

PERSGA

*The Regional Organization for the Conservation  
of the Environment of the Red Sea & Gulf of Aden*



## HABITAT AND BIODIVERSITY CONSERVATION

# AL-SANBOUK

A Quarterly Newsletter of PERSGA

ISSUE (17) February 2003



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The Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden - PERSGA - is an intergovernmental organisation dedicated to the conservation of the coastal and marine environments in the region. Its legal basis stems from the Regional Convention for the Conservation of the Red Sea and Gulf of Aden Environment known as the Jeddah Convention and signed in 1982. The PERSGA member countries include Djibouti, Egypt, Jordan, Saudi Arabia, Somalia, Sudan, and Yemen. The headquarters are based in Jeddah, Saudi Arabia.

PERSGA is currently executing the Strategic Action Programme (SAP) for the Red Sea and Gulf of Aden. This project is funded by UNDP, UNEP, The World Bank and The Islamic Development Bank. The SAP is being carried out through seven complementary components: institutional strengthening, reduction of navigation risks and marine pollution, sustainable use of living marine resources, conservation of habitats and biodiversity, the establishment of a network of marine protected areas, support for integrated coastal zone management, and the enhancement of public awareness and participation.

The aim of the newsletter is to provide information on conservation and development activities taking place in the region together with articles on marine issues of general interest. The contents of the newsletter do not necessarily represent the position or views of PERSGA or the editorial board, nor do they imply the expression of any opinion on the part of PERSGA concerning the legal status of any country, territory, frontier or border.

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Dear reader,

Many people believe that the term biodiversity is a modern term that entered into current use in the last century, however Islam has recognised this concept for hundreds of years and made man as guardian on earth and asked him to conserve its natural diversity. In surat 'mouminoun' we see Allah telling prophet Noah to take into the Ark male and female from all forms of life on earth before the Great Flood occurred. Similarly Allah made thinking and pondering on the creation of heaven and earth, and all the life forms included, as signs for rational people. Many verses of the Koran testify to this.

But, what do we mean by biodiversity? Simply we can say that biodiversity is the difference between various kinds of living organism, plant or animal, marine or terrestrial, and the variation and the differences between species and ecosystems. The known number of organisms represents only a very small proportion of the complete picture, and this diversity represents one of the mysteries of life in the biosphere. The complex relationships between organisms and ecosystems is necessary for the stability of life on earth.

Here I would like to return to some of the most important ecosystems – the marine environmental ecosystems with all their complex inter-relationships, and here maybe the coral reef ecosystem would be most important in terms of the way it affects and is effected by other ocean ecosystems. It is important also for marine productivity, is rich in fisheries and other natural resources.

The deterioration of marine environments through human impact has been observed in recent years. The world has began to realise this danger since the phenomenon of coral bleaching that threatened several marine environments around the world. There is no doubt that the concern of the Kingdom, represented by the wise government of the Custodian of the Two Holy Mosques and his Crown Prince, has been shown through its support for the conservation of this environment. His Royal Highness directed the preparation of a holistic integrated picture for the conservation of coral reefs of the Red Sea and Gulf of Aden, to be placed in the framework of a national strategy that complements the regional strategy.

It is certain that efforts of the state alone cannot achieve the expected goals, especially as seas, oceans and bays have no boundaries. Therefore it has been important to speed up efforts towards a regional strategy and here the largest portion of the burden lies on the shoulders of the regional organizations among which are PERSGA and ROPME. Finally I would like to confirm that national and regional efforts cannot succeed without intensive public awareness that includes all government and non-governmental sectors.

Dr. Abdulaziz Abuzinada  
Secretary General,  
National Commission for Wildlife Conservation and Development, Riyadh




*Al-Sanbouk is the name given to wooden vessels powered by sail and engine that have taken goods to and from most ports in the Red Sea and Gulf of Aden for hundreds of years.*



# PERSGA Activities


## LMR Activities



In cooperation with FAO, ICLARM, ROPME and the Agricultural Policy Reform Project USA (RDI), a highly successful international workshop was conducted in Hurghada, (Egypt) from September 15-17, 2002 on "Environmentally Friendly Aquaculture and Fisheries Practices". Forty specialists participated and exchanged information experiences and expertise. The meeting provided an opportunity for participants to take part in some professional networking. The priority areas in need of attention to improve the quality of product were identified. The Workshop proceedings are being prepared for publication.


A regional meeting was held in Jeddah as a preliminary step towards the establishment of a Regional Commission for Fisheries in the Red Sea and Gulf of Aden (RECOFI). It was attended by the relevant decision makers involved with national fisheries policies from the PERSGA member countries. Countries' approval for RECOFI establishment was obtained.

## Studies and Long-term Programmes for Data Collection, Management and Monitoring



The LMR LS has worked jointly with a team of two regional consultants and national counterparts to monitor the impacts of the ornamental fish collection and aquarium fish trade in Djibouti, Egypt, Jordan, Saudi Arabia and Yemen. Based on a pre-approved regional standard methodology, the study involved inspection of the holding facilities in six ornamental fish companies, collection of the export data, and conducting underwater surveys at a total of 112 transects.

## The environmental impacts of trawl fishing

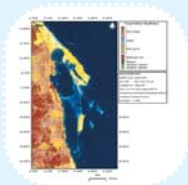


A monitoring programme is being conducted in cooperation with, and with the assistance of, the Ministry of Agriculture (Saudi Arabia), the National Institute of Oceanography and Fisheries (Egypt) and the Marine Science Resources and Research Centre (Yemen) to look at the environmental impacts of trawl fishing in the coastal waters of each country. A greater focus is being placed on the sustainable use of biodiversity as the study is contributing to the following:

- ▶ Identifying the spawning grounds and other areas critical to fish populations and thus identifying the areas that need to be established as marine reserves,
- ▶ Seeking ways to minimize the proportion of discard in the catch taken by shrimp trawlers,
- ▶ Studying the interrelationship between biodiversity, ecosystems and fisheries,
- ▶ Developing a sustainable management plan for invertebrates with special focus on shrimp and cuttlefish.

## Satellite Mapping of Marine Protected Areas

The coastal and marine habitats of the proposed marine protected areas at Dunganab Bay and Mukawwar Island (Sudan), Iles des Sept Frères (Djibouti) and Belhaf-Bir Ali (Yemen) have been mapped by remote sensing using the satellite Landsat 7 Enhanced Thematic Mapper (ETM+). Some examples are shown below.



Supervised classification of Coastal Biotopes Landsat 7ETM+ satellite image of Dunganab Bay and Mukkawar Island, Sudan (WRS 171/045 and 046, 4 June 2001).



The marine habitats and biotopes of Bir Ali to Belhaf, Yemen (Landsat 7ETM+ 166/051 13 May 2000). The west-east variation in water quality is clearly illustrated by the changing colour of the deeper water, from darker to lighter blue, from left to right in the image.



The marine biotopes of Sept Frères and Ras Siyyan Djibouti (Landsat 7ETM+ 166/051 13 May 2000).






## A Workshop to Develop a National Coastal Zone Management Plan for Sudan

PERSGA held a first workshop on ICZM for Sudan (Port Sudan, 17-19 January 2003) to discuss the database of information on coastal areas of Sudan which was prepared as a basis for the national ICZM for Sudan. This study includes eight chapters: a general overview of the Sudan, a general overview of the Red Sea State, a database of terrestrial and marine resources, economic and developmental activities, developmental and social activities, environmental and security pressures and threats, legislation, and recommendations.

The study was prepared by a team made up of scientists, university lecturers and specialists from Sudan selected by PERSGA. All government and non-governmental sectors, and some national and international NGOs relevant to coastal areas were invited to attend this workshop to express their comments on the information collected and to participate in formulating the basic structure for the proposed National ICZM Plan for Sudan.

The workshop attracted the attention of government authorities. The Opening Session was attended by His Excellency the Minister of Science and Technology and the Closing Session by His Excellency the Minister of Environment and Urban Development. The Governor of the Red Sea State attended both sessions.

The workshop ended with a number of recommendations formulated under five headings:

-  Institutional Structure
-  Legislation
-  Environmental Awareness and Public Participation
-  Contingency Planning
-  Natural Resources and Marine Protected Areas

## Community Participation Projects

Several Micro-grant projects under the SAP Public Awareness and Participation component will be implemented in NE and NW Somalia.

### Beach Sanitation and Greening (NE Somalia)

The main objective of this project is to minimize the negative impact of the different wastes accumulating along the town beaches of Bosaso by improving the sanitation situation, establishing an adequate garbage collection system, and the planting of trees.

### Translation of Environmental Knowledge into the Somali Language (NE & NW Somalia)

These projects will provide environmental knowledge to the Somali people so that they may effectively contribute to environmental activities and control environmental actions in Somalia. An understanding of environmental concepts and sustainable resource use is vital to ensure future survival for them and their children.

### Mangrove Forest Conservation (NE Somalia)

This project calls for the rescue of depleted mangrove forests through protection, public awareness raising for coastal fishermen and nomadic communities, and the planting of new mangrove trees. Activities are intended to change the coastal community's attitudes towards these important natural forests.



### Protection of Mangroves at Saad ad Din and Aibat Islands

The primary purpose of this project is to make aware to the beneficiaries how to prevent loss of the areas of existing mangroves and how to control activities threatening their productivity. In order to take appropriate measures, it is of the utmost importance to improve the level of environmental awareness of local authorities, fishermen, and local communities.

### Protection of Mangroves and Turtles in NW Somalia

This project will help to conserve the mangroves and the turtles along the eastern coast of NW Somalia through a comprehensive public awareness programme which takes into account the full involvement of the local community, especially in developing and drafting a local management plan. A series of meetings and workshops will be held for the local communities including the fishermen, community elders, pastoral communities and local government officials. In particular the project will target the five main fishing centres of Showla, Ruguuda, Onkor, Dhagah-guduud, and Shalaw.



### Hodeidah Mangroves Project

A grant agreement has been made between PERSGA and the Yemen Protectorates Society for implementing a 'Conservation of Mangroves Project'. This aims to conserve and rehabilitate the mangroves in Hodeidah city (Yemen) and to introduce alternative use of mangrove by the local community.

### Shark ID Guide


PERSGA has designed and prepared one thousand copies of a waterproof "Shark Identification Guide". This handy set of flip-sheets will be of great value to fisheries scientists and fisheries enumerators collecting data for stock assessment purposes. Each sheet shows a picture of a shark and highlights the key features that distinguish it from other species. Being printed on waterproof paper these guides can be used in the field under 'fish market' conditions or on the decks of boats at sea. Several hundred copies have already been distributed to key institutions throughout the region.



### New Publications

The second issue of PERSGA's Technical Series was printed at the end of 2002. It is titled *A Bibliography of Oceanographic and Marine Environmental Research 1985-1998. Red Sea and Gulf of Aden Region*. The book forms a companion edition to the publication *Red Sea, Gulf of Aden and Suez Canal—A Bibliography on Oceanographic and Marine Environmental Research (1775-1984)* edited by Selim Marcos and Allen Varley and published jointly by ALECSO-PERSGA and UNESCO in 1990. More than 3,200 references to scientific work on the region have been arranged alphabetically by author. An extensive collection of indexes have been prepared so that the users can search for information from a variety of entry points. These indexes include: author, subject, region, country, location, taxonomy, species and geological time period. Inevitably in a work of this type there will be errors of omission and apologies are made to those whose papers have been left out. In the future PERSGA hopes to put the work onto a computer database that can be hosted on a website and readily updated with any missing references.





PERSGA's Training Workshop Report (2002 No.2) has also been issued. The volume *Guidelines for Ornamental Fish Sampling, Data Collection and Analysis of the Aquarium Fish Trade* runs to 172 pages and includes not only aquarium fish identification but also the official Marine Aquarium Council Standards for fishery management, collection and husbandry. This volume should prove to be very useful for all researchers and professionals involved with these the most attractive of Red Sea fishes.

To celebrate the New Year PERSGA distributed Calendars for 2003 to all the countries along with the latest edition of *Al Sanbouk*.

### Library


During the last few months PERSGA has been actively working on its library, finding the most effective way to collect, assemble and maintain documents, books and journals on the marine environment. Data entries are made to a database provided free from UNESCO. The classification and cataloguing methods have been adapted from systems used by UNEP and the World Bank. "A procedures manual" has been prepared and distributed to local and regional users. All new acquisitions are registered on the database when they arrive.

Future plans are for the library to be more accessible to regional users. A list of recent acquisitions will be distributed to the NPC offices, and a request form will be prepared so users who are away from HQ can order copies of references, articles, reprints, etc... The library collection will be posted on the website with extensive information about the references available.

In addition to the above, and in order to improve our services, we will in the next couple of months finish establishing the library's book collection and concentrate on journals, reprints, and subscriptions to e-journals.

### PERSGA Council Sixth Meeting Sharm el-Sheikh ( 24 October 2002)

The PERSGA Council held its sixth meeting in Sharm el-Sheikh on 24 October 2002 in the presence of their Excellencies the Ministers Members of the Council to discuss items listed in the agenda, after review of the report from the Preparatory Meeting. Representatives of the Arab League, ALECSO, UNEP, UNEP-ROWA, ROPME, the World Bank, IsDB, and CEDARE attended the meeting.



His Excellency, A. Tubaishat, Minister of Rural and Urban Affairs and Environment (Jordan) chaired the meeting. Dr. Töpfer, Executive Director of UNEP, addressed the opening session commending the good relationship between UNEP, PERSGA and its Secretary General. He welcomed the initiatives that PERSGA is taking to tackle environmental problems in the Red Sea and Gulf of Aden.

The Council listened to a brief report from the Secretary General where he mentioned the difficulties PERSGA is facing in implementing its regular programmes, and its dependence on the joint activities with relevant organisations, due to the lack of contributions made into the PERSGA budget. He presented PERSGA's plan for a sustainable strategy to move forward from the achievements of the SAP, the preparation for a Governors Meeting, and a Workshop in 2003 for the Deans of the Faculties of Marine Sciences in the region to complement their individual efforts. He also highlighted the SAP Mid-Term Evaluation, the review of the Task Force to this report, and the recent achievements gained from SAP implementation.



The Council discussed at length a Memo concerning PERSGA's strategy on sustainability. This aims to produce a mechanism for funding PERSGA's future projects with the expectation of funding from donors and the private sector, and future plans to hold a donor conference. In this context the Secretary General asked representatives of the World Bank to give a presentation to the Council on the proposed donor conference. This presentation included the establishment of sustainable funding mechanisms for PERSGA. The Bank explained the Environmental Fund concept, and discussed national and World Bank experience and lessons learned from the establishment of such Funds, and the practical steps required to establish such a Fund for PERSGA.

Among the decisions of the Council was the unanimous agreement for the reappointment of Dr. Nizar to the position of Secretary General for another four years, which was made with compliments from the Council Members on the value he had brought to the Organization. The Secretary General expressed his appreciation to the Council for their trust in him and declared his increased determination to work for the benefit of the region.



### [Display at the First World Conference Exhibition in Sharm El-Sheikh](#)

October 2002, PERSGA set up a display at the First World Conference for Nature and the Environment held in Sharm El-Sheikh, Egypt. The PERSGA team included management and staff members, all contributing to making the PERSGA stand a notable success.

The display was conveniently situated at the very beginning of the exhibition hall, which was a great benefit as it added value to the PERSGA banners and display items that had been assembled strategically to catch the eyes and admiration of the many spectators and participants. Bystanders enjoyed coming to the PERSGA stand where they could watch a video, pick up copies of our publications, admire large posters illustrating PERSGA's involvement in regional conservation, and take away PERSGA's complementary CD and pin after enjoying warm Red Sea hospitality in the form of dates especially brought over to the exhibition from Jeddah.

The PERSGA display was also on show on the occasion of the opening ceremony of the Aqaba marine national park, which was held under the auspices of His Royal Highness King Abdullah of Jordan on Thursday 23 January 2003. The display consisted of PERSGA publications, CDs, and posters showing PERSGA's activities in conservation of the Red Sea and Gulf of Aden. The visitors were appropriately impressed with the exhibit.

### [Regional Media Workshop](#)

A Regional Media Workshop on 'environmental public awareness for journalists', took place from 21-25 December within the PERSGA-SAP framework, and existing cooperation between PERSGA and the World Bank. The main aims of the workshop were to prepare a practical press kit for journalists in the region, and to establish a network so that a perpetual exchange of national and regional environmental issues could take place on an ongoing basis, and environmental public awareness programmes and activities could gain more media coverage. The workshop was an opportunity to raise the awareness of regional journalists on environment concerns and to motivate them to write news with accurate information.

The main objectives of the workshop were to:

- ✎ Establish an understanding of conservation in marine and coastal environments
- ✎ Define the role of the environmental press in the region and the importance of creating a network of journalists
- ✎ Prepare an outline for an Environmental Press Kit
- ✎ Prepare the groundwork for journalists in the region and to generate the motivation to write about environmental issues



Press coverage of the Workshop was given by the Saudi Press Agency and by Arab News. The five-day workshop proved to be a great success. Dr Nizar Tawfiq gave a closing speech where he formally announced the establishment of the media network named MERSA (Media for the Red Sea and Gulf of Aden).

## Habitat and Biodiversity Conservation in the Region

With its extraordinary biological diversity and remarkably high degree of endemism, the Red Sea and Gulf of Aden represent a complex and unique tropical marine ecosystem. This narrow band of water is also an important shipping lane, linking the world's major oceans. Its natural coastal resources have supported populations for thousands of years, and nourished the development of a maritime and trading culture linking Arabia and Africa with Europe and Asia. While large parts of the region are still in a pristine state, environmental threats, notably from habitat destruction, over-exploitation and pollution, are increasing rapidly requiring immediate action to conserve and protect the region's coastal and marine environment.

PERSGA took the initiative during the implementation of the Strategic Action Programme (SAP) to study the importance of conserving regional habitats and biodiversity. It identified the key habitats that need immediate attention to be the coral reefs, seagrass beds and mangroves. As for the key species of concern they are reef fish, marine turtles, breeding seabirds and marine mammals.

The Habitats and Biodiversity (HBC) component of the SAP has four objectives. First, to train and build the capacity for conserving habitats and biodiversity within the Red Sea and Gulf of Aden (RSGA) region. Second, to develop regional conservation plans for turtles, seabirds and marine mammals. Third, to develop regional conservation plans for key habitats, such as mangroves, seagrass beds and coral reefs. And the fourth objective is to establish the legal and policy framework for the conservation of habitats and biodiversity.

In order to meet these objectives, HBC developed a strategy consisting of five steps. Step one is to standardize the survey methodology. Before evaluating the current status of marine habitats and biodiversity within the RSGA region, surveys must be undertaken that are comparable in extent, nature, detail and output. Standardizing the survey methodology is essential to allow comparison of data across the region, and for the formulation of conservation efforts that are regionally applicable. The first step in this process was the development of the "Guide for Standard Survey Methods for Key Habitats and Key Species (SSM) in the PERSGA Region" to be used in these surveys. PERSGA has accomplished this by reviewing currently used methods and drafting contextual SSMs in each of the relevant fields: sub-tidal, coral reefs, seagrass beds, inter-tidal, mangroves and their associated fauna, as well as for important groups such as reef fish, marine mammals, marine turtles and seabirds.

The second step is to train regional specialists on using the SSMs. During the last three years, more than 100 specialists from the entire region have been trained by PERSGA through training courses and on-the-job training during the field surveys.

The third step is to conduct regional surveys, and so far fourteen surveys have been conducted within the region in order to evaluate the present status of natural habitats and species. Besides the success of conducting such surveys, one aspect that PERSGA was particularly proud of is that the surveys were carried out by regional specialists. Furthermore, all the national specialists were very confident and showed interest in carrying out similar monitoring in their countries in the future.

The fourth step in the strategy is to prepare conservation plans. The National Status Reports developed from the surveys have provided PERSGA with useful information on the present status of the habitats and species within the region. Regional Reports have been developed (some only in draft form) and these will form the basis for the Regional Conservation Plans, which will be developed later this year.



The final step of course is implementing the conservation plans and this is usually the most difficult part for any conservation initiative. However, PERSGA took the crucial step of implementing the important elements of the conservation plan even before developing the plans. Several international agencies and potential donors appreciated this step. These elements include capacity building of regional specialists and national environmental institutes, and raising the level of public awareness.

### Regional Survey for Key Habitats and Key Species

#### Regional Coral Reef Survey

A coral reef survey took place from April to June 2002 using regional team leaders and national specialists trained by PERSGA last year. The surveys started in Saudi Arabia, and took place in Egypt, Yemen, Djibouti, and Sudan. The three regional consultants visited PERSGA HQs in Jeddah to discuss the survey programme with the HBC LS and to conduct the survey on some of the offshore islands near Jeddah, Farasan Island and on the Al-Wajh Archipelago. In Djibouti three trainees and two specialists participated in the ReefCheck training and coral reef habitat surveys. Offshore islands and coastal areas were surveyed over a period of six days. In Sudan the ReefCheck programme was conducted during the period 25-31 May. Two regional consultants and two national specialists spent the whole period at sea and surveyed the five most sensitive sites - Sanganeb Atoll, Winget reef, Towartit reef, Suakin reef and Tala Tala Archipelago. In Yemen the coral reef survey focussed on the Yemeni Red Sea coast. A complementary ReefCheck survey was carried out in Socotra by the Environment Protection Authority. The result of this survey, the "Regional Coral Reef Status Report for the PERSGA Region" was published in the *World Coral Reef Status Report*. Copies of this report will be distributed to the region and the report was hosted at the website:

<http://www.aims.gov.au/pages/research/coral-bleaching/scr2002/scr-00.html>

#### Regional Survey for Breeding Seabirds

The importance of the Red Sea and the Gulf of Aden region for seabirds is undeniable as several endemic species survive here including the White-eyed gull *Larus leucophthalmus*, Red-billed tropicbird *Phaeton aethereus indicus*, Spoonbill *Platalea leucorodia archeri* and Brown noddy *Anous stolidus plumbeigularis*. A further group is endemic to the north west Indian Ocean area, and important sub-populations of many of these breed in the RSGA region such as Jouanin's Petrel *Bulweria fallax*, Sooty gull *Larus hemprichii*, Swift tern *Sterna bergii velox*, White-cheeked tern *Sterna repressa* and the Socotra Cormorant *Phalacrocorax nigrogularis*. However, the status of these populations and other seabirds breeding in this region were not known and the majority of information currently available is from results of short surveys carried out one to three decades ago.

A standard survey methodology was developed by PERSGA to estimate regional population sizes and evaluate the importance of sites, in order to produce a conservation action plan for the seabirds in the region. Training of national seabird specialists built the capacity of local experts in seabird identification and developed a network among the seabird specialists in the region. The training was conducted in the Farasan Islands protected area, Saudi Arabia, between 1-9 June 2002. The course was organized with the Training Center for Natural Resources Conservation at the National Commission for Wildlife Conservation and Development (NCWCD), Saudi Arabia.



At this course ten regional trainees were coached. PERSGA then sponsored regional specialists to conduct surveys and to train more national specialists in seabird monitoring. These surveys were conducted in June and July 2002. During these surveys the White-cheeked terns were recorded breeding in Djibouti for the first time and with high numbers in Sudan and Yemen. However, the Bridled, White-cheeked, and Lesser-crested terns were the most common terns in the region. Additionally the breeding colonies of the Swift terns were probably smaller than expected. Other species like the Masked boobies were found breeding around the southern Red Sea, whereas the Brown boobies were breeding on most islands of the Red Sea and all year round. From these surveys a set of national inventories were developed which include the current status and threats to the seabird populations. Additionally, these reports were compiled into a regional inventory that gives an estimate of the population sizes of the different seabirds species and presents recommendations for conserving the breeding seabird populations in the region.

#### Regional Survey for Mangrove

Regional mangrove surveys were conducted in Sudan, Djibouti, and Yemen in June and July 2002 in order to develop a regional report on the status of mangrove habitats in the RSGA region. One regional consultant was hired to conduct the surveys in Sudan, Djibouti, and Yemen. He was assisted by six national specialists who were trained earlier in March on the SSM for inter-tidal and mangrove habitats.

#### Regional Survey for Marine Turtles

Marine turtle surveys were conducted in two countries in 2002, Saudi Arabia and Yemen, in October and November respectively. Surveys for other countries will take place in 2003 due to the seasonal breeding time of the turtles. The results will form the basis of the Regional Conservation Plan for Marine Turtles in the RSGA region. Two national consultants were hired to conduct these surveys in their countries; three national specialists, trained at the regional training course on the SSM for Marine Turtles in December 2000, are assisting each consultant.

In Saudi Arabia the survey was carried out in close coordination with the National Commission for Wildlife Conservation and Development (NCWCD) in Riyadh. The survey covered the nesting beaches at Ras Baridi, Ras Alaquje and Farasan Island on the Red Sea coast during the period 27 September to 14 November 2002.

In Yemen, the survey was carried out with the Environmental Protection Authority (EPA). The survey was conducted on Ithmoon-Ras Sharma and Bir Ali –Belhaf beaches. Fieldwork was undertaken on the nesting beaches to count nesting females, pits, eggs, and dead turtles. During the surveys in these two countries, on-the-job-training was held for team members, particularly in use of the SSM for measuring morphometric data and the tagging process for marine turtles. In Yemen, volunteers from several NGOs and schools were encouraged to take part in the training programme and participate in the beach surveys.

The surveys confirmed that two species of marine turtles breed in the region, the Green Turtle (*Chelonia mydas*) and the Hawksbill (*Eretmochelys imbricata*). More than 66 female green turtles were tagged this year and for the first time the PERSGA turtle tags were used in the region.



## Future Activities

### [The First Meeting of Governors of Coastal Cities on the Red Sea and Gulf of Aden](#)

It is well known that the countries of the region are developing countries which need developmental projects to raise the standard of living of their inhabitants and to alleviate poverty. A number of coastal states in the region have made progress in this respect. However, in some cases these developmental programmes did not take into consideration environmental aspects either in their planning or implementation phases.

For this reason PERSGA will organise, in Jeddah, the first meeting for governors of coastal cities on the Red Sea and Gulf of Aden during the period 1-3 March 2003. The objectives of the meeting include:

- 👉 recognizing environmental problems in coastal areas in PERSGA countries,
- 👉 recognizing the needs of coastal governorates in the field of marine and coastal environmental protection,
- 👉 recognizing the needs of the coastal governorates in training,
- 👉 recognizing the capacity of coastal governorates in environmental monitoring,
- 👉 informing the governors about PERSGA and its activities,
- 👉 activating the role of governors in the protection of the environment and its natural resources,
- 👉 suggesting appropriate ways of developing cooperation between PERSGA, coastal governorates and the central government institutions responsible for environmental affairs in the field of environmental management, and
- 👉 developing regional cooperation in the field of ICZM.

### [Announcement](#)

#### [Sixth Task Force Meeting](#)

The sixth meeting of the Strategic Action Programme Task Force is scheduled to take place in Jeddah from 28-30 April 2003. Representatives from the PERSGA countries, the SAP Implementing Agencies and other invited guests will attend.

### [Workshop on Marine Accidents and Investigations](#)

Recent maritime incidents in different part of the world that have made headline news – the Limburg and Prestige are mentioned in this issue.

A Navigation Working Group (NWG) Workshop has been arranged for maritime experts from the region and will be held in Port Sudan from 2-6 March 2003. The main subject to be presented is "Marine Accident and Incident Investigation" though progress with other elements of SAP Component 2 such as Routing Measures, Traffic Monitoring, the Action Plan for Regional Contingency Planning and Port State Control will also be presented and discussed.

With the kind support of the International Maritime Organization (IMO), PERSGA has arranged for an IMO expert to lead lectures and discussions at this Workshop. He is the former head of the UK's Marine Accident and Investigation Branch (MAIB), John Lang.

The subjects to be covered during the Workshop are:

- 📁 An introduction to maritime accident investigation
- 📁 International legislation and the IMO Code
- 📁 Collecting the evidence - technical, documentary, historical, personal and voyage data recorders
- 📁 Interview techniques
- 📁 Accident types and case studies
- 📁 Analysis of evidence
- 📁 Human factors in the marine environment
- 📁 Writing the report

Miscellaneous activities, follow-up actions, dealing with the media and victim's families, international cooperation and response etc., will also be covered. The IMO Model Course and other support materials on the subject will be provided to those taking part.

This Workshop offers marine experts from the region the opportunity to improve their abilities to deal with any incidents that may take place in our region and is therefore a very relevant contribution by the Strategic Action Programme to the improvement of regional maritime capacity.

### Useful Links

<http://www.alreem.com/index/index.asp>

[http://www.icriforum.org/secretariat/sec\\_home.html](http://www.icriforum.org/secretariat/sec_home.html)

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<http://www.biodiv.org>

<http://www.reefcheck.org>

<http://www1.unep.org/marine-mammals/>

<http://www.ecopath.org>



## Hydrocarbons on Beaches

A paper on straight-chain, saturated hydrocarbons in the surface sediments of Yemen's Red Sea coasts has recently been published in the Faculty of Science Bulletin, Sana'a University, 15 (2002) 59-65. The abstract is given below.

N-Alkanes Distributions in Surface Sediments from the Red Sea Coast of Yemen  
M. Abubakr, N. Al-Shwafi, H. Heba and A. DouAbul (Department of Earth and Environmental Science, Faculty of Science, Sana'a University, Yemen)

This paper presents the N-alkanes distribution in recent sediments of the Red Sea coast of Yemen during 1995-1997. The results are the first of their kind for the region and should serve as baseline for future studies. The concentration of N-alkanes in sediment samples ranged from ND ngg<sup>-1</sup> to 1651 ngg<sup>-1</sup> dry weight, expressed as Kuwait crude oil equivalent. It is evident that all the sites are contaminated to some extent with N-alkanes.

N-alkanes generally constitute the major fraction of saturated hydrocarbons, and their distribution patterns are characterized by carbon-number ranges and predominance, depending on the nature of the source material and its microbial or geochemical alteration. In this respect it has been recognized that distributions exhibiting odd carbon-number predominance in the C15-C21 and C25-C31 ranges are characteristic of autochthonous and allochthonous natural inputs respectively, whereas slight even carbon-number predominance or smooth distribution in the C20-C30 range have been invoked for reduction or bacterial diagenetic processes. Finally, fossil (petroleum) N-alkanes are characterized by a low carbon preference distribution generally concurrent with an unresolved complex mixture of branched and cyclic saturated hydrocarbons.

## Accidental Death

Once again we witness the loss of intelligent, sensitive animals as a result of our fishing activities.

Drowned in a net, unable to reach the surface to breathe, this unfortunate dolphin died so we can eat our fish.

One way to reduce this inadvertent killing is to help the shark fishery change from gill net fishing to long-line fishing. PERSGA is running a pilot project in the Gulf of Aden region to facilitate this change of behaviour.



## Coral reefs of Djibouti: wealth that needs to be preserved

Prepared by Nasser Djama Abdi and previously printed in full in the Djiboutian national newspaper "La Nation".

PERSGA member countries undertook regional coral reefs surveys in 2002. These studies followed two regional training courses held in Egypt and Jordan. The course taught a standard scientific survey methodology called ReefCheck that was subsequently used to assess the coral reef habitats.



In Djibouti, the survey was carried out in May. Six locations were investigated by the team over a period of one week. The sites where corals were degraded were those with highest visitor pressure (e.g. Moucha and Maskali islands, Khor Ambado). The causes of coral reef degradation are anchor damage, coral collection, trampling, spearfishing, marine pollution and lost fishing nets. Boat owners throw their anchors onto corals destroying several square metres each time, provoking the migration of associated fauna elsewhere. A lot of coral rubble was seen at Khor Ambado, Arta Plages as well as at Maskali. The sites with the lowest hard coral cover were those most visited by tourists.

The tourism industry depends heavily on the good health of coral reefs and generates billions of dollars of revenue worldwide. Some countries in the region have already benefited, such as in Egypt, from the marine protected area at Ras Mohamed.

Tourism in Djibouti does not generate much revenue yet, but it is being developed by tourist operators. It is advisable, in the framework of sustainable development, to promote ecotourism instead of mass tourism which is more destructive to the marine environment.

The conservation of corals is also important for the preservation of world climate. Corals consume carbon dioxide, the greenhouse gas primarily responsible for climate change, in the same way as terrestrial tropical forests. This is a global environmental problem which has prompted the adoption of the Kyoto Protocol which is intended to reduce gas emissions. The economic development of industrial countries, and those that imitate them, is currently leading our planet along a dangerous and unsustainable path.

### Is this Killing necessary

The discovery of a dead dugong washed onto the Haramous shore (Djibouti City) was made by a passer-by. This two-metre long marine mammal was drowned in a fisherman's net, and then tossed back into the sea. It belongs to an endangered species and is protected by national and international laws. Are we doing enough to protect these gentle creatures?



### A Third Mangrove Species for Moucha Island, Republic of Djibouti

The island of Moucha was declared a marine protected area in 1988. It is located at the entrance to the Gulf of Tadjourah. The island is composed of a raised fossil reef around an extensive reef flat. It is known to contain diverse marine habitats such as coral reefs, and a mangrove forest. In the southern part of the Red Sea the continental shelf is wider and the sediment supply is important, resulting in extensive stands of mangrove forests. The most common mangrove species occurring along the coasts are *Avicennia marina* and *Rhizophora mucronata*, the latter being the tallest in the area.

#### A new mangrove species found!

The island has been surveyed many times in recent years by IUCN and PERSGA. However these surveys were limited in time and space and some areas of the island were not covered. The only mangroves species encountered during those surveys were *Avicennia marina*, the most common and dominant species, and *Rhizophora mucronata*. During a field survey undertaken in March 2001 a third mangrove species was found, and its identification later confirmed as *Ceriops tagal*. Previously this species was only known to occur in northern mangrove stands (e.g. Godoria and Khor Angar) making this the first record from the southern part of the country.

The discovery of *Ceriops tagal* in Moucha island should be an additional reason for protecting the natural marine habitats and promoting eco-tourism. This is the challenge facing the national institutions concerned with the protection of the environment and the management of marine protected areas.

## International News

### More Oil Pollution - -the PRESTIGE

The 1976-built tanker 'Prestige' sailed from Riga in Latvia with a cargo of 77,000 metric tonnes of fuel oil en route for Singapore. Trouble started when she was off the Galician coast of northern Spain. In heavy seas, with eight metre waves, the single-hulled tanker sustained damage on the starboard side and started listing badly. Once the list exceeded 25%, the engines automatically stopped. The tanker drifted within 3 miles of the scenic Spanish coastline.

The captain stabilised the ship by pumping water into ballast tanks but this resulted in severe stress being placed on the structure. As no port would offer refuge to the vessel, which had leaked some 4000 mt of fuel, it was towed out to sea as fears mounted that it would break up and spill its entire cargo, polluting the sea and endangering the livelihood of the local fishing communities. However the constant battering of stormy seas meant that attempts to make a ship-to-ship transfer of the cargo, worth \$6 million, failed.

Approximately 133 miles off the coast of Spain the ship broke up and sank. Hopes were that the fuel oil would solidify due to the cold water temperatures and would remain in the wreck. However, recent reports indicate a slow but persistent stream of oil escaping from the ruptured tanks.

This incident has led to renewed calls for the banning of old single-hulled super-tankers due to the obvious threats that they pose to the environment.



ITOPF

### Shark Trust Calls for Global ban on Shark Finning

A recent report shows declines of up to 90% in the catch rate for certain shark species, such as the Hammerhead and White Shark in the north-west Atlantic. These statistics are unfortunately mirrored in the north east Atlantic as well.

IUCN Shark Specialist Group said "This report confirms our long-held fears: that overfishing is not only driving large coastal sharks towards extinction, but also depleting oceanic shark stocks; vital species for maintaining the stability of marine ecosystems."

The impact of overfishing on shark populations is exacerbated by their reproductive strategy. Sharks can take many years to reach sexual maturity; have long gestation periods; and give birth to few young. The natural rate of increase of a shark population is just 1-4% per year, in comparison to the 30-40% increase displayed by bony fish.

It is clear that shark numbers are decreasing at an alarming rate, and on a global scale. If we are to halt this dramatic decline, action must be taken on a global scale. The Shark Trust is campaigning for a global ban on shark finning and asks you to support this campaign by signing an online petition found at [www.sharktrust.org](http://www.sharktrust.org).



### WORLD WATER DAY 2003 ( 22 March )

The goal for World Water Day 2003 is to inspire worldwide political and community action and encourage greater global understanding of the need for more responsible water use and conservation.

The theme for this year's event is "Water for the Future", calling on one and all to observe sustainable approaches to water use for the benefit of future generations.

United Nations Environment Programme (UNEP), the lead UN agency for World Water Day 2003, aims to work with governments and key partners worldwide to plan events that achieve this end. UNEP has dedicated the 22 March 2003 for activities related to the conservation and development of water resources.

It is notable that World Water day, this year, coincides with celebrations marking 2003 as the International Year of Fresh Water.

## Maui Bans Displays of Captive Cetaceans

The County Council of Maui recently made the Hawaiian county the seventeenth city or county in the United States to ban displays of captive cetaceans.

"The Council finds that cetaceans (dolphins and whales) are highly intelligent - and highly sensitive - marine mammals," the legislation prohibiting the displays states. "The Council further finds the presence of cetaceans in the Pacific Ocean surrounding Maui County provides many cultural, spiritual, and economic benefits to the County's residents. The Council also finds that the exhibition of captive cetaceans leads to their distress due to the living conditions for these animals. Therefore, the purpose of this law is to prohibit the exhibition of captive cetaceans (dolphins and whales)."

Violators are subject to imprisonment for not more than one year and fines of as much as \$1,000. Hundreds of letters and a petition signed by more than 15,000 individuals calling for the ban had been received by the members of the Council.

"Maui will now be recognized as a place where whales and dolphins will all live free and in the wild," said Council member Alan Arakawa. "This decision proves we can do what is right."

## Events Calendar

Name of Environmental Event	Venue	Date
22nd Session of the Governing Council/Global Ministerial Environmental Forum	Nairobi, Kenya	3-7 Feb 2003
3rd R&D Forum on High Density Oil Spill Response	Brest, France	11-13 March 2003
3rd World Water Forum- Ministerial Conference	Berlin, Germany	16-23 March 2003
1st International Symposium for the Egyptian Society for Bio-technology and Environmental Science	Cairo, Egypt	17-18 March 2003
World Water Day 2003	Global	22 March 2003
RC/GCRMN Workshop on Coral Reef Monitoring	Cebu & Bohol, Philippines	28-30 March 2003
Marine Aquarium Trade Coral Reef Monitoring Protocol Workshop	Cebu & Bohol, Philippines	31 March - April 2 2003
Diplomatic Conference to adopt a Protocol to the 1992 Fund Convention (IMO)	London, England	12-16 May 2003