

Curriculum Vitae

Full Name: PRAKASH NAUTIYAL
Designation: PROFESSOR
Department: Zoology
Campus: Srinagar
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Education Qualification: M.Sc. Zoology, Bhopal University, Bhopal (1979), D.Phil. in Zoology, Garhwal University (1983)

Teaching Experience: 37 Years

Research Experience: As 05 Years

JRF, SRF & Research

Scientist

Research Interest and Fields of Specialization

1. Conservation Biology and ecology of the Golden Mahseer; Sympatric species; Fisheries Ecology.
2. Aquatic Biodiversity; Major Aquatic floral (diatoms) & faunal groups (Invertebrates & Fish) and biogeography in the Indian Subcontinent;
3. Habitat, Population & Community Ecology; Biomonitoring

Honours & Awards

1. Fellow, National Institute of Ecology, India
2. Nominated for Fellow of National Academy of Sciences, India
3. J S Datta Munshi Gold Medal 2009 by "International Society for Ecological Communication".
4. Scientist of the Year Award, Bioved Society, Allahabad Feb 14, 2009
5. Promising Scientist Zoological Society of India, Gold Medal, 2000
6. Young Scientist Award for Best Paper Presentation, Gold Medal-Society of Bio-Sciences, 1989
7. V All India Seminar on Ichthyology, Mhow, 1984.

Member of Academic Institutions

1. Life member Indian Science Congress Association, Kolkata
2. Life member, National Academy of Sciences, Allahabad, India

Membership of Scientific Organizations

1. National Institute of Ecology, New Delhi (Life member)
2. Indian Fisheries Forum (Indian Branch)

Research Supervision (No. of Ph.D. Degree Awarded/Submitted/Registered)

21 Awarded; 02 Registered

Research Projects/ MoU undertaken

Completed-08

1. Ecological Monitoring & Status of Fish Fauna in Hydropower Affected Alaknanda River; GBPNIHESD (NMHS-PMU) ₹21 LAKH 2016-2019. Ref no: NMHS/SG-2016/ Date: 20-05-2016
2. Establishing the habitat preferences of selected Higher Aquatic Vertebrates in the identified stretches of the river Ganga. Sustainable Water Management of the Living Ganga Program, WWF-India [2009-2010]. Outlay ₹18,19,950

3. Sustainable utilization of mountain fishery resources – A partnership mode. Directorate of Coldwater Fisheries, Bhimtal, Uttarakhand, Duration 5 years [Jan 2009 to Dec 2012]. ₹8 Lakh.
4. Benthic diatom assemblages as biological indicators of trophic status (water quality) in the streams impacted by different landuse in Uttarakhand. (Project No. UCS&T/R&D/LS-33/06-07) UCOST, Dehradun, Uttarakhand. Duration 2 years [1.05.2007 to 31.04.2009] Outlay ₹11,48,000
5. Spatial and microdistribution of benthic macroinvertebrate community in Tropical Mountain streams of Garhwal region (SP/SO/C-42/98 dated 22 July, 1999, Duration 3 years [18.01.2002 to 17.01.2005] Outlay ₹5,89,200, DST New Delhi
6. Diatom Biodiversity in the Himalayan Lotic Systems. Duration 2 years [01.05.1999 to 31.10.2001] Outlay Rs.2,80,040; Govind Ballabh Pant Institute of Himalayan Environment & Development, Kosi-Katarmal. GBPI/IERP98-99/04/565, March 23, 1999.
7. Migratory phenomenon of the endangered Himalayan Mahseer *Tor putitora* in relation to the Ecology of the river Ganga (14/28/92 – MAB/RE/01.06.94, Duration 3 years [01.09.94 to 30.8.97] Outlay: ₹13,80,738, MOEn&F, New Delhi).
8. River Valley Projects in Garhwal Region: Impact on the population dynamics of Himalayan Mahseer with emphasis on Bioconservation (J-11013/8/92-GPD, 24.9.92, Duration 3 years [04.02.93 to 03.2.96] Outlay ₹5 lakhs; MOEn & F, New Delhi).

Administrative Experience

1. Head & Convener BoS Department of Zoology
2. Vice Chancellor Nominee for Various Selection Committees
3. Incharge Head, Department of Zoology & Biotechnology/ Now Zoology
4. Incharge of Inter-College Teams for sports (Badminton) & Cultural Items
5. Member, BOS Zoology and Biotechnology (Now Zoology) since inception
6. Micro-observer, Lok Sabha Elections
7. Convener, PG Admission Committee

Scientific Visits Abroad/ International Collaboration

Five International Diatom Symposium

1. **2 Posters** Araphid flora of the Vindhyan, Shiwalik and lesser Himalayan streams and rivers; Diatom flora in the mountain stream and river habitat of the Gangetic Drainage (West Himalaya): Achnanthaceae; **Oral** Ecological state of the diatom community of a typical lesser Himalayan stream impacted by anthropogenic activities 19th Diatom Symposium, International Society for Diatom Research LISTVYANKA, Irkutsk, RUSSIA, 28 August- 3 September, 2006
2. Attended only. Diatom Symp for German Speaking Scientists, Rostock Germany, March 10-13, 2005
3. **Poster**, Longitudinal variation in epilithic diatom community of a lesser Himalayan stream, the Khanda Gad. **Oral**, #A preliminary study of the diversity of diatoms in streams of the Mandakini basin (Garhwal Himalaya). 17th Diatom Symposium, International Society for Diatom Research at OTTAWA, CANADA, 25-31 August 2002
4. **Poster** #Altitudinal variations in the pennate diatom flora of the Alaknanda-Ganga river system in the Himalayan stretch of Garhwal region 15th Diatom Symposium, International Society for Diatom Research, PERTH, AUSTRALIA, 28 September – 2nd October 1998

5. **Poster** #Altitudinal variations in the relative abundance of epilithic diatoms in some glacier and springfed Himalayan tributaries of the Ganga River System in the Garhwal region, 14th at TOKYO, JAPAN, 2-8 September 1996

International Collaboration: Indian-Danish Network project, First workshop, October 11th ~ 22th, 2019 on Arctic and Alpine Aquatic Science- implications of climate change on proglacial freshwater ecosystems functioning and services

Conference/Symposium/Workshop Attended during last five years (2018-2023)

International

1. Himalaya Matters in a Changing World. A Conference to Celebrate the International Mountain Day. 9 December 2019, GBPNIESD, Kosi Katarmal Invited Talk on Status of Aquatic Habitats and Endangered Fish Species In The West Himalaya on invitation by WII, Dehradun & Aquatic Biodiversity in Highlands India on invitation of WWF, New Delhi.
2. International Conference on Benthos (ICB), 6-8 March 2019 CUSAT, Kochi, Kerala, India. Invited Talk Macroinvertebrate Faunal and Assemblage Diversity in the Mountain and Plateau Rivers of North India, **2018**
3. International Mahseer Conf. Bhutan Dec 2-8, Paro, Bhutan (**Attended as resource person**)
4. IRW, New Delhi 24-26 Nov. Can India Rejuvenate Ganga. **Invited as Subject Expert**
5. 31st Foundation Day 2018, DCFR Bhimtal **Invited as Subject Expert**
6. Regional meeting of **fish experts** from South Asia in Kathmandu, Nepal on April 29 and 30, 2018.
7. Promotion 'Indo French workshop on Water Treatment and Management' scheduled to be held at UPES, Dehradun on 28 – 29 March, 2018; **Invited Lecture on Biomonitoring using Diatoms.**
8. **Subject expert** "Biodiversity of river Ganga and its conservation for sustainable fisheries, CIFRI, Barrackpore, 15 March 2018.
9. Invited **resource person**; Freshwater Biodiversity in the Plateau Rivers of Central India; Current status of Golden mahseer fish stocks in Indian Himalayan Region & Integrating Biodiversity in Eflows. Adnat Silver Jubilee Convention International Symposium on Biodiversity And Biobanking, Jan 27-1Feb, 2018, IIT Gauhati.

National

1. **INVITED talk WEBINAR** Under Ek Bharat Shreshtha Bharat, hosted by Indian Institute of Science, Bangalore 09 July 2021 on "Diatoms: Ecological Perspective" (1 hour talk on Youtube: Link-) <https://streamyard.com/zsqbhtgte3>. Link for students (https://youtu.be/D9FF6DHZV_M)
2. **ONLINE Invited talk** on "How Serial Impoundments Perturb River Ecosystems" in National workshop on Biodiversity and ecosystem health assessment of upper Ganga Basin organized by Deptt. of Zoology & Environmental Science, Gurukul Kangri University Haridwar, Uttarakhand in collaboration of National Institute of Hydrology, Roorkee during 22-26 February, 21. Google Meet Link: <https://meet.google.com/dwk-hhyj-ztu>
3. Lecture- Aquatic Biodiversity, E-Flows; Refresher Course FDC HNBGU **resource person**
4. Invited **resource person**; t Hydropower Policy-Environmental Perspective with Doon Univ & FDC HNBGU, 27 Sept 2019
5. "Indo French workshop on Water and Energy Studies (UPES)-Dehradun, India. March 28-29, **Invited speaker:** Diatoms as a biomonitoring tool.

6. Biodiversity of the river Ganga and its conservation for sustainable fisheries. 15.3.2018, CIFRI Barrackpore **Invited speaker:** Biomonitoring using benthic communities
7. Public Awareness on Water Development, Conservation and Management in Uttarakhand, March 9, 2018, HNBGU, Srinagar

Conference/Symposium/Workshop Organized during last five years (2018-2023)

2019

1. Convener, Indian-Danish Network project, First workshop on Arctic and Alpine Aquatic Science-implications of climate change on proglacial freshwater ecosystems functioning and service; HNB Garhwal University, Srinagar, October 11th ~ 22th, 2019
2. Organising Secretary, Biodiversity Day; Conservation of Himalayan Aquatic Biodiversity, Department of Zoology, HNB Garhwal University, Srinagar, October 5th December, 2019

Publications during last five years (2018-2023)

Journals

1. Bartwal T and Nautiyal P (2023-Jan.) Hydropower development in the Himalaya: identifying critical river stretches. Environmental Science and Pollution Research. E-ISSN:1614-7499 <https://doi.org/10.1007/s11356-023-25401-1>.
2. Rana P, Tarafdar S, Nautiyal P 2022 Impacts on reproductive biology of Golden Mahseer caused by climate and landuse change in Western Himalaya. Lecture Notes in Civil Engineering - Recent Trends in River Corridor Management229: 111-124. 2366-2557 <https://www.scopus.com/sourceid/21100>
3. Nautiyal P and Mishra A S (2022) Role of Depth, Habitat and Current Velocity on Distribution of Benthic Macroinvertebrate Fauna in the Himalayan River, Ramganga. Proc Zool Soc 75(3):349-360, ISSN is-03735893;IF: 0.71 UGC care list : Group D <https://doi.org/10.1007/s12595-022-00447-0>
4. Sharma, N and Nautiyal, P (2022). Hydropower development impacts on the benthic macroinvertebrates in the Indian Himalayan region. International journal of environmental studies. Article DOI- 10.1080/00207233.2022.2073086
5. Priyanka Rana, Soukhin Tarafdar, and Prakash Nautiyal (2021) Impacts on Reproductive Biology of Golden Mahseer Caused by Climate and Land Use Change in Western Himalaya. In eds Chembolu V and Dutta S Lecture Notes in Civil Engineering- Recent Trends in River Corridor Management. 229: 111-124.
6. Mishra A S, Singh K R, Nautiyal P (2020), Factors governing distribution of benthic macroinvertebrate fauna in the springfed headwaters of Doon valley, India. J. Mountain Res. 15, 159-167 DOI: <https://doi.org/10.51220/jmr.v15i1.19>; P-ISSN: 0974-3030, E-ISSN: 2582-5011
7. Raut S, Gupta N, Nautiyal P, Everard M (2020) Re-establishment of fish passage for conserving threatened migratory species of West-Indian Himalayas. River Research and Applications, 36(2) 314-317.DOI: 10.1002/rra.3577 (2019)
8. Nautiyal P and Dwivedi AC (2019) Fishery in the tributaries of Yamuna river (Ken river, Paisuni river) and Ganga river (Tons river). J Mountain Research 14 (2), 19-36
9. Gupta N, Vani Namchu C, Everard M, Nautiyal P, Sivakumar K, Johnson J. A., Laskar B A, Borgohain A and Kochhar I (2019) Potential impacts of non-native fish on the threatened mahseer (Tor) species of the Indian Himalayan biodiversity hotspot. Aquatic Conservation: Marine and Freshwater Ecosystems. DOI: 10.1002/aqc.3275 (IF=3.2)

10. Kumar S, Nautiyal P (2019) State of benthic macroinvertebrate community in the Bhagirathi river ecosystem impacted by Hydroelectric projects. *Indian J Ecol* 46(4), 760-767 CARE
11. Kumar S, Nautiyal P (2019) Community Features of Benthic Macroinvertebrates and Bioassessment of the Stretch of Bhagirathi River Impacted by Maneri Bhali Stage I Hydroelectric Project. *International Journal of Ecology and Environmental Sciences* 45 (3): 311-315, CARE
12. Nautiyal P, Kumar S, Sharma N, Chauhan K, Kala K. (2019) Coldwater capture fishery in the Ganga headwaters having operational hydropower projects: A failing co-existence. *J Inland Fish Soc.* 51 (1): 06-23
13. Sharma A, Dubey V K, Nautiyal P, Johnson J A, Rawal Y K Sivakumar K (2019) When nature decides who stays and who goes: Priority effects extirpating the non-native Brown Trout *Salmo trutta fario* L. population from a Himalayan River. *Current Science* 117(2):186-187
14. Raut S, Gupta N, Nautiya P, Everard M (2019) Re-establishment of fish passage for conserving threatened migratory species of West-Indian Himalayas. *River Research and Applications*. DOI: 10.1002/rra.3577
15. Nautiyal P and Dwivedi A C (2019) Fishery in the tributaries of Yamuna river (Ken river, Paisuni river) and Ganga river (Tons river). *J Mountain Research* 14 (2), 19-36
16. Gupta N, Vani Namchu C, Everard M, Nautiyal P, Sivakumar K, Johnson J. A., Laskar B A, Borgohain A and Kochhar I (2019) Potential impacts of non-native fish on the threatened mahseer (*Tor*) species of the Indian Himalayan biodiversity hotspot. *Aquatic Conservation: Marine and Freshwater Ecosystems*. DOI: 10.1002/aqc.3275 (IF=)
17. Kumar S, Nautiyal P (2019a) State of benthic macroinvertebrate community in the Bhagirathi river ecosystem impacted by Hydroelectric projects. *Indian J Ecol* 46(4), 760-767 CARE
18. Kumar S, Nautiyal P (2019b) Community Features of Benthic Macroinvertebrates and Bioassessment of the Stretch of Bhagirathi River Impacted by Maneri Bhali Stage I Hydroelectric Project. *International Journal of Ecology and Environmental Sciences* 45 (3): 311-315, CARE
19. Nautiyal P, Kumar S, Sharma N, Chauhan K, Kala K. (2019) Coldwater capture fishery in the Ganga headwaters having operational hydropower projects: A failing co-existence. *J Inland Fish Soc.* 51 (1): 06-23
20. Sharma A, Dubey V K, Nautiyal P, Johnson J A, Rawal Y K Sivakumar K (2019) When nature decides who stays and who goes: Priority effects extirpating the non-native Brown Trout *Salmo trutta fario* L. population from a Himalayan River. *Current Science* 117(2):186-187
21. Pinder A C, Britton J. R, Harrison A J, Nautiyal P, Bower S D, Steven J. Lockett C S, Everard M, Katwate U, Ranjeet K, Walton S, Danylchuk A J, Dahanukar N, Raghavan R (2019) Mahseer (*Tor* spp.) fishes of the world: status, challenges and opportunities for conservation. *Rev Fish Biol Fisheries*. <https://doi.org/10.1007/s11160-019-09566-y> Print ISSN 0960-3166, Online ISSN 1573-5184 First Online: 02 May 2019. IF 3.299; UGC No.34077
22. Nautiyal, P 2018 Diet components, dietary habits, resource and its use in the coexisting catfish species. *J Inland Fish Soc.* 50(1), 9-21 ISSN:0379-3435
23. Singh U and Nautiyal P (2018) Sub-speciation tendency, genetic diversity and divergence of the *Schiothorax progastus* (McClelland 1839) in the tributaries of the Ganga river in Indian Himalayas. *Journal of Coldwater Fisheries* 1(1), 54-59

25. Singh R, Nautiyal, P, Nautiyal R (2018) Evaluation of the ecological state of the major streams located in Doon valley using diatoms as indicators. *Journal of Applied and Natural Science* 10(1), 500-506; DOI <https://doi.org/10.31018/jans.v10i1.1658>
26. Verma J, Nautiyal P and Srivastava P (2018) Ordination analysis for determining distributional patterns of diatom communities in different ecoregions of Indian subcontinent. *Bioscience Discovery* 9 (1), 135-140. ISSN: 2229-3469 (Print); ISSN: 2231-024X (Online)

Proceedings/Book Chapters

1. Bartwal, T., Sharma, N., and Nautiyal, P., (2020) Bioassessment of hydropower impacted Alaknanda river: Applicability of diatom based indices and ecological values. In Joshi P C ed. "Researches in Toxicology and Pollution". M/S Today & Tomorrow's Printers and Publishers, New Delhi
2. Nautiyal, P., Sharma, N., and Bartwal, T. (2020) Bioassessing perturbations in ecosystem structure of himalayan ganga-headwater-river serially impounded for hydropower. p. 1-74. In Joshi P C ed. "Researches in Toxicology and Pollution". M/S Today & Tomorrow's Printers and Publishers, New Delhi
3. Sharma S, Nautiyal R and Nautiyal P. (2021) Periphytic diatom flora of the natural and impounded sections of the Tons R. (Uttarakhand). p. 1-21. In Nirmal Singh, Gupta P K, Sharma K K, Shvetambri Jasrotia (eds.) *Recent Trends in Indian Limnology and Fishery Science*. Today and Tomorrow Printers and Publishers, New Delhi ISBN 10: 81-7019-682-2
4. Nautiyal, P. 2019. Macroinvertebrate Faunal and Assemblage Diversity in the Mountain and Plateau Rivers of North India, Nandan S B, Priyaja P, Jayachandran P R *Compendium on Advances in Benthic Studies, Souvenir of the International Conference on Benthos (ICB, 6-8 March 2019), Directorate of Public Relations and Publications, CUSAT, Kochi, Kerala, India* 272 pp. ISBN 978-81-936217-6-9.
5. Nautiyal R and Nautiyal P (2018) Health assessment of Loktak lake using diatoms as biological indicators (Chapter 1), pp 1-10. In Siddiqui N., Tauseef S., Bansal K. (eds.), *Advances in Health and Environment Safety, Springer Transactions in Civil and Environmental Engineering*, Springer Nature Singapore Pte Ltd. https://doi.org/10.1007/978-981-10-7122-5_1; Book ID: 432149_1_En Book ISBN: 978-981-10-7121-8. Conference paper First Online: 29 December 2017
6. Sharma S, Nautiyal R and Nautiyal P (2018). Diatom flora in natural and regulated stretch of river Tons and Yamuna: Determining the impacts of hydropower projects on the river ecosystem, (Chapter 8), pp. 67-74. In Siddiqui N., Tauseef S., Bansal K. (eds.), *Advances in Health and Environment Safety, Springer Transactions in Civil and Environmental Engineering*, Springer Nature Singapore Pte Ltd. https://doi.org/10.1007/978-981-10-7122-5_8; Book ID: 432149_1_En Book ISBN: 978-981-10-7121-8. Conference paper First Online: 29 December 2017
7. Nautiyal P, Mansi, Sharma N, Kumar P, Singh D (2018) Biological monitoring of water quality before and after completion of the hydroelectric project on the river Alaknanda at Srinagar – (Chapter 22), pp. 219-227. In Siddiqui N., Tauseef S., Bansal K. (eds.), *Advances in Health and Environment Safety, Springer Transactions in Civil and Environmental Engineering*, Springer Nature Singapore Pte Ltd. https://doi.org/10.1007/978-981-10-7122-5_22 Book ID:

Books

1. **TEXT BOOK** -Nautiyal P 2019 Methods in fisheries Science & Aquatic Ecology. Bishen Singh Mahendra Pal Singh, Dehradun ISBN 978-81-211-0997-0
2. Jyoti Verma, Asha Agarwal and Prakash Nautiyal (2016). Diatom communities of Doon and Vindhya region. Lambert Academic Publishing, pp. 144. ISBN-10: 3659796123
3. **MONOGRAPH**- Nautiyal, P. 2012 The Golden Mahseer (A Threatened Fish of Himalaya). Lambert Academic Publishing, Amazon Distribution GmbH, Leipzig, pp 133; ISBN: 978-3-8473-0349-7
4. **OTHERS**-Verma Jyoti & Nautiyal, P. 2011 Lotic diatom diversity patterns in mountain chains (North India). Lambert Academic Publishing, Amazon Distribution GmbH, Leipzig, pp 270: ISBN: 978-3-8465-0822-0
5. Mishra A S & Nautiyal, P. 2011 Distribution of benthic macroinvertebrates in Central Indian rivers. Lambert Academic Publishing, Amazon Distribution GmbH, Leipzig, pp 202: ISBN: 978-3-8465-9024-9
6. Dwivedi, A. C., Nautiyal, P. 2010 Population dynamics of important fishes in the Indian region. Status and structure of commercial fishes in the Vindhyan river. Lap Lambert Academic Publishing, Amazon Distribution GmbH, Leipzig, ISBN: 978-3-8433-5365-6

Subject Books

1. Nautiyal P & Singh H R 2009 Biodiversity & Ecology of Aquatic Environments. Narendra Publishing House, New Delhi, pp 394 ISBN; 978-81-906091-7-3
2. Nautiyal et al 2005 Ecology & Diversity of Freshwater Environments Transmedia, Srinagar Garhwal, pp 333. ISBN 81-902751-6-X
3. Compendium (Invited Lectures) 2006 Environmental Audit of Hydroelectric Projects for Sustainable Development (R. Nautiyal ed. P. Nautiyal Guest Editor) Govt. Degree College, Dak Pathar, India.
4. Nautiyal P1994 (Compiled & Edited) Mahseer – The Game Fish [Natural History, Status and Conservation practices in India and Nepal] Jagdamba Prakashan, Dehradun.

Total Number of Research Publications: 216 RESEARCH PAPERS; 11 BOOKS.