

# Information Sheet on Ramsar Wetlands (RIS)

Categories approved by Recommendation 4.7 of the Conference of the Contracting Parties.

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**1. Date this sheet was completed/updated:**

06/04/2001

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**2. Country:**

the People's Republic of China

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**3. Name of wetland:**

Shankou Mangrove Nature Reserve

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Designation date

Site Reference Number

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**4. Geographical coordinates:** 21°28' N 109°43'E

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**5. Elevation:** (average and/or max. & min.) 1-3m**6. Area:** 4,000ha

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**7. Overview:** (general summary, in two or three sentences, of the wetland's principal characteristics)

In this region, there are *Syzyse* mangrove and *Commersonia bruguiera* communities aged over a hundred years, the appearances are tall and cover large area in group, all of these are quite rare in China, and many endangered animals such as Dugong *Dugong dugon*, Chinese white dolphin *Sotalia sinensis*, *Amphioxus* □ Horseshoe crab □ Pearl oyster, *Platalea minor*(E) and Saunder's gull *Larus saundersi* (N) occur in the area.

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**8. Wetland Type** (please circle the applicable codes for wetland types; in the present document, the "Ramsar Classification System for Wetland Type" is found on page 9)

marine-coastal: A • B • C • D • E • F • G • H •  I • J • K • Zk(a)

inland: L • M • N • O • P • Q • R • Sp • Ss • Tp  
Ts • U • Va • Vt • W • Xf • Xp • Y • Zg • Zk(b)

human-made: 1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9 • Zk(c)

Please now rank these wetland types by listing them from the most to the least dominant:

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**9. Ramsar Criteria:** (please circle the applicable Criteria; the *Criteria for Identifying Wetlands of International Importance* are reprinted beginning on page 11 of this document.)

1 •  2 • 3 •  4 • 5 • 6 • 7 • 8

Please specify the most significant criterion applicable to the site: 2

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**10. Map of site included? Please tick yes** 

(Please refer to the *Explanatory Note and Guidelines* document for information regarding desirable map traits).

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**11. Name and address of the compiler of this form:**

Name: Cheng Guanghua

Compiler: Management Bureau Shankou Mangrove Nature Reserve,

Address: No 1Kangle Street, Qianzhou, Hepo, Guangxi 536100

Tel: +86-779-7282149

**Please provide additional information on each of the following categories by attaching extra pages (please limit extra pages to no more than 10):**

**12. Justification of the criteria selected under point 9, on previous page.** (Please refer to the *Criteria for Identifying Wetlands of International Importance* appended to this document)

**Criterion 2:** Shankou Mangrove Forest National Reserve is an important wetland with abundant biodiversity. There are 14 species mangroves, many species benthonic diatom, phytoplankton, zooplankton, large benthonic animals, vagrant animals (fishes), insects, birds as well as microbes which have not been studied deeply. These creatures rely directly or indirectly to different extent on the 14 kinds of mangroves as being primary producers. It is of great importance and significance to protect the mangrove forest for maintaining high biodiversity and biological process of Shankou coastal wetlands.

**Criterion 4:** Shankou mangrove Reserve is an important habitat coastal wetland birds Shankou Reserve lies on an important way of migrant birds among East Asian continent, China-India Peninsula, the Pacific islands and Australian continent. In annual migratory seasons, a lot of migrants rest or inhabit temporarily in this Reserve. This has greatly enriched the birds` diversity. Among the birds, there is a great number of water birds. They rest in the mangrove or on the beach. In Shankou Mangrove Reserve, there are 106 species of birds belonging to 32 families, of them, 13 species birds are listed as National second class protected animal.

According to *Investigation on national ecological Reserve of Mangrove in Shankou,*

*Research on the systematical character of Mangrove and their resemble utility 1997, National Wetland Conservation Action Plan, 2000*

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**13. General location:** (include the nearest large town and its administrative region)

The Reserve is administrated by Hepu County, Beihai, Guangxi. It is 77 kilometers away from Hepu town, 105 kilometres to Beihai and 93 kilometres to Zhanjiang of Guangdong province.

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**14. Physical features:** (e.g., geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; catchment area; downstream area; climate)

**Geology and geomorphology:** Landform in the Reserve is characterized mainly by ancient alluvial and diluvial sedimental mesa with which to form a narrow-long marine soil between ancient coastline and modern coastline. Marine erosion cliffs are found at the part of Ying Luo Gang. Most parts of marine soil plain have been reclaimed into farmlands, saltern and ponds for raising shrimps. On the eastern and western sides of Shatian peninsula are easy to spread out for rice-grass salt marsh where grown mangrove forest. Salt marsh and mangrove forest form a protective green barrier to protect the farmlands and villages along the coast. The main geographical types in the Reserve consist of loose deposit of the Quaternary System, basalt and the base igneous rock. 80% among them is the first one. The loose deposit of the Quaternary System occurs in the beach of Dan Dou Hai. It is 1.5-10.5 m in depth. Basalt and base igneous rock appear from Xin Cuen in Yin Luo Gang to Ma An Lin along the beach. It is about 4-6 km long.

**Soil feature:** The fertilization of soil in Shankou Reserve shows that it is higher in inner shoal than outer shoal regularly. The content of heavy metal in soil shows: Zn>Pb>Cu>Cd. The content of heavy metal in the forest is highest.

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**15. Hydrological values:** (groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.)

The air temperature of Shankou is not more variable through the year. It is 13.8 degrees Celsius. The average temperature for a year is 22.9 degrees Celsius. The extreme high temperature is 38.2 degrees Celsius and the extreme low temperature is 1.5 degrees Celsius. 80%-90% annual rainfall concentrates in April to September. The rainfall through all of year is 1573.4 mm and the fate amounts to 144 days. The rainfall and fate are fewer than other regions along the coast in Guangxi. The relative humid varies from 71.6% in November to 84.5% in April. The average value is 79.9%.

The tide of Shankou occurs every day. The tide different is 2.45m.

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**16. Ecological features:** (main habitats and vegetation types)

There 14 species of mangroves in the Reserve. The main constructive species are *Rhizophora stylosa*, *Kandelia candel*, *Aegiceras corniculatum*, *Avicennia marina*, *Bruguiera gymnorrhiza*, *Excoecaria. Agallocha*. They build six kinds of typical mangrove form along Gaungxi coast. From low tide line to high tide line, the soil varies from sandy soil, loam, clay to half-solid. The communities in proper order are the forms builded by *Avicennia marina*, *Kandelia candel*, *Rhizophora stylosa* and *Bruguiera gymnorrhiza*. The compound form of *Avicennia marina* - *Aegiceras corniculatum* distributes widely and it can be found in different soil types.

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**17. Noteworthy flora:** (indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc.)

*Rhizophora stylosa* community: distributed in central and inner beach, single-storied arbor forest, 4.5-5.5 high and extremely developed pillar roots. It is not efficient in regeneration by seedling. This population is characterized in this Reserve with 80 hectares area in YingLou Gang.

*Bruguiera gymnorrhiza* community: distributed more than *Rhizophora stylosa*, arbor, 5.7m high, this form is in the later stage of communities' evolution.

*Avicennia marina* community: distributed in group near to Dan Dou Hai with large area, usually near to the low tide line of mangrove forests' outline. Some time can be found in the central and inner beach. The forest appears silvery-gray, about 1.0-1.5 m high.

*Kandelia candel* community: mainly distributed in central to central-out beach, having stronger ability ageist cold weather, bad regeneration in the nature, sporadic distributed, 12.5-3 m high, formed different forms.

*Aegiceras corniculatum* community: wide distributed in large area, especially in ocean's outskirts or the junction of bay and river mouth, yellow-green appearance, 1.2 m high, have good regeneration by seedling.

*Excoecaria agallocha* community: a semi-mangrove community on the sea wall over tide line and river mouth, abundant species of salt tolerant land under brushes, regeneration by shoots, 4-5 m high, maximum to 8 m.

Other creatures:

There are 170 species of large benthonic animals, 95 species of fishes, 132 species of birds, 96 species of phytoplankton, 26 species of zooplankton, 128 species of benthonic diatom and 273 species of insects. There are *Spartina anglica* (rice grass) and seaweed as well. It is very rare that so many marine higher plants such as mangrove, rice grass and seaweed just in a Reserve along southeast coast in China.

According to the *Scienc Report of Shan kou Mangrove NR, 1997, National Wetland Conservation Action Plan, 2000*

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**18. Noteworthy fauna:** (indicating, e.g., which species are unique, rare, endangered, abundant or biogeographically important; include count data, etc.)

Many endangered marine animals occur in Shankou National Reserve, such as Dugong, Chinese dolphin, Pearl oyster and Horseshoe crab, etc. Especially in recent two years, Dugong and Chinese dolphin often appear in the Reserve and surrounding region. There are 179 species of the other marine animals, including many large benthonic animals and marine invertebrates in the mangrove forest.

There are 132 species of birds of National Second Class protected animal in China, some of them are national endangered species in the monitoring by many years, these birds survive strongly on the mangrove forest, and the population of same birds shows trends of number increase

According to the *Scienc Report of Shan kou Mangrove NR, 1997, National Wetland Conservation Action Plan, 2000*

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**19. Social and cultural values:** (e.g., fisheries production, forestry, religious importance, archaeological site, etc.)

In history, especially in the end of 1950s to the middle of 1970s, the large area of beach is used for saltpans and fields. The actions led to reducing the areas of mangrove. At that time, the mangrove was used as fuel. Most of mangrove becomes shrub-like. At the present, there are 48545 inhabitants of 9277 families in the transition zone of Reserve region. The personal mean annual income is 2475 yuan. The people live mainly on cultivate rice and crops. Some of them are fisher or raise domestic animals.

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**20. Land tenure/ownership of:** (a) site (b) surrounding area

The site itself belongs to the nation and the surrounding area are to collectivity.

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**21. Current land use:** (a) site (b) surroundings/catchment

The mangroves occur in the wetland. The surrounding area is used as farmland planted crops and vegetables.

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**22. Factors (past, present or potential) adversely affecting the site's ecological character,** Including changes in land use and development projects: (a) at the site (b) around the site

**At the site:** The main affect on the Reserve is human activities destroying mangrove forest to raise shrimps and catch economic animals habited in mangrove forest.

**Around the site:** The human activity makes the secondary mangrove forest not be able to recover, even makes the forestation test continue difficultly. It is leading to the resources decline through the food chains.

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**23. Conservation measures taken:** (national category and legal status of protected areas - including any boundary changes which have been made: management practices; whether an officially approved management plan exists and whether it has been implemented)

An administration is established in Hepu County consisted with office, business branch and public security branch.

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**24. Conservation measures proposed but not yet implemented:** (e.g., management plan in preparation; officially proposed as a protected area, etc.)

The Management Plan of Shankou Nature Reserve is being implementing now. There are also local regulations on the NR.

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**25. Current scientific research and facilities:** (e.g., details of current projects; existence of field station, etc.)

Since established the National Reserve, the following establishments and equipments are already available: nursery, laboratory, library, herbarium, computer, vehicle, boats, a living building and a administrative building equipped with computer, telephone, water, TV, kitchen and air conditioner.

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**26. Current conservation education:** (e.g., visitors centre, hides, info booklet, facilities for school visits, etc.)

Existing facilities for publicity and education: broadcasting station, video recorder, specimen exhibition room, publicity poster and brochure, attention brand, view-sight place, trestle in forest. Since July 1, 1994, the Reserve began to put the Measures of Managing Shan Kou National Mangrove Reserve into Practice, from December 1, 1994, to implement the Regulations of Natural Reserve of China, from May 29, 1995, to implement the Administration of Marine Reserve, and to implement the Law of Marine Environment Protection of China.

Researches on the construction design, eco-breeding experiments were conducted in recent years, also as a base the Mangrove seedling cultivation, fish dynamic monitoring, mangrove insects, productivity and social economy were studied in the Reserve.

There are regular many kinds of conservation publicity activities concerning surrounding society, and eco-tourists education was held, all of these have obtained significant social efficiency.

Short-term training class was held for Reserve staff once a year. The Reserve and the Shenzhen Mangrove & Birds Reserve in Guangdong province are the members of MAB Reserve network in China; both Reserves have established business relations, and exchange staff for learning. Also the Reserve has close relations with Hekou marine Reserve in Guangxi province, National zhanjiang magrove Reserve in Guangdong province, National dongzhaigang mangrove Reserve in Hainan province. Some staff of the Reserve joined training in Hongkong Mipu mangrove Reserve, and there are planned cooperation with the latter Reserve. There have been sister Reserves of the Reserve and Rookery Bay National Estuarine Research of United States since 1997, and the Reserve was approved as a member of MAB in January 1, 2000.

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**27. Current recreation and tourism:** (state if wetland is used for recreation/tourism; indicate type and frequency/intensity)

**No information here**

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**28. Jurisdiction:** (territorial, e.g. state/region, and functional, e.g. Dept of Agriculture/Dept. of Environment, etc.)

Territorially the site is in the Hepo County, Functionally, it is under the State Ocean Administration, China.

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**29. Management authority:** (name and address of local body directly responsible for managing the wetland)

Name: Management Bureau of Shankou National Reserve of Mangrove, Guangxi ,

Address: No 1Kangle Street , Qianzhou, Hepo, Guangxi 536100

Tel: +86-779-7282149

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**30. Bibliographical references:** (scientific/technical only)

Investigation on national ecological Reserve of Mangrove in Shankou

Research on the systematical character of Mangrove and their resemble utility

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