

ECOLOGY

0601–107. Das SR, Patil SG, Nandi NC (Zool Sur India, M Block, New Alipore, Kolkata 700053). **Zooplankton diversity of wetland ecosystems of Goa.** *J Env Sociobio*, **2**(1&2) (2005), 15–23 [13 Ref] .

Zooplankton diversity of two freshwater and two brackishwater wetlands of Goa have been investigated. A total of 42 species of zooplankton have been recorded, of which 41 species are from freshwater wetlands, 29 species from brackish wetlands/fisheries and 28 species common to both categories. This shows higher diversity of zooplankton in freshwater wetlands than in the brackishwater wetlands in Goa. In general, premonsoon population is higher than postmonsoon population in freshwater wetlands, while postmonsoon population is higher than premonsoon population in brackishwater wetlands.

0601–108. Dwivedi S, Misra PK, Tripathi RD*, Rai UN, Dwivedi CP, Baghel VS, Suseela MR, Srivastava MN (*Ecotoxicology Bioremediation Gr, Natl Botl Res Inst, Lucknow 226001). **Systematic and ecological studies on chlorophyceae of North India and their relationship with water quality.** *J Environ Bio*, **16**(3) (2005), 495–503 [26 Ref].

In the course of systematic and ecological studies on algal flora of fresh water environment of three different agroclimatic zone of Uttar Pradesh revealed one hundred eighty two species represented by fifty-two genera inhabiting fresh water bodies having different physico-chemical properties. In both the regions members of order Conjugales were dominant and represented by ninety nine species belonging to fourteen genera.

0601–109. Mishra Sangeeta, Sahu Gouri, Mohanty AK, Singh SK, Panigrahy RC* (*Dept Marine Sci, Berhampur Univ, Berhampur 760007). **Impact of the diatom *Asterionella glacialis* (Castracane) bloom on the water quality and phytoplankton community structure in coastal waters of Gopalpur Sea, Bay of Bengal.** *Asian J Water Env Polln*, **3**(2) (2006), 71–77 [40 Ref].

Occurrence on mono-species bloom of the diatom *Asterionella glacialis* (Castracane) in the coastal waters of Gopalpur sea, north-western Bay of Bengal and its impact on the water quality and phytoplankton community structure is reported. The stable hydrographic conditions coupled with increased nutrient concentrations have triggered the blooming of this diatom species. Termination of bloom occurred with the depletion of nitrate and silicate in the medium water.

0601–110. Padmanabha B, Belagali SL (Dept Stud Environ Sci, Univ Mysore, Mysore 570006). **Comparative study on population dynamics of rotifers and water quality index in the lakes of Mysore.** *Nature Env Polln Techno*, **5**(1) (2006), 107–109 [11 Ref].

Comparative study on the species diversity, population density of rotifers and water quality index in the four lakes of Mysore was carried out seasonwise. The study revealed highest water quality index (WQI), species diversity and population density of rotifers during summer and least during winter. Dalvoi lake has higher WQI, population density but lower diversity of rotifers than Kamana lake, Karanji lake and Kukkarahally lake, whereas Kamana lake has lowest population density and highest diversity of rotifer species.

0601–111. Patil SS, Auti RG (Dept Environ Sci, Dr Babasahab Ambedkar Marathwada Univ, Aurangabad 431004). **Seasonal variations of zooplankton from Salim Ali Lake of Aurangabad.** *Bioinfontet*. **2**(2) (2005), 81–85 [14 Ref].

The seasonal diversity of different zooplankton components in Salim Ali Lake indicate a characteristic pattern peculiar to water bodies in urban environment. The factors like temperature, transparency, turbidity, conductivity and dissolved oxygen play an important role in regulating diversity and seasonal population densities.

0601–112. Pawar SK, Pulle JS, Shendge KM (Dept Zoo, Gramin Mahavidyalaya, Vasantnagar (Kotgyal) 431715). **The study on phytoplankton of Pethwadaj Dam, taluka Kandhar, district Nanded, Maharashtra.** *J Aquatic Bio*, **21**(1) (2006), 1–6 [22 Ref].

Pethwadaj dam is across the confluence of three nalas, namely, Wartala nala, Digrus nala and Anamand nala near village Kallali. During the study the total number of phytoplankton species were recorded. The Chlorophyceae were found to be dominant through out the study.

0601–113. Pradhan Prasenjit, Chakraborty SK (Dept Zoo, Vidyasagar Univ, Midnapur 721102). **Diversity of zoo planktonic rotifers of rivers Shilabati, West Midnapore district, West Bengal, India.** *Aquacult*, **7**(1) (2006), 1–19 [13 Ref].

Rotifera are now being used as an important aquatic faunal component for biomonitoring. Rotifera are good indicators of saprobity. Rotifera, the microscopic faunal component living mostly in fresh water, are characterized by the presence of an anterior wheel like

rotating structure called “Corona”. So far, 31 species of rotifera belonging to 12 genera, nine families and two orders have been recorded from river Shilabati.

0601–114. Rawat MS, Sharma Ramesh C (Dept Zoo, Govt PG Coll, Uttarkashi 249193). **Phytoplankton population of Garhwal Himalayan Lake, Deoriatal, Uttaranchal.** *J Ecophysio Occupl Hlth*, **5**(1&2) (2005), 73–76 [21 Ref].

A total of 36 species belonging to four groups, Chlorophyceae (18), Bacillariophyceae (15), Dinophyceae (2) and Cyanophyceae (1) have been recorded. Chlorophyceae (50%) > Bacillariophyceae (41.67%) > Dinophyceae (5.56%) > Cyanophyceae (2.78%) registered the stated order of quantitative abundance. The phytoplankton population exhibited two peaks, first in October and the second in March. Chlorophyceae > Bacillariophyceae > Dinophyceae > Cyanophyceae contributed to October peak while Bacillariophyceae > Dinophyceae > Chlorophyceae mainly resulted in their March maxima.

0601–115. Saha T, Roy A, Ghosh PB (Inst Environ Std Wetland Manag, B–4, LA Block, Sector III, Salt Lake City, Kolkata 700098). **Ecology of bacterioplankton in a nationally important lake, Rabindra Sarobar in Kolkata.** *Assian J Microbio Biotechno Environ Sci*, **7**(4) (2005), 717–722 [13 Ref].

Studies on the abundance and distribution of the heterotrophic bacterial communities of total bacteria and coliform bacteria including faecal and *Salmonella* revealed a distinct seasonal variation of their population with relatively higher values in monsoon and lower values during winter. Higher bacterial density was accompanied with higher population of both phytoplankton and zooplankton and showed significant positive correlation between each of them indicating their common source of occurrence.

0601–116. Shibu S, Ritakumari SD, Balakrishnan Nair N (Dept Aquatic Bio Fisheries, Univ Kerala, Karyavattom Campus, Thiruvananthapuram 695581). **The occurrence and distribution of macrozoobenthos in the riverine and estuarine zones of the Paravur Lake, Kerala.** *J Aquatic Bio*, **21**(1) (2006), 60–63 [14 Ref].

Community structure and distribution of macrozoobenthos in the riverine and estuarine zones of the Paravur lake was evaluated in relation to the prevailing environmental factors. Crustaceans dominated at both the sites followed by polychaetes and molluscs. The wide fluctuations in the number of benthic species observed in the study were mainly due to the unstable nature of the bottom sediment and the salinity.

0601–117. Shukla AK (Dept Bot, Arunachal Univ, Itanagar 791112). **Micro fungal diversity in forest and degraded land soils.** *Adv Plant Sci*, **18**(2) (2005), 571–576 [16 Ref].

Fungal population of forest and degraded land soil was estimated for a period of one year. A total member of 34 and 32 species were isolated from forest and degraded land soil respectively. Numbers of fungal propagules were higher in surface soil, which decreased with increasing soil depth. *Acremonium rutilum*, *Absidia hetarospora*, *Aspergillus flavus*, *Cladosporium cladosporioides*, *Humicola fuscoatra*, *Mucor hiemalis*, *Necteria ventriosa* and *Penicillium chrysogenum* were dominant fungi in both the field soils.

0601–118. Tiwari Ashesh, Chauhan SVS* (*Dept Bot, Sch Life Sci, Dr. BR Ambedkar Univ, Agra 282002). **Seasonal phytoplanktonic diversity of Kitham Laka, Agra.** *J Environ Bio*, **27**(1) (2006), 25–38 [14 Ref].

Two years data on the seasonal studies of phytoplanktonic diversity of Kitham lake (Sur Sarovar) Agra revealed the presence of 73 algal species. A limited number of these were recorded through the year, while other were distributed in different seasons mainly in winter and summer seasons. During winters, Chlorophyceae was the most dominant group followed by Bacillariophyceae. On the other hand. Cyanophyceae and Euglenophyceae were the most dominant during summers. Chlorella, Stigeoclonium, Pandorina, Micratinium, Oscillatoria, Anacystis, Nitzschia and Cymbella were found to be good indicators of water pollution.

0601–119. Tripathi G, Sharma BM, Singh J (Dept Zoo, JNV Univ, Jodhpur 342001). **Biodiversity perspectives, accomplishments and impact of pollution on soil faunal resources.** *J Appl Biosci*, **31**(2)(2005), 68–89 [215 Ref].

Paper discusses how the development of modern agricultural practices has changed drastically the structure and function of soil bio-community in all pedoecosystems of the world. Fertilizers change the nutritional and biological properties of soil and affect soil arthropods both qualitatively and quantitatively. Accumulation of toxic ingredients, such as chromium and lead, in various components of food chain and food products and their movement from soil and water to animals through agricultural products warrant cautious surveillance and adoption of safety measures.

0601–120. Veerasha Kumar NS, Hosmani Shankar P (Phyco Lab, Dept Bot, Univ Mysore, Mansangotri, Mysore 570006). **Algal biodiversity in frashwaters and related physiochemical factors.** *Nature Env Polln Techno*, **5**(1) (2006), 37–40 [11 Ref].

An ecological study of two lakes of Mysore district was made with respect to the physico-chemical characteristics and planktonic algae. Diversity in relation to pollution has also been discussed. Euglenophyceae are poorly represented indicating that organic pollution is slightly reduced. Bacillariophyceae were the most dominant, and occurred through the period of study. Hierarchical cluster analysis were applied to the data obtained to arrive at precise conclusions.