

**BERMUDA WILDLIFE  
DEFINITIVE PART III**



official first day cover  
release date: 12-3-79

PRESENTED TO:

Mr. George H. Balazs  
University of Hawaii at Manoa  
Hawaii Institute of Marine Biology  
Coconut Island, Kaneohe  
Hawaii 96744

*[Signature]*  
Compliments of  
The Postmaster General

**BERMUDA WILDLIFE  
DEFINITIVE PART I**



official first day cover  
release date: 15-11-78

PRESENTED TO:

Mr. George H. Balazs  
University of Hawaii at Manoa  
Hawaii Institute of Marine Biology  
Coconut Island, Kaneohe  
Hawaii 96744

*[Signature]*  
Compliments of  
Postmaster General  
Bermuda

# BERMUDA WILDLIFE

## PART III

Theme "Marine Life" by James Burnett-Herkes, Ph. D., Asst. Director Fisheries  
Bermuda Department of  
Agriculture & Fisheries.

### Technical Details

Designer: Gordon Drummond

No. of stamps per sheet: 50 (2 panes of 25)

Printer: Harrison & Sons (High Wycombe) Ltd.

Size of stamps: 28.45mm x 42.58mm

Process: Photogravure

Paper: C.A. watermark

Release Date: 12th March, 1979



#### 20c Four-eye Butterfly Fish *Chaetodon capistratus*

The four-eye butterfly fish with its distinctive pigment spots or ocelli resembling a second pair of eyes, has caused a great discussion among scientists on the significance of these spots. Because the real eyes are obscured by bands of pigment, one theory is that the ocelli serve to deceive predators into thinking they will try and flee in one direction when actually they swim off the opposite way. Another suggests that during "family" squabbles the ocelli serve to prevent critical damage to the species when one fish attacks another that has invaded its territory. Although adult four-eye butterfly fish live in coral reefs, juveniles are frequently found among sea grasses.



#### 25c Red Hind *Epinephelus guttatus*

Red hinds are found from Bermuda south throughout the Caribbean. Although specimens are at times caught in the America's, the species is really an island form and is the most important species of Bermuda's fishery. Red hinds begin their sex life when they are three years old and, like most other types of fish of the grouper family, they are hermaphrodites. This means they first mature as females and after spawning one or more years they subsequently become males. Red hinds make their living among coral reefs where they feed on crabs and small fishes. They normally only leave the vicinity of their home reef to join spawning aggregations and they may then travel 20 k.m. or more.



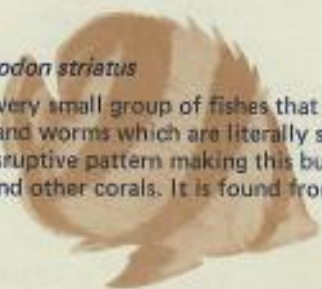
**40c Rock Beauty *Holocanthus tricolor***

This strikingly coloured fish occurs in Bermuda, Florida and the Caribbean. Among crevices in bright yellow encrusting corals the colouration becomes effective camouflage for this fish. It feeds on polychaete worms, small crustaceans and sponges found on coral reefs.



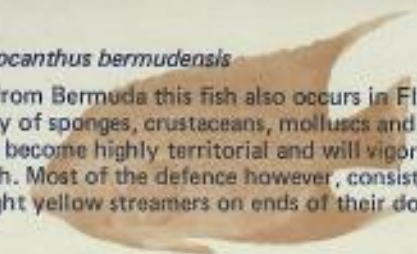
**50c Banded Butterfly Fish *Chaetodon striatus***

The butterfly fishes are among a very small group of fishes that feed on corals. Other items in the diet of these fish include crustaceans and worms which are literally sucked out of crevices in the reef. The banded colouration serves as a disruptive pattern making this butterfly fish difficult for predators to detect as it flits among sea rods and other corals. It is found from Bermuda south throughout the Caribbean and Florida.



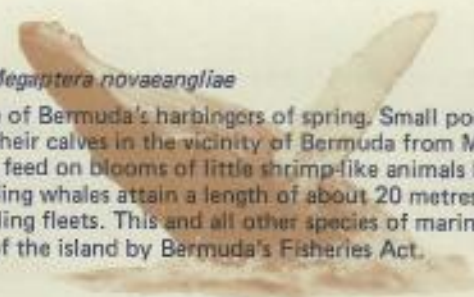
**\$1.00 Blue Angelfish *Holocanthus bermudensis***

Although first described from Bermuda this fish also occurs in Florida and the Gulf of Mexico. Angelfish feed on a variety of sponges, crustaceans, molluscs and worms that are found in coral reefs. As these fish mature they become highly territorial and will vigorously defend their "homes" from invasion by other angelfish. Most of the defence however, consists of threat displays accompanied by the flashing of the bright yellow streamers on ends of their dorsal and anal fins.



**\$2.00 Humpback Whale *Megaptera novaeangliae***

Humpback whales are one of Bermuda's harbingers of spring. Small pods of these whales can be seen leaping and playing with their calves in the vicinity of Bermuda from March to May each year when they stop by the island to feed on blooms of little shrimp-like animals known as euphausiids or krill. These baleen or filter-feeding whales attain a length of about 20 metres and have been severely over-fished by the world's whaling fleets. This and all other species of marine mammals are now protected within a 200 mile radius of the island by Bermuda's Fisheries Act.



# BERMUDA WILDLIFE

## PART I

Theme "Bermuda Birds" By David Wingate, MBE., B.A., Conservation Officer,  
Bermuda Department of  
Agriculture & Fisheries.

### Technical Details

Designer: Gordon Drummond

Printer: Harrison & Sons (High Wycombe) Ltd.

Process: Photogravure

No. of stamps per sheet: 50 (2 Panes of 25)

Size of stamps: 28.45mm x 42.58mm

Paper: C.A. watermark

Release Date: 15th November, 1978



#### 3c White-Tailed Tropicbird (Longtail) *Phaeton lepturus*

The white-tailed tropicbird or longtail as Bermudians know it is Bermuda's traditional harbinger of spring and one of the most beautiful features of our coastline during the summer months. Nesting in holes and crevices of the coastal cliffs and islands where it is safe from human disturbance and introduced mammal predators, it is the only native seabird to have survived in numbers comparable to its primeval abundance on Bermuda. At least 3,000 nesting pairs still breed along most of the coastline, but the numbers are declining slowly due to coastline development, increased disturbance and predation by stray dogs and oil pollution at sea.

Longtails have such small feet that they are unable to walk on land and hence do all their nest searching on the wing. It is this constant searching back and forth along the cliffs, combined with the aerial courtship display, which involves touching the tips of the long tail feathers together in paired flight, that makes them so conspicuous on our coastline. The single purplish-red speckled egg is laid in April and hatches in late May. The chick takes approximately 65 days to fledge and departs to sea on its own in late July or early August.

Longtails do all of their feeding far out on the open ocean where they plunge from a height onto unsuspecting fish and squid like a gannet. During the winter months the population disperses throughout the Sargasso Sea and remains out of sight of land. Evidently, the birds sleep on the wing or on the water if it is calm.



#### 4c White-Eyed Vireo *Vireo griseus bermudianus*

The white-eyed vireo is known to Bermudians as the "chick of the village" in imitation of its cheery song which is sung throughout the year. It has the distinction of being an endemic sub-species, characterised by shorter wings and duller plumage in comparison with its American counterpart. An insect-eating bird of the forest canopy, it was originally associated with Bermuda's ubiquitous cedar and palmetto forest. Although periodic deforestation after human settlement and more recently, the almost total destruction of the cedar tree by accidentally introduced insect pests nearly caused its extinction, this bird has recovered well again over the last two decades as the result of extensive reforestation.



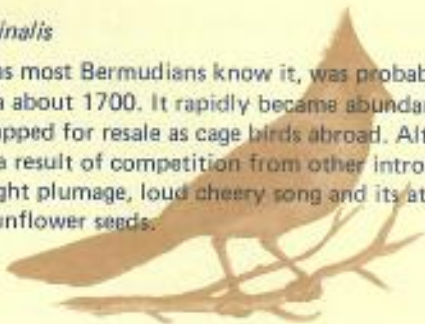
#### 5c Eastern Bluebird *Sialia sialis*

It is said that the bluebird carries the sky on its back and earth on its breast. Bermuda is fortunate indeed to be able to claim this beautiful, useful and confiding songbird amongst its native land bird fauna. Throughout most of our history since human settlement, the bluebird was very abundant, nesting in hollows of the cedar trees, in coastal cliffs and even under the eaves of houses. As a cavity nester, however, it became especially vulnerable to nest site competition from the house sparrow following its introduction in 1870 and, more recently, the starling, which colonised Bermuda in the 1950's. The loss of Bermuda's cedar forest due to introduced insect pests and the subsequent removal of the dead trees aggravated this problem even more by reducing the number of available nesting hollows. It is estimated that between 1950 and 1978, the population declined by more than 80 per cent. Extensive community participation in an artificial nest box programme may now be the only factor preventing total extinction of the bluebird on Bermuda.



#### 8c Cardinal *Cardinalis cardinalis*

The cardinal or "redbird" as most Bermudians know it, was probably first introduced to Bermuda as a cage bird from Virginia about 1700. It rapidly became abundant and during the nineteenth century thousands were trapped for resale as cage birds abroad. Although fully protected today, it is much less common as a result of competition from other introduced birds. It remains conspicuous, however, because of its bright plumage, loud cheery song and its attraction to bird feeders where it shows a preference for sunflower seeds.



#### \$5.00 Bermuda Petrel (Cahow) *Pterodroma cahow*

When the first settlers landed on Bermuda, they found it teeming with a nocturnally active seabird that they called the cahow in imitation of its eerie call. It was so tame and defenceless, however, and such good eating that it was soon reduced to the point of oblivion. For three centuries thereafter it remained lost to science until R. W. Shufeldt described it as an endemic form of Gadfly petrel from the abundant fossil bones in Bermuda's limestone caves in 1915. Soon after this publication, an extraordinary fact came to light. Live specimens fitting Shufeldt's description had been collected on Bermuda in 1861 and again in 1906. Incredibly, a few cahows had managed to survive undetected for all that time. When two other freshly killed specimens were subsequently found in 1935 and 1945 respectively, Dr. Robert Cushman Murphy, the world authority on oceanic birds at the American Museum, decided to mount a special search expedition in team with Louis S. Mowbray of the Bermuda Aquarium. The expedition of 1951 was immediately successful in relocating the breeding grounds, and thus made it possible to launch a conservation programme for the species. After 25 years of intensive management, the cahow has begun a slow recovery from an estimated 18 pairs in 1951 to 27 pairs in 1978.

**BERMUDA WILDLIFE  
DEFINITIVE PART II**



official first day cover  
release date: 19·2·79

PRESENTED TO:  
Mr. George H. Balazs  
University of Hawaii at Manoa  
Hawaii Institute of Marine Biology  
Coconut Island, Kaneohe  
Hawaii 96744

*[Signature]*  
Compliments of  
The Postmaster General

# BERMUDA WILDLIFE

## PART II

Theme "Amphibians and Crustaceans"

### Technical Details

Designer: Gordon Drummond

No. of stamps per sheet: 50 (2 panes of 25)

Printer: Harrison & Sons (High Wycombe) Ltd.

Size of stamps: 28.45mm x 42.58mm

Process: Photogravure

Paper: C.A. watermark

Release Date: 19th February, 1979



**7c Whistling Frog** *Eleutherodactylus johnstonei*  
by David Wingate, M.B.E., B.A.

The loud bell-like chorus of the diminutive but super-abundant whistling frog is one of the most characteristic night sounds of Bermuda between the months of April and November. This frog was introduced to Bermuda accidentally – probably on imported orchids from the Lesser Antilles – sometime prior to 1880. Whistling frogs do not require standing water for breeding but pass through their tadpole stage within the egg itself. Clusters of eggs are laid in damp situations among rotting vegetation or under stones.



**10c Spiny Lobster** *Panulirus argus*

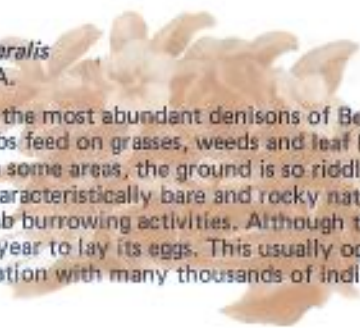
by James Burnett-Herkes, Ph.D., Asst. Director, Fisheries, Bermuda Department of Agriculture & Fisheries

Although Bermuda is the northernmost extension of the range of Caribbean spiny lobsters, populations of this delicious crustacean are large enough here to support a small seasonal fishery. These lobsters spend most of the year living in caves or dens, in patch reefs in the day and at night they feed on shellfish, worms and the like among sea grasses adjacent to their dens. During the summer spawning season lobsters migrate off-shore to depths of 60 metres or more. Their complex life history includes fragile larval stages that drift in the ocean for 6 months and a subsequent growing period of 5 years before young lobsters reach maturity and Bermuda's minimum legal fishing size.



**12c Land Crab *Gecarcinus lateralis***  
by David Wingate, M.B.E., B.A.

The native land crab is one of the most abundant denizens of Bermuda's sandy coastal slopes, especially on the South Shore. Land crabs feed on grasses, weeds and leaf litter, and live in burrows which they excavate with their pincers. In some areas, the ground is so riddled with these burrows that severe soil erosion occurs. Indeed, the characteristically bare and rocky nature of Bermuda's immediate coastline is largely the result of land crab burrowing activities. Although the land crab is terrestrial in habit, it must return to the sea once a year to lay its eggs. This usually occurs at night in early July and often takes the form of a mass migration with many thousands of individuals going to the sea at the same time.



**15c Bermuda Rock Lizard *Eumeces longirostris***

The rock lizard is a member of the skink family and has the distinction of being Bermuda's only native non-flying, non-swimming terrestrial vertebrate. It was described as endemic — or unique — to Bermuda in 1860 by P.H. Pope, the Smithsonian herpetologist, and its fossil bones, dating back 300,000 years or more, have been found in Bermuda's limestone caves.



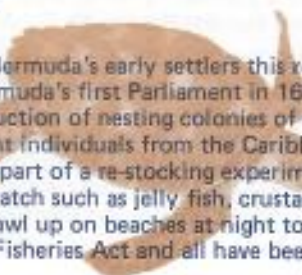
**30c Monarch Butterfly *Danus plexippus***  
by I.W. Hughes, Ph.D., M.B.E., Director, Bermuda Department of Agriculture & Fisheries

The monarch butterfly is one of only six species of butterflies resident in Bermuda. It is widely distributed in the world but is perhaps best known in North America where it engages in long migratory flights — southward in the fall, often culminating in massive over-wintering "roosts" in Florida, the Gulf States, Mexico and California and northward in less spectacular fashion in the spring. Strays from the fall migration frequently turn up in Bermuda. The caterpillar of the monarch, which is yellowish-green with black bands, feeds on milkweed. On maturity, it changes into a green chrysalis with golden spots which hangs like an ornament from host plants and from which the beautiful butterfly emerges.



**\$3.00 Green Turtle *Chelonia mydas***  
by James Burnett-Herkes, Ph.D.

Once an abundant food source for Bermuda's early settlers this reptile was the subject of the Island's first conservation law passed by Bermuda's first Parliament in 1620. This and subsequent measures were unsuccessful in preventing the destruction of nesting colonies of turtles in Bermuda. Green turtles found at Bermuda today are itinerant individuals from the Caribbean or were brought from Costa Rica as eggs and incubated on beaches as part of a re-stocking experiment. Green turtles feed on sea grasses and any other marine life they can catch such as jelly fish, crustaceans and fishes. Turtles mature at a weight of about 200 lbs. and will crawl up on beaches at night to lay their eggs. All species of marine turtles are protected by Bermuda's Fisheries Act and all have been the subject of research in recent years.







ON HER MAJESTY'S SERVICE

Mr. George H. Balazs  
University of Hawaii at Manoa  
Hawaii Institute of Marine Biology  
P. O. Box 1346  
Coconut Island  
Kaneohe  
Hawaii 96744  
U.S.A.

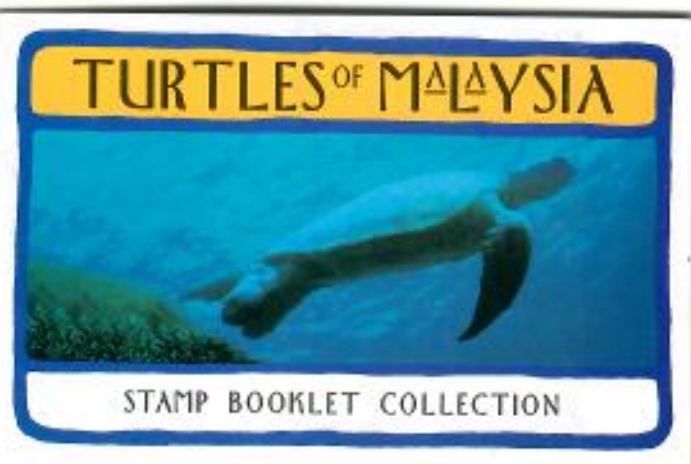
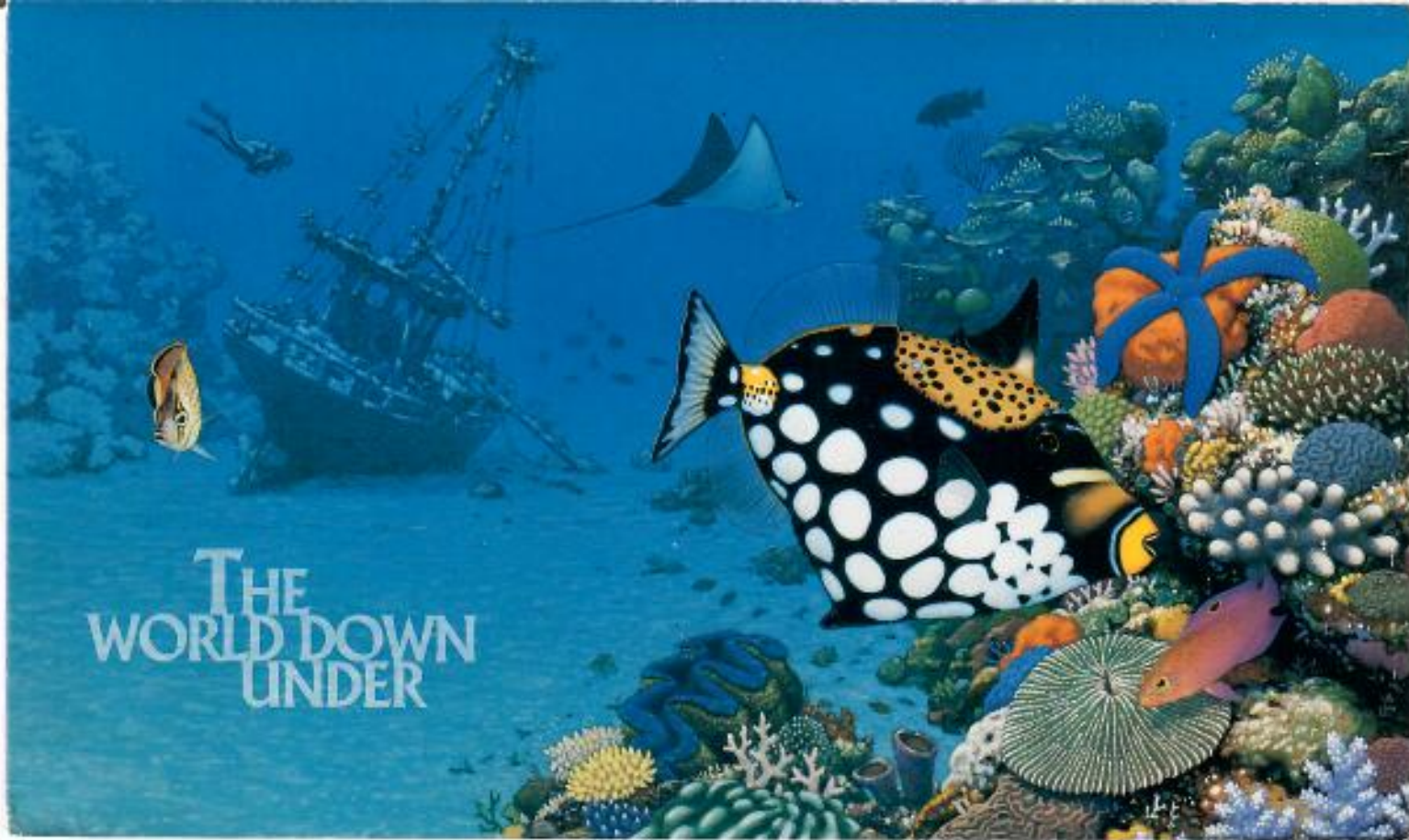
GENERAL POST OFFICE  
HAMILTON 5-24  
BERMUDA



Judy Hornaday  
22446 Estallens  
Mission Viejo, CA 92692



George Balazs  
992A Awaawanoa Place  
Honolulu, Hawaii  
96825





Australia's tropical waters teem with a fascinating variety of sea life. The mini-sheet shows the change of marine environments from the shallow continental shelf, with its coral reefs and colourful marine creatures, to the deeper waters of the open ocean.

The stamps feature a juvenile flatback turtle (*Natator depressus*), found only in the waters of northern Australia; a flame angelfish (*Centropyge loriculus*), one of the myriad small fish living in coral reef environments; a vivid nudibranch (*Chromodoris bullocki*); the potato cod (*Epinephelus tukula*), a partially protected species; the giant or humphead Maori wrasse (*Cheilinus undulatus*), a star attraction for divers on the Great Barrier Reef; a giant trevally (*Caranx ignobilis*); a black marlin (*Makaira indica*), perhaps weighing half a tonne; a fearsome scavenging tiger shark (*Galeocerdo cuvier*) and a shortfin mako shark (*Isurus paucus*), thought to be the fastest shark of them all.

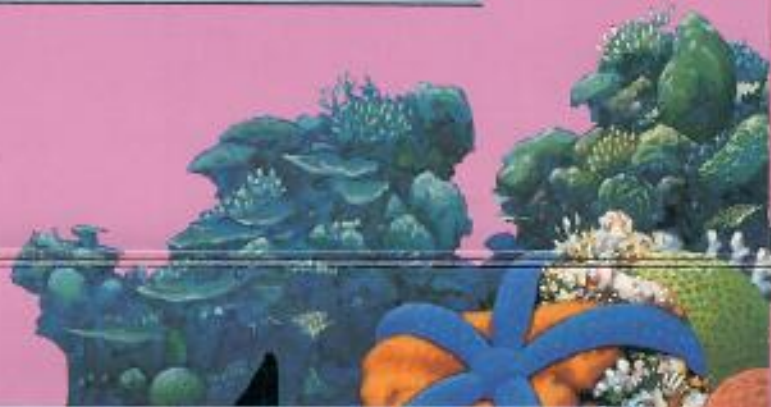
Stamp and pack illustrations: Gavin Ryan, Magnetic Island

Tyopography and pack design: Lisa Christensen, Australia Post Graphic Design Studio





# THE WORLD DOWN UNDER



# TURTLES OF MALAYSIA



STAMP BOOKLET COLLECTION

*Malaysian beaches are nesting grounds for 4 of the world's 7 sea turtle species. Sea turtles form part of our marine heritage. Their numbers worldwide are rapidly declining due to pollution, interference with their breeding habits and human carelessness.*

*Let's all do our part to protect our turtles.*

RM 3



Hongkong Bank



## Introduction

Sea turtles have been on earth for over 100 million years. Turtles, like other reptiles such as crocodiles, lizards and snakes have scaly skin, breathe air, lay eggs, and have body temperatures that fluctuate with the temperature of their environment. The hard bony shell, or "carapace", on the back of the turtle offers protection from enemies. It is composed of living tissue that includes the ribs and vertebrae along with bony elements that evolved from the scaly skin. The front and rear flippers of the sea turtle have been specially adapted for swimming. Although sea turtles can swim under water for long periods of time, they will drown if they are unable to come up for air.

Over the past 30 years, there has been a general decline in the numbers of turtles in Malaysia. Female turtles must return to nest on the beach, but this most important part of their life cycle is now being threatened. Many of their nesting grounds are disturbed and have become unsuitable for nesting. The irresponsible actions of people are destroying the turtle populations of Malaysia. Unless these actions are checked, the turtles will soon become extinct. Of the seven different kinds of sea turtles in the world, four visit the beaches of Malaysia to lay eggs.

## Leatherback Turtle

The leatherback (*Dermochelys coriacea*) is the largest turtle in the world. It can reach two meters in carapace length and weigh up to 900 kg. It is the only sea turtle without a hard shell, having instead a leathery carapace with seven long ridges. It is black in colour with white, grey or pink patches. Leatherbacks have deeply notched upper jaws to help them capture jellyfish, their favourite food. Although leatherbacks breed in tropical regions of the world, they spend much of their life foraging in very cold seas. They regularly dive to depths of over 400 meters, with a recorded maximum depth of 1,200 meters. Leatherbacks can raise their body temperature several degrees above that of their environment. In Malaysia, leatherbacks nest only in the vicinity of Rantau Abang, Terengganu, but their numbers are now much reduced

## Green Turtle

The green turtle (*Chelonia mydas*), which is usually olive-brown in colour, is actually named for the colour of its fat. Green turtles may grow over one meter in carapace length and weigh more than 140 kg. They are almost exclusively vegetarian and feed on sea grasses, algae and occasionally on sponge. In many parts of the world they have been heavily exploited for their meat, hide and oil. People also harvest the eggs, and kill the juveniles to make curries. In Malaysia, green turtles nest on sandy beaches of the coast and offshore islands of Peninsular Malaysia, Sabah and Sarawak.

## Olive Ridley

The olive ridley (*Lepidochelys olivacea*) is the smallest of the turtles found in Malaysia. Adults are about 60-65 cm long and usually weigh 35 and 40 kg. The top shell is olive green or grey, while the bottom shell is white. This turtle feeds primarily on shrimps, jellyfish, crabs and snails. The ridley, which once nested regularly in huge groups of 10,000 to 100,000 individuals in Mexico, Costa Rica, Sumatra, India and several other locations, is now endangered throughout its range. It is threatened by legal and illegal commercial harvest of adults for meat and leather, incidental catch in trawl nets, and massive harvest of eggs from their nesting beaches. In Malaysia, ridleys are found in small numbers along the coasts and offshore island of the Peninsular, Sabah and Sarawak.

## Hawksbill

The hawksbill turtle (*Eretmochelys imbricata*) is the only turtle with a beak like a hawk. It has a hard shell made of beautiful dark brown or yellow and brown scales which overlap each other. The head flippers are gold with brown patches. Adult hawksbills measure 79-90 cm in carapace length, and weigh 35-60 kg. They live on coral reefs and eat sponges. Hawksbills are found throughout the tropics, and virtually everywhere they are intensely hunted. Some are stuffed and made into wall hangings. The shells of others are fashioned into "Tortoise Shell Jewellery" and sold to tourists. Small number of hawksbills are found nesting along both coasts of Peninsular Malaysia (especially at Melaka), and in Sabah and Sarawak.





## Pengenalan

Penyu wujud sejak lebih 100 juta tahun yang lalu. Seperti reptilia-reptilia lain misalnya buaya, cicak dan ular, penyu juga mempunyai kulit yang beristik, bermalaskan udara, bertelur dan mempunyai suhu badan yang turun naik mengikut suhu keadaan sekeliling. Tempurung atau karapasnya yang keras bertulang melindungi daripada musuh. Tempurung ini adalah terdiri daripada tisu-tisu hidup yang merangkumi rusuk serta vertebra dengan elemen bertulang yang terdapat daripada kulit yang beristik. Strip hadap dan belakangnya adalah penyesuaian yang khas untuknya berenang. Sungguhpun ia boleh menyelam dan berada di dalam air untuk sekian lama, ia tetap boleh mati sekiranya tidak dapat timbul untuk bernafas semula.

Sejak 30 tahun yang lalu, jumlah penyu yang bertelur di Malaysia adalah semakin berkurangan. Penyu-penyu belfin tetap naik ke pantai untuk bertelur tetapi pusingan hidup yang paling penting ini adalah begitu terancam. Di antara tujuh jenis penyu belfin yang terdapat di dunia, hanya empat yang tinggal di pantai-pantai Malaysia untuk bertelur. Keparanya kan tempat perelurannya telah diganggu dan menjadi tidak sesuai. Jenis penyu-penyu ini adalah sedang terancam dan besar kemungkinannya akan menjadi pupus jika langkah pengawalan tidak diambil.

## Penyu Belimbing

Penyu Belimbing (*Demochelys oncas*) ialah penyu yang terbesar di dunia. Ia boleh membesar sepanjang dua meter mengikut ukuran karapas dengan berat sehingga 900 kg. Inilah satu-satunya jenis penyu yang tidak bertempurung keras tetapi mempunyai karapas beristik dengan tujuh pangsang. Karapas ini berwarna hitam denganompok-pompok putih, kelabu atau samar. Penyu jenis ini mempunyai kulit yang bahagian atasnya melengkung untuk memudahkan mereka menaiki obor-obor yang digemanya. Walaupun ia membaik di kawasan-kawasan tropika, sebahagian besar masa hidupnya dihabiskan untuk mencari makanan di lautan yang sungguh sejuk. Ia kerap memelayan sedalam 400 meter dan maksimum yang pernah direkodkan ialah 1,200 meter. Penyu Belimbing boleh meninggalkan suhu badannya beberapa darjah melebihi paras keadaan di sekeliling. Di Malaysia, ia hanya bertelur di kawasan berhampiran dengan Pantai Abang di Terengganu yang jumlahnya sudah amat berkurangan berbanding dengan dahulu.

## Penyu Agar

Penyu Agar (*Chelonia mydas*) yang biasanya berwarna coklat kean zaitun adalah sejenisnya dinamakan mengikut warna lekaknya. Ia boleh membesar sehingga lebih satu meter mengikut ukuran karapas dengan berat yang melebihi 140 kg. Hampir keseluruhan makanannya terdiri daripada jenis sayur-sayuran seperti rumput laut, alga dan saka-saka-SPAN. Di kebanyakan tempat di dunia Penyu Agar ini telah diburu untuk mendapatkan daging, kulit dan minyaknya. Manusia juga mengambil telur penyu dan membunuh anak-anak penyu untuk diadkan perhiasan. Di Malaysia Penyu Agar bertelur di pantai yang berbatasi termasuk juga di pantai pulau-pulau yang berhampiran dengan Semeranjung, Sabah dan Sarawak.

## Penyu Lipas

Penyu Lipas (*Lepidochelys olivacea*) ialah penyu yang terkecil antara empat jenis yang terdapat di Malaysia. Ia hanya membesar sehingga sepanjang 60-65cm dengan berat yang biasanya di antara 35 hingga 40 kg. Tempurung atasnya berwarna coklat buah zaitun atau kelabu sementara bawahnya pula berwarna putih. Makanan utama penyu jenis ini ialah udang, obor-obor, ketam dan siput. Ia biasanya bertelur berkumpulan di antara 10,000 ekor hingga 100,000 ekor di Mexico, Costa Rica, Sumatra, India dan di beberapa negeri lagi tetapi kini sedang menghadapi bahaya kepupusan. Ini adalah disebabkan oleh perangkapan untuk tujuan perdagangan yang sah dan tidak sah untuk mendapatkan daging dan kulitnya. Tempurung di dalam jaring-jaring nelayan dan pengambilan telur-telurnya secara besar-besaran. Di Malaysia, Penyu Lipas ini terdapat dengan jumlah yang kecil di pantai-pantai termasuk juga di pulau-pulau yang berhampiran Semeranjung, Sabah dan Sarawak.

## Penyu Karah Atau Penyu Sisik

Penyu Karah atau Penyu Sisik (*Eretmochelys imbricata*) ialah satu-satunya jenis penyu yang mempunyai paruh yang berbentuk seperti paruh burung. Tempurung belakangnya yang keras terdiri daripada sisik-sisik beristik berwarna coklat tua atau kuning dan coklat yang menarik sementara kepala dan sisinya pula berwarna hitam-emaskan denganompok-pompok yang mengikut ukuran karapas dengan berat antara 35-60 kg. Ia menggemari lautan yang bertembu karang. Makanan yang di sukainya ialah span. Penyu jenis ini terdapat di seluruh kawasan tropika yang hampir di setiap tempat di dunia. Sepuluh daripada kulitnya dijadikan perhiasan dinding sementara yang lain pula dijadikan hiasan diri yang dijual kepada para pelancong. Sejumlah kecil penyu jenis ini bertelur di pantai-pantai Semeranjung Malaysia (terutamanya di Melaka) termasuk juga di Sabah dan Sarawak.

## BUTIRAN TEKNIK

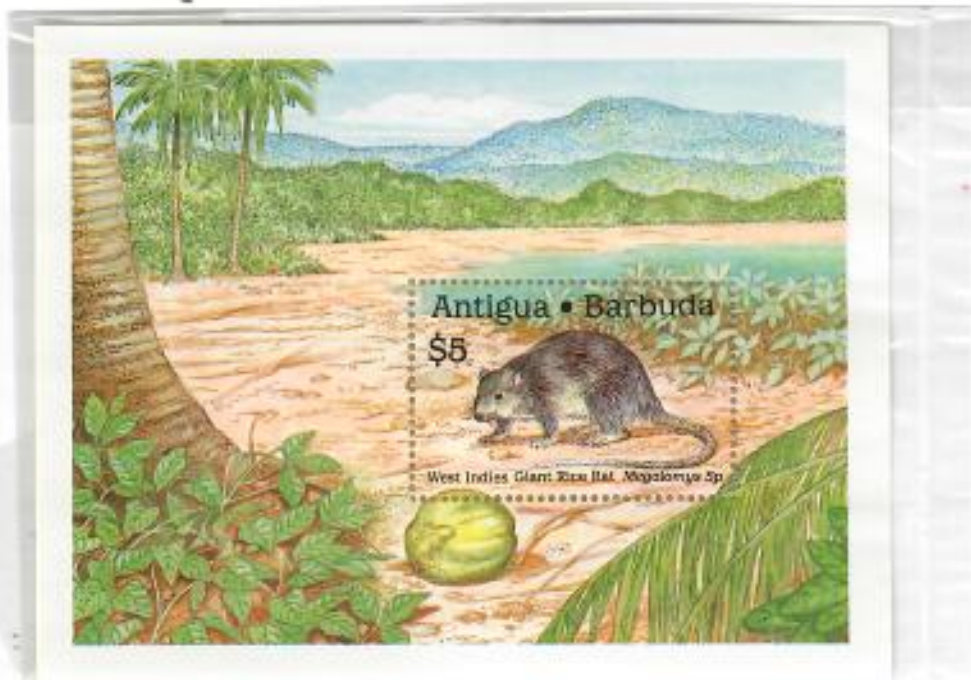
Tarikh Keluaran	: 17th, November 1980
Denominasi	: 15 sen, 20 sen, 40 sen dan 1 ringgit.
Saiz Setem	: 26 mm x 38 mm
Kertas	: Teraair SPM, bersaiz poster
Proses Pencetakan	: Litografi
Pencetak	: Security Printers (M) Sdn. Bhd., 46250 Petaling Jaya, Malaysia.
Kandungan Setem	: 100 setem
Perakabentuk Setem	: Ong Soo Keat



## TECHNICAL DETAILS

Date of Issue	: 17th, November 1980
Denomination	: 15c, 20c, 40c and \$1
Stamp Size	: 26 mm x 38 mm
Paper	: SPM Watermarked phosphor coated
Printing Process	: Lithography
Printer	: Security Printers (M) Sdn. Bhd., 46250 Petaling Jaya, Malaysia
Sheet Content	: 100 stamps
Stamp Designer	: Ong Soo Keat

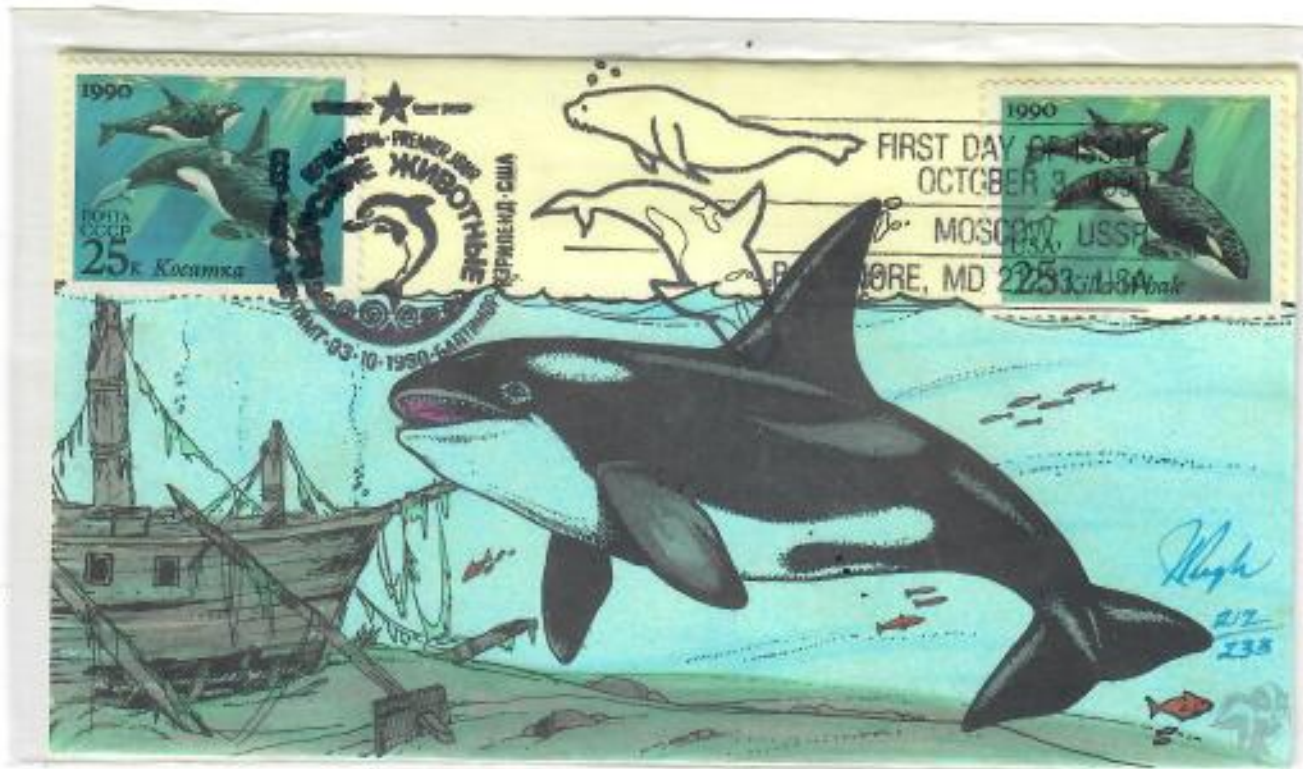




George -

Sorry, but I have never heard of any such legend. The turtle looks like a sea turtle, but there are introduced tortoises in those islands, too.

You might try asking the WIDECAST rep. from there - I don't have his name, I'm afraid. Karen Eckert would. Regards,  
June



SAMOA  
1995 TURTLES NH

Price 500



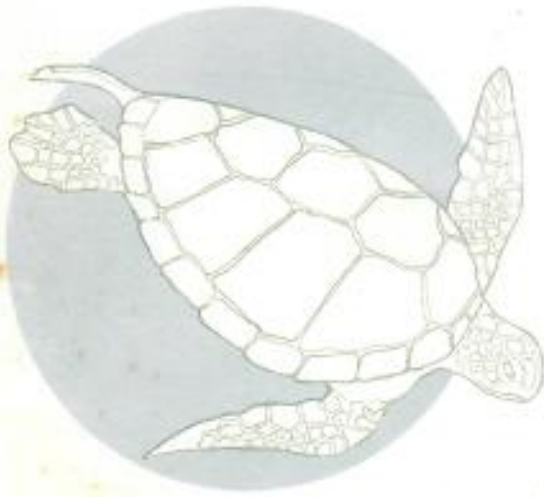


POSTAL CARD

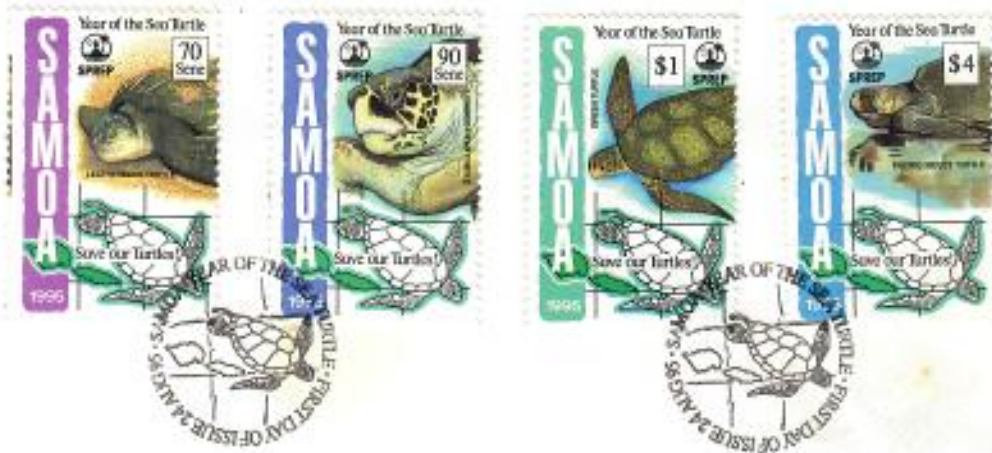
OFFICIAL FIRST DAY COVER

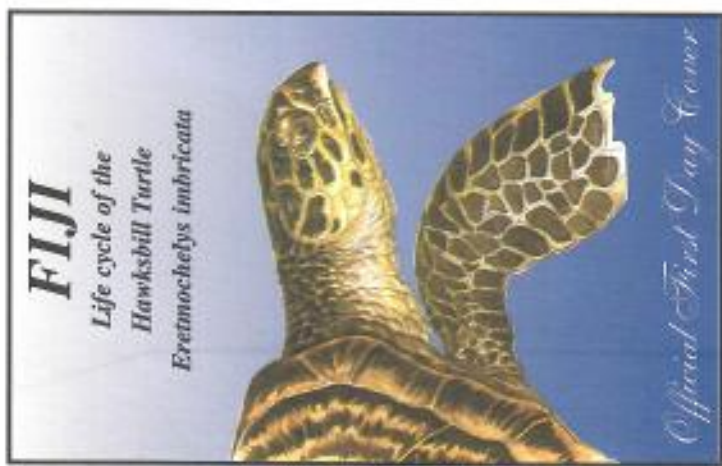
# SAMOA

Save our Turtles!



1995-Year of the Sea Turtle





IC IC IC IC

PRINTED BY JOHN WADDINGTON of Kirkstall LTD LEEDS ENGLAND

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PRINTED BY JOHN WADDINGTON of Kirkstall LTD LEEDS ENGLAND

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# HUMAN ENVIRONMENT



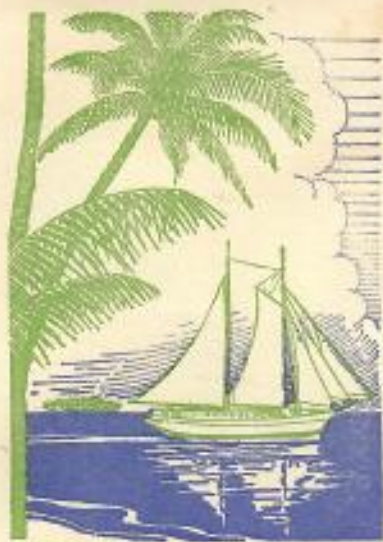
## FIRST DAY OF ISSUE



WORLD ENVIRONMENT DAY

10TH ANNIVERSARY OF THE U. N. ENVIRONMENT PROGRAM





TOKELAU ISLANDS  
SOUVENIR COVER



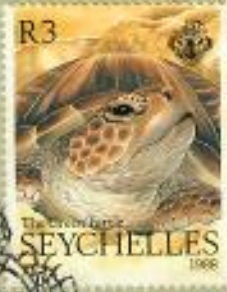
ADDRESSEE R. Wittner

19 Ardmore Rd.,  
Herne Bay,  
AUCKLAND. N.Z.

# SEYCHELLES



THE GREEN TURTLE  
Official First Day Cover



SEYCHELLES  
FIRST DAY OF ISSUE  
22ND APRIL 1968

SEYCHELLES  
FIRST DAY OF ISSUE  
22ND APRIL 1968

SEYCHELLES



THE GREEN TURTLE  
Official First Day Cover



SEYCHELLES  
FIRST DAY OF ISSUE  
22ND APRIL 1968



SEYCHELLES  
FIRST DAY OF ISSUE  
22ND APRIL 1968



SEYCHELLES  
FIRST DAY OF ISSUE  
22ND APRIL 1968



SEYCHELLES  
FIRST DAY OF ISSUE  
22ND APRIL 1968

CNPq CONSELHO NACIONAL DE DESENVOLVIMENTO CIENTÍFICO E TECNOLÓGICO



**MUSEU PARAENSE EMILIO GOELDI**

AV. MAGALHÃES BARATA, 376 — C. P. — 399 — TELEF. (091) 1419 — FONE (091) 224-9233 — CEP. 64.040 — BILMA-PARÁ



Dr. Russel Mittermeier  
Vice President  
World Wildlife Fund  
1250 Twenty-third Street, NW  
Washington, D.C. 20037



VIA AEREA  
PAR AVIÃO



EUA



# FAUNA '82



EERSTE DAG VAN UITGIFTE - FIRST DAY OF ISSUE

## SURINAME



E 004 B

# FAUNA '82



EERSTE DAG VAN UITGIFTE - FIRST DAY OF ISSUE

## SURINAME



E 004 A



REPUBLIC INDONESIA 1979



REPUBLIC INDONESIA 1979



REPUBLIC INDONESIA 1979



**SAMOA I SISIFO**  
HAWKSBILL TURTLE



OFFICIAL FIRST DAY COVER



SAMOA I SISIFO



**definitive  
issue**

OFFICIAL FIRST DAY COVER



GREEN TURTLE



First Day Of Issue





### First Day Of Issue

**I**ncredible Magic tells the tale of a young child who was devastated by the death of his mother. Although his father soon remarried, the boy's life went from bad to worse. His father and stepmother mistreated him, neglecting his care and leaving him the worst bit of their catch. One day while on a fishing expedition, the boy was struck by a white bird calling to him in the voice of his mother. For three days the bird appeared to lead, always bringing him to better fish. On the third day the boy's father also experienced this strange occurrence. Realizing that his son desperately missed his mother, the man tried to console the boy. The next day he'd crossed his mother, and the boy — magically carrying his tale — flew away with the bird.

### Marshall Islands

32



### Marshall Islands

32



**T**he delightful tale is about Lindjoo, a young boy who was very envious of the Moon. Instead of musing the object of his affections, she asked the boy to bring the Moon down to Earth. However, the Moon declared saying that clouds were capable of capturing her, but he was not worthy. Lindjoo then expressed that a cloud became his best friend. The cloud, too, refused by saying that he was unimportant, for a windstorm could scatter his vapors. When she passed the windstorm he said that she had the power to tear him apart, but he was also unworthy. Lindjoo finally realized a rat, but later realized that the Moon was indeed her true love. Magically the great white bird appeared and he was a happy moment and she flew to the Moon. Thus, Lindjoo's love that appears on the Moon.

**M**any years ago, a contest race was held among 12 brothers to determine who would become the head chief of their people. Because the sail had not yet been invented, the boys used only paddles to power their vessels. While the race was in progress, the mother of the contestants came aboard their boat to see if the way to ask her sons for a ride. Then, the other, was in the lead and declared his mother's request, saying that a large bundle she was carrying would jeopardize his chances of winning, in fact, all but one of his sons refused. Although he was far behind the others, the youngest, Jobby, was the welcomed for element. He was soon awarded for to his sorrow, his package held a sail. The speedy vessel Jobby flew to see it and the young boy won the race.

### Marshall Islands

32



**STAMP ISSUE  
TECHNICAL DETAILS**

STAMP SIZE  
PERFORATION  
DENOMINATIONS  
SHEET CONTENTS  
COLOURS

FORMAT  
PRINTING TECHNIQUE  
PAPER  
GUM  
PRINTER  
MARGINAL INSCRIPTION  
DESIGNER  
RELEASE DATE  
WITHDRAWAL DATE

NEXT STAMP ISSUE  
DENOMINATIONS  
RELEASE DATE  
WITHDRAWAL DATE

**TURTLES, FLORA & FAUNA  
CONSERVATION STAMP ISSUE**

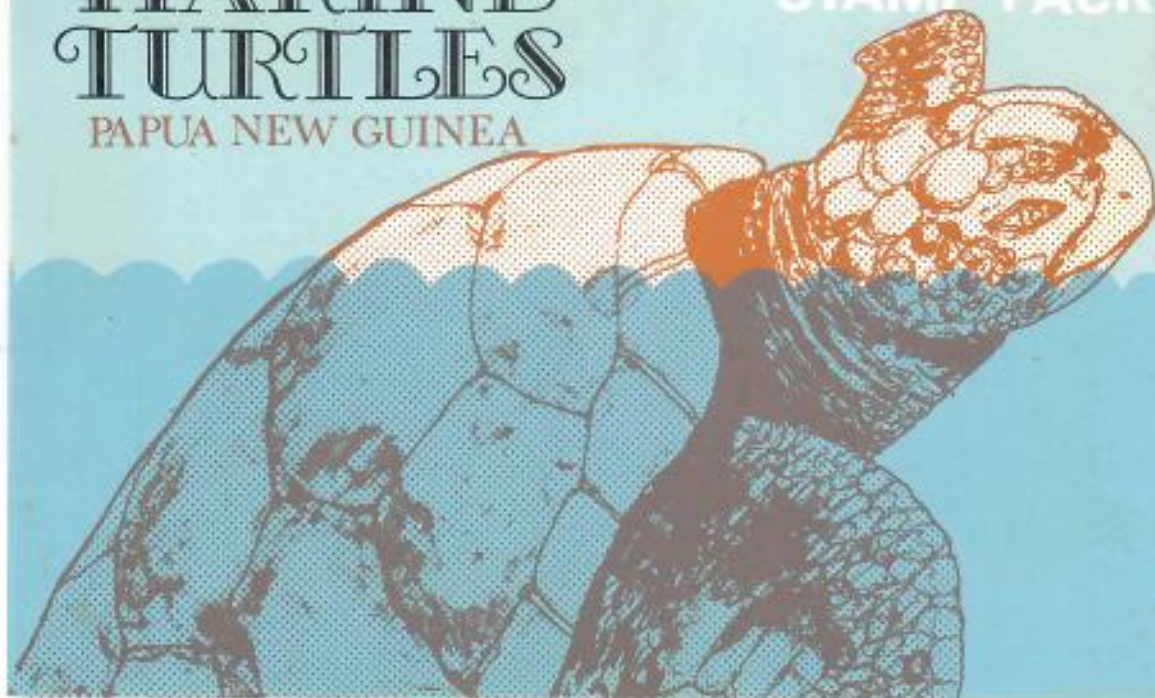
25.7 x 36 mm  
Included in the stamp size  
5t, 10t, 15t, 20t, 25t, 40t  
50 per pane  
5t, 20t, 40t = 4 colours  
10t, 15t, 25t = 5 colours  
Horizontal  
Photogravure  
white with coloured silk fibres  
special for tropical climate  
Helio Courvoisier S. A.  
R.J. Bates / Courvoisier  
R.J. Bates  
8th February 1984  
31st August 1984

FIRST OFFICIAL AIRMAIL  
20t, 25t, 40t & 60t  
9th May 1984  
31st October 1984



**MARINE  
TURTLES**  
PAPUA NEW GUINEA

STAMP PACK



## MARINE TURTLES

The Marine Turtles postage stamps were released on 8th February 1984. The stamps featured the six species of marine turtles found in Papua New Guinea. There are only seven (7) species of marine turtles alive in the world today and all of these are almost extinct.

Turtles have been hunted for centuries in Papua New Guinea, supplying some of the basic needs of the subsistence village society; food, tools, decoration and items of trade.

In the past we had many traditional rules and rituals associated with the hunting of marine turtles and since the implements were traditional and ineffective, turtles were abundant.

However, today, turtles are being overhunted due to increasing population, introduction of modern fishing implements driven by the urge to sell turtle meat in urban markets for cash.

The problem of saving marine turtles from extinction in Papua New Guinea is a complex one, as consideration must be given to both the turtles resource and the subsistence society relying on that supply.

With this in mind, conservationists are more prone to control and manage the exploitation of these turtles resource rather than proclaiming total protection, as in the case in Australia.



# CHRISTMAS ISLAND

INDIAN OCEAN



GREEN TURTLE

*Chelonia mydas*

**WILDLIFE DEFINITIVES**

## WILDLIFE DEFINITIVE PART I: Release date 25 MARCH 1987

1c — Blind Snake (*Ramphotyphlops exocoetli*). This harmless worm-like snake is unique to Christmas Island and lives beneath the debris and soil of the primary rain forest.

2c — Blue-tailed Skink (*Cryptoblepharus egeriae*). This endemic skink with its distinctive iridescent tail is the most conspicuous and abundant lizard on Christmas Island.

25c — Gecko (*Crotodactylus* sp. nov.). This endemic gecko is extremely abundant being found in all areas of the island except those lacking tree or shrub cover.

\$5 — Green Turtle (*Chelonia mydas*). This stamp shows a green turtle returning to the sea having laid her eggs. Like other marine turtles they are a protected species and regularly return to three small beaches on the island to lay eggs.

## WILDLIFE DEFINITIVE PART II: Release date 24 JUNE 1987

3c — Insectivorous Bat (*Pipistrellus murrayi*). Christmas Island has few native mammals, the smallest being this tiny bat with a wing span of under 10 cm. Although rarely seen it is widespread. It can usually be seen on Tom's Ridge at dusk.

10c — Fruit Bat (*Pteropus natalis*). The Fruit Bat is also endemic. Although basically nocturnal, with a wing span of half a metre they can be seen circling on air currents in the early evening. They live on succulent fruits and flowers particularly favouring introduced fruits.

36c — Hawk Owl (*Ninox squamipila natalis*). Little is known about this beautiful endemic owl. They are nocturnal and can occasionally be seen emerging to hunt. They are officially recognised as rare and endangered.

\$2 — Shrew — (*Crocidura attenuata trichura*). These endemic shrews were described in 1897 by C. Andrews as being extremely abundant. Yet 10 years later they were believed to be extinct, only to be rediscovered in December 1984. The shrew is extremely small, measuring only 7.5 cm with its tail being almost as long again. The shrews were thought to live in holes in rocks and the roots of trees although there is no recent evidence of this.

## WILDLIFE DEFINITIVE PART III: Release date 26 AUGUST 1987

40c — Bull Mouth Helmet Shell (*Cypræacassis rufa*). The Helmet shells portrayed on the 40c stamp are a favourite of collectors. They are made up of layers of contrasting colours and as a result are being used by cameo carvers.

50c — Textile Cone (*Conus textile*). Cone Shells are beautiful, rare and dangerous. The venomous Textile Cone is widespread in local waters, inhabiting inshore sandy areas, living under rocks. For sheer size and their spectacular colour patterns they are prized by collectors. The danger of such shells should not be underestimated, for many deaths have been attributed to them.

65c — Brittle Stars (Subclass ophiuroidea sp.). These creatures are the most active of the echinoderms, having a superficial resemblance to starfish. They forage over the velvety surface of the coral around Christmas Island.

75c — Royal Angel Fish (*Pygoplites diacanthus*). This fish is widely spread. They can grow to about 25 cms in length and are often landed for consumption. The colouring of the fish develops with age; the number of vertical blue and black stripes increasing.

## WILDLIFE PART IV: Release date 1 MARCH 1988

5c — Green Cricket. Crickets belong to the cosmopolitan family gryllidae of the order orthoptera. They are closely related to the Long-Horned Grasshoppers and similarly have large hind legs for jumping. The nymphs such as that depicted on the 5c value are common in the forests of Christmas Island.

30c — Preying Mantis (*Mantidae religiosa*). The English name arose from the characteristic position of this ferocious insect's formidable front legs prior to making a kill. However this was a rather imaginative misinterpretation of one of the insect world's most voracious killers with no qualms about cannibalism.

90c — White Butterfly (*Appias paulina*). This butterfly is a member of the pieridae, a large family of medium sized butterflies usually with white or yellow basic colour. They feed on caparis, being fond of the pungent flavour. These butterflies are widely spread and are thought to be fairly long lived. In tropical areas there can be three, four or even more broods a year.

\$1 — Mimic Butterfly (*Hypolimnas misippus*). As can be seen from the design there is a strong sexual dimorphism. Only the female resembles the inedible *danaus chrysippus*, thereby confusing predators. The Mimic Butterfly is thought to live for up to 6-8 weeks.

The stamps were designed by Mr Gordon Drummond, Southampton, Hampshire, England and were printed by the House of Questa, London, England on unwatermarked paper, stamp size 25.6 x 38.48mm.

The valuable input to the researching of this series of stamps by Australia National Parks and Wildlife personnel stationed on Christmas Island should be acknowledged, especially photographs and other reference material provided by Mr Hugh Yorkston of the ANPWS.

GATF COLOR TEST STRIP  
BLACK  
CYAN  
MAGENTA  
YELLOW  
3+

PRINTED BY EDASANTOS PRINTING BY NEDA-APD 1992 PRINTED BY NEDA-APD 1992 PRINTED BY NEDA-APD 1992



**SAMOA I SISIFO**  
HAWKSBILL TURTLE



OFFICIAL FIRST DAY COVER



NEW HEBRIDES CONDOMINIUM  
*Wild Life*

Official  
First Day Cover



*Tie Sauvage*  
Enveloppe Officielle  
Premier Jour  
CONDOMINIUM DES NOUVELLES-HEBRIDES





# FIJI

ENDANGERED SPECIES



FIRST DAY COVER

Issued by the Department of  
Posts & Telecommunications, Fiji





# New Stamp Issue:



10t

PAPUA NEW GUINEA



5t

PAPUA NEW GUINEA



20t

PAPUA NEW GUINEA



15t

PAPUA NEW GUINEA



40t

PAPUA NEW GUINEA



25t

PAPUA NEW GUINEA

Issue date: 8th February 1984

## TURTLES, FLORA & FAUNA CONSERVATION STAMP ISSUE

25.7 x 36mm

Included in the stamp size

5L 10L 15L 20L 25L 40L

50 per pane

5L 20L 40L = 4 colours

10L 15L 25L = 5 colours

Horizontal

Photogravure

white with coloured silk fibres

special for tropical climate

Helo Courvoisier S.A.

R.J. Bates Courvoisier

R.J. Bates

8th February 1984

31st August 1984

FIRST OFFICIAL AIRMAIL

20L 25L 40L & 60L

9th May 1984

31st October 1984

Govt. Print. — 1982/40 000 — 11/83

## STAMP ISSUE

## TECHNICAL DETAILS

STAMP SIZE

PERFORATION

DENOMINATIONS

SHEET CONTENTS

COLOURS

FORMAT

PRINTING TECHNIQUE

PAPER

GUM

PRINTER

MARGINAL INSCRIPTION

DESIGNER

RELEASE DATE

WITHDRAWAL DATE

NEXT STAMP ISSUE

DENOMINATIONS

RELEASE DATE

WITHDRAWAL DATE

## HOW TO ORDER

### POSTAGE ON ORDERS

Postage is free on all orders.

### REMITTANCES

Remittance must be made by bank draft equivalent to Kina and Toba, the Papua New Guinea currency or cash. Personal cheques are subject to bank clearance and bank fee of K2.00. Bank notes should be sent by registered post.

IN AUSTRALIA AND NEW ZEALAND, collectors may remit in their own currency, to the mailing points established there.

P.N.G. Philatelic Bureau,  
Australian Mailing Point,  
P.O. Box 272,  
Doncaster, 3108 Vic.,  
Australia.

P.N.G. Philatelic Bureau,  
N.Z. Mailing Point,  
P.O. Box 3958,  
AUCKLAND,  
New Zealand.

PLEASE BEAR IN MIND THAT ALL ORDERS WILL STILL BE ATTENDED TO IN PAPUA NEW GUINEA.

Collectors in other overseas countries should remit by bank draft to:—

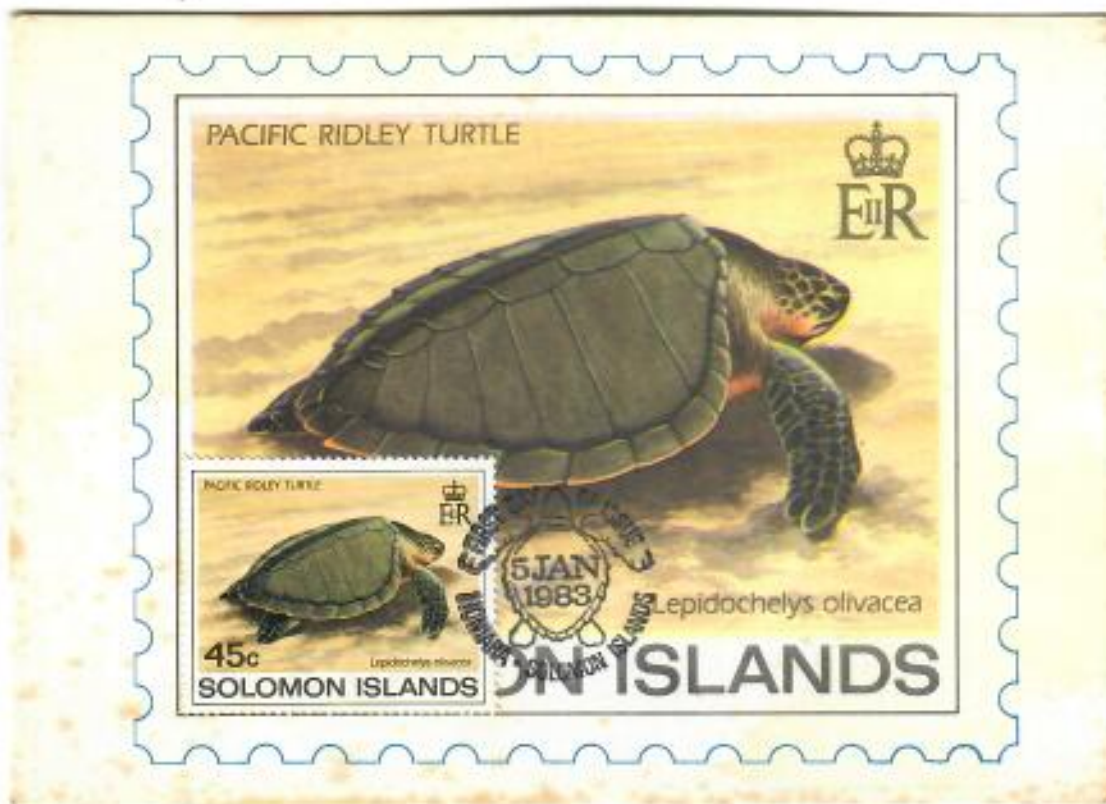
Philatelic Bureau,  
P.O. Box 1,  
BOROKO,  
Papua New Guinea.

Papua New Guinea collectors may remit by postal order or bank cheque to Port Moresby. ALL REMITTANCES SHOULD BE MADE PAYABLE TO THE PAPUA NEW GUINEA PHILATELIC BUREAU.

### ENQUIRIES

Please place your order as early as possible before the day of issue.  
 Lodge your enquiries if you have not received your order after two weeks.





**LOGGERHEAD TURTLE**  
(*Caretta caretta*)  
**LOCAL NAME: KAKA PODOKO**

Loggerhead (local name KAKA PODOKO), is infrequently seen possibly on account of its deep-sea feeding habits. The carapace can grow to nearly 2 metres in length and is a reddish brown often with variegated irregular markings. It apparently enjoys eating poisonous reef fish.

This Maximum Card reproduces, directly from the actual stamp artwork designed by Leslie Curtis, one of the stamps released by Solomon Islands Post Office on 5th January 1983. Card printed by Government Printer, Honiara, Solomon Islands.

SOLOMON ISLANDS GOVERNMENT. OFFICIAL PICTURE CARD  
1/83  
SIPB/7

**PACIFIC or OLIVE RIDLEY TURTLE**  
(*Lepidochelys olivacea*)

The rarest turtles around Solomon Islands are the OLIVE or PACIFIC RIDLEY. They are so rare that no local name exists but, even so, nests have been reported on San Cristobal. Ridelys are small turtles who feed on crustaceans and molluscs.

This Maximum Card reproduces, directly from the actual stamp artwork designed by Leslie Curtis, one of the stamps released by Solomon Islands Post Office on 5th January 1983. Card printed by Government Printer, Honiara, Solomon Islands.

SOLOMON ISLANDS GOVERNMENT. OFFICIAL PICTURE CARD  
1/83  
SIPB/8



**LEATHERBACK TURTLE**  
(*Dermochelys Coriacea*)  
LOCAL NAME: KARA TOLU

A pelagic species (i.e. mainly living in deep waters) occasionally found entering bays and estuaries. It nests on most of the islands but usually only where black sand beaches occur. It is a protected species in Solomon Islands and little information on its habits is available. Its diet is known to largely consist of jelly fish.

This Maximum Card reproduces, directly from the actual stamp artwork designed by Leslie Curtis, one of the stamps released by Solomon Islands Post Office on 5th January 1983. Card printed by Government Printer, Honiara, Solomon Islands.

SOLOMON ISLANDS GOVERNMENT. OFFICIAL PICTURE CARD  
1/83  
SIPB/6

**GREEN TURTLE**  
(*Chelonia Mydas*)  
LOCAL NAME: VONU IHANA

Green Turtles (known locally as VONU IHANA) have a habit of feeding during the day in shallow lagoons. They are hunted and easily caught when they are kept in pens until a feast-day. The shell, light brown to greenish brown, is too thin for making into jewellery and, so, no more Green Turtles are caught than the village needs.

This Maximum Card reproduces, directly from the actual stamp artwork designed by Leslie Curtis, one of the stamps released by Solomon Islands Post Office on 5th January 1983. Card printed by Government Printer, Honiara, Solomon Islands.

SOLOMON ISLANDS GOVERNMENT. OFFICIAL PICTURE CARD  
1/83  
SIPB/9

# FISHERIES

A Bulletin of the American Fisheries Society



World Fisheries Congress  
14-19 April 1991  
Athens, Greece

First Call for Papers  
1991 AFS Annual Meeting  
Page 32



# Editorial Page

## Executive Director's Report

In my 40-year professional career, this is the most challenging assignment I have had, more satisfying than my 15 years as executive director of AFS. Some of you may know me from my executive director's job 11 years ago in Anchorage on an Alaska assignment. In spite of my passion for the Society and my Alaska commitment, I will be leaving the Society in the best of all worlds.

In each semi-annual report to the Executive Committee I've tried to provide you with a digestible and readable report. Despite such interruptions, I have made reports and recommendations the way for future assignments. In this final report I will focus on a variety of subjects that reflect my experience as your director and that I believe are especially important to the future of the Society.

I've learned a great deal in these past 15 years and hope these comments will be useful as you consider the Society's future. My remarks are organized around many of the specific subjects that will always be faced by AFS leadership. Many important subjects, such as AFS interaction with the conservation resource management community, the development of new position statements, member communication, annual meeting planning, etc., have not been singled out but are of no less importance.

**FUND-RAISING:** Generating the financial resources needed to fuel the enthusiasm of the Society is the unrelenting number one problem faced by the executive director. Sources include corporate grants, special memberships, federal agency contracts, and gifts from foundations. Most of the funding we seek is for publication of the many varied and rapidly growing products of our editorial operation. In the best of all worlds, AFS would have a staff development officer to search for funding. All too often, however, such persons are unable to raise enough to cover their own wages and associated costs. For this reason AFS must proceed very cautiously in this arena and until we have a person of proven fund-raising capability, the executive director must have this activity at the top of his or her work agenda. A great many AFS members are intimidated by the prospect or challenge of raising funds and as a consequence they are not good at it. The fact remains, however, that the staff needs fund-raising assistance, and Executive Committee members should concentrate on ways to search for funding on their own or to support and assist the efforts of the staff. Nothing will provide a bigger payback.

**THE COVER:** is a collection of fisheries-related postage stamps from different countries. Protection of natural resources is important in all parts of the globe. Fisheries professionals from all over the world will be sharing scientific information with the purpose of assessing the state of the world's fisheries resources and to promote scientific collaboration at the World Fisheries Congress (WFC) in Athens, Greece, 14-19 April 1991. For more information regarding the upcoming WFC, please contact Glen Contreras, WFC Executive Director, AFS, 5410 Grosvenor Lane, Suite 110, Bethesda, MD 20814, 301/897-8616. Photo by Marta F. Nammack.

the unique position of its potential fisheries science federal agency, membership rolls, rs would result. d we should con- personalized let- nber or members. recruiting because ly confrontational come a member. e development of

of recruiters to make the contacts and report back. We are very fortunate in being able to identify potential members, but we must become more aggressive in using that information. We have a good product to sell; now let's polish and "supercharge" our sales skills.

**SPECIAL MEMBERSHIPS:** AFS special membership categories include Official (state, provincial, and federal fisheries agencies), Associate (large corporate), Sustaining (small corporate), and Libraries. Collectively, they are enormously important to AFS and we couldn't survive without them. In the future we must be more aggressive in recruiting such members while maintaining our diligence in communicating with them and listening to their concerns. Efforts to motivate regular members to recruit special members have been a total, complete, and unequivocal failure. My spectacular lack of success in finding special membership recruiters leaves me unable to give advice other than we need help from someone smarter than I.

**LEADERSHIP:** Many AFS subunit and committee officers demonstrate great leadership skills and commitment; unfortunately, many others fail to rise to the occasion and then allow the organizational momentum to go down the drain. Every AFS subunit is like a wonderfully fine-tuned piece of machinery. It sits there idling, but it won't perform without someone to see that it's fueled and pointed in the right direction. More attention needs to be directed to the nominating and appointment process at every level within the Society. I suspect we have many hundreds of "sleeping giants" if we can find them and give them the opportunity to show what they can do.

**LEGISLATIVE LIAISON:** Staff limitations prevent AFS from having greater influence in legislation affecting re-

(Continued on page 34)



# 綠蠔龜

## Green turtle



海龜是海中大型的爬蟲類，早在二億年以前就和恐龍同時出現於這個世界上。然而，在一般人的眼中，它只不過代表著海中身軀龐大，有硬殼，但性情溫和的食物而已。在近一兩百年來的環境破壞及人類捕殺獵食後，海龜的數量已急遽減少到瀕臨絕種的程度。因此如何保育這個珍貴而稀有的本土海洋資源，將是我們責無旁貸的工作了。

### 綠蠔龜 (學名: *Chelonia mydas japonica*)

英文名: **Green turtle** 俗名: 黑龜、石龜。  
因以海藻及海草為其主食，脂肪中富含葉綠素，故此得名。它廣泛分布於全球海洋中南北緯三、四十四度之間。成龜體長即背甲直線長可達 100 公分以上，體重超過 100 公斤。通常於夏天的夜晚上岸產卵，每季平均產下六萬顆每窩約有 110 個龜卵。

龜卵平均要 50 天才會孵化出稚龜，體長約 67 公厘左右，體重約 27 克，通常於黃昏或夜晚爬出窩巢，回到大海開始其一生的活動。

### 1. Green sea turtle, *Chelonia mydas*.

The Chinese common name is black or stone turtle. The English common name derived from the rich chlorophyll contains in the lipid of turtle. It distributed widely in the warm waters between northern and southern hemisphere of 30 to 40 degree latitude. Mature turtle can reaches the body size of over 100 cm in straight carapace length, and more than 100 kg in body weight. Females nest in the summer night. She produces on average 6 clutches per season, with the clutch size of 110 eggs.

The incubation period was 50 days on average. The size of hatching is about 67 mm in straight carapace length, and 27 g in body weight. It usually emerges from the nest during the dawn, rush to the sea and start its new life.

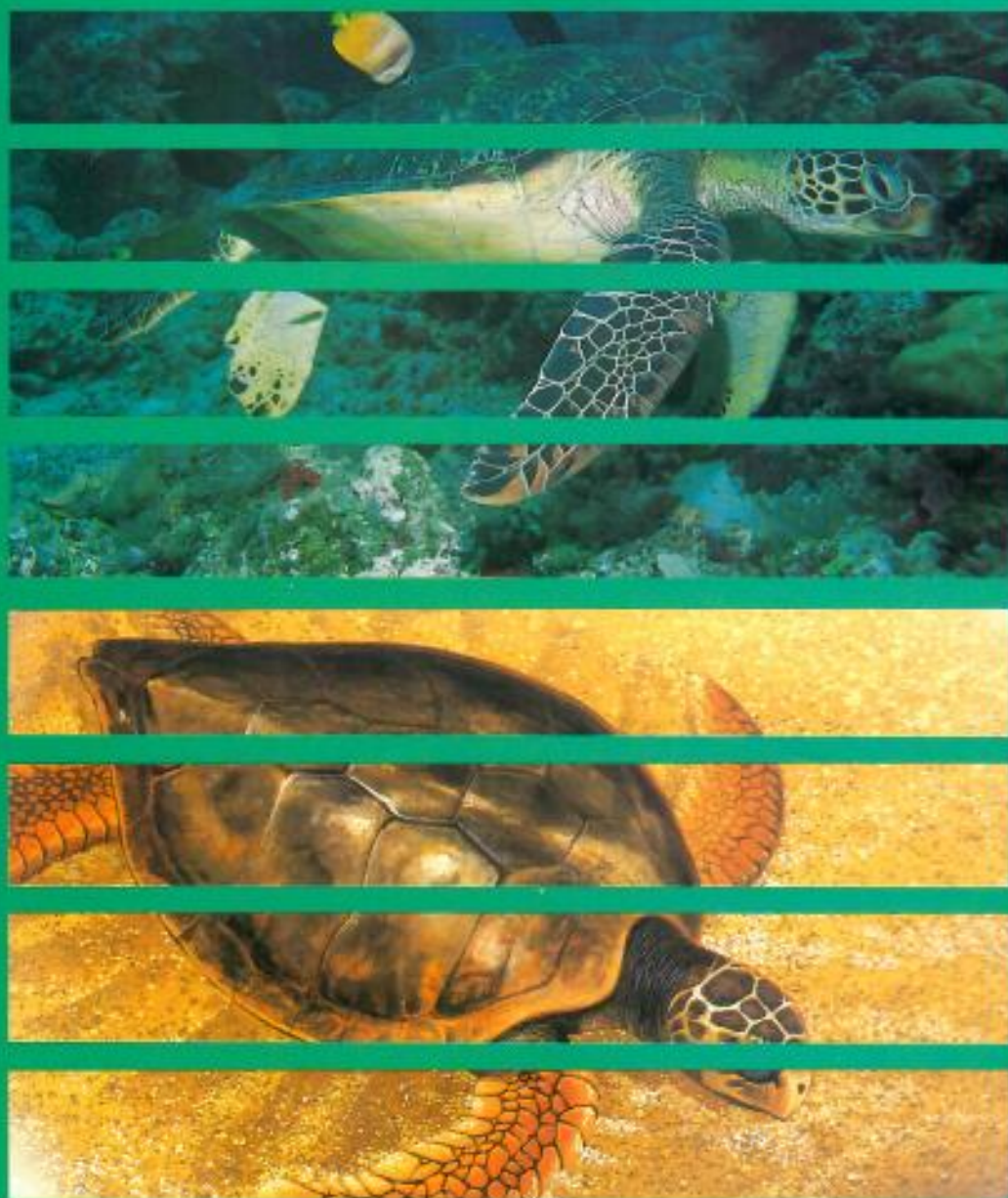




FORMOSA MEMORIAL FOR ENDANGERED SEA TURTLE FAMILY

# 福爾摩莎

瀕臨絕種海龜家族



珍藏版



# 綠蠟龜

## Green turtle



海龜是海中大型的爬蟲類，早在二億年以前就和恐龍同時出現於這個世界上。然而，在一般人的眼中，它只不過代表著海中身軀龐大，有硬殼，但性情溫和的食物而已。在近一兩百年來的環境破壞及人類捕殺獵食後，海龜的數量已急遽減少到瀕臨絕種的程度。因此如何保育這個珍貴而稀有的本土海洋資源，將是我們責無旁貸的工作了。

### 綠蠟龜 (學名: *Chelonia mydas japonica*)

英文名: **Green turtle** 俗名: 黑龜、石龜。  
因以海藻及海草為其主食，脂肪中富含葉綠素，故此得名。它廣泛分布於全球海洋中南北緯三、四十度之間。成龜體長即背甲直線長可達 100 公分以上，體重超過 100 公斤。通常於夏天的晚上上岸產卵，每季平均產下六窩卵每窩約含 110 個龜卵。

龜卵平均要 50 天才會孵化出稚龜，體長約 67 公厘左右，體重約 27 克，通常於黃昏或夜晚爬出窩巢，回到大海開始其一生的活動。

### 1. Green sea turtle, *Chelonia mydas*.

The Chinese common name is black or stone turtle. The English common name derived from the rich chlorophyll contains in the lipid of turtle. It distributed widely in the warm waters between northern and southern hemisphere of 30 to 40 degree latitude. Mature turtle can reaches the body size of over 100 cm in straight carapace length, and more than 100 kg in body weight. Females nest in the summer night. She produces on average 6 clutches per season, with the clutch size of 110 eggs.

The incubation period was 50 days on average. The size of hatching is about 67 mm in straight carapace length, and 27 g in body weight. It usually emerges from the nest during the dawn, rush to the sea and start its new life.

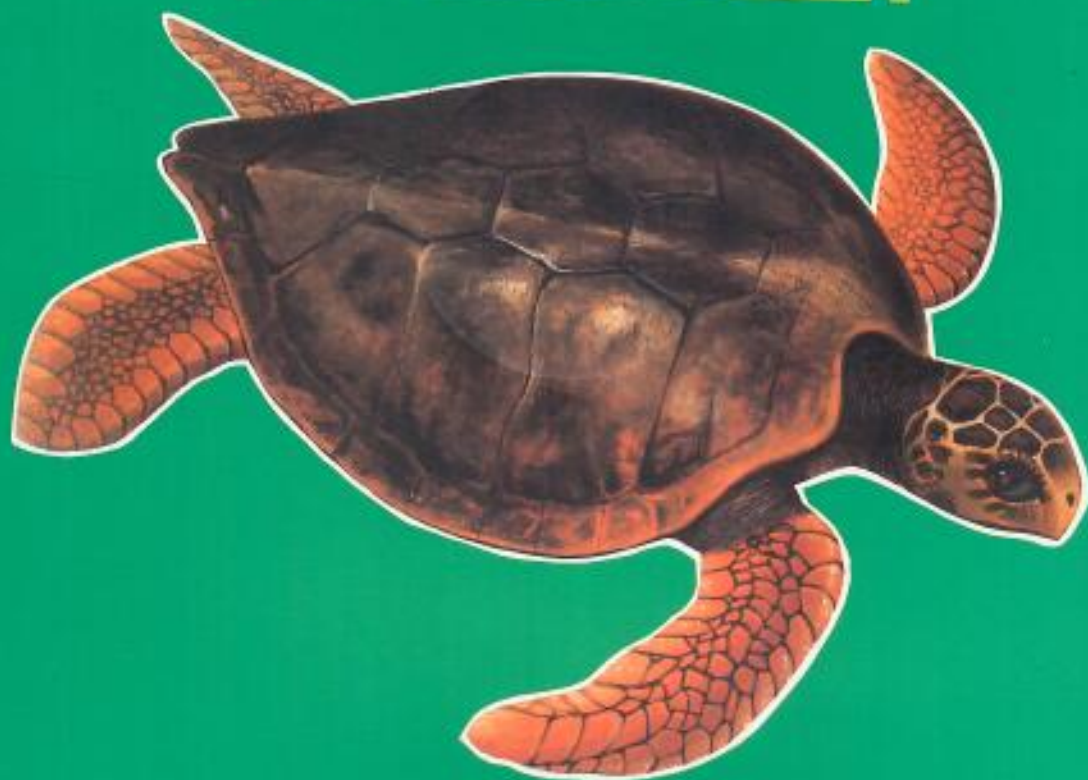






# 赤蠵龜

## Loggerhead turtle



Sea turtle is a large-sized marine reptile. It appeared on earth at the age of dinosaur, about 200 million years ago. However, to most people sea turtle is merely a hard-shell large-sized non-vicious seafood. After one to two hundred years over-harvesting and environmental degradation, sea turtle populations has depleted severely, to the endangered states. Therefore, it is our duty to protect this valuable and rare domestic marine resource.

### 赤蠵龜 (學名: *Caretta caretta gigas*)

英文名: **Loggerhead turtle** 俗名: 紅海龜。  
以頭大著稱，具有強而有力的喙，適合用來捕食貝類、蟹、魚及其他的無脊椎動物。它廣泛分布於全球溫帶及亞熱帶的水域。

成龜體長即背甲直徑長可達 120 公分，體重可達 200 公斤左右，背部為紅棕色。一般而言，稚龜要長 12 到 30 年才會成熟，成熟的母龜會於夏天的夜晚上岸產卵，每次產下 100 到 120 顆卵，稚龜要孵化 45 到 65 天才會破殼而出。出生的稚龜體長為 45 公厘左右，體重約 24 克。

### 2. Loggerhead sea turtle, *Caretta caretta*

The Chinese common name is red sea turtle. It is famous for the large-sized head, with the strong jaws to crush the mollusk shell, crab and other invertebrate diets. This turtle is distributed widely in the subtropical and warm waters in both hemispheres.

Mature turtle can reaches the body size of 120 cm in straight carapace length, and 200kg in body weight. The dorsal carapace is red-brown in color. In general, it takes 12 to 30 years for the hatching to reaches the adult size. Mature female nests in the summer night. The clutch size ranges from 100 to 120 eggs. The incubation period ranges from 45 to 65 days. The size of hatching is about 45 mm in straight carapace length, and 24 g in body weight.



法律顧問：法宗律師事務所

大地之愛國際有限公司 發行

電話：(04)237-1530 (代表)

