DATA BASING SPECIMENS IN THE PAPUA NEW GUINEA 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 cabinets
- Wooden with metal top
- Sliding cabinets
Specimens types

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.

- Air condition
- Defreeze
- Type specimens
- Fumigation
- Removal and Burning of unattended specimens

Toxaphos (Aluminum phosphate)
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.

- 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.

- 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
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

Search all records or Lae specimens only

Plants of Papua New Guinea

Search all fields

TIP: Use the * sign for wildcard searches. This may make it easier to find what you're looking for.

LAE Sheet No.: LAE

All records

LAE specimens only

SEARCH CLEAR

Plant Name

Family: 
Genus: 

3p: 

Other Rank: 
Other Value: 

Determination

Det. Status: 
Det. Name: 
Det. Date: 
Comments on ID:

Type Info (Only if specimen is a type)

Type Qual: 
Basionym: 

Status: 
Is a Type?: 

Collectors

Col. Role: 
Col. Name: 
Col. No.: 

http://www.plantkeys.org/lmn/searchMain.htm
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
Enter the collectors name and collection number & Click Search
Make specimen labels

Plants of Papua New Guinea

Make Specimen Labels

Search for records in PNGplants to create Specimen Labels. Enter a LAE sheet number OR a collector's name and/or collector number.  

Note: Remember to check the page setup before printing! This is what your page setup should look like.

<table>
<thead>
<tr>
<th>LAE number</th>
<th>OR</th>
<th>Collector name and number</th>
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<tbody>
<tr>
<td>1</td>
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<td>12</td>
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</tbody>
</table>

Make Labels Clear

Type in the number for specimens already entered in the Dbase and field label is produced.
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.

<table>
<thead>
<tr>
<th>Year</th>
<th>Entry</th>
<th>Staff</th>
<th>Remark</th>
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<tbody>
<tr>
<td>2004</td>
<td>1,388</td>
<td>Brenda</td>
<td>One person begins</td>
</tr>
<tr>
<td>2005</td>
<td>9,162</td>
<td>Brenda &amp; Dubi</td>
<td>Two people</td>
</tr>
<tr>
<td>2006</td>
<td>4,560</td>
<td>Brenda &amp; Dubi</td>
<td>Two people</td>
</tr>
<tr>
<td>2007</td>
<td>7,833</td>
<td>Dubi</td>
<td>One person</td>
</tr>
<tr>
<td>2008</td>
<td>6,292</td>
<td>Dubi</td>
<td>One person</td>
</tr>
<tr>
<td>2009</td>
<td>8,689</td>
<td>Dubi</td>
<td>One person</td>
</tr>
<tr>
<td>2010</td>
<td>6,086</td>
<td>Dubi</td>
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</tr>
<tr>
<td>2011</td>
<td>5,749</td>
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</tr>
<tr>
<td>2012</td>
<td>6,238</td>
<td>Dubi</td>
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<tr>
<td>2013</td>
<td>11,351</td>
<td>Dubi</td>
<td>One person</td>
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<tr>
<td>TOTAL</td>
<td>67,348</td>
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</table>
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)
• Dubie's 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!