Asian Wetland Inventory

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http://www.wetlands.org/awi/

A Tool for Biodiversity Conservation

The endangered
Asian Bonytongue
Scleropages formosus

Wetlands for Biodiversity

Wetlands are home to a great diversity of species. Although freshwater ecosystems cover only 1% of the Earth's surface, they hold more than 40% of the world's total species and 12% of all animal species.

Worldwide there are about 22,000 fish species, accounting for half of the world's vertebrates. Most fish are found in wetlands (rather than in deeper marine waters); 40% are limited to freshwater habitats and about one third of all known freshwater fish occur in Asia, with some river and lake systems being especially rich in species.

Grass Frog *Rana limnocharis*

Most amphibians are totally reliant on wetlands for their survival, especially in their larval stages. In Malaysia there are 158 known amphibian species, whilst the Philippines has 63 species, 44% of which are endemic. These figures are even higher for India and Indonesia, which have 206 (53% endemic) and 290 (35% recorded as endemic in the Indonesian Wetland Database), respectively. China has 190 species, of which 69% are endemic.

Worldwide there are estimated to be 9,672 bird species of which about one third are found in Asia. Birds are a common feature of wetlands, with many species of migratory and resident waterbirds confined to these habitats for various stages of their life-histories.

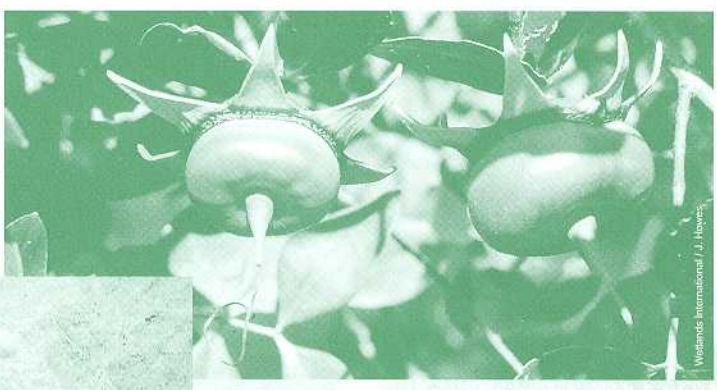
Several groups of reptiles, notably the crocodilians, turtles and tortoises, are largely aquatic and dependent on wetlands.

The biodiversity in wetlands is also valuable as a reservoir of genes. Rice is a common wetland plant and the staple diet for over half the world's population. Wild rice continues to be an invaluable source of new genetic material for developing disease resistance, yet many different varieties of rice have disappeared in recent years - leaving us dependent on a shrinking genetic base. A typical "lifespan" of a commercially-bred crop variety has been estimated at 5-10 years before new genetic material is required to combat pest and disease problems. The value of such genetic traits on a global scale is counted in billions of dollars.

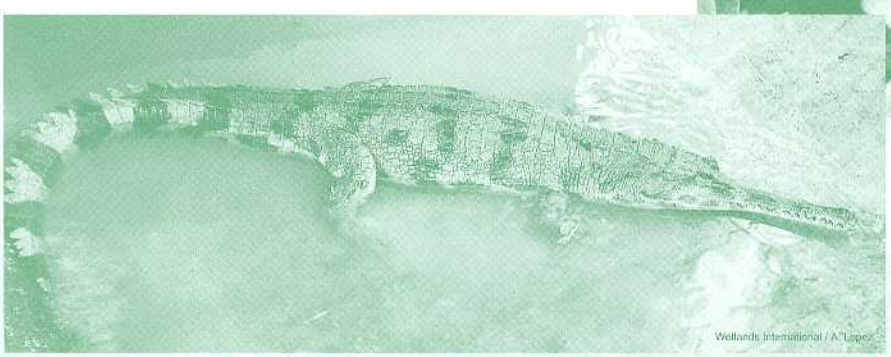
Fruits of Nipah palm *Nypa fruticans*

Wetland species have also been extensively used in the medical industry. It is estimated that over 20,000 medicinal plant species are currently in use, many of them from wetlands, and over 80% of the world's population depends on traditional medicine for their primary health care needs.

Wetlands in Asia and the biodiversity they support are under increasing pressure and continue to be degraded. The need for improved management of wetlands in Asia is apparent and this will depend on acquisition of reliable knowledge of wetland functions and ecological processes that support those functions. Through wetland inventory, it will be possible to collect the relevant information for improved management of wetlands.



Mangrove fruits
Sonneratia ovalis



The endangered False Gharial
Tomistoma schlegelii

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The Asian Wetland Inventory and how it will contribute

A broadly supported protocol for wetland inventory has been developed through the Asian Wetland Inventory (**AWI**). This will serve as a platform for assessment and monitoring of wetland resources. The **AWI** is a unique hierarchical approach for wetland inventory that would provide information to assist in the development of conservation actions and policies from regional to site management level.

The **AWI** protocol is based on the recommendations made in the global review of wetland inventory conducted by Wetlands International on behalf of the Convention on Wetlands (Ramsar, Iran, 1971) and supports the provisions used in the proposed framework for wetland inventory of the Convention.

The **AWI** aims to provide information critical for addressing wetland issues that range from those on individual sites to those across river basins. The ultimate results of the **AWI** with direct implications on biodiversity include:

- identification of threats to wetland biodiversity
- provision of information that is needed to develop corrective measures to address biodiversity loss and sustainable development
- assessment of biodiversity including species richness, diversity, abundance, endemism and distribution
- generating awareness on the importance of wetland biodiversity conservation

The **AWI** responds to the call by the Convention on Biological Diversity (CBD) for the development of methodologies for inventory and assessment of inland waters and coastal ecosystems.

The successful implementation of the **AWI** as a tool for biodiversity conservation is dependent on establishment of effective regional co-operation and increased national commitment.

Black-crowned Night Heron
Nycticorax nycticorax

Food resources from wetlands at a fresh market

Wetlands support many animals species

Flowers of Nipah Palm
Nypa fruticans

Fish are an important wetland resource

June 2002 / Supported by the Dutch Ministry of Foreign Affairs (DGIS)