

SLS Newsletter

(e-newsletter of The Society of Life Sciences)

Volume - 1

Number 1 & 2

Year - 2004

The e-news letter published by the Society of Life Sciences. Through this official publication, the activities of society and achievements of its members are highlighted. For research paper/review, the Society of Life Sciences publishes a regular Peer Reviewed Biannual Research Journal.....**National Journal of Life Sciences.**

Focused on

SLS
**Young
SCIENTIST
AWARD - 2004**

FIRST REPORT ON
**Annual
Session
of SLS**

inside story

**National Seminar on
Recent Trends in
Life Sciences**

Govt. P.G. College, Satna (M.P.)

Reports of
Society of
Life
Sciences
(Events & Activities)

Dr. Rashmi Singh
Editor-in-Chief

Dr. K.K. Dube
Executive Editor of this Edition

Dr. Pragya Khanna
Managing Editor



Dr. B.S Chauhan was born on May 2, 1914 in reputed Talukedar family of Hoshangabad, Madhya Pradesh. He had his primary education in the Shiva Primary Pathshala at Narsinghpur. He was a Govt. scholarship holder in High School classes and was recipient of Marrai Slate Scholarship in the College. He passed his M.Sc examination from Nagpur University in 1939, standing first in Zoology in the Nagpur University. He had been King Edward Memorial Research Scholar from 1943 to August 1944 and was awarded Ph.D degree from Nagpur University in 1944 and D.Sc. in 1956. Subjects of special interests in research of Dr. Chauhan have been Parasitology - General Helminthology, Medical and Veterinary, with special reference to Trematodes, Cestodes, Nematodes, Acanthocephala, Temnocephala, Fish parasites & diseases, Fisheries, Systematic Zoology, Zoo-geography, Evolution, Distribution, General Zoology, Wild life fauna, Conservation of natural resources, Ecology & Environmental studies, Pollution and General & University education, etc.

He was the first Indian Scientist to start studies on Monogenetic trematode parasites of Indian Marine fishes from the Bombay coast. The guidelines laid down by him have revolutionized research on human Schistosomiasis in India & resulted in the discovery by him of a new molluscan intermediate host, *Feressia tunis* of the human blood fluke *Schistosoma haematobium*. Similarly he made a singular contribution in the discovery of an intermediate mite host *Sclerobates chauhani* named in recognition after him by the famous American Actologist Dr Baker in 1945 in the life history of the broad tape worm *Monazia* sp of goats, sheep and cattle.

Apart from being a well-known Zoologist and a brilliant research worker, he joined the Indian Veterinary Research Institute, Izatnagar in 1945 for a year. He was considered a competent administrator too and was placed in-charge in 1956 by the Ministry of Home affairs, Govt. of India as Liaison Officer, in overall charge of the Hindi teaching scheme to central government employees, at Calcutta center-a national duty, which he discharged with distinction. In fact, Dr. Chauhan has a rare combination of a towering and dynamic personality, a brilliant Zoologist and a fine researcher with international reputation, an educationist, a very capable Technocrat and an able administrator.

Dr. Chauhan was President of the Zoology section of the Indian Science Congress for its Golden Jubilee Session held at Delhi in 1963. He also served the Zoological Survey of India as its Deputy Director and after retirement, joined the University of Saugar (M.P) as its Vice-Chancellor (1973-1975). He was appointed member of Madhya Pradesh Uchcha Shiksha Anudan Ayog, Bhopal (1979-84) and M P State Planning Board (1984-87).

Dr. Chauhan has published more than hundred original papers. Many of them are of monographic nature and are cited as work of reference, for post-graduate studies and research not only in India but outside also. His research work has been quoted in the standard textbooks, books of references and research journals all over the world. A large number of new animals and systematic categories have been named after him, as is the practice among scientists. He has also been and supervisor to many research scholars working for their Ph.D. and D.Sc degrees under him or otherwise. He was awarded Sir Dorab Tata Gold Medal in January 1976 for his outstanding contributions in the field of Zoology. He has also been the recipient of Dr. G.D. Bhalerao Memorial Gold Medal in 1962 for his outstanding researches in Helminthology. Still in this age of 91 years he is actively associated with Zoological Society of India, Helminthological Society of India and other Learned academic in the globe.

We all wish good health to the doyen of Indian Parasitologist.

Long way be continue to flourish.

Prof. K.C. Pandey

(Ex. Vice-Chancellor)

Department of Zoology,
Lucknow University,
Lucknow (U.P)

UNFORGETTABLE MOMENT



With "Hon. Dr. B.S. Chauhan" President ZSI during 11 th All India Congress of Zoology, at B.N. Mandal University, Madhepura (Bihar) on 17 November 2000. Receiving Eminent Indian Zoologist of ZSI Gold medal from him.
Dr. Shivshankar Singh
Chief Editor NJLS

A Seminar on the Recent Trends in

Life Sciences

and Annual Session of Society of Life Sciences was jointly organised by the Science Communication Cell of the National Academy of Sciences, India and Society of Life Sciences at Govt. P. G. College, Satna from Sept. 29th to Oct. 1st, 2004. This three days seminar was inaugurated by Prof. S. L. Srivastava, Co-ordinator K. Banerjee Centre of Atmospheric and Ocean Studies, Allahabad University, Allahabad. Besides inaugural and valedictory sessions the seminar was divided into five sessions and covered Biotechnology, Bioinformatics, Bio-modeling, Biodiversity and Role of Remote Sensing in Bio-conservation themes.



Prof. G.L. Tiwari, Prof. U. C. Srivastava and Prof. D. K. Chauhan (Allahabad), Prof. R. S. Saini (Sagar) Dr. Sharda Sundaram and Dr. P. W. Ramteke (Allahabad), Prof. S. P. Bajpai (Sagar), Dr. Ravindra Singh & Dr. S.K. Chaturvedi (Chitrakoot), Dr. N.P. Tripathi (Rewa), Dr. R.P.S. Dharkarey (Satna) were the prominent delegates who delivered lectures on different topics related to above themes.

The valedictory function was held on 1st Oct. 2004 at 3.00 p.m. The chief guest was Prof. Sureshwar Sharma (Ex. Vice-Chancellor, R. D. University, Jabalpur); Prof. A. D. N. Bajpai (Vice Chancellor, A. P. S. University (Rewa) presided over the function. Prof. R. S. Saini (Dr. Hari Singh Gaur University, Sagar) and Prof. G. L. Tiwari (Allahabad University, Allahabad) were the Guests of Honour.



Congratulations.
Dr.A.D.N. Bajpai
V.C., A.P.S. University, Rewa

Prof. R.S. Saini
Dr. H.S. Gaur University, Sagar
S. Saini
1.10.04

सुश्रुतों एवं अभिनेत्रों
Prof. Sureshwar Sharma
Ex. V.C., RDVV-Jabalpur
Sureshwar Sharma
1.10.04



Guests are unveiling very 1st issue of National Journal of Life Sciences



Glimpses of National Seminar on Recent Trends in Life Sciences



Dr. Shivesh Pratap Singh (Chief Editor, *National Journal of Life Sciences*) and **Dr. Rashmi Singh** presenting a copy of Journal and Life Science Bulletin to Hon'ble **Smt. Archana Chitnis**, Minister of Higher Education, Govt. of M.P. on the occasion of the Annual function of Govt. P.G. College, Satna M.P. in the presence of Smt. Anju Singh, President, Mahila Finance Development Corporation, Govt. of M.P. & Dr. R.L. Sharma, Principal Govt. P.G. College, Satna (M.P.)

The Inaugural issue of
National Journal of Life Sciences
Presented to Hon'ble Smt. Archana Chitnis, Minister of Higher Education, Govt. of M.P.



The Society of Life Sciences, Satna (M.P.) awarded a citation and a cash award to the young research scholar for encouraging their presentations in Seminar "Environmental Pollution and Sustainable Development" organized by Dept. of Zoology, Sri Sathya Sai College for Women, Bhopal (M. P.) on 28th - 29th Oct. 2004. The Chief guest of inaugural function was Dr. Ram Prasad, Vice Chancellor, Barkatullah University, Bhopal (M. P.) and Dr. Santosh Kumar (Ex. Vice Chancellor) presided over the function. In valedictory function Chief guest was Dr. P. S. Dube, Chairman M.P. Pollution Control Board, Bhopal (M.P.) and Dr. Ravi Prakash (Ex. Vice Chancellor) was guest of honour. The Seminar was organized successfully by Dr. Manju Tembhre, Organizing secretary, whereas Dr. S. K. Kulshrestha whole heartily managed the technical sessions.

SLS Young Scientist Awardee - 2004 By The Society of Life Sciences



Ms. Farhina Pasha (Bhopal)
Presented her research paper (Oral)
"AChE inhibition in muscles of
O. mossambicus due to herbicide pursuit."



Ms. Meeta Mishra (Sagar)
Presented her research paper (Poster)
"Chabazite as metal Chelator &
Protein stimulator in fish."



View of dais Inaugural function "Seminar on Environmental Pollution and Sustainable Development" at Sri Sathya Sai College for women, Bhopal (M.P.) on 28th-29th Oct. 2004.



View of dais Valedictory function "Seminar on Environmental Pollution and Sustainable Development" at Sri Sathya Sai College for women, Bhopal (M.P.) on 28th-29th Oct. 2004.

Gracious presence of Dr. B.S. Chauhan Patron of The Society of Life Sciences

National Symposium on "Environment" was organized by Govt. P.G. College Satna (M.P.) at Town Hall, Satna sponsored by MP Council of Science and Technology, Bhopal & Dept. of Higher Education, Govt. of M.P. on **19-20, February 1994**. National Symposium was inaugurated by Chief Guest Dr. B.S. Chauhan, Ex. Vice Chancellor Dr. H.S. Gour University, Sagar and Guest of Honour were Prof. J.S. Rathore, Vice Chancellor, A.P.S. University Rewa and Mr. P.K. Das, Collector Satna, Key note speaker was Dr. Ram Prakash (Jalgaon), presided by Dr. S.D. Nigam, Principal Govt. College Satna. More than hundred participants from various part of country were participated in this National Symposium.

The National Journal of Life Sciences is an official publication of the Society of Life Sciences. This Journal publishes original research articles, short communication etc. covering almost all branches of Life Sciences. The periodicity is twice a year i.e. in Summer (June) and Winter (December) of every year.



in National Symposium on Environment
(19th-20th Feb. 1994)



Endocrine system is made up of several organs called glands. The glands, located all over the body, create and secrete (release) hormones. Hormones are chemicals that coordinate different functions in our body by carrying messages through blood to organs, skin, muscles and other tissues. These signals tell body what to do and when to do it. Hormones deliver their messages by locking into the cells they are targeting so they can relay the message. Endocrine system continuously monitors the amounts of hormones in our blood.

Hormones affect nearly every process in our body, including:

Metabolism (the way you break down food and get energy from nutrients).

- Growth and development.
- Emotions and mood.
- Fertility and sexual function.
- Sleep.
- Blood pressure.

Sometimes glands produce too much or not enough of a hormone. This imbalance can cause health problems, such as weight gain, high blood pressure and changes in sleep, mood and behavior. Many things can affect how your body creates and releases hormones. Illness, stress and certain medications can cause a hormone imbalance.

The endocrine system is made up of organs called glands. Glands produce and release different hormones that target specific things in the body. We have glands all over our body, including in neck, brain and reproductive organs. Some glands are tiny, about the size of a grain of rice or a pea. The largest gland is the pancreas, which is about 6 inches long.

The main glands that produce hormones include:

Hypothalamus: This gland is located in brain and controls endocrine system. It uses information from nervous system to determine when to tell other glands, including the pituitary gland, to produce hormones. The hypothalamus controls many processes in our body, including mood, hunger and thirst, sleep patterns and sexual function.

Pituitary: This little gland is only about the size of a pea, but it has a big job. It makes hormones that control several other glands such as the thyroid gland, adrenal glands, ovaries and testicles so it is known as 'Master Gland'. The pituitary gland is in charge of many different functions, including how body grows. It's located at the base of brain. The pituitary gland senses when hormone levels rise, and tells other glands to stop producing and releasing hormones. When hormone levels dip below a certain point, the pituitary gland can instruct other glands to produce and release more. This process, called homeostasis, works similarly to the thermostat in our house.

Thyroid: Thyroid is a butterfly-shaped gland in front of neck. It is responsible for metabolism (how the body uses energy).

Parathyroid: These four tiny glands are not larger than a grain of rice. They control the level of calcium in body. For heart, kidneys, bones and nervous system to work, it needs the right amount of calcium.

Adrenal: We have two adrenal glands, one on top of each kidney. They control our metabolism, blood pressure, sexual

Endocrine System

Dr. Manjusha Pournik

P.G. Department of Zoology

Mata Gujri Mahila Autonomous Mahavidyalaya,
Jabalpur (M.P.)

e.mail : drmanjusha123@gmail.com

Contact : 9425162955



development and response to stress.

Pineal: This gland manages sleep cycle by releasing melatonin, a hormone that causes to feel sleepy.

Pancreas: Pancreas is part of endocrine system, and it plays a significant role in digestive system too. It makes a hormone called insulin that controls the level of sugar in our blood.

Ovaries: In women, the ovaries release sex hormones called estrogen, progesterone and testosterone. Women have two ovaries in their lower abdomen, one on either side.

Testes: In men, the testes (testicles) make sperm and release the hormone testosterone. This hormone affects sperm production, muscle strength and sex drive.

Dozens of conditions can cause issues in the endocrine system. These conditions can lead to health problems all over the body. Some of the most common disorders are:

Diabetes: This endocrine disorder affects the way our body uses the energy from the food we eat. Diabetes develops when the pancreas doesn't make enough of a hormone called insulin, or insulin doesn't work as it should.

Thyroid disorders: Several conditions can affect the function of the thyroid gland. Hypothyroidism happens when the thyroid doesn't produce enough hormones. Hyperthyroidism occurs when it creates too many hormones.

Hypogonadism (low testosterone): In men, hypogonadism can cause erectile dysfunction. It can also cause memory and concentration problems, changes in muscle strength and low sex drive. It happens when the testes do not produce enough of the sex hormone testosterone.

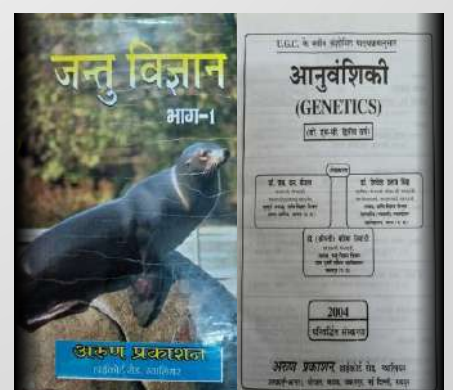
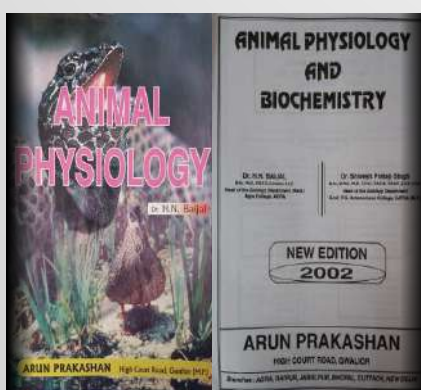
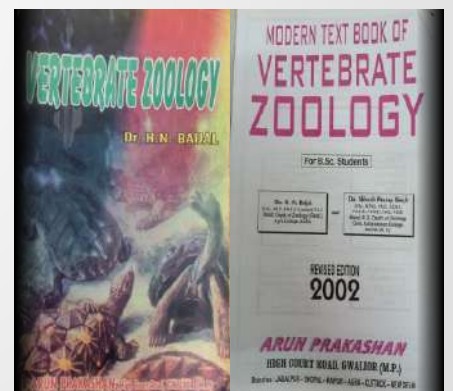
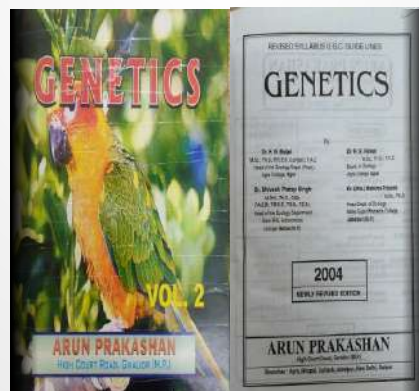
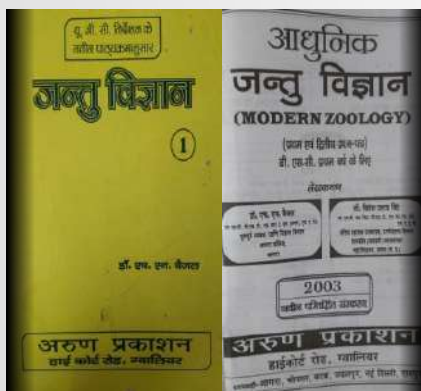
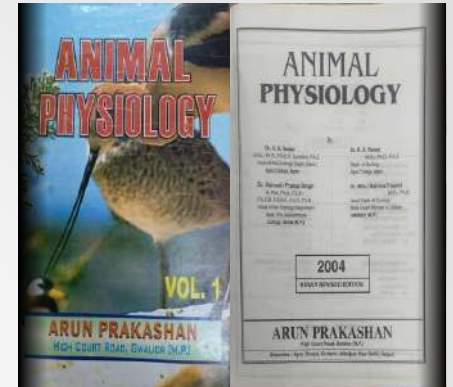
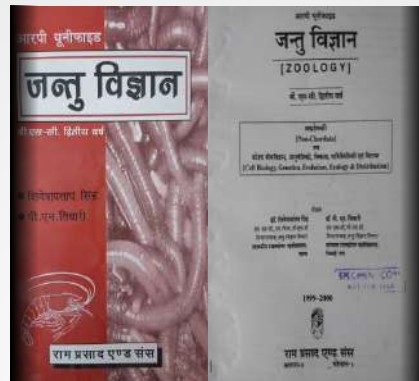
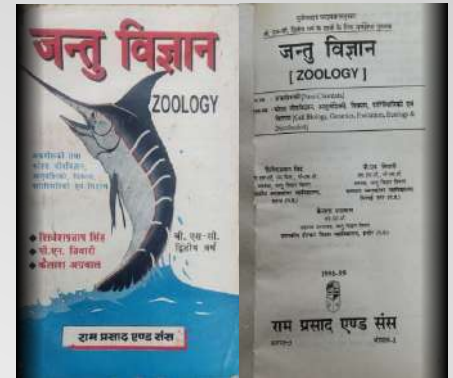
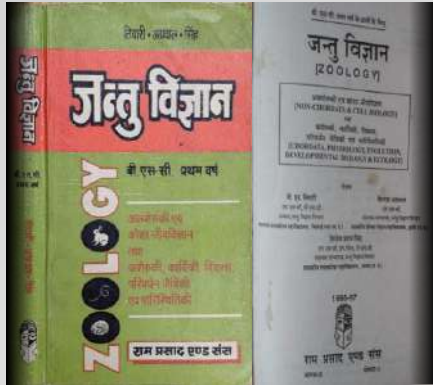
Polycystic ovary syndrome (PCOS): A hormonal imbalance causes women with PCOS to have irregular periods, abnormal hair growth, excess acne and weight gain. It can lead to diabetes, increased risk of metabolic syndrome and infertility.

Osteoporosis: When a woman's ovaries don't produce enough estrogen, bones become brittle and weak. Although it is more common in women, men sometimes have osteoporosis when testosterone levels get too low. People with an overactive parathyroid gland (hyperparathyroidism) may also have weak bones.

Chemicals called endocrine disrupters can also affect the endocrine system. These chemicals appear everywhere in pesticides, plastics, cosmetics and even our food and water. Endocrine disrupters cause a wide range of problems throughout the body by changing how hormones send messages.

Our endocrine system needs the same things as the rest of our body needs to stay healthy. We should exercise, eat right and see our healthcare provider regularly.

Text Books written by "Dr. Shivesh Pratap Singh" during 1996-2004 with other co-authors



Vol. 1 (1) 2004

1. Morphology and taxonomy of cyanobacteria : I. The genus *Aphanothece* (Chroococcales).
Rama Kant, O. N. Tiwari, Richa Tandon, Pradeep Pandey and G. L. Tiwari 1-10
2. Induction of male sterility in *Nicotiana tabacum* L. by the treatments with a detergent - Surf excel.
D. K. Agnihotri and S.V.S. Chauhan 11-14
3. Cytogenetic studies on some selected fish species (Family: Cyprinidae) from the streams/rivers of Western ghats, India.
Arunachalam M., M. Murugan and P. V. Kalavathy 19-22
4. Seasonal fluctuations in the rotifer community of Someshwar Temple tank of Panhalgarh hillfort, Kolhapur district, Maharashtra.
V. B. Berde and I. K. Pai 23-27
5. Chabazite mediated remediation of mercury toxicity in fish tissue.
P. K. Shrivastava, Meeta Mishra and Subodh Kumar Jain 29-34
6. Importance of *Glomus fasciculatum* (AMF) and municipal sewage water on growth of *Bauhinia purpurea* L.
H. C. Lakshman, Kiran P. Kolkar and M. Jayashankara 35-39
7. Vermicomposts produced by four species of earthworms from sugar mill wastes (Pressmud).
Kasi Parthasarathi 41-46
8. Eco-toxicological effects of cadmium on the haematology of a fresh water fish, *Oreochromis mossambicus*, Peters.
Lingarat Patro, Meenakshi Misra and A. K. Panigrahi 47-55
9. Disruption on oviposition behavior of Malaria vector by plant extracts.
S. C. Dwivedi and Kavita Karwasara 57-60
10. Determination of water quality index (WQI) of Amkhera pond of Jabalpur city (M.P.).
Sadhna Kesharwani, A.K. Mandloi and K. K. Dube 61-66
11. Ethnomedicinal values of certain plants among the Ahom and Khamti communities of Sibsagar district.
L. R. Saikia and Inamul Hussain 67-71
12. Studies on some physic-chemical characteristics of Jagatunga samudra from Kandhar dist. Nanded (M.S.).
C. J. Hiware, B. J. Ugale and A. G. Walujkar 73-75
13. Response of chickpea to liquid based rhizobium inoculants.
S. C. Gupta 77-80
14. Repellent efficacy of five plant extracts against *Corcyra cephalonica* Stainton.
Anand Kumar, Nalini S. Dwivedi and S. C. Dwivedi 81-84
15. Longitudinal variation in the structure of benthic communities in the upland Vindhyan and Himalayan rivers: river continuum concept approach.
**Prakash Nautiyal, Ashish Shivam, Geeta Rawat, Krishna Raj Singh
Jyoti Verma and Amitabh Chandra Dwivedi** 85-88
16. Studies on the abundance of rotifers in Manjara project water reservoir dist. Beed (M.S.)
R. J. Chavan, B. V. Jadhav, M. B. Tat and R. J. Sawant 89-93
17. Differential response of bread wheat genotypes to late sowing across different heat stress environments.
Jagadish Rane, R. K. Samaiya, H. S. Yadav and N. B. Singh 95-100
18. Length-weight relationship and condition factor in *Cirrhinus mrigala* (Ham) from a pond in Jabalpur.
Reeta Solanki, A. K. Mandloi and K. K. Dubey 101-106
19. Symbiotic association and response of *Tagetes indica* L. (Compositae) to Arbuscular Mycorrhizal (AM) fungi under grade level of rock phosphate.
H. C. Lakshman, Anjana S. Kerur and M. Jayashankara 107-110
20. Effect of cadmium chloride on the nucleic acid contents, DNA/RNA and protein contents during the adult life of *Henosepilachna vigintioctopunctata* (Fabr.) (Coleoptera).
Surinder Pal Kaur and Dalbinder Singh Sidhu 111-115

Vol. 1 (1) 2004

21. Garhwal himlayan lakes: environmental management and development.
M. S. Rawat and R. C. Sharma 117-122
22. Sustained management of the floating aquatic weed *Eichhornia crassipes* (Solms) mart. Employing potential arthropodan biocontrol agents.
A. G. Murugesan, John Ruby and M. Gabriel Paulraj 123-128
23. A new species of the genus *Circumonchobothrium* Shinde (1968) (Cestoda : Pseudophyllidea, Carus (1863) from *Ophiocephalus gachua* at Dhanegaon dist. Beed, Maharashtra, India.
M. B. Tat and B. V. Jadhav 129-132
24. Some water borne and common diseases in Sheopur town and adjacent villages as a result of pollution.
R. Prajapati, R. Mathur and R. Kaurav 133-136
25. Cytogenetic characteristics of *Chironomus incertipenis* (Chironomidae : Diptera) from India.
Pragya Khanna, N. K. Tripathi and O. P. Sharma 137-147
26. Present status of municipal solid waste in Rewa town (M.P.).
Akhilesh Singh and V. S. Sai 149-152
27. Extent of protection against challenge infection of *Hymenolepis nana* in mice actively immunized with different somatic antigens.
P. Kashedikar, P. Chandrika and K. Tushar 153-156
28. Effects of distillery waste on *Chironomus* larvae (Diptera : Chironomidae).
Harbhajan Kaur 157-160
29. Effects of light quantity and quality (red/far red quanta) on seedling growth of *Dalbergia sissoo* Roxb. and *Dalbergia latifolia* Roxb.
V. Rajeswari and Kailash Paliwal 161-168
- Short Communication :**
30. Biological monitoring: an ideal tool for water pollution studies.
R. N. Shukla, R. K. Srivastava, K. K. Dubey, Alok Shukla and A. K. Srivastava 169-171
31. Effect of Dithane M-45 on blood morphology in the fish *Channa punctatus* (Bloch).
Rashmi Sharma and Surendra Singh 173-174
32. Indian peafowl (*Pavo cristatus* Linn) roosting on high tension electric line.
Pravin Sang Dodia and S. K. Patel 175-177
33. Effects of environmental variation on Apterygotes (Collembola) in Ganjdundwara (Etah) region.
Anil Paliwal 179-180
34. A new species of the genus *Cotugnia* (Diamare, 1993) from pigeon, *Columba livia* at Loha dist. Nanded (M.S.) India.
B. V. Jadhav and G. D. Gore 181-182
35. Limno ecological aspect in relation to pollution of Yamuna river at Agra (U.P.)
R. K. Verma

Vol. 1 (2) 2004

1. Effect of potassium application on growth attributes and stems histology of chickpea growth Vertisol.
S. C. Gupta, K. R. Vegh, T. Takacs and A. S. Sreedhar 187-191
2. Studies on zooplanktonic populations and their correlation with some physico-chemical characteristics of Barul dam water.
P. R. Surve, N. E. Ambore, S. S. Jadhav and J. S. Pulle 193-198
3. Ziram and Thiram fungicides induced behavioural and morphological changes in fresh water fish, *Heteropneustes fossilis* (Bloch.)
A. K. Pandey and G. C. Pandey 199-203
4. Passive immunization through sensitized lymphocytes: effect on migration inhibition factor in mice experimentally infected with *Hymenolepis nana*.
P. Kaskhedikar, P. Chandrika and K. Tushar 205-208
5. Cane yield and net profit as influenced by nitrogen and inter cropping of oats in autumn sugarcane.
Avtar Singh, J. S. Kang and Charanjeet Kaur 209-212
6. Efficacy of fungicides against some important seed-borne fungal pathogens of maize (*Zea mays* L.)
S. Chandra Nayaka, S. R. Niranjana and H. S. Shetty 213-218
7. An approach to study the physico-chemical characteristics of Saryu river water using ozone gas.
V. K. Chaudhary and G. C. Pandey 219-226
8. Symbiotic association of Vam fungi on some important weeds of University botanical garden.
H. C. Lakshman, P. A. Hosamani and M. C. Dodamani 227-230
9. Determination of polyols from non-ionic water soluble *Peltophorum ferrugineum* Benth. seeds polysaccharide by Smith degradation technique.
R. B. Singh 231-234
10. Karyological analysis of soft-shelled turtle *Lissemys punctata* (Family:Trionychidae) from J&K state.
O. P. Sharma and Gurpreet Kour 235-240
11. Genetic variation for physical fruit characters in mango (*Mangifera indica* L.)
A. K. Barholia, A. S. Yadav and H. S. Yadava 241-244
12. Pollinators density and diversity on the blossom of *Cassia siamea* (Lam.)
Pushplata Gupta and R. M. Mishra 245-250
13. Studies on the prevalence of aeroallergen sensitivity in population of Punjab.
Navpreet Kaur Gill, Devinder Singh and Tarlok Singh 251-254
14. A new tape-worm from the host, *Capra hircus* at Beed (M.S.) India.
M. B. Tat and B. V. Jadhav 255-258
15. Furrow irrigated raised bed planting - a resource conservation technology for sustainability of rice-wheat system.
Avtar Singh, A. S. Virk, G. K. Virk and H. K. Virk 259-261
16. Study of spermatogenesis in spider *Cyrotphora citricola*.
Haninder Maini 263-266
17. Impact and possible reclamation of solid waste of a chlor-alkali industry by a Cyanobacterium.
P. K. Pradhan, A. Sahu and A. K. Panigrahi 267-282

Vol. 1 (2) 2004

18. Cestodicidal activity of ivermectin against *Hymenolepis nana* infection in mice.
P. Kaskhedikar and K. Tushar 283-285
19. A detailed study on the life cycle of sheep body louse *Damalinia ovis* (Linn.) (Mallophaga) in natural as well as in laboratory conditions.
R. K. Dubey and A. K. Paliwal 287-292
20. Biodiversity and characterization of Indian unicellular and colonial Cyanobacteria
Rama Kant, O. N. Tiwari, Richa Tandon, L. L. Kushwaha, Rashmi Singh and G. L. Tiwari 293-304
21. Interaction between van and phosphate solubilizing bacteria (*Bacillus polymyxa*) on growth and yield of foxtail millet (*Setaria italica* L. Beauv.) under graded levels of phosphorus.
Laxman B. Kadam, H. C. Lakshman, Prakash A. Hosamani and Manjunath Dodamani 305-308
22. A new species of the genus *Amoebotaenia* (Cohn, 1900) from *Gallus domesticus* at Aurangabad.
B. V. Jadhav, R. M. Khandap and R. G. Pawar 309-311
23. Self-purification ability of a river associated wetland of Tamiraparani system, South India.
A. Palanivel, S. Gopala Krishnan and M. Arunachalam 313-318
24. Isolation of mycobacterial strains in rural, urban and slum population of Agra.
Ajay Singh, Kaushalendra Kumar and K. K. Gaur 319-322
25. Length-weight relationship and relative condition of *Labeo rohita* (Ham.) from Roberston lake, Jabalpur.
Reeta Solanki, K. K. Dubey and A. K. Mandloi 323-326
26. Study of health aspect of traffic police of Visakhapatnam with special reference to lead and carbon monoxide
Y.A. Maruthi, S. R. Rao, K. Sandhya Kiranmai, V. Saritha and Sujata Thakre 327-332
27. Characterization and taxonomy of soils of Banganala watershed under Kymore plateau and Satpura hills Zone of M.P.
P. N. Tripathi and D. P. Dubey 333-338
28. The effect of Nuvan, a pesticide on gills of fresh water cat fish *Clarias batrachus*.
Smita Shukla, Sujata K. Dass and D. N. Saksena 339-342
29. Studies on microbial biopollutions.
M. Salim, A. K. Tiwari and S. H. Qureshi 343-347
30. Uses of some important medicinal plants of Chitrakoot region of Satna (M.P.)
R. L. S. Sikarwar, Anil Jaiswal and Archana Chaturvedi 349-352
31. Studies on effect of heptachlor on leafminer, *Phytomyza atricornis* (Meign.) on *Dolichos lab lab* Lin.
Virendra Singh Keshav and Surendra Singh 353-356
32. Air quality and human health around Jaypee Cement Plant, Rewa.
R. M. Mishra and Mahendra K. Tiwari 357-360
33. A study of cyanobacteria from soils of cultivated and uncultivated lands of Satna district (M.P.).
Priti Samdaria, Rashmi Singh and R. K. Tripathi 361-366
34. Influence of varied calcium supply on uptake of cadmium by Turnip.
Dinesh Mani and Chitranjan Kumar 367-371
35. New records of moths from Jabalpur district (M.P.).
K. Chandra, R. Bhandari and D. K. Nema 373-384
36. Influence of growth promoters on yield and its components in chili (*Capsicum annum* L.).
Mahabir Singh 385-387

Vol. 1 (2) 2004

37. Indigenous fruit plants used as folklore medicine by Ahom and Khamti communities of Sibsagar (Assam).
L. R. Saikia and Inamul Hussain 389-394
38. Performance of field pea (*Pisum sativum*) as utera crop in relation to stubble height of preceding rice under rain fed conditions.
R. K. Dwivedi and R. S. Sharma 395-397
39. Biodiversity indices in relation to zooplanktonic growth at Ganga sagar pond, Jabalpur (M.P.).
A. K. Mandloi, S. B. Srivastava and P. Mukherjee 399-402
40. A check list of the butterfly diversity of Panna forest (M.P.).
Anis Siddiqui and Shivesh Pratap Singh 403-406
41. Power of a mixed model anova test procedure for nested classification with unequal subclass numbers - a theoretical investigation.
S. S. Gautam and Kripa Shanker 407-412
42. A new species of the genus *Lytocestus* (Cohn, 1908) from *Clarias batrachus* at Aurangabad.
R. M. Khadap, B. V. Jadhav and N. V. Suryawanshi 413-416
43. Description of new species *Abgrallaspis katorii* (Homoptera : Coccoidea : Diaspididae) collected from Shikohabad (U.P.).
Rajvir Singh Ojha, Kamal Singh and Shiv Dutta 417-420
44. A comparative study of leaf architecture of three plant species of family Solanaceae.
Archana Nigam 421-424
45. Cytogenetic studies of *Chironomus* species of pseudothummi complex (Chironomidae : Diptera) from Jammu region (J&K), India.
Pragya Khanna, N. K. Tripathi and O. P. Sharma 425-437
46. Estimation of protein percentage in four common grasses of Bhopal during change of seasons.
Priyanka Shrivastava and V. S. Singh 439-442
47. Effect of herbicide on melanophores of *Oreochromis mossambicus* due to pesticidal pollution.
Farhina Pasha and Romsha Singh 443-447
48. Plant species causing dermatitis from Bhadarwah, J&K (India).
Shashi Kant and Harish Chander Datt 449-452
49. Histological and histochemical studies of silk glands of *Argiope anasuja* and *Stegodyphus pacificus*.
Sthira Shah and S. K. Patel 453-456
50. Bioefficacy of certain Asteraceous plants on growth, development, nutrition and reproduction of *Spilarctia obliqua* Walker.
B. S. Chandel, S. C. Srivastava, N. D. Dwivedi, Shalini Shukla and A. Dubey 457-460
51. Population status and group composition of Hanuman Langur (*Presbytis entellus*) in Chitrakoot area (M.P.).
Shivesh Pratap Singh 461-466
52. The effect of carbamate and organophosphate on haemolymphal carbohydrate (Glucose) in larvae of *Tricoplusia ni* (Lepidoptera).
R. K. Verma, Gajendra Singh Tomar and Suman Kapoor 467-468
53. Manganese and cobalt analysis of kidney of albino mouse treated with tadalafil (viagra) using aas.
N. Srinivasan and R. Vijayaragavan 469-470

Vol. 1 (2) 2004

54. Status of sericulture industry in Aurangabad district, Maharashtra stage, India.
C. J. Hiware, D. A. Hake and N. B. Bawage 471-472
55. Analysis of drinking water quality from Sitapat pond, Dhar (M.P.)
Preeti Chaudhary and N. K. Dhakad 473-474
56. A preliminary report on the algal flora of backwater of Harsud (M.P.).
Shakun Mishra 475-476
57. Zooplankton and helminthes: mortal enemy of poor free living ciliates.
T. T. Shaikh, S. R. Nikam, R. N. Jadhav and V. D. Jadhav 477-478
- Short communication**
58. Pathology of spontaneous liver infections in *Quails coturnix coturnix japonica*.
M. Roy, Usha Sahu and Neelu Gupta 479-480
59. A systematic account of Euglenophyceae in river Narmada and its surroundings at Hoshangabad (M.P.).
R. K. Raghuwanshi, P. Patil and Ravi Upadhyay 481-482
60. Virus chip technology - a boon to health care.
Deepti Bhargava, Mayank Vashishth, Saurabh S. Odak and Ujwal Jadhav 483-484