

ZSD NEWSLETTER

ZOOLOGICAL SURVEY DEPARTMENT
MINISTRY OF ENVIRONMENT
GOVERNMENT OF PAKISTAN

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Words From Director



Visit of Secretary to MBRL

Secretary, Ministry of Environment visited Marine Biological Research Laboratory and Natural History Museum of ZSD in April 2007. This was his first visit to any organization of ZSD since he took over as Secretary MoE. Honorable Secretary was very keen to see the department to play its role actively and effectively. He directed to develop clear objective oriented strategy to increase effectiveness of MBRL. He further emphasized to upgrade the Museum. In compliance with the directions of Secretary, MoE, the electricity has been restored and an amount of Rs. two hundred and fifty thousands has been released to Pak PWD for renovation of the NHM at West Wharf Karachi. All these are short term measures and there is long way to go to elevate the department to its true status. The construction of proper building for Museum and MBRL is the need of hour.

Moreover, the organizational setup of the department also needs strengthening to meet the current and future challenges in the field of biodiversity. Keeping in view the long term strategy, the department has developed a proposal for strengthening of ZSD which has been submitted to Ministry. Beside that two other projects i.e. *Construction of Residential Accommodation for ZSD Staff* near to office building at Banni Gala, Islamabad and *Faunal Biodiversity of Irrigated Forests, Rangelands and Deserts of Punjab and Sindh*, have also been submitted for funding through PSDP. The first project will provide base camp to undertake activities of proposed Zoo-Cum-Botanical Garden Isb and the second will expand the departmental activities to the southern Punjab and Sindh. The support of the Ministry is highly required for strengthening and better working of department on long term basis.

Mian Muhammad Jamil, Secretary, Ministry of Environment, visited Marine Biological Research Laboratory (MBRL) Karachi of ZSD on 4th April 2007. Mr. Abrar-ul-Hasan, Officer-In-Charge, briefed about the aims and objectives of MBRL. He also elaborated the procedures being adopted to cater the research in different areas concerning the Marine Fauna, especially on Cetaceans and Coastal Birds.



Briefing to Secretary by Officer-In-charge MBRL

Mr. Abrar-ul-Hasan also apprised the secretary about facts and figures indicating the decline in population

of Green Turtle (*Chelonia mydas*) coming to the Sindh coast since last two decades. The Honorable Secretary appreciated the level of information available with ZSD about faunistic status of Pakistan and desired that the activities of MBRL be more object oriented.

Secretary Visited Natural History Museum

Mian Muhammad Jamil, Secretary, Ministry of Environment, visited Natural History Museum of ZSD on 4th April 2007 at West Wharf Karachi. Syed Iftikhar Ahmad, Museum Incharge, highlighted the role of the museum for researchers, teachers and students. He also explained the difficulties faced by the museum staff.



Secretary on round of NHM

The Honourable Secretary took keen interest in the collections and appreciated the hard working and commitment of the staff, despite the hurdles faced by them. He also affirmed that he would like to solve the problems faced by Museum on priority basis.



Museum incharge briefing Secretary

World Environment Day

The United Nations General Assembly marked 5th June as “World Environment Day” in 1972. Each year, this day is celebrated to highlight the burning Environmental Issues to educate and raise the awareness among the masses regarding importance of the environment in sustainability of their lives. “Melting Ice - A Hot Topic!” was the theme of current World Environment Day. Pakistan is also facing serious threat of melting ice, as it contains three major glaciers outside the Poles, along with K-2, the second highest mountain peak in the world. This rapid increase in ice melting leads to escape of methane from defrosting of permafrost. This methane is also contributing badly in the increase of temperature and creates green house effect. Pakistan is an agricultural country and depends mostly on rivers originating from glaciers foothills. If this rapid rate of melting of ice continues, there will be no more water for agriculture in near future. The department has major concerns about such environmental changes and habitat changes which ultimately lead to the extinction of the valuable animal species. Experts highlighted the effects of melting ice on the environment in general and on the lives of people in particular. Minister for Environment and Secretary MoE stressed the need for taking appropriate measures to halt this process for the betterment of environment and the biodiversity of the area.

IG (Forest) Visited Project Site

Zoo-Cum- Botanical Garden is one of the major developmental projects being carried out by ZSD. Dr. Bashir Ahmad Wani (IG forest) visited Zoo-Cum-Botanical Garden on April 2007 to inspect the office building of the ZSD. He was briefed about the current status of office building construction. The Director ZSD discussed the proposal of construction of residential accommodations for the staff of ZSD to properly take care of the development activities in this area. He agreed with the proposal and directed to submit PC1 for approval to PSDP. Mr. Wani was satisfied with the current work flow and gave instructions for further improvements.

Survey of Deva and Vatala Game Reserve

A comprehensive survey of any Protected Area is necessary for its proper management and sustainable development. In 2006, the Government of A J & K declared three new National Parks. A team of ZSD scientists consisting of Mr. Mirza Muhammad Azam (Zoologist), Mr. Rashad Hussain (Zoologist), Mr. Mehrban Ali Brohi (Wildlife Preservation Officer) and Mr. Waqas Ahmed (Carcinologist) has undertaken the survey of Deva and Vitala Game Reserve, A J & K under ongoing developmental project “Coastal Area / Dryland Biodiversity and Survey Management.”

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Rainfall Rehabilitates Ramsar Site

Pakistan is the signatory of Ramsar Convention and has declared 19 Ramsar sites for migratory birds. Nurri Wetland is located in district Badin (Sindh) and is one of the important Ramsar sites in Pakistan. ZSD has been continuously conducting surveys to evaluate the status of different Ramsar sites of the country. Due to long drought spell from the late twentieth century to the beginning of twenty first century, Nurri Wetland lost its potential to harbor migratory birds. During 2003 census, only 27 species of birds were identified with very low counts, while the census conducted during 2005 and 2006 revealed that the number of species rise to 64 with a community of 100,000 birds. This change in population is due to high rainfall in Badin area during last two years, which has rehabilitated this Ramsar site.

Base Line Study of Pir Lasura National Park

Pir Lasura National Park is the 3rd largest national park of the AJ&K, declared recently for protection and conservation of native fauna and flora, covering the total area of 1,080 hec. In the follow up survey conducted on Pir Lasura National Park, a survey team of ZSD, consisting of Mr. Mirza Muhammad Azam (Zoologist), Mr. Rashad Hussain (Zoologist), Mr. Mehrban Ali Brohi (Wildlife Preservation Officer) and Mr. Waqas Ahmed (Carcinologist),

visited Pir Lasura National Park AJ&K in April 2007. The large population of Rhesus monkey (*Macaca mulatta*) was observed during the survey, while squirrels and red fox (*Vulpes vulpes*) were also recorded. This survey will provide a baseline information about the Park and will be helpful for the management of different species.



A view of Rhesus monkey at PLNP

Record of Balochistan Pygmy Jerboa

Zoological Survey Department along with the team of Habitat and Species Conservation Project Quetta, recorded the Balochistan Pygmy Jerboa (*Salpingotus michaelis*) for the second time during faunistic survey of Chagai in May 2007. Pygmy Jerboa is an endemic rodent. Anderson recorded the Pygmy Jerboa for the first time in May 1965. Mr. Shamim Fakhri of ZSD, Karachi collected the specimen for ZSD Museum.



Pygmy Jerboa in Chagai

Survey of Indus Delta

Indus delta is the fifth largest mangrove forest system of the world on Sindh Coastline. The diversified habitat of delta includes, swamps, tidal mud flats, a network of creek channels and a large number of small to large islands which harbors a rich fauna and flora. ZSD has been conducting regular surveys in different areas of the Indus delta with regard to its ecological importance.

During April 2007, a team of the scientist from MBRL Karachi visited the coastal areas of Nurruri, Jhabo, Zero point and areas around Sujawal to study the coastal birds, reptiles, mammals and marine fishes. During survey, 43 species of coastal birds, 22 species of marine fishes, 7 species of reptiles and 6 species of rodents were recorded. Most of coastal birds species were residents, though some migratory species were also present. Migratory species i.e. Kentish Plover and Little Ringed Plover migrate to breeding grounds during March to May. However, some individuals do stay in coastal areas during summer. The baseline studies of the area by ZSD has been used by different agencies, working in the area.

Assessment of Ramsar Sites

Mr. Mehrban Ali Brohi of ZSD was the part of expedition team of Pakistan Wetland Programme to

survey the two important Ramsar sites i.e Chasma Barrage (Central Punjab), and Tanda Dam (NWFP), during May 2007. This survey was conducted to evaluate the biodiversity and its socioeconomic impact on the population using these wetlands. During the current survey, about 30 species of fishes belonging to 5 different orders of Teleostei were identified from Chasma Barrage. Results showed that Carp fishes (Family Cyprinidae) were dominant, followed by cat fishes (Family Bagridae) and channa fishes (Family Chanidae).

Mass Awareness Activities

A group of 60 students from Department of Zoology, University of Karachi, visited Natural History Museum of ZSD on 7th April 2007. Syed Iftikhar Ahmad, Museum Incharge, gave a briefing to the students about the importance of preserved collection. He also highlighted the importance of faunal diversity of Arabian Sea and pointed that out of eight only two species of marine turtles visit coastline. He also elaborated the economic importance of certain crustaceans including crabs and prawns. All these preserved specimens have been playing the momentous role for taxonomists to study different



Students of Karachi University

aspects of species. The students took keen interest in reptiles. They were briefed about the current status of reptiles and different possible threats to their population. The students and faculty members appreciated the effort of the museum staff for maintaining such a rare and valuable collection.

Another group of 35 students and staff of Auto and Diesel S. P. I. T. Gujrat, visited the Natural History Museum on 4th April 2007. The group visited the different galleries of the museum and excited on seeing the Marine Faunal diversity. They were especially attracted towards echinoderms like, star fish, sea urchin, molluscs especially their shells and marine snakes. The students were very excited to see the marine life of Pakistan, as they came from hundreds of miles far from coastline. The college staff appreciated the cooperation and the tiresome efforts of NHM staff for maintaining the museum.

World Earth Day Programme

Mrs. Fahmida Iffat of ZSD, attended a seminar on "Human Activities and Marine Environment" organized by Center of Excellence in Marine Biology (CEMB) University of Karachi, in connection with Earth Day on 22nd April 2007. The participants mentioned that Liyari river contributes 59% of effluents discharge to the sea. The Korangi Phitti Creek mangrove ecosystem, an important habitat for fisheries, is being degraded due to over fishing and the effluents discharge from tanneries.

Similarly, with the change of environmental scenarios, the temperature of Arabian Sea is increasing by 1.6% over the last 50 years and marine fauna is under stress, due to anthropogenic activities. It was proposed that to conserve the marine fauna, the effluents from tanneries and civics need to be properly processed before drain to rivers and the sea.

GEF Project Development Workshop

Mr. Rashad Hussain, Zoologist participated in Global Environment Facility (GEF) Project Development Workshop arranged by Ministry of Environment from 14th-16th May 2007. Dr. Pak Sum Low, Regional Advisor for Environment and Sustainable Development, briefed the participants about the aims and objectives of GEF, its organizational structure, focal points, funding mechanism and amounts, and regional preference. The participants were practically trained in developing the projects during different sessions.

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These game reserves are very rich with respect to faunal diversity and are located at the elevation of 1350 ft, covering area of 500 hec. Red Jungle Fowl (Gallus gallus murghi) was recorded in abundance. Some other wildlife biologists believe that Jungle Fowl has been extinct from Pakistan since last two decades. So the observation is of utmost importance. However, the study on population dynamic demands extensive survey, which will hopefully be the priority research area of ZSD.