

Turtle Turtle

惠东港口海龟国家级自然保护区
NATIONAL GANGKOU SEA TURTLE RESERVE



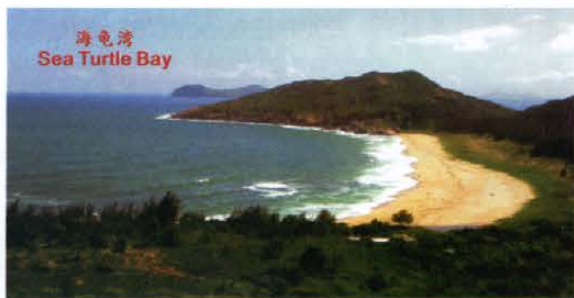
简介 Introduction

惠东港口海龟国家级自然保护区 (E22°33' 15" ~ 22°33' 20"、N114°52' 50" ~ 114°54' 33") 位于广东省大亚湾与红海湾交界处, 稔平半岛最南端的大星山南麓, 陆地和海域总面积18平方公里, 是我国大陆唯一的海龟自然保护区, 当地人称为海龟湾。保护区



保护区大门(NGSTR)

成立于1985年6月; 1992年10月, 经国务院批准升格为国家级自然保护区; 1993年7月, 加入中国生物圈保护区网络; 2002年2月, 被列入《国际重要湿地名录》; 2003年10月, 经广东省渔政总队批准成立海龟保护区渔政执法点。



National Gangkou Sea Turtle Reserve (NGSTR) was called Sea Turtle Bay by local citizens, which lies in Guangdong Province, between Da Ya Bay and Hong Hai Bay, on the east of Renping peninsula. The geographic graphic of NGSTR is E22°33' 15"~22°33' 20", N114°52' 50"~114°54' 33". The whole area of the reserve is 18 km². It is the unique nature reserve for sea turtles in China. NGSTR was founded in June 1985, and was declared as National Nature Reserve in October 1992. In July 1993, it acceded to Biosphere Reserve Net of China and was designated as Wetland of International Important in January 2002. In October 2003, Guangdong Provincial Fishery Administration authorized to establish a fishery administration bureau in NGSTR.

丰富的物种多样性 Abundant Species Diversity

保护区气候宜人，属南亚热带海洋气候，全年温度为8℃-32℃，年均降雨量为1944mm。沿岸有丰富的马尾藻、石莼及赤藻等海洋水生植物，是鱼类、贝类等海洋生物繁殖与栖息的良好场所。

这里具有原始风貌的岩石海岸，清新自然，如诗似画的自然风光，让人流连忘返。

The climate of NGSTR is pleasant, which belongs to Suptropic Ocean Climate, its annual range of temperature is 8℃ to 32℃, the rainfall average is 1944mm a year. There are abundant inshore aquatic plants such as gulfweed, sea lettuce and alga. It is a perfect marine habitat and breeding ground.

NGSTR is a picturesque rocky shores. It is an intriguing place.



保护区目标 (Aims)

- 1、保护海龟及其产卵繁殖的海洋生态环境
- 2、建立中国海龟科研基地。
- 3、建设公众环境保护教育基地。
- 4、保护生物多样性，展示人与自然和谐共处。
- 5、联合香港、台湾和大陆及世界各国有关部门建立国际海龟保护联盟。
- 6、建立亚洲龟鳖救护中心。
- 7、加入世界生物圈保护区网络。
 - Protect Sea Turtle and natural habitats upon which they depend.
 - Establish a Scientific Research Base of Sea Turtles in China.
 - Establish Public Environment protection Education Base.
 - Protect biodiversity and reveal harmony of man and nature.
 - Join with Environment and Fishery Administration of Hong kong, Taiwan and countries all over the world to establish Sea Turtle Conservation League.
 - Establish Asian Terrapin Refuge .
 - Accedz to International Biosphere Reserve Net.

现有设施 Facilities

现建成多功能展示厅、海龟馆（救护中心）、标本室、龟整园、瞭望台、实验室等保护设施，配套建设专家楼、夏令营培训中心、水库、食堂等后勤保障设施，完善了交通、通讯，水电供给线和网络系统。

Physical infrastructure: Multimedia Hall, Sea Turtle House(Sea Turtle Rescue Center), Specimen Room, Chelonian Garden, Sight-seeing Platform. Laboratory. Social amenity: Expert House, Training Center of Summer Camp ,Reservoir, Eatery. The Transportation and Communication System , water and powe lines, and network are further improved.



海龟救护中心
Sea Turtle Rescue Center



标本馆
Specimen Room



龟整园和实验室
Chelonian Garden and Laboratory



多功能展示厅
Multimedia Hall



专家楼及培训基地
Expert House and Training Center of Summer Camp

保护物种海龟 Protected species: Sea Turtle

海龟的种类及分布概况 Species of Sea Turtle and Distribution

海龟是大型的爬行动物，世界现存2科5属8种：绿海龟、玳瑁、蠓龟、太平洋丽龟、大西洋丽龟、棱皮龟、平背龟和黑海龟，它们广泛分布于除严寒极地水域以外全球各地海洋，但产卵地则限于热带及亚热带区域；而在我国分布的有2科5属5种：绿海龟、棱皮龟、玳瑁、太平洋丽龟和蠓龟，其中只有绿海龟在海龟保护区内产卵繁殖。

Sea turtle are large reptiles. There are eight species worldwide, which include Leatherback, Loggerhead, Black Turtle, Green Turtle, Hawksbill, Kemp's Ridley, Olive Ridley, Flatback. they are distributed throughout the world's oceans, except in the frigid polar waters, but their nesting sites are retracted to the tropics and subtropics. There are five species have been recorded in China waters. There are Green Turtle, Leatherback, Hawksbill, Olive Ridley and Loggerhead, but only the Green Turtle breeds in NGSTR.



绿海龟
Green Turtle



玳瑁
Hawksbill



棱皮龟
Leatherback



大西洋丽龟
Kemp's Redley



太平洋丽龟
Olive Redley



黑海龟
Black turtle



蠓龟
Loggerhead



平背龟
Flatback

保护区内的繁殖的海龟种类—绿海龟 Green Turtle

绿海龟别名海龟、绿蠓龟，学名 *Chelonia mydas*，英文名 Green Turtle。因其体内的脂肪呈淡绿色，故名绿海龟。它隶属于爬行纲 (Reptilea)、龟鳖目 (Chelonia)、海龟科 (Cheloniidae)。

The scientific name of Green Turtle is *Chelonia Mydas*. We call it Green Turtle because of its greenish body fat. It is one of the species of sea turtle of the Family Cheloniidae, Order Chelonia and Class Reptilia.

绿海龟的食物 Diet for Green Turtle

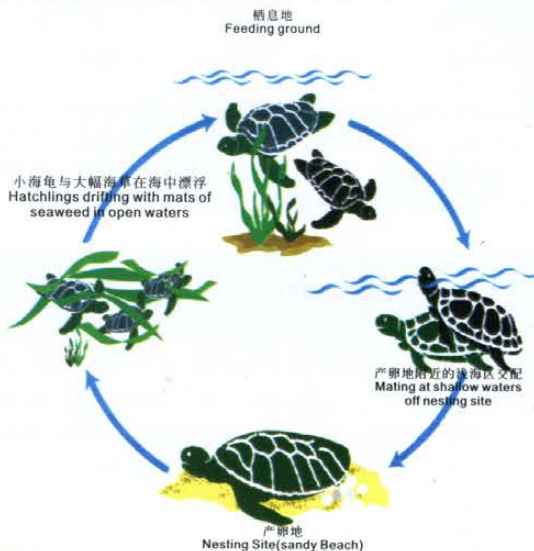
幼龟的食物：鱼卵、小虾、水母等海洋无脊椎动物。
成年龟的食物：海藻、海绵、水母、小虾、鱼类和贝类。

Diet for Juveniles: fish eggs, marine invertebrates- such as mollusks, small shrimps and jellyfish.

Diet for Adults: Sea weeds sponges, jellyfish, shrimps, fishes and sea shell.



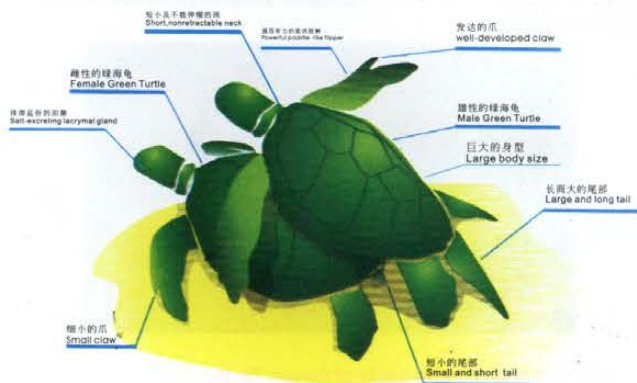
绿海龟的生活史 Life cycle of Green Turtle



绿海龟的成长、寿命 Growth and Longevity of Sea Turtle

绿海龟的生长周期很长，需要20-30年才能成年，成年绿海龟背甲为黄绿色或黑啡色、椭圆形，体长70-150cm，体重200-400kg。它们的寿命很长，通常能超过100岁。

Sea turtles grow slowly and take between 20-30 years to reach reproductive maturity. The carapace of the adults is 70-150cm in length, broad and oval-shaped, olive to dark brown. Its weight range is 200 to 400 kg. Sea turtles are longeval, they can usually live over 100 year.



绿海龟洄游和繁殖

令人感到惊叹的是海龟洄游产卵行为，由于需要作长途的旅行，海龟拥有很强的方向感。在繁殖季节，成年海龟从数百甚至数千里以外的觅食地，洄游到出生的沙滩产卵。没有人知道它们怎样在茫茫大海中导航，并能够分毫不差地返回出生地。

A remarkable aspect of sea turtles is their migratory behavior. Because of the need for long distance travel, they have developed an acute sense of direction and, when they are ready to breed, adults will return from their feeding grounds to their natal beach, even if it is hundreds or thousands of kilometers away. No one knows exactly how sea turtles navigate across the vastness of oceans, or how they find their way back to their natal beach with pinpoint.

每年的6-10月是海龟湾海龟的繁殖季节。交配后的雌海龟将会在晚上爬上沙滩产卵，一窝海龟卵大约有80-170枚。绿海龟是分批产卵的，每隔大约15天产一窝卵，在一个产卵季节她最高可以卵产多达7窝。雌海龟并不是每年都产卵，通常需要相隔3-5年才产卵一次。产卵后，母龟便会回到大海中。

The breeding season of NGSTR last from June to October, accuracy. the female will crawl up the beach to lay eggs at night and the clutch size is about from 80-170 eggs. The Green Turtle belongs to batch spawning, and they will lay a clutch egg at intervals of 15 days. The female can lay at most 7 clutches of eggs in a breeding season. Females don't lay each year and they usually nest once at least 3 to 5 years.



上岸
clawling up the beach



寻找合适的产卵位置
Searching for suitable nesting location



挖沙
digging nest



产卵
producing



埋卵
Burying eggs



返回大海
returning back to the sea

海龟蛋呈白色，蛋壳十分柔韧，其大小和乒乓球差不多。
The eggs are white, and about the size of a ping-pong ball. Unlike hard-shelled chicken eggs, the shells of sea turtle eggs are leathery and flexible.



海龟蛋大约需要50天将会自然孵化出小海龟。
After 50 days incubation, the juveniles will break out.



初生的小海龟背甲为黑色，底板为乳白色，背甲长约5厘米，重约23克。

The juveniles are black and about 5cm in carapace length and 23g in weight.



小海龟出壳后会清楚地知道那里是它们的家，绝不会迷失方向。

Juveniles clearly know where is their home after broken out and no one will be lost.



保护措施 Conservation Measures

保育 Cure

栖息地的保护 Habitat Protection

在中国沿海的各产卵沙滩设立观察站，对各栖息地进行考察、调研和监控。每个站雇用1名当地村民为巡护员，负责监测该地区海龟上岸产卵及渔民误捕海龟的情况并及时地向保护区报告，杜绝人为对海龟及栖息地的破坏（如挖沙、偷海龟蛋、打猎等）。

We set up observation stations and research the habitat at each nesting site of the sea coast of China. A local villager was employed as patrol.

They can discover destroying behaviors (digging sand, stealing eggs,



望龟回 Patrol

hunting etc) in time, and forward to NGSTR. All the destroying behaviors can be stopped.

人工移植孵化 Artificial Incubation

由于某些海龟选择的产卵位置的沙粒、气温、沙温、湿度、深度等影响孵化的因素不是最佳，为了防止龟卵遭受海浪淹没或冲毁，保护区人员通过人工移植方式改善海龟蛋的孵化条件，提高海龟蛋的孵化率。现全年平均孵化率可达85%以上。



Because of the situation such as size of sand, environment of nesting location, temperature, sand temperature, humidity, depth of nests which chose naturally by Sea Turtles are not always ideal for reproduction. In order to prevent eggs from being destroyed by wave, we adopt the way of artificial transplant to improve the conditions of incubation. Now, the hatch rate of Green Sea Turtle in NGSTR is over 85% in average.

稚龟人工暂养 Artificial Feeding Juveniles

刚孵出的海龟抵御天敌（如海鸟、螃蟹、鱼等）的能力差，据研究自然状态下第一年的成活率不到1%；通过短期暂养小海龟1-2年是提高海龟成活率的有效方法之一。近年来保护区人工暂养技术不断改进，养殖成活率可达94.5%。

Juveniles have a low ability to resist natural enemy (such as Seabirds, crabs, fish). It is an effective way to increase Juveniles survival rate to release back the turtle to the sea after feeding about 1 to 2 years. In recent year, the Juveniles feeding survival rate reach over 94.5%.



救治 Rescue

对渔民误捕受伤的海龟和充公龟类进行救治。到2005年止,我们总共救治海龟758头。其中702头被成功治愈并放回大海。

Those turtles captured by fishermen or confiscated by governmental departments are cured by NGSTR. So far 2005, 758 sea turtles have been delivered to NGSTR, and 702 were cured and released back to the sea.



市场检查 Market Inspection

保护区人员联合其它执法部门对沿海各港口及市场进行定期调查,及时对违法走私贩卖野生动物的行为进行教育和处理。通过市场检查收集龟类相关数据,评估保护成效。We join other administrations to inspect the local harbors and markets, dealing with the behavior of vending wild animals. Through market inspecting, we collect the correlative datum and estimate the effect of conservation.

宣传教育 Propaganda and Education

1. 深入渔村,对渔民进行海龟保护的宣教工作。
2. 建立科普教育基地,举办保护海洋生态环境的夏令营活动,让学生走进海龟湾,体验自然,增强青少年的环境保护意识。
3. 大力开展生态旅游,提高全民的龟类保护意识,促进保护区持续健康发展和带动地方经济发展,实现人与自然和谐共存。
4. 利用新闻媒体开展宣传教育。



夏令营
Summer Camp

- Visit fishing village to educate fishermen how to protect sea turtles.
- Establish Public Science Education Base and hold Hand in Hand Earth Village Summer Camp for teenagers to make students participate and experience the work in NGSTR.
- Develop ecotourism to enhance public consciousness of environment protection.
- Enhance public education via media.



地方调查
Social Investigation



宣传栏
Propagandistic Column



生态旅游
the tour for zoology

欢迎社会各界人士参与到海龟保护的“志愿者”行列
Welcome people join Volunteer Group.



大力开展“放生领养”活动 Release and Adopt turtle

海龟是长寿和吉祥的象征。中国东南沿海自古有放生海龟祈求平安的习俗。欢迎社会各界人士参与放生、认养活动,让更多的人来了解海龟、关心海龟、保护海龟。

Sea turtles are the symbol of longevity and good luck. In China, people have the custom to set free turtle for good luck. We welcome people to join in the activity of releasing and adopting turtle, making them care more about turtles.



祈福

Bonze praying for turtle



放生

Release Turtle

科研与对外交流 Scientific Research and Intercommunication

积极跟国内外的科研机构和其它保护组织进行交流与合作,推行多项合作计划:资料交换、护理人员培训及科研项目合作等。



参加国际龟鳖联盟培训
TSA Training



新加坡海龟专家来访
Singapore Turtle Experts Visiting NGSTR



中国两爬院士赵尔宏给保护区工作人员授课
Ermi Zhao, who is an academicians of reptile in China, is giving a lesson to the crew of NGSTR.

保护区专家到美国交流学习
Director of NGSTR join the Asian Turtle and Tortoise show in USA



中国生物圈保护区第六次网络大会

科研成果

- 1988年：人工养殖小海龟实验成功，发表的《海龟产卵孵化与人工养殖小海龟》一文，获得广东省科技成果二等奖、农业部科技进步三等奖；承担农牧渔业部南海海龟资源调查对西沙群岛七连屿和惠东海龟湾进行调查。
- 1990年：中国南海幸存海龟的调查研究。
- 1992年：港口海龟国家级自然保护区的产卵场地的分析。
港口海龟国家级自然保护区海龟洄游和生态情况的分析。
- 2001年：联合广东省海洋与渔业局环境监测中心、华南濒危动物研究所、中国科学院南海海洋研究所和香港渔农自然护理署，开展了卫星追踪实验。
- 2002年：利用有益微生物法培育稚海龟。

- 2004年：完成世界自然基金会（WWF）《惠州海龟产卵繁殖栖息地保护与社区共管》及《稚绿海龟高密度养殖》项目。
- 2005年：启动《世界濒危物种—绿海龟的遗传结构研究》及《绿海龟（中国）种质资源保存及遗传多样性研究》科研项目。

Cooperate with academic institutions and organizations to develop various projects: the exchange of nesting information, staff training and scientific research.

The achievements of scientific research

- 1988: The experiment of rearing baby turtles was successful.
- 1990: investigate population of sea turtles in South China Sea.
- 1992: Nesting habitat analysis of green turtles in Gangkou Sea turtle Reserve and Nest ecology and immigration of the green turtle in Huidong Nest beach.
- 2001: NGSTR carried out green turtles satellite tracking project joined with the Environment t Monitoring Center of Guang Dong Provincial Oceanic and Fishery Administration, South China Institute of Zoological Species, South China Sea Oceanographic Institute of Academia Sinica and AFCD of Hongkong.
- 2002: Application of Effective Microorganisms in the Green Turtle hatchlings' breeding.
- 2004: Finish the project: "Habitat conservation of Sea turtle in Huizhou and Community Participation" and "High density feeding for Green Turtle hatchling".
- 2005: Start the projects: "study of hereditary constitution of green turtles" and "establish genetic resources center ad research genetic diversity of green turtles in China".





Post-nesting Migration Routes of Three Female Green Turtles Tracked by Satellite from Guangzhou Sea Turtle National Nature Reserve in 2001

海龟卫星跟踪洄游线路图

保护海龟，刻不容缓 Protect Sea Turtle, no time to delay

近些年，由于海洋过度捕捞，海洋污染，产卵场的破坏等因素，使得海龟资源受到严重的威胁，海龟已被列入《濒危野生动植物国际贸易公约》及《保护迁徙野生动物公约》的附录I，我国也将其列为国家一级和二级保护动物。据专家研究估计，我国南海成年绿海龟不到4000头。除南沙群岛、西沙群岛和台湾、香港岛尚有海龟上岸，港口海龟保护区是我国大陆18000公里海岸线上海龟的最后一张产床。



误捕海龟
Sea turtle captured by fisherman

In recent years, sea turtles have threaten severely by excess capture, marine pollution and nesting site destroyed. Now, Green Turtles are listed in Appendix 1 of the CITES1 and the Bonn Convention2, they are also regarded as class one and two protected animals in China. NGSTR is the formost nesting beach of sea turtles in the 18,000km coastline of China besides Nansha archipelago, Xisha archipelago, Taiwan Island and Hongkoung Island. NGSTR is the last nesting site for sea turtles on 18,000 km coastline of China.

保护海龟，你可以做什么？What you can help?

1. 不捕杀海龟，不采挖海龟卵，不食用海龟及其产品。
2. 发现破坏海龟资源的违法行为及时向有关部门报告。
3. 海上误捕海龟要及时救治、放生。
4. 奉献爱心，捐助海龟自然保护事业。
5. 加入保护区志愿者行列，为保护事业出力。

There are many things each of us can do to help sea turtles survive. First, do not hunt sea turtles ad eat their meat. Do not purchase their commercial products. Second , when you discover the behaviors of destroying sea turtles habitat, please report the truth to local administrations in time. Third, set free the turtles by accidental capture. Finally, support sea turtles conservation by becoming as a volunteer and making a donation.

拯救濒危动物，保护海龟，有赖您来支持！

We need your help to protect sea turtles!

对海龟保护事业奉献爱心的方式：

1. 放生、领养海龟

注：每个海龟配一个电子芯片（一生的标记，永不脱落），同时颁发领养、放生证书，你的名字将永远铭刻在海龟湾芳名册上。认养者凭证可以免费探望海龟。

Learn how you can make a donation:

Release and adopt Sea Turtles for good luck

Note: There is a Microchip Identification System inject into the body of each turtle, by which we can identify the Turtle for lifetime. Award you an Adoption Certificate, by which you can visit Sea Turtle Reserve for free during the adoption period.



扫描仪
Reader



电子微芯片
Microchip

2. 捐款 Donation:

银行 Bank：中国农业银行惠东港口支行
Agricultural Bank of China

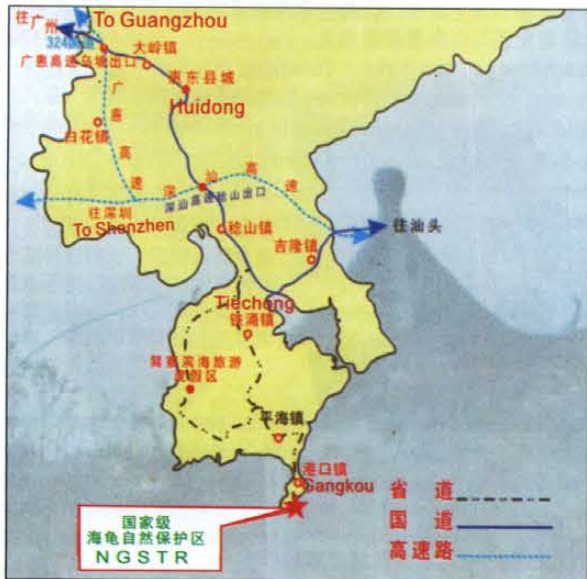
帐户 Account：惠东港口海龟国家级自然保护区管理局
账号 Account Number：44-237301040000181

相关法律 Laws for Protection

《野生动物保护法》第八条：国家保护野生动物及生存环境，禁止任何单位和个人非法猎捕或者破坏。

《中华人民共和国刑法》第三百四十一条：非法猎捕、杀害国家重点保护的珍贵、濒危野生动物的，或者非法收购、运输、出售国家重点保护的珍贵、濒危野生动物及其制品的，处5年以下有期徒刑并处罚金，情节特别严重的，处10年以上有期徒刑，并处罚金或没收财产。

海龟湾线路图 Direction





惠东港口海龟国家级自然保护区管理局
National Gangkou Sea Turtle Reserve Management Bureau

联系方法 Contact Us

地址： 广东省惠东港口海龟国家级自然保护区管理局
Add: Sea Turtle Bay, Gangkou, Huidong, Guangdong, China
邮编 P.O. : 516359
电话 Tel : +(86) 752-8560918
传真 Fax : +(86) 752-8560918
电邮 E-mail : ghb@seaturtle.cn
网页 Web-site : <http://www.seaturtle.cn>