Protection Index***
IPBES Global Assessment Chapter	*Please correct or confirm pre-populated information below.* *Chapter 1: introduction and setting the stage.* ***Chapter 2: status and trends; indirect and direct drivers of change*** ***Chapter 3: progress towards meeting major international objectives related to biodiversity and ecosystem services*** ***Chapter 4: plausible futures of nature, nature's benefits to people and their contributions to a good quality of life*** *Chapter 5: scenarios and pathways towards a sustainable future* ***Chapter 6: opportunities and challenges for decision makers***
Link to IPBES conceptual framework	*Please correct or confirm pre-populated information below.* ***1. Institutions and governance and other indirect drivers*** ***2. Direct drivers (natural/anthropogenic)*** *3. Nature (biodiversity and ecosystems, Mother Earth, systems of life, intrinsic values)* *4. Nature's benefits to people (ecosystem goods and services, nature's gifts)* *5. Good quality of life (human well-being, living in harmony with nature, living-well in balance and harmony with Mother Earth)* *6. Anthropogenic assets*
Drivers-Pressure-State-Impact-Response (DPSIR) framework	*Please correct or confirm pre-populated information below.* *Drivers / **Pressure** / State / Impact / **Response***
Aichi Target	*Please correct or confirm pre-populated information below.* ***Aichi Target 11***
Indicator summary	*Please provide a short description of the indicator, including current status and scales used.* *The Species Protection Index (SPI) assesses species representation in protected areas and potential changes to it over time using integrated distribution, habitat suitability, and remote sensing information and local species observations for validation and statistical uncertainty capture. SPI quantifies how well a region's existing reserves (of different category) represent species, i.e. reliably capture a minimum portion of their global distribution. The index is based on model-based quantifications that are based on per-reserve and per-species basis for all WDPA-recognized reserves and a growing set of thousands of species. Its annual values address both remote-sensing supported changes in suitable range and changes in the reserve system.*
Temporal resolution, extent available	*Please correct or confirm pre-populated information below on the finest temporal resolution available with start and end year data, if applicable.*

	Annual */ Less than annual / single temporal data point* ***Years available:*** *2001 onward*
Temporal resolution, extent willing/able to provide	*Please indicate the range of temporal data your institute is willing/able to provide.* ***Annual***
Spatial resolution, extent available	*Please correct or confirm pre-populated information below on the regional disaggregation available with the finest spatial resolution, if applicable.* ***Global*** */ IPBES region/ IPBES sub-region /* ***Country*** */* ***Sub-country***
Spatial resolution, extent willing/able to provide	*Please indicate the finest spatial data your institute is willing/able to provide.* *Country*
Partners	*Please list the lead agency and any partner organisations* *Map of Life - https://mol.org* *Yale University - http://www.yale.edu* *Google Earth Engine - https://earthengine.google.com* *GEO BON - http://geobon.org*
Global caveats	*Please note any caveats in using the indicator at the global level, e.g. data gaps, assumptions that should be acknowledged.* *SPI is currently restricted to terrestrial taxa, particularly vertebrates, with additional invertebrate and plants groups being added.*
Data and methods	*Please provide a brief summary of the data used in the calculation of the indicator, and the methodology.* *The Species Protection Index builds on detailed, remote-sensing informed species distributions and their overlap with protected areas. These species maps are modelled using literature- and expert-based data on habitat restrictions and published land-cover products from MODIS and Landsat satellites available annually at 30m and 1km resolution and validated with field data on species locations from surveys and citizen science (see Species Habitat Index). Modifications in the area of individual species' overall distribution and the proportion under protection are quantified and updated annually based on changes in protected areas and available suitable habitat. The index represents the aggregate of species-level metrics over any specified spatial unit such as countries or biomes. It can be calculated for different minimum sizes or categories of protected areas and be separated by biological group. A version of the index can also account for countries' stewardship of species (their portion of a species' global range, according to the best-available estimate).* *Underlying data and metrics are available through Map of Life web interface that has been developed with Google Earth Engine as technology partner, see e.g. https://research.googleblog.com/2015/01/map-of-life-preview-of-how-to-evaluate.html or https://species.mol.org/species/protect/Glaucidium_sanchezi.*
Sample size and uncertainty	*Please indicate the sample size for the indicator and metrics of uncertainty per spatial unit, if possible.* *Count of higher-level taxa and species included. As possible: average uncertainty as derived from validation data.*

Regional considerations	*Please note any region-specific comments here if aspects of the indicator vary by IPBES region. (IPBES Regions: Africa / Americas / Asia-Pacific / Europe and Central Asia)*
Reference	*Please list references for the indicator to be used in assessments.* *See mol.org for updates* *Jetz, W., J. M. McPherson, and R. P. Guralnick. 2012. Integrating biodiversity distribution knowledge: toward a global map of life. Trends in Ecology and Evolution 27:151-159.*
Links to further information	*Please provide additional resources, e.g., technical guides, case studies, journal papers, etc., if available.* *https://www.dropbox.com/sh/znu3pl17aak68uq/AAAEBA5lqR_dvB-rxfVwb1zNa/GEOBON_Species Protection Index.pdf* *https://species.mol.org/pa* *https://species.mol.org/species/protect/Glaucidium_sanchezi* *https://research.googleblog.com/2015/01/map-of-life-preview-of-how-to-evaluate.html*
Contact point	*Please provide a contact point for the indicator at your institute, if possible.* ***Name:** Michelle Duong* ***Email**: michelle.duong@yale.edu*