

BIODATA

Name: **Dr. Sudesh Rani**
Designation: **Professor**
Department of Zoology
Maharshi Dayanand University, Rohtak
Research area: **Animal Behaviour/ Pathology/Toxicology**



EDUCATIONAL QUALIFICATIONS

Degree	Year of passing	University/Institution
Ph.D.	2007	CCSHAU, Hisar
PG	2004	CCSHAU, Hisar
UG	2001	KUK

CAREER PROFILE

Sr. No.	Name of institution	Designation	From	To
1.	M.D. University, Rohtak	Assistant Professor Stage I	20.08.2008	19.08.2012
2.	M.D. University, Rohtak	Assistant Professor Stage II	20.08.2012	19.08.2017
3.	M.D. University, Rohtak	Assistant Professor Stage III	20.08.2017	19.08.2020
4.	M.D. University, Rohtak	Associate Professor	20.08.2020	19.08.2023
5.	M.D. University, Rohtak	Professor	20.08.2023	Till date

PROJECTS UNDERTAKEN

Major project, by UGC, New Delhi Completed
Minor projects (3) by RK Fund, MDU completed

ADMINISTRATIVE/UNIVERSITY RESPONSIBILITIES:

- ✓ Act as Member of Institutional Animals Ethics Committee (IAEC) , MDU Rohtak
- ✓ Curriculum Development
 - UG (General and Hons.)
 - PG/Ph.D. curriculum development
- ✓ Act as Organizing Secretary/ Joint Organizing Secretary of National Seminars organized by Department of Zoology from 2010-2023

- ✓ Appointed IQAC officer at Deptt. level 2010-2015
- ✓ Member of UG/PGBOS
- ✓ Member of Faculty of Life sciences
- ✓ Member of Eve-teasing at departmental level
- ✓ Member of anti-ragging committee
- ✓ Member of admission committee for MSc. and PhD.
- ✓ DLC-Coordinator at Departmental level
- ✓ Member of Syllabi enrichment committee
- ✓ Acted as Member of UMC committee

ACADEMIC PROFILE /RESEARCH ADVISORY

No. of students supervised /enrolled	Ph.D.	M.Sc.
	06 degree awarded 02 registered+ 3 admitted	55 supervised/10 enrolled

Ph.D. student's supervised:

Name of Research scholar	Title of thesis
Preety	Pathological Study of Transfluthrin on Histology of Organs and Development of Albino Rat
Khushboo	"Effect of aqueous extract of <i>Hibiscus rosasinensis</i> & camel milk on the treatment and reproduction of diabetic male albino rats"
Priyanka	Effect of Cypermethrin and Curcumin on albino rats
Poonam	"Effect of differently heat processed soyabean based diets on growth and nutrient utilization of commonly available fresh water fish"
Manju	Effect of soybean meal as fish meal replacer in the diets of commonly available fresh water fish species
Reeti	Role of pineal gland in growth and metabolism of catfish
Student's pursuing Ph.D.	
Anshu Raj	Effect of Camel milk and Commercial drugs on Type-I and Type-II diabetic albino rats
Sujata	Assessment of Paraquat induced toxicity and its Amelioration using ginger extract in albino rats

M.Sc. Students supervised

	Student Name	Title of Dissertation
1.	Ritu	Effect of earthworms on enhancing growth of <i>Vigna radiata</i> plant in different types of organic waste materials
2.	Priyanka Ohlyan	Mosquito Repellent Efficiency of Ocimum Oils: A Review
3.	Ayushi Gupta	Anthelmintic Activity of Morus alba on Red Wiggler (<i>Eisenia fetida</i>)
4.	Pooja	Effect of sugarcane bagasse on growth and reproduction of earthworm (<i>Eisenia fetida</i>)
5.	Divya	Effect of <i>Hibiscus rosa sinensis</i> leaves on Earthworm growth and reproduction
6.	Priya Yadav	Vermicomposting of Autumn Leaves and their effect on growth and reproductive performance of Earthworms
7.	Anandi	Role of <i>Azadirachta indica</i> (Neem) in Growth and Reproduction of <i>Eisenia fetida</i>
8.	Annu	Effect of synthetic pyrethroid and herbal pyrethroid (osimum oil) on cerebellum of albino rat
9.	Saloni	Effects of transfluthrin and herbal pyrethroids on blood components of male and female <i>Rattus rattus norvegicus</i>
10.	Shatrughan	Pathological study of deltamethrin in male albino rats
11.	Manpreet	Pathological effect of deltamethrin on histology of female albino rats
12.	Jyoti	Median lethal dose toxicity of deltamethrin and its effect on behaviour and memory of male <i>Rattus rattus norvegicus</i>
13.	Gulshan	Median lethal dose toxicity of deltamethrin and its affect on behaviour and memory of female albino rats <i>Rattus rattus norvegicus</i>
14.	Sheetal	Human Wildlife Conflict and Coexistence
15.	Anuradha	Effects of Anthropogenic activities on Birds
16.	Komal	Evolution of Animal Communication and Behavior
17.	Navdeep	Changes in the behaviour and population growth of rats providing favourable conditions in limited space
18.	Amit	Systematic Lupus Erythematosus (SLE): A Review on Disease
19.	Harsh	Alteration in honey production, brooding and foraging behavior of honeybees due to electromagnetic radiations
20.	Manisha	Stress behavior in animals and its management
21.	Akshay Kumar	Avifaunal diversity in the National Zoological Park, New Delhi
22.	Sonali	Oxidative stress in diabetic rats
23.	Sunny	Water quality and ichthyofaunal diversity in Tilyar lake Rohtak
24.	Astha Chhillar	Virtual screening of Ciprofloxacin analogues from Zinc Database
25.	Suhubham Rohilla	Faunal biodiversity assessment of Tilyar lake
26.	Antika	Effect of camel milk on lipid peroxidation and histological alterations in diabetic rat liver
27.	Kalpana	Effect of camel milk on protein oxidation and histological

	Tanwar	alterations in diabetic rat kidney
28.	Priya	Curative Effect of Curcumin against Cypermethrin mediated nephrotoxicity and impaired learning along with Behaviour in Lactating female rats
29.	Vinay Malik	University campus as valuable resource for biodiversity study
30.	Pushpa	Cypermethrin induced histological degeneration in liver and learning impairments and their cure using Curcumin in lactating female albino rats
31.	Gunjan Jangid	Ameliorating role of Curcumin in Cypermethrin induced nephrotoxicity and alterations in behaviour of lactating female albino
32.	Komal	Curcumin Mitigates Cypermethrin-Induced Nephrotoxicity and Cognitive Deficits in lactating female albino rats
33.	Divya Yadav	Therapeutic effects of curcumin on cypermethrin induced liver toxicity along with learning and memory deficits in lactating female albino rats
34.	Namrata	Ameliorative effect of Curcumin against Cypermethrin-induced Hepatotoxicity and cognitive disabilities in lactating female albino rats
35.	Anuj	To study biodiversity (fauna and flora) in university campus
36.	Nitin Kumar	Aggressive behavior in rats
37.	Shiwani	Assessing learning and memories in laboratory rats
38.	Parul	Biodiversity of birds in MD University”
39.	Naresh	To Acclimatization of Cat Fish into Saline Water & Measurement of Their Mortality
40.	Minakshi	Histological changes in testies and ovary of fish, <i>Clarias batrachus</i> exposed to mercury chloride
41.	Anamika Yadav	Effect of human beings on fish population: A Review
42.	Anjali Malhan	Study of relationship between <i>Canis lupus familiaris</i> and human
43.	Anshu	Histopathologically changes in catfish exposed to aluminium
44.	Shobha	Effect of earthworm on Productivity of mustard crop
45.	Pooja Malik	“Effect of earthworm on productivity of wheat plant”
46.	Renu	“growth of earthworm (<i>Eisenia fetida</i>) in clay soil”
47.	Puneet	“Effect of Earthworm on the productivity of Gram”
48.	Priyanka	“Study on effect of surfactant on feeding rate of fish <i>Labeo rohita</i> ”
49.	Renuka Sharma	“Study on effect of surfactant on respiratory rate of fish, <i>Labeo rohita</i> ”
50.	Nisha Swami	Effect of surfactant on growth of <i>Labeo rohita</i> ”
51.	Preeti Jha	Inland aquaculture in india
52.	Geeta	Enzyme activity/microbial flora in the intestine of fresh-water fish species: a review
53.	Karuna	“Fish disease :a review”
54.	Poonam Rani	Effect of aquaculture on world fish supplies
55.	Rampal Rawat	The use of soya protein concentrate in aquafeeds

Research papers published in Indexed & Refereed/UGC /Scopus list /other Journals

- Priyanka Shuklan and Sudesh Rani (2024) Gonadotoxicity due to cypermethrin in Wistar albino rats and its effect on the growth and development of their progeny Journal of Applied and Natural Science ISSN : 0974-9411 (Print), 2231-5209 (Online) <https://doi.org/10.31018/jans.v16i3.5674>
- Priyanka Shuklan, Khushboo Chauhan, Anshu Raj, Sujata Ahlawat, Sudesh Rani (2024). Effect of Cypermethrin exposure during gestation on the learning and memory ability of pups. Agricultural Science Digest, 10.18805/ag.D-6049
- Priyanka S, Anshu R, Khushboo C, Preety M, Sudesh R (2023). Systematic Toxicity of Cypermethrin and Alterations in Behavior of Albino Rats. ACS Omega, , Vol. 8, 14766–14773 <https://doi.org/10.1021/acsomega.3c00817>
- Pooja Y, Sudesh R (2023). Effect of Sugarcane bagasse on growth and reproduction of earthworm, (*Eisenia fetida* Savigny, 1826) Indian J. Applied & Pure Bio., Vol. 38(1), 20-25
- K. Chauhan, P. Shuklan, A. Raj, S. Ahlawat, and S. Rani (2023). Effect of Hibiscus rosa-sinensis and Camel Milk on the Reproduction of Diabetic Male Albino Rats – A Review Bulletin of Pure & Applied Sciences- Zoology Print version ISSN 0970 0765 Online version ISSN 2320 3188 <https://doi.org/10.48165/bpas.2023.42A.2.10>
- Anshu R., Priyanka, Preety M., Khushboo C. and Sudesh R. (2022). Comparative study to check the success rate of induction of type-1 diabetes with streptozotocin in albino rats. CIB Tech Journal of Zoology, 11 pp.54-62
- Ritu, Sudesh R (2022). Vermicomposting of Different Organic Matters and its Effect on Growth of Mung Bean, *Vigna radiate*. International Journal of Zoological Investigations Vol. 8, No. 2, 469-474. <https://doi.org/10.33745/ijzi.2022.v08i02.058>
- Priya Y and Sudesh R (2022). Influence of autumn leaves on growth and reproductive performance of earthworms (*Eisenia fetida*). International Journal of Zoological Investigations, Vol. 8, No. 2, 130-135 <https://doi.org/10.33745/ijzi.2022.v08i02.016>
- Aayushi G. and Sudesh R (2022). Anthelmintic properties of leaves extract of shahatut, *Morus alba*, CIBTech Journal of Zoology, Vol.11, pp.90-96
- Preety M, Saloni and Sudesh R. (2021). Effect of transfluthrin and ocimum oil on blood components of albino rats, CIBTech Journal of Zoology, 10.46-51

- Priyanka, Anshu Raj, Preety Madan, Sudesh Rani (2020). Adverse Effects of Cypermethrin: A Review International Journal of Scientific & Technology Research Vol 9, Issue 04, 2192-96
- Preety Madan and Sudesh Rani (2019). "Review: Health implications due to long-term use of pyrethroid based liquid mosquito repellent" International Journal of Scientific & Technology Research Vol 8, Issue 11, 1106-1109
- Anshu Raj, Reeti Panchal and Sudesh Rani 2018. Histopathological changes in liver and kidney of catfish, *Clarias batrachus* exposed to aluminium. International Journal of Zoology and Applied Biosciences. Volume 3, Issue 2, pp: 220-223 indexed/referred ISSN: 2455-9571
- Reeti Panchal, Sudesh Rani, Poonam and Manju 2018. A comparative study of growth, metabolism and digestive enzyme activities of pinealectomized and nonpinealectomized catfish (*Heteropneustes fossilis*). International Journal of Zoology and Applied Biosciences, Volume 3, Issue 2, pp: 239-244 indexed/referred ISSN: 2455-9571
- Poonam and Sudesh Rani 2017. Intestinal enzyme activity in response to differentially heat processed soybean on *cirrhinus mrigala* fry. International Journal of Food, Agriculture and Veterinary Sciences pp. 56-65 indexed/referred ISSN: 2277-209X,
- Sudesh Rani and Pooja Malik 2017. Effect of earthworms on productivity of wheat plants. International Journal of Food, Agriculture and Veterinary Sciences pp. 75-80 indexed/referred ISSN: 2277-209X,
- Manju Devi, Sudesh Rani, Poonam and Reeti 2017. Effect of alternate protein source soybean meal and sesame oil cake on growth performance and body composition of fresh water fish *Cirrhinus mrigala*. International Journal of Zoology and Applied Biosciences, pp 399-404 indexed/referred ISSN: 2455-9571
- Poonam, Sudesh Rani, Manju Devi and Reeti Panchal 2017. Effect of varying time of heat processed soybean diets on growth of *Cirrhinus mrigala* fry. International Journal of Food, Agriculture and Veterinary Sciences pp. 27-33 indexed/referred ISSN: 2277-209X,
- Sudesh Rani 2016. Effect of urea on soil macro fauna, juvenile earthworms. *Journal of international academic research for multidisciplinary*. Impact Factor 2.417, ISSN: 2320-5083, pp15-19
- Sudesh Rani 2016. Effect of water temperature on respiratory rate of fish, *Cirrhinus mrigala*. *Indian Journal of Fundamental and Applied Life Sciences* ISSN: 2231– 6345 Pp 13-15.
- Priyanka Kohli and *Sudesh Rani 2016. Effect of surfactant on feeding rate of freshwater fish, *Labeo rohita*. *Indian journal of fundamental and applied life sciences* ISSN: 2231– 6345, pp 25-29.

- Monika Rani and *Sudesh Rani 2016. Food preference in catfish, *Heteropneustes fossilis*. *Indian Journal of Fundamental and Applied Life Sciences* ISSN: 2231– 6345. PP 8-13
- Sudesh Rani and Sanjna Gulia 2015. Growth of *cirrihinus mrigala* at different salinity levels. *Journal of international academic research for multidisciplinary*. Impact factor 1.625, ISSN: 2320-5083, pp- 224-229
- Sudesh Rani 2015. Study of microbial flora and enzymes in the gut of *clarias batrachus* fed on soybean as protein source. *Journal of international academic research for multidisciplinary*. Impact Factor 2.417, ISSN: 2320-5083, pp- 240-250
- Sudesh Rani 2015. Survival rate of catfish in response to water temperature. *Cibtech Journal of Zoology* ISSN: 2319–3883, pp-12-14.
- Sudesh Rani 2015. Effect of processed diets on growth performance, feed utilization and excretory products (N-NH⁴⁺ and o-PO₄) in Indian catfish, *Clarias batrachus*. *Journal of international academic research for multidisciplinary*. Impact Factor 2.417, ISSN: 2320-5083, pp-137-145.
- Manju Devi, Sudesh Rani and Poonam 2014. Importance of probiotics in aquaculture: A review. Reviewed Proceedings of National Seminar on next generation sciences: vision 2020 and beyond. ISBN: 978-81-920945-4-0, pp-216-219
- Poonam, Sudesh Rani and Manju Devi 2014. Plants products as fish meal replacer in aquafeeds: A review. Reviewed Proceedings of National Seminar on next generation sciences: vision 2020 and beyond. ISBN: 978-81-920945-4-0, pp-284-295
- Sudesh Rani 2014. Nutritive evaluation of supplemented raw vs heat processed soybean to replace fishmeal as a dietary protein source for *Cirrhinus mrigala*, mrigal *Cibtech Journal of Zoology* ISSN: 2319–3883, Vol. 3 (1), pp.49-54
- Sudesh Rani and V.P. Sabhlok 2014. Effect of pinealectomy on plasma Na⁺, K⁺ and Ca²⁺ in catfish *Clarias batrachus* under different salinity. *Indian Journal of Fundamental and Applied Life Sciences* ISSN: 2231-6345, Vol. 4 (2), pp.67-69
- Sudesh Rani and V.P. Sabhlok 2014. Effect of melatonin administration on growth and metabolism of catfish *clarias batrachus* under different photoperiods. *Journal of international academic research for multidisciplinary*. Impact factor 1.393, ISSN: 2320-5083, volume 2, pp 627-635.
- Sudesh Rani 2014. Fish meal replacement by soybean meals in extruded feeds for *carassius auratus*, common goldfish. *Journal of international academic research for multidisciplinary*. Impact factor 1.393, ISSN: 2320-5083, pp- 450-359.

- Sudesh Rani and Manisha Kaushik 2014. Use of enzymes in detergent on intestinal enzyme activity in fish, *Cirrhinus mrigala*, mrigal. Indian Journal of Fundamental and Applied Life Sciences ISSN: 2231-6345. pp.107-109
- Sudesh Rani 2014. Isolation and characterization of enzymes producing microbial flora from gastro intestinal tract of freshwater fish *cirrhinus mrigala* in response to different diets. *Journal of international academic research for multidisciplinary*. Impact factor 1.625, ISSN: 2320-5083, pp- 411-421
- Sudesh Rani 2014. Fish and its positive impact on Human health. Reviewed Proceedings of National Seminar on next generation sciences: vision 2020 and beyond. ISBN: 978-81-920945-4-0, pp-112-116
- Poonam Dalal and Sudesh Rani 2013. Effect of aquafeed on world fish supplies: A review. Reviewed Proceedings of National Seminar on Promising trends in science galaxy. ISBN: 978-81-920945-3-3, pp-79-91
- Sudesh Rani 2013. Utilization of plant proteins (Soy protein) in aquafeeds: A review. Reviewed Proceedings of National Seminar on Promising trends in science galaxy. ISBN: 978-81-920945-3-3, pp-178-183
- Sudesh Rani, Poonam and Manju 2013. Enzyme producing microbial flora isolated from fish gut. A review. A review. Reviewed Proceedings of National Seminar on Promising trends in science galaxy. ISBN: 978-81-920945-3-3, pp-206-216
- Sourindra Nath Jana, Sudesh, Sudhir Krishan Garg, Vinod Pal Sabhlok & Anita Bhatnagar 2012. Nutritive evaluation of lysine- and methionine-supplemented raw vs heat- processed soybean to replace fishmeal as a dietary protein source for grey mullet, *Mugil cephalus*, and milkfish, *Chanos chanos*. Journal of Applied Aquaculture, 24:1, 69-80
- Sudesh Rani, V.P. Sabhlok and S.K. Garg (2012). Effect of pineal removal on growth and metabolism of catfish, *Clarias batrachus* Reviewed Proceedings of Natl. “Challenges in combating diseases: cause to cure”. Pp: 37-44
- Sudesh Rani and V.P. Sabhlok 2011. Effects of Pineal Gland Removal on Electrolyte Balance and Osmolality of the Cat Fish *Clarias Batrachus* at Different Salt Concentrations. Reviewed Proceedings of National Seminar on Internet: Applications in Research, ISBN: 978-81-920945-1-9, pp-33-35
- Sudesh Rani and V.P. Sabhlok 2011. Effects of Surgical Ablation of Pineal Gland on the Vertebral Column of Catfish, *Clarias batrachus*. Reviewed Proceedings of National Seminar on Internet: Applications in Research, ISBN: 978-81-920945-1-9, pp-143-145.

- Sudesh Rani (2011). Internet resources in marine fishery sciences. Natl. Seminar proceeding, Internet: Applications in Research, 163-167
- Sudesh Rani 2010. Effect of pinealectomy on the thermoregulation of the Cat fish, *Clarias batrachus*. Natl. Seminar on Computing Life: Raw to Refined, Volume- 1 Pp-44-49.
- Sudesh Rani and V.P. Sabhlok 2010- Influence of continuous light and darkness on ultrastructure of endocrine pineal complex of Cat fish. *H.fossilis*, Proceedings Nat. Conf. Environ. Health Issues: In a changing climate scenario, Pp-221-229
- Sudesh Rani, S.K. Garg, V.P. Sabhlok and Anita Bhatnagar 2004. Intestinal enzyme activity and enzyme producing microbial flora in relation to feeding behaviour in some brackishwater Teleosts. *J Aquaculture*, volume 12: 55-68.
 - **Participation in National/International workshop/seminar/conferences=80**
 - **Paper presented in National/International workshop/seminar/conferences=50**
 - **Act as reviewer in Journals'**