


CURRICULUM VITÆ

Name	: DIWAKAR MISHRA	
Designation	: Assistant Professor of Zoology	
Date of Birth	: February 05, 1974	
Qualification	: M. Sc. and Ph. D. (Zoology)	
Specialization	: P. G. Level (Fishery Biology) and Research level (Endocrinology and Toxicology).	
Experience (in years)	: <ul style="list-style-type: none"> ▶ Teaching exp. : More than 20 Years/Sessions at U.G. Level. ▶ Research exp. : 23 years (as evidenced by several publications) including experience as SRF in ICAR sponsored Research project (excluding Ph. D.) ▶ Any other : Expertise in induced breeding in major carps by hypophysation technique. 	
Publications	: <ul style="list-style-type: none"> ▶ No. of research papers published: (47) National: 05, International: 40, Other subject: 02 and papers communicated: 01, Research papers citations: 483; reads: 6012; h-index 15; RG Score 19.34 (on Research Gate online platform). ▶ No. of abstracts published: 24 ▶ No. of books published: 06 ▶ Participation in symposia/ seminars/ webinars/ workshops at national and international levels: 53 times 	
Extra Abilities	: Skilled in operating PC, ELISA analyzer, spectrophotometer, microphotography equipments, microtome machine and SEM etc.	

1. Field of Specialization in Research: “Endocrinology and Toxicology”.

2. Research Experience: Worked as **Senior Research Fellow** in the ICAR sponsored research project (No. 4(11)/95 ASR-I) entitled “**Impact of certain pyrethroids on blood parameters (calcitonin, calcium, inorganic phosphate, sodium, potassium, and chloride) and calcium regulating endocrine glands of a fish, Heteropneustes fossilis**” (From April 01, 1998 to March 31, 2001), in the Endocrinology Laboratory, Department of Zoology, D.D.U. Gorakhpur University, Gorakhpur-273009 (U.P.), India.

3. Research collaboration with other Departments: (1) Department of Zoology, D.D.U. Gorakhpur University, Gorakhpur – 273009 (U.P.), India; (2) Department of Zoology, D.A.V. Post Graduate College, Azamgarh – 276001 (U.P.), India; (3) Department of Zoology, Shiv Harsh Kisan P. G. College, Basti – 272001, and (4) Noto Marine Laboratory, Division of Biodiversity, Institute of Nature and Environmental Technology, Kanazawa University, Ogi, Noto-cho, Housu-gun, Ishikawa 927-0553, Japan.

4. Account of Ph. D. enrolled / produced: Research scholar enrolled (01)

5. Ongoing Research Project under “Research and Development Scheme” Government of Uttar Pradesh: Minor Research Project (No. 93/2021/1401/□□□□-4-2021-4(28)/2021, dated 22-10-2021) entitled “Protective Effects of Some Natural Products on Toxicant induced Physiological and Cyto-architectural Alterations in Vital organs of Rat” for three years.

6. Professional Skills and Expertise: Expertise in studies involving calcium regulating endocrine glands and knowledge of induced breeding in fish by hypophysation technique. Skilled in operating Computer, Spectrophotometer, ELISA analyzer, Fraction collector, Freeze dryer, Microtome machine, Scanning Electron Microscope (SEM), Photo-micrographic equipments etc.

7. Research Activities:

(A) Published 45 research papers having high Impact factor in Internationally Reputed Journals (covering the major International Publishing Houses) such as **Bull. Environ. Contam. Toxicol., Malays. Appl. Biol., Ecotoxicol. Environ. Safaty, Int. J. Biol. Chem. Sci., Zoologica Poloniae, J. Biol. Research, Toxicol. Environ. Chem., Environmental Toxicology, Pesquisa Veterinaria Brasileira, Nig. J. Nat. Prod. Med., Int. J. Env. Hlth., Acta. Toxicol. Argent., J. Basic Clin. Physiol. Pharmacol., Pesticide Biochem. Physiol., Fish Physiol. Biochem., Acta Scientiarum Biol. Sci., Iranian J. Toxicol., Egiptian J. Aquat. Res., Acta. Toxicol. Argent., Jordan J. Biol. Sci., etc.**

(B) Membership of academic societies:

- Life member, Indian Science Congress Association
- Annual member, U. P. Government College Academic Society, India

(C) Landmark contributions to the field of science: My research endeavors concern the area of **endocrine toxicity, heavy metal toxicity and comparative vertebrate endocrinology**. I have made a number of noteworthy contributions in these field of research which are summarized below:

ENDOCRINE TOXICITY: My interest lies in investigating the effects of organophosphates, pyrethroids, heavy metal and plant-derived pesticides on the blood electrolytes and calcium regulating endocrine glands in fish. The major contributions are:

- Investigated the effects of organophosphate, pyrethroid, heavy metals and botanical pesticides on the ultimobranchial gland of fish. These studies are **FIRST REPORTS** and new to science.
- Established the inhibitory effects of organophosphate, pyrethroid and heavy metals on the corpuscles of Stannius (an endocrine gland present in fishes only) of fish. These studies are **FIRST REPORTS** and new to science.
- Reported the effects of botanical pesticides on blood electrolytes of fish which was not reported earlier.
- Investigated the effects of organophosphate and pyrethroid on the prolactin cells of fish. These studies are **FIRST REPORTS** and new to science.

HEAVY METAL TOXICITY: I have made studies of toxicological impact of heavy metals, like cadmium and Lead on calcium regulating endocrine glands (Ultimobranchial Gland, Corpuscles of Stannius and Prolactin cells) of freshwater catfish, *Heteropneustes fossilis*. These are **NEW FINDINGS**.

COMPARATIVE VERTEBRATE ENDOCRINOLOGY: I have made studies on the regulation of calcium in vertebrates. My focused outstanding original contribution in the field has made an excellent impact on others working in the area of comparative endocrinology. I have made a commendable contribution in furthering the knowledge concerning the role

of hormones in lower vertebrates. My published scientific papers in the field of comparative vertebrate endocrinology contributing **NEW FINDINGS** like:

- Hypercalcemic effect of vitamin D and its metabolites in reptiles (**FIRST REPORT**)
- Effects of prolactin on calcium regulation in fishes and reptiles (**FIRST REPORT**)
- Effects of estradiol on calcium regulation in fishes kept in different calcium environments (**FIRST REPORT**)
- Hypocalcemic effect of calcitonin in fish (which was denied earlier by most investigators) under diminished circulating levels of calcitonin.

8. Books Published:

- (1). **Animal Physiology (Controlling and Coordinating Systems)** jointly with Tripurari Mishra; by the Mahaveer Publication, Dibrugarh, Assam (India) with **ISBN: 978-93-89904-53-6 (2020)**
- (2). **Principles of Ecology** jointly with Tripurari Mishra and Banshidhar Singh; by the Mahaveer Publication, Dibrugarh, Assam (India) with **ISBN: 978-93-89904-72-7 (2020)**
- (3). **Comparative Anatomy of Vertebrates** jointly with Tripurari Mishra and Susmita Srivastav; by the Mahaveer Publication, Dibrugarh, Assam (India) with **ISBN: 978-93-91064-45-7 (2021)**
- (4). **Animal Physiology (Life Sustaining Systems)** jointly with Tripurari Mishra; by the Mahaveer Publication, Dibrugarh, Assam (India) with **ISBN: (In Press/released soon)**
- (5). **Animal Physiology and Biochemistry** jointly with Tripurari Mishra; by the Mahaveer Publication, Dibrugarh, Assam (India) with **ISBN: (In Press/released soon)**
- (6). **A Text Book of Basics of Molecular Biology, Bioinstrumentation and Biotechniques** jointly with Tripurari Mishra, Susmita Srivastav and Ashok Kumar by the Discount Group of Publication, Gorakhpur, Uttar Pradesh (India) with **ISBN: (In Press/released soon)**

9. Research Publications:

- (A) No. of Research papers published in Scientific Journals: **47**
- (B) No. of Research papers communicated: **01**
- (C) No. of Abstracts published: **24**
- (D) Participation in symposia/webinars/seminars/workshops: **53**

(A). Research Papers Published in International Refereed Journals:

1. **Diwakar Mishra**, Susmita Srivastav, Sunil K. Srivastav and Ajai K. Srivastav (2001) Plasma calcium and inorganic phosphate levels of a freshwater catfish *Heteropneustes fossilis* in response to cypermethrin treatment. **J. ECOPHYSIOL. OCCUPATIONAL HLTH.** 1: 131-138.
2. **Diwakar Mishra**, Susmita Srivastav, Sunil K. Srivastav and Ajai K. Srivastav (2002) Toxicity and behavioural responses of a freshwater catfish, *Heteropneustes fossilis* to a synthetic pyrethroid (cypermethrin). **J. ADV. ZOOL.** 23: 39-42.
3. Ajai K. Srivastav, Sanjay K. Srivastava, **Diwakar Mishra**, Susmita Srivastav and Sunil K. Srivastav (2002) Ultimobranchial gland of freshwater catfish, *Heteropneustes fossilis* in response to deltamethrin treatment. **BULL. ENVIRON. CONTAM. TOXICOL.** 68: 584-591.

4. **Diwakar Mishra**, Sunil K. Srivastav and Ajai K. Srivastav (2004) Ultimobranchial gland of a teleost *Heteropneustes fossilis* following intoxication with metacid-50. **ZOOLOGY AND HUMAN WELFARE** Section VII: 355-361.
5. **D. Mishra**, S.K. Srivastav and Ajai K. Srivastav (2004) Plasma calcium and inorganic phosphate levels of a teleost *Heteropneustes fossilis* exposed to metacid-50. **MALAYS. APPL. BIOL.** 33: 19-25.
6. **Diwakar Mishra**, Sunil K. Srivastav and Ajai K. Srivastav (2005) Acute toxicity and behavioural anomalies of a freshwater catfish, *Heteropneustes fossilis* to an organophosphate insecticide methyl parathion. **POLLUTION RES.** 24: 307-310.
7. **Diwakar Mishra**, Sunil K. Srivastav and Ajai K. Srivastav (2005) Effects of the insecticide cypermethrin on plasma calcium and ultimobranchial gland of the teleost *Heteropneustes fossilis*. **ECOTOXICOLOGY ENVIRON. SAFETY** 60: 193-197.
8. **Diwakar Mishra**, S.K. Srivastav, Nobuo Suzuki and Ajai K. Srivastav (2008) Prolactin cells of a teleost, *Heteropneustes fossilis* intoxicated with Metacid-50. **INTERNATIONAL J. BIOL. CHEM. SCI.** 2: 339-345.
9. Bhawana Srivastava, **Diwakar Mishra**, Sunil K. Srivastav, Nobuo Suzuki and Ajai K. Srivastav (2008) 1,25(OH)₂D₃ induced alterations in the plasma calcium, inorganic phosphate, ultimobranchial gland and parathyroid gland of the garden lizard, *Calotes versicolor*. **ZOOLOGICA POLONIAE** 53: 05-18.
10. Rubi Rai, **Diwakar Mishra**, Sunil K. Srivastav and Ajai K. Srivastav (2008) Acute toxicity of cadmium against catfish, *Heteropneustes fossilis* (Siluriformes: Heteropneustidae) in static renewal bioassays. **ETHIOP. J. BIOL. SCI.** 7 (2): 185-191.
11. Ajai K. Srivastav, B. Srivastava, **D. Mishra**, S.K. Srivastav and N. Suzuki (2009) Alterations in the ultimobranchial and parathyroid gland of the garden lizard, *Calotes versicolor* after prolactin administration. **JOURNAL BIOLOGICAL RESEARCH** 12:187-192.
12. Ajai K. Srivastav, Sanjay. K. Srivastava, **D. Mishra**, S.K. Srivastav and Nobuo Suzuki (2009) Effects of deltamethrin on serum calcium and corpuscles of Stannius of freshwater catfish, *Heteropneustes fossilis*. **TOXICOLOGICAL ENVIRONMENTAL CHEMISTRY** 91:761-772.
13. **Diwakar Mishra**, S.K. Srivastav, N. Suzuki and Ajai K. Srivastav (2009) Corpuscles of Stannius of a freshwater teleost, *Heteropneustes fossilis* in response to metacid-50 treatment. **JOURNAL APPLIED SCI. ENVIRON. MANAGEMENT** 13: 69-77.
14. Rubi Rai, **Diwakar Mishra**, S.K. Srivastav and Ajai K. Srivastav (2009) Ultimobranchial gland of a freshwater teleost, *Heteropneustes fossilis* in response to cadmium treatment. **ENVIRONMENTAL TOXICOLOGY** 24: 589-593.
15. Ajai K. Srivastav, Sarita Singh, **Diwakar Mishra** and S.K. Srivastav (2009) Ultimobranchial gland of freshwater catfish, *Heteropneustes fossilis* in response to calcitonin administration. **PESQUISA VETERINÁRIA BRASILEIRA** 29 (12): 963-968.
16. ManiRam Prasad, Abhishek Kumar, **Diwakar Mishra**, Sunil K. Srivastav, Nobuo Suzuki and Ajai K. Srivastav (2009) Acute toxicities of diethyl ether and ethanol extracted *Nerium indicum* leaf to the fish, *Heteropneustes fossilis*. **NIGERIAN JOURNAL NATURAL PRODUCTS MEDICINE** 13: 53-57.

17. Ajai K. Srivastav, Sanjay K. Srivastava, **Diwakar Mishra** and Sunil K. Srivastav (2010) Deltamethrin-induced alterations in serum calcium and prolactin cells of a freshwater teleost, *Heteropneustes fossilis*. **TOXICOLOGICAL ENVIRONMENTAL CHEMISTRY** 92: 1857-1864.
18. **Diwakar Mishra**, Sarojni Tripathi, S.K. Srivastav, Nobuo Suzuki and Ajai Kumar Srivastav (2010) Corpuscles of Stannius of a teleost *Heteropneustes fossilis* following intoxication with a pyrethroid (cypermethrin). **NORTH-WESTERN JOURNAL ZOOLOGY** 6: 203-208.
19. Ajai Kumar Srivastav, Sanjay K. Srivastav, Sarojni Tripathi, **Diwakar Mishra** and Sunil K. Srivastav (2010) Chlorpyrifos based commercial formulation: alterations in corpuscles of Stannius of catfish. **INTERNATIONAL JOURNAL ENVIRONMENT HEALTH** 4: 323-332.
20. Abhishek Kumar, ManiRam Prasad, **Diwakar Mishra**, Sumil K. Srivastav and Ajai Kumar Srivastav (2010) Toxicity of aqueous extract of *Euphorbia tirucalli* latex on catfish, *Heteropneustes fossilis*. **ECOTOXICOL. ENVIRON. SAFETY** 73: 1671-1673.
21. Rubi Rai, Sarojni Tripathi, **Diwakar Mishra**, Sunil Kumar Srivastav and Ajai Kumar Srivastav (2010) Cadmium-induced changes in the corpuscles of Stannius of a freshwater teleost, *Heteropneustes fossilis*. **EGYPTIAN JOURNAL OF BIOLOGY** 12: 74-80.
22. Anoop K. Srivastava, **Diwakar Mishra**, Shilpee Srivastava, Sunil K. Srivastav and Ajai K. Srivastav (2010) Acute toxicity and behavioural responses of *Heteropneustes fossilis* to an organophosphate insecticide, dimethoate. **INTERNATIONAL JOURNAL PHARMA BIO SCIENCES** 1: 359-363. ISSN 0975-6299
23. ManiRam Prasad, Abhishek Kumar, **Diwakar Mishra**, Sunil K. Srivastav and Ajai K. Srivastav (2010) Acute toxicity of *Euphorbia royleana* Boiss (Euphorbiaceae) latex on freshwater catfish, *Heteropneustes fossilis* (Siluriformes, Heteropneustidae). **ACTA TOXICOL. ARGENT.** 18: 5-9.
24. Ajai K. Srivastav, Bhawna Srivastava, **Diwakar Mishra**, Sunil K. Srivastav and Nobuo Suzuki (2011) Calcitonin induced alterations in the ultimobranchial and parathyroid gland of garden lizard, *Calotes versicolor*. **TURKISH JOURNAL OF ZOOLOGY** 35: 9-14.
25. Abhishek Kumar, ManiRam Prasad, **Diwakar Mishra**, Sunil K. Srivastav and Ajai K. Srivastav (2011) Effects of *Euphorbia tirucalli* latex on blood calcium and phosphate of the freshwater air-breathing catfish *Heteropneustes fossilis*. **TOXICOLOGICAL AND ENVIRONMENTAL CHEMISTRY** 93: 585-592.
26. ManiRam Prasad, Abhishek Kumar, **Diwakar Mishra**, Sunil K. Srivastav and Ajai K. Srivastav (2011) Blood electrolytes of a freshwater catfish *Heteropneustes fossilis* in response to treatment with a botanical pesticide, *Euphorbia royleana* latex. **INTEGRATIVE ZOOLOGY** 6: 150-156.
27. Ajai Kumar Srivastav, Sanjay Kumar Srivastava, **Diwakar Mishra** and Sunil Kumar Srivastav (2011) Histological alterations in the ultimobranchial gland of teleost *Heteropneustes fossilis* in response to chlorpyrifos treatment. **J. BASIC CLIN. PHYSIOL. PHARMACOL.** 22: 23-28.
28. Abhishek Kumar, ManiRam Prasad, **Diwakar Mishra**, Sunil K. Srivastav and Ajai K. Srivastav (2011) Botanical pesticide, azadirachtin attenuates blood electrolytes of a freshwater catfish *Heteropneustes fossilis*. **PESTICIDE BIOCHEMISTRY PHYSIOLOGY** 99: 170-173.

29. **Diwakar Mishra**, Rubi Rai, Sunil K. Srivastav and Ajai K. Srivastav (2011) Histological alterations in the prolactin cells of a teleost, *Heteropneustes fossilis* after exposure to cypermethrin. **ENVIRONMENTAL TOXICOLOGY** 26: 359-363.
30. ManiRam Prasad, Abhishek Kumar, **Diwakar Mishra**, Sunil K. Srivastav and Ajai K. Srivastav (2011) Alterations in blood electrolytes of a freshwater catfish, *Heteropneustes fossilis* in response to treatment with a botanical pesticide, *Nerium indicum* leaf extract. **FISH PHYSIOLOGY BIOCHEMISTRY** 37: 505-510.
31. Abhishek Kumar, ManiRam Prasad, **Diwakar Mishra**, Sumil K. Srivastav and Ajai Kumar Srivastav (2012) Acute Toxicity of Azadirachtin to a Teleost, *Heteropneustes fossilis*. **ACTA SCIENTIARUM BIOL. SCI.** 34 (2): 213-216.
32. Ajai Kumar Srivastav, Sanjay K. Srivastav, Sarojni Tripathi, **Diwakar Mishra** and Sunil K. Srivastav (2012) Morpho-toxicology of chlorpyrifos to prolactin cells of a freshwater catfish, *Heteropneustes fossilis*. **ACTA SCIENTIARUM BIOL. SCI.** 34 (4): 443-449.
33. Ajai K. Srivastav, Rubi Rai, Nobuo Suzuki, **D. Mishra** and S.K. Srivastav (2013) Effects of lead on the plasma electrolytes of a freshwater fish, *Heteropneustes fossilis*. **INTERNATIONAL AQUATIC RESEARCH** 5: 4 (7).
34. Rubi Rai, **Diwakar Mishra**, S. K. Srivastav, Nobuo Suzuki and Ajai K. Srivastav (2013) Effects of lead nitrate on histo-cytological alterations of corpuscles of Stannius of stinging catfish, *Heteropneustes fossilis*. **IRANIAN JOURNAL OF TOXICOLOGY** 7(20): 823-830.
35. Ajai Kumar Srivastav, Rubi Rai, Nobuo Suzuki, **Diwakar Mishra** and S. K. Srivastav (2013) Responses of the prolactin cells of the stinging catfish, *Heteropneustes fossilis* following lead intoxication. **EGYPTIAN JOURNAL OF AQUATIC RESEARCH** 39:111-114.
36. Ajai Kumar Srivastav, Rubi Rai, **Diwakar Mishra**, S. K. Srivastav and Nobuo Suzuki (2014) Histo-cytochemical responses of the prolactin cells of the catfish, *Heteropneustes fossilis* to cadmium exposure. **ACTA TOXICOL. ARGENT.** 22 (3): 116-121.
37. Chandra Prakash, ManiRam Prasad, Abhishek Kumar, Diwakar Mishra, Archana Chaudhary and Sunil K Srivastav (2016) Protective effect of ZnCl₂ on toxicity produced by Microcystin-LR on Serum Calcium and Phosphate levels of freshwater catfish *Heteropneustes fossilis*. **INT. J. PURE APP. BIOSCI.** 4 (2): 111-117.
38. Susmita Srivastav, **Diwakar Mishra**, Sunil K. Srivastav and Ajai K. Srivastav (2016) Alterations in the Corpuscles of Stannius after Estradiol Administration to Stinging Fish, *Heteropneustes fossilis* Maintained in Different Calcium Environments. **INT. J. ZOOL. INVEST.** 2 (1): 24-34.
39. Susmita Srivastav, **Diwakar Mishra**, Sunil K. Srivastav, Nobuo Suzuki and Ajai K. Srivastav (2017) Estradiol Affects Prolactin Cells of a Teleost, *Heteropneustes fossilis* Kept in Different Calcium Environments. **IRANIAN JOURNAL OF TOXICOLOGY** 11 (5): 45-51.
40. Sunil K. Srivastav, Shilpee Srivastava, A. K. Srivastava, **Diwakar Mishra**, Chandra Prakash (2017) Effects of Sex Steroids (Testosterone and Estradiol) on Serum Calcium and Phosphate Levels of a Freshwater Male Teleost, *Heteropneustes fossilis*. **INT. J. ZOOL. INVEST.** 3 (2): 198-202.
41. Ajai Kumar Srivastav, Shilpi Srivastava, **Diwakar Mishra**, Sunil Kumar Srivastav and Nobuo Suzuki (2018) Cadmium attenuates blood calcium and phosphate in the Indian skipper frog, *Euphlyctis cyanophlyctis*. **INT. J. ZOOL. INVEST.** 4 (2): 149-156.

42. Susmita Srivastav, **Diwakar Mishra**, Sunil K. Srivastav, Nobuo Suzuki and Ajai K. Srivastav (2019) Prolactin Induced Alterations in Plasma Minerals (Calcium and Phosphate) and Ultimobranchial Gland of Stinging Catfish, *Heteropneustes fossilis* Maintained in Different Calcium Media. **INT. J. ZOOL. INVEST.** 5 (2): 97-107.
43. Susmita Srivastav, **Diwakar Mishra**, Sunil K. Srivastav, Nobuo Suzuki and Ajai K. Srivastav (2020) Estradiol affects Ultimobranchial gland of a freshwater catfish, *Heteropneustes fossilis* kept in different calcium environments. **JORDAN J. BIOL. SCI.** 13 (4): 519-523.
44. Susmita Srivastav, **Diwakar Mishra**, Abhishek Kumar, Sunil K. Srivastav, Nobuo Suzuki and Ajai K. Srivastav (2021) Prolactin induced cyto-architectural changes in the corpuscles of Stannius of stinging catfish, *Heteropneustes fossilis* acclimated to different calcium media. **INT. J. BIOL. ENVIRON. INVEST.** 01 (1): 01-09.
45. Susmita Srivastav, **Diwakar Mishra**, Sunil K. Srivastav, Nobuo Suzuki and Ajai K. Srivastav (2021) Alterations in the Prolactin Cells of Stinging Catfish, *Heteropneustes fossilis* Administered with Prolactin and Maintained in Artificial freshwater or Calcium-Deficient Freshwater. **INT. J. ZOOL. INVEST.** 7 (2): 615-620.
46. **Article published in other subject: Diwakar Mishra** (2012) Contractual System in Higher Education: An Exploitative Policy. In: the proceedings of UGC sponsored National Seminar on “**Changing Scenario of Higher Education: Conventional versus Professional courses**” ISBN : 978-93-5087-230-7, hosted by Government Girls’ P. G. College, Ghazipur (U.P.) on May 20-21, 2012, Article No.14, Page No. 70-71.
47. **Article published in other subject: Diwakar Mishra** and Susmita Srivastav (2019) Information and Communication Technology (ICT): A Boon to Recent Teachers and Researchers of Biosciences. **IND. RES. J. SOC. SCI.** ISSN: 0974-0694, Volume No.37, Issue No. 1 Page No. 94-99.

(B). Abstract published:

1. “Ultimobranchial gland of teleost *Heteropneustes fossilis* in response to cypermethrin treatment” In: National symposium on “**Biodiversity and Resource Management**” organized by National Bureau of Fish Genetic Resources, Lucknow. Abstract No.197: Page No.105.
2. “Ultimobranchial gland of a teleost *Heteropneustes fossilis* following intoxication with Metacid-50” In: National Seminar on “**Zoology and Human Welfare**” organized by Dr. S.P. Mukherjee Government Degree College, Phaphamau, Allahabad (University of Allahabad), Abstract No.47: Page No.46.
3. “Impact of cypermethrin on plasma calcium and prolactin cells of a freshwater catfish, *Heteropneustes fossilis*” In: **XII Convention of U.P. Government College Academic Society** organized by Government P.G.College, Rampur (U.P.), Zoology Abstract No.15: Page No.99.
4. “Prolactin cells of a teleost, *Heteropneustes fossilis* intoxicated with metacid-50” In: National Symposium on “**Environmental Threat to Human Health in 21st Century**” organized by Banaras Hindu University, Varanasi (Mahila Mahavidyalaya), Abstract No. 07, Page No. 23.
5. “Comparative acute toxicity of the fish, *Heteropneustes fossilis* to diethyl-ether and ethanol extracted *Nerium indicum* leaf” In: National Symposium on “**Environmental Threat to Human Health in 21st Century**” organized by Banaras Hindu University, Varanasi (Mahila Mahavidyalaya), Abstract No. 02, Page No. 48.

6. "Acute toxicity of azadirachtin to a teleost, *Heteropneustes fossilis*" In: National Symposium on "**Environmental Threat to Human Health in 21st Century**" organized by Banaras Hindu University, Varanasi (Mahila Mahavidyalaya), Abstract No. 01, Page No. 48.
7. "Histological alterations of in the ultimobranchial gland of teleost, *Heteropneustes fossilis* in response to chlorpyrifos treatment" In: National Conference on "**Aquatic Pollution: Endocrine Disruption in fish and other Aquatic Organisms**" organised by Ganpat Sahai P.G. College, Sultanpur, Abstract No. 10.
8. "Deltamethrin-induced alterations in the prolactin cells of a freshwater teleost, *Heteropneustes fossilis*" In: National Conference on "**Aquatic Pollution: Endocrine Disruption in fish and other Aquatic Organisms**" organised by Ganpat Sahai P.G. College, Sultanpur, Abstract No. 03.
9. "Cadmium induced changes in the corpuscles of Stannius of freshwater teleost, *Heteropneustes fossilis*" In: National Conference on "**Aquatic Pollution: Endocrine Disruption in fish and other Aquatic Organisms**" organised by Ganpat Sahai P.G. College, Sultanpur, Abstract No. 28.
10. "Effects of estradiol on prolactin cells of a teleost *Heteropneustes fossilis* kept in different artificial freshwater media" In: National Seminar on "**Environmental health: Challenges & Management**" organised by Pt. Deen Dayal Upadhyay Govt. P.G. College, Rajajipuram, Lucknow, Abstract No. 37.
11. "Impact of a warmer world on human health" In: National Conference on "**Impact of global warming and climate change on diversity: The challenge of conservation of flora and fauna**" organized by Department of Zoology, R.H.S.P.G. College, Singramau, Jaunpur, Abstract No. 43.
12. "Impact of a synthetic pyrethroid (cypermethrin) on corpuscles of Stannius of a stinging fish, *Heteropneustes fossilis*" In: National Symposium on "**Advances in Zoology and Environmental Science**" organized by Department of Zoology, D.D.U. Gorakhpur University, Gorakhpur (U.P.), Abstract No. 100.
13. "Causes and effects of global warming on environmental health" In: National Seminar on "**Challenges and road ahead: a micro-cosmic analysis of sustainable development**" organized by V.R.A.L Government Mahila College, Bareilly (U.P.), Abstract No. 32, Page No. 32.
14. "Effects of cypermethrin on behavioural and histopathological abnormalities in the gills of a teleost, *Heteropneustes fossilis*" In: National Seminar on "**Human impact on the environment**" organized by S. K. B. B. Government P. G. College, Harakh, Barabanki (U.P.), Abstract No.11, Page No. 138.
15. "Impact of chromium on vital functioning and behavioural anomalies of a freshwater stinging fish, *Heteropneustes fossilis*" In: National Conference on "**Challenges of Biological and Environmental Sciences in 21st century**" organized by S. V. M. Mahila P. G. College, Gorakhpur (U.P.), Abstract No.20, Page No. 34.
16. "Effects of sublethal concentration of deltamethrin on certain blood electrolytes of a teleost, *Heteropneustes fossilis*" In: National Seminar on "**Sustainable development: Environmental awareness for a secured future**" organized by IQAC and S. S. S. V. S. Government P. G. College, Chunar, Mirzapur (U.P.), Abstract No.17, Page No. 13.
17. "*Euphorbia tirucalli* latex induced alterations in prolactin cells of a freshwater catfish, *Heteropneustes fossilis*" In: National Conference on "**Man and Biosphere**" organized by Department of Zoology, Marwar Business School, Gorakhpur (U.P.), Abstract No.19, Page No. 49.

18. "A Review of Toxicological Impacts and Socio-Economic Status" In: National Seminar on "**Socio-Economic Impact of Hazardous metallic Contamination in drinking Water Resources**" organized by Department of Geology, Government Girls' P. G. College, Ghazipur (U.P.), Abstract No.28, Page No. 16.
19. "Ultimobranchial gland of a freshwater catfish, *Heteropneustes fossilis*, in response to estradiol administration" In: National Conference on "**Ecological Imbalance: A Threat to Flora, Fauna, Economy and Human Survival**" organized by Department of Zoology, Government P. G. College, Saidabad, Allahabad (UP), India Abstract No. 139, Page No.139.
20. "Prolactin induced alterations in certain plasma minerals (Calcium and Phosphate) and Ultimobranchial Gland of a fish, *Heteropneustes fossilis*" In: National Seminar on "**Biodiversity & Food Security in Changing Climate**" organized by Department of Botany, Government Degree College, Manikpur, Chitrakoot (UP), India Abstract No. 05, Page No.05.
21. "Interactions of Environmental agents with aging processes" In: "**Stepping into Future: Tapping the Talent, Contributions and Participation of Older Persons in Society**" organized by Institute of Gerontology and Geriatrics & University Department of Home Science, Lalit Narayan Mithila University, Darbhanga (Bihar), India Abstract No. 12, Page No.20.
22. "Prolactin induced alterations in certain plasma electrolytes and corpuscles of Stannius of a stinging fish, *Heteropneustes fossilis*" In: International Conference on "**Advances in biological and Environmental Research for Human Welfare**" organized by Department of Zoology, DDU Gorakhpur University, Gorakhpur (UP), India Abstract No. 40, Page No. 88-89.
23. "Alterations in biochemical parameters during breeding cycle of a catfish, *Mystus vittatus* (Bloch.) exposed to municipal sewage of city Basti, Uttar Pradesh" In: National Seminar on "**Environmental Hazards and Its Management**" organized by Department of Chemistry, Gramamrshi Pt. Ram Kumar Pandey Gramoday Ashram P. G. College, Beersinghpur, Saya, Ambedkar Nagar (UP), India Abstract No. A-78, Page No. 54.
24. "Cyto-architectural changes in corpuscles of Stannius after estradiol administration to a fish, *Heteropneustes fossilis* maintained in different calcium media" In: **National Conference on "Omics for Food, Health and Environment"** organized by Department of Biotechnology, DDU Gorakhpur University, Gorakhpur (UP), India Abstract No. PP-33, Page No.93-94.

(C). Participation in Seminars/ Webinars/ Workshops/ Symposia:

1. Participated in "**21st Annual session of the Academy of Environmental Biology**" organized by Narendra Dev University of Agricultural and Technology, Kumarganj, Faizabad dated 6-8 November, 2000.
2. Participated in "**22nd Annual session of the Academy of Environmental Biology**" organized by National Bureau of Fish Genetic Resources; Lucknow dated 11-13 September, 2002.
3. Participated in National Seminar on "**Zoology and Human Welfare**" organized by Dr. S. P. Mukherjee Government Degree College, Phaphamau, Allahabad (University of Allahabad) dated 22-24 November, 2004.
4. Participated in "**XII Convention of U.P. Government College Academic Society**" organized by Government P.G. College, Rampur (U. P.) dated 13-14 January, 2007.
5. Participated in National Symposium on "**Environmental Threat to Human Health in 21st Century**" organized by B. H. U., Varanasi (Mahila Mahavidyalaya) dated 16-17 January, 2009.

6. Participated in National Conference on **“Aquatic Pollution: Endocrine Disruption in fish and other Aquatic Organisms”** organised by Ganpat Sahai P. G. College, Sultanpur (U. P.) dated 28-29 March, 2010.
7. Participated in National Seminar on **“Challenges of Higher Education: Beyond 2010”** organized by Government Girls’ P. G. College, Ghazipur, U.P. (Sponsored by U. G. C., New Delhi) dated February 27, 2011.
8. Participated in National Seminar on **“Challenges for Biosciences in 21st century”** organized by Department of Zoology, S.P.P.G. College, Shohratgarh, Siddharthnagar, U. P. (Sponsored by U. G. C., New Delhi) dated February 19 and 20, 2011.
9. Participated in National Workshop on **“Scanning Electron Microscopy”** organized by The University of Burdwan, University Science Instrumentation Centre, Golapbag, Burdwan (W. B.), dated July 26-29, 2011.
10. Participated in National Seminar on **“Environmental health: Challenges & Management”** organised by Pt. Deen Dayal Upadhyay Govt. P. G. College, Rajajipuram, Lucknow, U. P. (Sponsored by Department of Higher Education, U. P.) dated January 20 - 21, 2012.
11. Participated in National Conference on **“Impact of global warming and climate change on diversity: The challenge of conservation of flora and fauna”** organized by Department of Zoology, R. H. S. P. G. College, Singramau, Jaunpur, U. P. (Sponsored by U. G. C., New Delhi) dated February 21 - 22, 2012.
12. Participated in National Symposium on **“Advances in Zoology and Environmental Science”** organized by Department of Zoology, D. D. U. Gorakhpur University, Gorakhpur (U. P.) dated March 13 -14, 2013.
13. Participated in National Seminar on **“Challenges and road ahead: a micro-cosmic analysis of sustainable development”** organized by V. R. A. L. Government Mahila College, Bareilly, U. P. (Sponsored by Department of Higher Education, U. P.) dated February 01 - 02, 2014.
14. Participated in National Seminar on **“Human Impact on Environment”** organized by S.K.B.B. Government P. G. College, Harakh, Barabanki, U. P. (Sponsored by Department of Higher Education, U. P.) dated March 23 - 24, 2014.
15. Participated in National Conference on **“Challenges of Biological and Environmental Sciences in 21st century”** organized by S. V. M. Mahila P. G. College, Gorakhpur, U. P. (Sponsored by Department of Science and Technology, India) dated December 19 - 20, 2014.
16. Participated in National Seminar on **“Sustainable development: Environmental awareness for a secured future”** organized by I. Q. A. C. and S. S. S. V. S. Government P. G. College, Chunar, Mirzapur, U. P. (Sponsored by Department of Higher Education, U. P.) dated February 06 - 07, 2015.
17. Participated in National Conference on **“Man and Biosphere”** organized by Department of Zoology, Marwar Business School, Gorakhpur (U. P.) dated February 09 - 10, 2016.
18. Participated in National Seminar on **“Socio-Economic Impact of Hazardous metal Contamination in drinking Water Resources”** organized by Government Girls’ P. G. College, Ghazipur, U. P. (Sponsored by Indian Council of Social Sciences Research, Jawaharlal Nehru University, New Delhi) dated February 11 - 12, 2016.

19. Participated in National Workshop on **“Scientific Paper Writing and Effective Communication”** jointly organized by Department of Biotechnology, D. D. U. Gorakhpur University, Gorakhpur and Biozone Research Foundation, Gorakhpur (U. P.) dated September 17-18, 2016.
20. Participated in National Conference on **“Ecological Imbalance: A Threat to Flora, Fauna, Economy and Human Survival”** organized by Department of Zoology, Government P. G. College, Saidabad, Allahabad (U. P.), dated September 22 - 23, 2017.
21. Participated in Workshop on **“DNA Fingerprinting: A boon to the Forensic Science”** organized by Department of Botany, Government Girls’ P. G. College, Ghazipur (U. P.), India, dated November 29-30, 2017.
22. Participated in National Seminar on **“Cleaning of the River Ganga and its Implication to Human health”** sponsored by ICSR, New Delhi and organized by Government P. G. College, Charkhari, Mahoba (U. P.), India dated February 22-23, 2018.
23. Participated in National Seminar on **“Biodiversity & Food Security in Changing Climate”** organized by Department of Botany, Government Degree College, Manikpur, Chitrakoot (U. P.), India dated February 18-19, 2018.
24. Participated in National Seminar on **“Stepping into Future: Tapping the Talent, Contributions and Participation of Older Persons in Society”** organized by Institute of Gerontology and Geriatrics & University Department of Home Science, Lalit Narayan Mithila University, Darbhanga (Bihar), India dated August 10, 2018.
25. Participated in International Conference on **“Advances in biological and Environmental Research for Human Welfare”** organized by Department of Zoology, D. D. U. Gorakhpur University, Gorakhpur (UP), India dated November 16-18, 2018.
26. Participated in Workshop on **“DNA Fingerprinting: A boon to the Forensic Science”** organized by Department of Botany, Government Girls’ P. G. College, Ghazipur (U. P.), India in association with CytoGene Research & Development, Lucknow, dated November 29-30, 2018.
27. Participated in National Seminar on **“Environmental Hazards and Its Management”** organized by Department of Chemistry, Gramamrshi Pt. Ram Kumar Pandey Gramoday Ashram P. G. College, Beersinghpur, Saya, Ambedkar Nagar (U. P.), India dated December 07-08, 2018.
28. Participated in Workshop on **“Tools and Techniques in Life Sciences”** organized by Department of Zoology, DDU Gorakhpur University, Gorakhpur (U. P.), India dated March 25-26, 2019.
29. Participated in Workshop on **“DNA Fingerprinting: A boon to the Forensic Science”** organized by Department of Botany, Government Girls’ P. G. College, Ghazipur (U. P.), India in association with CytoGene Research & Development, Lucknow, dated November 29-30, 2019.
30. Participated in National Conference on **“Omics for Food, Health and Environment”** organized by Department of Biotechnology, D. D. U. Gorakhpur University, Gorakhpur (U. P.), India dated February 14-15, 2020.
31. Participated in 3 days On-line Short Term Course on **“Methods of Water Quality monitoring & Management of Water Pollution”** organized by Saviours and Friend of Environment (SAFE) (An ISO Certified Research and Analysis Centre), Kolkata, India dated May 15-17, 2020.

32. Participated in 3 days On-line Short Term Course on “**Post Lockdown Containment Actions in Various sectors to Tackle COVID-19 and also to run Economic, Social, Industrial and other activities**” organized by Saviours and Friend of Environment (SAFE) (An ISO Certified Research and Analysis Centre), Kolkata, India dated May 21-23, 2020.
33. Participated in International Webinar on “**COVID-19: Changing Research Scenario**” organized by IQAC and Faculty of Science, S.S.S.V.S. Government P.G. College, Chunar, Mirzapur (U.P.), India dated May 15, 2020.
34. Participated in National Webinar on “**COVID-19: Challenges and Possibility**” organized by Government Degree College, Pihani Hardoi in collaboration with Government Degree College, Kuchlai, Sitapur (U.P.), India dated May 18, 2020.
35. Participated as **Speaker** in Webinar on “**Transport of Gases by Blood**” organized by Department of Zoology, A. N. D. Kisan P. G. College, Babhnan, Gonda (U.P.), India dated May 20, 2020.
36. Participated in International Webinar on “**COVID-19: A Global Issue**” organized by Ranvir Rananjay P.G. College, Amethi (U.P.), India dated May 23-24, 2020.
37. Participated in 5 days Webinar on “**Techniques in Molecular Biology**” organized by Department of Zoology, University of Rajsthan, Jaipur (Rajsthan), India dated May 25-29, 2020.
38. Participated as **Guest Speaker** in International Webinar on “**Impact of Tree plantation in conservation and augmentation of water with special reference to Bundelkhand region**” organized by IQAC and Government Degree College, Manikpur, Chitrakoot (U.P.), India dated May 27, 2020.
39. Participated in National Webinar on “**General Awareness: Physiological and Biochemical Aspects of COVID-19**” organized by Jhunjhunwala P.G. College, Ayodhya (U.P.), India dated May 30, 2020.
40. Participated in Webinar on “**COVID-19: Challenges and Perspectives**” organized by Department of Botany, Digvijay Nath P.G. College, Gorakhpur (U.P.), India dated June 03, 2020.
41. Participated in International Webinar on “**Modern Enhancement in Life Science**” organized by Department of Zoology, Seethalakshmi Achi College for Women, Pallathur, Sivaganga (Tamil Nadu), India dated June 03-04, 2020.
42. Participated in International Webinar on “**Pandemic Era of COVID-19: Where we stand? Where we go**” organized by Department of Zoology, DDU Gorakhpur University, Gorakhpur (U.P.), India dated June 09-10, 2020.
43. Participated as **Resource Person** in National Webinar on “**Immunity Enhancement: A Necessary Weapon to Fight against COVID-19**” organized by Department of Zoology, Goswami Tulsidas Government P.G. College, Karwi, Chitrakoot (U.P.), India dated June 16, 2020.
44. Participated in Webinar on “**Geographical and Cultural diversity of Bundelkhand**” organized by Government Degree College, Manikpur, Chitrakoot (U.P.), India dated June 20, 2020.
45. Participated in the one day “**Swachhata Action Plan Online Workshop**” as Faculty of Higher Education Institutions in Ghazipur organized by Mahatma Gandhi National Council of Rural Education, Deptt. Of Higher Education, MHRD, Govt. of India in collaboration with P. G. College, Ghazipur (U.P.), India dated June 18, 2020.

46. Participated in online **"Snake Bite Awareness Workshop"**, organized by ENVIS-RP, Institute of Wildlife Sciences, and ONGC Centre for Advanced Studies, University of Lucknow, Uttar Pradesh and IFO Forensic Standards & Research Pvt. Ltd., New Delhi (India) dated August 16, 2020.
47. Participated in One day National Webinar on **"Health and Nutrition Perception in Society"** organized by Deptt. of Home Science, Lalita Singh Government Girls' P.G. College, Adalhat, Mirzapur (U.P.), India dated September 27, 2020.
48. Participated and delivered three valuable lectures in **"Special Drive: Mission Shakti"**, Government of Uttar Pradesh, organized by Government Girls' P.G. College, Ghazipur (U.P.), India during November 6, 2020 – April 23, 2021.
49. Participated in National Seminar entitled **"Relevance of Gandhian Thoughts and Global Challenges Faced by Contemporary India"** sponsored by Department of Higher Education, U.P. and organized by Dr. Shyama Prasad Mukharjee Government Degree College, Bhadohi (U.P.) during February 28 – March 1, 2021.
50. Participated in 2 days hands-on National workshop with state of art lectures on **"Bioinstrumentations and DNA Extraction, Purification and Agarose Gel Electrophoresis"** organized by Government Girls' P.G. College, Ghazipur (U.P.) during March 01-02, 2021.
51. Participated and organized online session in National Seminar entitled **"Indian Health Care System"** sponsored by Department of Higher Education, U.P. and organized by Government Girls' P.G. College, Ghazipur (U.P.) dated March 5, 2021.
52. Participated in 7 days online workshop on **"Wildlife Conservation"** on occasion of wildlife week-2021, jointly organized by ENVIS-RP, Institute of Wildlife Sciences, University of Lucknow, and U.P. State Biodiversity Board, Lucknow, during October 01-07, 2021.
53. Participated as **Resource Person** in National Webinar on **"NEP 2020: Challenges and Possibilities"** organized by Department of Zoology, Shivharsh Kisan P.G. College, Basti (U.P.), India dated September 08, 2022.
54. Participated as the faculty member for the implementation of MHRD's **"National Innovation and Startup Policy for students and faculty (NISF)"** by the institute and attended the training sessions.

10. Training/Course:

- (1) Participated in **28 days** UGC sponsored **109th Orientation Programme**, organized by UGC-HRDC, D.D.U. Gorakhpur University, Gorakhpur (U.P.) from January 06 – February 02, 2018 and achieved grade **'A'**.
- (2) Participated in **14 days** UGC sponsored **5th Refresher Course** on **"Information and Communication Technology (Interdisciplinary)"**, organized by UGC-HRDC, D.D.U. Gorakhpur University, Gorakhpur (U.P.) from November 02 – 15, 2019 and achieved grade **'A'**.
- (3) Participated in **7 days** UGC sponsored **Online Short Term Course** on **"Gender Sensitization in Contemporary India: Issues and Concerns (Interdisciplinary)"**, organized by UGC-HRDC, D.D.U. Gorakhpur University, Gorakhpur (U.P.) from September 08 – 14, 2020 and achieved grade **'A'**.
- (4) Participated in **14 days** UGC sponsored **Online Refresher Course** on **"Human Rights and Social Inclusion (Interdisciplinary)"**, organized by UGC-HRDC, University of Allahabad, Prayagraj (U.P.) from October 27, 2020 – November 09, 2020 and achieved grade **'A'**.

(5) Participated in **14 days** UGC sponsored **Online Refresher Course** on “**Research Methodology (Interdisciplinary)**”, organized by UGC-HRDC, DDU Gorakhpur University, Gorakhpur (U.P.) from February 17, 2022 – March 02, 2022 and achieved grade ‘**A**’.

11. College level extracurricular activities: Formerly involved in N.S.S., Rovers/rangers, Game committee, Environmental Conservation committee and Proctorial board etc. (S.K.B.B. Government P.G. College, Harakh, Barabanki).

12. Life after University: After University life I have joined the teaching under self-finance scheme in the year 2002. In the mean time I have selected as Assistant Professor of Zoology in Department of Higher Education (Uttar Pradesh) in the year 2006 and joined the S.K.B.B. Government P.G. College, Harakh, Barabanki. Then, after transfer and posting served at Government Girls’ P.G. College, Ghazipur-233001 (U.P.), since February 19, 2010 till date.

Date:

Place:

(DIWAKAR MISHRA)