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# **ZSD**

# **NEWSLETTER**

**A QUARTERLY PUBLICATION  
OF ZOOLOGICAL SURVEY  
DEPARTMENT  
MINISTRY OF ENVIRONMENT,  
GOVT. OF PAKISTAN**

## **Editorial Committee**

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## **MINISTER CHAIRED BRIEFING ON NATURAL RESOURCE DAMAGE ASSESSMENT STUDY**

A briefing on Natural Resource Damage Assessment study was held in the office of Environment Protection Agency, Sindh, on 16<sup>th</sup> February 2004. The said briefing was chaired by Minister of Environment, Major (R) Tahir Iqbal and was attended by concerned government and non government organization. Mr. Hamid Iqbal Javed, Director and Mr. Abrarul Hasan, Marine Zoologist of Zoological Survey Department attended a briefing. Damage to Natural Resource caused by Tasman Spirit Oil Spill was discussed by Dr. Niaz Rizvi (NIO), Mr. Tahir Qureshi (IUCN), Mr. Abrarul Hasan (ZSD), Mr. Waheed Ahmad (SFD), Mr. Adnan Hamid Khan (SWD) and Ms. Ghazala Rubab Aftab (DHA). Mr. Tahir Qureshi of IUCN, pointed out that due to oil spill, mangrove seedlings were failed to propagate and sapling could not sprout any more in the oil spill affected areas. This caused a huge loss to the local communities. Mr. Abrarul Hasan of ZSD, highlighted the salient points of his observations regarding birds and mammals in the affected area. He was of the view that oil spill has

drastically change the ecology of the area. He further added that birds and mammals have almost left the area due to this disaster. Mr. Adnan of SWD, discussed the presence of hydrocarbons in the blood samples of marine turtles. Lastly, Ms. Ghazala Aftab of DHA, discussed the Socio-economic Impact of the disaster on the

concerned communities. She was of the view that oil spill have affected the health of the communities, especially respiratory and nervous system of the people of the area. She highlighted increase of poverty level among the communities of the area due to this disaster.

## *Aly taken over as Secretary Environment*

*Mr. Javed Hasan Aly taken over as Secretary Environment. He was Secretary Establishment before joining as Secretary Environment.*

## **SALLY WALKER VISITED ZOOLOGICAL SURVEY DEPARTMENT**

Sally Walker, from, the Zoo Outreach Organization, India visited the Zoological Survey Department on 28<sup>th</sup> February, 2004. She met with Mr. Hamid Iqbal Javed Director Zoological Survey Department, and discussed the idea of organizing a CAMP (Conservation Assessment

Management Planning) workshop on Freshwater Fishes and a training course on small mammal field techniques. This is a continuation of CAMP workshop on mammals which was held in Islamabad in August 2003, with the collaboration of Zoological Survey Department,

IUCN-Pakistan and Zoo Outreach Organisation. Last year, in Islamabad, at mammal CAMP, workshop this point came to light that there was no current organised study on small mammals in Pakistan especially on *Chiroptera* (Bats). Mostly we have had scientists from outside the country to come and conduct studies in past but not for a long time. Small mammals comprise nearly 50% of mammals of Pakistan and their role in ecosystem is very important. Bats disburse seeds and pollen and also kill insects which are harmful to fruit crops and rodents besides disbursal of seed serve as prey for many species of large mammals, reptiles and birds.

It was decided that Sally will arrange two resource persons of significant standing e.g. Dr. Paul Racey, chair of the IUCN SSC, Bat Specialist Group Re-introduction Specialist Group for Europe & North Asians, both of whom have conducted training workshop for South Asians in India.

The purposed plan is to conduct two three days workshops in two cities, Karachi and Islamabad, in the last week of September or 1<sup>st</sup> week of October in collaboration with Zoological Survey Department, Karachi, Karachi Zoo and IUCN-Pakistan.

## *STUDY ON STATUS OF CROCODILE COMPLETED*

Zoological Survey Department has undertaken a detail study on the status of Marsh Crocodile in Pakistan from September, 2001 to January, 2004. Zoological Survey Department is involved on study of Reptiles in Pakistan since last twenty years and has good expertise in this field. There are three species of crocodile in sub continent and out of these three species two (Marsh Crocodile and Gavial) are reported in Pakistan. At the advent of twentieth century both these species were plentiful in area which are now included in Pakistan. In the second half of twentieth century the establishment of irrigation system

compelled the Government to construct dams and barrages on rivers and diversion of water to different channels for irrigation purpose. This fragmented the habitat of this important species. This factor led towards drastic decrease in population of both the species in Pakistan. India in 1974 timely responded to control the situation and conducted survey to collect baseline data of three species. Afterward India requested FAO/UNDP for help and FAO deputed H.R. Bustard to help out Indian in this regard. Mr. Bustard suggested captive breeding of crocodile and Government of India

directed all its crocodilian states inhabiting crocodile to submit proposals for captive breeding of crocodiles. This initiative worked very well and the species have been saved and have been also exploited commercially for skin trade.

But unfortunately no serious effort has been made to assess the status of crocodile in Pakistan. Few scattered information are available regarding presence of Marsh Crocodile and Gavial in Pakistan. Most of these information are provided by foreigners. This is probably the first time that a detail study has been conducted to assess the status of crocodile in Pakistan. During present study it was tried to assess the status of crocodile by visiting all potential habitat. Gavial was not recorded neither it was reported by local population or wildlife staff. It is feared that Gavial has been exterminated from wild. Marsh crocodile is distributed in Sindh and Balochistan but its population in Punjab has not been recorded. Previous report by Minton (1966) confirms its presence up to Bahawalpur. Present survey shows its distribution at Chotiari Reservoir, Nara Canal, Deh Aukro, Haleji and Mangopir in Sindh and Hab River, Hingol River, Nari River and Dasht River in Balochistan.

The common threats observed during the survey are fragmentation of habitat, long drought spell,

animosity, lack of awareness and hunting for hide. Currently there is very little monitoring, management or conservation efforts and studies on crocodile within Pakistan and there is an urgent need to revive it. It is also vitally important to implement a feasibility study for farming and ranching.



Crocodile conservation became necessary because crocodile plays a vital role as a master predator in the aquatic habitat where it lives. By preying on weak and diseased fish and animals, it maintain genetic quality. By its habit of selective feeding, it controls predatory fish. Its presence thus actually helps to yields of edible fish for man.

Conservation of crocodile in Pakistan through sustainable use is seen as the strategy that could save the only existing species in the long run. Crocodile farming has done wonders for the crocodilians in many developing countries and Pakistan is lagging behind.

## MARINE BIOLOGIST ATTENDED THE COURSE ON CZM.

Mrs. Fahmida Iffat, Marine Biologist, of Zoological Survey Department, attended a training course on "Coastal Zone Management" from 16<sup>th</sup> February, to 19<sup>th</sup> February 2004, organized jointly by the Centre of Excellence in Marine Biology, University of Karachi, British council and Scottish Association of Marine Sciences.

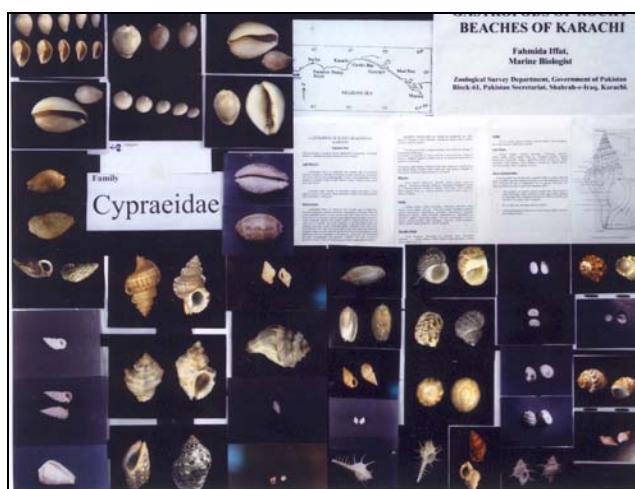
The course covered the following aspects.

- The need for Coastal Zone management.

- Marine pollution issues and policies.
- Mangrove environment and constraints.
- Marine resources.
- Geology and Morphology of Pakistan Coast.
- Protection of Coastal and Marine Environment.

### Poster session

The course followed by a two days (20<sup>th</sup> and 21<sup>st</sup> February, 2004) seminar and poster session on Marine Environment.



Marine Biologist, Ms. Fahmida Iffat, participated in the seminar and displayed a poster on "Gastropods of rocky beaches of Karachi". Coloured photographs of more than 40 species of gastropods collected from Manor, Bulleji, Paradise point, Pacha beach and Cape Monze were displayed alongwith their scientific names and brief description of

characters and habitat. The poster earned great appreciation from all the participants.

On conclusion of the above programme, a certificate was awarded to Mrs. Fahmida Iffat for obtaining training in "Coastal Zone Management".

# National Park

Hamid Iqbal Javed

The legal status and definition of National Park is as under:

1. With a view to the protection and preservation of flora and fauna in natural states, Government may, by notification in the official gazette, declare any area which is property of Government or over which Government has proprietary rights to be a National Park and may demarcate it in such a manner as may be prescribed.
2. A National Park shall be accessible to the public for recreation, education and research subject to such restrictions as Government may impose.
3. Provision for access roads to and construction of rest houses, hostels and other buildings in the National Park along with amenities for public may be so made and the forest there in shall be so managed and forest produce obtained as not to impair the object of establishment of the National Park.
4. The following acts shall be prohibited in a National Park.
  - i. hunting, shooting, trapping, killing or capturing of any wild

- ii. animal in a National Park or within one and a half mile (2.4 km) radius of its boundary;
- ii. firing any firearm or doing any other act which may disturb any animal and bird or doing any act which interferes with the breeding places;
- iii. felling trapping, burning or in any way damaging or destroying, taking, collecting or removing any plant or tree there from;
- iv. clearing or breaking up any land for cultivation, mining or for any other purpose;
- v. polluting water flowing in and through the National Park.

Provided that the Government may for specific purpose, as are deemed expedient, authorized the doing of a fore-mentioned prohibited acts.

There are 225 protected areas in Pakistan. Under current provincial and territorial legislation, the total protected areas in Pakistan are spread over 9170121 hectares (10.40%) of land of Pakistan, out of it about 3.42% goes to sixteen National Parks of Pakistan.

List of 16 National Parks in Pakistan is as under:

<u>S.No</u>	<u>Name</u>	<u>Province/territory</u>	<u>Year of Establishment</u>
1.	Lal Suhanhra	Punjab	1972
2.	Kirthar	Sindh	1974
3.	Kunjrab	Northern Areas	1975
4.	Murgalla Hill	Federal Capital	1980
5.	Chiltan Hazar Gunji	Balochistan	1980
6.	Ayubia	NWFP	1984
7.	Chitral Gol	NWFP	1984
8.	Chingi	Punjab	1987
9.	Shiek Bodin	NWFP	1993
10.	Hindrap	Northern Areas	1993
11.	Deosai	Northern Areas	1993
12.	Central Karakrum	Northern Areas	1995
13.	Machiara	AJK	1996
14.	Hingol	Balochistan	1997
15.	Saif-ul-Muluk	NWFP	2003
16.	Lulusir	NWFP	2003

The loss of biodiversity on the global level has compelled the world including Pakistan to adopt convention on Biodiversity and to follow its article 8 to develop a system of protected areas and guidelines for the selection, establishment and management of protected areas.

World Park Congress which was held in Durban in September 2003 was a significant event to highlight

the importance of protected areas and there proper management for the betterment of mankind on the planet. 154 countries, including Pakistan, participated in the congress and a resolution was adopted unanimously by all the participants.

We bear witness to those places most inspiration and spiritual, most critical to the survival of species and ecosystems, most crucial in safeguarding food, air and water, most essential in stabilizing climate, most unique in cultural and natural heritage and therefore more deserving for human kind's special care. We urge action for the benefit of protected areas so that these benefits may be conserved and equitably shared. We see protected areas as providers of benefits beyond boundaries-beyond their boundaries on a map, beyond the boundaries of nation/state, across societies, gender and generation", (Durban Accord).

Protected areas play on important role to keep the ecosystem intact and healthy and provide services of worth billions of dollar without any substantial investment.

**To be continue**

## RETIREMENT

Mr. Javed Zafar, Secretary, Ministry of Environment, retired from Government Service on 11<sup>th</sup> March, 2004. He remained as Secretary,

Ministry of Environment for about three years. He was a competent officer and thorough gentleman. He was very keen for the uplift of the

different organs of the Ministry. He played a vital role in the revival of Zoological Survey Department and provided all out help when and wherever needed. Under his able guidance department started different initiatives e.g. initiation of demarcation of 583 acres land at Banigalla, Islamabad for the

establishment of Zoo-cum-Botanical Garden, launching of development project Coastal Area/Dryland Biodiversity and Survey Management and secured funds for different activities. Zoological Survey Staff pray for his success and happy life in future.

## RESPONSIBILITY

Mr. Mehrban Ali Arbab Ali Brohi, has joined as a Wildlife Preservation Officer on 11<sup>th</sup> March, 2004 in Zoological Survey Department. He did his masters in Zoology from University of Sindh Jamshoro, in 1998. He performed well



throughout his academic career and secured 1<sup>st</sup> class in M.Sc. His special area of interest during his M.Sc. was Vertebrate Zoology and he is intended to continue his work in the field of Mammalogy. Ali will prove to be an asset for the organization and this young talent will render all his efforts for the betterment of the department.

## ACHIEVEMENT

Ch. Muhammad Shafique, Research Assistant, has recently been awarded Ph.D in Wildlife Ecology and Conservation from University of Karachi. He emphasized the bio-ecology of “Bio-ecology of Ayubia National Park, NWFP, Pakistan with special reference to the Status & Ecology of Flying Squirrels (Mammals) of Moist-temperate Western Himalayan Region” under the supervision of Prof. Dr. Sohail Barkati, of Department of Zoology, University of Karachi. He gave the complete description of fauna and flora of



Ayubia National Park including various ecological and environmental aspects of the study site. He studied the current status, feeding habits, limiting factors, calling, nesting habits, gliding, breeding etc of flying squirrels in the park. Special emphasis was laid on the cavity tree selection and competitors of Red Himalayan Giant Flying Squirrels *Pelaurista albiventer* and Small Kashmir Flying Squirrel *Hylopetes (Ecoglancomys) fimbriants* declared as threatened by IUCN. This is the first ecological study on flying squirrels distributed in south-western Asia.