INDICATOR FACTSHEET

INDICATOR NAME: **Species Habitat 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 Link: 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.	

Target information

TARGETS	
Please indicate the primary **Aichi target** and any secondary targets that this indicator aligns to?	Primary: 5, 12 Post-2020: Goal A2, A3, A4, A6, B1; Target 1
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: <mark>(what the indicator is/measures, what policy questions it addresses, brief background/history of development).</mark>

The Species Habitat Index (SHI) measures the change in suitable habitat and populations of a country's species and the resulting change in the ecological integrity of ecosystems. Country SHI is the average of the change values of its species, weighted by the stewardship the country has for them, with endemic species contributing most strongly.

As example, a SHI decrease of 0.01 means that species have, on average, experienced a 1% contraction in the quality of their habitat-suitable range compared to the 2000 baseline, and thus losses in total population size. The index is able to account for the effects of connectivity (spatial arrangement of suitable patches) and habitat restoration.

The indicator is calculated annually at near global scale and comprehensively for species validated for their inclusion across a growing set of species groups. It can be with amended and optimized with regional data.

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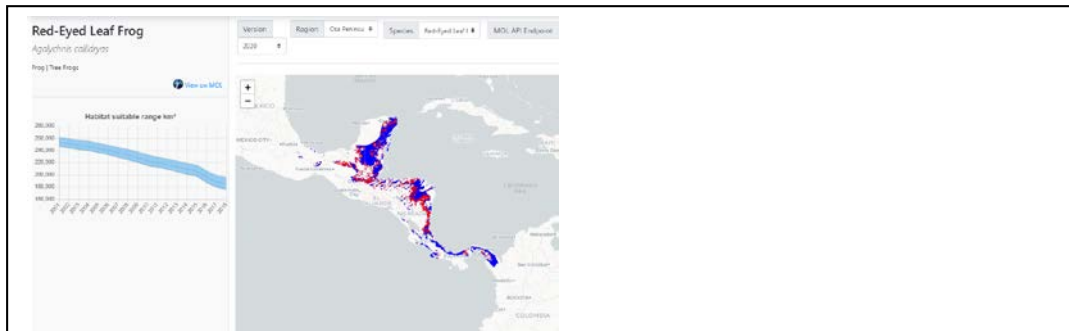

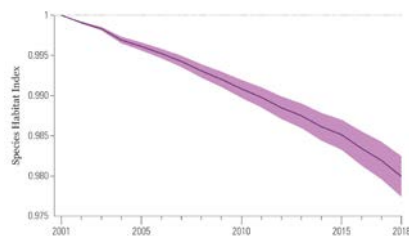Fig 1: Species level SHI calculation for an example species.

Fig 2: Global SHI trends. An SHI decrease of 0.01 means that species have, on average, experienced a 1% contraction in their habitat-suitable range compared to the 2000 baseline, and thus losses in total population size. Trends represent terrestrial vertebrates, following species-level validations with *in situ* data

Current storyline <mark>(a succinct overview of the current trend and explain how this impacts biodiversity)</mark>

Human land-use change, and increasingly climate change, are altering landscapes worldwide. Remotely sensed monitoring and model-based projections offer an increasingly strong and near-global capture of these habitat changes. The Species Habitat Index (SHI) quantifies the resulting implications for species populations. For thousands of species with validated habitat associations worldwide the index measures the losses in habitat-suitable range from observed or modelled habitat change. Between 2000 and 2018 the index has fallen by 2%, indicating a strong and general downward trend in habitat available to species. For select regions and species the SHI decrease is much steeper, with double-digit percentage losses suggesting extensive contractions in total population sizes and thus the ecological roles provided by species.

Data and methodology:

Coverage	Global
Scale	Global
Time series available	2001-2019
Next planned update	2021
Possible disaggregations	By species group and country; sub-national regions in progress
Metadata used	
Methodology	SHI quantifies annual changes in the size of suitable species habitat supporting populations and, as possible, the connectivity of suitable patches. Remote-sensing informed trends are validated and uncertainty-assessed using in situ occurrence data at species level.
	SHI applies a species-level weight to account for different national stewardships of species, i.e. their varying responsibilities as determined by the portion of a species' global range expectation they hold.
	SHI uses latest, best-possible predictions of species geographic ranges from Map of Life, based on a variety of sources (https://mol.org/datasets) combined with habitat information, remote sensing layers and models. These data can be augmented ore replaced with other national data.
	Taxonomic coverage is growing and currently (2021) includes terrestrial vertebrates (~ 32,000 species[*]) and select vascular plant groups. Inclusion of marine/coastal taxa and select invertebrate groups is in progress.
	[*] Currently (2021), for amphibians sources include range maps assembled by experts supporting IUCN Red List assessments.

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

> 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 run the full workflow with provided data and/or additional data independently.

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

> <mark>Are there national subsets of global data available for use to calculate this indicator?</mark>
>
> <mark>Yes.</mark>
>
> <mark>Can the indicator methodology be applied with in-country data to develop a national indicator?</mark>
>
> <mark>Yes, in-country and other data can be combined.</mark>
>
> <mark>Is there guidance on how to produce the indicator at the national level? Please provide a link to available guidance.</mark>
>
> Parties can calculate the indicator using partly or fully with national data, following the methodology. Further information and guidance will be made available through GEO BON webinar and associated materials. Check for national subsets for further use 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: <mark>Please provide an alternative contact name and email address if this is different than the main indicator contact</mark>

Further resources:

https://mol.org/indicators

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