

Shankou Mangrove National Marine Nature Reserve

(广西山口红树林生态国家级自然保护区)



United Nations
Educational, Scientific and
Cultural Organization



Man and
the Biosphere
Programme



Achievements (简介)

- **Mangrove National Marine Nature Reserve found in 1990**
(保护区成立于1990年)
- **Join in Chinese Man and the Biosphere Network in 1993**
(1993年加入中国人与生物圈网络)
- **Twinning relationship of protected areas with Luke Li Florida Bay National Estuarine Research Reserve of USA in 1997**
(1997年与美国佛罗里达州河口保护区结成姊妹保护区)
- **Was accepted as the member of UNESCO Man and the Biosphere (MAB) network in 2000**
(2000年纳入世界人与生物圈保护区网络成员)
- **Wetlands of International Importance in 2002**
(2002年列为国际重要湿地)
- **selected as one of the most charming wetland in 2013**
(2013年荣获中国十大魅力湿地)

一、 Mangrove National Marine Nature Reserve ecological features （保护区红树林基本情况）

what's it



Mangroves are a species of tropical tree that grows in seaside. （红树林指生长在海陆交界潮间带红树植物的总称。）

Forest is not just in mountains, Mangrove is also named forest on sea because of resistance typhoon and Weakened tsunami ,Protection of our home. （森林不单单是陆地上才有，海上也有红树林。红树林被人们称为海岸卫士，因为它具有防风消浪、净化海上等功能，保护着我们的生命财产安全）

important trees (保护区主要红树林种类)



Bruguiera gymnorrhiza(木榄)



Kandelia candel (Linn.) Druce

秋茄



The best preserved *Rhizophora stylosa* is Yingluogang Branch Zone, which covers more than 260 hectares.

Rhizophora stylosa in Yingluogang grow tall and straight with twisted roots and gnarled branches。

（在我国内生长最好、最原生态的红海榄林就是在保护区英罗港，连片面积超过1300亩）

Rhizophora stylosa（红海榄）

however it's not just the tree (其他生物)

That are a lot of organisms in the mangrove, which will be the paradise of the organisms, It not only provides an ideal habitat for Marine organism and birds, but also provides them with rich food. (红树林生态系统中生物多样性十分丰富，红树林它不仅为海洋生物和鸟类提供了理想的栖息地，而且为它们提供了丰富的食物)



Egret (白鹭)



conch
(贝类)



crab (螃蟹)



Sipunculus nudus (沙虫)



fish (鱼类)

horseshoe crab (鲎)



Bird migration
(鸟类迁徙)



Foraging
(觅食)



Platalea minor
(黑脸琵鹭)

Globally endangered species, which will be found in shankou mangrove (黑脸琵鹭是全球濒危种鸟类, 但在山口保护区监测到了)



Dugong
(儒艮)

It's also the living place of Dugong
(保护区周边海域还是儒艮的家乡)

Shankou Mangrove Reserve is of regional and global significance in conserving marine biodiversity because:

(山口红树林保护区在保护海洋生物多样性方面具有区域和全球意义)

1、 It has the largest patch of pure *Rhizophora stylosa* forest and *Bruguiera gymnorrhiza* forest at their climax of succession (保护区有我国连片面积最大、最古老的港湾红海榄林，其次是木榄群林、连片的白骨壤林)；

2、 It is a stopover site of black face spoonbill and other migratory birds; (是全球濒危种黑脸琵鹭迁徙中途站)

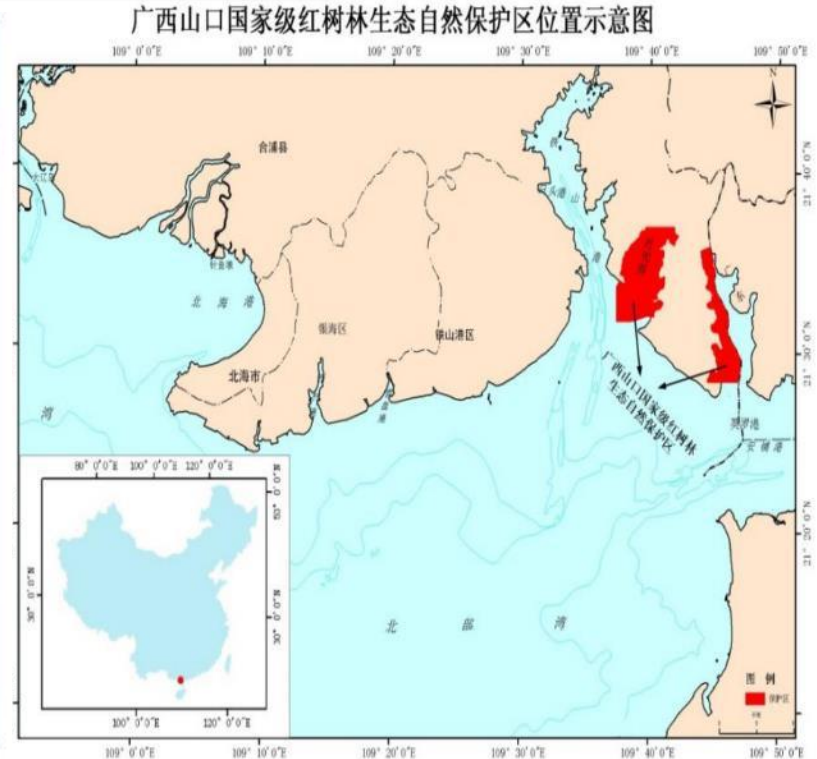
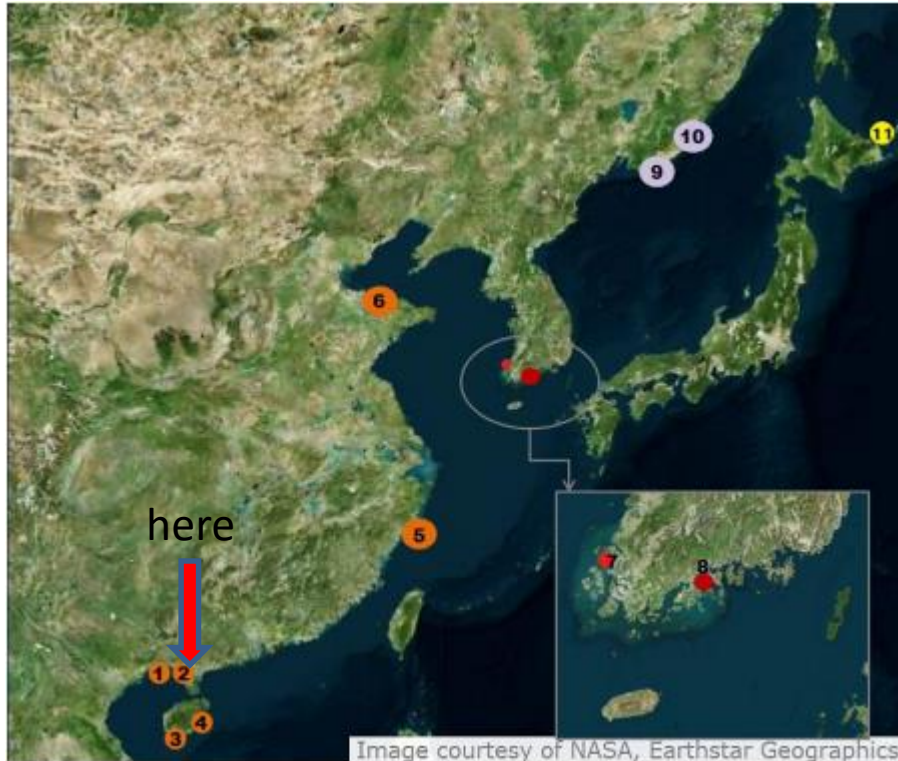
3、 It is a gene pool of mangroves in China; (是中国乃至全球的红树林基因库)

4、 It offers good opportunity for study and research into impact of climate change on mangroves, which is found to expand seaward and shrink landward as the inner seabed is ascending; (为研究全球气候共性问题有着重要战略意义)

5、 It is a compact area where mangroves, seagrasses, and *Spartina* co-exist. (此外，该区域还存在海草床等生态系统)

二、 Mangrove National Marine Nature Reserve

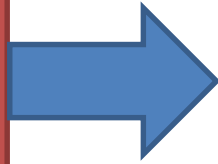
Location (地理位置)



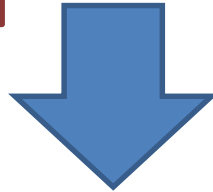
Shankou Mangrove National Nature Reserve consists of two areas on either side of the Shatian Peninsula, southeast of Hepu County, Guangxi Zhuang Autonomous Region. The Reserve, covering a total area of 8,003 hectares. (保护区位于合浦县沙田半岛东西两侧，总面积8003公顷)

三、Management experiences and challenges (共享管理经验成效)

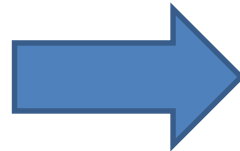
management philosophy
(管理理念)



sustainable development of mangroves (红树林可持续发展)



- monitoring (科研监测)
- conserve and restore (生态保护和恢复)
- Serving the community (服务社区发展)
- Science popularization and education (公众参与和科普教育)



Both the efforts and the achievements are highly appreciated. The important roles of the reserve in conserve biodiversity of international significance are widely recognized.
(通过各个方面的工作, 保护区取得了较好的成绩, 得到了国际广泛认可)

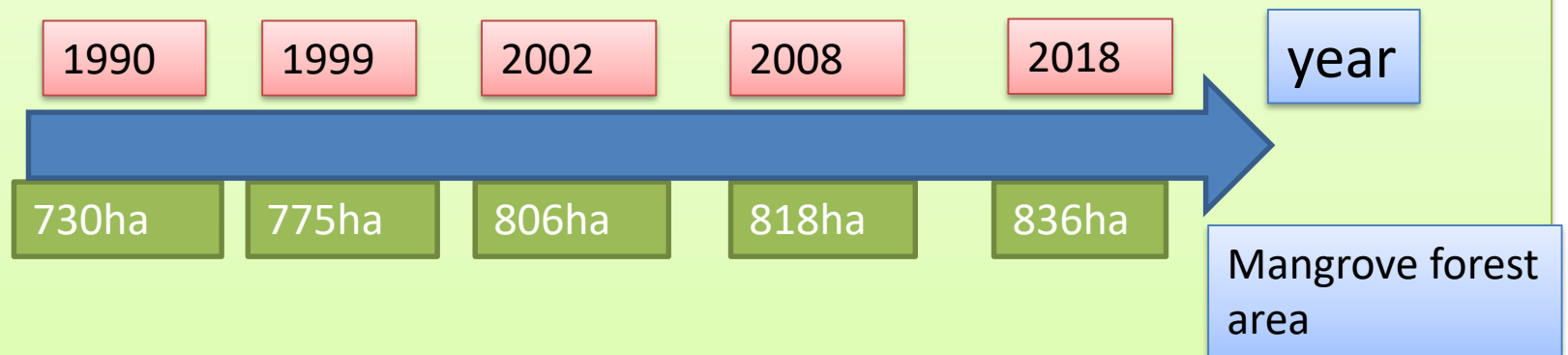
1. Monitoring (科研监测)



monitoring on
pests and birds (保护区开展虫害、鸟类、水质等监测工作，并与国际同行加深交流联系，共同探讨与发展)

2. Conserve and Restore (生态保护和恢复)

- Through artificial restoration and natural protection, the area of mangrove has increased year by year. (通过开展人工修复和自然恢复, 保护区红树林面积逐年增长)





Comparison before and after ten years
(同一个地方10年前后红树林生长对比，
红树林面积已经扩大了，闭郁度更高。)



Organize primary and secondary school students to plant mangroves
(组织单位团体、中小學生、社区群众等开展红树林生态修复)

3.Serving the community (服务社区发展)

- To strengthen the management of Shankou Mangrove Reserve, Encourage community participation in mangrove protection and management. (引导社区参与保护工作)
- Organizing community forum.
(不定期开展社区座谈，交流保护成效及经验)
- Help develop community economy.
(帮助社区发展特色产业)

clan chiefs of local villages being formed ,for examle ShanKou town chief.We will hold the meeting every year. (开展社区座谈、建立社区共管制度)



Development of alternative livelihood for local mangrove residents. For example, some ecotourism operation such as boat tour and food retailing are performed by local villagers for subsistence.

(开发了系列红树林商标生态产品，为社区群众提供生态利用价值)





Help the community out of poverty and revitalize the countryside, such as support the development of "shatianhai" wax gourd characteristic industry in the community
From 2016 to 2020, the output of "shatianhai" wax gourd industry will reach 13000 tons, with an output value of about US \$10 million (帮助社区脱贫、振兴乡村。比如，支持上新村发展“沙田海冬瓜”特色产业，2016-2020年收获1.3万吨海冬瓜，产值超过1000万美元。

4.Science popularization and education (科普宣传和公众教育)



Encouraged NGOs to carry out activities in the reserve to enhance public involvement in management of mangroves. (支持NGO到保护区内开展生态科普活动)



NGO activities (NGO开展系列保护红树林生态环境活动)

Science advocacy (科普画册)

红树林是陆海交界带

海 ← 陆

潮间带

红树林的直接用途

- 木材、薪材、燃料木炭
- 绿色食品 (如白蚁卵、海参、水母等红树林植物的副产品)
- 医药与天然香料、化妆品与香料
- 蜜源植物、药用植物和动物药源
- 海洋生物种、鱼种和虾蟹等。

红树林的生态作用

- 抵御抵御风浪、维护海岸、再造陆地
- 是许多珍稀动植物的栖息地
- 维持生物多样性、改良生态环境
- 净化海水、调节气候
- 固碳是生态碳汇的重要途径

红树林的生态作用及其维护

人们活动对今后我国红树林生态系统的相对危害值

| 活动 | 相对危害值 |
|----|-------|
| 养殖 | 0.05 |
| 旅游 | 0.10 |
| 放牧 | 0.15 |
| 砍伐 | 0.20 |
| 农业 | 0.25 |
| 工业 | 0.30 |
| 城市 | 0.35 |
| 港口 | 0.40 |
| 围垦 | 0.45 |
| 工程 | 0.50 |
| 污染 | 0.55 |
| 修复 | 0.60 |
| 旅游 | 0.65 |
| 放牧 | 0.70 |
| 砍伐 | 0.75 |
| 农业 | 0.80 |
| 工业 | 0.85 |
| 城市 | 0.90 |
| 港口 | 0.95 |
| 围垦 | 1.00 |

红树林 Mangrove

海草床 Seagrass bed

珊瑚礁 Coral reef

红树林 Mangrove

海草床 Seagrass bed

珊瑚礁 Coral reef

联合国开发计划署-全球环境基金/中国政府
“中国南部沿海生物多样性管理” (SICCBO) 项目

海岸卫士 红 Mangrove 树 林

北海市典型海洋生态系统之一

广西红树林研究中心
广西海洋环境与滨海湿地研究中心
Guangxi Mangrove Research Center
Guangxi Marine Environment & Coastal Wetland Research Center

UNDP/GEF/SOA Project on Biodiversity Management in the Coastal Area of China's South Sea

北海市红树林分布



上世纪50年代初期北海曾有红树林1730公顷，现已存3123.3公顷，占广西现有红树林总面积的37.3%，是广西沿海北方之首。主要有河口、海湾和开流湾海岸等3种类型：典型的河口红树林主要分布在廉州湾，是广西最大入海河流——南流江的河口区，红树林面积603.8公顷，海湾红树林是北海红树林的主体，集中于铁山港、开流湾和廉州湾，这3个红树林面积加起来1780公顷，海湾红树林面积进入稀少，物种丰富，保存良好。开流湾海岸红树林主要分布在北海市东海岸的大冠沙，面积约70公顷，其余600多公顷多是分布在其他小型河口海湾。600多公顷红树林只是“零钱”！知道吗？要知道福建一亩的红树林也就600多公顷而已！



红树林中的动物

螺和贝类

螃蟹类

虾类

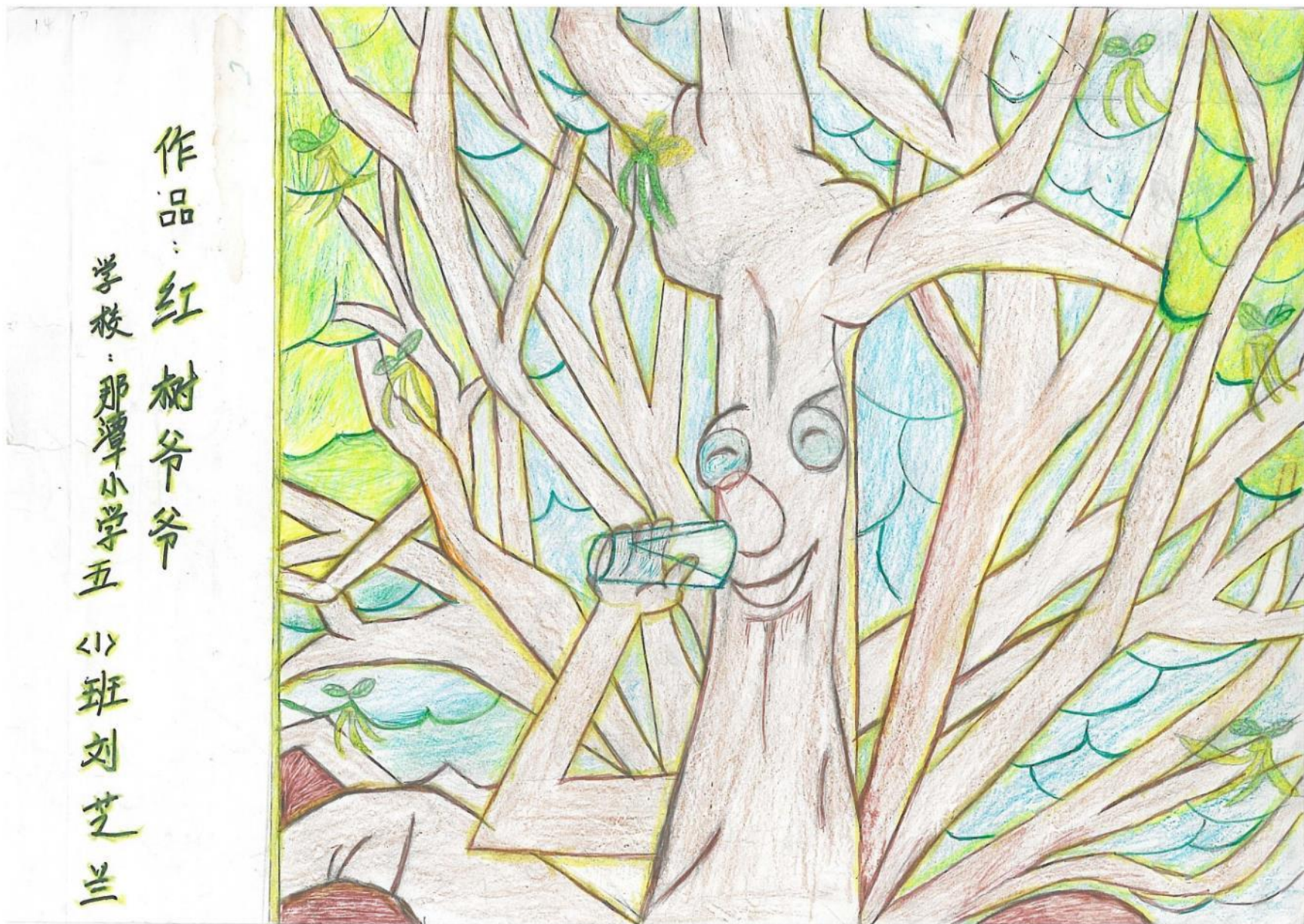
贝类

红树林中的动物



失去了红树林.....
也许就失去了这些美味!

Drawing Competition (组织小学生开展绘画比赛)



作品：红树爷爷

学校：那潭小学五
小班刘芝兰

An aerial photograph of a mangrove reserve. A winding river flows through a dense, green mangrove forest. The river starts from the top left, curves to the right, then back to the left, and then continues down towards the bottom center. The forest is lush and green, with some areas appearing more brownish, possibly due to mud or different vegetation types. In the background, there's a large body of water, likely a bay or a large river mouth, with some structures visible on the distant shore. The sky is overcast and grey.

thank you !

**welcome all of
you come to
Shankou
Mangrove
Reserve**