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To Dr. Ernawati Sinaga

December 26, 2014

Letter of acceptance

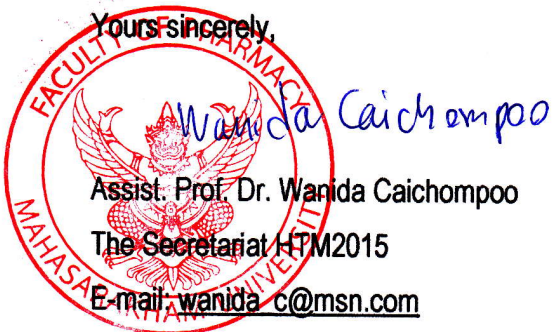
Dear Dr. Ernawati Sinaga

We are pleased to inform you that your abstract titled "00102\_Oral\_Abstract\_Traditional use of medicinal plants by Dayak-Iban communities in West Kalimantan Indonesia." has been accepted for an oral presentation during The 1<sup>st</sup> International Conference on Herbal and Traditional Medicine (HTM-2015), Khon Kaen, Thailand, January 28-30, 2015.

Further details for presentation, please see the conference website [www.htm2015.com](http://www.htm2015.com).

We look forward to seeing your presentation and thank you for your important contribution.

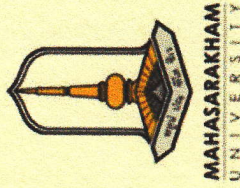
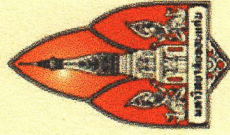
Yours sincerely,



Assist. Prof. Dr. Wanida Caichompoo

The Secretariat HTM2015

E-mail: [wanida\\_c@msn.com](mailto:wanida_c@msn.com)



Certificate Awarded to

**Prof. Dr. Ernawati Sinaga, MS., Apt**

in recognition of her participation and contribution as Speaker  
in

**The International Conference on Herbal and Traditional Medicine (HTM2015)**

Pullman Khon Kaen Raja Orchid Hotel, Khon Kaen Thailand, January 28-30, 2015



*Wanida Caichompoo*

**Prof. Dr. Wanida Caichompoo**  
**Organizing Committee**

# Traditional use of medicinal plants by Dayak-Iban communities in West Kalimantan Indonesia



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# Dayak Iban

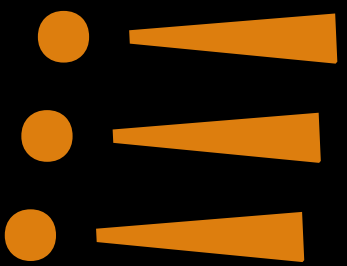
- Original inhabitants of Kalimantan/Borneo Island
- One of the ten biggest ethnic groups of Dayak → **Dayak Iban**, Dayak Embaloh, Dayak Kenyah, Dayak Punan, Dayak Kayan, Dayak Ngaju,
- Live in remote areas, in the interior of the island
- Partially or fully dependent on the forest resources to meet their needs

# Medicinal Plants for Dayak Ibans

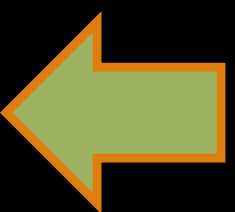
- Plants have traditionally been used as a source of medicine in Dayak-Iban communities
- Various types of plants that thrive in the deep forests of Borneo is sources of livelihood and health care
- Little work has been done to properly document and promote this rich indigenous knowledge

# Threats to medicinal plants and local wisdom

- **Environmental degradation:** deforestation, over-exploitation, destructive harvesting techniques, and unsustainable trade
- **Cultural degradation:** Modernization and the erosion of respect of young people on indigenous knowledge and local wisdom. Young people tend to leave their homes, abandoning their ancestral customs as they refocus their interests on the demands of western culture



Document the diversity of medicinal plants  
and indigenous knowledge regarding  
medicinal plants use  
among the Dayak-Iban communities



**Bioprospecting → New Drug Discovery**

atropine	<i>Atropa belladonna</i>
codeine	<i>Papaver somniferum</i>
cocaine	<i>Erythroxylon coca</i>
ephedrine	<i>Ephedra sinica</i>
digoxin	<i>Digitalis purpurea</i>
quinine	<i>Cinchona officinalis</i>
colchicine	<i>Colchicum autumnale</i>
scopolamine	<i>Datura fastuosa</i>
reserpine	<i>Rauwolfia serpentina</i>
capsaicin	<i>Capsicum frutescens</i>
salicylin	<i>Salix purpurea</i>
vincristine	<i>Catharanthus roseus</i>
taxol	<i>Taxus brevifolia</i>



# Location

- Melemba Village, Batang Lupar-Kapuas Hulu District, West Kalimantan Indonesia
- Labiyan-Leboyan Corridor
- Heart of Borneo, between 2 big National Parks: Betung Kerihun and Danau Sentarum National Parks

# Methods of Collecting Data

1. Semi-structured interviews
2. Focus Group Discussion
3. Field observations →  
Determination of the plants

# Informants

- 41 informants
- 21 Men & 20 Women
- Age ranged between 30 - 85 years

# Data collected

- Local names of the plants
- Parts used
- Diseases treated
- Methods of preparation
- Methods of administration

# Field Observation

## Swamp Forest

- Nanga Semati
- Batang Semati
- Bakong
- Lintas Pinggau

## Hill Forest

- Peninjau Hill I
- Peninjau Hil II
- Peninjau Hil III
- Peninjau Hil IV





# Results

- 68 plant species: distributed in 53 genera and 34 families
- The leaves were the most frequently used plant part (46 species), followed by roots and rhizomes (13 species)
- Making of decoction was the most common method used to prepare the medications.





*Eleutherine palmifolia* L.



*Eurycoma longifolia* L.



# Results

- The medicinal plants (68 species) used for treatment of 16 different disease-categories
- Mostly used for treatment of gastrointestinal problems (28%), wounds (9%) and post-partum care (9%).
- The leaves were the most frequently used plant part (46 species), followed by roots and rhizomes (13 species)
- Making of decoction was the most common method used to prepare the medications.

# Results

- Gastrointestinal problems have the highest value of informant consensus factor (7.3)
- According to use value there were five most important medicinal plants, i.e. *Arcangelisia flava* Merr., *Curcuma domestica* Val., *Eleutherine palmifolia* L., *Eurycoma longifolia*, and *Myrmecodia tuberosa*

# Conclusions

Dayak-Iban people in West Kalimantan still used medicinal plants to meet their healthcare needs – at least 68 species were documented-, however this indigenous knowledge and practices tends to erode in the younger generations





## Aknowledgement

- Universitas Nasional for research grant
- World Wildlife Fund and Dayak Iban Community in Melemba Village, - Batang Lupar-Kapuas Hulu District, West Kalimantan for supporting the research team in gathering data



*Thank You....  
very much....*

