UN environment WCMC 40 years

Biodiversity Indicators Partnership

## INDICATOR FACTSHEET

INDICATOR NAME: **Species Protection Index**

### Key facts

| | |
|---|---|
| **Indicator type** | State |
| Is the indicator **applicable for national use?** | Yes |
| **Current development status** | Developed |
| What is the **coverage**? | Global |
| Is the indicator **freely available?** If so, where? Please provide a link. | Yes<br>Link:<br>https://mol.org/indicators |
| Is the indicator **peer-reviewed?** | Yes |
| Who is involved in the production of this indicator/**who are the partners?** Please provide partner logos. | MOL MAP OF LIFE<br>GEO BON |

### Target information

| **TARGETS** | |
|---|---|
| Please indicate the primary **Aichi target** and any secondary targets that this indicator aligns to? | Aichi: 11<br>Post-2020: Goal A3, A6; Target 2 |
| Is the indicator an **official SDG indicator**, if so, for which target? | |
| Is the indicator **relevant for other SDG targets**? If so please state which. | Goal 14, 15 |
| Is the indicator an **official indicator for other MEA (e.g.** CITES/CMS/RAMSAR**),** if so, for which targets? | IPBES Global Assessment |
| Is the indicator included in the **IPBES core or highlighted** indicators? | Core |

| | |
|---|---|
| Is the indicator **relevant for other MEA targets**? If so please state which. | |

## Themes:

| **THEME** | |
|---|---|
| Agriculture | |
| Marine and freshwater habitats | X |
| Pollution | |
| Finance, research and knowledge | |
| Human well-being | |
| Policy and conservation actions | X |
| Species | X |
| Terrestrial habitats | X |
| Sustainable use of natural resources and land | |

## Who is the main contact point for the indicator?

Walter Jetz, walter.jetz@yale.edu

**Description of the indicator:** (what the indicator is/measures, what policy questions it addresses, brief background/history of development).

The Species Protection Index (SPI) reflects the average percentage of area-based conservation targets met across species within a country in a given year, weighted by the global stewardship a country has for these species.

An SPI of 100 means that all of a country's species are sufficiently represented in its formal reserves or other effective area-based conservation measures. In turn, an SPI of 50 suggests that e.g. a country on average meets only half of the reserve area target for its species. The stewardship-weighting means that species occurring only in a given country and nowhere else (i.e. a country endemics) contribute more strongly to the overall country SPI than species with only partial range in the country.

SPI captures how effectively additions of conservation areas translate into the safeguarding of additional species. Area-based conservation measures for insufficiently conserved species will increase a country's SPI, particularly so if the species are geographically restricted. If an area-based conservation measure does not advance progress toward any species' reserve area targets, then this will not increase the SPI.

The indicator is directly derived from the Species Distribution Essential Biodiversity Variable and can leverage a comprehensive and growing global species occurrence information. It is calculated annually at near global scale for a growing set of species groups, including terrestrial and marine taxa.

**Graphs and diagrams:** (insert graphic/figure, how to interpret the trend and what do +ve/-ve trends mean etc.)

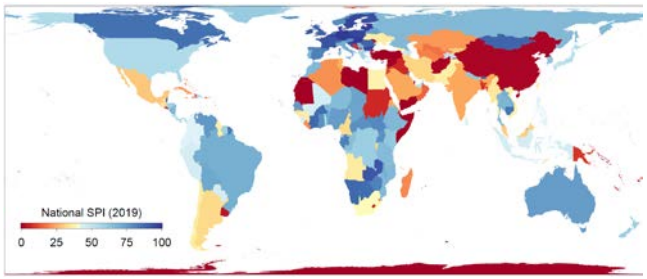


Fig 1: Country SPI values for Year 2019 for terrestrial vertebrates (31,904 species).

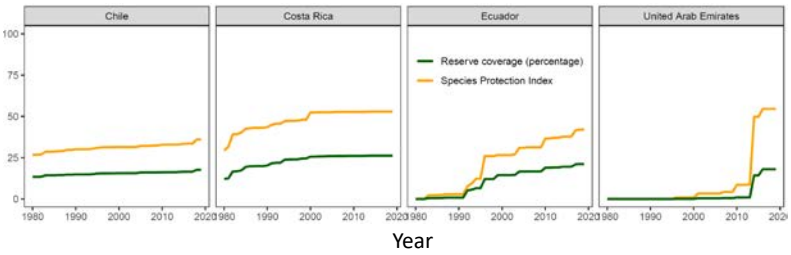


Fig 2: SPI trends (orange) for four example countries (terrestrial vertebrates), compared to trends in areal reserve coverage (% of country area).

Year

**Current storyline** (a succinct overview of the current trend and explain how this impacts biodiversity)

Increases in conservation areas over the past forty years have resulted in important and often disproportionately strong progress for the safeguarding of species. But further, strategically placed area-based conservation measures are needed to ensure areal reserve targets for species are met.

## Data and methodology:

| | |
|---|---|
| **Coverage** | Global |
| **Scale** | Global |
| **Time series available** | 1980-2019 |
| **Next planned update** | 2021 |
| **Possible disaggregations** | By species group and country; sub-national regions in progress |
| **Metadata used** | |
| **Methodology** | SPI quantifies stewardship-weighted annual trends in the proportion of species' reserve targets met. It can be flexibly aggregated at the levels of species, nations and the globe.<br><br>SPI applies a species-level weight to account for different national stewardships of species as determined by the portion of a species' global range a country holds.<br><br>SPI is directly derived from the Species Distribution Essential Biodiversity Variable and is based on a comprehensive and growing global species occurrence information. It is provided using latest, best-possible predictions of species geographic ranges from Map of Life, based on a variety of expert sources (https://mol.org/datasets) combined with habitat information and remote sensing layers. It can be flexibly improved with national/regional data sources.<br><br>Taxonomic coverage is growing and currently (2021) includes terrestrial and marine/coastal vertebrates (~ 40,0000 species*) and select vascular plant groups. Inclusion of select terrestrial and marine invertebrate groups is in progress.<br><br>* Currently (2021), for amphibians sources include range maps assembled by experts supporting IUCN Red List assessments. |

**Producing this indicator nationally:** Please provide a brief description on how easy it is to produce this indicator at the national level

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|---|
| The indicator is readily produced at the national and sub-national level. National indicator values are transparently populated by species-level information. Countries can adopt or substitute provisioned data at national level or independently run the full workflow with available data. |

**Use of the global method and data at the national level:** Please provide explanatory text in the box below which answers the following questions:

| |
|---|
| Are there national subsets of global data available for use to calculate this indicator?<br><br>Yes.<br><br>Can the indicator methodology be applied with in-country data to develop a national indicator?<br><br>Yes, in-country and other data can be combined.<br><br>Is there guidance on how to produce the indicator at the national level? Please provide a link to available guidance.<br><br>See further information and national subset becoming available at https://mol.org/indicators |

**Availability of global data for national use:**

| Freely available for non-commercial use | Available with agreements in place with providers | Contact provider |
|---|---|---|
| X | | |

**Contact person(s) for supporting national use:** Please provide an alternative contact name and email address if this is different than the main indicator contact

| |
|---|
| scott.rinnan@yale.edu |

## Further resources:

https://geobon.org/ebvs/indicators

https://mol.org/indicators

Jetz, W., M. A. McGeoch, R. Guralnick, S. Ferrier, J. Beck, M. J. Costello, M. Fernandez, G. N. Geller, P. Keil, C. Merow, C. Meyer, F. E. Muller-Karger, H. M. Pereira, E. C. Regan, D. S. Schmeller, and E. Turak. 2019. Essential biodiversity variables for mapping and monitoring species populations. Nature Ecology & Evolution **3**:539-551.

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