



BIODIVERSITY – THE CENTRAL VALUE OF THE IRAQI MARSHLANDS

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IUCN SCREENING STUDY ON POTENTIAL WORLD HERITAGE STATUS

- Information and guidance for further nomination and management planning
 - Developed by IUCN with support of MoE of Iraq, national and international NGOs, academia and other stakeholders in July 2010
- Key elements:
 - Inventory of available information and data on biodiversity and ecosystem management in the Marshes
 - Technical guidance on World Heritage assessment framework, tools for ecosystem management, and capacity development
 - Support to the development of a national and international expert network for the long-term planning, implementation and monitoring of the Marshes
- Study to be published before the end of 2010

BIODIVERSITY AS THE CENTRAL VALUE OF THE IRAQI MARSHLANDS

Aesthetic values
(criterion vii)

Ecological processes
(criterion ix)

BIODIVERSITY
(criterion x)

Resource base of
Ma'adan culture
(criterion v, ...)

Resource base of
marsh inhabitants



KEY BIODIVERSITY ASSETS OF THE IRAQI MARSHLANDS

ENDEMIC AND NEAR-ENDEMIC SPECIES

- The Marshes are a young and evolving ecosystem:
 - ca. 6,000 years old
- Island of aquatic habitat in a sea of desert
- Rapid adaptation and speciation processes
- Isolated satellite populations of African species
 - African Sacred Ibis, Goliath Heron
 - « Speciation in progress »?



Basrah Reed-warbler
(Photo: Nature Iraq)

GLOBALLY THREATENED SPECIES

- 18 globally threatened animal species (vulnerable, endangered or critically endangered) are known to have inhabited the Marshes until draining – most are known or likely to be still there
 - Birds (e.g. Marbled Teal), mammals (e.g. Maxwell's Smooth-coated Otter) and reptiles (e.g. Euphrates Soft-shelled Turtle)
 - Plants and invertebrates poorly studied
 - Red List status of fishes not assessed recently, but probably several additional threatened species
- High concentration of Red-Listed species imparts significant global conservation value



Marbled Teal (VU)
(Photo: Nature Iraq)

WINTERING AND RESTING SITE FOR MIGRATORY WATERBIRDS

- One of the major historical wintering sites for migratory waterbirds in Western Eurasia – role as wintering site recovering
- Part of West Siberian/Caspian/Nile Flyway for ducks and West Asia/East Africa Flyway for shorebirds
 - Seven Important Bird Areas of global rank within the Marshes
 - Flyway-scale important for 68 waterbird species





CENTRAL ROLE OF BIODIVERSITY AMONG MARSHLAND VALUES

BIODIVERSITY UNDERPINS ALL OTHER NATURAL VALUES OF POTENTIAL OUV

- Natural values of potential OUV status: natural beauty (criterion vii), ecological and biological processes (criterion ix)
 - Nomination under criterion viii (Earth's history, record of life, geological processes) appears not feasible (integrity compromised)
- Natural beauty (criterion vii): Marsh landscape is simple and flat – living ecosystems make up its aesthetic appeal
 - Example: reed beds
- Ecological and biological processes (criterion ix): Driven by and closely associated with biodiversity
 - Example: Evolution and speciation processes closely associated with endemic species
 - Example: Ecological succession closely associated with flora and vegetation

BIODIVERSITY UNDERPINS MOST CULTURAL VALUES OF POTENTIAL OUV STATUS

- Traditional Ma'adan economy (and culture) is based on various forms of natural resource use
 - E.g. fishing, reed harvest for construction, reed grazing by water buffalo, hunting of migratory waterbirds
- Each of the resources used is part of the Marshes' biodiversity
- Due to lack of architectural or artistic artefacts, cultural part of World Heritage nomination may have to rely on criterion v
 - *“... be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change”*
- Criterion v is particularly dependent on natural resource use and hence biodiversity



Photo: Mudhafar Salim/Nature Iraq

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CHALLENGES TO THE INTEGRITY OF BIODIVERSITY VALUES

CHALLENGES TO THE INTEGRITY OF THE MARSHES' BIODIVERSITY VALUES

- Draining, particularly during the 1990s, has greatly diminished the biodiversity values of the Marshes
 - Habitat loss through dessication and conversion to agricultural use
 - Salinization, eutrophication, and contamination with toxins
 - Result: Reduction of population size and possibly extinction of key endemic species, reduction in numbers of migratory waterbirds, shifts in fish community, dramatic deterioration of Mada'an resource base
- Current and emerging challenges to integrity:
 - disturbed hydrological regime and greatly reduced water input, in spite of partial recovery since 2003 (e.g. upstream dams)
 - Planned oil exploration in and around core areas of the Marshes
- Urgent need for integrated management framework that addresses challenges to the integrity of the biodiversity values of the Marshes



THE WAY FORWARD

CLOSING THE KNOWLEDGE GAPS

- Screening study has revealed multiple knowledge gaps that need to be closed in preparation for World Heritage nomination
 - Conservation status of endemic and globally threatened species
 - Current role of the Marshes for migratory waterbirds and trends
 - Spatial distribution of biodiversity values within the Marshes
 - Hydrological envelope (minimum requirements regarding water input, hydroperiod, hydroperiod, water quality) of species and ecosystems
 - Poorly understood, potential and emerging threats (e.g. hunting, alien and invasive species, oil exploration)
- Research and monitoring in the Marshes have been challenging recently (security, capacity constraints)
- However, knowledge gaps need to be closed before nomination and management planning proceeds – need for stepwise approach

GLOBAL COMPARATIVE ANALYSIS

- GCA is possible once all crucial knowledge gaps regarding the Marshes have been closed
- Key step in preparation of successful nomination and management plan by national preparation team
- Report recommends parameters for comparison and comparable sites

	Type	Criteria
Danube Delta (Romania)	Coastal delta	vii, x
Everglades NP (USA)	Various	viii, ix, x
Doñana NP (Spain)	Coastal marsh	vii, ix, x
Volga Delta (Russia)	Coastal delta	-
Srebarna NR (Bulgaria)	Lake	x
Djoudj (Senegal)	Inland delta	vii, x

MANAGEMENT PLANNING

- Integrated management framework for all natural and cultural values of the Marshes needed
- Critical issues:
 - Final choice of criteria for nomination, based on global comparison
 - Demarcation (need for a serial site?)
 - Need for transboundary coordination/cooperation (upstream dams, transboundary Al-Hawizeh Marsh)
 - Agreement on allocated water volume and hydrological management plan necessary
- IUCN/WCPA Guidelines for participatory protected area management planning are a suitable tool
- Strong national planning network and sufficient time needed

POSSIBLE IMMEDIATE NEXT STEPS

- Publication of IUCN screening study
- Formation of the national/international expert network, based on individuals and institutions identified in the study
- Further discussion and approval of findings and recommendations for nomination and management planning process
- Agreement regarding the timeline regarding further research, preparation of a nomination and management planning
 - The more time the better!
- Allocation of tasks among the expert network
- Initiation of management planning process



THANK YOU – AND GOOD LUCK!