AN INVENTORY OF PLANT AND THEIR USES FROM DEVRIYA WETLAND OF KAILALI DISTRICT, NEPAL

A Dissertation Submitted to

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for Partial Fulfilment of the Requirements for

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RECOMMENDATION

This to certify that Mr. Surendra Raj Pant has carried out the dissertation work entitled "An Inventory of Wetland Plant and Their Use from Devriya Wetland of Kailali District, Nepal" under my supervision. The entire work is based on primary and secondary data collected in the field as well as herbaria by him. The results of this study have not been submitted for any other academic degree. I, therefore recommend this dissertation to be accepted for the partial fulfilment of Masters Degree in Botany from Tribhuvan University, Nepal.

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Date: April 1, 2013

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LETTER OF APPROVAL

This to certify that the dissertation work entitled "An Inventory of Wetland Plant and Their Use from Devriya Wetland of Kailali District, Nepal" submitted by Mr. Surendra Raj Pant has been accepted as a partial fulfilment of masters Degree.

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ABSTRACT

Devriya wetland, the present study site is located in Dhangadhi Municipality-7 of Kailali district in Nepal. It is one of the important Oxbow lake areas for eco-tourism and conservation point of view, lies inside Devriya Botanical Garden, which is managed by the government of Nepal.

Diversity of aquatic macrophytes, trends in resources use and geography of this wetland was studied. Study shows altogether 120 species (55 families and 105 genera) of macrophytes (5 pteridophytes, 33 monocotyledons, 82 dicotyledons).

The growth forms of the plant species found as 105 emergent, 6 floating and 9 submerged. Eight types of resources have been identified, out of them timber is the most used resource followed by fire wood and fodder sequence and the soil being the least used.

Among the three socio-economic classes (High, Medium and Low) of households of adjoining settlements, the Low income group was highest in number and found more dependent on plant resources but are least participatory in resources management.

Altogether 35 species of plants (12 herbs, 8 shrubs, 3 climbers and 8 trees) were found with ethno-medicinal importance. Among the 15 categorized health problems the numbers of plants used were highest in abdominal problems (8 species) followed by jaundice (4 species) and pain (4 species).

The total area of three lakes namely Jakhor, Murphutta, and Murphutti was found as 17.6 hectors while total area of open water being 9.55 hectors.

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Map of Devriya Wetland

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ABBREVIATION AND ACRONYMS

APROC: Asia Pacific Regional Operation Centre

B.S.: Bikram Sambat
BM: British Museum

BPP: Biodiversity Profile Project
CBS: Central Bureau of Statistics

CFUG: Community Forest User Group

CITES: Convention of International Treaty on Endangered Species

DDC: District Development Committee

DFO: District Forest Office

DHM: Department of Hydrology and Metrology

DPR: Department of Plant Resources
DPRO: District Plant Resources Office

E: Edinburg Herbarium

Fig.: Figure

GON: Government of Nepal

GPS: Geo-graphical Positioning System

Ha: Hector

HH: House Hold

HMG/N: His majesties government of Nepal

i.e.: that is

IUCN: International Union for Conservation of Nature and natural Resources

IVI: Importance Value Index

K: Kew Herbarium

KATH: National Herbarium and Plant Laboratory, Kathmandu, Nepal

m: Metre no.: Number

PRA: Participatory Rural Appraisal

PWR: Parsa Wild life Reserve

RCNP: Royal Chitwan National Park

sp.: Species (singular)
spp.: Species (plural)

TUCH: Tribhuwan University Central Herbarium

UK: United Kingdome

USA: United State of America