

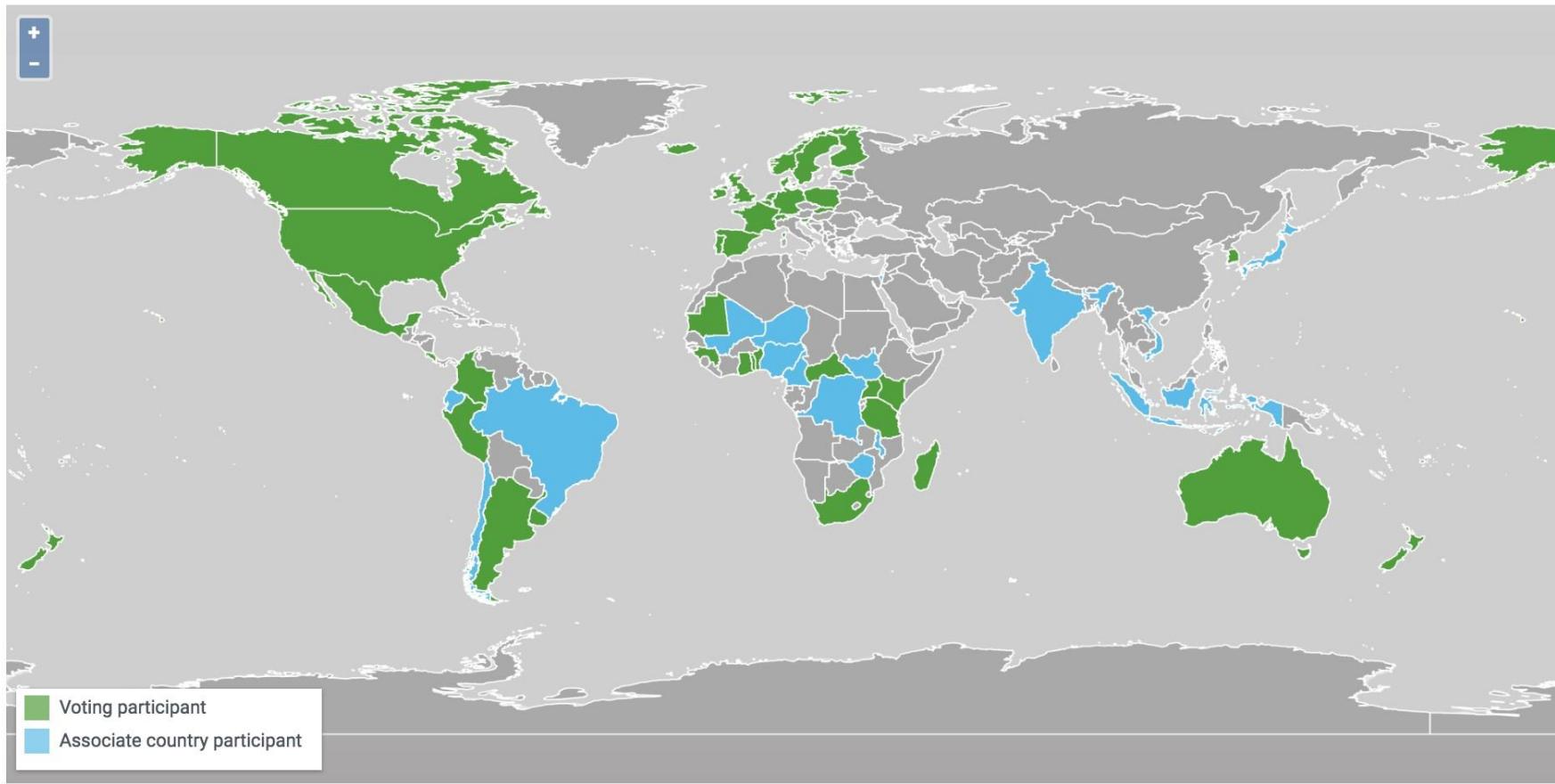
GBIF dan Perkembangan Pangkalan Data Kehati Indonesia (InaBIF)

*Dr. drh. Anang Setiawan Achmadi, M.Sc
Node Manager / Pusat Penelitian Biologi - LIPI*

Warung Kopi Biodiversripsi “Informatika Biodiversitas untuk Indonesia”
Cico Resort, 23 – 24 Maret 2019

The GBIF Network

GLOBAL AFRICA ASIA EUROPE LATIN AMERICA AND THE CARIBBEAN NORTH AMERICA OCEANIA PARTICIPANT ORGANISATIONS GBIF AFFILIATES



42 VOTING PARTICIPANTS

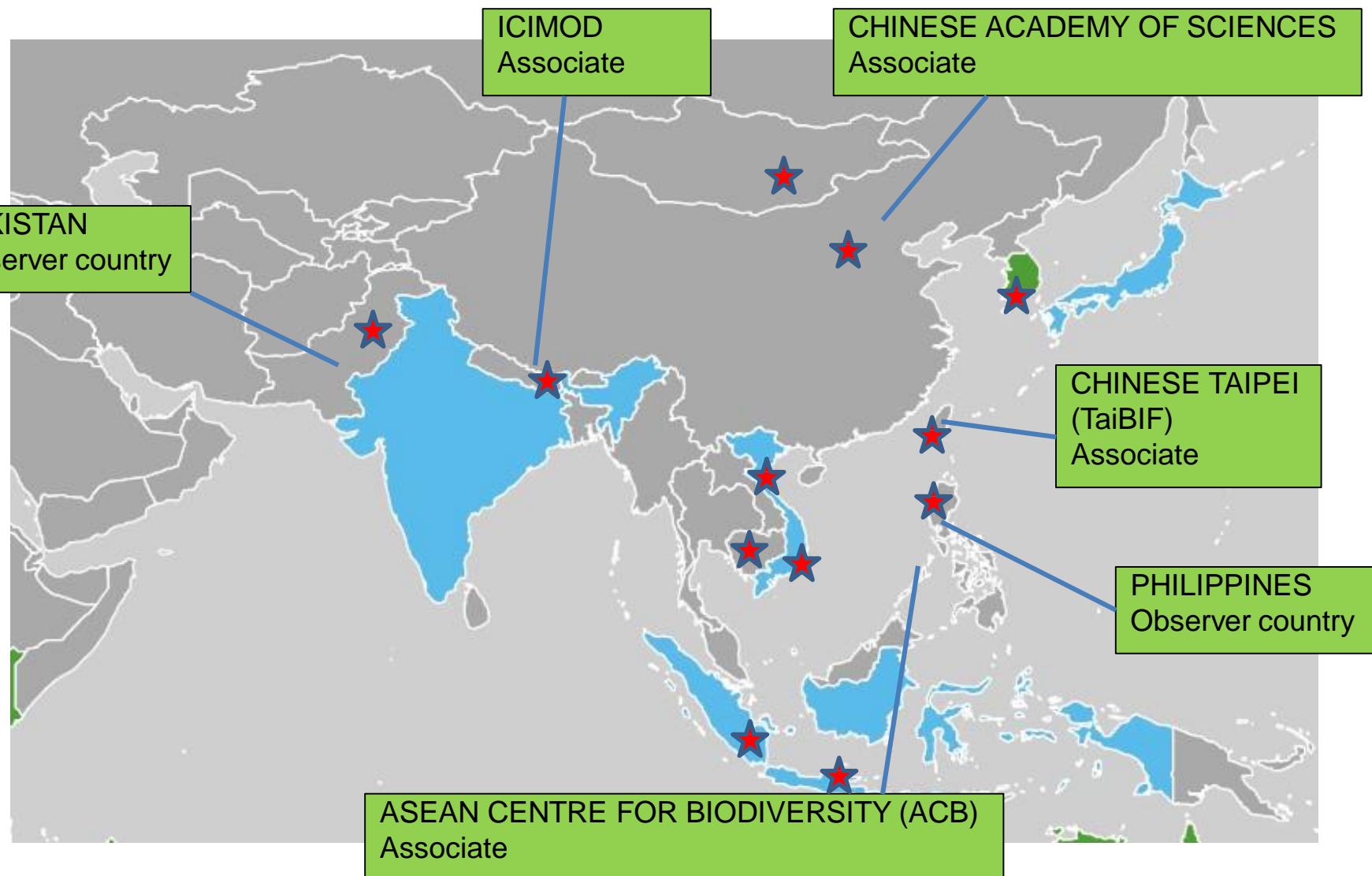
16 ASSOCIATE COUNTRY PARTICIPANTS

37 OTHER ASSOCIATE PARTICIPANTS

1,264 PUBLISHERS

<https://www.gbif.org/the-gbif-network>

THE GBIF NETWORK IN ASIA

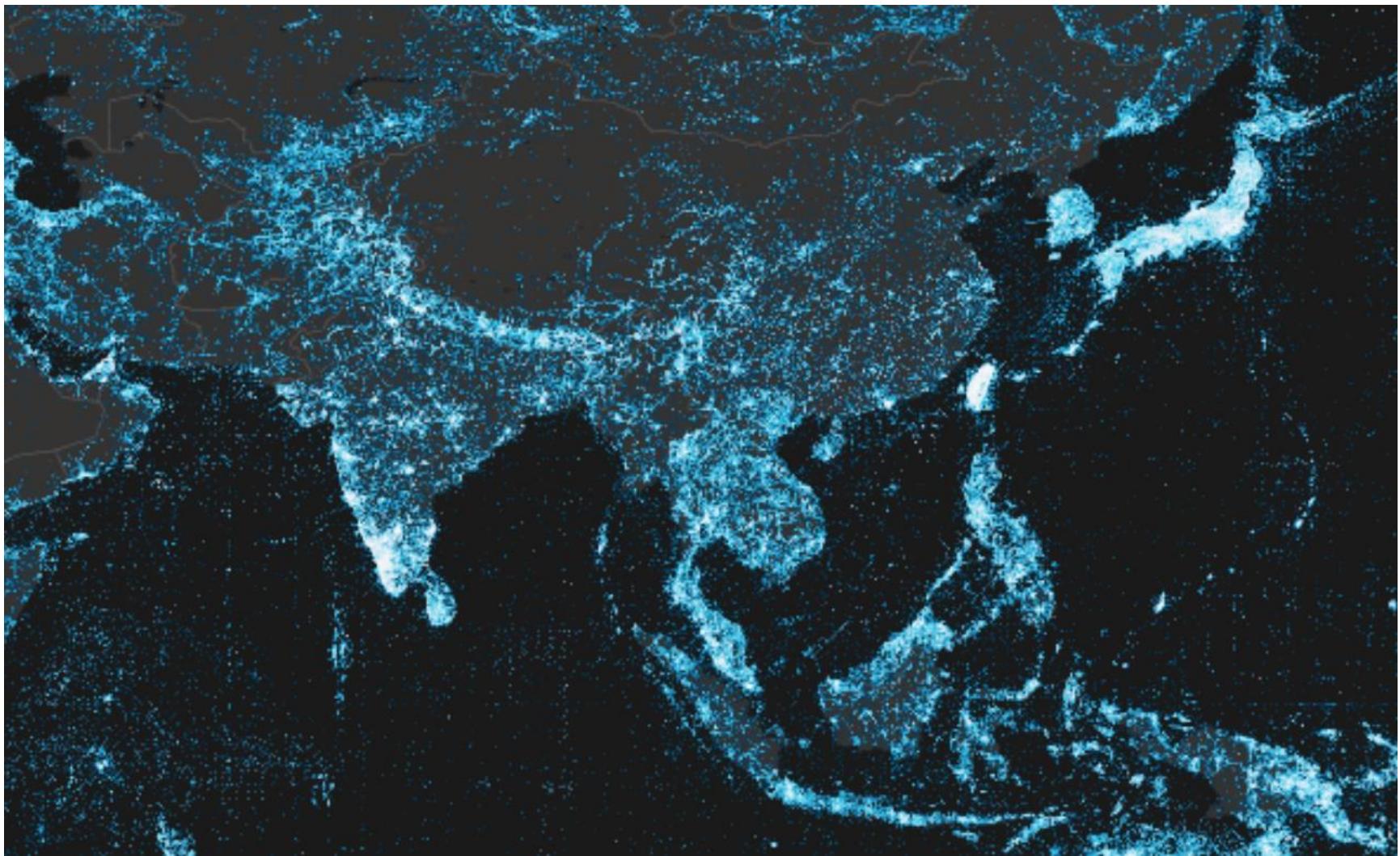


BIFA PROJECTS

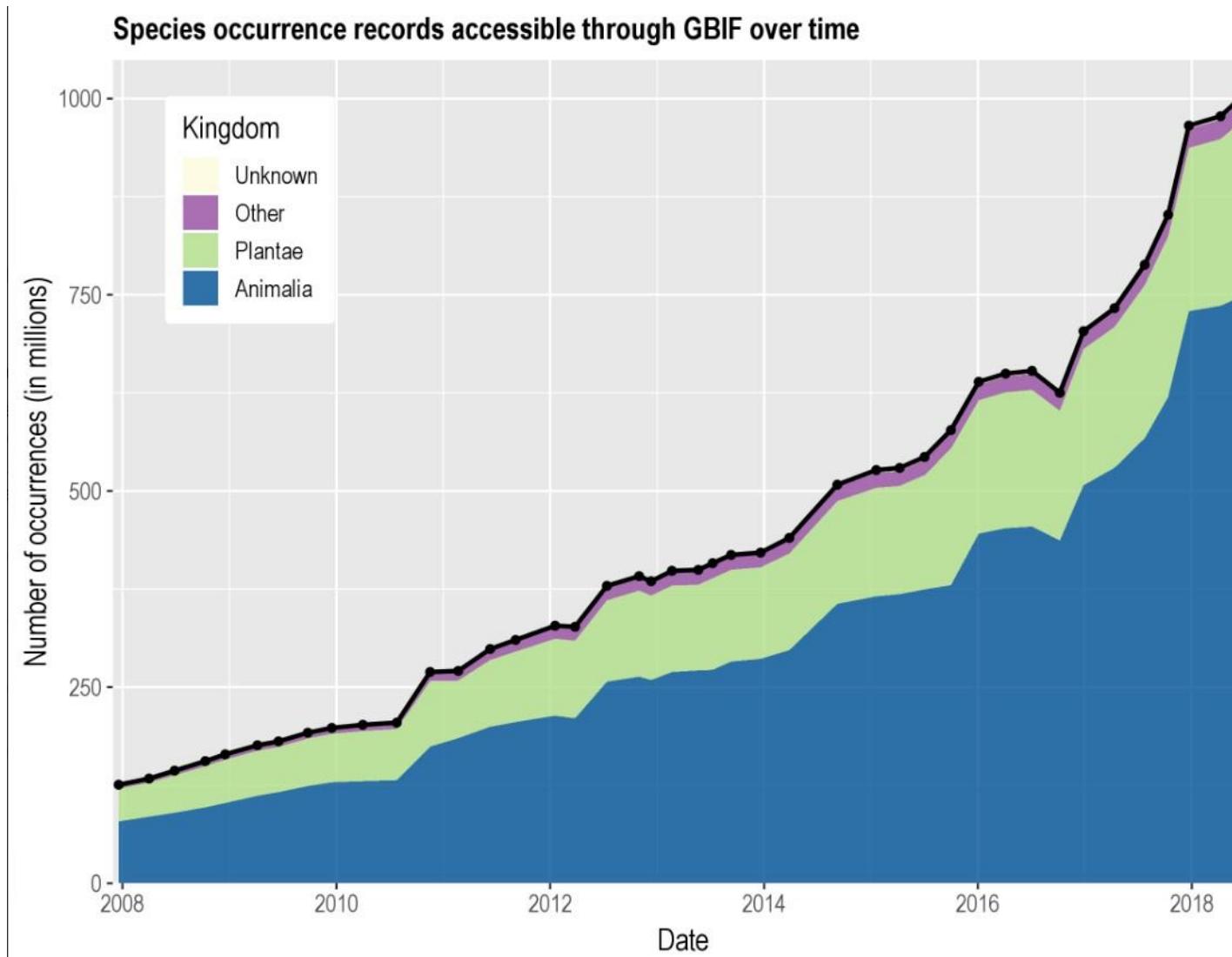
<https://www.gbif.org/the-gbif-network>



DATA DISTRIBUTION IN ASIA



GBIF as Indicator for Aichi Biodiversity Targets



GBIF.ORG – A TOOL FOR RESEARCH AND POLICY

Get data Share Tools Inside GBIF

GBIF | Global Biodiversity Information Facility

Free and open access to biodiversity data

OCCURRENCES SPECIES DATASETS PUBLISHERS RESOURCES

Search

WHAT IS GBIF? ABOUT GBIF SINGAPORE

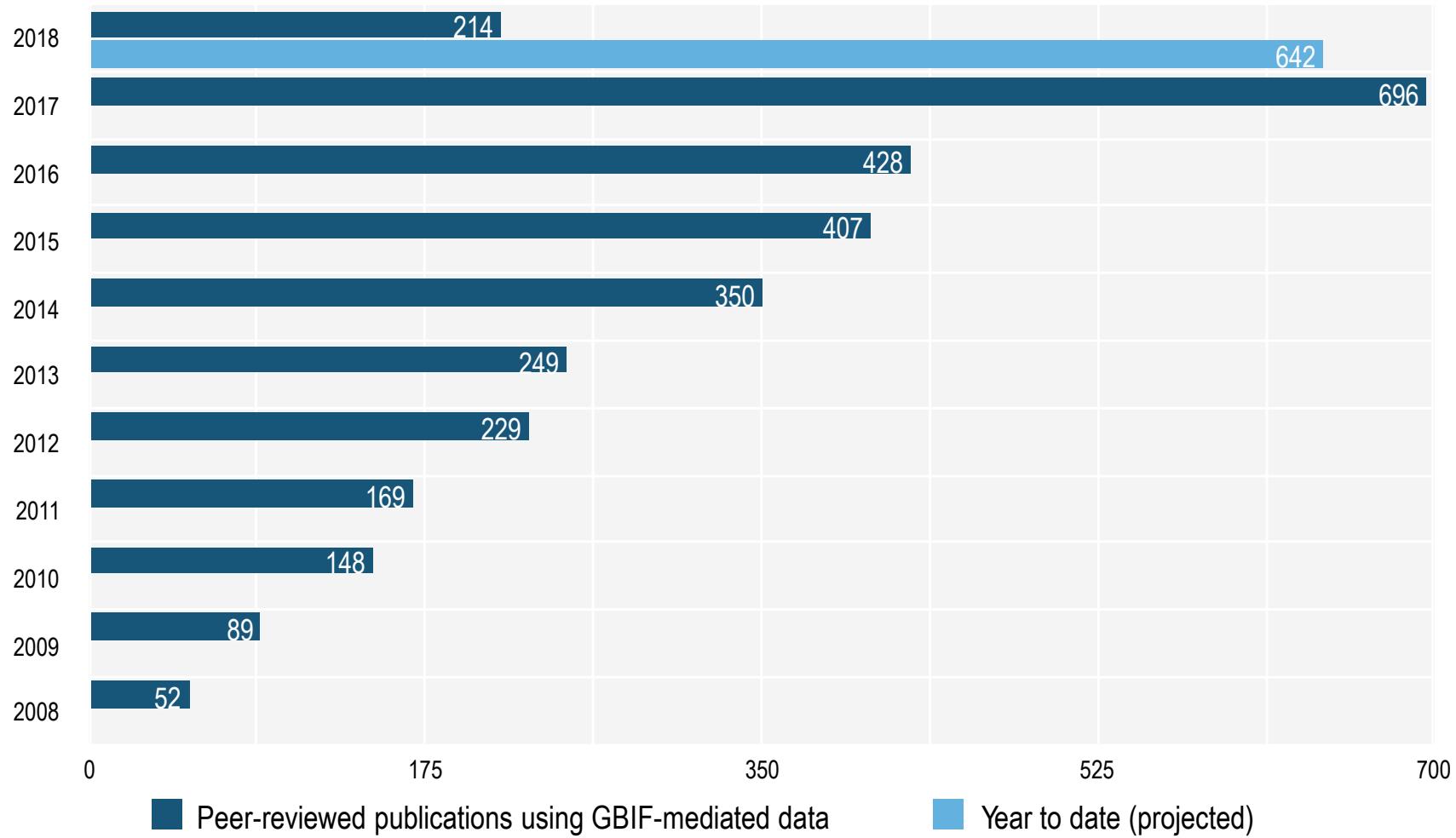
Occurrence records 1,017,203,122 Datasets 40,613 Publishing institutions 1,264 Species

Learn more about the number of species covered by data in GBIF.org.

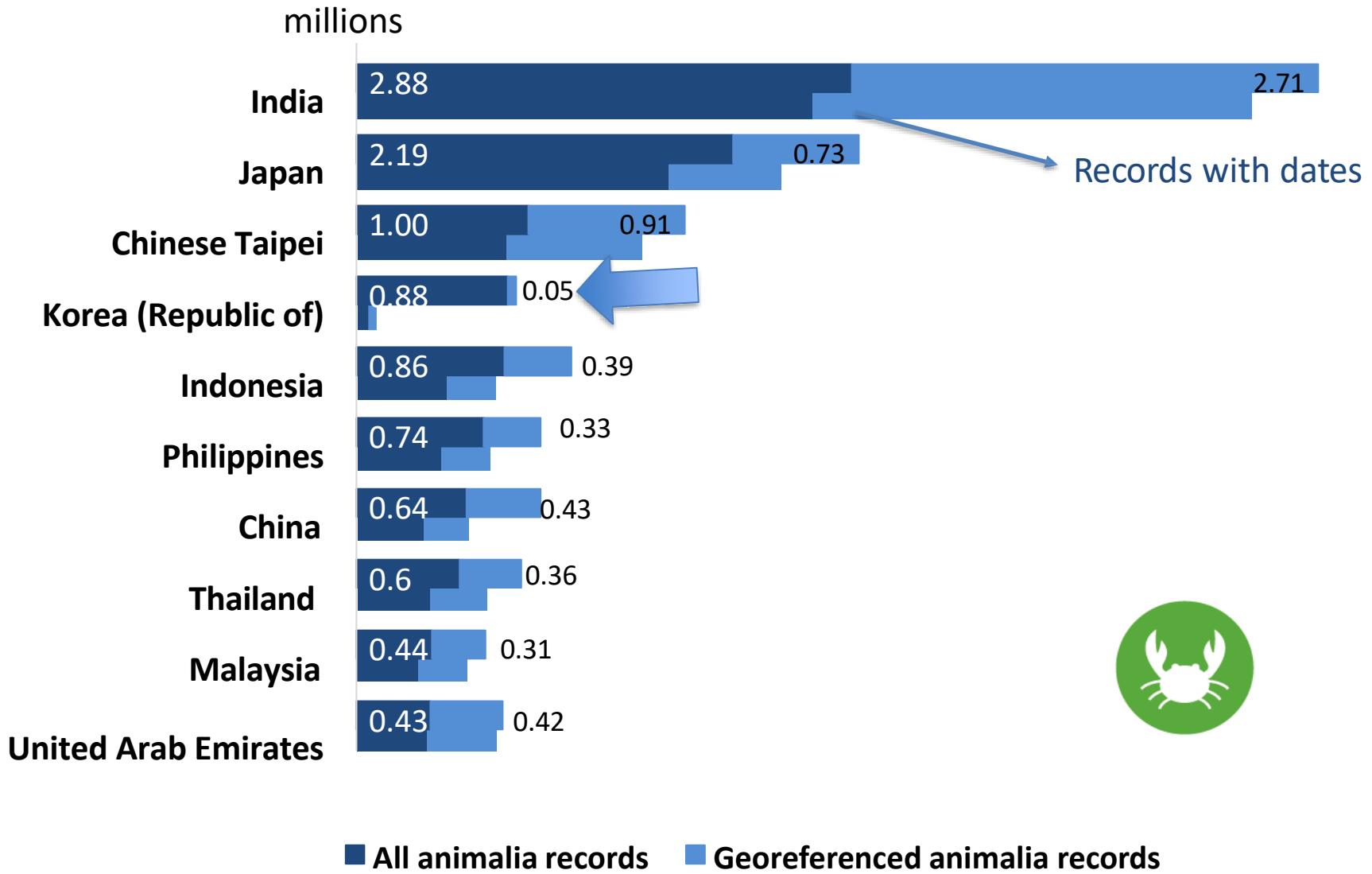
Thysanostoma flagellatum by Peter via iNaturalist. Phot

Adding sequence-based identifiers to backbone taxonomy reveals 'dark taxa' fungi 29 August 2018	From cultivation to invasion - naturalization of garden ornamentals 13 September 2018	Mobilization of biodiversity data from the private sector A Norwegian data flow established to ensure mobilization of biodiversity data to GBIF from the private sector	Partners signal new alliance for biodiversity knowledge 3 August 2018
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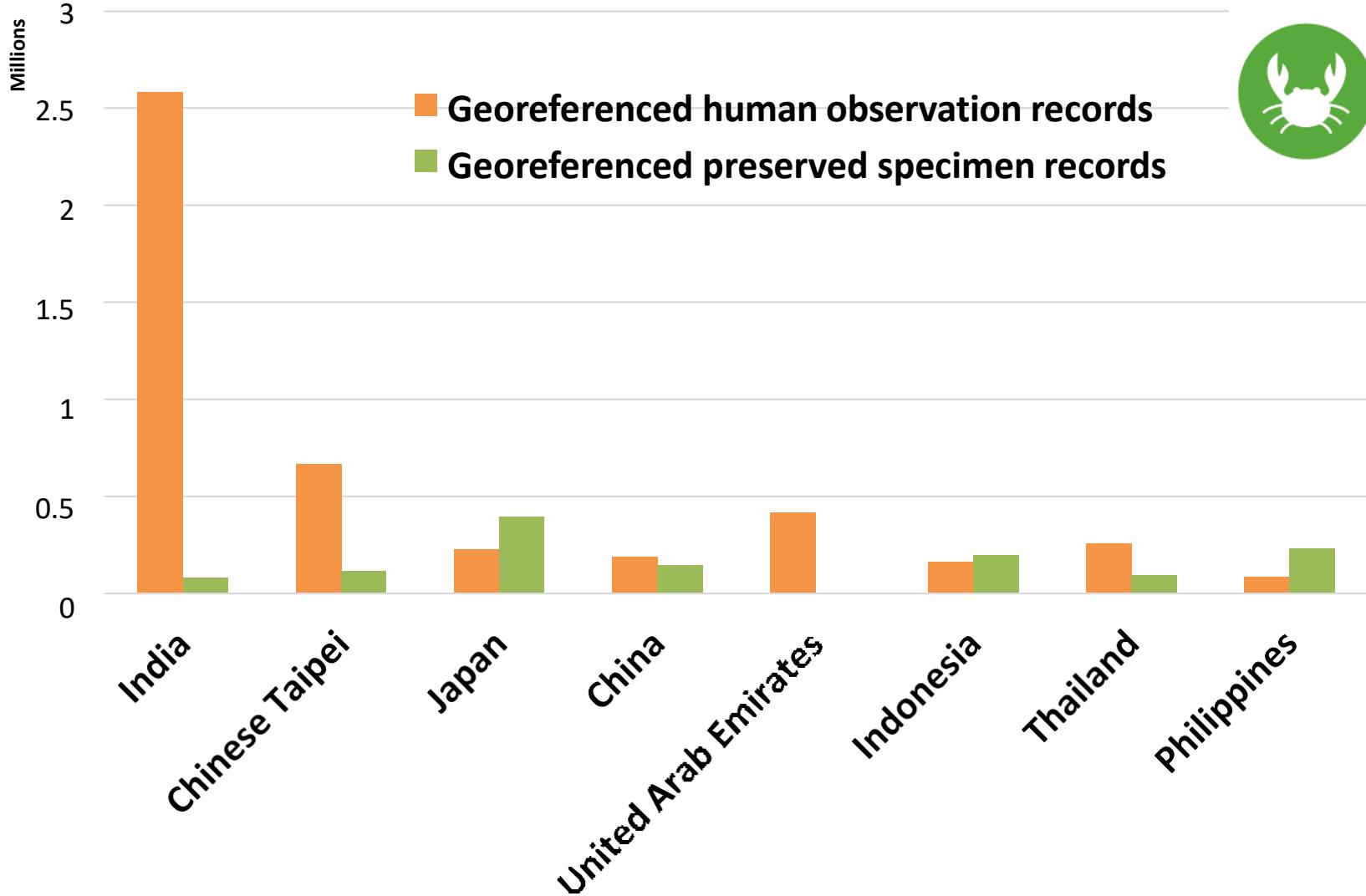
Peer-reviewed publications using GBIF-mediated data



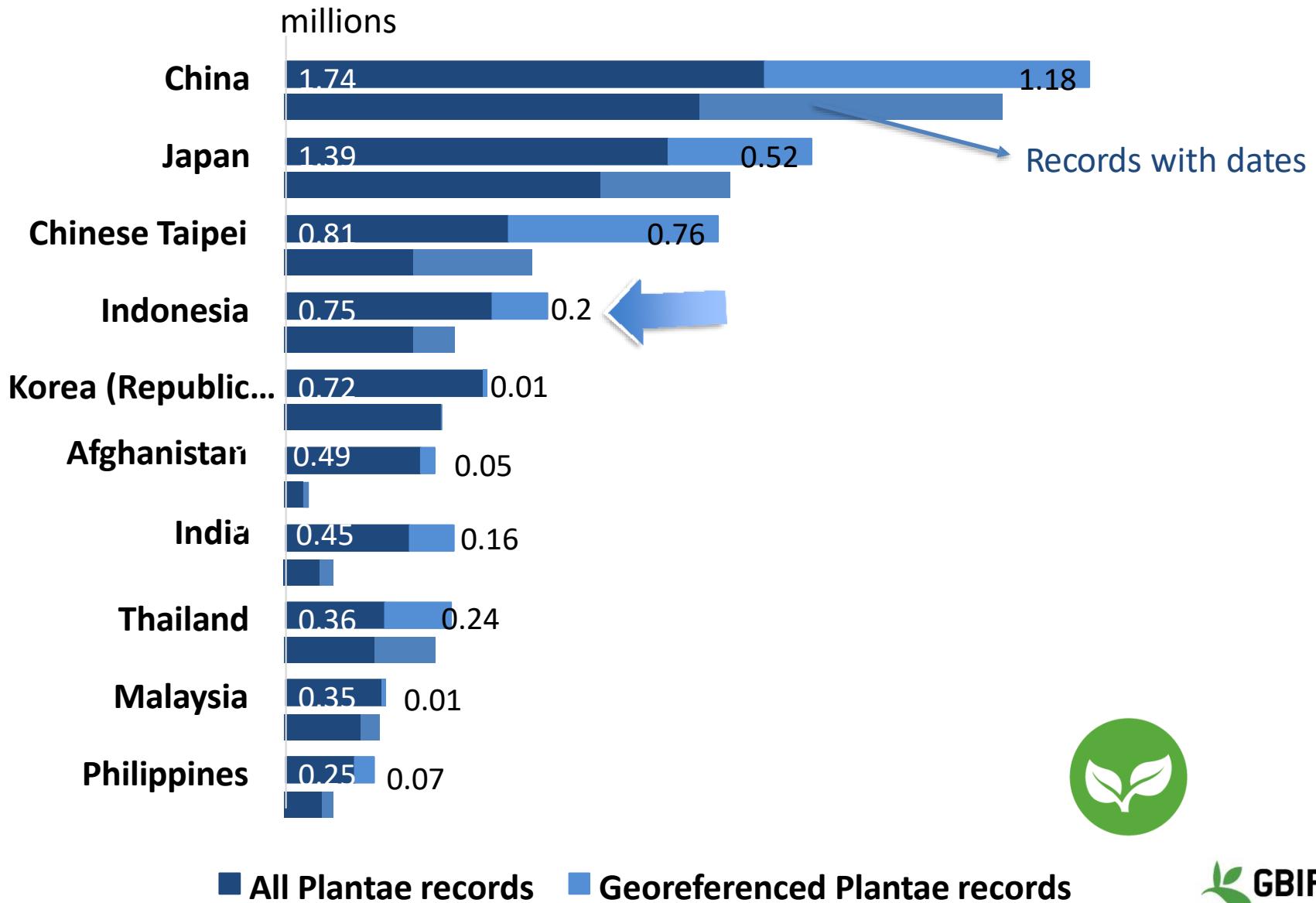
Animal occurrence records in Asia



Top 10 georeferenced animal records in Asia



Plant occurrence records in Asia





Invasive alien species

Climate change

Species conservation and protected areas

Biodiversity and human health

Food, farming and biofuels

Advancing biodiversity science

<https://www.gbif.org/science-review>

<https://www.gbif.org/resource/search?contentType=dataUse>

GBIF as virtual museum

Get data Share Tools Inside GBIF

Occurrences 3

- Observation 4
- Machine observation 746
- Human observation 86,183
- Material sample 201
- Literature 6
- Preserved specimen 42,258
- Fossil specimen 2,280
- Living specimen 0
- Unknown 866

CLEAR REVERSE

Location

Year

Month

Dataset

Country or area

Nepal

Issues and flags

The image shows a grid of 18 specimen images from the GBIF Occurrences gallery. The specimens include:

- Paracanthocobitis aurea (fish)
- Badis andrewraoi (fish)
- Schizothorax richardsonii (fish)
- Schizothoraeichthys Misra (fish)
- Badis badis (Hamilton, 1822) (fish)
- Psilorhynchus nudithoracicus Tilak & Husain, 1980 (fish)
- Badis badis (Hamilton, 1822) (fish)
- Paracanthocobitis aurea (fish)
- Herbfranziella himalayica Fouquè, 2013 (insect)
- myrmica weberi (insect)
- leptogenys np02 (insect)
- Odontoponera transversa (Smith, 1857) (insect)
- Bombus unidentified (insect)

Each image includes a label identifying the species and its scientific name.

Implications to INDONESIA??

Latar Belakang

- Data yang masih tersebar di masing-masing instansi dan sangat sektoral
- Ketidakjelasan sejauh mana data keanekaragaman hayati Indonesia telah terhimpun
- Manfaat yang tidak optimal dari data yang telah dihimpun
- Mandat dari CBD (*Convention on Biological Diversity*) tentang Protokol Nagoya → Tersedianya *Clearing House and Sharing Information* → *accurate, consistent, comparable, complete, and user friendly*
- IBSAP 2015 - 2020 → Perlunya InaBIF

Title

Indonesia Biodiversity Information Facility (InaBIF)

**Information System on The National
Biodiversity: Effective, Efficient and
Accessible**

InaBIF → GBIF- nya Indonesia

Status Indonesia: Associate Participants

42 Voting Participants

12 Associate Country Participants – InaBIF (Indonesia)

36 Other Associate Participants

MISSION AND VISION

- To generate and promote a good system of biodiversity information that can be used as a reference for data and information systems on biodiversity both nationally and internationally.
- Become the basis for developing information systems related to Indonesian Biodiversity.
- Become an information sources that are accurate, accessible and usable nationally or globally, and become a matter of policy consideration.
- Become a source of biodiversity information for the general public, practitioners, academics, teachers, scientists, etc.
- To support the “Clearing House Mechanisms” held by Ministry of Environment and Forestry – Republic of Indonesia

GOVERNANCE AND MANDATE

- Since 2004 → named as NBIN (National Biodiversity Information Network developed by Research Center for Biology – LIPI (Indonesian Institute of Sciences)
- 2007 → NBIN collapsed
- 2012 → *Small Grant Scheme* from JBIF to initiate InaBIF
- 2013 → InaBIF
- 2018 → start collaboration with CHM – Ministry of Environment and Forestry

Keuntungan Bergabung dengan GBIF



Mempercepat pembangunan sistem jaringan data kehati nasional melalui kemudahan akses ke infrastruktur global



Menempatkan data kehati Indonesia hasil koleksi peneliti luar kembali ke dalam pengelolaan Indonesia



Meningkatkan kapasitas Indonesia untuk menyediakan dan mengelola data kehati melalui program mentoring GBIF dan Peningkatan Kapasitas Program untuk Negara Berkembang (CEPDEC)



Membantu memenuhi komitmen internasional, terutama pencapaian Aichi Biodiversity Target 19 tentang peningkatan ilmu pengetahuan dan basis pengetahuan, dan transfer teknologi

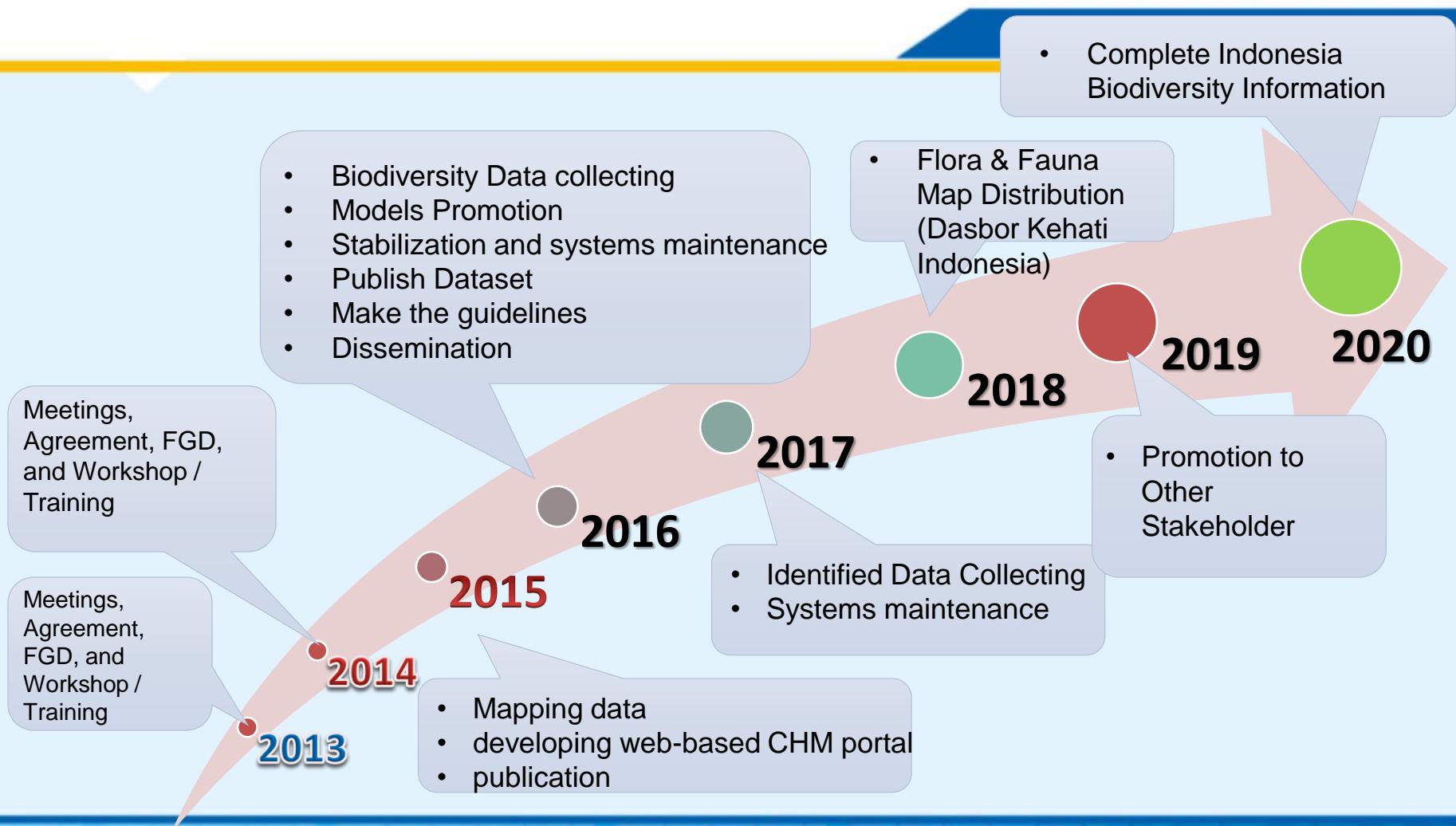


Menjadi bagian dari jaringan kerja sama internasional sehingga memudahkan promosi kehati Indonesia dan peningkatan posisi tawar dalam kerja sama pemanfaatan sumber daya hayati



Memiliki suara dalam pengelolaan jaringan GBIF

Target & Activities InaBIF



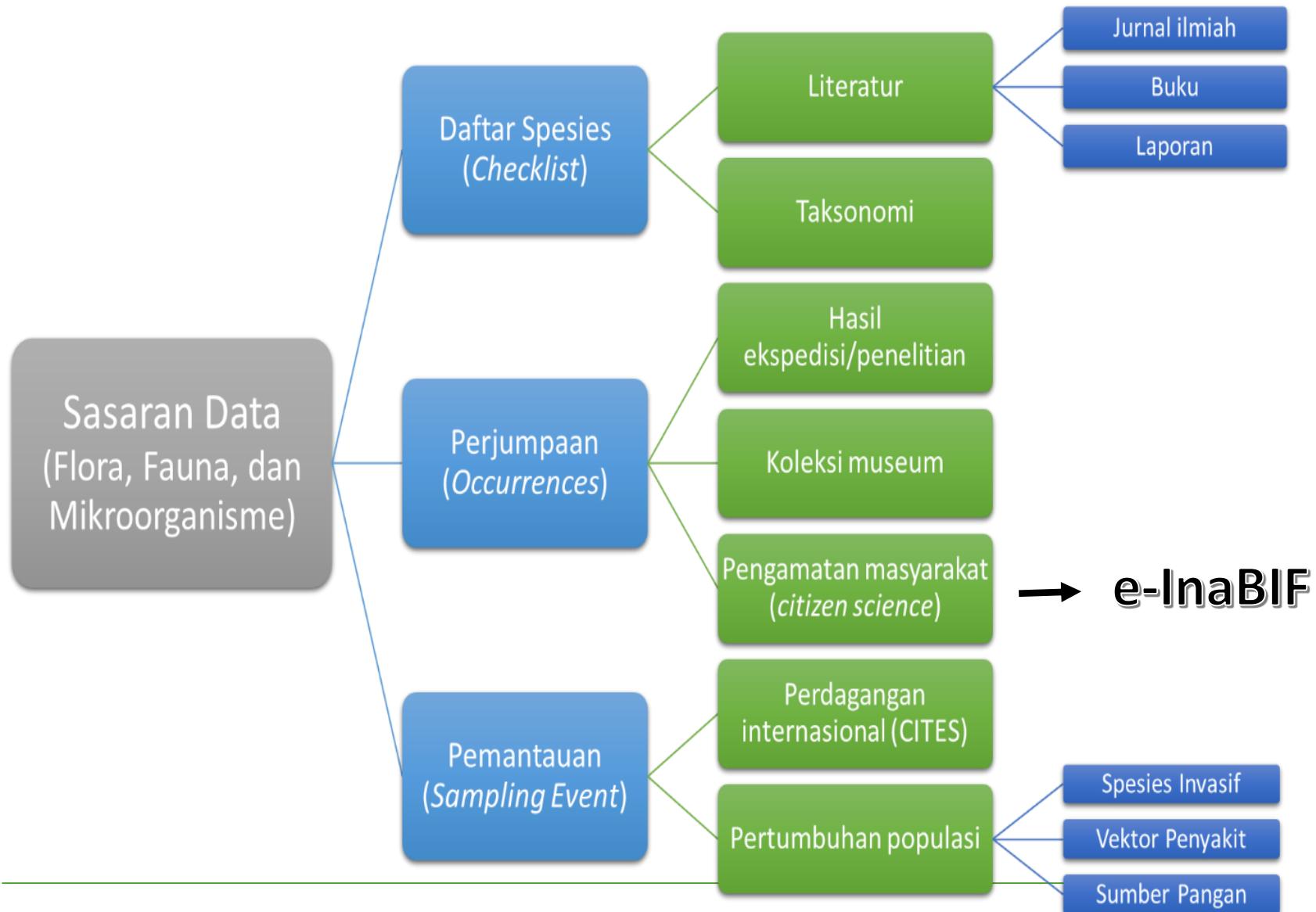
Skema Tujuan, Target, dan Dampak dari Pengembangan InaBIF



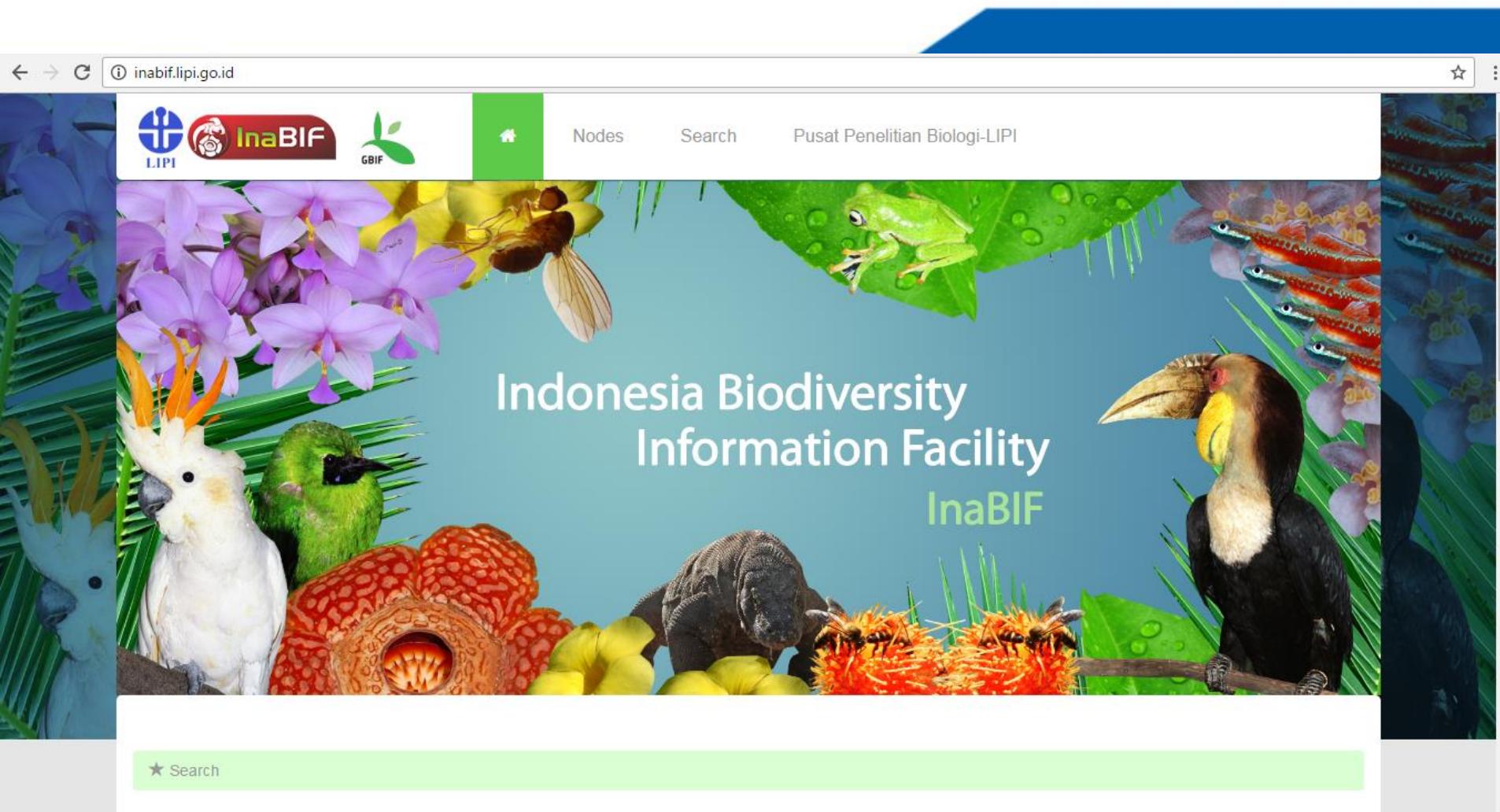
akses informasi
kehati mudah &
cepat untuk publik



SASARAN DATA DALAM PORTAL INABIF



Home page of InaBIF



The screenshot shows the homepage of the Indonesia Biodiversity Information Facility (InaBIF). The header features the LIPI and InaBIF logos, along with links for Nodes and Search, and the text "Pusat Penelitian Biologi-LIPI". The main background image is a vibrant collage of various Indonesian biodiversity, including a white cockatoo, a green bird, a red flower, a lizard, bees, a hornbill, a frog, and fish. Overlaid on this image is the text "Indonesia Biodiversity Information Facility InaBIF". At the bottom left is a search bar with the placeholder "Search".

ACHIEVEMENTS AND CHALLENGES

- Number of types in the InaBIF 2018 portal:
 - 1) Number of Flora species: 41.892
 - 2) Number of Fauna species: 11.026
 - 3) Number of Mikrobs species: 665Total of species number (Flora, Fauna & Mikrobs): 53.583.
- InaBIF has become part of the CHM Indonesia website. The InaBIF portal link is in the Indonesian Biodiversity Database Reference section.
<https://balaikliringkehati.menlhk.go.id/reference-layanan/reference-database-spesies/>
- Data in InaBIF portal:
 1. Data Flora : 201.243 records
 2. Data Fauna : 90.039 records
 3. Data Mikroba : 2.801 recordsTotal number of records (Flora, Fauna, Mikroba) : 294.083 records.
Migrating data base from museum collections ± 900.000 records → *on going*

RECENT DATA



DATA FROM INDONESIA

181,143

Published occurrences

2

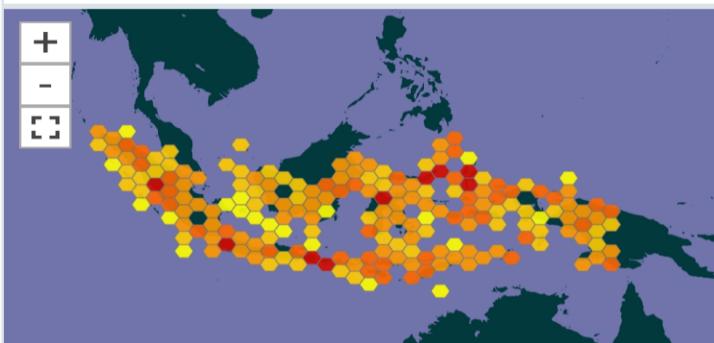
Published datasets

3

Countries and areas covered by data from Indonesia

4

Publishers from Indonesia



Indonesia



An associate participant from Asia

Names of countries and areas are based on the ISO 3166-1 standard

SUMMARY

DATA ABOUT

DATA PUBLISHING

DATA ABOUT INDONESIA

1,945,046

Occurrences

1201

Datasets

39

Countries and areas contribute data

304

Publishers

InaBIF number of records

[Playback Window Size: 1366 x 768]

Records



Recent updates

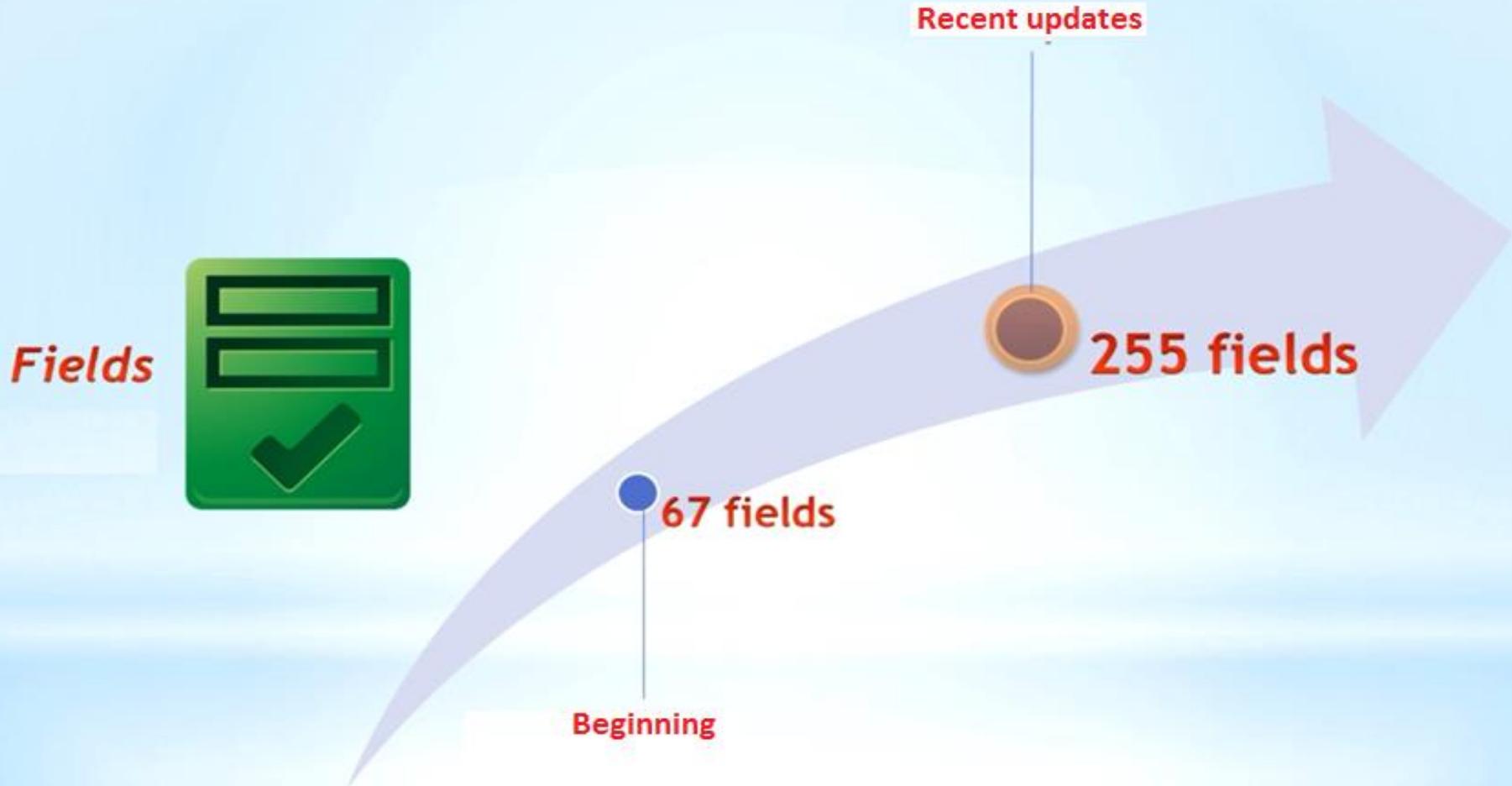


293.671
records

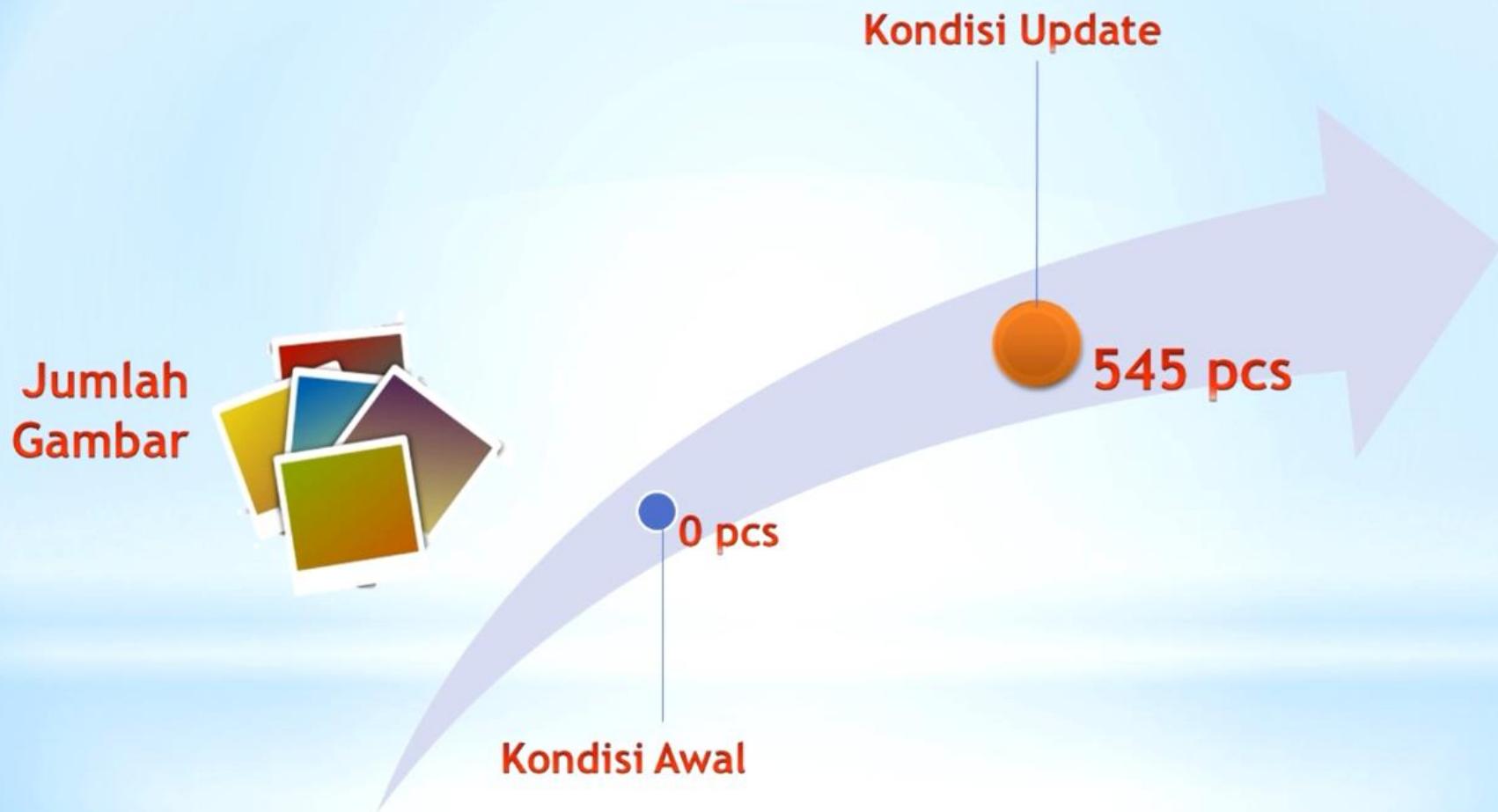
193.409 records

Beginning

InaBIF number of fields



InaBIF number of images



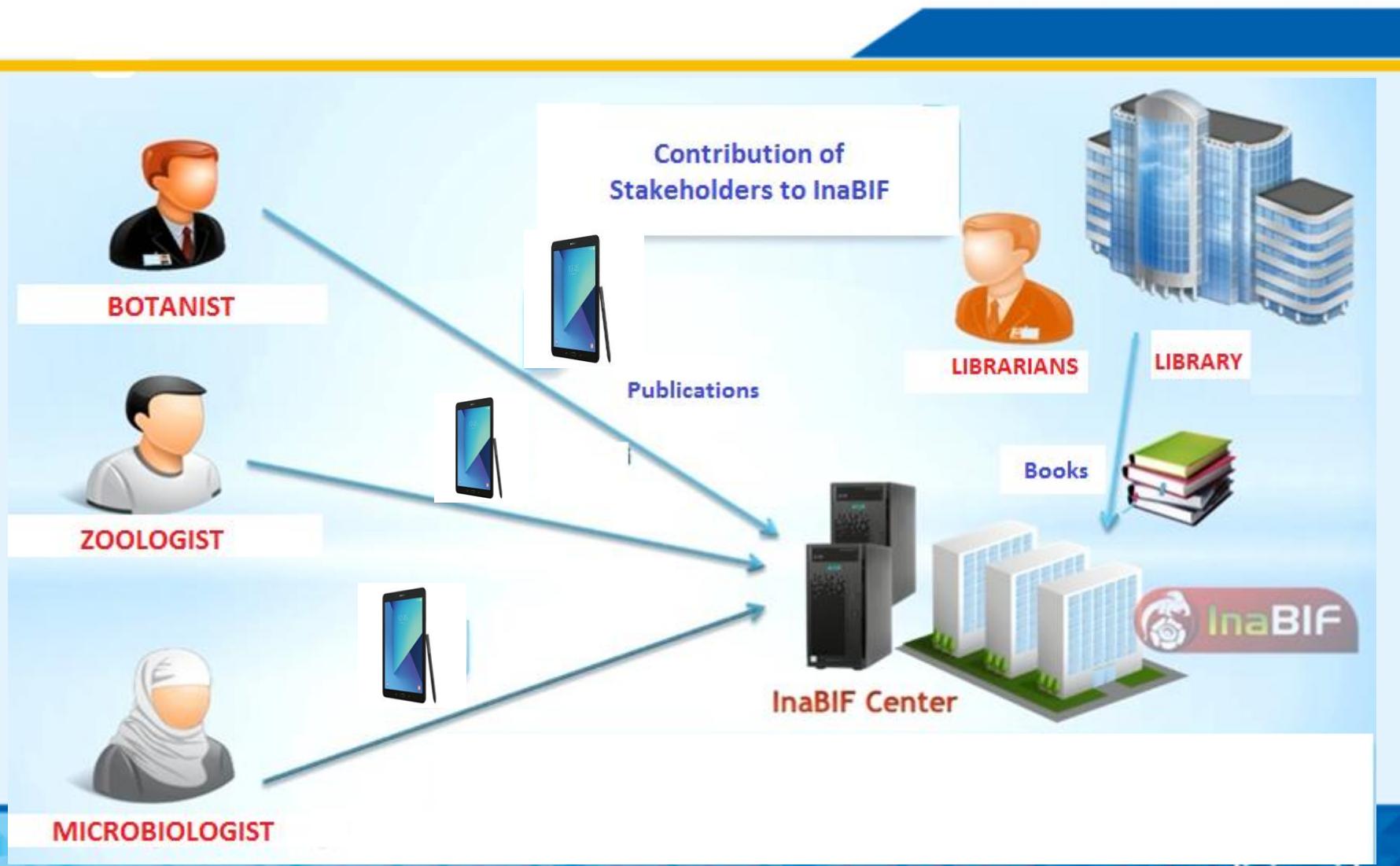
<http://inabif.lipi.go.id/>

- List of InaBIF nodes

Institutional Node List:

No	Node (Institusi)	Records	Field	Action
1	Botani Pusat Penelitian Biologi- LIPI	173,681	5 from 22	Show Metadata Show Data
2	PKT Kebun Raya Bogor - LIPI	3,898	7	Show Metadata Show Data
3	UPT Balai Konservasi Tumbuhan Kebun Raya Cibodas - LIPI	2,802	9	Show Metadata Show Data
4	Pusat Penelitian Biomaterial - LIPI	67	8 from 18	Show Metadata Show Data
5	PROSEA (Plant Resources of South East Asia)	2,173	8 from 56	Show Metadata Show Data
6	Pusat Dokumentasi dan Informasi Ilmiah	85	7	Show Metadata Show Data
7	Tumbuhan yang termasuk Alien Species di Indonesia	2,121	6	Show Metadata Show Data
8	UPT Balai Konservasi Tumbuhan Kebun Raya Eka Karya Bali - LIPI	8,573	8	Show Metadata Show Data
9	UPT Balai Konservasi Tumbuhan Kebun Raya Purwodadi - LIPI	4,954	9	Show Metadata Show Data
10	Botany Publication Pusat Penelitian Biologi - LIPI	96	13 From 45	Show Metadata Show Data
11	Botany Book Collections Pusat Penelitian Biologi - LIPI	2,793	13 From 45	Show Metadata Show Data

Contribution stakeholder in RCB for InaBIF on 2018



Activities

1. Dissemination and Training on mobile apps and InaBIF to new nodes.
2. Collaborative programmes with other project in order to support IBSAP and compiling biodiversity data from stakeholders → Capacity Enhancements.
3. Expanding the networks with external stakeholders: national parks, BKSDA, universities and NGO through collaborative project.
4. Active on GBIF agenda: regional meeting, 2017 in Vietnam and Nepal (2018)
5. Governing Board Meeting???

Capaian 2018

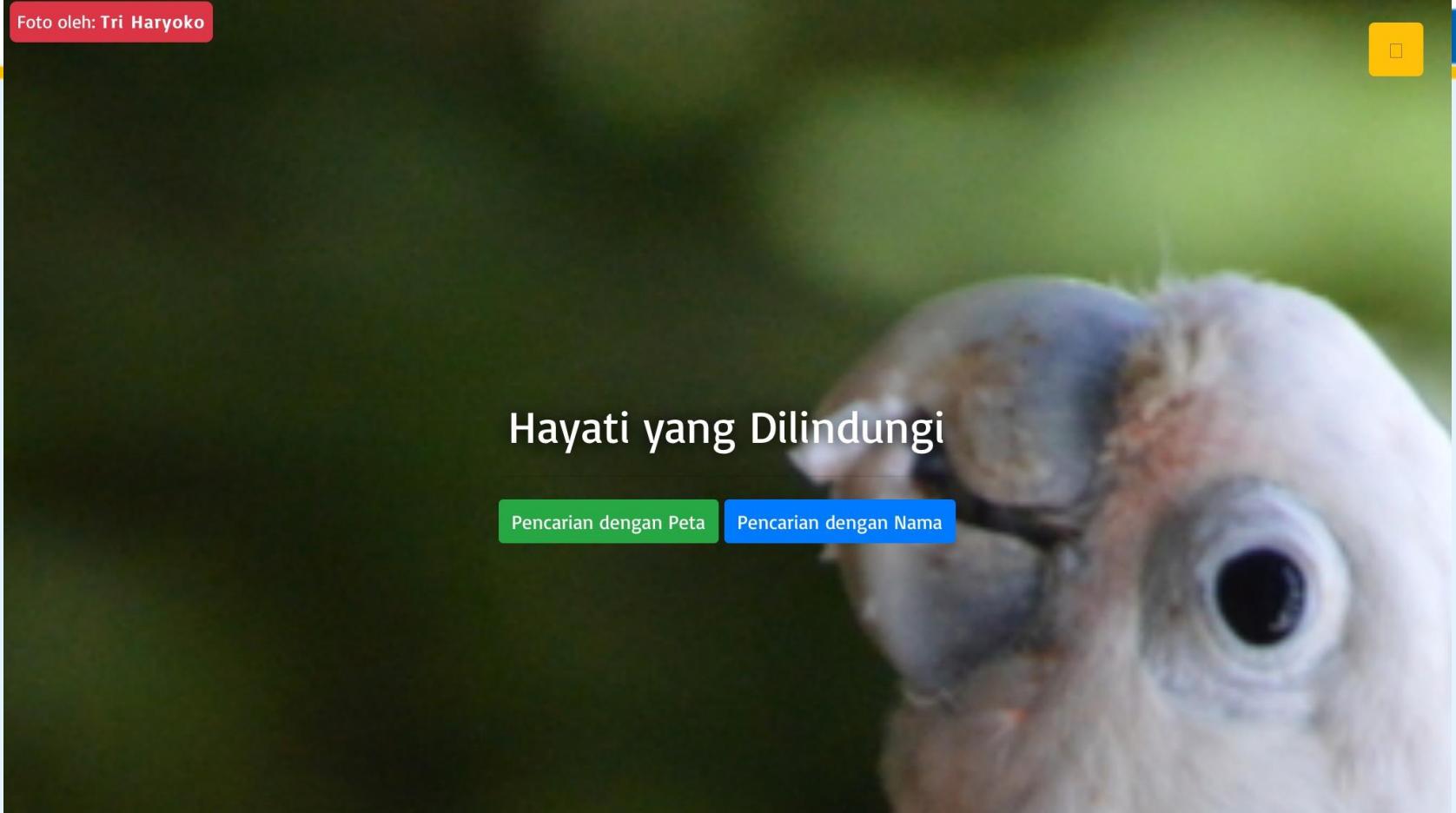
Sistem DASBOR KEHATI INDONESIA

<http://inabif.lipi.go.id/kehati/home>

Sistem Manajemen Data dan Informasi KEHATI Terpadu



Foto oleh: Tri Haryoko



Hayati yang Dilindungi

[Pencarian dengan Peta](#)[Pencarian dengan Nama](#)

Deskripsi

Jenis Hayati



Cari semua hayati berdasarkan ...

Peta

Nama

atau berdasarkan ...

Spesies Dilindungi

Spesies Endemik



Daftar Spesies

Arctictis binturong

(Binturung muntu)

Balaenoptera acutorostrata

(Paus tombak)

Balaenoptera borealis

(Paus sei)

Balaenoptera edeni

()

Balaenoptera musculus

(Paus biru)

Balaenoptera physalus

(Paus sirip)

Bos javanicus

(Sapi banteng)

Catopuma badia

(Kucing merah)

Cynogale bennettii

(Musang air)

Delphinus capensis

(N/A)

Dicerorhinus sumatrensis

(Badak sumatra)

Globočenela macrorhynchus

Provinsi

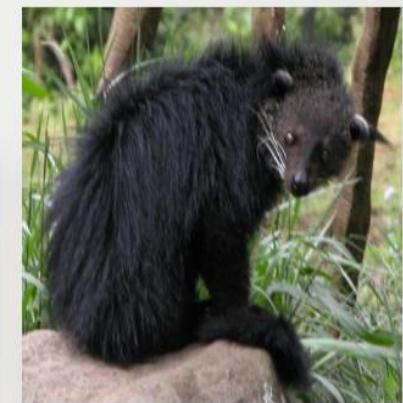
Distribusi

Ekologi

Deskripsi



No.	Provinsi
1	Aceh
2	Banten
3	Bengkulu
4	DKI Jakarta
5	Jambi
6	Jawa Barat
7	Jawa Tengah

Arctictis binturong



Chlamydo



Chlamydosaurus kingii
(Soa Payung)

Taksa: Reptilia

Provinsi

Distribusi

Ekologi

Deskripsi

C. kingi Gray, 1825: Terdapat di provinsi Papua, di wilayah Merauke

Chlamydosaurus kingii



Naskah: Alamsyah Elang
Foto: Amir Hamidy
Email: elangalamsyah@gmail.com

Chlamydo



Chlamydosaurus kingii (Soa Payung)

Taksa: Reptilia

Provinsi

Distribusi

Ekologi

Deskripsi

Bunglon ini adalah penghuni padang savana yang juga ditumbuhi pohon-pohon besar, karena bunglon ini bersifat arboreal. Sebagian besar waktu Soa Payung akan berada di atas pohon, tetapi kadang kala turun ke permukaan tanah untuk mencari makanan atau untuk menghindari perkelahian dengan individu lain dalam mempertahankan pohon sebagai daerah teritorialnya. Warna tubuh dari Soa Payung tidak jauh berbeda dengan pohon yang dihuninya, oleh sebab itu pohon juga tempat mereka menyamarkan diri dari pemangsa dengan cara kamuflase.

Chlamydosaurus kingii



Naskah: Alamsyah Elang
Foto: Amir Hamidy
Email: elangalamsyah@gmail.com

Daftar Spesies	Provinsi	Distribusi	Ekologi	Deskripsi	
<i>Arctictis binturong</i> (Binturung muntu)					Arctictis binturong
<i>Balaenoptera acutorostrata</i> (Paus tombak)					
<i>Balaenoptera borealis</i> (Paus sei)					
<i>Balaenoptera edeni</i> (Paus besar)					
<i>Balaenoptera musculus</i> (Paus biru)					
<i>Balaenoptera physalus</i> (Paus sirip)					
<i>Bos javanicus</i> (Sapi banteng)					
<i>Catopuma badia</i> (Kucing merah)					
<i>Cynogale bennettii</i> (Musang air)					
<i>Delphinus capensis</i> (N/A)					
<i>Dicerorhinus sumatrensis</i> (Badak sumatra)					
<i>Globočenida macrorhynchus</i>					



Obstacles encountered by InaBIF

- MoU between Indonesia (LIPI) and GBIF still unclear
- There are no clear commitment among the nodes of InaBIF as outlined in the MTA.
- There is no legal protection of Data on Share.
- Security of data has not been strong in each node.
- Internal and external policies of the sharing data is not yet clear.
- Infrastructure at each node is still inadequate.
- Structure of InaBIF (organization) remains unclear.

REKOMENDASI

- Nasional: InaBIF memerlukan kerangka hukum yang mengatur dan melindungi segala tahapan dalam proses berbagi data antar institusi bersama dengan intensifikasi infrastruktur dan sumber daya manusia pengelola pangkalan data.
- Internasional: Indonesia perlu meningkatkan status InaBIF dalam komunitas internasional sebagai *voting participants* GBIF untuk mempertahankan posisi InaBIF sebagai pengelola mandiri data Kehati Indonesia dan menjamin akses terhadap ilmu dan teknologi informatika Kehati terkini.

Thank You
Terima Kasih

@InaBIF Team 2017