

Resume

PROF. KOUSHIK GHOSH

Professor of Zoology

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PERSONAL DETAILS

Born on *December 01, 1975*
Indian
Married

PERMANENT ADDRESS

Indraprastha, Baburbag
Burdwan 713104
West Bengal, India

BRIEF PROFILE

- **M. Sc. in Zoology, Ph.D.**
- Awarded the **University Gold Medal** for obtaining **1st Class 1st position** in M.Sc. (Zoology) in 1997 (Burdwan University)
- **Ph.D.** from Visva Bharati University (2003)
- Served as *Lecturer* since November 18, 2004, re-designated as *Assistant Professor; Associate Professor* w.e.f. November 18, 2016 and at present serving as *Professor* w.e.f. November 18, 2019
- Supervised **eight Ph. D.** students
- Delivered **invited talk** in the **WCAF-2014** at **Dalian, China**
- **Member, Editorial Advisory Board, Acta Ichthyologica et Piscatoria, POLAND**

BROAD RESEARCH AREA

Fish Nutrition & Biochemistry, Probiotics

SPECIFIC AREA OF INTEREST / FIELD OF SPECIALIZATION

1. Microbial diversity in fish gut
2. Development of probiotics for carp and catfish culture
3. Modulation of growth and immunity by probiotics and prebiotics in fish challenged with pathogenic bacteria
4. Nutritional interference of plant derived anti-nutritional factors
5. Bio-processing of plant feedstuffs for deactivation of anti-nutrients and bio-enrichment in view of their use in formulation of non-conventional carp diets
6. Starter diet, herbal/algal feed additives

RESEARCH SUPERVISION

- Awarded **eight Ph. D.** students; presently supervising **eight Ph. D.** students (including **two** yet to be registered).

Sl. No.	Name of the Scholar(s)	Title/Topic of the Thesis	Status
1.	Sudipta Mandal	ELIMINATION OF TANNIN FOR UTILIZATION OF SOME PLANT FEEDSTUFFS IN FORMULATION OF DIETS FOR ROHU, <i>LABEO ROHITA</i> (HAMILTON)	Awarded (August, 2013)
2.	Paramita Das	BIO-INACTIVATION OF PHYTATE BY FISH GUT MICROORGANISMS FOR UTILIZATION OF SOME OIL CAKES IN FORMULATION OF DIETS FOR ROHU, <i>LABEO ROHITA</i> (HAMILTON)	Awarded (September, 2014)
3.	Argha Khan	EVALUATION OF PHYTASE PRODUCING GUT BACTERIA IN SOME FRESHWATER TELEOSTS AND THEIR USE IN FORMULATION OF DIETS FOR ROHU, <i>LABEO ROHITA</i> (HAMILTON)	Awarded (January, 2015)
4.	Sudeshna Banerjee	EVALUATION OF CELLULASE AND XYLANASE PRODUCING GUT MICROORGANISMS IN SOME FRESHWATER TELEOSTS FOR THEIR USE IN FORMULATION OF DIETS FOR ROHU, <i>LABEO ROHITA</i> (HAMILTON)	Awarded (April, 2017)
5.	Dipanjan Dutta	SCREENING AND VALIDATION OF SELECTED FISH GUT BACTERIA AS PROBIOTICS FOR THE INDIAN MAJOR CARPS	Awarded (July, 2017)
6.	Ankita Nandi	PROBIOTIC EFFECT OF FISH GUT BACTERIA ON GROWTH AND MAINTENANCE OF HEALTH IN CARP	Awarded (May, 2018) (Joint with Visva-Bharati)
7.	Anjan Mukherjee	GUT BACTERIAL DIVERSITY AND EVALUATION OF PATHOGEN INHIBITORY GUT BACTERIA AS PROBIOTICS IN THE INDIAN MAJOR CARPS	Awarded (June, 2018)
8.	Sandipan Talukdar	MODULATION OF KEY DIGESTIVE AND METABOLIC ENZYMES IN ROHU, <i>LABEO ROHITA</i> (HAMILTON) FINGERLINGS FED PLANT INGREDIENTS INCORPORATED DIETS AFTER PROCESSING WITH TANNASE PRODUCING FISH GUT MICROORGANISMS	Awarded (October, 2019)
9.	Soumen Chanda	NUTRIENT PROFILING AND DIETARY ESSENTIALITY OF IRON ON THE GROWTH AND BIOCHEMICAL PARAMETERS OF ROHU, <i>LABEO ROHITA</i> (HAMILTON)	Registered (Joint with ICAR-CIFA)
10.	Arijit Chakraborty	ARTIFICIAL PROPAGATION AND NURSERY REARING OF INDIAN SHAD, <i>TENUALOSA ILISHA</i> IN FRESHWATER CULTURE SYSTEM	Registered (Joint with ICAR-CIFA)
11.	Aziz Hasan Mondal	USE OF BIOGENIC METAL NANOPARTICLES AS FEED ADDITIVES IN FORMULATION OF DIETS FOR ROHU, <i>LABEO ROHITA</i> (HAMILTON)	Registered
12.	Debnarayan Chaudhury	ONTOGENY OF THE DIGESTIVE FUNCTION AND FORMULATION OF DIETS FOR REARING OF BUTTER CATFISH, <i>OMPOK BIMACULATUS</i> (BLOCH, 1794) LARVAE AND JUVENILES	Registered
13.	Tanaya Sukul	FORMULATION OF SYNBIOLOGICS FOR IMPROVEMENT OF GROWTH, IMMUNOMODULATION AND DISEASE RESISTANCE IN ROHU, <i>LABEO ROHITA</i> (HAMILTON)	Registered
14.	Jayashri Das	EVALUATION OF ALGAL BIOMASS IN FORMULATION OF CARP DIETS: EFFECTS ON GROWTH, METABOLIC PROFILE AND IMMUNE PARAMETERS IN ROHU, <i>LABEO ROHITA</i> (HAMILTON, 1822)	Registered

- Supervised **four M. Phil.**, two postgraduate and two undergraduate students.

Sl. No.	Name of the M. Phil. Fellow(s)	Title of the Dissertation	Status
1.	Barnali Sarkar	GASTROINTESTINAL MICROBIOTA IN TWO SPECIES OF TILAPIA, <i>OREOCHROMIS MOSSAMBICA</i> AND <i>OREOCHROMIS NILOTICA</i> : SCANNING ELECTRON MICROSCOPY AND MICROBIOLOGICAL STUDY	Awarded (2011)
2.	Sayanti Saha	EVALUATION OF NUTRITIVE VALUE OF RAW AND FERMENTED PHYSIC NUT (<i>JATROPHA CURCAS</i>) OIL CAKE IN THE FORMULATED DIETS FOR ROHU, <i>LABEO ROHITA</i> (HAMILTON) FINGERLINGS	Awarded (2010)
3.	Moitreyee Roy	GASTROINTESTINAL BACTERIA AND THEIR SENSITIVITY AGAINST ANTIBIOTICS IN ROHU, <i>LABEO ROHITA</i> (HAMILTON) FINGERLINGS	Awarded (2007)
4.	Nibedita Kar	STUDY OF ENZYME PRODUCING HETEROTROPHIC BACTERIA IN THE DIGESTIVE TRACTS OF <i>LABEO ROHITA</i> (HAMILTON) AND <i>CHANNA PUNCTATUS</i> (BLOCH)	Awarded (2006)

RESEARCH PROJECTS

- Acting as a **Principal Investigator** in the **Department of Biotechnology (DBT), Ministry of Science & Technology, Govt. of India** funded research project (June 18, 2019 – June 17, 2022) entitled “**PREBIOTIC FEED SUPPLEMENT FOR GROWTH IMPROVEMENT OF INDIAN MAJOR CARPS, *LABEO ROHITA*, *CIRRHINUS MRIGALA* AND *CATLA CATLA* UNDER COMPOSITE CULTURE SYSTEM: A GUT MICROBIOME AND NUTRIGENOMICS BASED APPROACH**” (BT/PR28574/AAQ/3/920/2018).
- Acting as a **Principal Investigator** in the DHESTBT, Government of West Bengal funded research project (August 14, 2018 – August 13, 2021) entitled “**FARM-MADE AQUAFEEDS USING NON-CONVENTIONAL PLANT FEEDSTUFFS: NUTRIENT EVALUATION & BIO-PROCESSING FOR FORMULATION OF CARP DIETS**” (ST/P/S&T/2G-33/2017).
- Completed the Institute (ICAR-CIFA, Bhubaneswar) funded project (April 01, 2017 – March 31, 2020) entitled “**DEVELOPMENT OF LARVAL DIET FOR *Ompok bimaculatus*, A HIGH-VALUED FISH OF REGIONAL IMPORTANCE**” (I-95-G/ICAR-CIFA/2017-2020) as a **Co-Principal Investigator**.
- Completed the SERB (DST) funded project (May 2012 – May 2015) entitled “**INHIBITION OF CARP DIGESTIVE ENZYMES BY TANNIN AND ITS DEACTIVATION BY FISH GUT MICROBIOTA FOR PLANT INGREDIENT INCORPORATED CARP DIET FORMULATION**” (No. SR/FT/LS-193/2009) as **Principal Investigator**.
- Completed the **UGC Major Research Project** (February 2010 – July 2013) entitled “**BIOINACTIVATION OF PHYTATE BY FISH GUT BACTERIA FOR EFFECTIVE UTILIZATION OF PLANT FEED STUFFS IN CARP DIET FORMULATION**” [F. No. 37-383/2009 (SR)] as **Principal Investigator**.
- Completed the **UGC Research Project** (April 2007 – March 2009) entitled “**ENUMERATION AND CHARACTERIZATION OF GASTROINTESTINAL SYMBIOTIC BACTERIA FROM FRESHWATER TELEOSTS**” [F. No. 32 – 523 / 2006 (SR)] as **Principal Investigator**.

RESEARCH COLLABORATIONS

1. University of Tromsø, Norway
2. University of Plymouth, UK
3. Visva Bharati University, India
4. ICAR-Central Institute of Freshwater Aquaculture (CIFA), Bhubaneswar, India

TRAINING / COURSES UNDERGONE

1. **ICAR Sponsored Short Course** on “**Molecular Approaches in Diagnosis and Control of Emerging and Transboundary Diseases of Freshwater Fish and Shellfish**” organized by the **ICAR-Central Institute of Freshwater Aquaculture (CIFA)**, Bhubaneswar, Odisha. (November 17-26, 2015)
2. **ICAR Sponsored Winter School** on “**Sustainable Fish Feeds and Nutraceuticals to Grow Health Promoting Fish**” organized by the **ICAR-Central Institute of Freshwater Aquaculture (CIFA)**, Bhubaneswar, Odisha. (January 15 - February 07, 2013)
3. **International Training** on “**Stock Assessment of Hilsa**” sponsored by **Bay of Bengal Large Marine Ecosystem (FAO)**, held at **CIFRI**, Barrackpore (April 30 – May 01, 2012).
4. **UGC Sponsored Short-Term course** on “**Computational Tools & Open Source Software**” organized by the **Academic Staff College, The University of Burdwan** (March 14 – 19, 2012).
5. Hands on Training on “**Disease Management and Diagnostic in Brackishwater Aquaculture**” organized by the **Kakdwip Research Centre of CIBA** (February 13 – 17, 2012)
6. “**UGC Sponsored 3rd Refresher Course in Life Sciences**” organized by the **Academic Staff College, The University of Burdwan** (August 06 – 26, 2011).
7. “**Summer School on Fish Biotechnology**” held at **National Bureau of Fish Genetic Resources** (ICAR), Lucknow, INDIA (August 07 – 27, 2007).
8. “**UGC Sponsored 55th Orientation Programme**” organized by the **Academic Staff College, The University of Burdwan** (October 22 – November 18, 2005).
9. “**Bioinformatics & Statistics in Aquaculture Research**” organized by the **Central Institute of Freshwater Aquaculture** (ICAR), Bhubaneswar, INDIA (January 16 – 19, 2001).
10. “**Advances in Carp Breeding**” organized by the **Central Institute of Freshwater Aquaculture** (ICAR), Bhubaneswar, INDIA (May 06 – 20, 1997).

FELLOWSHIPS / SCHOLARSHIPS / AWARDS / RECOGNITIONS

2018	Third International Conference on Mother Earth: Environmental Crisis & Sustainable Strategies Awarded for Best Oral Presentation (January 11-13, 2018).
2017	29 th All India Congress of Zoology/International Symposium on Culture Based Fisheries in Inland Open Waters & Satellite Symposium on Fish Immunology, Barrackpore, Kolkata Awarded for Best Oral Presentation in the Session - Fisheries and Aquaculture (June 09-11, 2017).

2016	International Conference on Aquatic Resources & Sustainable Management, Kolkata Awarded for Best Oral Presentation in the Session-III (Fish Biology, Nutrition, Feed and Feeding) (February 17-19, 2016).
2016	The Zoological Society, Kolkata Felicitated with “ Prof. Hiralal Chaudhuri Medal for Excellence in Innovative Research ” in the National Level Young Scientists’ Meet (February 05-06, 2016)
2014	Science and Engineering Research Board (SERB), Government of India Received International Travel Support (ITS) for attending 3rd Annual World Congress of Aquaculture and Fisheries-2014 (WCAF-2014) held during October 16 – 18, 2014 in Dalian, China .
2008	Asian Fisheries Society (Indian Branch) & Inland Fisheries Society of India Awarded for Best Oral Presentation at the 8th Indian Fisheries Forum held at Kolkata (November 22 – 26, 2008).
1998 – 2002	Indian Council of Agricultural Research, New Delhi Awarded Senior Research Fellowship (SRF), ICAR in a collaborative research project with Visva-Bharati, Santiniketan, West Bengal and Central Institute of Fresh Water aquaculture, Bhubaneswar, Orissa.
1997	University of Burdwan Awarded University Gold Medal for obtaining 1 st Class 1 st position in M.Sc (Zoology), 1997.
1996	Dept. of Higher Education, Govt. of West Bengal (through Burdwan University) Awarded National Scholarship for postgraduate study leading to a M. Sc. Degree in Zoology.

INVITED TALK/RESOURCE PERSON

1. Delivered invited lecture in the District Level Training on “Application of Formulated Feed in Intensive Fish Farming” (July 27 – August 01, 2019) at Meen Bhavan, Burdwan on July 31, 2019.
2. Delivered a lecture as an expert in the skill development programme on “Aquaclinics and Aquapreneurship Development” (February 26 - March 25, 2019) at ICAR-CENTRAL INSTITUTE OF FISHERIES EDUCATION, Kolkata Centre on March 20, 2019.
3. Served as an expert in the workshop entitled “*Training on Fish Nutrition and Feeding management in Aquaculture For Sustainable Development*” organized by Department of Zoology, North Bengal University during February 2-3, 2019.
4. Delivered invited lecture in the District Level Training on “Application of Formulated Feed in Intensive Fish Farming” (December 18-21, 2018) at Meen Bhavan, Burdwan on December 19, 2018.

5. Delivered invited talk in the training programme on “Application of Farm made Feed for sustainable Aquaculture” (December 03-07, 2018) at RRC of ICAR-CIFA, Rahara, Kolkata-700118, West Bengal on December 06, 2018.
6. Delivered invited lecture for the fish farmers in the MATI UTSAV organized by the Government of West Bengal (January 04, 2018).
7. Delivered invited lecture in the District Level Training on “Application of Formulated Feed in Intensive Fish Farming” (November 27-30, 2017) at Meen Bhavan, Burdwan on November 28, 2017.
8. Delivered invited lecture in the District Level Training on “Application of Formulated Feed in Intensive Fish Farming” (November 14-17, 2017) at Meen Bhavan, Burdwan on November 15, 2017.
9. Delivered invited talk in the training programme on “Application and Practices of Fish Feed in Aquaculture” (October 23-28, 2017) at RRC of ICAR-CIFA, Rahara, Kolkata-700118, West Bengal on October 26, 2017.
10. Delivered invited talk in the training programme at Kalyani Field Station of ICAR-CIFA, Kalyani, Nadia, West Bengal on July 15, 2017.
11. Participated and delivered invited talk in the National Level Young Scientists’ Meet and National Seminar on “Research Innovations in Aquatic Genomics & Biotechnology” held during February 05-06, 2016 at CRNN, University of Calcutta, Salt Lake City, Kolkata.
12. Participated and delivered invited talk in the “BIT’s 3rd Annual World Congress of Aquaculture and Fisheries-2014” (WCAF-2014) held during October 16 – 18, 2014 at Dalian, China.
13. Delivered invited talk (Lead Lecture) in the “National Conference on Environmental Issues and Food Security in India” held on August 10, 2014 at Kolkata, India.
14. Acted as a resource person to demonstrate practical class on July 22, 2013 in the 5th Refresher Course in Life Science organized by the Academic Staff College, The University of Burdwan.
15. Delivered lectures as a resource person for the Ph.D. course work classes in the ‘Department of Aquaculture Management & Technology’, Vidyasagar University on June 18, 2013.
16. Delivered invited talk in the International level seminar on “Problems and Prospects of Coastal Aquaculture and Application of Biotechnological Tools for Rural Development” held during 1-3 March, 2013 at Vidyasagar University, Midnapore - 721 102, West Bengal, India.
17. Delivered invited talk in the one day seminar on "Conservation and Management of Aquatic biodiversity" on June 29, 2012 organized by the Faculty of Fishery Sciences, West Bengal University of Animal & Fisheries Science, Chakgaria, Kolkata-94.
18. Participated as an invited participant in the workshop on “Expert Consultation on Academic Partnership for Excellence and Networks” on April 23, 2012 organized by the Central Institute of Fisheries Education, Kolkata Centre.
19. Participated as an invited participant and delivered a lecture during 1st NSFP organized by Rajiv Gandhi University, Itanagar, Arunachal Pradesh (March 19 – 20, 2012).

20. Delivered invited talk on “Fish Nutrition” on September 24, 2011 at Vivekananda Mahavidyalaya, Haripal, Hooghly.
21. Delivered invited talk on “Fish for Human Health” on January 25, 2011 at Aghorekamini Prakashchandra Mahavidyalaya, Bengai, Hooghly.
22. Delivered invited talk in the national fish festival – BENAQUA 2010 on October 01, 2010 organized by the Department of Fisheries, Govt. of West Bengal.
23. Delivered invited talk on “Probiotics: The Friendly Bacteria” at the Science Center, Ramna Maidan, Burdwan on November 14, 2008 in connection with the celebration of Children’s Day.
24. Acted as a resource person to demonstrate practical class on August 08, 2008 in the 2nd Refresher Course in Biochemical Science organized by the Academic Staff College, The University of Burdwan.
25. Delivered invited talk on “Feed management to Enhance Fish Production” on March 26, 2008 under NFDB Training Programme on Intensive Aquaculture at Meen Bhavan, Burdwan.

MEMBERSHIP

- Asian Fisheries Society, Indian Branch
- Association of Microbiologists of India
- Zoological Association of Burdwan

ACTED AS ORGANIZING SECRETARY TO ORGANIZE

- One-day Seminar on “*Aquaculture and Probiotics*”, December 07, 2011 (International Level)
- UGC-DRS sponsored National Seminar on “*Bioprospecting of Natural Products*”, December 05 - 06, 2013
- Two-day Workshop on “*Induced Breeding & Larval Rearing of Indian Magur*”, August 04-05, 2017
- Golden Jubilee International Conference on “*Trends in Zoology*”, January 03 – 04, 2019 (Joint Organizing Secretary)
- Golden Jubilee Reunion, “*Re-Zoo-Venation 2019*” on January 05, 2019 (Joint Organizing Secretary)
- 2nd International Conference on “*Frontiers in Biological, Environmental and Medical Sciences*”, March 07 – 09, 2019 (Joint Organizing Secretary)

REVIEWER

- Aquaculture
- Aquaculture Research
- Aquaculture Reports
- Reviews in Aquaculture
- Probiotics & Antimicrobial Proteins
- Acta Ichthyologica et Piscatoria
- Journal of the World Aquaculture Society
- Proceedings of the Zoological Society

1. Mukherjee, A., A. Rodiles, D. L. Merrifield, G. Chandra and **K. Ghosh** (2020). Exploring intestinal microbiome composition in three Indian Major Carps under polyculture system: a high-throughput sequencing based approach. *Aquaculture* **524**, 735206. (DOI: 10.1016/j.aquaculture.2020.735206) (Impact factor: **3.022**) (**Elsevier**)
2. Mondal, A. H., T. M. Behera, P. Swain, R. Das, S. N. Sahoo, S. S. Mishra, J. Das and **K. Ghosh** (2020). Nano zinc vis-à-vis inorganic Zinc as feed additives: Effects on growth, activity of hepatic enzymes and non-specific immunity in rohu, *Labeo rohita* (Hamilton) fingerlings. *Aquaculture Nutrition*, **1-12** (DOI: 10.1111/anu.13077). (Impact factor: **2.098**) (**Wiley**)
3. **Ghosh, K.**, A. Mukherjee, D. Dutta, S. Banerjee, E. M. Breines, E. Hareide, and E. Ringø (2020). Endosymbiotic pathogen-inhibitory gut bacteria in three Indian Major Carps under polyculture System: a step toward making a probiotics consortium. *Aquaculture and Fisheries*, **1-14**. (DOI:10.1016/j.aaf.2020.03.009)(**Elsevier**)
4. **Ghosh, K.**, A. K. Ray and E. Ringø (2019). Applications of plant ingredients for tropical and subtropical freshwater finfish: possibilities and challenges. *Reviews in Aquaculture* **11**, 793–815. (DOI: 10.1111/raq.12258) (Impact Factor: **7.19**) (**Wiley**)
5. Mandal, S. and **K. Ghosh** (2019). Utilization of Fermented *Pistia* Leaves in the Diet of Rohu, *Labeo rohita* (Hamilton): Effects on Growth, Digestibility and Whole Body Composition. *Waste and Biomass Valorization* **10**, 3331–3342. (DOI: 10.1007/s12649-018-0336-4) (Impact Factor: **2.358**) (**Springer**)
6. Mukherjee, A., G. Chandra and **K. Ghosh** (2019). Single or conjoint application of autochthonous *Bacillus* strains as potential probiotics: effects on growth, feed utilization, immunity and disease resistance in Rohu, *Labeo rohita* (Hamilton). *Aquaculture* **512**, 734302. (DOI: 10.1016/j.aquaculture.2019.734302) (Impact factor: **3.022**) (**Elsevier**)
7. Soltani, M., **K. Ghosh**, S. H. Hoseinifar, V. Kumar, A. J. Lymbery, S. Roy and E. Ringø (2019). Genus *Bacillus*, promising probiotics in aquaculture: Aquatic animal origin, bio-active components, bioremediation and efficacy in fish and shellfish. *Reviews in Fisheries Science & Aquaculture*, **27(3)**, 331–379. (DOI: 10.1080/23308249.2019.1597010) (Impact factor: **3.775**) (**Taylor & Francis**)
8. Mukherjee, A., G. Banerjee, P. Mukherjee, A. K. Ray, G. Chandra and **K. Ghosh** (2019). Antibacterial Substances Produced by Pathogen Inhibitory Gut Bacteria in *Labeo rohita*: Physico-Chemical Characterization, Purification and Identification through MALDI-TOF Mass Spectrometry. *Microbial Pathogenesis* **130**, 146–155 (DOI: 10.1016/j.micpath.2019.02.028) (Impact factor: **2.581**) (**Elsevier**)
9. Talukdar, S. and **K. Ghosh** (2019). Differential inhibition of digestive proteases by tannin in two size groups of rohu (*Labeo rohita*, Hamilton): A biochemical and zymography study. *Aquaculture Research* **50**, 449–456. (DOI: 10.1111/are.13910) (Impact factor: **1.502**) (**Wiley**)
10. Chattopadhyay, D., A. Chakraborty, P. K. Ray, R. Mandal, S. K. Banik, V. R. Suresh and **K. Ghosh** (2019). Larval rearing of hilsa shad, *Tenualosa ilisha* (Hamilton 1822). *Aquaculture Research* **50**, 778-785. (DOI: 10.1111/are.13934) (Impact factor: **1.502**) (**Wiley**)
11. Dey, A., **K. Ghosh** and N. Hazra (2019). Improvement of growth and survival of the juvenile walking catfish, *Clarias batrachus* (L.) (Siluriformes: Clariidae) fed on probiotics encapsulated and ascorbic acid enriched chironomid larvae (Diptera: Chironomidae)

Proceedings of the Zoological Society 72(1), 37-45. (DOI: 10.1007/s12595-017-0236-9) (Springer)

12. Ringø, E., S. H. Hoseinifar, **K. Ghosh**, H. V. Doan, B. R. Beck and S. Song (2018). Lactic acid bacteria in finfish – an update. *Frontiers in Microbiology* 9, 1818 (DOI: 10.3389/fmicb.2018.01818) (Impact Factor: 4.259)
13. Dutta, D., S. Banerjee, A. Mukherjee and **K. Ghosh** (2018). Potential gut adherent probiotic bacteria isolated from rohu, *Labeo rohita* (Actinopterygii: Cypriniformes: Cyprinidae): Characterisation, exo-enzyme production, pathogen inhibition, cell surface hydrophobicity, and bio-film formation. *Acta Ichthyologica et Piscatoria* 48 (3), 221-233. (DOI: 10.3750/AIEP/02251) (Impact factor: 0.708)
14. Nandi, A., G. Banerjee, S. K. Dan, **K. Ghosh** and A. K. Ray (2018). Evaluation of In Vivo Probiotic Efficiency of *Bacillus amyloliquefaciens* in *Labeo rohita* Challenged by Pathogenic Strain of *Aeromonas hydrophila* MTCC 1739. *Probiotics and Antimicrobial Proteins* 10(2), 391-398. (DOI: 10.1007/s12602-017-9310-x) (Impact Factor: 2.962) (Springer)
15. Dutta, M., B. Pan, **K. Ghosh**, P. Saha and S. Roy (2018). Isolation of Fluoride Tolerant *Bacillus* spp (KT201599, KT201600) from the Midgut of *Drosophila melanogaster*: Their Probable Role in Fluoride Removal. *Proceedings of the Zoological Society* 1-9 (Online first). (DOI: 10.1007/s12595-018-0282-y) (Springer)
16. Dey, A., **K. Ghosh** and N. Hazra (2018). Effects of probiotics-encapsulated live feed on growth and survival of juvenile *Clarias batrachus* (Linnaeus, 1758) after differential exposure to pathogenic bacteria. *SAARC Journal of Agriculture* 16(1), 105-113. (DOI: <http://dx.doi.org/10.3329/sja.v16i1.37427>)
17. Mukherjee, A., D. Dutta, S. Banerjee, E. Ringø, E. M. Breines, E. Hareide, G. Chandra and **K. Ghosh** (2017). Culturable autochthonous gut bacteria in rohu, *Labeo rohita*. In vitro growth inhibition against pathogenic *Aeromonas* spp., stability in gut, bio-safety and identification by 16S rRNA gene sequencing. *Symbiosis* 73, 165-177. (DOI: 10.1007/s13199-017-0474-7) (Impact Factor: 2.009) (Springer)
18. **Ghosh, K.** and A. K. Ray (2017). Aquafeed Formulation using Plant Feedstuffs: Prospective Application of Fish Gut-microorganisms and Microbial Biotechnology. In: Handbook of Food Bioengineering, Volume III: Soft Chemistry and food fermentation. Chapter 5, pp 109-144. A. M. Grumezescu & A. M. Holban (Eds.). Elsevier (Academic Press), Cambridge, USA. (ISBN: 978-0-12-811412-4) (DOI: 10.1016/B978-0-12-811412-4.00005-9)
19. **Ghosh, K.**, S. Banerjee, U. Mustafi Moon, H. A. Khan, D. Dutta (2017). Evaluation of Gut Associated Extracellular Enzyme-producing and Pathogen Inhibitory Microbial Community as Potential Probiotics in Nile Tilapia, *Oreochromis niloticus*. *International Journal of Aquaculture* 7, 143-158. (DOI: 10.5376/ija.2017.07.0023)
20. Chanda, S., A. Samanta, B. N. Paul, **K. Ghosh** and S. S. Giri (2017). Effect of Dietary Iron Level on Growth Performance and Enzyme Activity in Rohu (*Labeo rohita* Hamilton) Fingerlings. *Indian Journal of Animal Nutrition* 34 (2), 224-228. (DOI: 10.5958/2231-6744.2017.00038.X)
21. Nandi, A., S. K. Dan, G. Banerjee, P. Ghosh, **K. Ghosh**, E. Ringø and A. K. Ray (2017). Probiotic potential of autochthonous bacteria isolated from the gastrointestinal tract of four freshwater teleosts. *Probiotics and Antimicrobial Proteins* 9, 12-21. (DOI: 10.1007/s12602-016-9228-8) (Impact Factor: 2.345) (Springer)

22. Chakraborty, A., R. Shaw and **K. Ghosh** (2017). An inventory of endemic fish species in India with notes on state-wise distribution and conservation measures. *International Journal of Fisheries and Aquatic Studies* **5(1)**, 253-264.
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