DATA BASING SPECIMENS IN THE PAPUA NEW GUINE NATION HERBARIUM – LAE
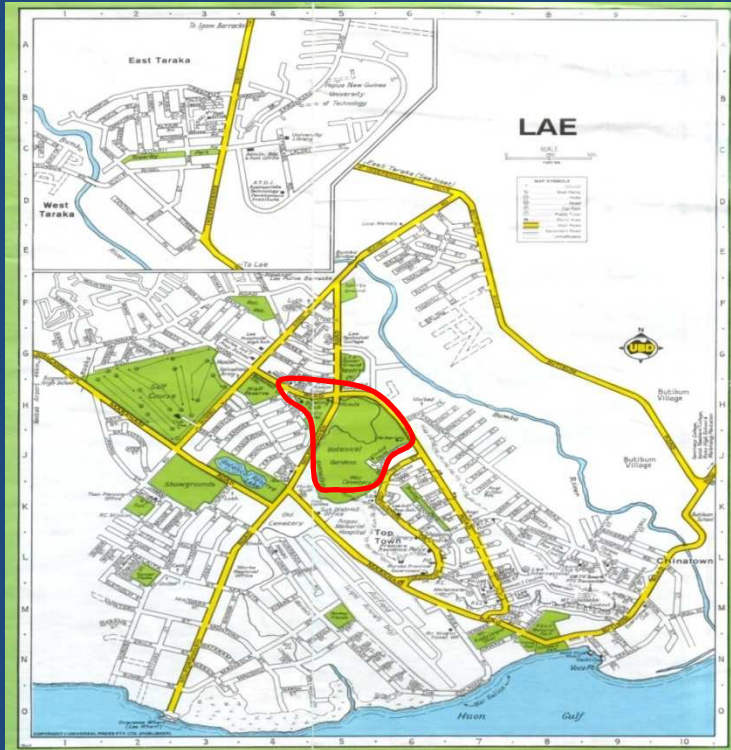

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INTRODUCTION

The National Herbarium (LAE) in Lae was established after the Second World War in 1946. It is the biggest compared to the two other herbaria at the two main University campuses (PNG University of Technology in Lae and the University of Papua New Guinea in Port Moresby). The two university herbaria hold specimens only for teaching purposes. It is also the biggest in the South Pacific in terms of the capacity and the record of collections it holds.

INTRODUCTION

- To date the current herbarium holds more than 350,000 plant samples collected within Papua New Guinea (PNG) and also of the Island of New Guinea, the Solomon Islands and from other parts of the world through gifts and exchange program.

- The oldest specimen by Kaiser Whilhelmsland 1886

- The herbarium is divided into 4 sections according to the major plant groups: the top floor being the main section holds the **dicotyledon** where all flowering plant collections are filed, the bottom floor consists of the **monocotyledons** where palms, grasses, pandanus, bananas and orchid collections are held. The bottom floor also **pteridophytes** (ferns fern allies) and the new wing holds the **bryophyte** (mosses and liverworts) collections

Collections types

- Type specimens: >2335
- Illustrations: 1000

- The herbarium holds more than 251 various plant families.
- Dicotyledon :   169 families
- Monocotyledon: 47 families
- Pteridophyte: (26,000 specimens)30 fern families and 5 allies.
- Moss' lichens and liverworts: >150 families.

Filing cabinets in Lae Herbarium

Fixed metal cabinets

Wooden with metal top

Wooden cabinets

Sliding cabinets

Specimens types

Spirit material

Carpological

Specimens in folders

The filling generally is in alphabetical order by families, genus, species and locality. The arrangements correspond to the Dictionary of Plant Families and Genera in New Guinea and the Solomon Islands (Hoft 1992) in correspondence with the Vascular Plant Families and Genera Handbook (Brummitt, 1992) and the Plant Handbook (Mabberley, 1997)

Spirit material and Carpological collections

Herbarium specimens

TYPE SPECIMENS
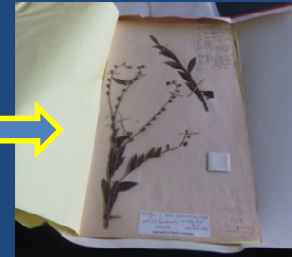
HERBARIUM SPECIMEN
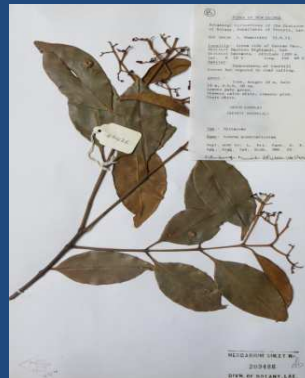
Mosses and lichens (150 Families)

Bug and pest control measures

The herbarium generally is out of bounce for all unsterilized material such as food staff and live plant material. Rats, silverfish, cockroaches and other unknown bugs have been evident in the herbarium therefore it has been a

must to take control measures.

Toxaphos
(Aluminum phosphate)

Air condition

Defreeze

Type specimens

Fumigation

Removal and Burning of unattended specimens

PNGPLANT DATA BASE

- The digitizing work (project) begun in 2004 with the assistance of Dr. Barry Conn from the Royal Botanical Gardens Herbarium in Sydney. The objective was to repatriate to the Papua New Guinea National Herbarium in Lae all the plant records which have been data based in all the Australian Herbaria Australian National Herbarium(CANB), Queensland Herbarium (BRI) , National Herbarium of Victoria (MEL) and the National Herbarium of New South Wales (NSW) since post war period during Australian colonial administration.

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- The electronic records held at LAE can be accessible via the *Plants of Papua New Guinea* website **(http://www.pngplants.org**). These consortium of herbaria has agreed to repatriate the electronic data of about 130,000 records from Papua New Guinea.

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- Data will be used for the mapping of species distributions; analysis of areas of endemism, species richness, and ecological preferences; environmental management decisions; analysis of botanical exploration within Papua New Guinea. This project is supported by the Global Biodiversity Information facility (GBIF).

- PNG Plant Data base is managed in Sydney

PNGplants Database

Plant Collections from Papua New Guinea

Search (Public access)
Search (Restricted access)

Welcome to the *PNGplants* Database

- **the Collection Database of Papua New Guinea National Herbarium (LAE)**.

A collaborative initiative

Project Details
Participants in the *PNGplants* Project
Copyright and disclaimer notice

ACCESSING RECORDS OPTIONS

RESTRICTED ACCESS

Plants of PAPUA NEW GUINEA

Restricted Access Home Page

Welcome to the Restricted portal to the *PNGplants* database.

Select one of the links below.

[Search by Collectors](#)
[Search all](#)
[Insert new records](#)
[Make specimen labels](#)
[Make duplicate labels](#)
[Make det slips](#)
[Data Entry Manual](#)
[Export Data](#)

SEARCH BY COLLECTORS

Enter the collectors name and collection number & Click Search

Make specimen labels

Lae Herbarium Data base

- Whilst the repatriation was going on from the Australian Herbaria, Lae Herbarium begun data basing its specimens in 2004. The Lae herbarium in 2013 entered more than 66,000 of its specimens bringing the total data to 199,000 now in the database.

Year	Entry	Staff	Remarks
2004	1,388	Brenda	One person begins
2005	9,162	Brenda & Dubi	Two people
2006	4,560	Brenda & Dubi	Two people
2007	7,833	Dubi	One person
2008	6,292	Dubi	One person
2009	8,689	Dubi	One person
2010	6,086	Dubi	One person
2011	5,749	Dubi	One person
2012	6,238	Dubi	One person
2013	11,351	Dubi	One person
TOTAL	67,348		
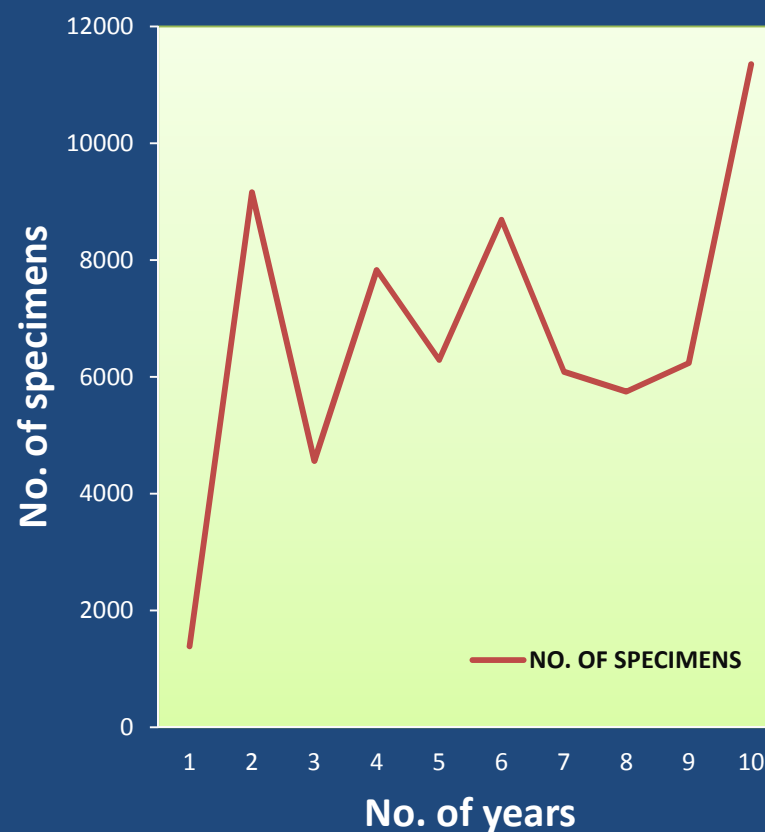
IMPEDIMENTS

- Power failure
- Internet less efficient
- Manpower
- Lack of Computers
- Finance

CONCLUSION

(66,000) Herbarium specimens have been Data Based from 2004-2013 bringing the total data to 199,000

- 284,000 remaining specimens (if 350,000 specimens)
- Rate of entry per day: 40 specimens (Dubie)
- Rate per year: 10,360 (if full time)
- Dubies rate per year: approximately 5,000

- Completion of database : 22 years

ACKNOWLEDGEMENTS

1. Bishops museum team especially Dr. Shelley and Dr. Gil Nelson and others
2. The Participants

THANK YOU ALL!