

Nature and Natural Resources Conservation

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0303-164. Bhupathy S, Karunakaran R (Salim Ali Cent Ornithology Natural Hist, Anaikatti (PO), Coimbatore 641108, Tamil Nadu). **Conservation of olive ridley sea turtle *Lepidochelys olivacea* (Reptilia/Chelonia) along the Nagapattinam coast, southeast of India.** *Indian J Marine Sci*, **32**(2)(2003), 168-171 [15 Ref].

Nesting and mortality of *Lepidochelys olivacea* was studied in 50 km beach stretch along the Nagapattinam coast. This species emerged from sea for nesting during December and continued till April. The poor nesting (20 nests/km) in the area could be due to high adult mortality (12% females) due to incidental catch in the gill nets, and nest predation (>90%) by human. The Nagapatnam coast will not sustain the nesting population of *Lepidochelys olivacea* longer, if immediate conservation measures are not undertaken.

0303-165. Chandola S, Singh SK (Office Conservator Forests, Bhagirathi Circle, Muni-ki-Reti, Tehri Garhwal, Uttaranchal). **Status and scope of medicinal plants in Bhagirathi valley of Garhwal, Uttaranchal - conservation strategy.** *Indian Forester*, **129**(8)(2003), 950-963 [3 Ref].

The Bhagirathi valley is endowed with a rich wealth of medicinal and aromatic plants ranging from sub tropical to alpine species. This invaluable resource is, however, under serious threat from severe depletion due to grazing, pilferage, fire and social indiscretions in utilization. Eight mega centers for the conservation of medicinal plants have been suggested which need to be protected by establishment of MPCAs. This *insitu* intervention needs to be closely dovetailed with *ex-situ* cultivation and conservation along with eco tourism as a major part of the strategy.

0303-166. Chauhan NS (Dept Forest Products, Dr YS Parmar Univ Hort Forestry, Nauni-Solan, Himachal Pradesh). **Important medicinal and aromatic plants of Himachal Pradesh.** *Indian Forester*, **129**(8)(2003), 979-997 [35 Ref].

Himachal Pradesh, situated in the lap of the Western Himalayas, is considered a varitable emporium of medicinal and aromatic plants having diverse agro-climatic conditions. Out of around 3,500 species more than 1,000 species have been documented as medicinal and aromatic for the State. Paper suggests that the herbal resources of the State should be scientifically documented, commercial cultivation initiated compiled with value addition for ushering in economic prosperity to the people of this hill state.

0303-167. Kumar Dinesh, Singh Baldev (Dept Soil Water Engng, Punjab Agricul Univ Ludhiana 141004). **Reclaiming effect of coal fly ash from thermal power plants in sodic soils.** *Polln Res*, **22**(3)(2003), 403-410 [34 Ref].

An experiment was conducted in north-west India to explore the feasibility of using coal fly ash for reclamation of waterlogged sodic soils under paddy-wheat system. The initial pH, electrical conductivity, exchangeable sodium percentage and sodium adsorption ratio of the experimental soil were 9.07, 3.87 dS m⁻¹, 26.0 and 4.77, respectively. Application of fly ash up to 4.5 per cent level increased the straw and grain yield of paddy and wheat crops significantly in both years.

0303-168. Nagendra Harini, Utkarsh Ghate (Cent Ecol Sci, Indian Inst Sci, Bangalore). **Landscape ecological planning through a multi-scale characterization of pattern : studies in the Western Ghats, south India.** *Environ Monit Assess*, **87**(3)(2003), 215-233 [34 Ref].

Article analyzes landscape pattern in the Western Ghats mountain ranges in south-western India at two scales, comparing small-scale, detailed studies of landscape pattern, with broader, regional-scale assessments of the Western Ghats. Northern and eastern landscapes are more fragmented compared to the southern and western slopes. Western slopes also have greater landscape diversity with land cover types more interspersed compared to the eastern slopes. Results suggest a hierarchical stratified approach for monitoring land cover and biodiversity in the region.

0303-169. Pani S, Misra SM (Environ Res Lab, Environ Plang Co-ordination Org, Paryavaran Parisar, E-5 Arera Colony, Bhopal 462016). **Impact of artificial aeration / ozonisation on algal community structure of a tropical eutrophic lake.** *Eco Env Conserv*, **9**(1)(2003), 31-34 [5 Ref].

The lower lake of Bhopal, which is one of the urban eutrophic lakes is undertaken for conservation. Three aeration units have been installed to restore the water quality of this degraded lake and to increase the dissolved oxygen concentration of the lake water. The observation confirms that artificial aeration and ozonization could be use as an effective tool in improving the water quality of a degraded ecosystem.

0303-170. Samant SS, Pal Mohinder (GB Pant Inst Himalayan Env Dev, Kosi Katarmal, Almora, Uttaranchal). **Diversity and conservation status of medicinal plants in Uttaranchal State.** *Indian Forester*, **129**(9)(2003), 1090-1108 [73 Ref].

Paper reviews the diversity and conservation status of medicinal plants of Uttaranchal State. Maximum diversity of medicinal plants was distributed in the zone of < 1800 m and gradually decreased with the increasing altitude. 178 species were native to the

Himalayan region, 9 species were endemic and 104 species were near endemic. Appropriate action plan for the conservation and management of medicinal plants has been suggested.

0303-171. Shankar Kartik (H-VI/2, Habib Complex, Durgabai Deshmukh Rd, RA Puram, Chennai 600028). **Small mammals in montane ecosystems of the Nilgiris, southern India: their ecology and natural history.** *J Bombay Natural Hist Soc*, **100**(1)(2003), 46-57 [70 Ref].

Small mammals were studied in the montane ecosystems of the Nilgiris in the Western Ghats southern India. *Rattus rattus* was dominant in the montane forests, while *Millardia meltada* was dominant in the grasslands. Both species were found in plantations. The occurrence of *M. meltada* in the high altitude grassland is remarkable, as it is not found in such habitats elsewhere, nor is it found in intermediate habitats in the Nilgiris.

0303-172. Sharma Seema, Kumar Ashwani (Biotechno Lab, Dept Bot, Univ Rajasthan, Jaipur 302004). **Greening of wastelands using laticiferous plants.** *Nature Env Polln Techno*, **2**(3)(2003), 333-336 [17 Ref].

A large number of laticiferous plants like *Euphorbia neerifolia*, *E. caducifoli*, *E. tirucalli* and *C. procera* are able to grow and produce biomass. Such plants can also be utilized for production of biofuel. Attempts are made to characterize biofuel plants commonly grown in Rajasthan and their growth and biofuel contents production.

0303-173. Singh HS (Office Conservator Forests Vadodara Circle, Kothi Bldg, Raopura, Vadodara 390001, Gujarat). **Sea mammals in marine protected area in the Gulf of Kachchh, Gujarat State, India.** *Indian J Marine Sci*, **32**(3)(2003), 258-262 [11 Ref].

Marine National Park and Sanctuary in the Gulf of Kachchh in Gujarat State supports rich marine life. Three marine mammals-common dolphin (*Delphinus delphinus*), porpoise (*Neophocaena phocaenoides*) and dugong (Dugon dugon) were counted. The study reveals that about one third of the total area of the MPA in this zone support about 80% of the marine mammals which visit the area during high-tides. Thus, this part of the MPA is a key habitat for dwindling population of the marine mammals.

0303-174. Sinha RK, Sharma Gopal (Environ Bio Lab, Dept Zoo, Patna Univ, Patna 800005, Bihar). **Current status of the Ganges river dolphin *Platanista gangetica* in the rivers Kosi and Son, Bihar, India.** *J Bombay Natural Hist Soc*, **100**(1)(2003), 27-37 [20 Ref].

Surveys were conducted to assess the current status of the Ganges river dolphin in the rivers Son and the Kosi. No dolphin was sighted in the entire stretch of about 300 km of the Son, in Bihar. A total of 87 dolphins were sighted in the Kosi during the survey, however, many have been missed due to the highly braided channel of the river. In both the rivers, no apparent source of pollution was found. Siltation and construction of the barrage were observed to be the main cause of habitat degradation in both the rivers.

0303-175. Vinod VR, Syed Anwarulla M, Vishwanth DP (Univ Agricul Sci, Bangalore 577132, Karnataka). **Run off and soil loss under different land use systems in the Western Ghats of Karnataka.** *Indian J Soil Conserv*, **31**(2)(2003), 131-138 [8 Ref].

The studies on runoff, soil and nutrient losses were conducted on five land use systems prevailing in the Western ghats of Karnataka at the Regional Research Station, Mudigere. The results revealed that the development of natural vegetation in the natural land use system had reduced the runoff from 23 mm to 12.2 mm and soil loss from 79.8 kg ha⁻¹ to 22.5 ha⁻¹, in cardamom land use system.