

ResearchGate: <https://www.researchgate.net/profile/Pushpinder-Jamwal>

Google Scholar: <https://scholar.google.com/citations?user=581Lh6gAAAAJ&hl=en>

## EDUCATION

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- 2017-2021 **Ph.D**  
University of Molise  
Field of study: Bioscience and Territory  
Thesis: Niche Modelling, Current Distribution and Future Scenarios for the otters in Himalayas.
- 2010 – 2011 **Advance Post graduation Diploma in Environmental Economics**  
Hemwati Nandan Bahuguna Garhwal University  
India
- 2008 – 2010 **Master of Science**  
Hemwati Nandan Bahuguna Garhwal University  
Uttarakhand, India
- 2005 – 2008 **Bachelor of Science**  
University of Jammu  
Rajouri, India

## WORK EXPERIENCE

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- 2022-2023 **PostDoc Position**  
University of Molise, Department of Biosciences and Territory.  
Country: Italy  
*Coordination and management of activities related to the creation of specific DNA probes of Community and Union interest species of freshwater in the Lazio Region, experimentation and development of a multispecific detection protocol using environmental DNA techniques and setting up of an eDNA laboratory*
- 2021 – 2022 **Researcher**, "Sampling of waterways in Lazio for environmental DNA studies", Italy.  
University of Molise  
Country: Italy
- 2012 – 2017 **Project Officer**, Western Himalayas Landscape, Field Office Leh, Ladakh.  
Worldwide Fund for Nature (WWF)-India

## PUBLICATIONS

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1. **Jamwal, P. S.**, Bruno, A., Galimberti, A., Magnani, D., Krupa, H., Casiraghi, M., & Loy, A. (2021). First assessment of eDNA-based detection approach to monitor the presence of Eurasian otter in southern Italy. *Hystrix, the Italian Journal of Mammalogy*, 32(2).
2. Jamwal, P. S., Di Febbraro, M., Carranza, M. L., Savage, M., & Loy, A. (2022). Global change on the roof of the world: Vulnerability of Himalayan otter species to land use and climate alterations. *Diversity and Distributions*, 28(8), 1635-1649.
3. **Jamwal, P. S.**, Shrotriya, S., & Takpa, J. (2020). The pattern of waterbird diversity of the trans- Himalayan wetlands in Changthang Wildlife Sanctuary, Ladakh, India. *Journal of Threatened Taxa*, 12(1), 15129-15139.
4. **Jamwal, P. S.**, Takpa, J., & Parsons, M. H. (2019). Factors contributing to a striking shift in human–wildlife dynamics in Hemis National Park, India: 22 years of reported snow leopard depredation. *Oryx*, 53(1), 58-62.
5. **Jamwal, P. S.**, Chandan, P., & Rattan, R. (2017). A rare sighting of the Long-tailed Duck *Clangula hyemalis* (Linnaeus, 1758) (Aves: Anseriformes: Anatidae) over a four-week period in northwestern India: first detailed scientific documentation in 73 years. *Journal of Threatened Taxa*, 9(8), 10631–10632.
6. **Jamwal, P. S.**, Chandan, P., Rattan, R., Anand, A., Kannan, P. M. and Parsons, M. H. (2017) ‘Survey of avifauna of the Gharana wetland reserve: implications for conservation in a semiarid agricultural setting on the Indo- Pakistan border’, *BMC Zoology*. **BMC Zoology**, 2(1), p. 7.
7. Kannan, P. M., Parsons, M. H., **Jamwal, P. S.**, Chandan, P., Parsons, F. E. and Takpa, J. (2017) ‘The discovery of the “transient” male Tibetan wild ass: alternative “sneaky” mating tactics in a wild equid?’, *Behaviour*, 154(1), pp. 1–18.
8. **Jamwal, P. S.**, Takpa, J., Chandan, P., & Savage, M. (2016). First systematic survey for otter (*Lutra lutra*) in Ladakh. *Indian Trans Himalayas. IUCN Otter Spec. Group Bull*, 33(1), 79-85.
9. Chandan, P., Mundkur, T., Takpa, J., **Jamwal, P. S.**, Suhail, I., Rigzin, T., & Rattan, R. (2015). First Breeding Record of Saker Falcon *Falco Cherrug milvipes* in India. *Journal of the Bombay Natural History Society (JBNHS)*, 112(2), 93-95.
10. Chandan, P., Khan, A., Takpa, J., Hussain, S. A., Mehdi, K., **Jamwal, P. S.**, Rattan, R., Khatoon, N., Rigzin, T., Anand, A., Dutta, P. K., Ahmad, T., Ghose, P. S., Shrestha, P. and Theengh, L. T. (2014) ‘Status and distribution of Black-necked Crane (*Grus nigricollis*) in India’, *Zoological Research*, 35(S1), pp. 39– 50. doi: 10.13918/j. issn.2095- 8137.2014.s1.0039.
11. Khan, A., Chandan, P., Takpa, J., Hussain, S.A., Rattan, R., **Jamwal, P. S.** and Ahmad, T. (2014) ‘Diurnal time budget of breeding Black-necked Crane (*Grus nigricollis*)’, *Zoological Research*, 35(S1), pp. 158–166. doi: 10.13918/j.issn. 2095-8137.2014. s1.0158.

## PUBLICATION UNDER REVIEW

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**Jamwal, P. S.**, Antonia, B., Andrea, G., Davide, M., Maurizio, C., & Anna, L. 2023 “Environmental DNA revealed high accuracy in detection of the Eurasian otter in Himalaya” Submitted to **Aquatic Conservation: Marine and Freshwater Ecosystems**.

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## BOOK CHAPTERS

Sanjeev, S., Rohit, R., **Jamwal, P. S.**, Kumar, R. and Sudeep, S. (2014) ‘Wetlands: Strategy for Natural Resource Management through Wetlands Conservation in India. BHARTI PUBLICATIONS. New Delhi-110 002 (India), pp. 42–54. ISBN: 978- 9381212-85-1

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## REPORTS

**Jamwal, P. S.**, Tariyal, P., Theophilus, E., Kaur, J., Panchaksharam, Y., Kumar, H., Chandan, P., Khati, D. V.S., Areendran, G. and Raj, K. (2012). Wetlands of Uttarakhand: A Documentation (Report)pp. 1-191): WWF-India.

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## GRANTS / SCHOLARSHIPS

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| 2021      | €5000.00 grant for carry out the project: " Sampling of waterways in Lazio for environmental DNA studies, Italy.                                     |
| 2017-2021 | €40914.00 Scholarship for PhD on topic: "Distribution and niche modelling to forecast climate change impacts on wildlife of the Himalayas".          |
| 2017      | US \$800 grant form IUCN Otter Specialist Group to carry out the understanding the Distribution of Otters ( <i>Lutra lutra</i> ) in trans Himalayas. |
| 2019      | Sponsorship to participate at the 14th International Otter Congress in China.  |
| 2016      | Sponsorship to participate at the 13th International Otter Congress in Singapore.  |

## CONFERENCES AND SEMINARS

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| 2022 | Jamwal P. S. 2022. “Environmental DNA Otter Monitoring in The Himalayas” 15th International Otter Congress – 19th-23rd September 2022, Sospel, Alpes-Maritimes, France [Invited Speaker]                                   |
| 2022 | Jamwal P. S. 2022. “Human wildlife conflict management in Trans-Himalayas with a special focus on the Snow Leopards, University of Molise 21st of April 2022 [Oral presentation]   |
| 2020 | Jamwal P. S. 2020. " Monitoring otters using water samples from water bodies: A practical guide for eDNA sample collection". First Eurasian Otter Workshop- 26th To 28th February 2021. [Invited speaker]                  |
| 2020 | Jamwal P. S. 2020. " Environmental DNA as a promising tool to survey elusive species in harsh environments ". 3rd Himalayan Otter Network Meeting - Kathmandu, Nepal, February 2020. [Oral presentation] [Invited speaker] |

- 2019 Jamwal P. S. 2019. " Potential Distribution and Niche Overlap Analysis in Three Otter Species: *Lutra Lutra*, *Aonyx Cinereus* and *Lutrogale Perspicillata*". Conference Of Research Doctorates-Compobasso, Italy, December 2018. [Poster presentation]
- 2018 Jamwal P. S. 2018. "An overview of Western Himalaya's biodiversity and trends in human wildlife conflict in trans-Himalayas with special reference to Snow leopard ". Giornate della Ricerca Scientifica. Isernia, Italy March 2019. [Oral presentation]

## ORGANISATIONAL SKILLS

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I have collaborated for 4 years with University of Milano Bicocca for learning Environmental DNA tool and techniques.

I have worked closely with government and bureaucratic channels to run programmes at the grass root level in Himalayas (India).

I collaborated with the Department of Wildlife Protection to conduct snow leopard surveys in Hemis National Park.

I have also conducted several training programmes including that of the frontline staff of the Department of Wildlife Protection regarding basic techniques in wildlife census

I supervised the implementation of environment education programme in Leh and Kargil districts, and coordinated conservation workshop with armed forces in Ladakh.

## PRINT MEDIA COVERAGE

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First-ever sighting of collared Bar-headed Goose that drew linkages between Tsokar wetland, Gharana wetland and the Pong Dam highlighting their importance in the annual migration patterns of these birds.

Link: <https://www.wfindia.org/?9780/migratory-route-for-bar-headedgoose-charted-through-rare-sighting-at-tsokar-in-ladakh>

Collected first ever tangible evidence of Eurasian Otter (*Lutra lutra*) from Ladakh in the Indian trans- Himalayas establishing its habitat along the Indus River.

Link: [https://www.iucnosgbull.org/Volume33/Jamwal\\_et\\_al\\_2016.html](https://www.iucnosgbull.org/Volume33/Jamwal_et_al_2016.html)

The Indian Express: "A King in Hiding: The barren, cold desert of Ladakh sees signs of a new life — the otter"

Link: <https://indianexpress.com/article/lifestyle/life-style/the-barren-cold-desert-of-ladakh-sees-signs-of-a-new-life-the-otter-4784184/>

The Times of India: "Snow leopards falling prey to human rage in mountain habitat"

Link: <https://timesofindia.indiatimes.com/city/dehradun/Snow-leopards-falling-prey-to-human-rage-in-mountain-habitat/articleshow/54369692.cms>

Down to Earth: "How J&K reduced snow leopard attacks on livestock"

Link: <https://www.downtoearth.org.in/news/wildlife-biodiversity/how-j-k-reduced-snowleopard-attacks-on-livestock-61034>

Reported rediscovery of Long-tailed Duck (*Clangula hyemalis*) after 73 years from the Gharana wetland conservation reserve in Jammu, J&K.

Link: <https://threatenedtaxa.org/index.php/JoTT/article/view/3084/4136>

## MEMBERSHIPS

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IUCN Otter Specialist Group  
Italian Mammal Society  
Himalayan Otter Network

## INTERNATIONAL COLLABORATIONS

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Prof, Anna Loy, Co-Chair IUCN/SSC Otter Specialist Group.

Prof, Mirko Di Febbraro EnvixLab, Department of Biosciences and Territory, Università degli Studi del Molise, Pesche, Italy

Prof, Melissa Savage, University of California, Los Angeles, USA

Jigmit Takpa, Joint Secretary/ UNCCD National Focal Point at Ministry of Environment, Forests & Climate Change, India.

Dr Shivam Shrotriya, Project Scientist · Wildlife Institute of India  
Rohit Rattan, Associate Coordinator at WWF-India

## MANAGEMENT AND LEADERSHIP SKILLS

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Organized the workshop on "Environmental DNA: A New and Powerful Tool for Monitoring Biodiversity." 2022, University of Molise, Italy

Coordinated and maintained the hybrid platform for the 15th IUCN/SSC OSG International Otter Congress: "Communities and Otters" 2022, in France.

Organized and executed the hybrid event Carnivore and human coexistence: International policy and evolutionary implications 2022, University of Molise, Italy.

Organized and presented in the hybrid event on “Human wildlife conflict management in Trans-Himalayas with a special focus on the Snow Leopards & Human dimension on Apennine Brown Bears in central Italy” 2022

## HONOURS AND AWARDS

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Gold medal, Marital Arts (Kick Boxing) –National Level (1999)  
Gold medal, Marital Arts (Kick Boxing) – North Zone (1988)  
Gold medal, (Boxing) Jammu University championship, (2008).  
First prize in Photography (2016)  
First prize poster presentation, University of Molise (2018)

## LANGUAGE SKILLS

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Mother tongue(s): Hindi  
Other language(s):

English  
Listening C2 Reading C2 Writing C2  
Spoken Production C2 Spoken Interaction C2

Italian  
Listening A1 Reading A1 Writing A1  
Spoken Production A1 Spoken Interaction A1

Dated 14/03/2023