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迎接海洋保育新時代

The New Era of Marine Conservation

王漢棠 攝
by Wen-sung Wang

隨著全台首座海洋型國家公園的公告設立，「東沙環礁國家公園」為台灣的海洋保育劃下新的里程碑，未來透過保護區規劃、教育研究及立法等行動，更將引領台灣進入海洋保育新時代，讓全民動起來，將過去因為過度捕撈、污染及自然變遷等因素所造成的海洋生態損害，恢復往日的繁榮景象吧！

The Taiwan government has announced the establishment of the Dongsha Atoll National Park. This declaration not only marks the first marine national park in Taiwan, but it also establishes a new milestone of marine conservation. To prepare for this new marine park era, a variety of approaches are going to be implemented, including focused environmental education and research, new environmental legislation, and a well-planned zoning system to regulate sustainable use of marine resources. Through government and community involvement, a marine ecosystem that has been badly damaged by over-fishing and pollution in the past will ultimately regain its natural beauty.

從外太空觀賞地球，那是顆布滿藍色海水的美麗星球。地球上有70％的面積為海洋，在整個太陽系中，地球可是唯一擁有如此大量液體水的星球。這片片相連的海水正是地球生命的泉源。

海洋之重要性

地球上一切生命的開端來自海洋，時至今日，仍有絕大多數的物種存在於海洋之中。目前所發現最古老的化石出現在35億年前，而在5.7億年前出現海洋無脊椎動物，4.25億年前才開始出現陸域生物。

A satellite photo of the earth shows a beautiful planet covered in blue waters. Our world is 70% covered by oceans, the only planet in our entire solar system which displays such abundant quantities of liquid water, the source and sustenance of life as we know it. And it is the origin of organisms.

The Importance of Our Oceans

It's a well-established scientific truth that the oceans are the original cradle of life on this planet. Evolving through billions of years of earth history, the original single-cell life forms from our primeval oceans have given way to an enormous variety of complex plants and animals living in all corners and environments of our world. Modern scientists believe the most ancient fossilized evidence of life on earth dates back 3.5 billion years, with marine invertebrates eventually appearing in the fossil records from 570 million years ago, and, finally, terrestrial biology becoming established 425 million years ago.

珊瑚是海洋生態系的重要成員，提供魚蝦蟹貝等生物重要的棲息環境
The corals can provide very favorable habitats for fish, shrimps, crabs and shellfish to thrive

據研究顯示，目前發現的34個動物門中，海洋生物就占了33門，其中就有16門生物只能在海洋中生存。如此懸殊的比例，述說著海洋其實才是保存地球生物多樣性最重要的地方，它提供了遠比陸地更豐富、更具潛力的發展性，是人類學習探索最重要的寶地。

海洋不僅提供人類食物、醫藥、休憩等多功能需求，同時也具備保護海岸、分解廢棄物、調節氣候、提供新鮮空氣等功能，而成為全球最大的維生系統。人類無疑是海洋食物鏈中的一部份，不僅每天享用大量的海洋魚類，其所生存的環境也深受海洋的影響而有所變化。

Scientific classification has established that out of the total 34 phyla (the broadest sub-class) of the animal kingdom, 33 of these are found living in the oceans, and 16 phyla are found exclusively in the oceans, without any representation on land. This amazing statistic demonstrates that oceans are indeed the cradle of biodiversity on our planet, supporting a much greater variety of life and potential for development than dry-land. Our oceans provide a treasure of opportunities for learning and exploration.

The oceans satisfy multiple human needs of food, medicine, transportation, and recreation. Furthermore, the oceans receive our wastes, contribute fresh moist air to our dry lands, and facilitate our climate, making the oceans the biggest life-support system on our planet. Human beings also play an increasingly large part in the ocean's evolution, as humanity's great consumption of fish for food, as well as encroaching effects of man's technology deeply affect ocean development. However, we must remember that what affects the ocean affects us.

目前全球漁獲量約1億噸，透過漁產所提供的蛋白質供應量已遠遠超過了牛、羊等家畜動物所提供的總產量，如此龐大的食產供需，直接說明了人類與海洋間的重要依存關係。此外，海洋生物多樣性在遺傳資源研究及生物技術開發上，更是具有舉足輕重的地位，如水產養殖之育種、抗病毒試劑、酵素、清潔劑或其他特殊化學用品等，1998年全球海洋生物技術產值即達2.7億美金，預估到2010年這龐大的產值將成長到8.6億美金。由於海洋之發展潛力無窮，目前各國無不積極投入海洋天然物的研究發展，期望從這片無窮寶藏中率先取得產業先機。

海洋同時是探討生命演化及環境變遷奧祕的基地，在生命科學的研究上，海洋提供許多改善人類生活福祉的研究成果，如利用烏魚的巨大神經索發現量測神經細胞的傳導工具。而近來，海洋生態旅遊也開始受到矚目，透過生態旅遊所獲得的經濟效益遠超出大量漁獲之食用價值，並且符合生態保護及資源永續利用的原則，如賞鯨、潛水等，每年在全球收益可達數十億美金。

There is another impressive statistic which demonstrates how fundamentally human beings depend on the ocean. Currently, the total global fisheries catch is around 100 million metric tonnes per year. The protein contained in this catch of fish surpasses the total supplied by all land-based animal farming combined. The strong fisheries supply and demand is a clear indication of the vital link between humans and the ocean. Additionally, the enormous biodiversity of marine life gives huge potential to future research of ocean genetics and biochemical technology, such as breeding of food-fish, development of reagents, pharmaceuticals and disease-resistant enzymes, as well as other industrial products. The total value of the global marine biochemical technology industry reached 270 million U.S. Dollars in 1998, and it is estimated that the industry will expand to 860 million U.S. Dollars by 2010. With the great potential of the oceans, all countries are investing heavily in the research of marine biochemical technology, expecting to gain not only scientific knowledge and international prestige, but also financial windfall from the infinite possibilities of our marine resources.

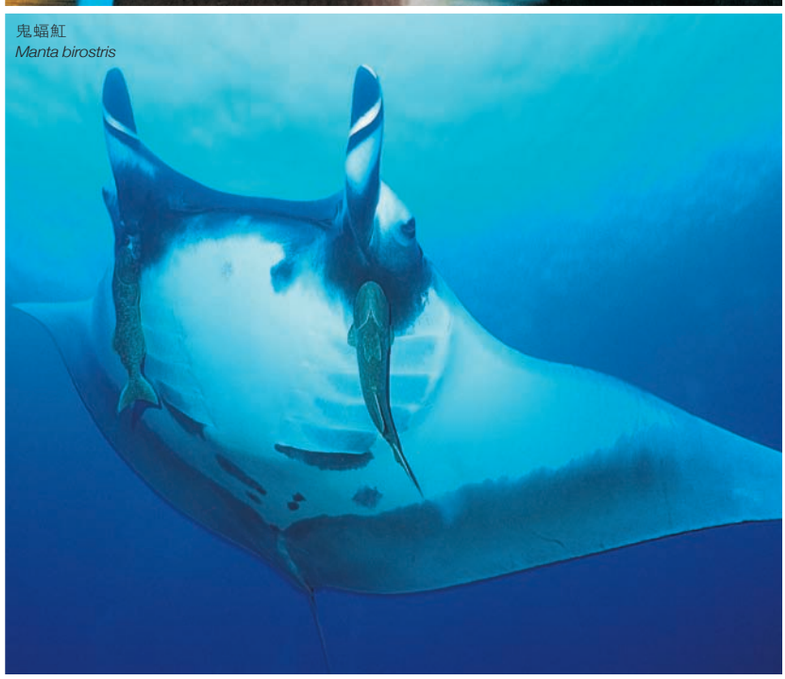
The ocean is also a living classroom, teaching humanity about environmental conservation issues and our place in the circle of life. In the field of life sciences, the oceans have provided a bounty of research results for the betterment of humanity. For example, scientists have taken measurements of the conduction rate of neural impulses in giant axons of squid, work which has great relevance to human physiology. Regarding conservation issues, recent years have seen the growing popularity of marine ecotourism, generating a significant economic value for marine life which goes far beyond the price per kilogram of its flesh. The annual global revenue from ecotourism sources, such as whale watching and recreational scuba diving, reaches one billion U.S. Dollars. Furthermore, ecotourism revenue is environmentally sustainable.

採飛魚卵草蓆
Straw Matting of Gathering *Exocoetidae*

紅海葵
Red sea anemones

克氏海葵魚
Amphiprion clarkii

黃背寬刻齒雀鯛
Amblyglyphidodon aureus



鬼蝠魟
Manta birostris

海洋生態遭破壞的原因

海洋生物多樣性及全球漁產量目前均處在迅速衰退的狀況，除了印度洋因開發較晚，情況尚未過度惡化外，其他各大洋早在數十年前即開始進入每況愈下的負成長階段。而造成全球性海洋生態危機問題的原因，包含了過度捕獲漁產及誤捕、環境污染、海洋棲地被破壞、外來種的引入及全球自然環境變遷等。

Causes for Declines of Marine Ecology

Nowadays, the biodiversity of marine life and the annual global fish catch are experiencing precipitous declines. The Indian Ocean is an exception to these trends because its fisheries have been developed much later, some were exploited with mostly traditional methods, rather than the modern mechanized and computerized methods of other fishing regions. Other oceans in the world have already been in a stage of decline in production for the last several decades. There is an almost worldwide crisis in our oceans caused by over-fishing, environmental pollution, damage to natural habitats, introduction of exotic-species, and global warming.

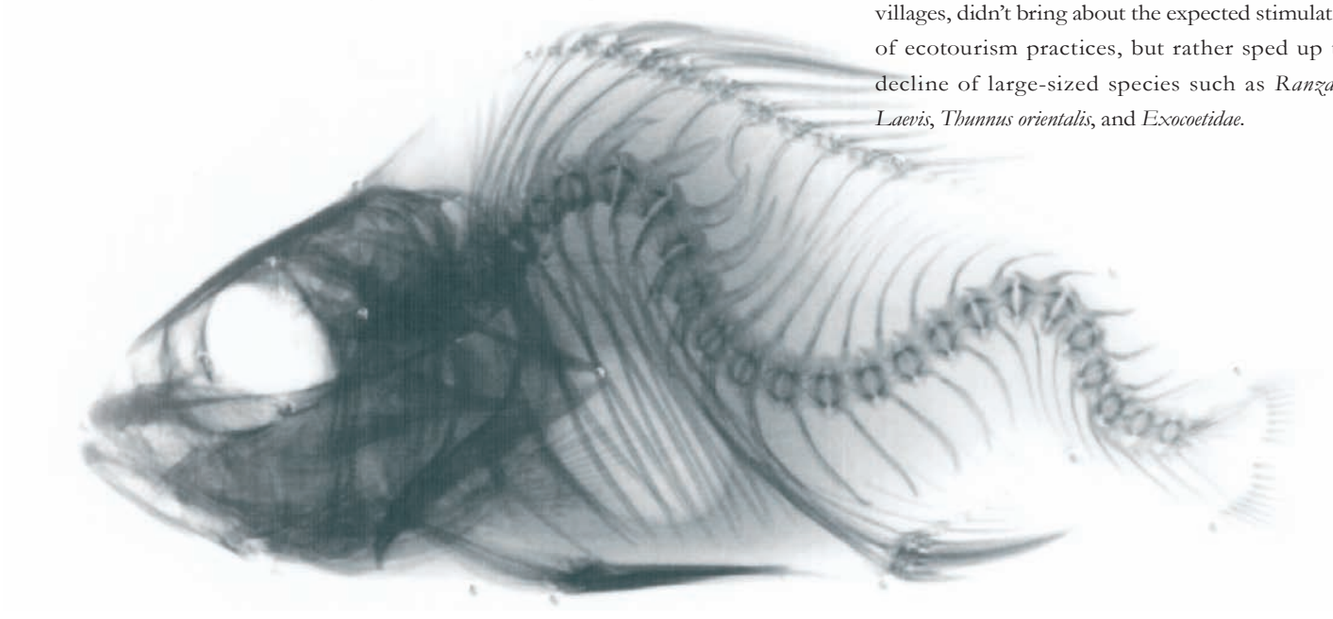
過度捕獲漁產及誤捕

每年全球漁獲量平均不到1億噸，但漁獲能力卻在2億噸以上，在競相捕撈、違規作業的情況下，全球漁產量自1980年代起即每況愈下，而過度捕撈直接影響到的問題，諸如生態系營養階層減少、海洋食物網簡單化、大型掠食者大量減少等，對於生態平衡及多樣性維護均屬不利。台灣在這方面的問題更是嚴重，根據近年來所作的潮間帶及電廠撞擊魚類的調查顯示，大型高經濟價值的物種及數量已大量消失，其如此所帶來的生態變遷，包含了魚體小型化，或是魚類本身為了尋求種族延續，而演化出早熟早產體型的後代。此外，近年來政府積極推動觀光季以振興漁村經濟，不過這過度積極的觀光促銷活動，因不知開源節流，反而會加速如翻車魚、黑鮪魚、飛魚等大型魚種的滅絕。

Over-Fishing

Global annual fish catch is approximately 100 million metric tonnes, while the capability of the modern fishing industry is over 200 million tonnes. Despite increases in fishing technology that allow ships to harvest from deeper and more remote waters, detrimental practices such as over-fishing, wasteful fishing , and unregulated fishing have brought about a gradual decline in global fish catch since 1980. Over-fishing produces increasing levels of environmental degradation, decreasing trophic (food chain) levels of marine ecosystems, and decreasing catch of large-sized species. These problems are a fundamental threat to ecosystem balance and biodiversity. Taiwan is facing these problems on a critical scale. Surveys conducted in recent years regarding fish composition of inter-tidal areas and the impact of nuclear power plants on Taiwan fisheries show a dramatic decline in catch numbers, both variety and quantity, for large-sized economically valuable species. The trend is towards such fundamental negative ecological changes as a decline in average fish size, and unusual evolution of certain species towards precocious or premature delivery of their young. Furthermore, recreational fisheries tourism festivals, which are an ecotourism campaign in Taiwan originally brought into practice and highly promoted by all government levels, with the aim of boosting economies in traditional fishing villages, didn't bring about the expected stimulation of ecotourism practices, but rather sped up the decline of large-sized species such as *Ranzania Laevis*, *Thunnus orientalis*, and *Exocoetidae*.

X光片顯示脊椎成波浪彎曲的「祕雕魚」
X-ray demonstrated the vertebra curving assumes the wave "the Mi-tiao fish"



環境污染

污染的來源不外乎家庭都市的廚餘廢水及農漁牧業的廢水，所造成的沿岸海水優養化，而造成海洋生物大量死亡。而工業廢水中的有毒物質，亦常隨著河流沖刷入海中，造成魚類大量死亡。此外，垃圾堆積亦是造成海洋污染的重大因素，底拖網由淺海到深海，每次拖上來的垃圾越來越多，漁獲卻越來越少，而拖上來的垃圾未妥善處理，又被丟棄回海洋，重複的污染與堆砌，使得台灣海域內的生態破壞日益嚴重。

海洋棲地破壞

漁民如在沙泥地海底、深海大陸棚斜坡的區域密集性的進行底拖網作業，不僅消滅了許多科學家們還來不及調查發現的底棲類生物，同時也會破壞棲地環境，影響生態繁衍。在海岸地帶所進行的淺海養殖、垃圾掩埋場、海濱遊憩開發案、人工海岸等，也都直接破壞了珊瑚礁及潮間帶棲地，使得許多魚類喪失重要的庇護場所，生存機率大大降低。

額斑刺蝶魚
Holacanthus ciliaris

Environmental Pollution

There are many causes of water pollution, from harmful household products and wastewater discharge, to dangerous industrial practices and chemicals, even manure and chemical fertilizers can be harmful on the large scales of modern agriculture. Over the years, pollution entering our waterways, directly or indirectly, has caused immediate death of marine life, as well as producing more insidious long term effects on marine ecology. Some forms of pollution act as a nutrient for algae, leading to massively excessive growth of this simple organism, which clogs waterways and blocks light to deeper waters, ultimately leading to oxygen-poor waters that can't effectively support marine life. It's also well understood that many industrial chemicals can have direct toxic effects on marine life, with careless industrial spills into rivers or oceans invariably causing marine disasters. Household garbage produces both direct floating trash, which sea creatures ingest, as well as runoff from landfills, which eventually flows into oceans. These myriad sources of pollution have a cumulative and worsening impact on the aquatic ecology of Taiwan.

Habitat Destruction and Impairment

Fishing activities, such as intensive bottom trawling, which stirs up sediments by dragging nets along the ocean floor, is responsible for wide destruction of ocean ecology. Benthic (bottom dwelling) organisms are particularly vulnerable, and entire species of these may be wiped out before their role in ocean ecology is fully understood. Other human activities near coastlines, such as fish farming in shallow waters, dumping of trash and landfill into the oceans, development of seashore recreation areas, and construction of artificial coastlines are among the most significant causes of aquatic habitat destruction and impairment. The far-reaching effects of these practices can devastate coral reefs and inter-tidal zones, decreasing the life-supporting viability of shorelines and shallow waters throughout the world.

1 飛白楓海星
Archaster typicus

2 和尚蟹
Mictyris brevidactylus

3 沙錢
Sand dollar

4 沙地潮間帶的眾多生物
Sand Tidal Zone Multitudinous Biology

外來種的引入

海生物的外來種來源，包含船底攜帶的附著生物，或隨淺海養殖與水族觀光業所引進的外來種，這些都可能因過度繁衍而造成主生態之損害。

全球變遷

在自然因素方面，海洋生物所可能遭受到的危害，除了全球變遷溫室效應所引發的水溫上升、珊瑚礁白化，並連帶造成漁場變遷與海流氣候驟變。目前全球已有35個國家，共50個地區的珊瑚礁面臨白化的危機，倘若未來溫室效應持續，海水上升將會造成如土魯瓦及馬爾地夫等國家領土，慘遭海水淹沒。

Exotic-Species Invasion

Invasion of exotic-species can be a major threat to local ecology. Major sources of exotic-species in local waters include organisms which adhere to ship bottoms and escapees from fish farming activities. The invasive alien species may over-develop and jeopardize the primary local ecology.

Global Environmental Change

Global warming is one of the large-scale global environmental hazards that threatens all marine ecosystems. Major changes from this phenomenon include rising temperatures and levels of the oceans, bleaching and subsequent destruction of coral reefs, fluctuations in ocean currents, and disruptions of traditional fishing grounds. At present, there are already fifty locations in thirty-five countries that are threatened by unprecedented crises of coral bleaching. If the global warming trends continue, further raising of sea levels will completely submerge such low-lying island nations as Tuvalu and Maldives, as well as coastlines around the world.

海洋生物保育策略

估計到2020年，人類對沿岸及海洋環境之需求，包括再生性資源、廢棄物處理、生活空間，以及農工業發展等將會達到目前的2倍。因此，維護海洋生態已是目前各國皆有的共識，為了積極拯救海洋，讓地球共同的資產不再惡化，讓自然生態能永續生存，以及為了人類更繁榮的未來，國際間紛紛提出各項相關宣言及捍衛行動，如1992年的「里約宣言」及聯合國宣布頒定1998年為國際海洋年等。2002年在約翰尼斯堡舉行的地球高峰會上，更通過多項漁產保育及海洋生物多樣性復育的行動計畫，希望最遲能在2015年前恢復已告枯竭的魚類數量。

棲地保護

基因是由生物個體或物種所承載，而物種又是生態系的基本成員，因此若要保護基因的遺傳多樣性，便要從保護物種開始。保護物種必須加強生態系的保護，因此，規劃設立海洋保護區及海洋公園是最直接有效的方法。陸地生態的復育可以透過封山來調養生息，海洋資源的復育更需要透過封海來執行，也就是在漁期、漁法及漁區上給予調節管理，方能見效，進而讓整個生態系獲得保存，生物的資源才能生生不息地被永續利用，這也就是棲地保護重於物種保護的原因。

Conservational Strategy of Marine Life

Human well-being is highly dependent on coastal and marine environments. It is said that our encroachment into marine and coastal environments, including sustainable use of resources, disposal of landfill, as well as coastal housing, agriculture and industry will double by the year 2020. Marine and coastal ecosystems are an undeniably critical aspect of global well-being and prosperity, and, therefore, a series of international conventions on biological diversity and sustainability have been drafted and signed to provide a framework for global management of the oceans. The United Nations declared 1998 to be the International Year of the Ocean, and since then, additional important environmentally-focused conventions have been held. The Rio Declaration in 1992 was one important example, while ten years later the 2002 World Summit on Sustainable Development in Johannesburg initiated many acts to protect ocean fisheries and marine biodiversity. The Johannesburg Summit proposed plans that will maintain or restore ocean resources to levels that can maintain maximum sustainable yields. The aim of the 2002 summit is to achieve these goals, where possible, not later than 2015, especially focussing on urgently depleted resources.

Protection of Habitats

Genes which govern inheritance of specific traits exist in every individual living organism. Each living species plays an important role in the balanced overall function of an ecosystem. Therefore, widespread ecological and biological conservation forms a key part of the health and sustainability of any environment. Proper conservation is not only dependent on protecting living species, but also on preserving their habitat. Therefore, one of the most practical and efficient methods of conservation is pursued through the establishment of marine conservation areas or marine parks. Land habitats can be protected by closing a mountain or limiting access to a valley. The same logic can be applied to protecting marine ecosystems, with closures of key areas, both absolute closures, or closures at specific times, for purposes such as the protection of breeding grounds. By establishing strict regulations regarding location and scheduling of human activities, marine ecosystems and used in a sustainable manner, preserving resources for future generations.

加強生態調查研究

過去台灣海洋生態及魚種組成、分布、洄游路線等資料多半零星不完整，以至於政府在推動限漁、禁漁區及保護區時，難以用可靠數字當作憑藉。過去漁獲統計資料亦不夠詳實完整，缺少豐富的背景資料就難以教育及推動保育措施，因此加強相關調查研究乃是海洋保育的基礎課題。此外，還應結合各相關單位的力量，全面監測所有沿岸海域水文、水質及水理資料，以確實掌握海域生態品質及其變遷趨勢。

永續漁業經營管理

建立預防法則觀念，強調適量捕撈漁獲的重要性，而非傳統之最大持續生產量，以改善目前因過量捕撈及誤捕所造成的海洋生態破壞。除此之外，亦須確實執行國內外相關漁業管理法規，減少漁船數量，輔導漁民轉業，推動娛樂漁業及生態旅遊；研究改進現有不符合保育之漁具、漁法、漁區、漁期、漁獲對象等；開發利用海洋生物及其基因庫之高科技生物產業。

減少漁船數量是達到海洋永續發展的方法之一
The reduced fishing boat is imperative that the ocean remains sustainable

Ecological Research

In the past, marine ecology and fisheries databases in Taiwan have been fragmentary. Such important information as estimations of existing fish stocks and their migration paths are incomplete. In practice, when government action has been proposed to regulate destructive fishing practices or protect fishing grounds, legislators and scientists have suffered from a lack of integrated statistics to support resource management decisions. Additionally, existing historical fish stock data is plagued by inaccuracies. As a result, support for conservation of marine resources has been unable to rely on solid scientific background assessments. Therefore, it is of vital importance to all levels of government, academia, and the public to gather baseline data of present conditions of Taiwan's marine resources. From this baseline, continued monitoring of key parameters will provide a scientific basis to judge environmental policies that affect our territorial waters.

Fisheries Management

Ensuring sustainable fisheries requires an understanding of the factors which lead to an exhaustion of fisheries resources. We are much better off maintaining targets for the maximum sustainable fishing yield, rather than constantly striving to increase our catch. We must eliminate destructive fishing practices and over fishing, which deeply damages, and sometimes permanently destroys ocean resources. Furthermore, additional action plans must include proper enforcement of existing international and domestic laws of fisheries management, career change counselling for fishermen, promotion of recreational fishing and ecotourism options, upgrading or improving current practices which do not meet the highest conservation standards of the international community. Specifics, such as approved fishing tackle and gear, commercial fishing boundaries and seasons, and limits on catch of individual fish species should all be looked at closely. Basing important decisions on the latest research of marine gene pools and biotechnology is a growing trend.

加強宣導教育

建立全民共識，配合政府施政、自我約束及共同監督管理。透過媒體宣導，養成保護海洋野生動物的觀念；推動生態標章計畫，要求消費者在購買水產時，必須不破壞資源，且符合海洋生態保育的理念；發展海洋遊憩活動，但須先制定各項遊憩活動之管理辦法，且須顧及環境容忍量，並要求在使用前作解說教育；加強本土海洋生物與生態之學校與社會教育，鼓勵各項研究及教育宣導。

Education

When considering environmental damage, prevention is always less costly and less confrontational than restoration. The preferred means of prevention are public education and promotion, which leads to grass-roots support and voluntary compliance. Educational approaches vary. With proper media exposure, there will be widespread increases in the general level of environmental consciousness, with more people interested in protecting marine life. For consumers, ecologically friendly product logos that emphasize non-destructive practices is considered a good method to encourage public support for conservation in daily life. Furthermore, development of marine recreation and sustainable tourism will both diversify Taiwan's tourism industry, and support our goals of conservational education and management of our natural resources. Establishment of well-planned environmental educational programs in schools and universities, as well as the enthusiastic encouragement of public input on ecosystem conservation is also an important way to stress proper stewardship of marine resources.

加強海洋保育的概念，讓下一代也能享有湛藍的海洋
Establishment of conservational education of marine, enables next generation also to enjoy the deep blue sea

在台灣外海，常可見到飛躍於海平面上的鯨豚
We usually descried whale and dolphin in the Taiwan open sea

台灣海洋保護區現況

台灣過去根據「文化資產保存法」、「野生動物保育法」、「國家公園法」、「漁業法」及相關沿岸自然保護區計畫等，也曾規劃過不少保護區，但這些保護區多半針對少數保育或經濟水產物種，並非保護區內之所有物種，且亦缺乏妥善管理。目前台灣周邊海域真正能發揮保護區功能，只有極少數的海軍基地港口和核電廠入水口面積甚小的水域，但這些小區域卻已證實了保護區的功效。近年來，規劃及推動的保護區措施，包含1999年金門縣政府所規劃之黿保護區、澎湖望安鄉所規劃之綠蠵龜保護區、2007年正式成立的第一座海洋型國家公園「東沙環礁國家公園」等。目前仍須積極推動之保護措施，還包括將各地珊瑚礁列入禁漁區，如綠島、蘭嶼及南沙群島之珊瑚礁群，以及龜山島之海底熱泉亦應劃入保護區。

Marine Conservation in Taiwan

In recent history, quite a number of marine conservation areas in Taiwan have been outlined by laws of the Coastal Conservation Plan, as well as by regulations of the Cultural Heritage Preservation Laws, the Wildlife Conservation Laws, National Park Laws, and the Fisheries Laws. These types of conservation areas have mainly focused on endangered marine species, or species of economic value, without thorough protection of all species within the proposed area. Furthermore, proper management and enforcement of existing regulations have been lacking in these areas. At present, within the territorial waters of Taiwan there are unfortunately very few areas under strict protection and are meeting effective preservation goals. Good conservation results are shown mostly on those port areas managed by naval authorities, and in areas near nuclear power plants. New coastal and marine conservation areas have been outlined and established in recent years, including the Horsefoot Conservation Area in Kinmen County, established in 1999, the Green Turtle Sanctuary on Penghu Island, and the establishment of the Dongsha Atoll National Park in 2007, the first marine national park in Taiwan. A series of further conservation approaches should be taken, such as the zoning of all coral reef areas as "no fishing zones", plus the establishment of more protected areas on Green Island, Lanyu Island, and Nansha Islands, as well as the underwater hot spring on Turtle Island.

而於2001年行政院核定通過的生物多樣性推動方案，則涵蓋海洋生態之監測、熱點之選定、珊瑚礁群圖、漁業資源保護、籌設海洋溼地保育軸，以及增設保護區及落實執行等工作項目。而未來若能盡快通過「海岸法」，成立專屬機構，讓海洋事務提高事權，則是更根本的解決之道。

海洋是人類共同的資產，整個海洋的運作也與人類生活息息相關，海洋生物必須獲得妥善保護，資源方能永續利用，為了下一代的福祉，海洋保育刻不容緩。在海洋保育新時代裡，不僅要加強研究，在立法及教育上也須齊頭並進，讓國人從生活態度上作改變，加強對海洋生物的認識與關心，讓台灣早日恢復昔日美麗又生態豐富的景象。

An action planning by biodiversity that was approved by The Executive Yuan in the year 2001 includes the monitoring of marine ecology, zoning of hot spots, mapping of coral reefs, protection of fisheries resources, establishment of wetland conservational areas, increasing of total conservational areas and enforcement of related laws. In the future, a longer range plan should focus on the possibility of an integrated coastal management act, which highlights marine issues by setting up a special authority in charge.

Our oceans are a commonwealth asset of all human beings. The prosperity of humanity is strongly connected with a natural healthy marine environment. Marine organisms need our protection, especially as we are ourselves the cause of damage, thus ensuring the health and vitality of marine resource for perpetual use. Marine conservation is already an issue of great urgency. In this new era of marine conservation, immediate efforts directed towards research, regulation, and public education are needed to achieve conservation goals.

東沙島潟湖一隅
landscape of Dongsha lagoon