U MINH PEATSWAMP FORESTS VIETNAM

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Peat swamps

• Hydrology:
  – precipitation dominated
  – permanently waterlogged

• Geomorphological setting:
  – raised peats

• Vegetation:
  – swamp forest dominated by *Melaleuca cajuputi*
  – grasslands
Cross section of U-Minh Thuong Peat dome

Depend on locations, the soil are Non-acid soil (A), Medium acid soil (B), and Severely acid soil (C). Fossil as shell is indicator of marine sediment; Jarosite mottles is indicator of acid soils (Pyritic materials could not see). Water come in to the area is rain water only due high elevation of peat dome.
U Minh Thuong National Park

- 24,000 ha with 8000 ha core zone
- One of the two peat swamp forest areas of Vietnam
Peat dome

grassland

grassland

Peat dome
MIXED SWAMP FOREST
Elevation in cm (Average mean sea level)

15 Aug 99 - 15 Dec 99

Peat

Clay

Water table
Catastrophic fire March-April 2002
Melaleuca regeneration after fire
Forest fire
Before and after fire.
Biodiversity is totally depend on the disturbance of the soil environment. If peat layer was removed (fire) or digging canal to expose the pyritic materials into the air, then oxidation processes will take place and actual acid soils will occurred and biodiversity will be affected by acid water.