

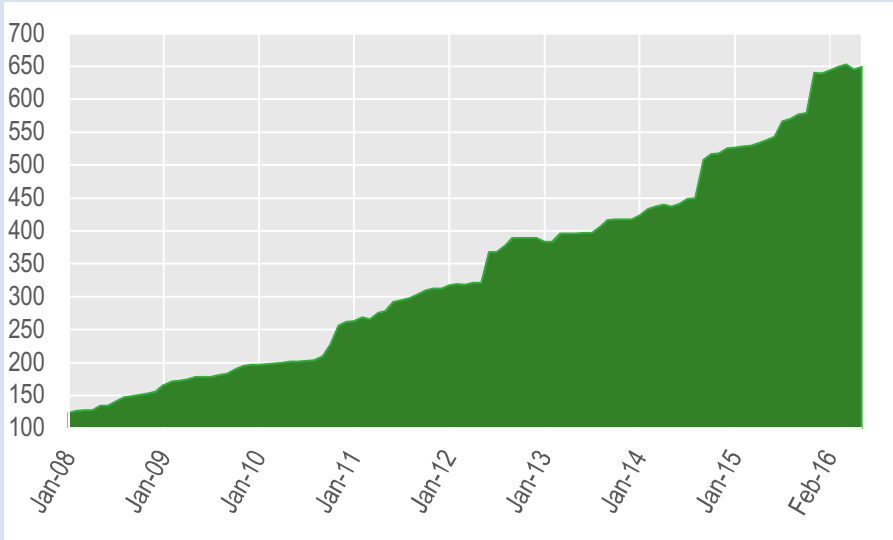


IPBES GLOBAL/REGIONAL INDICATOR FACTSHEET

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

Indicator Name	<i>Growth in species occurrence records accessible through GBIF</i>
IPBES Global Assessment Chapter	<p><i>Chapter 1: introduction and setting the stage</i></p> <p><i>Chapter 2: status and trends; indirect and direct drivers of change</i></p> <p><i>Chapter 3: progress towards meeting major international objectives related to biodiversity and ecosystem services</i></p> <p><i>Chapter 4: plausible futures of nature, nature's benefits to people and their contributions to a good quality of life</i></p> <p><i>Chapter 5: scenarios and pathways towards a sustainable future</i></p> <p><i>Chapter 6: opportunities and challenges for decision makers</i></p>
IPBES Regional Assessment Chapter	<p><i>Chapter 1: scope and methodology</i></p> <p><i>Chapter 2: nature's benefits to people and its impacts on quality of life</i></p> <p><i>Chapter 3: status, trends of biodiversity and ecosystems underpinning nature's benefits to people</i></p> <p><i>Chapter 4: direct and indirect drivers of change in the context of quality of life</i></p> <p><i>Chapter 5: interactions of nature and people and the role of institutions and governance</i></p> <p><i>Chapter 6: options for decision making across scales and sectors</i></p>
Link to IPBES conceptual framework	<ol style="list-style-type: none"> 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	<i>Drivers / Pressure / State / Impact / Response</i>
Aichi Target	<i>Aichi Target 19</i>
Indicator summary	<p><i>Each country needs access to information and data to identify threats to biodiversity and determine priorities for conservation and sustainable use. While nearly all Parties report that they are taking actions related to monitoring and research, most also indicate that the absence of or lack of access to data and information is an obstacle to the implementation of the goals of the Convention. Action taken to reach Target 19 will support the other targets of the Strategic Plan by enabling new research and informing evidence-based policies relating to biodiversity and ecosystem services.</i></p> <p><i>GBIF fulfils a capacity enhancement role by sharing skills, open-source software, tools and best practices on the mobilization and use of biodiversity data. The number of GBIF records indicator reflects the status and trends of</i></p>



	<i>shared biodiversity knowledge, science base and technologies to which Aichi Target 19 refers.</i>
Temporal resolution, extent available	Annual / Less than annual / Single temporal data point Years available: 2008 to 2016 (and going forward as required)
Temporal resolution, extent willing/able to provide	2008-2016 (and going forward as required), approximately quarterly and at a minimum annually
Spatial resolution, extent available	Global / IPBES region/ IPBES sub-region / Country / Finest resolution available: Country Data can be provided as spreadsheets showing numbers for each country, so regional versions of this indicator Note also that taxonomic disaggregation is available down to the level of kingdom.
Spatial resolution, extent willing/able to provide	Country for the purposes of this indicator. However, precise georeferences are available for almost 90% of data points available through www.gbif.org/occurrences , for the purposes of further analysis.
Global storyline	<p>Number of species occurrences (millions) published through GBIF, the Global Biodiversity Information Facility (www.gbif.org)</p>  <p>The data published through GBIF includes species occurrence data from digitized natural history specimen collections, observations from citizen science networks, surveys and research projects, historic literature and a range of other sources. GBIF also deals with names and taxonomic checklists, as well as structured metadata describing biodiversity datasets. Since 2008 the number of records has increased from ca. 155 million to over 600 million. As of 2016, more than 800 institutions shared data through GBIF, and more than 400 peer-reviewed research papers per year cite GBIF as a source of data. There are 56 participating countries and 38 associate participants including international organizations and economies.</p>



Global caveats	<i>Aggregation of data from a variety of networks as well as individual institutions will sometimes lead to duplication of records and datasets. These are removed once they are detected, contributing to some downward movements of this indicator. While the trend over a longer period should accurately reflect data mobilization, movements at finer temporal resolution should be interpreted with caution.</i>
Data and methods	<i>Data are taken from regular snapshots of the species occurrence records shared by GBIF's registered publishers (provider institutions) around the world, harvested and indexed by the technical infrastructure operated by GBIF's Secretariat. The number of records shown in the indicator represents the total volume of data freely accessible to users of GBIF.org at that point in time, including both newly-published datasets and those shared earlier. In that sense these numbers are cumulative, but data publishers may withdraw their data at any time, so the indicator would show a fall if countries and institutions were to move away from a commitment to sharing biodiversity data under open licence. As noted above, removal of duplicates can also result in downward movement, and this can be especially pronounced in disaggregation to national or regional level.</i>
Sample size and uncertainty	<i>The indicator includes all records published through GBIF, so at global scale there is no uncertainty involved. Caution should be applied to disaggregation to regional and country scales, and its interpretation, for the following reasons. Disaggregation of the global indicator may be defined in two principal ways: a) the number of records of species collected or observed within the spatial unit, defined either by lat/long geolocation or the stated country of the sampling or observation; or b) the number of records shared by publishing institutions located in the spatial unit. Because many records shared by institutions through GBIF relate to species collected or observed in other countries, these numbers and trends will often be very different. Especially at regional/sub-regional level, both types of disaggregation may be relevant but will reflect different things: type a) will show trends in the total volume of openly-shared data on biodiversity in that region, from whichever source (global response to biodiversity knowledge in the region); while type b) will show trends in the volume of data shared by institutions in that region, relating to biodiversity anywhere (regional response to biodiversity knowledge globally). GBIF advises use of both sets of metrics to make this distinction clear. For type b) disaggregation, caution must also be applied as some GBIF data publishers are themselves aggregators, combining data from partners in different countries. In these cases all the data will be included within the total for the country where the aggregator is located.</i>
Regional considerations	<i>Africa / Americas / Asia-Pacific / Europe and Central Asia The indicator can be disaggregated to any region or subregion if required (see notes in previous section). Due to very variable engagement in data publishing in different countries, some sub-regions will currently show zero or negligible values under type b) disaggregation, especially Central Asia, West Asia, North Africa and the Caribbean. Note also that in some regions and subregions the data mobilization effort in terms of volume will be dominated by a single country or small group of countries. For example, mobilization from South African institutions dominates the numbers from both Southern Africa and Africa as a whole; Australian records dominate both Oceania and Asia and the Pacific.</i>
Partners	<i>GBIF, all GBIF Participant node institutions (see list at</i>



	http://www.gbif.org/participation/participant-list
Reference	GBIF 2016. Trends in biodiversity data shared through the GBIF network. Available online at http://www.gbif.org/analytics
Links to further information	Biodiversity Indicators Partnership website http://www.bipindicators.net/numberofgbifrecordsvertime Convention on Biological Diversity website http://www.cbd.int/sp/targets/rationale/target-19/
Contact point for further inquiry	Name: Tim Hirsch Email: thirsch@gbif.org