

Dr. Waseem Ahmad Khan

PhD Zoology (Wildlife Ecology & Management)
Consultant Wildlife Ecologist and Biodiversity Specialist



Chairman : Pakistan Wildlife Foundation
Ex-Chairman : Department of Wildlife & Ecology, UVAS, Lahore
Associate Prof. : BPS – 20 (R)
Adjunct Prof. at : Islamia College University, Peshawar
: Virtual University of Pakistan
YouTube Partner /
Content Creator : 273,000 = Subscribers and 548 = Videos / Documentaries

Wildlife Surveys, Biodiversity Assessments and Ecological Studies Conducted:

Wildlife surveys and Ecological Baseline Studies; Herpetological, Ornithological and Mammalogical studies at national and International level: Biodiversity Action Plans; Critical Habitat Assessments; EIAs and IEEs for Hydropower and Wind power projects, Transmission lines and Highways.

Publications:

Research Articles	: 76	Popular Articles	: 15
Review Articles	: 05	Books	: 03
Management Plans	: 14	Biodiversity Action Plans	: 02
Wildlife Survey Reports	: 200		

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QUALIFICATION & CARRIER HIGHLIGHTS

- Qualified professional having PhD and M Phil degrees in Zoology (Wildlife Ecology & Management) and masters degrees both in Zoology and Applied Environmental Sciences.
- Supervised and managed seven projects during last five years and currently managing three projects.
- Well versed with community-based conservation, having over 25 years' conservation, administration and research experience with different government and non-government organizations.
- Have published 76 research papers in peer-reviewed research journals, 15 popular articles, 03 books, 14 management plans of different protected areas and more than 200 wildlife survey reports.
- Supervised 09 PhD, 15 M Phil, 20 MSc and 35 BS theses at GCU, VU, UOP, UVAS, PU, UAF and UAAR in the field of Ecology, Herpetology, Ornithology and Mammalogy.
- Conducted more than 200 International and national wildlife surveys & ecological baseline studies to study herpetological, ornithological & mammalian fauna and produced more than 200 survey reports.
- A number of Threatened and Economically Important reptilian, avian and mammalian wildlife species are being kept, reared and managed under my supervision at different Wildlife Breeding Farms.
- Organized more than 75 workshops, conferences, seminars and field trainings.
- Have good drafting skills with having reviewed and commented on several EIA, IEE and general reports from different organizations sent by Pak EPA.
- Referee of 06 International peer-reviewed research journals and Editor of *Pakistan Journal of Wildlife*
- Country Representative of IUCN SSC Otter Specialist Group.
- Founder and Chairman of Pakistan Wildlife Foundation.
- Member, National Curriculum Revision Committee of Higher Education Commission of Pakistan
- Member, Punjab Wildlife Management Board, Government of the Punjab
- Member, Inspection Committee of Lahore Zoo and Safari Zoo, Lahore, Government of the Punjab
- Examiner, Punjab Public Service Commission, Government of the Punjab, Pakistan
- Examiner of Zoology (B Sc, M Sc, M Phil, PhD) for GCU and University of the Punjab, Lahore
- Ex-Chairman, Department of Wildlife & Ecology, University of Veterinary & Animal Sciences, Lahore.
- Member, Academic Council & Advanced Study & Research Board of UVAS, Lahore (2016-18)
- Content Creator / YouTube Partner (**Wildlife with Dr. Waseem**) with 213 K subscribers and developed 400 videos / documentaries on different wildlife species for public education & awareness.
- Languages; English, Urdu, Punjabi; can understand and speak Sindhi, Pashto, Saraiki and Dari.

ACADEMIC QUALIFICATION

- PhD** : **Zoology** (Wildlife Ecology & Management), (2013) University of the Punjab, Lahore, Pakistan
Research topic: Distribution, Habitat Requirements and Current Status of Smooth-coated otter (*Lutrogale perspicillata sindica*) in Sindh, Pakistan
- M Phil** : Zoology (2003) Government College University, Lahore, Pakistan.
Research topic: Determination of some heavy / trace metals in two species of turtles; *Lissemys punctata* and *Trionyx gangeticus* collected from Hudiarra Drain, Lahore, Pakistan.
- M Sc** : Zoology (1999) University of the Punjab, Lahore.
Research topic: Diversity of Lizards in South Waziristan Agency, NWFP, Pakistan
- M Sc** : Applied Environmental Sciences (2005) University of the Punjab, Lahore, Pakistan
- B Sc** : Zoology, Botany, Chemistry (1991) University of the Punjab Lahore, Pakistan

ORGANIZATIONS SERVED

- Pakistan Wildlife Foundation
- University of Veterinary & Animal Sciences (UVAS), Lahore, Pakistan
- WWF-Pakistan
- Houbara Foundation International, Pakistan
- Falcon Foundation International, Pakistan
- Modern Institute of Informatics and Management, Islamabad, Pakistan
- Adjunct Professor at; Islamia College University, Peshawar; Virtual University of Pakistan.

CONSULTANCY SERVICES PROVIDED TO;

- WWF-Pakistan
- IUCN-Pakistan
- World Bank
- Asian Development Bank (ADB)
- Mott McDonald Pakistan (MMP)
- WAPDA, Pakistan
- Punjab Wildlife & Parks Department, Government of Punjab, Pakistan.
- Punjab Forests Department, Government of Punjab, Pakistan
- Balochistan Forests & Wildlife Department, Government of Balochistan, Pakistan
- Sindh Wildlife Department, Government of Sindh, Pakistan
- AJK Wildlife Department, Government of AJK, Pakistan
- AGES, Pakistan
- Engineering General Consultants (EGC)
- Hagler Bailly, Pakistan
- Snow Leopard Foundation, Pakistan

MEMBERSHIPS / FELLOWSHIPS

- Founder / Chairman : Pakistan Wildlife Foundation
- Managing Director : Pakistan Wildlife Conservation Foundation
- Founder : UVAS Wildlife Society
- Deputy Asian Coordinator : IUCN / SSC Otter Specialist Group (2016-18)
- Country Representative : IUCN / SSC Otter Specialist Group
- Species Contact : IUCN / SSC OSG Smooth-coated otter (2015-18)
- Member : Academic Council, University of Veterinary & Animal Sciences, Lahore
- Member : Wildlife Management Board, Punjab Wildlife & Parks Department
- Member : Lahore Zoo and Safari Zoo Lahore Inspection Committee.
- Member (Zoologist) : National Curriculum Revision Committee of HEC, Pakistan
- Examiner (Wildlife) : Punjab Public Service Commission, Pakistan
- Examiner (Zoology) : Punjab Public Service Commission, Pakistan
- Life Fellow : Zoological Society of Pakistan
- Life Fellow : Fisheries Society of Pakistan
- Fellow : Biological Society of Pakistan

PROFESSIONAL EXPERIENCE

Conducted more than 200 National and International wildlife surveys, a brief list is given below;

- **January 2024:** Ecological baseline studies (Wildlife fauna) as part of Environmental Impacts Assessment (EIA) for Mulkoh Irrigation Project in District Upper Chitral, KP funded by ADB.
- **July 2023:** Ecological baseline studies (Wildlife fauna) as part of Environmental Impacts Assessment (EIA) for Shatoong Nullah Diversion Project in District Skardu, GB funded by The World Bank.
- **May 2023:** Study of Biological Diversity (fauna and flora) of Chashma Barrage Wildlife Sanctuary for Punjab Wildlife & Parks Department, Government of the Punjab.
- **August 2022:** Ecological baseline studies including fauna and flora as part of Environmental Impacts Assessment (EIA) for Kurram Tangi Dam, a Hydropower Project in District Bannu, KP executed by AGES Pakistan and funded by Asian Development Bank (ADB).
- **May 2022:** Ecological baseline studies including fauna and flora as part of Environmental Impacts Assessment (EIA) for a 157 MW Madyan Hydro power Project in Swat, KP executed jointly by PEDO, KP and SMEC International and funded by The World Bank.
- **July 2021:** Ecological baseline studies for amphibian, reptilian and mammalian species around Tarbela Dam as part of EIA for Ghazi Barotha Hydropower Project, funded by WAPDA, Pakistan
- **June, 2020:** Study of wildlife (Fauna and Flora) as part of EIA of Madyan Hydropower project in Swat, Khyber Pakhtunkhwa, Pakistan.
- **September, 2019:** Ecological and Ornithological Studies at Gabral-Kalam Hydropower Project Site in Swat, Khyber Pakhtunkhwa, Pakistan.
- **March, 2018:** Ecological Baseline studies at Astola Island; a Marine Protected Area near Pasni in Balochistan. Studies conducted for IUCN-Pakistan.
- **February, 2018:** Investigating the causes of mortalities in Indian Peafowl (*Pavo cristatus*) in Tharparkar, Sindh executed jointly with Sindh Wildlife Department, Government of Sindh, Pakistan.
- **March 2017:** Habitat Evaluation and GIS-based Habitat Mapping of Punjab Urial (*Ovis vignei*) in the Salt Range and Kala Chitta Mountain Range in Punjab, Pakistan.
- **October 2016:** Distribution and Population estimation of Punjab Urial (*Ovis vignei*) in the Salt Range and Kala Chitta Mountain Range in Punjab, Pakistan.
- **November 2015:** Distribution and Status of Smooth-coated otter in Balochistan, Pakistan.
- **May 2015:** Study of Avian fauna around Tarbela Dam as part of EIA for Tarbela Dam 5th Extension
- **March 2015:** Population estimation of Grey Francolin, Black Francolin, Punjab Urial (*Ovis vignei*) and Indian Gazelle (*Gazaella bennettii*) in Kala Bagh, District Mianwali, Pakistan.
- **June 2014:** Survey of Gilgit, Hunza, Shimshal and Khunjerab for collecting blood and skin samples of Markhor, Blue sheep, Himalayan ibex and Snow leopard for their genomic studies at UVAS, Lahore.
- **September 2013:** Blood sampling of Punjab Urial (*Ovis vignei*) captive animals in the Salt Range to study the Genetic Diversity among Urial populations in Pakistan.
- **August 2013:** Herpetological survey around Kotli, AJK as part of EIA for Gulpur Hydro Power Project.
- **December 2012:** Study of Eco-system services at selected sites in Gilgit, Hunza & Chitral in Pakistan
- **April 2012:** Ornithological survey in Tharparkar, Pakistan under EIA of Thar-coal power project.
- **January 2012:** Status of Marsh crocodile (*Crocodilus palustris*) in Haleji Lake, Sindh, Pakistan
- **December 2011:** Population status of Hog deer (*Axis porcinus*) in Indus Eco-region, Pakistan
- **November 2011:** Ornithological monitoring at Jhimpir, Sindh, Pakistan for 50 MW wind power project
- **January 2011:** Herpetological survey along coastal areas in Balochistan Province.
- **November 2010:** Herpetological, Avian and Mammalian surveys in Logar Province in Afghanistan.
- **July 2009:** Ecological baseline studies in Shimshal valley in Gilgit-Baltistan, Pakistan.
- **February 2009:** Distribution, status and habitat evaluation of Smooth-coated otter in Sindh, Pakistan.
- **January 2008:** Study of large mammals in Indus Eco-region for WWF-Pakistan.
- **February 2007:** Study of large mammals in Hingol National Park, Balochistan, under PAMP project.
- **November 2006:** Population estimation of Hog deer (*Axis porcinus*) in Pai Forest, Sindh, Pakistan.
- **February and August, 2003:** Estimating the heavy metal contamination in water, sediments and aquatic fauna (turtles) of Hadiara Drain around Lahore, Pakistan.
- **September 1998 and March 1999:** Studies on cranes (*Grus grus* and *Anthropoides virgo*) in South Waziristan Agency, Khyber Pakhtunkhwa, Pakistan.
- **May-July 1998:** Herpetological studies in South Waziristan Agency, Khyber Pakhtunkhwa, Pakistan.
- **September 1996 to March 1998:** Studies on feeding behavior of Houbara bustard (*Chlamydotis macqueenii*) in DG Khan and Rajanpur districts in Punjab, Pakistan.

JOB EXPERIENCE

AUGUST 1, 2019 TO DATE

Consultant Wildlife Ecologist / Biodiversity Specialist

The World bank, Asian Development Bank, NHA, WAPDA, Pakistan Wildlife Foundation

JANUARY 30, 2015 TO JULY 31, 2019

Associate Professor / Chairman (BPS-20)

Department of Wildlife & Ecology, University of Veterinary & Animal Sciences, Lahore

- **Theses Supervision:** PhD, M Phil, M Sc and BS theses supervised in the subjects of: Animal diversity, ornithology, herpetology, Mammalogy, Wildlife ecology
- **Subjects Taught:** Animal diversity, vertebrate zoology, ornithology, herpetology, Mammalogy, Zoogeography, Taxonomy, Ecology, Wildlife, Wildlife management, Environmental biology
- **Administrative Experience:** Chairman, Department of Wildlife & Ecology

SEPTEMBER 19, 2014 TO JANUARY 30, 2015

Assistant Professor (BPS-19)

Department of Wildlife & Ecology, University of Veterinary & Animal Sciences, Lahore

- **Subjects Taught:** Animal diversity, vertebrate zoology, ornithology, herpetology, Mammalogy, Zoogeography, Taxonomy, Ecology, Wildlife, Wildlife management.

OCTOBER 01, 2010 TO SEPTEMBER 18, 2014

Wildlife Ecologist (Consultant), Pakistan Wildlife Foundation

Freelance Consultant Wildlife Ecologist with having worked with different government and non-government conservation organizations and provincial wildlife departments and have conducted more than 200 national and International wildlife surveys and monitoring to study amphibian, reptilian, avian and mammalian fauna.

DECEMBER 01, 2006 TO SEPTEMBER 30, 2010

Coordinator: Conservation & Environmental Education, WWF Pakistan, Islamabad

- Coordination with national and international funding agencies, Conservation and Environmental Education experts, government & private partner organizations and all WWF-P offices in Pakistan.
- Lead the program team in periodic planning, progress review, data collection and its management.
- Write concept notes and project proposals on different nature conservation themes for various government and non-government funding agencies.
- Represent WWF-Pakistan in national and regional gatherings / workshops / seminars.
- Supervise graduate and post graduate research studies on Participatory Education, learning and NRM issues of the Margallah Hills National Park, Islamabad, Pakistan.

OCTOBER 01, 2006 TO DECEMBER 01, 2006

Conservation Officer: WWF-Pakistan, Islamabad

- Plan, organize and coordinate research projects as directed by the director EED.
- Help director EED in compilation of study reports and preparation of presentations
- Collect and review the requisite secondary data from all relevant organizations, line agencies, individuals and academia.

MARCH 01, 2006 TO SEPTEMBER 30, 2006

Wildlife Ecologist (Mammalogist)

Balochistan Forest & Wildlife Department

- Conduct surveys in Hingol National Park (HNP) to record the mammalian species in the Park.
- Population assessment of key mammalian species in HNP including: Urial (*Ovis vignei*), Chinkara (*Gazella bennettii*), Sindh Ibex (*Capra aegagrus*) and Common leopard (*Panthera pardus*)
- To identify various threats to the mammalian fauna in Hingol National Park, Balochistan.

APRIL 15, 2004 TO MARCH 1, 2006

Administration Officer:

Modern Institute of Informatics and Management (MIIM), Islamabad, Pakistan

- To interact with 25 coordinators of the institution in different cities in Pakistan.
- To correspond and liaise with representatives of other institutions.
- Overall supervision of the staff and administration of MIIM in Islamabad.

MAY 2002 TO JANUARY 2004

Principal: Professors' Academy, Lahore (A private evening college)

- Administration of the college.
- To appoint teachers and observe their performance.
- Have meetings with the parents of the students.

SEPTEMBER 1996 TO MARCH 1998

Scientific Research Officer; Houbara Foundation International, Pakistan

- To study feeding behavior of Houbara bustard (*Chlamydotis macqueenii*) in Rajanpur & DG Khan.
- To lead 19 members field staff in Rajanpur camp during fieldwork.

MAY 1995 TO SEPTEMBER 1996

Scientific Research Officer: Falcon Foundation International, Pakistan

- To conduct surveys in southern Punjab to find out major threats to Laggar Falcon (*Falco jugar*) and organize awareness raising workshops about ecological role & importance of Laggar falcon.

SEPTEMBER 1992 TO MARCH 1995

Assistant Curator: Natural History Museum, Government College, Lahore, Pakistan

- Collection, identification and preservation of Herpetological material for research purposes
- Look after the stuffed birds and mammals and overall maintenance of the museum.

PUBLICATIONS

1. Books (04)

- A Field Guide to the Amphibians of Pakistan
- A Field Guide to the Mammals of Pakistan: (in draft form)
- Biodiversity of Chashma Barrage Wildlife Sanctuary, Punjab, Pakistan
- Houbara Bustard Hunting Policy: Punjab Wildlife & parks Department

2. Biodiversity Action Plans (02)

- Biodiversity Action Plan for Gabral-Kalam Hydropower Project Area in Swat, KP, Pakistan
- Biodiversity Action Plan for Mulkoh Irrigation Project Area in Upper Chitral, KP, Pakistan

3. Management Plans (14)

- Management Plan of Kheri Murat National Park, District Attock, Punjab, Pakistan
- Management Plan of Ara, Parrera, Dil Jabba Nature Reserve, Salt Range, Punjab, Pakistan
- Management Plan of Chashma Barrage Wildlife Sanctuary, District Mianwali, Punjab, Pakistan
- Management Plan for Threatened Fishes in Kunhar River at Balakot Hydropower Project Site, Pakistan
- Management Plan of Community-based Conservancy Kalar Kahar, Distt. Chakwal, Punjab, Pakistan
- Management Plan of Community-based Conservancy Lawa, District Talagang, Punjab, Pakistan
- Management Plan of Community-based Conservancy Kund Waheer, District Khushab, Pakistan
- Management Plan of Community-based Conservancy Nandana, District Jehlum, Punjab, Pakistan
- Management Plan of Community-based Conservancy Vitasta, District Jehlum, Punjab, Pakistan

4. Research Articles (76)

1. Suleman, S., **Khan, W. A.**, Anjum, K. M., Shehzad, W. and Hashmi, S. G. M., Attaullah, K., Iqbal, K., and Raja, R. 2021. Study on various habitat components of Punjab Urial (*Ovis vignei punjabiensis*) in its distribution range. *The J. Anim. Plant Sci.* **31**(6): ([Impact Factor = 0.49](#))
2. Suleman, S., **Khan, W. A.**, Anjum, K. M., Shehzad, W. and Hashmi, S. G. M. 2021. GIS-based distribution and population estimation of Punjab Urial (*Ovis vignei punjabiensis*) in Pakistan. *The J. Anim. Plant Sci.* **31**(4):1187-1196 ([Impact Factor = 0.49](#))
3. Iqbal, M., Shehzad, W., Imran, M., Zahoor, M. Y., **Khan, W. A.**, Rashid, M. I., Ashraf, K., Rehman, H., Saleem, M. S. and Nadeem, A. 2020. DNA-based gender identification of meat samples. *The J. Anim. Plant Sci.* **30**(6):1374-1379 ([Impact Factor = 0.529](#))
4. Iqbal, M., Saleem, M. S., Imran, M., **Khan, W. A.**, Ashraf, K., Zahoor, M. Y., Rashid, I., Rehman, H. U., Nadeem, A., Ali, S., Naz, S. and Shehzad, W. 2020 Single tube multiplex PCR assay for the identification of banned meat species. *Food Additives & Contaminants: Part B*, **13**:4, 284-291, DOI: [10.1080/19393210.2020.1778098](https://doi.org/10.1080/19393210.2020.1778098) ([Impact Factor = 3.407](#))
5. Suleman, S., **Khan, W. A.**, Anjum, K. M., Shehzad, W. and Hashmi, S. G. M. 2020. Habitat suitability

- index (HSI) model of Punjab Urial (*Ovis vignei punjabiensis*) in Pakistan. *The J. Anim. Plant Sci.* **30**(1):26 (Impact Factor = 0.529)
6. Bajwa, A. A., Islam, S., Imran, M., Ashraf, K., Khan, A., Khan, M. F., Rashid, I., Zahoor, M. Y., **Khan, W. A.** and Shehzad, W. 2020. DNA-based gender identification of Punjab Urial (*Ovis vignei punjabiensis*) using Non-Invasive Sampling, 52. DOI:<http://dx.doi.org/10.17582/journal.pjz/2020.52>. (Impact Factor = 0.79)
 7. Bajwa, A. A., Cuff, J. P., Imran, M., Islam, S., Mansha, R., Ashraf, K., Khan, A., Rashid, M. I., Zahoor, M. Y., **Khan, W. A.**, Rehman, H. U., Nadeem, A., Wengel, P. O. and Shehzad, W. 2019. Assessment of nematodes in Punjab Urial (*Ovis vignei punjabiensis*) population in Kalabagh Game Reserve: Development of a DNA barcode approach. *European Journal of Wildlife Research* **65**: 63. <https://doi.org/10.1007/s10344-019-1298-y> (Impact Factor = 1.184)
 8. Ali, W., A. Javid, **W.A. Khan**, A. Hussain, M. Rizwan, M. Ameer, A.Q. Sajid. 2017. Diversity and habitat preferences of herpetofauna at Kalabagh Game Reserve, District Mianwali, Punjab, Pakistan. *Russian Journal of Herpetology* (Accepted) (Impact Factor = 0.3)
 9. Beatrice Moretti, Omar F. Al-Sheikhly, Monica Guerrini, Meryl Theng, Brij K. Gupta, Mukhtar K. Haba, **Waseem A. Khan**, Aleem A. Khan, Filippo Barbanera. 2017. Phylogeography of the smooth-coated otter (*Lutrogale perspicillata*): distinct evolutionary lineages and hybridization with Asian small-clawed otter (*Aonyx cinereus*). *Sci. Rep.* **7**: 41611; doi: 10.1038 /srep 41611 (IF = 5.228)
 10. T. Hussain, M. M. Mustafa, M. E. Babar, **W. A. Khan**, Z. Ullah, M. Aqeel A. Yaqub and F. M. M. T. Marikar. 2017. Analysis of Molecular Genetic Diversity of Endangered Punjab Urial (*Ovis vignei punjabiensis*) based on Interleukin 2 Gene Sequences. *Bulgarian Journal of Veterinary Medicine*. doi.10.1554 / bjvm 1076. (Impact Factor = 0.478)
 11. Khan, A. A., **Khan, W. A.**, Khan, W. A. and Khan, N. H. 2017. Abundant Distribution of Little Indian Field Mouse, *Mus Booduga*, in the Wetlands of Salt Range, Punjab, Pakistan. *Pakistan J. Zool.*, **49**(2): 449-453. (Impact Factor = 0.478)
 12. Iqbal, M. N., Ali, S., Anjum, A. A., Muhammad, K., Ali, M. A., Wang, S., Khan, **W. A.**, **Khan, I.**, Muhammad, A., Mahmood, A., Irfan, M., Ahmad, A., Ashraf, A. and Hussain, F. 2016. Microbiological Risk Assessment of Packed Fruit Juices and Antibacterial Activity of Preservatives Against Bacterial Isolates. *Pakistan J. Zool.*, **48**(6): 899-901 (IF = 0.478)
 13. Hussain, T., Babar, M. E., Ziaullah and **Khan, W. A.** 2016. Hematological and Blood Chemistry Values in Snow Leopard (*Panthera Uncia*) From Khunjerab National Park, Gilgit Baltistan, Pakistan. *J. Anim. Plant Sci.*, **26**(2): 549-551. (Impact Factor = 0.422)
 14. Tanveer Hussain, Rudolf Pichler, Masroor Ellahi Babar, **Waseem Ahmad Khan**, Zia Ullah, Samuel Shehzad and Kathiravan Periasamy. 2016. Mitochondrial DNA D-Loop diversity and evolutionary relationship of wild Punjab Urial sheep (*Ovis vignei punjabiensis*) with closely related taxa. *Small Ruminant Res.* [http:// dx.doi.org / 10.1016 / j.smallrumres.2016.12.027](http://dx.doi.org/10.1016/j.smallrumres.2016.12.027) (Impact Factor = 1.61)
 15. Ali, S., Akhtar, S., Muhammad, A., Khan, Iqbal, **Khan, W. A.**, Iqbal, M. N., Umar, S., Ahmad, H. and Ali, Q. 2016. Identification, Characterization and Antibiotic Sensitivity of *Aeromonas hydrophila*, a Causative Agent of Epizootic Ulcerative Syndrome in Wild and Farmed Fish from Pothwar, Pakistan. *Pakistan J. Zool.*, **48**(3): 899-901 (Impact Factor = 0.478)
 16. Hussain, T., Babar, M. E., Ziaullah and **Khan, W. A.** 2016. Hematological and Blood Chemistry Values in Snow Leopard (*Panthera Uncia*) From Khunjerab National Park, Gilgit Baltistan, Pakistan. *J. Anim. Plant Sci.*, **26**(2): 549-551. (Impact Factor = 0.422)
 17. Maan, M. A., Tajwar, M. I., Ibrahim, A. E., Ahmad, U. and **Khan, W. A.** 2016. Effects of passive immunity in Pheasants at Wildlife Breeding Center, Jallo Park, Lahore, Pakistan. *Pakistan J. Wildl.*, **7**(2): 33-36.
 18. Hussain, T., Babar, M. E., Mustafa, M. M., Saif, R. Hussain F., Aqeel, M., Naveed, N., Pervez, M. T., **Khan, W. A.**, Ziaullah, Shahzad, S. and Yaqub, A. 2015. Mitochondrial ATP6 and ATP8 Genes-Based Molecular Diversity and Phylogenetic Analysis in Punjab Urial (*Ovis vignei punjabiensis*). *J. Anim. Plant Sci.*, **25**(3 supp. 2): 311-317. (Impact Factor = 0.448)
 19. Hussain, A., Ashraf, M., Altaf, M., **Khan, W. A.**, Akmal, M. and Qazi, J. A. 2015. Relative Diversity and Threats to Commercially Important Fishes of the River Ravi, Pakistan. *Biologia (Pakistan)*. **61**(1): 145-149.
 20. **Khan, W. A.**, Ahmed, M. S. Yaqub, A., Ali, A. and Arshad, M. 2015. Distribution and Population Status of Punjab Urial, *Ovis vignei punjabiensis* (Mammalia: Bovidae), in Soan Valley, Salt Range, Punjab, Pakistan. *J. Anim. Plant Sci.*, **25**(3): 851-859 (Impact Factor = 0.549)
 21. Umar, S., Ali, A., Younus, M., Maan, M. K., Ali, S., **Khan, W. A.** and Irfan, M. 2015. Prevalence of Canine Parvovirus Infection at Different Pet Clinics in Lahore, Pakistan. *Pakistan J. Zool.*, **47**(3): 657-663. (Impact Factor = 0.478)

22. Khan, A. A., **Khan, W. A.** and Chaudhary, A. A. 2015. Mammalian Diversity in Thar Desert Habitat of Tharparkar District, Sindh, Pakistan. *Pakistan J. Zool.*, **47**(5): 1205-1211 ([Impact Factor = 0.478](#)).
23. Ahmed, M. S., Ahmed, K. S., **Khan, W. A.**, Ali, H., Ollevier, F. and Ray, D. L. 2014. Simple and rapid cultivation of *Trypanosoma danilewskyi* strain FCC-1. in mono-phasic liquid culture medium. *J. Anim. Plant Sci.*, **24**(1): 149-153. ([Impact Factor = 0.638](#))
24. Ali, A. Hayat, S., Ahmed, M. S., Elahi, N., Saghir, A., Ali, H. and **Khan, W. A.** 2014. Prevalence of Lernaeid Ectoparasites in some culturable fish species from different nurseries of Punjab. *Biologia*. **60**(1): 123-127.
25. **Khan, W. A.**, Khan, B. and Iqbal, S. 2012. First record of Tibetan Lark (*Melanocorypha maxima*) in Pakistan. *Pakistan J. Zool.* **44**(6): 1462-1464. ([Impact Factor = 0.338](#))
26. Khan, B., **Khan, W. A.**, Abdulkadir, A., Fakhri. S. and Ali, H. 2012. Range extension of four highland agamid lizards in Shimshal Pamir, Pakistan. *Journal of Arid Land* **4**(1):77-84 ([IF = 0.453](#))
27. Ahmed, M. S., Shafiq, K., Ali, H., **Khan, W. A.** and Ollevier, F. 2012. Infectivity and Host Specificity of *Trypanosoma danilewskyi* Strain FCC-1. *J. Anim. Plant Sci.*, **22**(2): 352-357. ([IF = 0.585](#))
28. Ahmed, M. S., Ahmed, K. S., Mehmood, R., Ali, H. and **Khan, W. A.** 2012. Low dose effects of Cadmium and Lead on growth in fingerlings of a vegetarian fish, Grass Carp (*Ctenopharyngodon idella*). *J. Anim. Plant Sci.*, **22**(4): 902-907. ([Impact Factor = 0.585](#))
29. Yaqub, A., Mughal, M. S., Adnan, A., **Khan, W. A.** and Anjum, K. M. 2012. Biosorption of Hexavalent Chromium by *Spirogyra spp.*: Equilibrium, Kinetics and Thermodynamics. *J. Anim. Plant Sci.* **22** (2): 408-415 ([Impact Factor = 0.585](#))
30. Ahmed, M. S., Aslam, Y. and **Khan, W. A.** 2011. Absorption and bioaccumulation of water-borne inorganic mercury in the fingerlings of grass carp, *Ctenopharyngodon idella*. *J. Anim. Plant Sci.*, **21**(2): 176-181. ([Impact Factor = 0.585](#))
31. Qureshi, R., **Khan, W. A.**, Bhatti G. R., Khan, B., Iqbal, S., Ahmad, M. S., Abid, M. and Yaqub, A. 2011. First Report on the Biodiversity of Khunjerab National Park, Pakistan. *Pak. J. Bot.*, **43**(2): 849-861. ([Impact Factor = 0.947](#))
32. **Khan, W. A.**, Qasim, M., Ahmad, E., Chaudhry, A. A., Bhaagat, H. B. and Akhtar, M. 2010. Status of Smooth-coated otter (*Lutrogale perspicillata sindica*) in Pakistan. *Pakistan J. Zool.* **42**(6): 817-824. ([Impact Factor = 0.338](#))
33. **Khan, W. A.**, Akhtar, M. and Ahmad, M. S. 2010. Historical and Current Distribution of Smooth-coated otter (*Lutrogale perspicillata*) in Sindh, Pakistan. *Pakistan J. Wildl.* **1**(1): 5-15.
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5. Popular Articles (15)

- Khan, W. A. 2012. National Parks in Pakistan. *Wildlife of Pakistan* **1**(1): 11-13
- Khan, W. A. and Bhaagat, H. B. 2010. Otter conservation in Pakistan. *IUCN OSG Bulletin* **27**(2):89-92
- Khan, W. A. 2009. National Parks in Pakistan. *Natura* **33**(1): 24-28
- Khan, W. A. 2008. Mud volcanoes of Pakistan. *Natura* **32**(4): 23-26

PROFESSIONAL TRAININGS / AWARDS / QUALIFICATION

1. INTERNATIONAL TRAINING

Otter Conservation Techniques: Attended 8-day training on *Asian Otter Research and Conservation* organized jointly by IUCN OSG, Conservation International (CI) and International Otter Survival Fund (IOSF) from February 24 to March 03, 2009 at Phnom Penh, Cambodia.

2. NATIONAL TRAINING

- **Zoo Animal Keeping, Zoonosis and Bio-safety Measures:** A 2-day hands-on-training in “*Zoo Animal Keeping, Zoonosis and Bio-safety Measures*” jointly organized by Department of Wildlife & Ecology, UVAS, Pakistan Wildlife Foundation and National Academy of Young Scientists, Pakistan at Department of Wildlife & Ecology, UVAS, Ravi Campus, Pattoki (August 27-28, 2015).
- **Animal Stuffing & Taxidermy Techniques:** A 3-day hands-on-training in “*Animal Stuffing & Taxidermy Techniques*” jointly organized by Department of Wildlife & Ecology, UVAS, Pakistan Wildlife Foundation and Kalabagh Wildlife Foundation, Pakistan at Department of Wildlife & Ecology, UVAS, Ravi Campus, Pattoki (June 24-26, 2015).
- **Dart Gun & Its Use in Wildlife Studies:** A one-day training on “*Dart Gun & Its Use in Wildlife Studies*” organized by Department of Wildlife & Ecology, UVAS, Pattoki (January 15, 2015).
- **Wildlife Photography Field Training:** A 3-day training workshop on *Wildlife Photography* jointly organized by Pakistan Wildlife Foundation and Directorate of Biodiversity, Ministry of Climate Change, Government of Pakistan in Salt Range, Punjab, Pakistan (February 11-13, 2013).
- **Project Management:** A 6-month’s diploma in Project Management from Modern Institute of Informatics and Management, Islamabad (Nov. 2004 to April 2005).
- **GEF Projects Development:** A 3-day training on *GEF Project Development* organized by Ministry of Environment, Government of Pakistan in Islamabad (May 14-16, 2007).
- **Recent Techniques for Conservation of Plant Genetic Diversity:** Participated in an international symposium on plant genetic diversity conservation organized jointly by Pakistan Museum of Natural History (PMNH) Islamabad and NARC, Pakistan on March 13, 2010 in Islamabad.
- **Modern Techniques for the Analysis of Ecological Data:** A 2-day workshop on *Modern Techniques for the Analysis of Ecological Data* jointly organized by Pakistan Museum of Natural History and Snow Leopard Trust in Islamabad (September 29-30, 2009).
- **First Aid Training:** A 3-day training on *Emergency First Aid with CPR* organized jointly by Pakistan Red Crescent and Pakistan Wetlands Programme in Islamabad (June 23-25, 2008).
- **GIS Training:** Attended 5-day training on *Principles and Applications of Conservation GIS* organized by National Council for Conservation of Wildlife (NCCW), Pakistan (February 25-29, 2008).
- **Small Mammals Field Techniques Training:** Attended 3-day workshop on *Small Mammals Field Techniques Training*, organized jointly by *Pakistan Science Foundation* and Zoo Outreach, India, in Pakistan Museum of Natural History, Islamabad (October 2004).

3. AWARDS

Appreciation Award from INTEL EDUCATION for being a volunteer judge at National Science Olympiad 2008-2009 organized jointly by Intel© Education and Ministry of Education, Pakistan from January 21-24, 2009 at National Library Complex, Islamabad, Pakistan

4. EDITORIAL EXPERTISE

- Editor : **Pakistan Journal of Wildlife** (Peer-reviewed Research Journal)
- Editor : **Wildlife of Pakistan** (Magazine)
- Referee / Reviewer : **Raffles Bulletin of Zoology** (Peer-reviewed Research Journal)
- Referee / Reviewer : **Journal of Plants & Animal Sciences** (Peer-reviewed Research Journal)
- Referee / Reviewer : **IUCN Otter Specialist Group Bulletin** (Peer-reviewed Research Journal)
- Referee / Reviewer : **Biologia - Pakistan** (Peer-reviewed Research Journal)
- Referee / Reviewer : **National Geographic Society** (Conservation Projects)

THESIS SUPERVISION

Supervised 09 PhD, 15 M Phil, 20 M Sc and 35 BS theses at GCU, VU, UOP, UVAS, PU, UAF and UAAR in the field of Ecology, Herpetology, Ornithology and Mammalogy

PROJECT MANAGEMENT

- **Project Director:** Forests Restoration Program, in Pakistan (Ongoing) a PWF Project
- **Project Director:** Wildlife Rescue & Rehabilitation in Pakistan (Ongoing) a PWF Project
- **Project Director:** Biodiversity Awareness through social media (Ongoing) a PWF Project
- **Project Director:** Conservation and commercial breeding of Francolins: Grey francolin (*Francolinus pondicerianus*) and Black francolin (*Francolinus francolinus*) in Punjab, Pakistan under Sustainable Forest Management program of Forest department (June 2021 to May 2022).
- **Project Director:** Conservation and Management of Indian Pangolin (*Manis crassicaudata*) in Pakistan (June 2019 to May 2023).
- **Project Director:** Conservation and Commercial breeding of Chukar Partridge and Ring-necked pheasants at Sazgar Wildlife Breeding Farm, Raiwind, Pakistan (February to October 2019).
- **Project Director:** Development of Ostrich Farming in Punjab; an Innovative Livestock Business (October 2016 to June 2018), Government of the Punjab Funded Project.
- **Project Manager / Principal Investigator:** Distribution and Status of Smooth-coated otter (*Lutrogale perspicillata*) in Punjab and Balochistan, Pakistan (July 2015 to March 2016), HEC Funded Project.
- **Project Manager:** Conservation Breeding of Indian Python (*Python molurus*) at UVAS Wildlife Breeding Farms, Pattoki, Pakistan (February 2015 to December 2018), UVAS Funded Project.
- **Project Manager:** Distribution, Status and Habitat Evaluation of Punjab Urial (*Ovis vegenii*) in Punjab, Pakistan (October 2014 to December, 2015), WWF-Pakistan Funded Project.
- **Project Manager:** Himalayan Climate Change Adaptation Program (HICAP) in Upper Indus Basin including Hunza, Gilgit and Chitral (October 2012 to December, 2013), ICIMOD Funded Project.
- **Project Manager:** Distribution, Status and Habitat Evaluation of Hog Deer (*Axis porcinus*) in Indus Eco-region, Pakistan (January to December, 2011), WWF-Pakistan Funded Project.
- **Project Manager:** Distribution, Status & Management of Smooth-coated otter (*Lutrogale perspicillata*) in Indus Eco-region, Pakistan (October 2008 to September 2010), WWF-Pakistan Funded Project.

CONFERENCES, WORKSHOPS, SYMPOSIA AND SEMINARS ATTENDED

Attended more than 50 National & International conferences, workshops, symposia and seminars and presented research and popular articles, these include;

- Pakistan Congress of Zoology (Organized by Zoological Society of Pakistan)
- Pakistan Fisheries Conference (Organized by Fisheries Society of Pakistan)
- Annual Conferences of Biological Society of Pakistan
- Consultative workshops on *Pakistan Forest Communication Strategy* organized jointly by WWF-Pakistan and Ministry of Environment (Sep. 2007 and July 2008).
- A 3-day consultative workshop to review the *Integration of Environmental Concepts in National Curriculum of Classes I – VII*, organized by Ministry of Education, Islamabad (May 22 to 24, 2008).
- A one-day consultative meeting with the Global Program Coordinator, TRAFFIC International held on December 03, 2007 in Islamabad, Pakistan.

WORKSHOPS & TRAININGS ORGANIZED

Organized more than 75 training workshops for WWF-Pakistan, Pakistan Wildlife Foundation and Department of Wildlife & Ecology, UVAS, Lahore, Pakistan, a few are listed below;

- **Ostrich Farming in Pakistan:** A 2-day hands-on-training in “*Ostrich Farming in Pakistan*” from April 20-21, 2016 at Department of Wildlife & Ecology, University of Veterinary & Animal Sciences, Lahore.
- **Insect Collection & Preservation Techniques:** A 3-day training workshop on “*Insect Collection & Preservation Techniques*” from November 4-6, 2015 at Department of Wildlife & Ecology, UVAS.
- **Zoo Animal Keeping, Zoonosis and Bio-safety Measures:** A 2-day hands-on-training in “*Zoo Animal Keeping, Zoonosis and Bio-safety Measures*” jointly organized by Department of Wildlife &

Ecology, UVAS, Pakistan Wildlife Foundation and National Academy of Young Scientists, Pakistan at Department of Wildlife & Ecology, UVAS, Ravi Campus, Pattoki (August 27-28, 2015).

- **Animal Stuffing & Taxidermy Techniques:** A 3-day hands-on-training in “*Animal Stuffing & Taxidermy Techniques*” jointly organized by Department of Wildlife & Ecology, UVAS and Pakistan Wildlife Foundation at Department of Wildlife & Ecology, UVAS, Pattoki (June 24-26, 2015).
- **Dart Gun & Its Use in Wildlife Studies:** A one-day training on “*Dart Gun & Its Use in Wildlife Studies*” organized by Department of Wildlife & Ecology, UVAS, Pattoki (January 15, 2015).
- **Wildlife Photography Field Training:** A 3-day field training on *Wildlife Photography* organized by Pakistan Wildlife Foundation in the Salt Range, Punjab, Pakistan (February 11-13, 2013).
- **Wildlife Photography Field Training:** A 3-day field training on *Wildlife Photography* organized by Pakistan Wildlife Foundation in Karoonjhar Hills in Tharparkar, Sindh, Pakistan (March 26-28, 2013).
- **Wildlife Talks:** Organized 12 *Wildlife Talks* in collaboration with different universities whereby more than 1,500 students and wildlife lovers got benefitted.
- **Wildlife Safari & Eco-Internship:** Organized more than 50 Eco-Internship and Wildlife Safari events/trainings in different areas including the Salt Range, Tharparkar, AJK and Gilgit Baltistan. Eco-Internship is 3-day training in the field and an opportunity of experiential learning for school students regarding biodiversity and environment. The participants enjoy camping and learn First Aid Techniques under the supervision of senior wildlife ecologists and environmentalists.
- **Short Courses in Wildlife Management:** Organized a number of short training courses in wildlife related fields through distant learning. More than 300 nature lovers and wildlife managers have completed different such courses under my supervision.

CONSERVATION BREEDING OF THREATENED WILDLIFE SPECIES

A number of Threatened and Economically Important wildlife species are being kept and reared under my supervision at different wildlife breeding farms. Some key species are mentioned below;

- **Conservation and commercial breeding of Francolins:** Grey francolin (*Francolinus pondicerianus*) and Black francolin (*Francolinus francolinus*) in Punjab, Pakistan under Sustainable Forest Management program of Forest department (June 2021 to May 2024: Ongoing).
- **Indian Rock Python:** Three pairs of Indian Rock Python (*Python molurus*) are being kept for their Conservation Breeding and to support university research students.
- **Indian Gazelle (Chinkara):** Ten Indian Gazelles (*Gazaella bennettii*) are being kept and reared for their Conservation Breeding and to support university research students.
- **Grey Francolin:** With 135 breeding pairs of Grey Francolins (*Francolinus pondicerianus*) thousands of chicks were produced and reared for Commercial Breeding purposes at Sazgar Wild Birds Breeding Farms, Raiwind, Pakistan (2019)
- **Chukar Partridge:** With more than 150 breeding pairs of Chukar Partridge (*Alectoris chukar*) thousands of chicks were produced and reared for Commercial Breeding purposes at Sazgar Wild Birds Breeding Farms, Raiwind, Pakistan (2019)
- **Blue Bull (Nilgai):** Two pairs of Blue Bull (*Boselephus tragochemilus*) are being kept and reared for their Conservation Breeding and to support university research students.
- **Indian Peafowl:** Ten pairs of Indian Peafowl (*Pavo crustatus*) are being kept and reared for their Conservation & Commercial Breeding and to support university research students.
- **Smooth-coated Otter (Ludhar):** Two pairs of Smooth-coated otter (*Lutrogale perspicillata*) are being kept and reared for their Conservation Breeding and to support university research students.
- **Ostrich Breeding:** Two pairs of Ostrich are being kept and reared for their Conservation Breeding and to support university research students.
- **Alexandrine Parakeet (Parrot):** Three pairs of Alexandrine Parakeet (*Psittacula eupatria*) are being kept and reared for their Conservation Breeding and to support university research students.
- **Freshwater Turtles:** There are eight species of freshwater turtles in Pakistan and all are Threatened. Three pairs of each species were kept and reared for their Conservation Breeding and to support university research students (2016-2018).
- **Marsh Crocodile:** Two pairs of Marsh Crocodile (*Crocodylus palustris*) were kept and reared for Conservation Breeding and to support university research students (2016-2018).

PERSONAL PARTICULARS

Father's Name : Abdul Sattar Khan
Date and Place of Birth : 26-01-1968 (Lahore, Pakistan)
Gender : Male
Marital Status : Married; four daughters
N.I.C. Number : 35200-1453320-1
Domicile (District/Province) : Lahore (Punjab), Pakistan
Religion : Islam
Languages Known : English, Hindi, Punjabi, Sindhi, Urdu
Countries Visited : Afghanistan, Cambodia, Canada, India

REFERENCES

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2. Dr. Abdul Aleem Chaudhry (Lahore), Pakistan

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4. Lt. Gen. (R) Ali Kuli Khan Khattak (Rawalpindi), Pakistan

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5. Dr. Nicole Duplaix (USA)

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