Dr. Ajay Singh

Professor, Department of Zoology
Director, IQAC
Deen Dayal Upadhyaya Gorakhpur University
ajay.zool@ddugu.ac.in Gorakhpur, Uttar Pradesh

SUMMARY

Highly motivated Fisheries specialist with over 37 years of teaching and research experience in the field of Aquatic Toxicology, Snail and Vector Control, Aquaculture, Environmental Science, Physiology and Molluscicides. Renowned for contributions in developing a number of new methods for the extraction of natural compounds from plants, which were found effective against molluscs, fishes and mosquito larvae. Furthermore a number of biochemical methods have also been established for the studies of toxicological effects of pesticides on various metabolically vital enzymes such as acetylcholinesterase, succinic dehydrogenase, lactic dehydrogenase, cytochrome oxidase, protease, phosphatases and transaminases etc. Ready to leverage my expertise to contribute in sustainable development of environment and create awareness in society to reduce the pollution of water bodies.

EXPERIENCE

Professor, Zoology — 01.01.2009-Till date
D.D.U Gorakhpur University — Gorakhpur, U.P.

Associate Professor, Zoology — 23.08.2001-31.12.2008
D.D.U Gorakhpur University — Gorakhpur, U.P.

Senior Lecturer, Zoology — 27.07.1998-22.08.2001
D.D.U Gorakhpur University — Gorakhpur, U.P.

Lecturer, Zoology — 09.11.1993-26.07.1998
D.D.U Gorakhpur University — Gorakhpur, U.P.

EDUCATION

Ph.D. in Zoology — 1987-1991
University of Gorakhpur — Gorakhpur, U.P.
Title of the thesis: **"Studies on molluscicides of plant origin on common harmful snails"**

M.Sc. in Zoology — 1984-1986
University of Gorakhpur — Gorakhpur, U.P.

B.Sc. (Zoology, Botany, Chemistry) — 1982-1984
University of Gorakhpur — Gorakhpur, U.P.

STRENGTHS

Research and Development
Authored 234 research papers that were published in reputed journals in the field of Zoology. Successfully completed 10 major research projects funded by different reputed Government Agencies.

Teaching and mentorship
Mentored over 5000 students of UG/PG and guided 28 successful PhDs in the field of Zoology.

ACADEMIC IDENTITY

Profile	Citations	h-index
Scopus	1,086	20
Web of Science	658	15
Research Gate	2,592	30
Google Scholar	3,117	31
Vidwan	791	17

EXPERTISE

- Aquatic Toxicology
- Physiology
- Molluscicides
- Snail Control
- Genotoxicity
- Vector Control
- Environmental Science

CONTACT DETAILS

Natural Products Laboratory
Department of Zoology
Deen Dayal Upadhyaya Gorakhpur University, Gorakhpur-273009

HONOURS AND AWARDS

Junior Research Fellow — 1988-1990
Council of Scientific and Industrial Research (C.S.I.R) — New Delhi

Senior Research Fellow — 1990-1991
Council of Scientific and Industrial Research (C.S.I.R) — New Delhi

Research Associate — 1991-1993
Council of Scientific and Industrial Research (C.S.I.R) — New Delhi

Fellowship — 2003
Zoological Society of India — Bodh Gaya

Fellowship — 2011
Zoological Society — Kolkata

Fellowship — 2013
Society of Biological Sciences & Rural Development — Allahabad

Prof. Baba Jadhav Award — 2018
Society of Life Sciences — Satna

Recognition for Implementing NEP 2020 in Higher Education — 2021
Uttar Pradesh Government & DDUGU — Gorakhpur

SKSS National Lifetime Achievement Award — 2024
Sarvhit Kalyan Seva Samiti (SKSS) — Meerut

ADMINISTRATIVE ASSIGNMENTS

Director, IQAC — 19.08.2025-Till date
D.D.U Gorakhpur University — Gorakhpur, U.P.

Dean, Faculty of Science — 18.12.2021-19.12.2023
D.D.U Gorakhpur University — Gorakhpur, U.P.

Director, IQAC — 28.05.2021-06.09.2023
D.D.U Gorakhpur University — Gorakhpur, U.P.

Dean, Student Welfare — 19.10.2020-03.10.2023
D.D.U Gorakhpur University — Gorakhpur, U.P.

Dean, Faculty of Agriculture — 03.09.2022-09.10.2023
D.D.U Gorakhpur University — Gorakhpur, U.P.

Registrar D.D.U Gorakhpur University	02.07.2023-06.09.2023 Gorakhpur, U.P.
Finance Officer D.D.U Gorakhpur University	12.09.2021-07.12.2021 Gorakhpur, U.P.
Superintendent of Works D.D.U Gorakhpur University	25.05.2021-12.12.2022 Gorakhpur, U.P.
Coordinator, Ph.D. D.D.U Gorakhpur University	21.09.2020-20.04.2022 Gorakhpur, U.P.
Head, Department of Zoology D.D.U Gorakhpur University	24.01.2018-23.01.2021 Gorakhpur, U.P.
Coordinator, Environmental Science D.D.U Gorakhpur University	24.01.2018-23.01.2021 Gorakhpur, U.P.
Member, Executive Council D.D.U Gorakhpur University	01.12.2013-30.11.2014 Gorakhpur, U.P.
Member, Academic Council D.D.U Gorakhpur University	01.01.2009-Till date Gorakhpur, U.P.

RESEARCH EXPERIENCE — 37 YEARS

The research work in my laboratory currently focuses on studying the mechanism of control of vector snails and mosquito larvae through natural as well as synthetic pesticides and in order to study the environmental toxicity by these pesticides, the toxicity, biochemical, physiological and genotoxic experiment were carried out on freshwater fish over the last thirty seven years. A number of new methods have been developed in my laboratory for the extraction of natural compounds from plants, which were found effective against molluscs, fishes and mosquito larvae. Furthermore a number of biochemical methods have also been established for the studies of toxicological effects of pesticides on various metabolically vital enzymes such as acetylcholinesterase, succinic dehydrogenase, lactic dehydrogenase, cytochrome oxidase, protease, phosphatases and transaminases etc. My laboratory also studied the effect of toxicants on reproduction and post-embryonic development of mosquitoes as well as fecundity, hatchability and survival of snails.

During this period my laboratory has published **four (4) review papers**, **Twelve (12) book chapters** in edited books and **two hundred seventeen (217) research papers** in journals of international repute (like Acta Hydrochim Hydrobiol, Chemosphere, Journal of Ethnopharmacology, Fitoterapia, Environmental Research, environmental toxicology and pharmacology, Pesticide Biochemistry and physiology, Ecotoxicology and Environmental safety etc. **(Impact Factor ranges from 0.5- 4.0)** and **Twenty Eight (28) students obtained Ph.D. degree**.

Another side, **Eleven (11) major research projects have been sanctioned** from different organization like Department of Biotechnology, New Delhi, Department of Environment and Forest, New Delhi, Indian council of Agricultural Research, New Delhi, University Grants Commission, New Delhi, Council of Science & Technology U.P., Lucknow, Council of Scientific and Industrial Research, New Delhi and Indian Council of Medical Research, New Delhi.

MEMBER OF EDITORIAL/ADVISORY BOARD OF THE INTERNATIONAL/NATIONAL JOURNAL

1. The Open Bioactive Compounds Journal
2. Asian Journal of Animal and Veterinary Advances
3. International journal of Zoological research
4. Journal of Fisheries and Aquatic Science
5. Journal of Pharmacology and Toxicology
6. Research Journal of Environmental Toxicology
7. Journal of Natural Products India
8. British Journal of Pharmacology and Toxicology
9. International Journal of Animal and Veterinary Advances

MEMBERSHIP OF ACADEMIC BODIES

1. Life member of Zoological Society of India
2. Life member of National Academy of Vector Born Diseases, India
3. Life member of Zoological Society, Kolkata
4. Member of Indian Science Congress
5. Life Member of Society of Biological Sciences & Rural Development, Allahabad

THESIS SUPERVISED FOR Ph.D. DEGREE 28

S. No.	Name of the student	Topic of the thesis	Year of award
1.	**Dr. Vijay Kumar Srivastav**	Studies on the toxicological and biochemical effects of commercially formulated pesticides on freshwater fish Channa punctatus	**2000**
2.	**Dr. Sunil Kumar Singh**	Studies on molluscicidal properties of some common plants of Eastern Uttar Pradesh against harmful snails	**2001**

3.	**Dr. Ram Pratap Yadav**	Studies on molluscicidal properties of some common plants of family Euphorbiaceae and their environmental impact on non-target organism	**2001**
4.	**Dr. Digvijay Singh**	Studies on the toxicological and biochemical effects of phytopesticides on non-target freshwater fish Channa punctatus	**2001**
5.	**Dr. Sudhanshu Tiwari**	Studies on the toxicological and biochemical effects of active compound extracted form some common plant against freshwater predatory fish Channa punctatus	**2003**
6.	**Dr. (Smt.) Rajeshwari Yadav**	Studies on insecticidal properties of common euphorbious plants against mosquito larvae	**2004**
7.	**Dr. Meelu Rai**	Studies on toxicological and biochemical effects of certain plant origin insecticides on freshwater target and non-target orgnaism	**2005**
8.	**Dr. Manisha Srivastava**	Studies on isolation of compounds from common plants and their role in integrated vector management programme	**2006**
9.	**Dr. Jaya Singh**	Studies on water quality and pollution load in Maheshara lake of Gorakhpur district U.P.	**2010**
10.	**Dr. Jaya Shahi**	Studies on fresh water fishes under the stress of paper industry (Rayana Paper Board Industries Limited, Sant Kabir Nagar) effluents and its impact on the water quality of river, Aami.	**2010**
11.	**Dr. Saroj Chauhan**	Studies on molluscicidal properties of common plants in ponds.	**2010**
12.	**Dr. Preeti**	Studies on planktons found in Maheshara Lake of Gorakhpur	**2010**
13.	**Dr. Kamlesh Kumar**	Studies on the piscicidal activity of active compounds extracted from common plants against freshwater predatory and weed fishes in ponds	**2011**
14.	**Dr. Abhishek Kumar**	Botanical Pesticides: Effect on blood parameters and calcium regulating endocrine glands of a telecast Heteropneustes fossilis	**2012**
15.	**Dr. Pallavi Srivastava**	Studies on the genotoxic, physiological and biochemical effect of agricultural pesticides on fresh water fishes.	**2015**
16.	**Dr. Pallavi Shukla**	Studies of the effect of pulp and paper mill effluent on fish and aquatic megafauna in river Aami of Sant Kabir Nagar.	**2015**
17.	**Dr. Zuby Afroz**	Genotoxicity and metabolic anomalies induced by pulp and paper mill effluent in fresh water fishes	**2015**
18.	**Dr. Bhunesh Pratap**	A comparative study on the piscicidal activity of commercial and botanical piscicides on trash fishes and on nontarget major carp	**2015**

19.	**Dr. Chandra Shekhar**	A comparative study of commercially used synthetic pesticides and plant origin pesticides against freshwater predatory and weed fishes in reference to their toxicological and biochemical effects	**2017**
20.	**Dr. Lal Babu Yadav (International Scholar)**	Studies on plankton population found in Chhapkaiya pond, Birganj, Nepal	**2018**
21.	**Dr. Abhai Deep Jonson**	Studies on larvicidal and growth inhibitor activity of some medicinal plant compounds, synthetic insecticides and their combinations against filarial vector Culex quiquefasciatus	**2019**
22.	**Dr. (Km.) Mamta**	Studies on fish as a bio-indicator of environmental pollution in Ramgarh lake (Gorakhpur, Uttar Pradesh, India).	**2020**
23.	**Dr. Anamika Singh**	Studies on toxic effects of commonly used herbicides on non-target animals.	**2020**
24.	**Dr. Bhagyashree Tiwari**	Genotoxicity and Biochemical alteration induced by various industrial effluents on freshwater inhabiting fishes	**2024**
25.	**Dr. (Km.) Poonam Devi**	Study on the Effect of Pollutants on Fish Life of River Aami	**2025**
26.	**Dr. Bushra Warsi**	Industrial Water Pollution in Gorakhpur Industrial Region Through Satellite Images	**2025**
27.	**Dr. Sarwat Jahan**	Impact of Various Industrial Effluents on Water Quality of Aami River and its impact on Phytoplankton Diversity	**2025**
28.	**Dr. Rakesh Kumar Singh**	Studies on Piscicidal Effect of some Biologically Active Plant Compounds Commonly used in Fresh Water Bodies Against Target Animal	**2025**

RESEARCH PROJECTS SANCTIONED FROM DIFFERENT ORGANISATIONS 11

1.	Title of the project	**Studies on synergism with molluscicidal plant product against harmful snails.**
	Funding Agency	Department of Biotechnology (Govt. Of India), New Delhi.
	Duration	Three years
	Sanctioned Amount	Rs. 827,500/-
	Remark	Successfully completed.
2.	Title of the project	**Studies on snails as indicator of Environmental pollution with pesticides.**
	Funding Agency	Council of Science and Technology, Govt. Of U. P.
	Duration	Three years

	Sanctioned Amount	Rs. 275,000/-
	Remark	Successfully completed
3.	Title of the project	**Studies on molluscicidal activity of some common plants of family Euphorbiaceae and their environmental impact on freshwater non-target animals**
	Funding Agency	Department of Environment, Ministry of Environment and Forest Govt. Of India, New Delhi.
	Duration	Three years
	Sanctioned Amount	Rs. 10,72,360/-
	Remark	Successfully completed
4.	Title of the project	**Studies on toxicological and biochemical effects of plant origin pesticides on freshwater non-target organism**
	Funding Agency	Indian Council of Agricultural Research, Ministry of Agriculture, Govt. Of India, New Delhi
	Duration	Three years
	Sanctioned Amount	Rs. 737,610/-
	Remark	Successfully completed
5.	Title of the project	**Studies on isolation, purification and identification of active compounds from common medicinal plants and their role in integrated vector management (IVM) programme**
	Funding agency	University Grants Commission, New Delhi
	Duration	Three years
	Sanctioned Amount	Rs.596,000.00
	Remark	Successfully completed
6.	Title of the project	**Effect of bio-toxins on growth and development of freshwater paddy fish *Channa punctatus***
	Funding agency	Council of Scientific and Industrial Research, New Delhi
	Duration	Three years
	Sanctioned Amount	Rs.515,400.00
	Remark	Successfully completed
7.	Title of the project	**Studies on the toxic effect of bioactive compounds extracted from Euphorbious plant on the non-target organism"**
	Funding agency	University Grants Commission, New Delhi
	Duration	Three years

	Sanctioned Amount	Rs.631,800.00
	Remark	Successfully completed
8.	Title of the project	**Studies on herbal formulations based on common medicinal plants used against Vector snails in Tarai region of Eastern Uttar Pradesh**
	Funding agency	Indian Council of Medical Research, New Delhi
	Duration	Two years
	Sanctioned Amount	Rs.539,000.00
	Remark	Successfully completed
9.	Title of the project	**Genotoxicity and metabolic anomalies induced by pulp and paper mill effluents in fresh water fishes**
	Funding agency	Council of Science and Technology, Govt. Of U. P.
	Duration	Two years
	Sanctioned Amount	Rs. 530,000/-
	Remark	Successfully completed
10.	**Title of the project**	**Genotoxicity and metabolic anomalies induced by water pollutants in fresh water fishes.**
	Funding agency	University Grants Commission, New Delhi
	Duration	Three years
	Sanctioned Amount	Rs.1349,800.00
	Remark	Successfully completed
11.	Title of the project	Effects of industrial effluents on fish diversity, status and their ex-situ conservation management in river Aami of Gorakhpur region
	Funding agency	Uttar Pradesh Higher Education Department
	Duration	Three years
	Sanctioned Amount	Rs.1100,000.00
	Remark	Ongoing

PARTICIPATION AS RESOURCE PERSON IN PROFESSIONAL DEVELOPMENT PROGRAMME

1. 4th **Refresher Course** in Zoology on "Modern Trends in Zoology" from 11.3.2004-31.3.2004.
2. 5th **Refresher Course** in Zoology on "Environmental Sciences" from 8.11. 2006-28.11.2006.
3. 6th **Refresher Course** in Zoology on "Advancement in Zoology and Environmental Sciences" from 7.11. 2008-27.11.2008.

4. 1st **Refresher Course** in Defence Studies on "Major Concern in Social Sciences" from 21.3. 2009-10.4.2009.
5. 1st **Refresher Course** in Academic Staff College on "Environmental Studies" from 31.12. 2009-20.1.2010.
6. 7th **Refresher Course** in Zoology on "Advancement in Zoology and Environmental Sciences" from 7.11. 2012-27.11.2012.
7. 2nd **Refresher Course** in Botany on "Life Science" from 7.1. 2013-27.1. 2013.
8. 92nd **Orientation Programme** in Academic Staff College for newly appointed teachers of university and college during1st June to 28th June, 2013.
9. 93rd **Orientation Programme** in Academic Staff College for newly appointed teachers of university and college during September 4th to October 1st, 2013.
10. 1st **Short Term Course** in Physics Department on "Research Guidance ,Quality Research and its Metrics" from 24.9. 2013-30.9.2013.
11. 94th **Orientation Programme** in Academic Staff College for newly appointed teachers of university and college during November 23 to December 20, 2013.
12. 1st **Short Term Course** in Zoology Department on "Water" from 17.12. 2013-23.12.2013.
13. 95th **Orientation Programme** in Academic Staff College for newly appointed teachers of university and college during January 18 to February 14, 2013.
14. 96th **Orientation Programme** in Academic Staff College for newly appointed teachers of university and college during May 24 to June 20, 2014.
15. 97th **Orientation Programme** in Academic Staff College for newly appointed teachers of university and college during August 22 to September 18, 2014.
16. 2nd **Refresher Course** in Botany on "Life Sciences in relation to Human Welfare" from 6.9. 2014-26.9. 2014.

RESEARCH PUBLICATIONS

Books

1. Ram Pratap Yadav and **Ajay Singh** (2012): Bio-Pesticides Used As Snail Control: Molluscicides Of Plant Origin. **Lambert Academic Publishing, Germany**, ISBN:978-3-8383-4804-9.
2. Saroj Chauhan and **Ajay Singh** (2012): Ecofriendly Control of Disease Causing Snails. **Lambert Academic Publishing, Germany**, ISBN:978-3-659- 24229-8.
3. **Ajay Singh** and Ram Pratap Yadav (2013): Snail as bioindicator of aquatic pollution by pesticides. **Lambert Academic Publishing, Germany**, ISBN:978-3-659- 35223-2.
4. Pallavi Srivastava and **Ajay Singh** (2014): Fate of Fungicides on fish Clarius batrachus: A Complete Study. **Lambert Academic Publishing, Germany**, ISBN:978-3-659- 54878-9.

Book Chapters

1. Digvijay Singh, **Ajay Singh** and S. P. Singh (2002): Pesticides of plant origin: Threat to Fish Biodiversity. NBFGR-NATP Publication No.4. ***"Life history traits of freshwater fish population for its utilization in conservation"*** AC-6 page 1- 4

2. Rajeshwari Yadav, V.K. Srivastava and **Ajay Singh** (2003): Toxicity of Apigenine (Flavonoid) extracted from latex of *Jatropha gossypifolia* against the larvae of mosquito, *Culex quinquefasciatus*. ***Biological Control of Insect pests*** **(**Eds. S. Ignacimuthu,S. J.& S. Jayaraj), Phoenix Publishing House Pvt. Ltd, New Delhi. PP 327-331
3. Digvijay Singh, R.P. Yadav and **Ajay Singh** (2003): Changes in phospholipid and lipid peroxidation level due to latex of *Codiaeum variegatum* in freshwater snail *Lymnaea acuminata.* ***Proceedings of National Symposia on Biochemical Sciences, Health and Environmental Aspects*** (Ed Satya Prakash) Allied Publishers PVT Limited pp268-273
4. **Ajay Singh**, S.K. Singh, R. P.Yadav, V. K. Srivastava, D. Singh and S. Tiwari (2006). Eco-friendly molluscicides, Piscicides and Insecticides from common plants (Chapter- 5). **In:** ***Trends in Agriculture and Soil Pollution Research*****,** Editors: Livingston, James V**.,** Book published by Nova Science Publisher, Inc. pp 205-230, New York. ISBN 1-59454-325-9
5. Digvijay Singh, R.P. Yadav, S.K. Singh, and **Ajay Singh** (2006): Botanicals as pesticides and their future perspectives in India (Chapter- 5). ***In: Frontiers in Environmental Research***. Editors: Emma B. Davis**,** Book published by Nova Science Publisher, Inc. pp 95-108, New York. ISBN 1-60021-016-3
6. Ram P. Yadav and **Ajay Singh** (2010): Euphorbious plants as molluscicides and piscicides: A Review. **Comprehensive Bioactive Natural Products (Vol. 2), Editor: Gupta, V.K.,** Book published by Studium Press LLC, USA pp.449-460. ISBN 1933699523
7. Ram P. Yadav and **Ajay Singh** (2011): Pesticides (Fish and Mollusc) In: **Encyclopedia of Biological Invasions** (Edited by Daniel Simberloff and Marcel Rejmanek) published by University of California Press 2120 Berk clay way, Berkclay, CA pp 225-228. ISBN 978-0-520-26421-2.
8. Saroj Chauhan and **Ajay Singh** (2014): A detailed review on *Euphorbia tirucalli*: A plant of family Euphorbiaceae. ***Natural Product: Research Reviews*** Vol. 2. (Edited by V.K. Gupta) published by Daya Publishing House, New Delhi, pp 177-188. ISBN 9789351301059 (International Edition)
9. Paratibha Singh and **Ajay Singh** (2014): Review on Phytochemistry and Pharmacological aspects of *Jatropha gossypifoli*a Linn. ***Medicinal Plants: Phytochemistry, Pharmacology and Therapeutics*** Vol. 3. (Editors: V.K. Gupta, G.D. Singh, Surjeet Singh and A. Kaul) published by Daya Publishing House, New Delhi, pp335-349 ISBN: 9788170358640
10. Saroj Chauhan, Jaya Shahi and **Ajay Singh** (2016): Review on the natural aspects of medicinal plant *Codiaeum variegatum* (Family: Euphorbiaceae). ***Natural Product: Research Reviews*** Vol. 4. (Edited by V.K. Gupta). published by Daya Publishing House, New Delhi, pp441-451 ISBN: 978-93-5130-883-6.
11. Ram P. Yadav and **Ajay Singh** (2016): Evaluation and studies of medicinal euphorbious plant *Croton tiglium*: A Review. **Utilisation and Management of Medicinal Plants** Vol. 3 (Editors: V.K. Gupta and A. Kaul) published by Daya Publishing House, New Delhi, pp 231-243 ISBN: 978-93-5130-886-7
12. Sunil Kumar Singh, Shailendra Kumar Singh and **Ajay Singh** (2024): Piscicidal Activity of Thevetia peruviana Latex against Freshwater Fish in Laboratory and Cement Plastering Pond Conditions. **Contemporary Research and Perspectives in Biological Science** Vol.3 (Edited by Dr. Pinar Oguzhan Yildiz). published by BP International, pp 37-48 ISBN: 9789348119575

Reviews

1. **Ajay Singh**, D.K. Singh, T.N. Mishra and R.A. Agarwal (1996): Molluscicides of plant origin. ***Biological Agriculture and Horticulture***, 13: 205-252
2. Sunil K. Singh, R. P. Yadav and **Ajay Singh** (2010): Molluscicides from some common medicinal plants of eastern Uttar Pradesh, India. ***Journal of Applied Toxicology***, 30:1-7.
3. Sunil K. Singh, Shailendra K. Singh and **Ajay Singh** (2013): Molluscicidal and Piscicidal properties of three medicinal plants of family Apocynaceae – a review. ***Journal of Biology and Earth Science,*** 3(2): B194-B205.

4. Pallavi Srivastava, **Ajay Singh** and A. K. Pandey **(2016):** Pesticide toxicity in fishes: Biochemical, Physiological and Genotoxicity aspects. **Biochem Cell Arch**, 16(2): 199-218.

Research Articles

1. **Ajay Singh** and R.A. Agarwal (1988): Possibility of using latex of euphorbiales for snail control. ***The Science of the Total Environment***, 77: 231-236
2. **Ajay Singh** and R.A. Agarwal (1990): Molluscicidal and Anti-Cholinesterase activity of euphorbiales. ***Biological Agriculture and Horticulture*****,** 7: 81-91
3. **Ajay Singh** and R.A. Agarwal (1990): Molluscicidal properties of synthetic pyrethroids. ***Journal of Medical and Applied Malacology*****,** 2: 141-144
4. **Ajay Singh** and R.A. Agarwal (1991): Kinetics of acetylcholinesterase inhibition by the latex of euphorbiales in the snail *Lymnaea acuminata*. ***Journal of Medical and Applied Malacology*****,** 3: 101-105
5. **Ajay Singh** and R.A. Agarwal (1992): Toxicity of the latex of euphorbiales: Effect on acid and alkaline phosphatase of the snail *Lymnaea acuminata*. ***Biological Agriculture and Horticulture*****,** 8: 211-219
6. **Ajay Singh** and R.A. Agarwal (1992): Molluscicidal activity of euphorbiales against the snail *Indoplanorbis exustus*. ***Acta hydrochim et hydrobiol*****,** 20 (5): 262-264
7. **Ajay Singh**, D.K. Singh and R.A. Agarwal (1993): Effect of cypermethrin, mexacarbate and phorate on phospholipids and lipid peroxidation in the snail *Lymnaea acuminata*. ***Bulletin of Environmental Contamination and Toxicology,*** 51: 68-71
8. **Ajay Singh** and R.A. Agarwal (1993): Effect of cypermethrin on lactate and succinic dehydrogenase and cytochrome oxidase of snail and fish. ***Bulletin of Environmental Contamination and Toxicology,*** 51: 445-452
9. D.K. Singh and **Ajay Singh** (1993): *Allium sativum* (Garlic), A potent new molluscicide. ***Biological Agriculture and Horticulture*****,** 9: 121-124
10. **Ajay Singh** and D.K. Singh (1993): Garlic can kill. ***International Agricultural Sieve,***Published by Rodale Institute. (6): 115
11. **Ajay Singh** and R.A. Agarwal (1993): Effect of synthetic pyrethroids on snail metabolism. ***Argonauta,*** 6: (6-12): 26-30
12. **Ajay Singh** and R.A. Agarwal (1993): Toxic effect of synthetic pyrethroid, Fenvalerate on enzymes of the target snail, *Lymnaea* (*Radix*) *acuminata*, and the non-target fish, *Channa striatus.* ***Journal of Medical and Applied Malacology*****,** 5: 87-91
13. D.K. Singh, **Ajay Singh** and R.A Agarwal (1993): *Nerium indicum* as a potent molluscicide of plant origin. ***Journal of Medical and Applied Malacology,*** 5: 93-95
14. **Ajay Singh** and D.K. Singh (1994): Pestoban, a potent herbal molluscicide. ***Biological Agriculture and Horticulure,*** 10: 175-178
15. **Ajay Singh** and R.A. Agarwal (1994): Effect of three synthetic pyrethroids to a non-target fish *Channa striatus*. ***Acta hydrochim. Hydrobiol*****.** 22: 237-240
16. Keshav Singh, **Ajay Singh** and D.K. Singh (1995): Molluscicidal activity of different combinations of plant products in the molluscicide Pestoban. ***Biological Agriculture and Horticulture,*** 12: 253-261
17. **Ajay Singh** and R.A. Agarwal (1995): Latices of euphorbiales used as molluscicde. ***Argonauta,*** 9 (1-6): 35-38
18. Keshav Singh, **Ajay Singh** and D.K. Singh (1996): Molluscicidal activity of Neem (*Azadirachta indica* A. Juss). ***Journal of Ethnopharmacology,*** 52: 35-40
19. Keshav Singh, **Ajay Singh** and D.K. Singh (1998): Synergism of MGK-264 and piperonyl Butaoxide on the toxicity of plant derived molluscicides. ***Chemosphere*****,** 36 (15): 3055-3060
20. Kiran Singh, **Ajay Singh** and D.K. Singh (1998): The use of piperonyl butaoxide and MGK-264 to improve efficacy of some plant-derived molluscicides. ***Pesticide Science*****,** 54: 145-149

21. **Ajay Singh** and V.K. Srivastava (1999): Toxic effect of synthetic pyrethroid permethrin on the enzyme system of the freshwater fish *Channa striatus*. ***Chemosphere,*** 39 (11): 1951-1956
22. Digvijay Singh and **Ajay Singh** (2000): The acute toxicity of plant origin pesticides into the freshwater fish *Channa punctatus.* ***Acta hydrochimica et hydrobiologica*****,** 28 (2): 92-94
23. Digvijay Singh and **Ajay Singh** (2001): Toxicity of the latex of *Thevetia peruviana* and *Nerium indicum*: effect on metabolism of the fish *Channa punctatus.* ***Journal of Medicinal and Aromatic Plant Sciences,*** 22/4A &23/A, 108-112
24. Sunil Kumar Singh, Ram P. Yadav and **Ajay Singh** (2001): Molluscicidal activity of *Thevetia peruviana*, a common medicinal plant of India. ***Journal of Medicinal and Aromatic Plant Sciences,*** 22/4A &23/A, 113-116
25. V. K. Srivastava and **Ajay Singh** (2001): Toxicity of alphamethrin, dimethoate and carbaryl pesticides to the freshwater snail *Lymnaea acuminata* and *Indoplanorbis exustus*. ***Iberus,*** 19: 1-5
26. Ram P. Yadav and **Ajay Singh** (2001): Environmentally safe molluscicide from two common Euphorbiales*.* ***Iberus***, 19: 65-73
27. V.K. Srivastava and **Ajay Singh** (2001): Study of seasonal variation in toxicity of frequently used commercial organophosphate, carbamate and synthetic pyrethroid pesticide against fresh water fish *Channa punctatus* and behavioural responses of treated fish. ***Malaysian Journal of Applied Biology*****,** 30: 17-23
28. Pankaj Kumar Tripathi and **Ajay Singh** (2002): Toxic effects of dimethoate and carbaryl pesticides on carbohydrate metabolism of freshwater snail *Lymnaea acuminata*. ***Bulletin of Environmental Contamination and Toxicology*****,** 68: 606-611
29. Ram P. Yadav, Sunil Kumar Singh and **Ajay Singh** (2002): Molluscicidal activity of *Codiaeum variegatum*, effect on snail metabolism. ***Journal of Eco-physiology and Occupational Health,*** 2: 73-84
30. Digvijay Singh and Ajay Singh (2002): Biochemical alteration in freshwater fish *Channa punctatus* due to latices of *Euphorbia royleana* and *Jatropha gossypifolia.* ***Environmental Toxicology and Pharmacology*****,** 12 (3): 129-136
31. Digvijay Singh and **Ajay Singh** (2002): Piscicidal effect of some common plants of India commonly used in freshwater bodies against target animals. ***Chemosphere****,* 49 (1): 45-49.
32. Ram P. Yadav and **Ajay Singh** (2002): Toxic effect of latex of *Croton tiglium* on *Lymnaea acuminata* and *Channa punctatus*. ***Iberus,*** 20 (2): 31- 44
33. Rajeshwari Yadav, V.K. Srivastava, Ramesh Chandra and Ajay Singh (2002): Larvicidal activity of latex and stem-bark of *Euphorbia tircualli* plant on the mosquito *Culex quinquefasciatus*. ***Journal of Communicable Diseases***, 34 (4): 264 - 269
34. V.K. Srivastava, Meelu Rai and **Ajay Singh** (2002): Effect of synthetic pyrethroids on susceptibility mosquito *Culex quinquefasciatus*. ***Annals of Entomology*** 20 (1-2): 17-19
35. Pankaj Kumar Tripathi and **Ajay Singh** (2003): Toxic effects of dimethoate and carbaryl pesticides on protein metabolism of freshwater snail *Lymnaea acuminata*. ***Bulletin of Environmental Contamination and Toxicology,*** 70: 146-152
36. Sudhanshu Tiwari and **Ajay Singh** (2003): Control of common fresh water predatory fish *Channa punctatus* through *Nerium indicum* leaf extract. ***Chemosphere,*** 53 (8): 865-875
37. Ram P. Yadav, Digvijay Singh, S. K. Singh and **Ajay Singh** (2003**):** Metabolic changes in freshwater fish *Channa punctatus* due to stem-bark extract of *Croton tiglium.* ***Journal of Biological Sciences*****,** 6 (14): 1223-1228
38. Pankaj Kumar Tripathi and **Ajay Singh** (2003): Toxic effects of dimethoate and carbaryl pesticides on reproduction and related enzymes of the freshwater snail *Lymnaea acuminata*. ***Bulletin of Environmental Contamination and Toxicology*****,** 71 (3): 535-542
39. Sunil Kumar Singh and **Ajay Singh** (2003): Molluscicidal and Anti-cholinesterase activity of *Alstonia scholaris* plant against freshwater snail *Lymnaea acuminata*. ***Journal of Biological Sciences,*** 6 (16]: 1442-1446

40. Sudhanshu Tiwari, Pratibha Singh and **Ajay Singh** (2003): Toxicity of *Euphorbia tirucalli* plant against freshwater target and non- target organisms. ***Journal of Biological Sciences,*** 6 (16): 1423-1429
41. Sunil Kumar Singh and **Ajay Singh** (2003): Toxic effect of *Thevetia peruviana* and *Alstonia scholaris* lattices on the freshwater snail *Lymnaea acuminata****. Iberus*****,** 22 (2): 19-27
42. Digvijay Singh and **Ajay Singh** (2003): Effect of stem-bark extract of some common plants on non-target freshwater fish *Channa marulius* (Ham)*. **Indian Journal of Fisheries**,* 50 (4): 525 – 532
43. Sunil Kumar Singh and **Ajay Singh** (2003): Effect of the plants *Thevetia peruviana* and *Alstonia scholaris* (Family:Apocynaceae) on acetylcholinesterase activity of *Lymnaea acuminata* snails. ***Egyptian Journal of Schistosomiasis and Infectious and Endemic Diseases,*** 25: 31-40
44. Sudhanshu Tiwari and **Ajay Singh** (2003): Metabolic changes in the snakehead fish *Channa punctatus* due to latices of *Euphorbia royleana*. ***Asian Fisheries Science,*** 16 (2): 147-155
45. Pankaj Kumar Tripathi, V.K. Srivastava and **Ajay Singh** (2003): Toxic effects of dimethoate (organophosphate) on metabolism and enzyme system of freshwater teleost fish *Channa punctatus*. ***Asian Fisheries Science*****,** 16 (4): 27-32
46. Ram P. Yadav and **Ajay Singh** (2003): Effect of sub-lethal concentration of *Codiaeum variegatum* latex on fresh water snail *Lymnaea acuminata* and non-target fish *Channa punctatus. **Nigerian Journal of Natural Products & Medicine*****,** 7: 20-24
47. V.K. Srivastava, S.K. Singh, Meelu Rai and **Ajay Singh** (2003): Toxicity of *Nerium indicum* and *Euphorbia royleana* lattices against *Culex quinquefasciatus* mosquito larvae. ***Nigerian Journal of Natural Products and Medicine*****,** 7: 61-64
48. P.K. Tripathi and **Ajay Singh** (2003): Fate of synthetic pyrethroid in the aquatic medium and its effect on the aquatic organisms. ***Malaysian Journal of Applied Biology,*** 32 (2): 19-26
49. Digvijay Singh**,** P.K. Deepak, R.P. Yadav, S.K. Singh and **A. Singh** (2003): Studies on fish biodiversity and water quality of Ramgarh Lake in Gorakhpur District. ***Malaysian Journal Applied Biology,*** 32 (2): 27-33
50. V.K. Srivastava, N.K.Sinha, **Ajay Singh** and Ramesh Chandra (2003): Japanese Encephalitis situation in Gorakhpur Division, U.P. ***Journal of Communicable Diseases,*** 35 (1): 56-58
51. Sudhanshu Tiwari and **Ajay Singh** (2004): Effect of Oleandrin on a freshwater air breathing murrel, *Channa punctatus*. ***Indian Journal of Experimental Biology,*** 42 (4): 413-418
52. Pankaj Kumar Tripathi and **Ajay Singh (2004)**: Toxic effect of cypermethrin and alphamethrin on reproduction and oxidative metabolism of the freshwater snail. ***Eco-toxicology and Environmental Safety,*** 58: 227-235
53. Pankaj Kumar Tripathi and **Ajay Singh** (2004): Carbaryl induced alterations in the reproduction and metabolism of the freshwater snail *Lymnaea acuminata*. ***Pesticide Biochemistry and Physiology,*** 79: 1-9
54. S. K. Singh, R. P. Yadav and **Ajay Singh (2004)**: Molluscicidal activity of different organic solvent latex extracts of some common euphorbiales against freshwater harmful snails. ***Journal of Sciences,*** Islamic Republic of Iran 15(1):59-63.
55. Digvijay Singh and **Ajay Singh** (2004): Influence of alphamethirn on oxidative metabolism of freshwater fish *Catla catla*. ***Bulletin of Environmental Contamination and Toxicology****,* 73 (1): 161-166.
56. S.K. Singh, P. K. Tripathi, R.P. Yadav, D. Singh, **Ajay Singh** (2004): Toxicity of Malathion and Carbaryl Pesticides: Effects on Some Biochemical Profiles of the Freshwater Fish *Colisa fasciatus*. ***Bulletin of Environmental Contamination and Toxicology,*** 72 (3): 592-599
57. S.K. Singh**,** R.P. Yadav, Digvijay Singh and **Ajay Singh** (2004): Toxic effect of two common Euphorbiales latices on the freshwater snail *Lymnaea acuminata*. ***Environmental Toxicology and Pharmacology,*** 15: 87-93

58. Sudhanshu Tiwari and **Ajay Singh** (2004): Piscicidal activity of alcoholic extract of *Nerium indicum* leaf and their biochemical stress response on fish metabolism. ***African Journal of Traditional, Complementary and Alternative Medicines,*** 1: 15-29
59. S.K. Singh, R.P. Yadav, D. Singh and **Ajay Singh** (2004): Toxic effect of stem bark of family Apocynaceae plants on freshwater snail *Lymnaea acuminata*. ***Malaysian Journal of Applied Biology,*** 33 (1): 61- 68
60. Sudhanshu Tiwari and **Ajay Singh** (2004): Piscicidal and anti- acetylcholinesterase activity of *Euphorbia royleana* stem bark extracts against freshwater common predatory fish *Channa punctatus.* ***Environmental Toxicology and Pharmacology,*** 18 (1): 47-53
61. Sudhanshu Tiwari, S.K. Singh and **Ajay Singh** (2004): Toxicological and biochemical alterations induced by different fractions of *Euphorbia royleana* latex in freshwater harmful vector snail *Lymnaea acuminata*. ***Indian Journal of Experimental Biology,*** 42, December: 1220-225.
62. Ram P. Yadav, S. Tiwari and **Ajay Singh** (2005): Toxic effect of Taraxerol extracted from *Codiaeum variegatum* stem bark on target vector snail *Lymnaea acuminata* and non-target fish. ***Iberus,*** 23 (1): 1-13.
63. Digvijay Singh and **Ajay Singh** (2005): Effect of *Nerium indicum* extracts on freshwater fish *Channa punctatus.* ***Journal of Herbs, Spices, and Medicinal Plants,*** 11(13): 109-116.
64. Digvijay Singh and **Ajay Singh** (2005): Biochemical Stress Responses in Tissues of Fish *Channa punctatus* due to Lattices of *Nerium indicum* and *Thevetia peruviana.* ***Journal of Applied Toxicology,*** 25: 21-27.
65. Sunil Kumar Singh and **Ajay Singh** (2005): Molluscicidal evaluation of three common plant species from India. ***Fitoterapia***, 76: 747-751.
66. Digvijay Singh, Ram P. Yadav and **Ajay Singh** (2005): Changes in phospholipids and lipid peroxidation level due to latex of *Croton tiglium* in freshwater snail *Lymnaea acuminata*. ***Iberus,*** 23 (1): 25-31
67. Sunil Kumar Singh, R.P. Yadav, Sudhansu Tiwari and **Ajay Singh** (2005): Toxic effect of stem bark and leaf of *Euphorbia hirta* plant against freshwater vector snail *Lymnaea acuminata*. ***Chemosphere,*** 59: 263-270.
68. Sudhansu Tiwari and **Ajay Singh** (2005): Alteration in carbohydrate and protein metabolism of the harmful freshwater vector snail *Lymnaea acuminata* induced by *Euphorbia tricualli* latex extract. ***Environmental Research,*** 99: 378-386.
69. Sudhansu Tiwari, S.K. Singh and **Ajay Singh** (2005): The contribution of the anti-cholinesterase activity of *Pedialanthus tithymaloide* to its molluscicidal activity. ***African Journal of Traditional, Complementary and Alternative Medicines,*** 2 (3): 326 - 336
70. Digvijay Singh and **Ajay Singh** (2005): The toxicity of four native Indian plants effect on AChE and acid/ alkaline phosphate level in fish *Channa marulius*. ***Chemosphere,*** 60: 135-140.
71. Sudhansu Tiwari and **Ajay Singh** (2006): Biochemical stress response in freshwater fish *Channa punctatus* induced by aqueous extracts of *Euphorbia tricualli* plant. ***Chemosphere,*** 64: 36-42.
72. Digvijay Singh, P.K. Deepak and **Ajay Singh** (2006): Mapping of research work on genus *Channa* (Groviovius, 1763) and its future perspectives. ***Fishing Chimes,*** 25 (12): 26-27
73. Sudhansu Tiwari and **Ajay Singh** (2006): Alteration in respiratory pathway of the freshwater fish *Channa punctatus* induced by *Euphorbia royleana* stem-bark extracts. ***Natural Product Communications,*** 1(7): 577-583.
74. Ram P. Yadav and **Ajay Singh** (2006): Toxic effect of Jatropha gossypifolia and its binary and tertiary combinations with other molluscicides in natural ponds. ***Iberus***, 24(2): 47-54.
75. Manisha Srivastava, V.K. Srivastava and **Ajay Singh** (2007): Possibility of using different extracts of *Lantana indica* for control of mosquitoes and snail vectors. ***Natural Products Radiance*****,** 6(2):122-126.
76. R.P. Yadav and **Ajay Singh** (2007): Toxic Effect of Euphorbiales on freshwater snail Lymnaea acuminata in ponds. ***Journal of Herbs, Spices, and Medicinal Plants,*** 13(2): 87-94.

77. Sudhansu Tiwari, R.P. Pandey and **Ajay Singh** (2008): Effect of Cycloart-24-EN-3ß-OL from Euphorbia royleana latex on neuro-enzyme AChE and oxidative metabolism of freshwater fish *Channa punctatus*. ***African Journal of Traditional, Complementary and Alternative Medicines***, 5(4):332-339.
78. V.K. Srivastava, **Ajay Singh** and B.R, Thapar (2008): Field evaluation of malathion fogging against Japanese encephalitis vector *Culex tritaeniorhynchus*. ***J Vector Born Dis.***, 45 (September):78-79.
79. Sunil K. Singh and **Ajay Singh** (2009): Toxic effect of Euphorbia pulcherima plant to fingerlings of Labeo rohita (Hamilton) in different culturing conditions. **World Journal of Fish and Marine Sciences**, 1:324-329.
80. Sudhanshu Tiwari and **Ajay Singh** (2009): Changes in some biochemical parameters in the liver and muscle of Colisa fasciatus due to toxicity of ethanolic extract of Nerium indicum Mill. (Lal Kaner) latex. **Natural Product Radiance**, 8(1):48-54.
81. Ram P. Yadav and **Ajay Singh** (2009): Toxic effect of Binary and tertiary Combinations of extracts of Euphorbia pulcherima latex powder with other plant derived molluscicides against freshwater vector snail. **Internet Journal of Toxicology**, 7(1).
82. Saroj Chauhan and **Ajay Singh** (2010): Molluscicidal potential of Lantana indica and Alstonia scholaris plants against freshwater snail Lymnaea acuminata. **Internet Journal of Toxicology**, 7 (2) online
83. Ram P. Yadav and **Ajay Singh** (2010): Toxic effect of Crotocaudin extracted from the medicinal plant Croton tiglium. **Z. Natureforsch**, 65c: 327-336.
84. Sunil Kumar Singh and **Ajay Singh** (2010): Toxic effect of Alstonia scholaris plant to fingerlings of Labeo rohita (Hamilton) in different conditions. **World Journal of Zoology**. 5(1): 41-46.
85. Jaya Shahi and **Ajay Singh** (2010): A comparative study on piscicidal activity of synthetic pesticides and plant origin pesticides, to fish Channa punctatus. **World Journal of Zoology**. 5(1):20-24.
86. Sunil Kumar Singh and **Ajay Singh** (2010): Metabolic changes in freshwater harmful snail Lymnaea acuminata due to aqueous extracts of bark and leaf of Euphorbia pulcherima plant. **American-Eurasian journal of Toxicological sciences** 2(1):13-19.
87. Sunil Kumar Singh and **Ajay Singh** (2010): Toxicity of leaf and bark of Thevetia peruviana plant to fingerlings of Labeo rohita (Hamilton) in different conditions. **Malays. Appl. Biol**. 39(1): 25-31.
88. S. K. Singh, R. P. Yadav and **Ajay Singh** (2010): Piscicidal activity of leaf and bark extracts of Thevetia peruviana plant and their biochemical stress response on fish metabolism. **European Review for Medical and Pharmacological Sciences**. 14(4), 915-923.
89. Ram P. Yadav and **Ajay Singh** (2010): Effect of plant derived molluscicides on reproduction and survival of the fresh water snail Lymnaea acuminate. **Argaunata**. 1-6, 12-21
90. Saroj Chauhan and **Ajay Singh** (2010): Molluscicidal evaluation of common medicinal plants in pond. **Argaunata**. 1-6, 35-43
91. Sunil Kumar Singh and **Ajay Singh** (2010): Molluscicidal activity of different solvent leaf and bark extracts of Euphorbia hirta plant against the freshwater vector snails. **Argaunata.** 1-6, 22-34
92. Jaya Singh, Preeti, Digvijay Singh and **Ajay Singh** (2010): Studies on water quality and plankton population of Maheshra lake of Gorakhpur District (U.P.).**Journal of Natural Resource and Development.**5(1,2):1-6.
93. Ram P. Yadav and **Ajay Singh** (2011): Efficacy of Euphorbia hirta latex as plant derived mollucicides against freshwater snails. **Revista Do Instituto De Medicina Tropical De Sao Paulo** 53(2):101-106.
94. Saroj Chauhan, Jaya Shahi and **Ajay Singh** (2011)**:** Eco-friendly management of Lymnaea acuminata, snail Vector of fascioliasis in livestock in Eastern Uttar Pradesh. **Global Veterinaria**. 7(1):10-18.
95. Saroj Chauhan and **Ajay Singh** (2011**):**Impact of taraxerol in combination with extract of Euphorbia tirucalli plant on biological parameters of Lymnaea acuminata. **Revista Do Instituto De Medicina Tropical De Sao Paulo** 53(5):265-270

96. Jaya Shahi and **Ajay Singh** (2011): Effect of bioactive compounds extracted from euphorbious plants on haematological and biochemical parameters of fish Channa punctatus. **Revista Do Instituto De Medicina Tropical De Sao Paulo** 53(5):259-263.
97. Saroj Chauhan and **Ajay Singh** (2011): Molluscicidal and ovicidal activity of euphorginol against two harmful freshwater gastropods. **Indian Journal of Natural Products and Resources,** 2(4), 452-457.
98. Sudhansu Tiwari, Rachana Tiwari and **Ajay Singh** (2012**).** Impacts of cypermethrin on Fingerlings of common edible carp Labeo rohita. **The scientific World Journal**. Volume 2012 Article ID291395, 7 pages.
99. Saroj Chauhan and **Ajay Singh** (2012): A comparative study of toxic effect of a Euphorbia's plant Euphorbia tirucalli against two freshwater harmful snails in laboratory as well as in pond and its effect on their reproductive physiology. **World Journal of Zoology,** 7(3): 258-263.
100. Paratibha Singh and **Ajay Singh** (2012): Acute toxic effect of medicinal plant Jatropha gossypifolia on non-target fish and mice. **Wudpecker Journal of Agricultural research** 1(10):441-446.
101. Paratibha Singh and **Ajay Singh** (2012): Evaluation of latex extract of Euphorbia royleana for its Piscicidal and Muricidal activities. **World Journal of Agricultural Sciences,** 8(5):520-524.
102. Sunil K. Singh, Shailendra K. Singh and **Ajay Singh** (2013):Toxicological and Biochemical alterations of apigenin extracted from seed of Thevetia peruviana, a medicinal plant. **Journal of Biology and Earth Sciences,** 3(1):B110-B119.
103. Ram P. Yadav, Kiran Lata and **Ajay Singh** (2013): Toxic effect of alcoholic leaf extracts of Lantana indica plant: Effect on haematological and physiological parameters in non-target fish Heteropneustes fossilis. **International Journal of Fisheries and Aquatic Sciences. 2(1):16-20.**
104. Pallavi Shukla, Preeti and **Ajay Singh** (2013): A seasonal variations of plankton population of Maheshara Lake in Gorakhpur**,** India**. World Journal of Zoology,** 8(1): 09-16.
105. Jaya Shahi, Saroj Chauhan and **Ajay Singh** (2013): Comparative study on the hematological effect of synthetic pesticides and plant origin pesticides, to fish Channa punctatus .**Indian Journal of Natural Products and Resources,** 4(1): 48-53.
106. Pallavi Srivastava and **Ajay Singh** (2013): Study of in vivo effects caused by metabolites (1,2,4-trizole alanine) of steroid-inhibitor fungicide on aquatic life (fish). **Journal of Aquaculture Research and Development,** 4(3):183 doi: 10 4172/2155-9546 1000183.
107. Ram P. Yadav and **Ajay Singh** (2013): Toxic effect of two common Euphorbiales against freshwater target snail Lymnaea acuminate and Indoplanorbis exustus in ponds. **New York Science Journal,** 6(6):18-22.
108. Pallavi Shukla and **Ajay Singh** (2013): Distribution and Diversity of Freshwater Fishes in Aami River, Gorakhpur, India. **Advances in Biological Research** 7(2): 26-31.
109. Bhunesh Pratap and **Ajay Singh** (2013): Piscicidal and Anti AChE Activity of Medicinal Plant Jatropha gossypifolia (Family-Euphorbiaceae). **World Journal of Fish and Marine Sciences,** 5(4):367-72.
110. Ram P. Yadav and **Ajay Singh** (2013): Toxic effect of selected plant pesticides against fresh water snail Lymnaea acuminate. **International journal of traditional and natural medicines,** 2(3): 149-163.
111. Pallavi Srivastava and **Ajay Singh** (2013): In vivo study of effect of Dithiocarbamates fungicide (Mancozeb) and its metabolite ethylenethiourea (ETU) on fresh water fish Clarius batracus. **Journal of Biology and Earth Science,** 3(2): B228-B235.
112. Zubi Afroj and **Ajay Singh** (2013): Toxic effect of pulp and paper mill effluents on physiological parameters of fresh water fish and physico-chemical parameters of river Aami, Gorakhpur, Uttar Pradesh, India. **Journal of Toxicology and Health** Photon103:234-243.
113. Bhunesh Pratap and **Ajay Singh** (2013): in vivo effect of Apienin isolated from Jatropha gosypifolia plant on biochemical profile of fish. **Global Journal of Pharmacology** 7(2):166-171
114. Bhunesh Pratap and **Ajay Singh** (2013): Rutin extracted from euphorbious plant used as potent piscicides for controlling predatory fish Heteropneustes fossilis. **Journal of Ecology**, Photon 107:265-270.

115. Pallavi Srivastava and **Ajay Singh** (2013): Trizole: a new fungicidal group induced chromosomal aberrations in Asian catfish (Clarius batracus). **Journal of Biology and Earth Science,** 3(2): B255-B260.
116. Pallavi Srivastava and **Ajay Singh** (2013): Induction of chromosomal aberrations by carbamate fungicide in fish Clarius batracus (Asian catfish). **Scholarly Journal of Agricultural Science**, 3(1): 487-491
117. Pallavi Srivastava and **Ajay Singh** (2013): Study on some neural and behavioral changes induced by carbamate (Mancozeb) fungicide on fresh water fish Clarius batracus. **World Journal of Zoology,** 8(4): 376-380.
118. Jaya Shahi, Saroj Chauhan and **Ajay Singh** (2013): Effects of Bleached Kraft pulp and paper mill effluents (BKME) on the biochemical and hematological parameters of fish Channa punctatus. **World Journal of Fish and Marine Sciences,** 5(5):556-562.
119. Chandrashekhar Kushwaha and **Ajay Singh** (2013): Ecofriendly piscicides from combination with plant origin and synthetic pesticides. **The Journal of Ecology** Photon 107:226-232.
120. Pallavi Srivastava and **Ajay Singh** (2014): Behavioral changes by inhibition of Acetylcholinesterase induced by Trizole (Propicanazole) fungicide on fresh water fish Clarius batracus. **World Journal of Fish and Marine Sciences,** 6(1):82-86.
121. Jaya Shahi and **Ajay Singh** (2014): Toxicity of plant origin compounds on fish Clarias batracus. **The Journal of Toxicology and Health, Photon** 104:362-368.
122. Paratibha Singh and **Ajay Singh** (2014): Mutagenic and genotoxic evaluation of medicinal plant Euphorbia royleana latex to fresh water fish Channa punctatus (Bloch). **International Journal of Pharma and Biological Sciences**, 5(1): (B) 217-228
123. Pallavi Srivastava and **Ajay Singh** (2014): Statistical analysis of hydrological properties and genetic toxicity of Maheshara Lake. **Journal of Ecology ad Natural Environment,** 6(4):159-165
124. Saroj Chauhan and **Ajay Singh** (2014): Ecofriendly management of harmful snail population using Alstonia scolaris. **Journal of Biology and Earth Science,** 4(1): B66-B71.
125. Zubi Afroj and **Ajay Singh** (2014): Impact of Pulp and Paper mill effluent on water quality of river Aami and its effect on aquatic life (fish). **Global Journal of Pharmacology**, 8(2):140-149
126. Bhunesh Pratap and **Ajay Singh** (2014): Toxicity due to change in biochemical profile of fish Cyprinus carpio by using herbal compound Apigenin obtained from euphorbious plant Jatropha gossypifolia. **Scholarly Journal of Agricultural Science**, 4(4): 218-223.
127. Ram P. Yadav and **Ajay Singh** (2014)**:** Effects of single, binary and tertiary combinations with Jatropha gossypifolia and other plant derived molluscicdies on reproduction and survival of the snail Lymnaea acuminata. **Revista Do Instituto De Medicina Tropical De Sao Paulo**, 56(4):
128. Paratibha Singh, Anurag Dabas,Rashmi Srivastava, N.S. Nagpure and **Ajay Singh** (2014): Evaluation of genotoxicity induced by medicinal plant Jatropha gossypifolia in fresh water fish Channa punctatus (Bloch).**Turkish Journal of Fisheries and Aquatic Sciences**,14(1-2):421-428.
129. Pallavi Srivastava and **Ajay Singh** (2014): Potential effects of agricultural fungicide (Mancozeb) on fish Clarias batrachus. **Research Journal of Biological Sciences,** 9(4):129-134.
130. S.K. Singh, A. Johnson and **Ajay Singh** (2014): Toxic effect of Euphorbia hirta plant to fingerlings of Labeo rohita (Hamilton) in different culturing conditions. **Scientific Journal of Veterinary Advances**. 3(7): 83-90.

131. Bhunesh Pratap and **Ajay Singh** (2015): Comparison between the toxicity of plant origin and synthetic pesticide against fresh water fish Cirrhinus mrigala. **Journal of Biology and Earth Science**, 5(1):10-18.
132. Pallavi Srivastava and **Ajay Singh** (2015): Evidence of micronuclei in fish blood as a biomarker of genotoxicity due to surface run off agricultural fungicide (Propiconazole). **Journal of Toxicology and Environmental Health Sciences**, 7(1):4-8.
133. Saroj Chauhan and **Ajay Singh** (2015): Molluscicidal effect of medicinal plant Euphorbia tirucalli on the harmful snails in experimental ponds. **World Journal of Zoology,** 10(1): 47-53.
134. Ram P. Yadav and **Ajay Singh** (2016)**:** Toxicity of two common euphorbiales: effect on metabolism and enzyme system of freshwater snail Lymnaea acuminata. **International journal of Traditional and natural medicine**,16(1): 52-60.
135. Kamlesh Kumar and **Ajay Singh** (2016)**:** Effect of fish size and treatment conditions on the piscicidal activity of Nerium indicum latex powder. **Int. J. Life. Sci. Scienti. Res.** 2(5): 583-587.
136. Saroj Chauhan and **Ajay Singh** (2016): Toxicological investigation and anti-reproductive effect of phyto-molluscicide against harmful aquatic snail. **European Journal of Biological research** 6(4): 260-266.
137. Kumari Mamta and **Ajay Singh** (2017): Hematological and Biochemical changes induced by water pollutants in fishes collected from Ramgarh lake of Gorakhpur (U.P.) India. **Int. J. Life. Sci. Scienti. Res.** 3(1): 792-799.
138. Lal Babu Prasad Yadav and **Ajay Singh**(2017): Study of Zooplankton Diversity of Chhapakaiya pond Birganj, Nepal. **Int. J. Life. Sci. Scienti. Res.** 3(2): 567-573.
139. Pallavi Srivastava, **Ajay Singh** and A. K. Pandey (2017): Hematological profiles of commercially important wild fishes inhabiting polluted water of Maheshara Lake, Gorahpur (India). **J. Exp. Zool. India**, 20(1): 351-358.
140. Lal Babu Prasad Yadav and **Ajay Singh**(2017): Studies on Physico-chemical Properties of Chhapkaiya pond Birganj, Nepal. **Research J. Science and Tech.** 9(2):253-258.
141. Abhay Deep Johnson and **Ajay Singh** (2017): Toxic effect of biologically active compound Rutin extracted from Euphorbious plant Codiaeum variegatum against mosquito Culex quinquefasciatus (Diptera: Culicidae) larvae. **Research J. Science and Tech.** 9(3). July- September 2017
142. Abhay Deep Johnson and **Ajay Singh** (2017): Larvicidal activity and biochemical effects of apigenin against filarial vector culex quinquefasciatus. **Int. J. Life. Sci. Scienti. Res.** 3(5):1315-1321.
143. Anamika Singh and **Ajay Singh** (2017): Studies on toxicity stress, behavioural alterations and biochemical changes induced by glyphosate herbicide on the fresh water fish Channa punctatus (bloch). **International Journal of Food, Agriculture and Veterinary Sciences**. 7(3):39-48.
144. Kumari Mamta and **Ajay Singh** (2017): Genotoxic effect of effluents discharged in Ramgarh Lake on freshwater fish Channa punctatus. **Research Journal of Science and Technology**. 9 (4):669-674.
145. Kamlesh Kumar and **Ajay Singh** (2017). Toxic effects of Nerium indicum Latex powder on biuochemical profile of fishes. **Research Journal of Science and Technology**. 9 (3):317-322.
146. Kumari Mamta and **Ajay Singh** (2018): Studies on chromosomal abnormalities induced in freshwater fish Channa punctatus by pollutants present in water samples of Ramgarh lake. **International Journal of Agriculture and Veterinary sciences**, 8(1):6-12.
147. Ram P. Yadav and **Ajay Singh** (2019): Toxic effects of Malathion pesticides against freshwater teleost fish *Colisa fasciatus* at different season. **World Journal of Pharmacy and Pharmaceutical Sciences.** 9(1):1037-1045.
148. Ram P. Yadav and **Ajay Singh** (2020): Effects Of Extracted Plant Extracts Against Freshwater Snail Lymnaea Acuminata Body Tissues. **European Journal of Biomedical and Pharmaceutical Sciences**. 7(4):293-305.
149. Reshmina Firoz Khan, Ram P. Yadav and **Ajay Singh** (2020): Pharmacology And Biological Properties Of Euphorbia hirta Linn: A Review. **European Journal of Biomedical and Pharmaceutical Sciences**. 7(11):148-151.

150. Abhay Deep Johnson and **Ajay Singh** (2020): Evaluation Of Phytochemical Properties And Larvicidal Activities Of Taraxerol Extracted From Leaf Of Codiaeum Variegatum Against Culex Quinquefasciatus (Diptera: Culicidae) Larvae. **World Journal of Pharmaceutical Research**. 9(10):1306-1320.
151. Bhagyashree Tiwari and **Ajay Singh** (2020): Impact Of Various Industrial Effluents On Water Quality Of River Aami And Its Effect On Biochemistry Of Fresh Water Inhabiting Fishes. **World Journal of Pharmaceutical Research**. 9(11):961-976.
152. Reshmina Khan, Ram P. Yadav and **Ajay Singh** (2020): The global impacts of Covid-19 pandemic in current era. **World Journal of Advance Health Care Research**. 7:138-142.
153. Ankita Sahu, Ram P. Yadav and **Ajay Singh** (2021): Study of plankton diversity status of local habitat in eastern Uttar Pradesh. **Annals of Limnology and Oceanography**. 6(1):001-007.
154. Bhagyashree Tiwari and **Ajay Singh** (2021): Influence of various mega industrial effluents on Physico-chemical parameters of river Aami and Hematological aspects of fresh water inhabiting Fishes. **World Journal of Pharmaceutical Research**. 10(6):1293-1305.
155. Sunil K. Singh, Ram P. Yadav and **Ajay Singh** (2021): Toxic Effects Of Carbamate Insecticide Against Freshwater Fish Colisa Fasciatus At Different Time Intervals And Season. **World Journal of Pharmacy and Pharmaceutical Sciences.** 10(6):1731-1740.
156. Reshmina Firoz Khan, Ram P. Yadav and **Ajay Singh** (2021): A database of anti-diabetic and anti-cancer plant species from the family euphorbiaceae. **New York Science Journal**. 14(12):31-41.
157. Reshmina Firoz Khan, Ram P. Yadav and **Ajay Singh** (2021): Screening of pharmacological and biological properties of a euphorbious plant, Euphorbia pulcherima: A review. **International Journal of Pharmacognosy and Pharmaceutical Sciences**. 3(2):12-15.
158. Bhagyashree Tiwari and **Ajay Singh** (2022): Hematological and Biochemical Alterations Incorporated in Freshwater Fishes due to Several Industrial Effluents in River Water: A Review. **Iconic Research and Engineering Journals**. 6(3):57-66.
159. Sarwat Jahan and **Ajay Singh** (2022): Various Industrial Effluents Are Threatening Phytoplankton Diversity In The Ami River. **World Journal of Pharmaceutical Research**. 11(16):1881-1894.
160. Km. Poonam Devi and **Ajay Singh** (2022): A Study On Physicochemical Characterstics Of (Water) River Ami. **World Journal of Pharmaceutical Research**. 12(1):1679-1690.
161. Reshmina Firoz Khan, Ram P. Yadav and **Ajay Singh** (2022): Molluscicidal activity of aqueous extracts of selected medicinal plants on freshwater snails and fish. **Asian Plant Research Journal**. 10(4):45-53.
162. Bhagyashree Tiwari and **Ajay Singh** (2022): Variations in Skin Pigmentation in Freshwater fishes in the exposure of diverse varieties of Industrial and Mill Effluents. **International Journal for Multidisciplinary Research**. 4(5):1-6.
163. Bhagyashree Tiwari and **Ajay Singh** (2022): Alterations in Hepatosomatic and Gonadosomatic Indices in Freshwater Fishes Due to Exposure of Toxic Industrial Effluents. **International Journal of All Research Education and Scientific Methods**. 10(9):1335-1341.
164. Km. Poonam Devi and **Ajay Singh** (2023): A Study on biochemical and hematological properties of common Carp (Channa Punctatus). **International Journal of Research Publication and Reviews**. 4(4):1048-1053.
165. Bushra Warsi and **Ajay Singh** (2023): Determination of pH, biological oxygen demand, chemical oxygen demand in treated effluents of Gallant ISPAT Limited and Indian Glycol Limited in GIDA, Gorakhpur, Uttar Pradesh, India. **World Journal of Pharmaceutical Research**. 12(16):662-670.
166. Sarwat Jahan and **Ajay Singh** (2023): Determination of chloride concentration in Aami River GIDA, Gorakhpur, Uttar Pradesh, India. **Marsh Bulletin Journal**. 18(2):119-129.
167. Sarwat Jahan and **Ajay Singh** (2023): The role of Phytoplanktons in the environment and in human life, a review. **Basrah Journal of Science**. 41(2):379-398.
168. Sarwat Jahan and **Ajay Singh** (2023): Causes and impact of industrial effluents on receiving water bodies: A review. **Malaysian Journal of Science and Advance Technology**. 3(2):111-121.

169. Shakuntala Bharti, Ram P. Yadav and **Ajay Singh** (2023): Toxicological Alteration of Alphamethrin pesticide (Astra) Against Freshwater Predatory Fishes. **Archives of Ecotoxicology**. 5(3):70-74.
170. Shakuntala Bharti, Ram P. Yadav and **Ajay Singh** (2023): Toxicological Alteration of Dimethoate (rogor) Insecticide against freshwater fish Colisa fasciatus and Mystus mystus. **Archives of Ecotoxicology**. 5(1):8-12.
171. Deepshikha Gupta and **Ajay Singh** (2024): Leveraging the current state of on-site water treatment Plants with reference to 30 MLD Plant Gorakhpur: Charting the trends, challenges and future plans. **Journal of Emerging Technologies and Innovative Research**. 11(11):b170-b191.
172. Sarwat Jahan and **Ajay Singh** (2024): Total hardness of Aami River water by Complexomatric Titration in selected industrial area of GIDA-Sector-13. Gorakhpur District. (Uttar Pradesh) India. **Jordan Journal of Applied Sciences- Natural Science**. 18:50-56.
173. Rakesh Kumar Singh and **Ajay Singh** (2024): The joint action effects of the binary mixtures of some botanic piscicides on freshwater fish Mystus Mystus. **CIBtech Journal of Zoology**. 13:70-77.
174. Rakesh Kumar Singh and **Ajay Singh** (2024): Piscicidal effect of some biologically active plant compounds of Alstonia Scholoris and Codium Vareigatum. **International Journal of Zoological Investigation**. 10(1):565-570.
175. Bushra Warsi and **Ajay Singh** (2024): Industrial water pollution: a case study on Azam Rubber Product of GIDA, Gorakhpur. **World news of Natural Science**. 55:154-168.
176. Km. Poonam Devi and **Ajay Singh** (2024): The biochemical parameters of fish Channa Punctatus are affected by pulp and paer mill effluents. **Ecology, Environment and Conservation**. 30(3):1431-1434.
177. Km. Poonam Devi and **Ajay Singh** (2024): Effects of bleached wastewater released from pulp and paper millon the genotoxicity of fresh water fish (Channa Punctatus) (Bloch, 1793). **World news of Natural Science**. 56:36-44.
178. Arpita Singh, Sunil Kumar Singh and **Ajay Singh** (2025): Assessment Of River Aami's Water Quality: Physicochemical Characteristics And Implications. **World Journal of Pharmaceutical Research**. 14(3):1429-1437.
179. Arpita Singh and **Ajay Singh** (2025): Unveiling the Complexity of fish Diversity in River Aami. **International Journal of Scientific Development and Research**. 10(1):b1-b4.
180. Arpita Singh, Sunil K. Singh and **Ajay Singh** (2025): Sustainability Challenges of the Aami River: A Holistic Review. **Journal of Emerging Technologies and Innovative Research**. 12(1):d14-d29.
181. Deepshikha Gupta and **Ajay Singh** (2025): Performance Evaluation of 30 MLD Sewage Treatment Plant (STP) at Gorakhpur. **International Research Journal of Engineering and Technology**. 12(5):271-275.
182. S.P. Singh, Ram P. Yadav and **Ajay Singh** (2025): Toxicity of Ricin and Alkaloid Atropine containing bait formulation against the freshwater snail Lymnaea acuminata. **International Journal of Research Trends and Innovation**. 10(2):a837-a844.
183. S.P. Singh, Ram P. Yadav and **Ajay Singh** (2025): Effect of bait formulation containing binary mixture of carbohydrate and amino acids on the Behavioural Responses of snail Lumnaea acuminata. **Journal of Emerging Technologies and Innovative Research**. 12(1):f712-f719.
184. Sarwat Jahan and **Ajay Singh** (2025): Evaluation of Organic Pollution Using Palmer's Algal Pollution Index in Ami River, Gorakhpur, (Uttar Pradesh) India. **Jordan Journal of Earth and Environmental Sciences**. 16(2):144-153.
185. Arpita Singh, Sunil K. Singh and **Ajay Singh** (2025): Impact Of Oil Factory Effluent On Water Quality Of Aami River. **World Journal of Pharmaceutical Research**. 14(4):1235-1240.
186. Deepshikha Gupta and **Ajay Singh** (2025): Comprehensive Assessment Of River Water Quality In Gorakhpur: A Study Of Physico-Chemical Parameters And Pollution. **World Journal of Pharmaceutical Research**. 14(16):785-803.