



Dr. NILANJANA CHATTERJEE

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Assistant Professor
Department of ZOOLOGY
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AREAS OF INTEREST/SPECIALISATION

In MASTERS: MOLECULAR CYTOGENETICS, CANCER BIOLOGY AND BIOTECHNOLOGY

In Ph.D: FISH ENDOCRINOLOGY [WITH HISTOLOGY, HISTOCHEMISTRY & SCANNING ELECTRON MICROSCOPY (SEM)]

RESEARCH INTERESTS: ENVIRONMENTAL NANO-TOXICOLOGY, ETHOLOGY, ECOLOGY, LIMNOLOGY, SOCIAL AWARENESS, HISTOMETRY, NANO FOOD SUPPLEMENTS

ACADEMIC ACHIEVEMENTS

1. RECEIVED THE “**MIRA ROYCHOWDHURY MEMORIAL AWARD**” FROM J.K. COLLEGE, PURULIA for being the highest scorer in B.Sc. ZOOLOGY (Hons).
2. RECEIVED THE “**NATIONAL MERIT SCHOLARSHIP**” [GOVT. OF INDIA] for Zoology (Hons)-2004.
3. **TOPPER AWARD** In B.Ed Examination-2005 (S.T.T.C, Purulia).
4. Qualified in the State Level Eligibility Test (SLET-2005), A state level test for eligibility for lecturership and research fellowship in State Universities.
5. Qualified in the Graduate Aptitude Test for Engineering (GATE-2005): A National level test for research and M.Tech in the Indian Institutions and Universities.
6. **IST RANK** holder in COLLEGE SERVICE COMMISSION PANEL LIST-2006 (BURDWAN UNIVERSITY ZONE).
7. Received the **BEST PAPER PRESENTATION AWARD** (Animal Science and Aquaculture) in 21st West Bengal State Science and Technology Congress-2014. Paper- 'Histological changes in the activity of the pituitary gonadotropin cells in

relation to testicular activities in *Mystus vittatus* (Bloch) during growth, maturation and spawning phases”.

8. Received the **“BEST PRESENTED PAPER AWARD”** in the National Conference on Environmental Issues and Food Security in India, held on 10th August 2014 at Kolkata. Paper-“Changing physico chemical properties of water due to exposure of ZnS nanoparticles and its detrimental effect on feeding behavior and liver histometry of a non air breathing catfish- *Mystus vittatus*.”

9. Received the **“BEST POSTER AWARD”** in the International Conference on Emerging Materials: characterization and application (EMCA-2014) held during December 4-6.

10. Received the **“YOUNG SCIENTIST OF THE YEAR AWARD 2014”** chosen by the search committee constituted by Scientific and environmental research institute, Kolkata; Foundation for science and environment, Kolkata and Confederation of Indian universities, New Delhi, on the occasion of World Environment Day 2015, at the Rajabazar Science College, The University of Calcutta, on June 5, 2015. (Holiday-Summer Recess).

11. Received the **“BEST POSTER PRESENTATION”** award for presenting the article “Histoarchitectural study of the gonads of the Indian shad *Tenualosa ilisha* (Hamilton, 1822) collected from the Hooghly estuarine system of West Bengal, India” at the international conference on “Aquatic resources and sustainable management” (ICARSM-2016) organized by the “Central Calcutta Science & Culture Organisation for Youth” in co-operation with Ministry of Agriculture, Earth Sciences, Govt. of India & Dept. of Fisheries, Science and Technology, Biotechnology, Govt. of West Bengal in collaboration with the University of Calcutta, held at Science City, Kolkata, during February 17-19, 2016.

12. Received the prize for **“OUTSTANDING PAPER IN ZOOLOGY”** in the 1st Regional Science and Technology Congress-2016, Bardhaman Division, held in Bankura Christian College on 7th and 8th November’ 2016. (Govt. of West Bengal).

13. Received the **“ENVIRONMENT EXCELLENCE AWARD -2017”** from “Scientific and Environmental Research Institute”, KOLKATA, based on the contribution in the field of environmental education and research. 8th September’ 2017.

14. Received the **“BEST PRESENTED PAPER (Oral) AWARD”** in the National conference on “Environmental Pollution, Biodiversity Conservation and Climate Change: Issues and Challenges” on 8-9 sept’2017 at Nistarini College, Purulia, West Bengal.

15. Awarded **“FIRST POSITION”** in ORAL of the 2nd Regional Science and Technology Congress (Western Region) 2017 Organized by the Govt. Of West Bengal during November 16-17, 2017 at the University of Burdwan, Burdwan 713 104.

16. Received the **“INDO GLOBAL EXCELLENCE AWARD”** for contribution in the field of

LIFE SCIENCE, ZOOLOGY from the Indo Global Chamber Of Commerce, Industries And Agriculture (IGCCIA), PUNE on 22nd February, 2018 at Ranchi, Jharkhand. (2018)
 17. Received the **“BEST PRESENTATION AWARD (ORAL)”** for the topic “Thyroid and Pituitary hormones.....of FEMALE *Mystus vittatus*: a histometric approach for combating protein deficiency in rural India” [LIFE SCIENCE: OP-21] in the International Conference On Advances In Environmental And Agricultural Biotechnology-2018.

18. Received the **“BEST PRESENTATION AWARD (ORAL)”** for the topic “Hazardous effect of engineered ZnS nanoparticles on aquatic biota” [BIOTECHNOLOGY: OP-03] in the International Conference On Advances In Environmental And Agricultural Biotechnology-2018.

19. Received the **“OUTSTANDING PAPER AWARD”** in the 25th West Bengal State Science and Technology Congress, 2018 organised by Department of Higher Education, Science and Technology and Biotechnology, Government of India for the paper entitled “The simultaneous role of thyroid and pituitary hormones in regulating the reproductive phases of female *Mystus vittatus*; A histometric approach, held on 4th and 5th March’2018 at Science City, Kolkata.

20. Received the **“WORLD ECOLOGICAL RESTORATION AWARD”** given on the occasion of 2nd World Clean Environment Summit held on 16-17-18 July 2018 at Science City Auditorium, Kolkata, West Bengal.

21. **“BEST ORAL PRESENTATION”** award in the National Seminar on “Biodiversity Conservation” held at Sammilani College, Bankura on 11th December’ 2018.

22. Received the **“OUTSTANDING PAPER AWARD”** in the 3rd Regional West Bengal State Science and Technology Congress (Western Region), held during December 21-22’ 2018 organised by SKBU, Purulia.

23. Received the **“OUTSTANDING PAPER AWARD”** in the 26th West Bengal State Science and Technology Congress, 2018 organised by Department of Higher Education, Science and Technology and Biotechnology, Government of India held on 28th February and 1st March’2019 at Science City, Kolkata.

24. Selected for **“InSc YOUNG ACHIEVER AWARD’ 2019”**.

RESEARCH EXPERIENCE

From	To	Name and Address of Company / Organization	Position held
Feb’2006.....	Oct’2006.....	The University of Burdwan	State Funded Research Scholar

Oct'2006...	Feb'2018.....	The University of Burdwan	Part Time Research Scholar
Feb' 2018	Till date	Ramananda College, Bishnupur, Bankura	Post Doctoral Researcher and Faculty Member

ACADEMIC EXPERIENCE

(1). Teaching Zoology (UG Honours & General Course) at Ramananda College, Bishnupur since 2006, Served as Head of The Department of Zoology, Ramananda College for Two Years (From July, 2010 To June, 2012).

(2). Examiner/Convenor of B.A./B.Sc. Honours & General Course Examinations (Theoretical & Practical) in Zoology conducted By The University of Burdwan for more than eleven years and serving the same for Bankura University.

(3). Examiner/Convenor of B.A./B.Sc. Honours & General Course Examinations (Theoretical & Practical) in Zoology conducted By The Bankura University and Bankura University.

(4) Teaching ELECTIVE ZOOLOGY (POST GRADUATE STUDENTS OF BOTANY) in Ramananda College, Bishnupur since 2015.

(4). Teaching (creating awareness among) the students of NSS, Ramananda College, Bishnupur, Bankura on popular topic ILL EFFECTS OF FAST FOOD AND FOOD COLOUR.-on [13/12/2018]

(5) Performing the duty of question setter for Bankura University and Vidhyasagar University.

(6) Serving as Academic Councillor for IGNOU since 14 th May' 2019.

ADMINISTRATIVE EXPERIENCE

(1) Member of the STAGE MANAGEMENT COMMITTEE & TECHNICAL COMMITTEE of the National seminar on "Recent Approaches of Mathematical Sciences in advancement of Biotechnology" held on 28th March'2018.

(2). Convenor of "SEXUAL HARASSMENT CELL" in Ramananda College, Bishnupur.

(3). Member of Cultural Committee in Ramananda College, Bishnupur.

(4). LIFE MEMBER of the "Society for Biotechnologists (India)". (Life Membership No. 701). www.sbtigene.org. from 2014.

(5). LIFE MEMBER of "The Zoological Association of Burdwan".(Receipt N-0621)

from 2014

(6). LIFE MEMBER of the “Global Warming Reduction Centre”. Life Membership No. LM/025/2015, date of issue: 15/12/2015.

(7). Teacher-in-Charge for Rally on National AIDS DAY-2017.

(8). Acted as judge for Several Environment Awareness Programme.

(9). Delivered lectures in different places within the Society for ENVIRONMENTAL AWARENESS and HEALTH HAZARDS ALERT for general public.

(10). Acted as the Joint Convenor in the UGC sponsored National Level Seminar on “Emerging Trends in Biophysical Researches” held at Ramananda College, Bishnupur, India during September 12-13, 2011.

(11). Acted as the Quiz Coordinator in the Diamond Jubilee celebration of UGC in Ramananda College on January 8, 2014.

(12). Member of “the Biodiversity Management Committee in Bishnupur Municipality, Bankura” [Department of Environment, Government of West Bengal].

(13). Acted as HOSTEL SUPERINTENDANT of the Ladies Hostel of Ramananda College, Bishnupur, Bankura.

(14). Member of the “Library Committee”, Ramananda College, Bishnupur, Bankura.

(15). Member of the “Sports and Cultural Committee”, Ramananda College, Bishnupur, Bankura.

(16). Member of the “Disciplinary Committee”, Ramananda College, Bishnupur, Bankura.

(17). Head of the Department of Zoology, Ramananda College, Bishnupur Bankura (Session-2010-2011 and 2011-2012.).

(18). Member of West Bengal Biodiversity Board, Bishnupur, Sub-division.

PUBLICATIONS

(Journals/Proceedings/Chapter in Books)

2019

i). **Nilanjana Chatterjee**, Subir Mal and Priyanka Halder Mallick (2019). Effect of Ag Nanoparticles on the hepatic and renal histomorphology of the Indian minor carp *Labeo bata* (Hamilton, 1822). Asian Resonance, [Accepted]

ii). B. Bhattacharjee and **N. Chatterjee** "Constrained growth of the aquarium fish Black Molly, *Poecilia sphenops* (Valenciennes, 1846), under the exposure of ZnS nanoparticles" (2019). *Materials today Proceedings*. 11; 879-888

2018

i) . **Nilanjana Chatterjee** and Baibaswata Bhattacharjee (2018). Probe on the Synchronized actions of Pituitary (GTH and TSH) and Thyroid hormones in controlling the Seasonal Reproductive Cycle of Female Asian Striped Catfish *Mystus vittatus* (Bloch, 1794). *Asian Resonance*. 7(4); 56-62.

ii). **Nilanjana Chatterjee** and Baibaswata Bhattacharjee (2018). Some important physico-chemical properties of the water of "Lalbandh", Bishnupur, Bankura: Search for a correlation with the surrounding environments. *International Journal of Basic and Applied Research*, 8(12), 637-640.

iii). Mal S., Bar H and **Chatterjee N.** (2018). Effect of Ag nanoparticles on the hepatic and renal histomorphology of the Indian minor carp *Labeo bata*. *International Journal of Basic and Applied Research*, 8(12), 508-518.

iv). **N. Chatterjee** and B. Bhattacharjee "ZnS nanoparticles persuade alterations in metabolic and haematological aspects in the cyprinid *Labeo bata* (Hamilton, 1822)", *Journal of Applied Biology & Biotechnology*, 6(2) (2018) 6-14. **[ISSN Print: 2455-7005
ISSN Online: 2347-212X]**

2017

i) **Nilanjana Chatterjee** and Baibaswata Bhattacharjee (2017). "Disquieting effect of ZnS nanoparticles on an Indian minor carp, *Labeo bata* (Hamilton, 1822) and the Asian dwarf striped catfish *Mystus vittatus* (Bloch, 1794) with respect to some of their vital organs: A comparative study". *International Journal of Advanced Research*; 5 (12): 1599-1611. **[ISSN 2320-5407]**

ii) **Nilanjana Chatterjee**, (2017); "Some histological aspects of the viviparous banded pond snail *Bellaamya bengalensis* (Lamarck) collected from the water bodies of

Bishnupur subdivision". *Frontiers in Multidisciplinary Research*, 1;9-26

2016

- i). **N. Chatterjee** and B. Bhattacharjee, *Scientifica*. "Revelation of ZnS nanoparticles induce follicular atresia and apoptosis in the ovarian preovulatory follicles in the catfish *Mystus tengara* (Hamilton, 1822)". Volume 2016, Article ID 3927340, 7 pages. **[ISSN: 2090-908X]**
- ii). **N. Chatterjee** and B. Bhattacharjee "ZnS nanoparticles affect hazardously the process of oogenesis in the dwarf Asian striped catfish *Mystus vittatus* (Bloch, 1794)", *Advanced Science Letters* 22 (1) (2016) 126-131. **[ISSN: 1936-6612 (print) 1936-7317 (web)]. (I.F-1.253)**
- iii). B. Bhattacharjee and **N. Chatterjee**, "Perilous Effect of ZnS Nanoparticles on Testicular cell development and sperm morphology in the Asian striped catfish *Mystus vittatus* (Bloch, 1794)" *Advanced Science Letters* ,22(1);,2016, 64-70. **[ISSN: 1936-6612 (print) 1936-7317 (web)]. (I.F-1.253)**

2015

- i). **N. Chatterjee** and B. Bhattacharjee, "An analytic contemplation on the conspicuous vicissitudes in the histomorphology of corpuscles of Stannius of a fresh water catfish *Mystus tengara* (Hamilton, 1822) due to the exposure of ZnS nanoparticles" *Scientifica*, Volume 2015, Article ID 697053, doi:10.1155/2015/697053. **[ISSN: 2090-908X]**
- ii). **Nilanjana Chatterjee** and Baibaswata Bhattacharjee , "Quantitative study on the impact of the seasonal change in the aquatic physicochemical parameters on zooplankton population density in Saheb bandh, Purulia, West Bengal,India ", *Discovery Nature*, 2015, 9(19),11-19. **[ISSN (print) 2319-5703 ISSN (online) 2319-5711]**
- iii). **Nilanjana Chatterjee** and Mandira Mukhopadhyay, " Morphological and behavioural distinctiveness of the flying insecticide *Apus affinis* from the semi-arid

region of Jhalda, Purulia, West Bengal". Asian Resonance, 2015, 4 (2): 80-83. **[P-ISSN: 0976-8602 E-ISSN: 2349-9443]**

iv). **Nilanjana Chatterjee**, "The chronicle pertaining to the nests of the natural Arachnidicide *Sceliphron caementarium* (mud dauber) collected from four different districts of West Bengal, India".Journal of Research in Agriculture and Animal Science, 2015, 3(4): 1-9.**[ISSN No : 2321-9459]**

v). **Nilanjana Chatterjee**, "Study of the spider community inside the nests of the natural Arachnidicide *Sceliphron caementarium* (mud dauber) collected from four different districts (Jalpaiguri, Hooghly, Purulia and Bankura) of West Bengal, India".Journal of Zoological and Bioscience Research, 2015, 2(2):17-25. **[ISSN 2349-2856]**

vi). **N. Chatterjee** and B. Bhattacharjee, (2015); "Salient alterations in hepatic and renal histomorphology of an Indian minor carp, *Labeo bata* (Hamilton, 1822) owing to ZnS nanoparticle induced hypoxia and environmental acidification".The International Journal of Earth & Environmental Sciences,1(1) 1-9.

vii). **N.Chatterjee** , (2015); Feeding behavior, Histology and Histochemistry of the stomach of *Labeobata* (Hamilton, 1822), , *The Global Journal of Life Science & Research*, 1(1) 55-62.

2014

i). **N. Chatterjee** and B. Bhattacharjee. (2014). "Oocyte developmental stages and its relationship with the zona layers during vitellogenesis in the Asian striped catfish *Mystus vittatus* (Bloch, 1794)". Journal of Applied Biology & Biotechnology. 2(4), 1-6. **[ISSN Print: 2455-7005 ISSN Online: 2347-212X]**

ii). **N. Chatterjee**, B. Bhattacharjee and C.H Lu, 2014, "Hazardous effect of ZnS nanoparticles on the feeding behavior, growth and maturation process of the Asian striped catfish, *Mystus vittatus* (Bloch, 1794)".International Aquatic Research, 6:71-82.**[ISSN: 2008-4935 (print) ISSN: 2008-6970 (web)]**

iii). **N. Chatterjee** and B.Bhattacharjee, 2014, "Changing physicochemical properties of water due to exposure of ZnS nanoparticles and its detrimental effect on feeding behavior and liver of a non-air breathing catfish *Mystus vittatus*". International Journal of Latest Research in Science and Technology, 3(4):199-204. **[ISSN :**

2278-5299]

- iv). **Nilanjana Chatterjee**, "Abundance and diversity of zooplankton and its seasonal variation in the water of Saheb bandh, Purulia, India: A quantitative study, (2014); 2(12), 22-28, The International Journal Of Science & Technoledge [ISSN 2321 – 919X]
- v). P. Chakrabarti and **N.Chatterjee**, "Histological changes in the activity of the thyroid follicles and its impact on ovarian tissues in *Mystus vittatus* (Bloch, 1794) during growth, maturation and spawning phases".Cibtech Journal of Zoology, 2014, 3(1): 2319-3883.[ISSN: 2319-3883 (Online)]
- vi). **Nilanjana Chatterjee**, "A morphohistological study of the zona radiata and zona granulosa during oocyte development in the dwarf Asian striped catfish *Mystus vittatus* (Bloch, 1794)". International Journal of Recent Biotechnology.2014, 2(4):42-48. [ISSN, 2322 – 0392]
- vii). **Nilanjana Chatterjee**, "Seasonal morphohistological changes in the testes and liver cells and their inter-relationship in a Fresh water catfish, *Mystus vittatus* (Bloch, 1794)".Asian Resonance, 2014, 3(1):56-61.[P-ISSN: 0976-8602 E-ISSN: 2349-9443]
- viii). **Nilanjana Chatterjee**, "Seasonal Morphohistological Changes in the Activity of the Liver Cells and Its Co-relation with the Ovarian Cycle in the Asian Striped Dwarf Catfish *Mystus vittatus* (Bloch, 1794)".Sindh University Research Journal (Science Series), 2014, 46(2): 189-196.[ISSN:1813-1743]
- ix). **Nilanjana Chatterjee**, "A Histomorphological and Histometric study of the co-relation between the development of the Zona Radiata and the Zona Granulosa during oogenesis in the Gangetic *Mystus- Mystus cavasius* (Hamilton, 1822)".Journal of Zoological and Bioscience Research, 2014, 1,4: 36-43. [ISSN 2349-2856]
- x). **N. Chatterjee**, P.Chakrabarti, ."Distributional pattern of different cells with special emphasis on the seasonal variations of gonadotrophs in the pituitary gland of *Mystus vittatus* (Bloch, 1794) in relation to testicular activities". International Journal OF Fisheries and Aquatic Studies.2014, 2(1): 79-87. [Print ISSN: 2394-0506, Online ISSN: 2347-5129]
- xi). Padmanabha Chakrabarti and **Nilanjana Chatterjee**, ."Seasonal changes in the architecture of hepatocytes in relation to ovarian activities during growth, maturation, spawning and post-spawning phases in *Mystus vittatus* (Bloch, 1794)". Journal of

Entomology and Zoology studies, 2014,2(4):212-217. [2349-6800 (print); 2320-7078 (web)]

xii). **Chatterjee Nilanjana**, "Seasonal Changes in the Cytomorphology of the Thyroid Follicles and its Co-relation with the Testicular Cycle in the Asian Striped Catfish *Mystus vittatus* (Bloch, 1794)"; International Research Journal Of Biological Science; 3(10), 37-51 (2014), [ISSN 2278-3202]

2013

i). B.Bhattacharjee, **Nilanjana Chatterjee** and C.H. Lu, 2013. "Harmful Impact of ZnS Nanoparticles on *Daphnia* sp. In the western part (Districts of Bankura and Purulia) of West Bengal, India".Hindawi Publishing Corporation Article Id 207239, [ISSN: 2090-8741]

ii). **N. Chatterjee** and B. Bhattacharjee "General health of the villagers in the western part of the West Bengal, India, with a special reference of Ainch Bari, Bishnupur, Bankura, , Periodic Research" 2 (2013) 19-23.[ISSN: 2231-0045]

Book (Book Chapters)

2018

1). B. Bhattacharjee and **N. Chatterjee (2018)**, A comparative survey on the harmful effect of ZnS nanoparticles between two economically important fish species *Labeo bata* (Hamilton, 1822) and *Mystus vittatus* (Bloch, 1794), Sustainable Management of Aquatic Resources, 619-635. Narendra Publishing House, Delhi, India. [ISBN: 978-93-87590-1-3]

2017

1). **Nilanjana Chatterjee** and Srikanta Parua (2017). A brief histoarchitectural study of the reproductive status of *Tenulosa ilisha* from the Hooghly estuarine system and spotting their possible migratory route using geospatial technology. Spare Nature; 66 -74. [ISBN: 978-93-85775-07-9]

2016

1). **Nilanjana Chatterjee** and Baibaswata Bhattacharjee (2016) "ZnS nanoparticle

induced hypoxia affects the liver characteristics and haematological parameters of a non-air breathing catfish *Mystus vittatus* (Bloch, 1794)" Characterization of Nanomaterials; 81-98 [ISBN 978-81-933848-0-0]

PRESENTATION and Courses

2020

I) Successfully Attended and Completed an "online Certificate Course on Research Methodology", Organized by the International Benevolent Research Foundation, Kolkata, India from 11th May to 20th May, 2020.

2019

i). Golden Jubilee International Conference on "Trends in Zoology", January 03-04, 2019.

ii). Baibaswata Bhattacharjee and Nilanjana Chatterjee (2019). 26Th WEST BENGAL STATE SCIENCE TECHNOLOGY AND BIOTECHNOLOGY CONGRESS, 28th February and 1st March.

2018

i). Nilanjana Chatterjee and Sadananda Kumbhakar (2018). Brief Insight of the Habitats and Conservation Measures of Some Rare Arthropodes From Ashnasol (Onda block, Bankura sub-division). 11th December, 2018, National Seminar on Biodiversity, Sammilani College, Bankura.

ii) Nilanjana Chatterjee and Subham Roy (2018). Role of Religion in the Conservation of Animal Biodiversity; Some facts from Asia, 11th December, 2018, National Seminar on Biodiversity, Sammilani College, Bankura.

iii) Presented a paper entitled "Thyroid and Pituitary hormones.....of female *Mystus vittatus*: a histometric approach for combating protein deficiency in rural India" [LIFE SCIENCE: OP-21] in the International Conference On Advances In Environmental And Agricultural Biotechnology-2018 held during 22nd-24th February-2018 [Venue: St. Xavier's college, Ranchi-2018].

iv). **Co-authored** the paper “**Hazardous effect of engineered ZnS nanoparticles on aquatic biota**” [BIOTECHNOLOGY: OP-03] in the International Conference On Advances In Environmental And Agricultural Biotechnology-2018 held during 22nd-24th February-2018 [Venue: St. Xavier’s college, Ranchi-2018].

v). **Presented** a paper on “**The simultaneous role of thyroid and pituitary hormones in regulating the reproductive phases of female *Mystus vittatus*; A histometric approach**” in the 25th West Bengal State Science and Technology Congress, 2018 held on 4th-5th March at Science City, Kolkata.

vi). **Presented** a paper entitled “**ZnO Nanoparticles as dietary supplements alter the reproductive behaviour of male brooders in *Mystus vittatus* (Bloch, 1794): A quantitative approach**” in the National Seminar on ‘Recent Approaches of Mathematical science in advancement of Biotechnology’ held on 28th March’2018 in Ramananda College, Bishnupur, Bankura.

2017

i) **Presented** a paper titled “Alterations in metabolic and hematological under the exposure of ZnS nanoparticles” in the 24th West Bengal State Science and Technology Congress’ 2017 “during February 28th –1st March, 2017 at Science City Kolkata.

ii). **Presented** a paper entitled “The simultaneous role of thyroidfemale *Mystus vittatus*” in the 2nd Regional Science and Technology Congress (Western Region) ’ 2017 “during November 16-17th 2017 at the University of Burdwan, Burdwan.

iii). **Presented** the paper “Yoga and its control over our endocrine system” in the seminar “Fitness and Yoga”. In the IQAC Sponsored National level Seminar organized by Nikhil Banga Sikshan Mahavidhyalay, Bankura, during November’ 2-3,2017.

iv). **Presented** a paper in the National conference on “Environmental Pollution, Biodiversity Conservation and Climate Change....” Held on 8-9 September 2017 at Nistarini College, Purulia, WB.

v). **Presented** a POSTER in the UGC Sponsored one-day National seminar “Crosstalk on Zoology.” held on 9 th March 2017 at Department of Zoology Vidhyasagar University, WB.

vi). **Co-author** of the topic “ZnS nanoparticle alters the physicochemical parameters of water: A menacing concern for the aquatic milieu” at the National conference held at Sidho-Kanho-Birsa University, Purulia during February 21-22, 2017.

vii). **Presented** the paper “Alterations in metabolic and haematological parameters in an Indian minor carp *Labeo bata* (Hamilton, 1822) under the exposure of ZnS nanoparticles” in the 24th West Bengal State Science and Technology Congress held at The Science city auditorium, Kolkata, India, during February 28- March 1, 2017.

viii). **Co-author** of the topic “Constrained growth of the aquarium fish Black Molly, *Poecilia sphenops* (Valenciennes, 1846), under the exposure of ZnS nanoparticles” as an invited speaker in the 2nd International Conference on Emerging Materials: Characterization & Applications -2017 to be held at NIT, Duragapur, during March 15-17, 2017.

ix). **Co-author** of the topic “Elastic behaviour of gills in *Mystus vittatus* (Bloch, 1794) when exposed to ZnS nanoparticle” at the Second Regional Science Congress (Western Region) held at The University of Burdwan, Burdwan, during November 16-17, 2017.

x). **Presented** the paper “Using GT exploring the possible migratory routes of the medium sizedon its reproductive status”. In the National Seminar organized by

Department of Zoology, SKBU, Purulia during February 21-22, 2017.

xi). **Presented** the paper “A Brief Histoarchitectural studyusing Geospatial Technology”. In the UGC Sponsored National level Seminar organized by Department of Zoology, Sonamukhi College, Bankura, during January 5-6, 2017.

2016

i). **Presentation** of the article (Poster) “Histoarchitectural study of the gonads of the Indian shad *Tenulosa ilisha* (Hamilton, 1822) collected from the Hooghly estuarine system of West Bengal, India” at the international conference on “Aquatic resources and sustainable management” (ICARSM-2016) organized by “Central Calcutta Science & Culture Organisation for Youth” in collaboration with the University of Calcutta, held at Science City, Kolkata, during February 17-19, 2016.

ii). **Co-author** of the article “Disquieting effect of ZnS nanoparticle exposure on an Indian minor carp, *Labeo bata* (Hamilton, 1822) and a non-air breathing catfish *Mystus vittatus* (Bloch, 1794) with respect to some of their vital organs: A comparative study” presented at the international conference on “Aquatic resources and sustainable management” (ICARSM-2016) organized by “Central Calcutta Science & Culture Organisation for Youth” in collaboration with the University of Calcutta, held at Science City, Kolkata, during February 17-19, 2016.

iii). **Presentation** of the article (Oral) “Hazardous effect of synthetic food colours on human health and their possible replacements: a humble step for better living” at the 23rd West Bengal State Science and Technology Congress held at The Presidency University, Kolkata, India, during February 28- 29, 2016.

iv). **Co-author** of the topic “Exposure to higher concentration of zinc sulphide nanoparticles results in bioaccumulation and oxidative stress in different organs of Asian dwarf striped catfish *Mystus vittatus* (Bloch, 1794)” at the First Regional Science Congress (Burdwan Division) held Bankura Christian College, Bankura, during November 7-8, 2016.

v). **Presented** the paper "Sub continental Gods and their related Animals: A social means of Biodiversity conservation". In the IQAC Sponsored National level Seminar organized by Nikhil Banga Sikshan Mahavidhyalay, Bankura, during September 23-24,2016

vi). **Presented** a paper at the international conference on "Aquatic resources and sustainable management"(ICARSM-2016) organized by "Central Calcutta Science & Culture Organisation for Youth" in collaboration with the University of Calcutta, held at Science City, Kolkata, during February 17-19, 2016.

2015

i). **Presented** a paper under the section "Animal Sciences" in the 22nd West Bengal State Science and Technology Congress (28th Feb 28-1st March,2015). A correlative study of the changes in the Pituitary,Thyroid and Ovarian histomorphology during growth, maturation, spawning and post spawning phases.....

ii). **Co-authored** (and participated) a paper under the section "Geography, Earth Science and Animal Science" in the 22nd West Bengal State Science and Technology Congress (28th Feb 28-1st March, 2015). Environmental hazards of ZnS nano.....

iii). **Presented** a paper in the International Conference on Environment and Ecology (ICEE-2015, 2-4 MARCH'2015). ZnS NPs results in follicular atresia and apoptosis in the post ovulatory follicles of ovary....

iv). **Co-authored** (and participated) a paper in the International Conference on Environment and Ecology (ICEE-2015, 2-4 MARCH'2015). Deleterious Effect of ZnS Nanoparticles on Gills and Kidneys of Asian Dwarf Striped Catfish

v).**Participated** in the National seminar on "World Environment Day 2015" at the Rajabazar Science College, The University of Calcutta, on June 5, 2015.

vi). **Presentation** of the article (Poster) "Annual feeding behaviour of the endangered striped catfish *Mystus tengara* (Hamilton, 1822) in relation to its stomach histoarchitecture-a correlative study" presented at the international seminar on "Exploring the modern approach in biological science: from genome to organism"

organized by the department of Zoology, Sidho-Kanho-Birsha University in association with SEBA, Kolkata, held at Sidho-Kanho-Birsha University, Purulia, during November 25-27, 2015.

vii). Co-author of the article “Constrained growth of the aquarium fish black Molly, *Poecilia sphenops* (Valenciennes, 1846) under the exposure of ZnS nanoparticles” presented at the international seminar on “Exploring the modern approach in biological science: from genome to organism” organized by the department of Zoology, Sidho-Kanho-Birsha University in association with SEBA, Kolkata, held at Sidho-Kanho-Birsha University, Purulia, during November 25-27, 2015.

2014

i). Co-authored (and participated) a paper in the 21st West Bengal State Science and Technology Congress (20th -22nd Feb, 2014). Harmful effects of ZnS nanoparticles.....

ii). Presented a paper in the 21st West Bengal State Science and Technology Congress (20th -22nd Feb,2014). Histological changes in the activity of the pituitary gonadotropin cells in relation to testicular.....

iii). Presented a paper in the “International Symposium on Genetic Analysis Translational and Developmental”. (21st -23rd November 2014).Seasonal Changes in the Neurosecretary Materials of Hypothalami nuclei in correlation with the Thyroidal and Ovarian Activity in *Mystus vittatus*.

iv). Co-authored a paper under the “Invited Lecture” category presented in the First International Conference on “Emerging materials: Characterization and Application” (4-6 December, 2014). Paper- Perilous effect of ZnS Nanoparticles on testicular cell development and sperm morphology during the spawning season in the Asian Striped Catfish *Mystus vittatus*.

v). Presented a paper in the First International Conference on “Emerging materials: Characterization and Application” (4-6 December, 2014). Paper- ZnS nanoparticles

affects hazardously the process of oogenesis in the Dwarf Asian striped catfish, *Mystus vittatus* (Bloch. 1794).

2013

i). **Presented** a paper in the UGC-DRS Sponsored National Seminar on “Bioprospecting of Natural Products” (5th-6th December, 2013). Seasonal Histological Changes in the Activity of the Thyroid gland and Its Impact on Ovarian tissues in *Mystus vittatus* (Bloch).

2012

i) **Presented** a paper (Poster) in the National level seminar on Chemistry for Life & Future” (30th and 31st March, 2012)

2011

i) **Presented** a paper (Oral presentation) in the National level seminar on “ Emerging trends in Biophysical Researches”. (12-13 Sept, 2011). Impact of ZnS Nano particles on Growth and maturity of an endangered fresh water catfish, *Mystus vittatus* (Bloch).

RESOURCE PERSON

i) NSS Unit, Ramananda College

ii) Mentor VWMS (A unit of NGO Human Wave)

iii) Resource Person during Summer Camp in VWMS, Mankundu, Chandannagar, Dist-Hooghly.

iv) Academic Councillor IGNOU

v) Member of Governing Body, NBSSM, Bishnupur, Bankura

MEMBER OF PROFESSIONAL BODIES

i) **LIFE MEMBER** of the “Society for Biotechnologists (India)”. (Life Membership No. 701). www.sbtigene.org. from 2014.

ii) **LIFE MEMBER** of “The Zoological Association of Burdwan”.(Receipt N-0621) from 2014

iii) **LIFE MEMBER** of the “Global Warming Reduction Centre”. Life Membership No.

LM/025/2015, date of issue: 15/12/2015

iv) Member of **West Bengal Biodiversity Board**, Bishnupur, Sub-division.

PERSONAL DETAILS IN BRIEF

Nationality : Indian

Current Status : **Assistant Professor of Zoology**

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Ramananda College, Bishnupur, Bankura

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