

NEP Faculty Profile

1. Name:	Dr. Ajai Kumar Singh
2. DOB	10.01.1978
3. Mobile No.	9545828532
4 Email ID	ajaykumar.singh@ssrkt.edu.in
5. Department:	Zoology
6. Education Qualifications:	MSc., PhD, NET, JRF, SRF
7. Designation:	Associate Professor & Head
8. Date of appointment	07.06.2010
9. Date of superannuation	31.01.2038
10. Appointment type	Permanent
11. Work Experience	13 years
12. Courses taught	UG & PG
13. Course development	MSc Zoology (NEP 2020) MSc Zoology (Oceanography); Paper: Marine and Brackish Water Fishery
14. Area of Research:	Environmental Toxicology
15. Achievements:	

A. Awards & Honors:	<ol style="list-style-type: none"> 1. Junior Research Fellowship, CSIR, Govt. of India, New Delhi. 2. Senior Research Fellowship, CSIR, Govt. of India, New Delhi 3. Biographical Notes published in Learned India: Educationist Who's Who, 2017 4. Best Citizens of India Award 2017, International Publishing House, New Delhi 5. Leading educationist's of India Award 2018, Friendship Forum of India (FFI), New Delhi. 6. Dr. A. P. J. Abdul Kalam Azad award for Excellence 2018, Global Brotherhood, New Delhi 7. Personality of the year Award 2018, Rifacimento International, New Delhi 8. Intellectual of the Year Award 2020, Rifacimento International, New Delhi 9. Best Outstanding Article National Award 2020, Kamarajar Institute of Education and Research, Tamil Nadu
B. Projects:	<ol style="list-style-type: none"> 1. Clove oil anaesthesia and expression of nitric oxide synthase enzyme and production of nitric oxide in brain and respiratory organs of freshwater catfish <i>Clarias gariepinus</i>. Funded by UGC, Govt. of India, New Delhi under Minor Research Project Scheme. 2. Analysis of glycoconjugates in epidermal secretion of a freshwater catfish in response to anaesthetic effect of clove oil. Funded by University of Mumbai under University Research Grant Scheme.
C. Membership: (Academic or Professional bodies)	<ol style="list-style-type: none"> 1. Life Member, Association of Teachers of Biological Sciences (ATBS), India. 2. Life Member, Indian Science Congress Association (ISCA), India 3. Ex Member, Society of Toxicology (SOT), USA 4. Ex Member, Editorial Board of International Journal of Chemical and Biomedical Science, American Association for Science and Technology. 5. Ex Member, Editorial board members of International Journal of chemical and Biological Sciences.
D. Resource Person	<ol style="list-style-type: none"> 1. PG Part II Syllabus workshop organized by BoS

	2. PG Part I (NEP 2020) organized by R k. Talreja College and BoS in Zoology
E. PhD	Completed in year 2007 from Banaras Hindu University (BHU), Varanasi
F. PhD Guideship	No
G. Industry	No
H. Patents	No
I. Others: (Other than paper setter, moderator, evaluator, translator, participation in seminars etc.	<ol style="list-style-type: none"> 1. Chairperson, MSc Part I Zoology (theory & practical) University Examinations. 2. Coordinator, MSc Part I Zoology, University's NEP 2020 Syllabus Framing Committee. 3. Member, MSc Part II Zoology (Oceanography & Fishery Technology) University's Syllabus Framing Committee 4. Sub-editor of Proceeding of UGC sponsored National Conference, Excel India Publisher, New Delhi ((ISBN 978-93-80697-57-4)
16. Publications*:	
A. Research Papers:	<ol style="list-style-type: none"> 1. <u>Singh AK</u>, and Banerjee TK. Toxic impact of sodium arsenate ($\text{Na}_2\text{HAsO}_4 \cdot 7\text{H}_2\text{O}$) on skin epidermis of the air-breathing catfish <i>Clarias batrachus</i> (Linn.)” <i>Veterinarski Arhiv</i> 78: 73-88, 2008. 2. <u>Singh AK</u>, and Banerjee TK. Arsenic-induced biochemical alterations in the respiratory organs (gills, ABOs and skin) of the walking catfish <i>Clarias batrachus</i> Linnaeus. <i>Biological Research</i> 41: 341-350, 2008. 3. <u>Singh AK</u>, and Banerjee T. K. 2008. Recovery of damages in the skin of arsenic exposed <i>Clarias batrachus</i> (Linn.) following withdrawal of the stress. <i>Iran J. Sci. Health Eng.</i> 5: 217-224, 2008. 4. <u>Singh AK</u>, and Banerjee TK. A study on carbohydrate moieties of the gills and air-breathing organs of the walking catfish <i>Clarias batrachus</i> (Linn.) following exposure to arsenic. <i>Toxicological and Environmental Chemistry.</i> 91: 43-52, 2009. 5. Janyani S, Sharma P and <u>Singh AK</u> 2011: Effect of high and low temperature on proteins and glycogen content of the muscle of the freshwater catfish <i>Clarias gariepinus</i>, <i>Proceedings of the</i>


UGC sponsored national conference on current trends in biological sciences 141-148, 2011.

6. Singh AK. and Banerjee TK. 2014. Histopathological and Histochemical study on gills of the Freshwater walking catfish *Clarias batrachus* (Linn.) following exposure and withdrawal of arsenic stress. *International Journal of Integrative sciences, Innovation and Technology* (A Peer Review E-3 Journal of Science Innovation and Technology. Vol.3, Iss 4, pg 12-19, 2014. .
7. Singh AK., Sawale S. and Chavan S.. Glycoconjugates study in surface secretions of a fresh water edible catfish, *Clarias gariepinus* in response to clove oil anaesthesia. *International Journal of Chemical and Biomedical Sciences*. 2 (5): 34-41, 2016.
8. Janyani S. and Singh AK. Arsenic prevalence and health impacts on human in villages and housing societies of Ulhasnagar and surrounding cities: A technology facilitated public awareness crusade. *Scholarly Research Journal for Interdisciplinary Studies* 6 (34): 89-98, 2017.
9. Janyani S. and Singh AK. On-screen analysis of biological data (Proteins, Carbohydrates and Lipids) in liver and muscle of experimental fish, *Channa punctatus* (Bloch) using SPSS Software. *Scholarly Research Journal for Interdisciplinary Studies* 7 (37): 180-188, 2018
10. Janyani S. and Singh AK. Histopathological localization of macromolecules with clove oil exposure in liver and alimentary canal of air-breathing freshwater fish *Channa punctatus* (Bloch). *AZANTA, An International Multidisciplinary Quarterly Research Journal*. 7 (1), 138-150, 2018.
11. Janyani S. and Singh AK. A study on nutritional values of liver and muscle of fresh water edible fish *Channa punctatus* following long-term exposure and withdrawal of clove oil. *International Journal of Research and Analytical Reviews (IJRAR)*, 5 (3):296-303,

2018.

12. Janyani S and Singh AK. The *Clarias gariepinus*: An excellent animal model for routine practical and research studies in the field of Zoology. *International Journal of Advance and Innovative Research* 6 (1): 226-229, 2019.
13. Janyani S and Singh AK.. Toxicity analysis of histopathological alterations in liver and alimentary canal of *Channa punctatus* in response to clove oil as an anaesthetic agent. *Journal of Emerging Technology and Innovative Research*. 6 (5), 213-217, 2019.
14. Janyani S and Singh AK. A practice of using motic images digital microscopy software for mucocytes indexing in skin of a walking catfish *Clarias gariepinus*. *International journal of advance and innovative research*, 6 (1), 110-114, 2019.
15. Suraj CK Janyani S. and Singh AK Study on fish traders and fish markets of Ulhasnagar and its surrounding cities: A qualitative approach. *International Journal of Recent Scientific Research* 11 (4): 38207-38212, 2020.
16. Kunwar DPS, Mishra DB., Singh AK. A new digenetic nematode *Epinephalus marini* n. g., n. sp. from marine water fish *Epinephalus malabaricus* (Reef cord) from Bay of Bengal, Puri Coast Orissa, India *International Journal of Frontiers in Life Science Research*, 01(02), 001–004, 2021
17. Kunwar DPS, Singh AK. Study on a new digenetic trematode, *Anahapladena argenteusi* n. g. n.sp. from a marine fish, *Pomadasys argenteus* from Bay of Bengal Puri Coast Orissa, India. *IDEAL*, 10 (2), 18-22, 2022
18. Mishra DB, Kunwar DPS, Singh AK A study on superoxide dismutase activity in a freshwater fish *Labeo rohita*: a way of assessing aquatic health. *European Journal of Biomedical and Pharmaceutical Sciences*. 9 (9), 417-423, 2022.

	<p>19. <u>Singh, AK</u>. A response study on dendritic organs of a bottom dwelling freshwater edible catfish <i>Clarias batrachus</i> (linn.) following long – term exposure and withdrawal of sodium arsenate heptahydrate ($\text{Na}_2\text{HAsO}_4 \cdot 7\text{H}_2\text{O}$) stress. <i>European Journal of Biomedical and Pharmaceutical Sciences</i>. 9 (12), 216-222, 2022.</p>
B. Articles:	<ol style="list-style-type: none"> 1. <u>Singh A</u> .The nitric oxide: A molecule of possible therapeutic use against aquatic stress in fishes. Editorial of <i>Biology and Medicine: Case Report</i>. 2 (2):7-8, 2018, A journal of Allied Academics, London 2. 03 Articles published in college Magazine “PARAS
C. Books/ Book chapters:	<ol style="list-style-type: none"> 1. Pandey S. <u>Singh AK</u>, Gaikwad V “Hydrology and Zoogeography’ 1st Edition (978-93-5346-180-5) Published by University of Mumbai. 2. Pandey S. <u>Singh AK</u>, Gaikwad V “Hydrology and Zoogeography’ 2nd Revised Edition (978-81-944584-4-9) Published by University of Mumbai. 3. <u>Singh AK</u>, ‘Research Trends in Fisheries and Aquatic Sciences’ Vol. 9, 2020 (ISBN 978-93-90420-13-1) published by Akinik Publication, New Delhi. 4. Singh AK. “New Innovations in Chemistry and Biochemistry’ Vol. 3; (Print ISBN: 978-93-5547-039-3, eBook ISBN: 978-93-5547-040-9) published by B. P. International, West Bengal. 5. Sub Editor of Proceedings of the UGC sponsored National Conference on Current Trends in Biological Sciences published by Excel India Publishers (ISBN No. 978-93-80697-57-4)
D. Others (abstract/summary of research papers published/accepted at international level)	<ol style="list-style-type: none"> 1. <u>Singh AK</u>, Chatterjee I and Banerjee TK. 2006. Toxicopathological analysis of the impact of sodium arsenate ($\text{Na}_2\text{HAsO}_4 \cdot 7\text{H}_2\text{O}$) on skin of the catfish <i>Clarias batrachus</i> (Linn.)”. <i>The Toxicologist</i>, a supplementary of Toxicological Sciences, Vol. 90 (1), March 2006 published during meeting of SOT, March 5-9, 2006 at San Diego, California

	<p>2. <u>Singh AK</u>, Chatterjee I and Banerjee TK. 2007. Arsenic-induced toxicopathological alterations in the gills of the walking catfish <i>Clarias batrachus</i> (Linn.) and its recovery. Accepted for poster presentation at 11th International Congress of Toxicology, held on July 15-19, Montreal Canada. (Abstract No. PT8.218218)</p> <p>3. <u>Singh AK</u> and Banerjee TK. 2012. EFFECT OF ARSENIC ON THE GILLS AND AIR-BREATHING ORGANS OF THE WALKING CATFISH, <i>CLARIAS BATRACHUS</i> (LINN.): A HISTOPATHOLOGICAL AND HISTOCHEMICAL STUDY” (Abstract No. P 012) was accepted for poster presentation in The 8th CTDC that was held during September 10-13, 2012 at Centara Grand at Central Ladprao in Bangkok, Thailand.</p>
17. Passport size photograph	

[*Note: Details of the publications should be given in following standard unique format (APS Format):- “**Author Name-Title of Paper-Title of Journal- Volume Number, Issue Number (if any), Page No.-Year.**”

Eg.:- **Hasan AAK, Warnock M, Nieman M, Srikanth S, Mahdi F, Krishnan R, Tulinsky A, and Schmaier AH.** Mechanisms of Arg-Pro-Pro-Gly-Phe inhibition of thrombin. *Am J Physiol Heart Circ Physiol* 285: H183-H193, 2003.

You can provide link/s of Journals published, if available.]