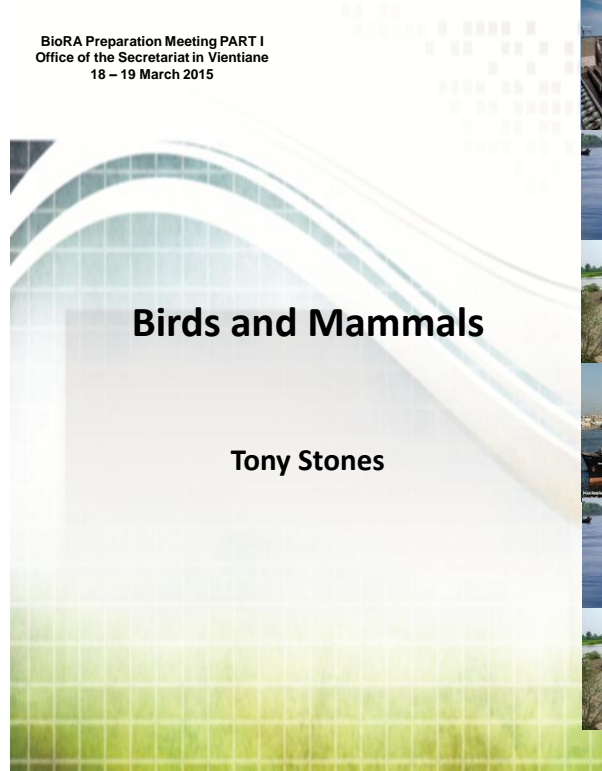


BioRA Preparation Meeting PART I
Office of the Secretariat in Vientiane
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Birds and Mammals

Tony Stones



A Wealth of Diversity.....





Mekong basin one of the richest areas of biodiversity in the world.

Recent estimates suggest approximately:

- 20,000 plant species;
- 430 mammal species;
- 1,200 bird species;
- 800 reptile and amphibian species;
- 850 fish species;
- new species still being discovered

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- The Mekong River with flood pulse based around annual monsoon supports a biological diversity second only to the Amazon in terms of numbers of fish, mammals and birds.
- A number of the most sensitive species are now critically endangered.
- The Mekong's annual flood pulse underpins the most productive and arguably most complex ecosystem services regime in the world.

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Birds



- Wetlands of Lower Mekong Basin are vitally important for many bird species – permanent / seasonal associations.
- Many bird species, particularly the large waterbirds and channel waterbirds are at / close to extinction.

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220 riparian bird species depend on the Lower Mekong River (LMR) and its associated wetland habitats for feeding, nesting and/or resting.

113 breeding resident species (including 13 species whose resident populations are also supplemented by wintering visitors, and three species restricted to the coastal region of the study area);

96 winter visitor/migrant species (including 17 coastal visitors); three species that are or are nearly locally extinct in the study area; and eight species whose status in the study area is unclear.

Of these 220 species, one recently described species – the Mekong Wagtail *Motacilla samveasnae* - is endemic to the LMR, and 18 are globally threatened species.

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Mekong wagtail – described in 1992 –
south Laos / north Cambodia

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Waders – small pratincole (whole river),
river lapwing, grey-headed lapwing
(Laos) – channel nesters



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Storks, ibises and herons – giant ibis,
white-shouldered ibis (Cambodia) –
all species are forest nesters



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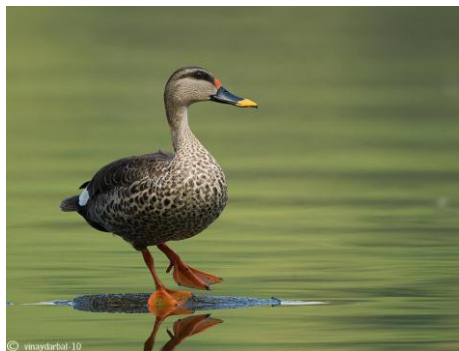
Terns – formerly nested on islands and sandbars – e.g.
river tern (below) and black-bellied tern: both now
extinct in Laos.



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Ducks both breed and winter along the Mekong – spot-billed duck



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Hole-nesting species, earth banks, e.g. blue-tailed bee-eater (below), pale crag martin



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Mammals

- Wetlands of Lower Mekong Basin are vitally important for many mammals – permanent / seasonal associations.
- Almost all mammals that permanently associate with wetlands are now severely threatened.

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Species permanently associated with wetlands

- Critically Endangered Irrawaddy Dolphin *Orcaella brevirostris*.



- Endangered Wild Water Buffalo *Bubalus arnee* was reported in southern Laos earlier this century. It is now believed to be close to extinction as the result of disturbance and hunting.

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- Endangered Lowe's Otter Civet *Cynogale lowei*. Known from one skin only collected in Tomkin.
- Hairy-nosed Otter *Lutra sumatrana* and Smooth-coated Otter *Lutrogale perspicillata*. Reported from smaller rivers and relatively undisturbed habitats, both are believed to be in serious decline due to hunting.

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- Near-threatened Oriental Small-Clawed Otter *Aonyx cinerea* (CITES Appendix II) is found in rivers and streams in forests and in adjacent degraded areas.
- Near-threatened Fishing Cat *Prionailurus viverrinus* (CITES Appendix II) is found in lowland riverine and deciduous forest.
- Eurasian Otter *Lutra lutra* is still believed to occur in a number of different wetland habitats.

Recently, all of these species have been the target of heavy hunting pressure.

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Seasonally wetland-dependent species

Many mammal species including deer, gaur and other wild cattle species dependant on wetlands for water during the dry season. Many of these species form congregations at sites of permanent water in the dry season.

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Hog deer, grasslands around Kratie – 5 populations

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Riparian forest species – Indochinese silvered langur, rhesus macaque, long-tailed macaque.



Indochinese silvered langur – riparian, seasonally flooded forest, Cambodia

Historic megafaunal species of importance
elephant, kouprey, tiger, one-horned rhinoceros
– now extirpated.

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Key habitats



- Sand bars / islands – nesting waders and terns (now largely extirpated)



- Channel mosaic habitat (combinations of sand bars, bush land, braids, exposed bedrock and gravel beds – impenetrable can keep dogs / people out)
- Bushland on sandbars (e.g. Xiangkhouan, downstream of Thadua)

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- Seasonally flooded grasslands (mainly below Kratie, but tiny areas also upstream)



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- Forest in channel (central Cambodia)



- Remnant Melaleuca forest in delta Vietnam (U Minh Ha and U Minh Thong)

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- Floodplain forest (Tonle Sap)



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- Channel-fed pools, seasonal and (potentially) permanent



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Main Relationships with Flow and Sediments:

1. Habitat exposure / inundation
2. Vegetation change
3. Food availability
4. Habitat fragmentation ?
5. Dilution of pollutants (Irrawaddy dolphin) ?
6. Fragmentation of populations

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Main Threats:

- Killing by people including hunting, egg collection, random killing
- Predation by domestic animals and crows
- Disturbance by people and domestic animals
- Habitat change as a result of livestock usage
- Habitat loss, e.g. channel trees, conversion of pools to paddies and aquaculture ponds.
(Most of Mekong channel should be forested except Cambodia)

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Unknowns in Terms of Life Histories:

- Broad idea about life histories known for some species but specifics lacking.
- Specifics of ecology of certain species known from elsewhere in the world (e.g. little ringed plover) but may not be applicable to SE Asia

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Thank you

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