

# Prof. (Dr.) Preety Sinha

University Professor  
HOD, Department of Zoology  
EX HOD, Department of Environmental  
Sciences

A. N. College, Patna



**Residential Address** : 105 B, Patliputra Colony,  
Patna-800013  
Mobile No.: +91-7739312008  
Phone No.: +91-612-2275050  
E-mail: sinhapreety29@gmail.com

**Date of Birth** : March 29, 1964

## **Educational Qualification** :

- B.Sc., Zoology Honours, First Class, 1984 (Patna University)
- M.Sc., Zoology, First Class, 1987 (Patna University)  
(Special Paper- Helminthology)
- Ph.D., 1992 (Patna University)
- Ph.D. thesis title "Study of Helminth Infestation of Two Commonly Available Vertebrates in and around Patna.

## **Special Qualifications** :

- Attended the XXI National Training Programme (Basic Course) in Electron Microscopy for Scientific Investigators at All India Institute of Medical Sciences, New Delhi, from 07.11.2005 to 19.11.2005. It was sponsored by National Academy of Medical Sciences (India), New Delhi.
- Attended the XXI National Training Programme (Advanced Course) in Electron Microscopy for Scientific Investigators at All India Institute of Medical Sciences, New Delhi, from 21.11.2005 to 26.11.2005. It was sponsored by National Academy of Medical Sciences (India), New Delhi.

## **Teaching Experience** :

### **As Lecturer and Senior Lecturer-**

From November 1996 to September, 2004- J. D. Women's College, Patna;  
October 2004 to till October, 2005 - A. N. College, Patna.

### **As Reader-**

From November 2005 to October 2008

### **As Associate Professor –**

From November 2008 to October 2013

### **As University Professor –**

**From November 2013 till today.**

Have been teaching Post Graduate classes regularly.

## **Research Experience** :

- i. 1987-1992: During Ph.D. :** The thesis related to the studies of Helminth infestations in two commonly available vertebrates (*Gallus domesticus* and *Calotes versicolor*) in and around Patna.
- ii. 2000-2002:** Worked on a project sponsored by the University Grants Commission vide letter no. PSB-010/00-01 dated 08 Sept., 2000. The title of the project was 'The study related to the incidence and intensity of helminthic infection in *Clarias batrachus*'.
- iii. 2002-2003: In Syracuse University, U.S.A.,** worked on comparative studies of the parasitic infection of different hosts as well as similar hosts in different environments.
- iv. 2003 onwards:** Worked on projects related to effects of herbal extracts on various aspects of different animals.
- v.** Worked on a project sponsored by the University Grants Commission vide letter no. FSB-008/ 05-06 dated 21<sup>st</sup> March, 2006. The title of the project is 'Effect of medicinal plant extract as an antidote to helminth parasites of a freshwater fish- *Clarias batrachus*.'
- vi.** Worked as Co-investigator on a project titled "Protective effect of few medicinal plant extracts on pesticide induced reproductive disorders in mice"; sanctioned by Indian Council of Medical Research, vide their letter no. 5/10/6/2007 – RHN dated 1.1.2009.
- vii.** Worked as Co-investigator on a project titled "Communication Initiative for Conservation of Water for Fish and Mankind in two districts of Bihar"; sanctioned by the Ministry of Science &

Technology, Govt. of India vide their letter no. DST/GIA/6896/2008-09 dated 09/04/2009.

- vii.** Worked as Co-investigator on a major Project titled “Molecular Profiling of Male Reproductive Disorder in Endosulfan and Arsenic Induced Mice and Their Detoxification by Microorganism with Probiotic Potential”, sanctioned by the Indian Council of Medical Research. The Project duration is for 3 years from March, 2015
- viii.** Worked as Principal Investigator in a project titled “Sustainable Mitigation Options in a Fluoride Affected Village of Bihar”; sponsored by UNICEF and Govt. of Bihar. (2010-11); sanctioned vide letter no. BSWSM-Vividh-105/10/210 Dated 30.04.2010
- ix.** Worked as Principal investigator in a project titled “Estimation of phthalate in soils of urban area of Patna District “funded by Ministry of Environment and Forest dept., Govt. of Bihar, sanctioned vide letter no 27 dated 02.03.2017.

**Research Guidance :**

**PhD Awarded- 9 Scholars:**

1. Dr. Sanjay Kumar. – Year 2008
  2. Dr. Reena Sinha –Year 2009
  3. Dr. Anuradha Kumari – Year-2012
  4. Dr. Vibha Jha---Year- 2013
  5. Dr. Arti Kumari – Year 2015
  6. Dr. Anshu Priya – Year 2017
  7. Dr Dharendra Kumar- Year 2018
  8. Dr. Chandan Kumar- Year 2020
  9. Dr. Shailendra Kumar- Year 2020
  10. Dr Aseem kr Anshu – Year 2022
- Supervision of five more research scholars for Ph.D. degree.
  - Dissertation guidance -several students.

## **Publications** :

### **Books Published** :

- i. Self Learning Materials of Nalanda Open University for B.Sc., Zoology Hons., (Part-I) Paper-I; Published by Nalanda Open University (2005).
- ii. Self Learning Materials of Nalanda Open University for B.Sc., Zoology Hons., (Part-I) Paper-II; Published by Nalanda Open University (2005).
- iii. Self Learning Materials of Nalanda Open University for B.Sc.-Zoology Subsidiary, Paper-I; Published by Nalanda Open University (2005).
- iv. Self Learning Materials of Nalanda Open University for B.Sc., Zoology Hons., (Part-II) Paper IV; Published by Nalanda Open University (2007).
- v. Self Learning Materials of Nalanda Open University for B.Sc., Zoology Hons., (Part-III) Paper V; Published by Nalanda Open University (2007)
- vi. Self Learning Materials of Nalanda Open University for M.Sc., Part I, Paper VIII; Published by Nalanda Open University (2009)
- vii. Self Learning Materials of Nalanda Open University for M.Sc., Part II Paper XI ; Published by Nalanda Open University (2009)
- viii. *Rangeen Machli Palan -Ek Udyog* -Published by Kanak Prakashan-  
**ISBN: 818465680-7** in 2011

## **Research Articles** :

### **Published:**

- i. "Studies on the Helminth Infestation of *Gallus gallus domesticus* in and around Patna" in Dr. C. B. Srivastava Commemoration Volume, 1994, pp. 129-136; published by the Helminthological Society of India.
- ii. "Effect of seasonal variations on incidence and intensity of helminth infection of *Calotes versicolor* in and around Patna". In *Proc. Zool. Soc. India (Proceedings of the Zoological Society of India)*, Volume-4, No.-2, pp. 83-88; (2005), published by the Zoological Society of India.

- iii. "Effects of *Lytocestus* infection on RBC and Hb content of *Clarias batrachus*", published in Abstract of National Seminar on Fish Health and Management in 2001.
- iv. "Avenues for Potential Therapeutic use of anti-cancer properties of *Vinca rosea*, *Withania somnifera* and *Ocimum sanctum*". Abstract published in "Indian Journal of Medical Research (Supplement)", February, 2005, pp.43.
- v. "*Vincarosea* and *Ocimum sanctum* leaf extracts as preventive agents for bacterial and viral infection of skin of fish due to ecotoxicity"; published in "Abstract of National Seminar on Management challenges in fisheries of rivers and associated ecosystems issues and strategies", Barrackpore, Kolkata, April, 2005, pp.47
- vi. "Synergistic effect of selenium and medicinal plant extracts to control carcinogenic effect of pollutants with special reference to ovarian cancer", abstract published in the proceedings of International Congress on Gamete Biology: Emerging Frontiers in Fertility and Contraceptive Development, page 81, February, 2006.
- vii. "Ultra structural changes in splenic cells and intermediate vascular pathway of *Mus musculus* under sub-lethal dose of Endosulfan"; Published in Aquaculture; APH publishing corporation, Ch.-20, pg. 209-224. **ISBN 978-81-313-0251-4**
- viii. "Haematological abnormalities in Mice due to Endosulfan exposure"; in Proc. Zool. Soc. India. 6(1):49-54 (2007). **ISSN 0972-6683**
- ix. "Studies on the Helminth Infestation of *Channa punctatus* in and around Patna"; in Proc. Zool. Soc. India 7(2): pp 79-84: (2008). **ISSN 0972-6683**
- x. "Endosulfan Causes Male Fertility Due to Endocrine Disruption"; abstract published in Symposium on Recent Trends in Reproductive Health Research; of Indian Society for the study of Reproduction and Fertility (ISSRF), pp189, 2008.
- xi. "Role of Ashwagandha in restoring the Hb% and RBC content in Endosulfan exposed Swiss Albino Mice"; in .Proc. Zool. Soc. India 8(2): pp109-112: (2009). **ISSN 0972-6683.**
- xii. Bacteria mediated extracellular synthesis of metallic nanoparticles", in International Research Journal of Biotechnology (**ISSN: 2141-5153**) Vol. 1(5) pp.071-079, December, 2010; also available online <http://www.interestjournals.org/IRJOB>. **ISSN: 2141-5153**
- xiii. "Ameliorating effects of Tulsi in restoring the HB% and RBC count in Swiss Albino Mice exposed to Endosulfan" in proc. Zool. Soc. India. 9(2):109-112 (2010). **ISSN 0972-6683** : INDEXED AND ABSTRACTED

- xiv. "Studies on the helminth infestation of *Calotes versicolor* in and around Patna".in J. Curr. Sci. 15 ( 2 ) ; pp 345 – 347 ( 2010 ) **ISSN-0972-6101**
- xv. "A study on the relationship between sex of *Calotes versicolor* and prevalence of its helminth infection".in Proc. Zool. Soc. India. 10(1):23-25 (2011). **ISSN 0972-6683**
- xvi. "Synthesis of AgNPs by Bacillus Cereus Bacteria and their Antimicrobial Potential", in Journal of Biomaterial and Nanobiotechnology, 2011, 2,155-161 doi; 10.4236/jbnb. 201122020. Published online April 2011(<http://www.scirp.org> / journal / jbnb ) **ISSN Print: 2158-7027; ISSN Online: 2158-7043**
- xvii. Study of Medicinal Plants used Against Jaundice. Natural Science Today. Vol. 9, No. 9, April-June, 2011. Pp 5-7. **ISSN: 0972-1908**
- xviii. Ethno Botanical Studies of the family *Euphorbiaceae* : A Review. Journal of Current Sciences. 16(1) : pp75-78 (2011). **ISSN 0972-6101**
- xix. Improvement in calorie intake due to Mid Daymeal programme in undernourished children ( 7-11 yrs ) of Patna; J. Curr. Sci. 16 ( 1 ) : 149-153 ( 2011 ) : **ISSN-0972-6101**
- xx. Nutritional Status of Children in Patna consuming mid-day meal with special reference to Iron intake and related Deficiency Symptoms 'in Spectrum; Journal of Science and Society for sustainable development, Vol.iii,no.1-4,2011-2012. **ISSN - 0974-2417**
- xxi. Effect of *Azadiracta indica* (Neem) on the incidence of *Senga pycnomenus* –A cestode in *Channa punctatus*, in Proc. Zool.Soc. India.11(1): 113-117 : (2012). **ISSN 0972-6683**: Indexed and Abstracted.
- xxii. Role of *Azadiracta indica* (Neem) as an antidote to incidence of *Camallanus sweeti* – a nematode in *Channa punctatus* in Biospectra: Vol.7 (1), March 2012, pp 51-56; **ISSN: 0973-7057**.
- xxiii. Effect of *Azadiracta indica* (Neem) on the incidence of *Pallisentis pandei* – An Acanthocephala in *Channa punctatus*. Flora and fauna: 2012, Vol. 18, No. 1, pp 116-120; **ISSN: 0971 – 6920**.
- xxiv. Ethnobotanical Survey of Medicinal Plants Used for Treatment of Urinary Tract and Kidney Stone in Rural Area of Jahanabad (Bihar). Flora and fauna: 2012, Vol. 18, No. 2, pp 187-189; **ISSN: 0971 – 6920**.

- xxv. Restorative Effect of *Curcuma longa* on Estrogen and Uterus of Chlorpyrifos Exposed Mice. World Journal of Pharmaceutical Research:2013. Volume 2, Issue 5, pp1731-1744; **ISSN: 22277-7105**.
- xxvi. Effect of *Withania somnifera* on Estrgen, Cholesterol and Sub-cellular Structure of Ovary of Chlorpyrifos Exposed Mice. Caribbean Journal of Science and Technology.2013. Vol. 1, pp 061-069. **ISSN: 0799-3757**.
- xxvii. Environmental Pollutants Cause Male Infertility and Tumorigenesis in Swiss Albino Mice. Climate Change Effects on Agriculture and Economy. 2013. Chapter 23 pp 201-212. Published by Biotech Books, New Delhi.
- xxviii. Restorative effect of *Withania somnifera* on histology of chlorpyrifos induced ovary of Swiss albino mice. In American Journal of Pharmacy and Health Research ([www.ajphr.com](http://www.ajphr.com)). 2014, Volume 2, Issue 8 **ISSN: 2321-3647**(online).
- xxix. Tetracycline Resistant *Vibrio cholerae* O1 Ogawa With Ctxb7 Allele (Haitian) is Prevalent in Haryana, India. In Microbiology Volume : 5 | Issue : 3 | March 2015 | **ISSN - 2249-555X**
- xxx. The Effect of Endosulfan on Ovaries of *Mus musculus*: A Histological Study. InJournal of Advances in Biology & Biotechnology 5(2): 1-7, 2016; Article no.JABB.17787 **ISSN: 2394-1081**.
- xxxi. Amelioration Effect of *Embllica officinalis* Extract on Ovary in Endosulfan Induced Swiss Albino Mice. In British Journal of Pharmaceutical Research. 11(2): 1-9, 2016, Article no. BJPR.17669; **ISSN: 2231-2919**, NLM ID: 101631759; SCIENCEDOMAIN international ([www.sciencedomain.org](http://www.sciencedomain.org)).
- xxxii. Mismatch Amplification Mutation Assay (MAMA) PCR Reveals Altered El Tor *Vibrio Cholerae* O1 Circulating in Delhi, India. In Int. J. Life. Sci. Scienti. Res. (International Journal of Life-Sciences Scientific Research – IJLSSR), Vol. 2 (^): 678-681, November – 2016, **ISSN (online): 2455-1716; Impact Factor: 2.4**.
- xxxiii. Bio-remedial effect of *Curcuma longa* onestrogen and sub-cellular structures of ovaries of pesticides exposed mice. World journal of Pharmaceutical Research .Volume 6, Issue 4, 677-685. Research Article **ISSN 2277- 7105 .SJIF Impact factor 7.523**
- xxxiv. Characterization of *Vibrio cholerae* O1 strains that trace the origin of Haitian-like genetic traits. Infection, Genetics and Evolution 54 (2017) 47–53.journal homepage: [www.elsevier.com/locate/meegid](http://www.elsevier.com/locate/meegid).

- xxxv. Arsenic in Prostate Cancer Patients In Gangetic Zone Of Bihar. IOSR Journal of Biotechnology and Biochemistry (IOSR-JBB) ISSN: 2455-264X, Volume 4, Issue 2 (Mar. - Apr 2018), PP 01-04 [www.iosrjournals.org](http://www.iosrjournals.org) DOI: 10.9790/264X-0402020104 [www.iosrjournals.org](http://www.iosrjournals.org)
- xxxvi. Effect of Arsenic induced toxicity in the Prostate gland of Swiss albino mice. In European journal of Pharmaceutical and medical Research. *ejpmr*, 2018,5(5), 603-607. SJIF Impact Factor 4.897 Research Article **ISSN 2394-3211**[www.ejpmr.com](http://www.ejpmr.com).
- xxxvii. Toxic effects of induced Sodium arsenite on the ovary of Swiss albino mice. In European Journal of Pharmaceutical and Medical Research, (2018), 5(7): 372-377. ISSN: 2304-3211.
- xxxviii. The Calculation of Median Lethal Dose (LD<sub>50</sub>) and Maximum Permissible Dose (MPD) Values of Sodium Arsenite in Female Swiss Albino Mice. IOSR Journal of Environmental Science, Toxicology and Food Technology (September- 2018), Volume 12, Issue 9 Ver-I; e-ISSN: 2319-2402, P- ISSN: 2319-2399, PP 89-91.
- xxxix. Sodium Arsenite-Induced Histopathological and Oxidative DNA Damage in the Ovary of Mice. IOSR Journal of Biotechnology and Biochemistry (Sep. - Oct. 2018), Volume 4, Issue 5; ISSN: 2455-264X, PP 08-13; [www.iosrjournal.org](http://www.iosrjournal.org).
- xl. Determination of PAEs in soil of municipal wards of Patna, India by microwave assisted extraction and LC-MS/MS. Journal – Soil and Sediment contamination: An international Journal. Volume 28, 2019 – Issue 2 <https://doi.org/10.1080/15320383.2018.1553933>
- xli. Quantification of DEHP by UHPLC in Soil of Municipal Wards of Patna, Bihar. Published in POLLUTION RESEARCH (EM International) in the year 2021 (1) Issue. ISSN 0257 - 8050

#### **Other Academic Activities:**

- i. Working as convenor of internal excreening committee of confirmation of Patliputra University. ( R/PPU/1808 /21)
- ii. Expert of Selection committee, Patna University for selection of Assistant Professor (G/1995dated 17.6.22)
- iii. Expert of Screening committee, Patliputra University for selection of Assistant Professor(R/PPU/1212/22)
- iv. Member of PGRC ( Zoology) of Patliputra University.



- v. Worked as Head of the P. G. Department of Environmental Sciences (From December 2016)
- vi. Worked as Professor-in-charge of Promotion Cell of Patliputra University (from November 2018)
- vii. Member of the Academic Council, Nalanda Open University, Bihar (nominated by Hon'ble Chancellor of University of Bihar vide letter no. NOU/1/14(part)-1810/GS(I) dated 13/06/2017).
- viii. Member of IQAC of Patliputra University
- ix. Member of IQAC of A. N. College, Patna
- x. Member of the Committee for research and consultancy for NAAC accreditation of A. N. College, Patna.
- xi. Member of an Expert Committee of UGC for evaluation of the proposals received from ODL Institutions for continuation of recognition from the academic year 2016-17.(vide letter no D.O.No.12-3/2016(DEB-III)
- xii. Judge in the State Level Science Seminar, 2004, organized by the SCERT.
- xiii. Judge in the State Level Science Fair, 2004, organized by the SCERT.
- v.** Attended Orientation Course organized by the Academic Staff College, Patna University (24.04.1998 to 21.05.1998).
- vi.** Participated in the Refresher Course organized by the Academic Staff College, B.R.A. Bihar University, Muzaffarpur from 02.03.2002 to 22.03.2002.
- vii.** Participated in the Second Refresher Course in Biotechnology from 24.03.2004 to 13.04.2004, organized by the Academic Staff College, Patna University, Patna.
- viii.** Nominated as the member of Research Advisory Board of Mahavir Cancer Sansthan, Patna (2007).
- ix.** Member of the Institutional Animal Ethics Committee of Mahavir Cancer Sansthan, Patna (2007).
- x.** Co-ordinator of the Moderation Board for evaluation; appointed by Bihar intermediate Education Council. (2007)
- xi.** Member of the Core Committee for the Inter University Cultural Activities (TARANG) in all Universities of Bihar. Notified by the Hon'ble Chancellor's office vide notification no.-BSU-13/2007-1421/GS (1) dated 11.05.2007.

- xii.** Member of Screening Committee for Motivation Programme under “Contact Programme for Talented School Students” sponsored by Ministry of Science & Technology, D.S.T., New Delhi on 7<sup>th</sup> April, 2007.
- xiii.** Worked as a member of Executive Committee and editorial board in the national symposium on Impact of environmental pollutants on health and fertility, held at Mahavir Cancer sansthan and Research Centre Patna, on 13<sup>th</sup> and 14<sup>th</sup> march 2010.
- xiv.** Member of the Organizing Committee for the State level 4<sup>th</sup> Bihar Vigyan Congress 2011 organized by Bihar Council on Science & Technology. (2011)
- xv.** Worked as convenor in organizing National Symposium on nanotechnology: Present Perspective and Future Direction held at Mahavir Cancer Sansthan and Research Centre Patna, on 9<sup>th</sup> and 10<sup>th</sup> April 2011.
- xvi.** Expert Member on Mitigation Measures in Fluoride/Arsenic affected areas of Bihar of Public Health Engineering Department, Government of Bihar since Sept. 2011.
- xvii.** Nominated as the member of Research Advisory Board of Mahavir Cancer Sansthan, Patna (2013)
- xviii.** Member of the Institutional Animal Ethics Committee of Mahavir Cancer Sansthan , Patna (since 2011).
- xix.** Guest faculty for M.Sc. Biochemistry, Mahavir Cancer Institute and Research Centre (2013).
- xx.** Associate Editor of an International Biannual Journal of Life Sciences “ Recent Life Science Mirror ”, (2013-14).
- xxi.** Reviewer of Research Article Titled: “Neurotoxic and Genotoxic Effects of Methylmercury” for publication in the journal: Environment, Development and Sustainability – Springer Journal ( Journal no. 10668) (2013)  
ISSN: 1387-585X (print version)  
ISSN: 1573-2975 (electronic version)
- xxii.** Editor of Journal of Current Science; 2011
- xxv.** Hindi News Reader, Patna Doordarshan Kendra from 1996

## **Curriculum Development**

- **CBCS** - Worked as an expert of **Environmental Sciences** in implementation of Choice based credit System (CBCS) in the State Universities Of Bihar (2018-19) by the order of Hon'ble Chancellor of Bihar.
- Participated in the Orientation Workshop as an Expert for Comparative study of National Curriculum Framework, 2005 and the existing curriculum of Bihar; organized by SCERT (State Council of Education Research & Training) on June 17, 2006.
- Participated as an expert for designing the new curriculum and evaluation system for Intermediate course as per the National Curriculum Framework 2005 for the BIEC (Bihar Intermediate Education Council) in 2006.

## **Awards:**

- i. National Academy of Medical Sciences (India), New Delhi, sponsored me under the CME Programme for Training under the Medical Scientist Exchange Programme (2005-2006).
- ii. Zoological Society of India awarded **Congress of Zoology Medal** 2006 for outstanding research contribution in Zoology.
- iii. International Consortium of Contemporary Biologists awarded **Senior Scientist award-2011** for outstanding contribution in Parasitology.
- iv. Awarded Best article Certificate for the article and successfully published articles of Volume 2, Issue 6 on 05 November 2016 in IJLSSR Current issue.

## **Memberships of Professional Bodies :**

- Fellow of Zoological Society of India since 10.11.03
- Fellow of Indian Academy of Environmental Sciences since 09.02.04
- Life Member of Inland Fisheries Society of India

- Life Member of Indian Science Congress since May 20.05.2005. Membership no. L11774
- Life Member of Indian Society for the Study of Reproduction and Fertility since 2007. (LM 864)
- Life Member Recent Life Science Mirror since 31.12.12. LM 037/2012
- Fellow of Society for Sciences since 04.12.2010. Fellow no. 150
- Fellow of Society of Environmental Science since 04.12.2010. Fellow no. 319
- Life Fellow of MSET-ICCB since 2005

**Interests: Environmental Science, Bio-Diversity, Toxicology, Helminthology**



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