

**BUILDING THE CAPACITY OF LOCAL
ENVIRONMENTAL ORGANIZATIONS OPERATING IN
THE KNUCKLES , COLOMBO AND MANNAR
LANDSCAPES FOR BETTER LOCAL ENVIRONMENTAL
MANAGEMENT AND GOVERNANCE**

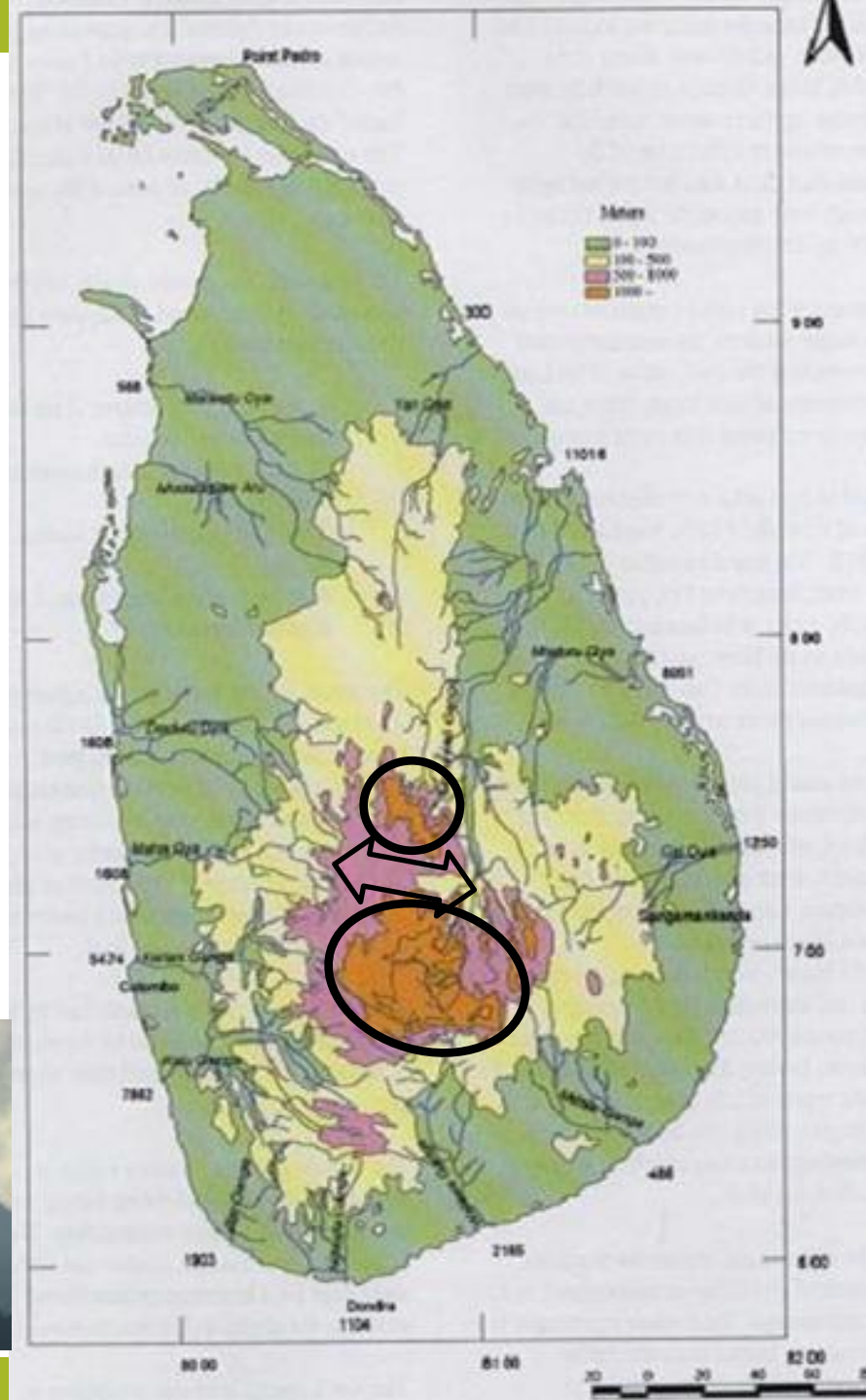
Biodiversity Value of the Knuckles Landscape

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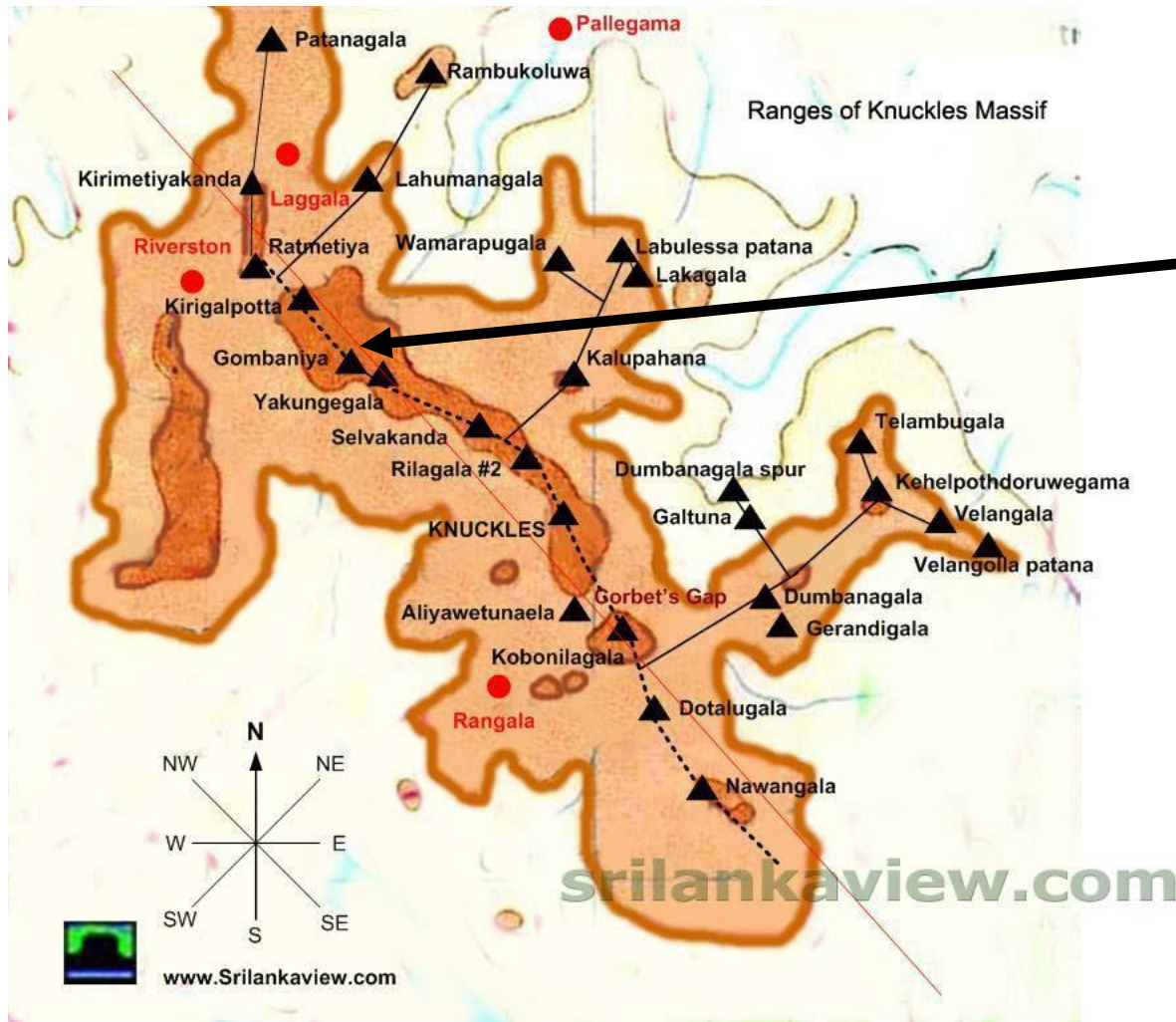


Knuckles Mountain Range

- Historically called Batadandu Kanda or Dumbara Kanduvetiya
- Covers approximately an area of 21000 ha
- Separated from the central highlands by the Dumbara valley
- Later became known as Knuckles due to a group of five mountain peaks which extend from west to southeast resembling a



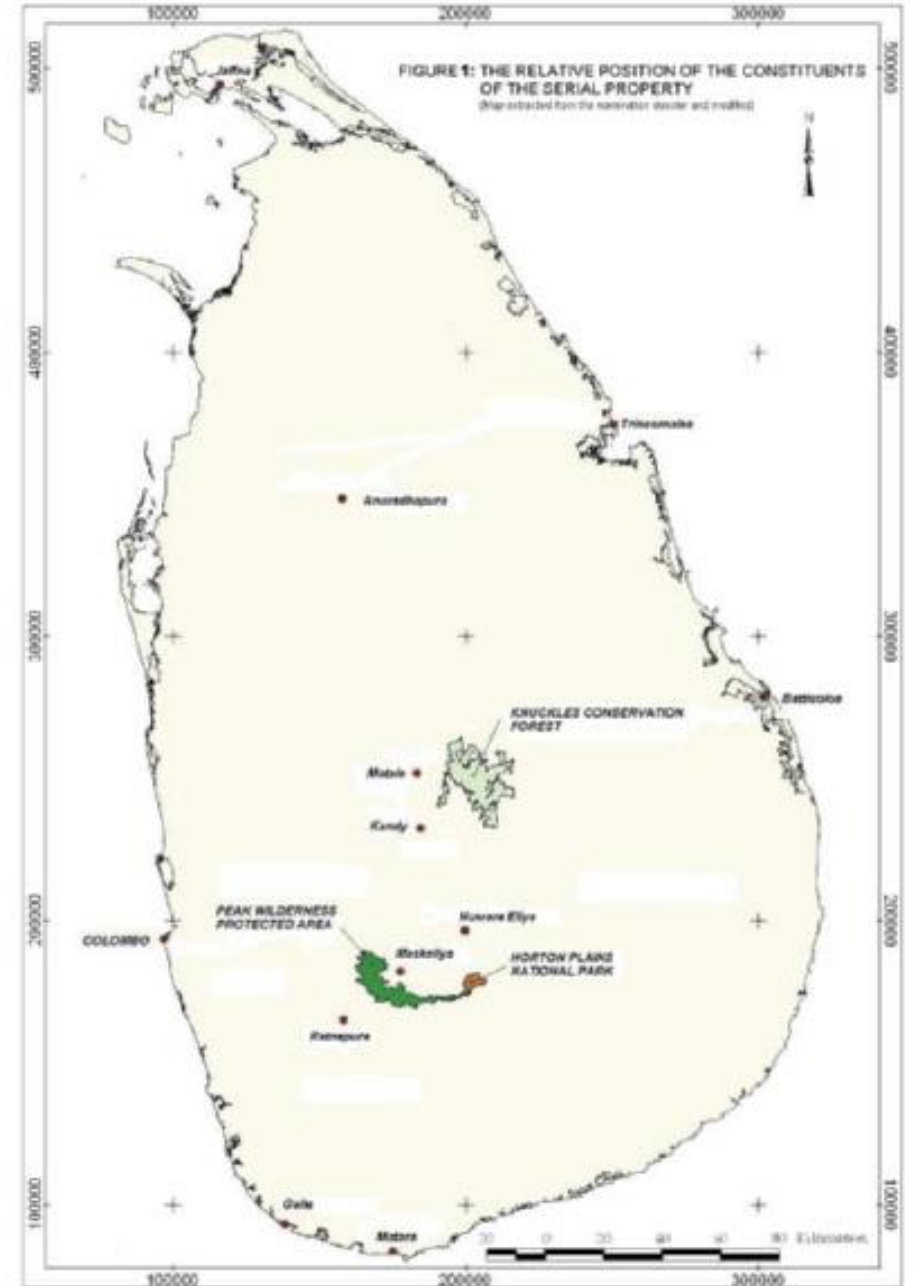
Landscape is extremely rugged with at least 35 peaks rising above 900 m



The tallest peak in the range:
Gombaniya hill (1900 m)

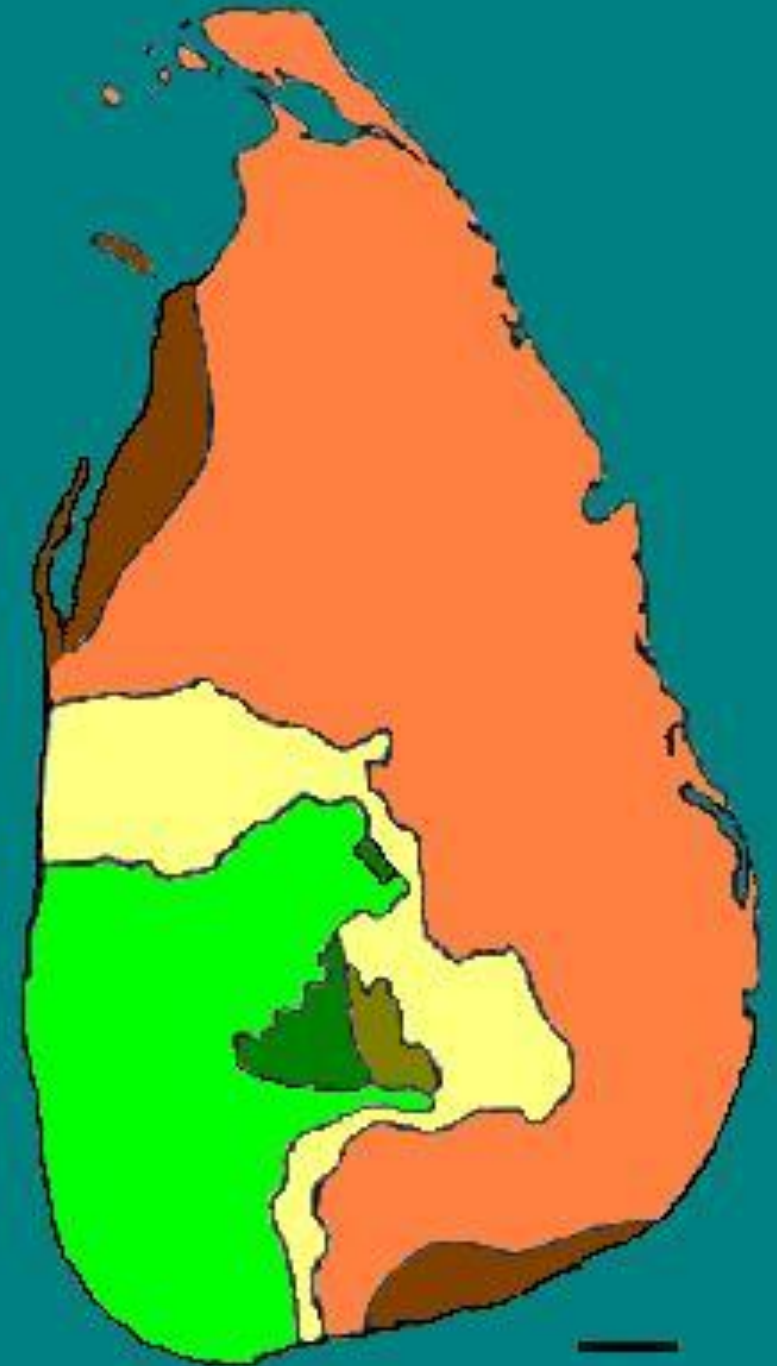
Conservation Status of Knuckles

- Declared as a conservation Forest in 2000 with an extent of 31,305 ha
- Knuckles conservation forest is one of the three protected areas that makes up the World Heritage Site designated as the Central Highlands of Sri Lanka with an extent of Extent of 55010 ha



Bioclimatic features of Knuckles Forest

- Located in between the intermediate and wet zone
- This has resulted in a range of rainfall and temperature gradients
 - Southwestern slope is extremely wet (5000 mm)
 - Northeastern slope is more dryer (2500 mm)
- The area is also exposed to high winds

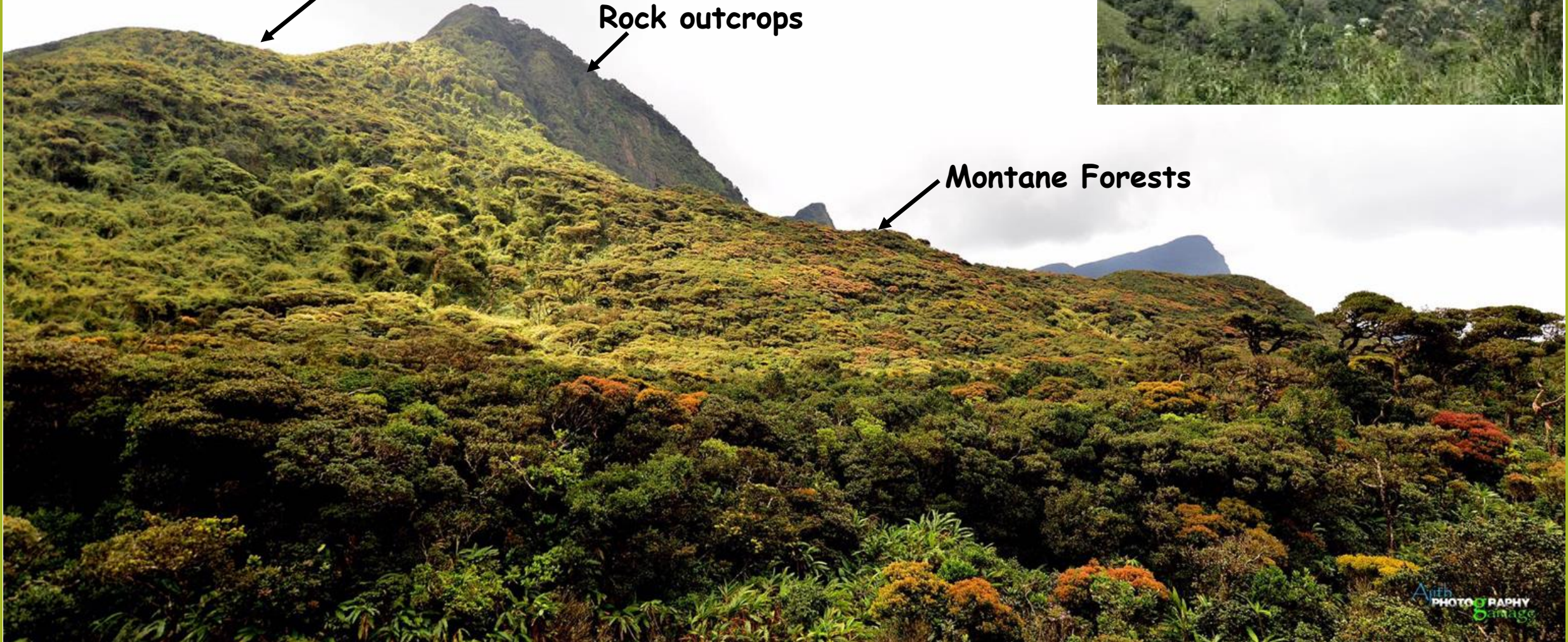
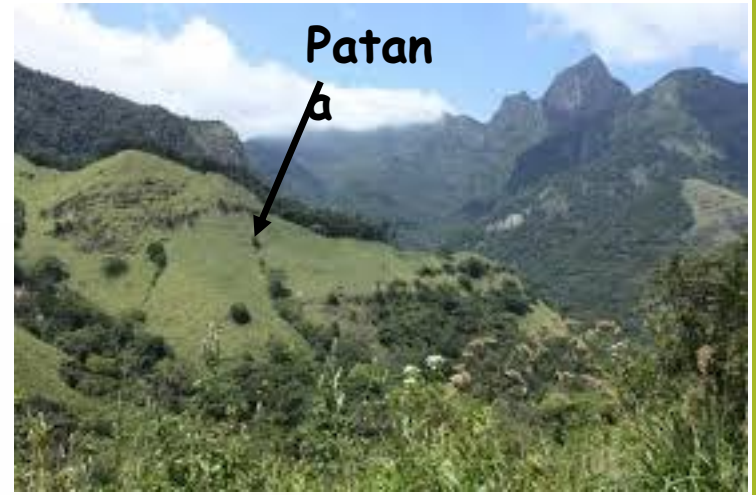


This has resulted in a variety of natural vegetation types.....

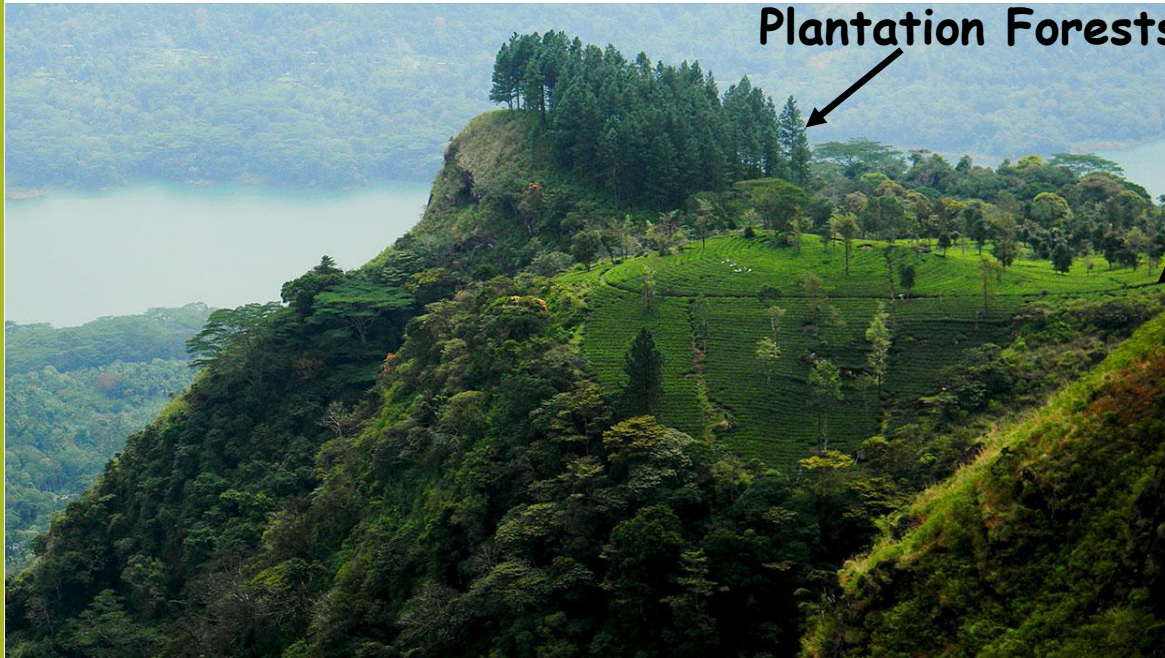
Pigmy Forests

Rock outcrops

Montane Forests

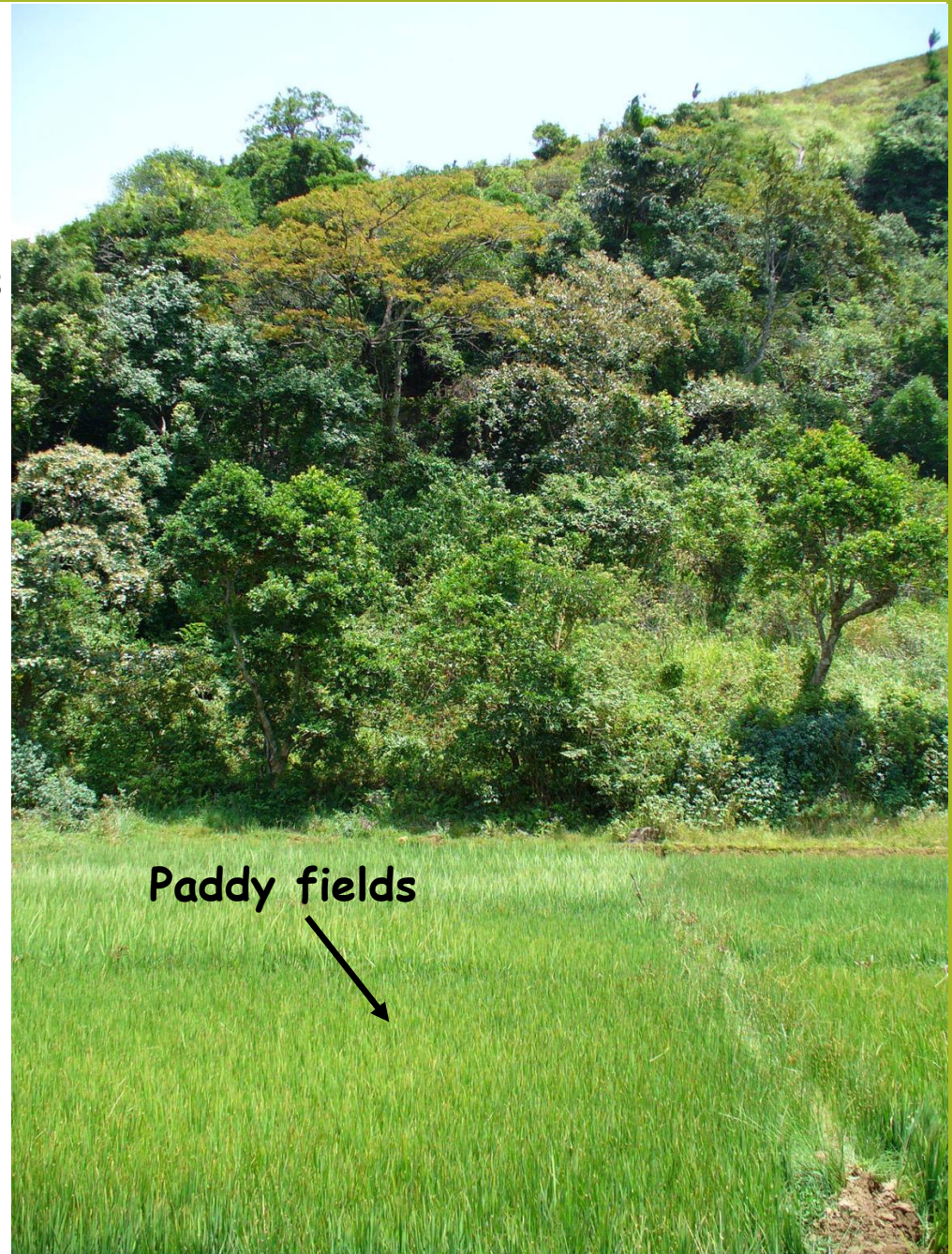


Man Made Habitats



Plantation Forests

Tea Estates



Paddy fields

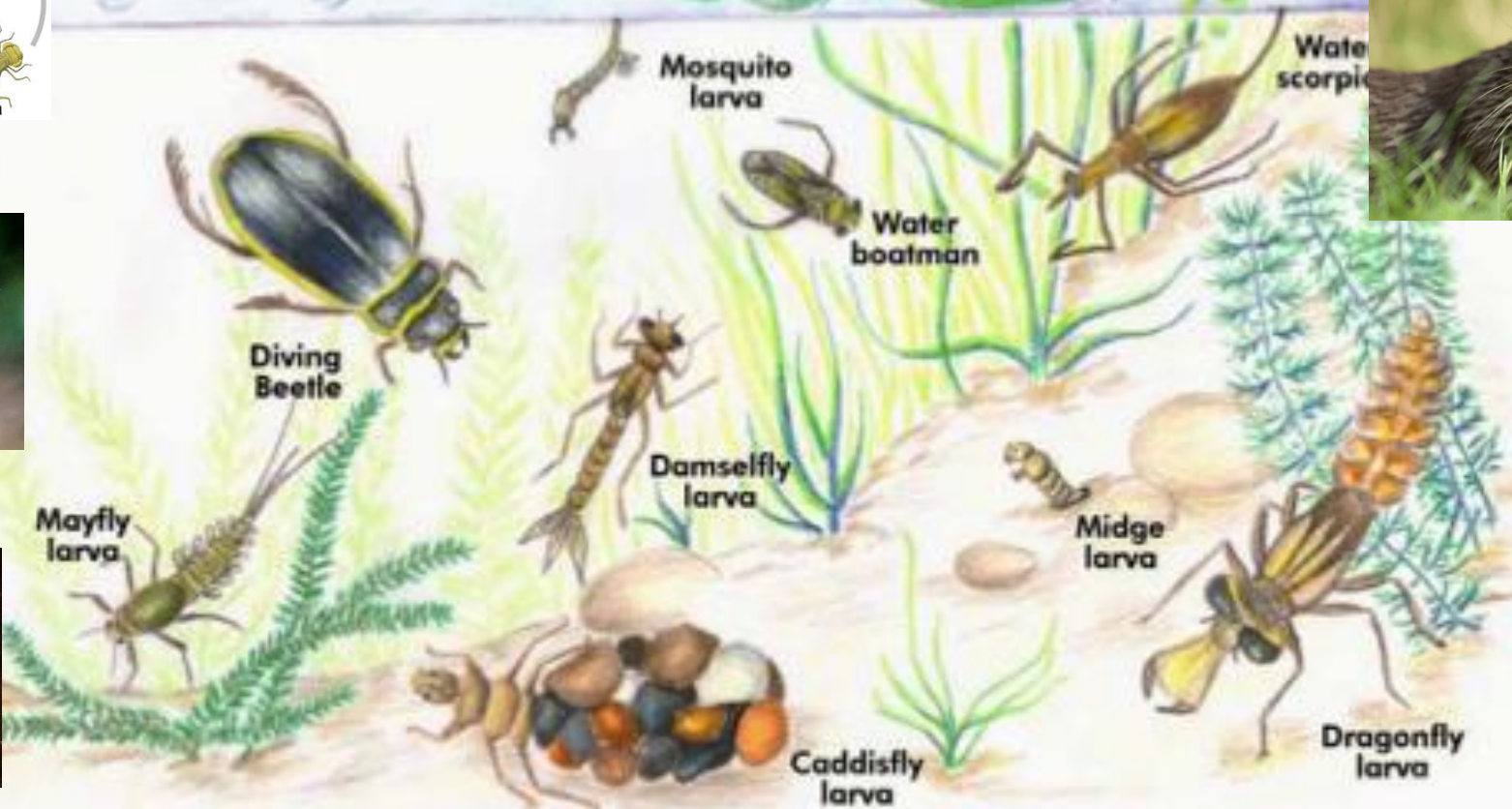
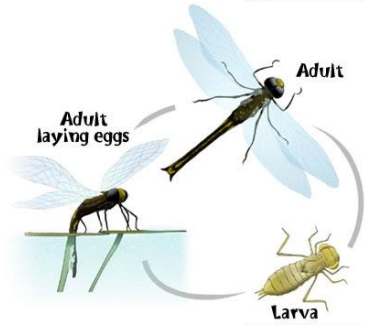
Cardamom Plantations



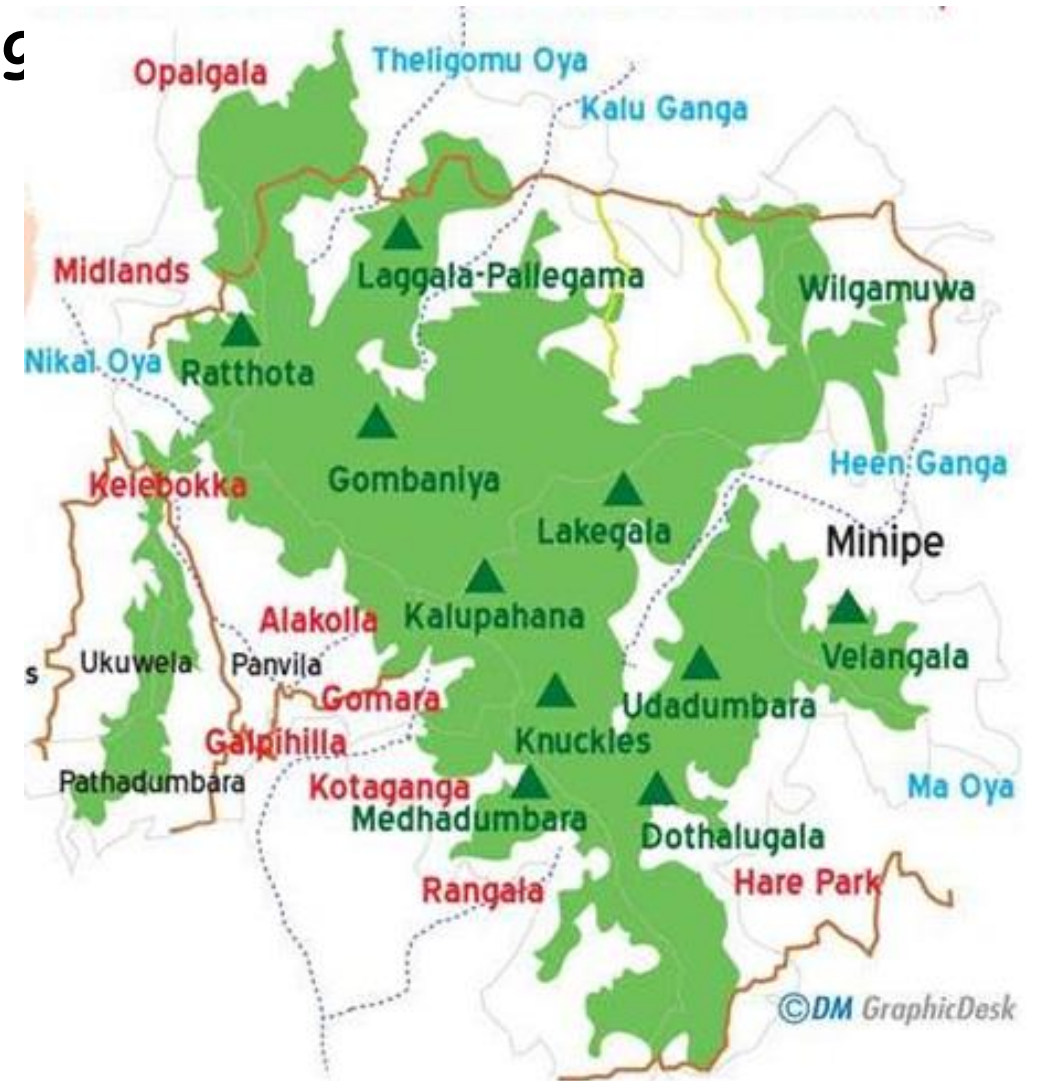
These forests capture rain and mist....



Supports very rich stream Ecosystems



Important water shed of the Mahaweli River: Many of the tributaries begin in knuckles range (Hasalaka Oya, Ma Oya, Heen Ganga, Hulu Ganga, Theligamu Oya, Kambarawa Oya and Kalu G



Knuckles Range is one of the two most biodiverse sites in Sri Lanka...

- About 450 species of native plants including 151 endemic species are recorded in Knuckles
- Thus, Knuckles has about 14% of the native plants 18% of the plants that are endemic to Sri Lanka including 71 globally threatened species
- Further, 338 species of vertebrates including 99 endemic species and 28 globally threatened species has been recorded in Knuckles region.
- The faunal assemblage of Knuckles comprise of number of endemic species that are restricted to the Knuckles region only or contains major populations of some endemic species

Knuckles area is the only home for many species...



Nannophrys marmorata



Pseudophilautus cavirostris



Pseudophilautus hankeni



Pseudophilautus macropus



Pseudophilautus stuarti

Lankanectes pera

Pseudophilautus fulvus

Pseudophilautus hoffmanni

Pseudophilautus steineri

Taruga eques

Knuckles area is the only home for many species...



Ceratophora tennentii



Cophotis dumbara



Cyrtodactylus soba



Chalcidoseps thwaitesi



Systemomus martenstyni



Labuca insularis



Dawkinsia srilankensis



Garra phillipsi

Knuckles area is the only home for many species...

Crabs

Ceylonthelphusa sanguinea

Ceylonthelphusa callista

Ceylonthelphusa cavatrix

Ceylonthelphusa durrelli

Ceylonthelphusa diva

So much needs to be done with respect to inventorying biodiversity of the Knuckles region alone and studying the ecology and distribution of these species as well as conducting species specific conservation programmes.

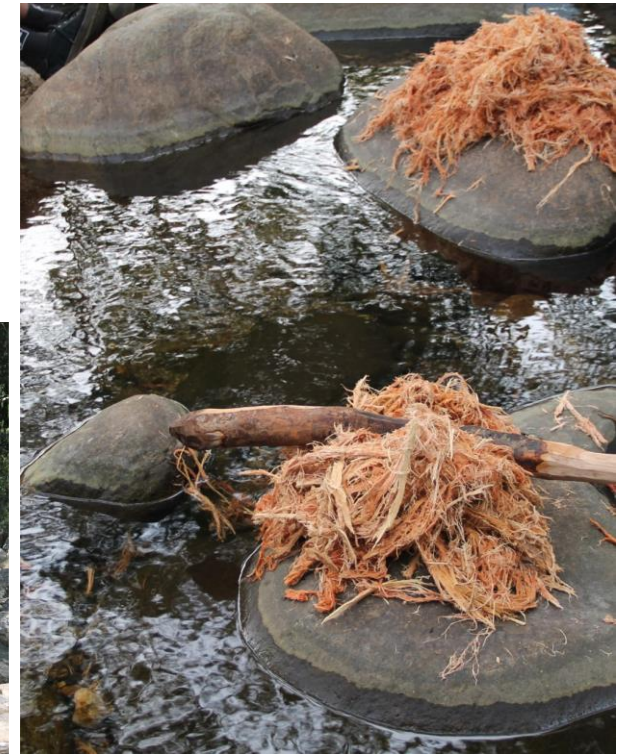


Biocultural landscape: Traditional village system and great deal of folklore associated with the region. Documenting the traditional knowledge of these people is another important aspect



Threats to Knuckles region

- Deforestation
- Invasive species (*Lantana camara*, *Pinus* sp.,)
- Illegal cardamom plantation
- Encroachment
- Gem mining
- Illegal harvesting of fish
- Human induced forest fires
- River diversions
- Unregulated tourism - haphazard garbage disposal, pollution and disturbance from vehicles





**Thank
you..**