



**GBIF**

Global Biodiversity  
Information Facility

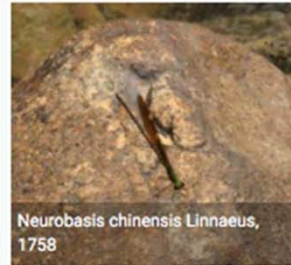
Biodiversity Information Fund  
for Asia (BIFA)



*Motacilla alba* Linnaeus, 1758



*Tringa ochropus* Linnaeus, 1758



*Neurobasis chinensis* Linnaeus,  
1758



*Saxicola maurus stejnegeri* (Parrot, 1908)



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1908)



*Pantala flavescens* Fabricius, 1798



*Cinnerys jugularis* (Linnaeus, 1766)



*Lanius schach* Linnaeus, 1758



*Emberiza yessoensis* (Swinhoe, 1874)



*Junonia lemonias* Linnaeus, 1758



*Junonia almana* Linnaeus, 1758



*Tirumala limniace*



*Apis dorsata* Fabricius, 1793



*Dicaeum cruentatum* (Linnaeus, 1758)



*Tamiops maritimus* (Bonhote, 1900)

## Expanding the value and reach of plant data mobilization in Pakistan

*Ghulam Yaseen, QAU Islamabad-Pakistan*

## PROJECT OBJECTIVES:

- To convince Pakistan's botanists that data mobilization practices will aid them in pursuing their career goals and enable them to conduct more significant research.
- To guide for preparation of high-quality occurrence records starts in the field and requires documenting specimens and observations, at the time of collection, in accordance with international standards plus appropriate selection and preparation of biological material.

## PROJECT OBJECTIVES: ( Continue-----)

- To learn how they can use the data becoming available to address research and management questions that previously could not be investigated without an inordinate commitment of time and resources.
- To Highlight the importance of data mobilization; collection and documentation of specimens; and data use

# DATA SOURCES

Title of dataset	Estimated number of records	Data holding institution (name of the institution that holds the data)	Taxonomic/geographic/temporal scope	Current format (digitized/undigitized)
ISL	12000	Herbarium of Pakistan (ISL), Quaid-i-Azam University Islamabad	Vascular plants Pakistan Extant	16000 plants databased; 3000 georeferenced; all available via OpenHerbarium 164,000 undigitized
AKASH	1500	University of Azad Jammu & Kashmir, Muzaffarabad	Vascular plants Pakistan	6,000 undigitized
Sargodha University Herbarium	500	Sargodha University Herbarium, University of Sargodha, University Road, Sargodha, Punjab 40100	Vascular plants Pakistan Extant	1,000 undigitized
Government College University	500	Government College University Lahore (GCU)	Vascular plants Pakistan	1000 undigitized



# PROJECT TIMELINE

Activity	2019								2020				
	M	J	J	A	S	O	N	D	J	F	M	A	M
Presentation at Symposium at University of Malakand on Biodiversity data mobilization in Pakistani herbaria and botanic gardens. (Barkworth; separately funded).				X									
Deadline for mid-term report – 31 October 2019 Mandatory milestones attached to the mid-term report: - Gain certification at BIFA Capacity Enhancement Workshop - At least one dataset has been published to GBIF.org							X						
Presentation at TDWG (Barkworth; separately						X							

# PROJECT SUSTAINABILITY

- There are two aspects to sustainability: persuading collections and botanists to incorporate data mobilization and biodiversity informatics thinking into their work flows and maintaining financial support for the infrastructure that makes data mobilization possible, including provision for accessing funding.
- As part of this project we shall start to address the infrastructure aspect.



## PROJECT SUSTAINABILITY

## CONTINUE----

- Symbiota, the software that runs OpenHerbarium, is currently maintained by research grants for development plus donated time. GBIF is funded via multi-government membership fees and grants. As part of this project, we shall work to persuade Pakistan's federal agencies that Pakistan should join GBIF by providing realistic examples of how mobilized data can benefit both research and education.



## PROJECT SUSTAINABILITY

## CONTINUE----

- We shall incorporate these examples in a pamphlet explaining the benefits Pakistan would derive from supporting mobilization of its natural history collections. Most of the immediate demonstrable benefits are likely to be in the area of education, because of the lack of data density.
- This is not necessarily negative because education quality and the extension of educational opportunities throughout Pakistan are of great concern to the government.