

## Dr. Usha Kumari

**Assistant Professor**  
PhD (BHU)  
Zoology Section, MMV, BHU



Contact Information:  
(M) 9415274521; 8933847920  
Email: usha.kanak@gmail.com

### **Academic Qualifications**

S.No.	Degree	Institution	Year
1.	B.Sc.	Banaras Hindu University	1999
2.	M.Sc.	Banaras Hindu University	2001
3.	Ph.D.	Banaras Hindu University	2006

**Area of specialization:** Fish Biology

### **Awards/Recognitions:**

1. Received Best Poster award in the International Conference “Contemporary Advances of Science and Technology” (6<sup>th</sup> India-Japan Science Seminar) (2015)
2. Awarded Senior Research Associateship, by CSIR (2012)
3. Awarded International Travel Support, by DST (2011)
4. Awarded Research Associateship, by CSIR (2008)
5. Received Dr. Hanuman Singh Memorial Gold Medal (2001)
6. Qualified Joint CSIR-UGC NET Examination, JRF (2000)

### **Membership:**

Life Member of “The Indian Science Congress Association”

### **Other position held:**

Warden of Pragati Kunj Hostel, MMV, BHU w.e.f. March 01, 2016

### **Delivered invited lecture:**

International conference “2011 EPS Environmental Science Development Forum” at Hohhot, Inner Mongolia, China, Aug. 3-5, 2011.

### **List of Publications:**

1. A. Mistri, N. Verma, U. Kumari, S. Mittal and A. K. Mittal (2016). Surface ultrastructure of gills in relation to the feeding ecology of an angler catfish *Chaca chaca* (Siluriformes, Chacidae). *Microscopy Research and Technique (UK)* 79:973-981.
2. U. Kumari, N. Verma, A. K. Nigam, S. Mittal and A. K. Mittal (2016). Wound healing potential of curcumin in the carp *Labeo rohita*. *Aquaculture Research (USA)* DOI: 10.1111/are.13077 2016:1-17 Impact factor: 1.37
3. K. Nigam, U. Kumari, S. Mittal and A. K. Mittal (2015). Evaluation of antibacterial activity and innate immune components in skin mucus of Indian major carp, *Cirrhinus mrigala*. *Aquaculture Research (USA)* 2015: 1-12 Impact factor: 1.37
4. A. K. Nigam, N. Srivastava, A. K. Rai, U. Kumari, A. K. Mittal and S. Mittal (2014). The first evidence of cholinesterases in skin mucus of carps and its applicability as a biomarker of organophosphate exposure. *Environmental Toxicology (USA)* 29(7):788-796. Impact factor: 3.19
5. U. Kumari, S. Mittal and A. K. Mittal (2014). Histological and histochemical investigations of the pharyngeal jaw apparatus of a carp, *Cirrhinus mrigala*. *Acta Histochemica (UK)* 116(3):421-434. Impact factor: 1.714
6. A. K. Nigam, U. Kumari, S. Mittal and A. K. Mittal (2014). Characterization of carboxylesterase in skin mucus of *Cirrhinus mrigala* and its assessment as biomarker of organophosphate exposure. *Fish Physiology and Biochemistry (The Netherlands)* 40(3):635-644. Impact factor: 1.622
7. N. Srivastava, U. Kumari, A. K. Rai, S. Mittal, and A. K. Mittal (2014). Alterations in the gill filaments and secondary lamellae of *Cirrhinus mrigala* exposed to (Nuvan®) an organophosphorus insecticide. *Journal of Histology (Egypt)* Volume 2014, Article ID 190139:1-11 pages.
8. M. Yashpal, U. Kumari, S. Mittal and A. K. Mittal (2014). Glycoproteins in the buccal epithelium of a carp, *Cirrhinus mrigala* (Pisces, Cyprinidae): A histochemical profile *Anatomia, Histologia, Embryologia (Germany)* 43(2):116-132. Impact factor: 0.882
9. N. Srivastava, A.K. Nigam, U. Kumari, A. K. Mittal and S. Mittal (2013). Inhibition and recovery of acetylcholinesterase activity in the gills of the carp, *Cirrhinus mrigala* exposed to 'Nuvan®'. *International Journal of Zoology and Research (India)* 3(4):1-10. Impact factor: 1.6439
10. A. K. Rai, N. Srivastava, U. Kumari, S. Mittal and A. K. Mittal (2012). Histochemical analysis of glycoproteins in the secretory cells in the epidermis of the head skin of Indian major carp, *Labeo rohita*. *Tissue and cell (Italy)* 44:409-417. Impact factor: 1.038
11. A. K. Nigam, U. Kumari, S. Mittal and A. K. Mittal (2012). Comparative analysis of innate immune parameters of the skin mucous secretions from certain freshwater teleosts, inhabiting different ecological niches. *Fish Physiology and Biochemistry (The Netherlands)* 38:1245-1256. Impact factor: 1.622

12. A. K. Rai, N. Srivastava, A. K. Nigam, U. Kumari, S. Mittal and A. K. Mittal (2012). Response of the chromatophores in relation to the healing of skin wounds in an Indian major carp, *Labeo rohita* (Hamilton) *Tissue and Cell (Italy)* 44(3):143-150. Impact factor: 1.698
13. A. K. Rai, N. Srivastava, A. K. Nigam, U. Kumari, S. Mittal and A. K. Mittal (2012). Healing of cutaneous wounds in a freshwater teleost, *Labeo rohita*: Scanning electron microscopical investigation. *Microscopy Research and Technique (UK)* 75:890-897. Impact factor: 1.850
14. N. Srivastava, U. Kumari, A. K. Rai, S. Mittal and A. K. Mittal (2012). Histochemical analysis of glycoproteins in the gill epithelium of a carp, *Cirrhinus mrigala*. *Acta Histochemica (UK)* 114: 626-635. Impact factor: 1.714
15. S. Mittal, U. Kumari and A. K. Mittal (2012). Modifications in the surface organization of the epidermis on the outer surface of the operculum and the epithelium lining the inner surface of the operculum in certain fresh water teleosts. *Animal Biology (The Netherlands)* 62: 141–156. Impact factor: 0.879
16. U. Kumari, S. Mittal and A. K. Mittal (2012). Surface ultrastructure of the gill filaments and the secondary lamellae of the catfish, *Rita rita* and the carp, *Cirrhinus mrigala*. *Microscopy Research and Technique (UK)* 75(4):433-40. Impact factor: 1.850
17. U. Kumari, A. K. Nigam, S. Mittal and A. K. Mittal (2011). Antibacterial properties of the skin mucus of the fresh water fishes, *Rita rita* and *Channa punctatus*. *European Review for Medical and Pharmacological Sciences (Italy)* 15(7):781-786. Impact factor: 0.922
18. S. Mittal, U. Kumari, P. Tripathi, and A. K. Mittal (2010). Scanning electron microscopy of the operculum of an Indian hill stream fish *Garra lamta* (Hamilton) (Cyprinidae, Cypriniformes). *Australian Journal of Zoology (Australia)* 58:1-7. Impact factor: 0.815
19. U. Kumari, M. Yashpal, S. Mittal and A. K. Mittal (2009). Surface ultrastructure of gill arches and gill rakers in relation to feeding of an Indian major carp, *Cirrhinus mrigala*. *Tissue and Cell (Italy)*, 41: 318-325. Impact factor: 1.698
20. M. Yashpal, U. Kumari, S. Mittal and A. K. Mittal (2009). Morphological specialization of the buccal cavity in relation to the food and feeding habit of a carp *Cirrhinus mrigala*: A scanning electron microscopic investigation. *Journal of Morphology (USA)*. 270:714-728. Impact factor: 1.773
21. U. Kumari, M. Yashpal, S. Mittal and A. K. Mittal (2009). Histochemical analysis of glycoproteins in the secretory cells in the gill epithelium of a catfish, *Rita rita* (Siluriformes, Bagridae). *Tissue and Cell (Italy)*. 41:271-280. Impact factor: 1.698
22. M. Yashpal, U. Kumari, S. Mittal and A. K. Mittal (2007). Histochemical characterization of glycoproteins in the buccal epithelium of a catfish, *Rita rita*. *Acta Histochemica (UK)* 109 (4):285-303. Impact factor: 1.735

23. M. Yashpal, U. Kumari, S. Mittal and A. K. Mittal (2006). Surface architecture of the mouth cavity of a carnivorous fish *Rita rita* (Hamilton, 1822) (Siluriformes, Bagridae). Belgian Journal of Zoology, (Belgium).136 (2):155-162. Impact factor: 0.36
24. U. Kumari, M. Yashpal, S. Mittal and A. K. Mittal (2005). Morphology of the pharyngeal cavity, especially the surface ultrastructure of gill arches and gill rakers in relation to the feeding ecology of the catfish *Rita rita* (Siluriformes, Bagridae). Journal of Morphology, (USA) 265 (2): 197-208. Impact factor: 1.773

### **Chapter in book**

1. U. Kumari, S. Mittal and A. K. Mittal (2009). Functional morphology of gill arches and gill rakers in relation to feeding ecology of fishes. In: Recent advances in ecophysiology of fishes. Editor Dr. J. P. N. Singh, Kishore Vidya Nyketan, Varanasi. (ISBN No: 81-86101-32-2) Page no. 39-49

### **Conference/Seminars attended**

“Impact of global warming and climate change on diversity: The challenge of conserve flora and fauna” at R.H.S.P.G. College, Singramau, Jaunpur, Feb. 21-22, 2012.

“Population Genetics and chromatin dynamics” at Banaras Hindu University, Jan. 22-23, 2012.

“2011 EPS Environmental Science Development Forum” at Hohhot, Inner Mongolia, China, Aug. 3-5, 2011.

“Functional Biodiversity and Ecophysiology of Animals” at Banaras Hindu University, Feb. 21-23, 2009.

“Recent Advances in Ecophysiology of fishes” at R.H.S.P.G. College, Singramau, Jaunpur, Feb. 15-16, 2009.

“Advances in fish physiology: Ecological considerations” at Banaras Hindu University, March 20-21, 2004.

“National Colloquium on Catfish Physiology”, held at Banaras Hindu University, Nov. 19 – 20, 2002.