

JAYANT KUMAR Ph. D.

Assistant Professor

Department of Zoology

Chandra Bhanu Gupta Ag. P. G. College

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Educational qualifications:

Exam./Degree	Board/University	Year
Ph. D. Zoology	University of Lucknow	2018
NET Life Sciences	CSIR	2015
M.Sc. Zoology	University of Lucknow	2011

Ph. D. Thesis Title: “Effect of light spectrum and intensity on circadian and seasonal responses in birds”

Teaching Experience: ~ 4 years

- Assistant Professor (Approved, Chandra Bhanu Gupta Ag. P. G. College, BKT, Lucknow, University of Lucknow) January 2021-Present
- Assistant Professor (Ad-hoc, Rajat P. G. College, Kamta, Lucknow, University of Lucknow) August 2017-January 2021

Research Experience: ~ 6 years

- Research Associateship (CSIR-RA, Govt. of India) 2021
- Senior Research Fellowship (UGC-RGNF, Govt. of India) May 2014-April 2017
- Junior Research Fellowship (UGC-RGNF, Govt. of India) May 2012-April 2014
- Project Fellowship (Funded project, UGC, Govt. of India) July 2011-April 2012

Research Publications (List appended at the end)

- Research Papers (Published) International : 04
- Conference Abstract International : 09 National : 06

Membership of scientific societies:

- Life member, Indian Society for Chronobiology
- Life member, Association for Avian Biologist in India

Research training and expertise:

- Handling and maintenance of small animal
- Behavioral assays
- Standard techniques used to study Circadian biology (activity rhythm recordings) and Photoperiodism
- Surgeries (laparotomy, pinealectomy, ovariectomy, castration etc.) and other approaches (assessment of feather regeneration, fat score etc.)
- Perfusion, Tissue fixation, Cryosectioning, Staining, Histology
- Immunohistochemical techniques
- Microscopy and Image analysis
- Hormone assay (ELISA)
- Computer based skills including coral draw
- Statistical and activity analysis tools (Graph Pad Prism, The Chronobiology Kit Analysis)

Participation in the scientific meetings/ conferences/ symposia/ seminar:***International***

- 2019: International Symposium on Biological Rhythms in conjunction with the Biennial meeting of Indian Society for Chronobiology; Chaudhary Charan Singh University, Meerut, (India)
- 2018: International Symposium on Current Trends in Biological Sciences; University of Lucknow, Lucknow, (India)
- 2017: IndoUS Workshop & International Symposium on Biological Timing and Health Issues in the 21st Century; University of Delhi, Delhi, (India)
- 2016: International Symposium on Integrative Physiology and Comparative Endocrinology (ISIPCE) and 34th Annual Meeting of the SRBCE; Banaras Hindu University, Varanasi, (India)
- 2012: International Congress on Chronobiology; University of Delhi, Delhi, (India)

National

- 2019: National Conference on Biotech Breakthrough in Clinical Research and Diagnostics; Amity University, Lucknow Campus, Lucknow
- 2016: XXVI National Symposium on Chronobiology; Department of Studies in Zoology, University of Mysore, Mysuru
- 2016: National Symposium on Recent Advances in Zoological Research; Department of Zoology, University of Lucknow, Lucknow
- 2015: XXIV National Symposium on Chronobiology; Pt. Ravishankar Shukla University, Raipur
- 2014: National Conference on Bioengineering & Biotechnology; Amity University, Lucknow Campus, Lucknow
- 2012: SERB School in Chronobiology III: Clocks, Rhythms and Behaviour; North-Eastern Hill University, Shillong
- 2012: XXIII National Symposium on Chronobiology and Seminar on Diversity and Physiology of Desert Fauna; JNV University, Jodhpur

- 2012: UGC-SAP (DRS I) sponsored Symposium; Department of Zoology, University of Lucknow, Lucknow
- 2010: National Symposium on Modern Approaches to Insect Pest Management; Department of Zoology, University of Lucknow, Lucknow

Participation in Training, Workshops:

- 2015: Workshop on IPR: Issues and Challenges, organized jointly by IGNOU, Lucknow and University of Lucknow, Lucknow
- 2011: Awareness Campaign on International Bio-diversity Day: 22nd May; Directorate of Environment, Uttar Pradesh and University of Lucknow, Lucknow

Area of Research: Chronobiology, Endocrinology and Reproductive Biology

Research publications

Full length papers in peer-reviewed journals:

1. **Kumar J**, Malik S, Bhardwaj SK and Rani S (2021) Impact of Light at Night is Phase Dependent: A Study on Migratory Redheaded Bunting (*Emberiza bruniceps*). Frontiers Ecology and Evolution. 9:751072. doi: 10.3389/fevo.2021.751072 **IF:** 4.171
2. **Kumar J**, Malik S, Bhardwaj SK and Rani S (2018) Bright night alters the perception of daylength in Indian weaver bird (*Ploceus philippinus*). Journal of Experimental Zoology. Part A. 10.1002/jez.2201 **IF:** 1.917
3. **Kumar J**, Gupta P, Naseem A, Malik S (2017) Light spectrum and intensity, and the timekeeping in birds. Biological Rhythm Research. 10.1080/09291016.2017.1345449 **IF:** 0.826
4. Trivedi A K, **Kumar J**, Rani S and Kumar V (2014) Annual Life History Dependent Gene Expression in the Hypothalamus and Liver in a Migratory Songbird: Insights into Genetic Regulation of the Seasonal Metabolism. Journal of Biological Rhythms. Vol. 29 No. 5, 332 - 345 DOI: 10.1177/0748730414549766 **IF:** 3.479

Abstracts published in conference proceedings:

International

1. **Kumar J**, Malik S, Bhardwaj SK, Rani S and Kumar V (2019) Differential Effects of light at night on daily responses in resident and migratory bird species. International Symposium on Biological Rhythms, March 11-13, Chaudhary Charan Singh University, Meerut, India (abst. P82).
2. Malik S, **Kumar J**, Bhardwaj SK, Rani S and Kumar V (2018) Different timings of 'light at night' induce differential photoperiodic responses in the migratory redheaded bunting. International Ornithological Congress, August 19-26, Vancouver, Canada (abst. P06.011).

3. **Kumar J**, Malik S, Bhardwaj SK and Rani S (2018) Effect of night light exposure on physiological (circadian and seasonal) responses in the migratory redheaded bunting. International Symposium on Current Trends in Biological Sciences, March 27-28, University of Lucknow, Lucknow, India (abst. P61).
4. **Kumar J**, Malik S, Bhardwaj SK, Kumar V and Rani S (2017) Light at different phases of night has differential effect on circadian responses in Indian baya weaver (*Ploceus philippinus*). IndoUS Workshop & International Symposium on Biological Timing and Health Issues in the 21st Century, February 21-24, University of Delhi, Delhi, India (abst. P65).
5. **Kumar J**, Naseem A, Rani S and Malik S (2017) Light spectrum dependent expression of Neuropsin (OPN5) in spotted munia (*Lonchura punctulata*). IndoUS Workshop & International Symposium on Biological Timing and Health Issues in the 21st Century, February 21-24, University of Delhi, Delhi, India (abst. P60).
6. **Kumar J**, Malik S and Rani S (2016) Effect of light at night on circadian and seasonal responses in the migratory redheaded bunting (*Emberiza bruniceps*). International Symposium on Integrative Physiology and Comparative Endocrinology (ISIPCE) and 34th Annual Meeting of SRBCE, February 12-14, Banaras Hindu University, Varanasi, India (abst. P55).
7. Trivedi A K, **Kumar J**, Rani S and Kumar V (2014). Molecular correlates of metabolic regulators in the hypothalamus and liver of a migratory songbird in relation to seasonal life history stages. International Conference of Chronobiology, June 4-8, Bucharest, Romania (abst. P51).
8. Trivedi A K, **Kumar J**, Rani S and Kumar V (2013) Life History Dependent Expression of Metabolic Genes in the Migratory Blackheaded Bunting (*Emberiza melanocephala*). International Conference on Comparative Endocrinology and Physiology, October 21-23, RTM Nagpur University, Nagpur, India (abst. P103).
9. **Kumar J**, Budki P, Malik S, Rani S and Kumar V (2012) Life history dependent exhibition of migratory restlessness in captive blackheaded bunting. International Congress on Chronobiology, October 03-07, Delhi University, Delhi, India (abst. P67).

National

1. **Kumar J**, Malik S, Bhardwaj SK and Rani S (2019) Impact of light at night is phase dependent: A study on migratory redheaded bunting (*Emberiza melanocephala*). National Symposium on Biotech Breakthrough in Clinical Research & Diagnostics, February 26-27, Amity University, Lucknow Campus, Lucknow (abst. P37).
2. **Kumar J**, Malik S, Bhardwaj S K, Rani S and Kumar V (2016) Light at night affects the circadian and seasonal responses in the migratory red-headed bunting (*Emberiza bruniceps*). XXVI National Symposium on Chronobiology, June 02-03, University of Mysore, Mysuru (abst. P32).

3. **Kumar J**, Malik S, Kumar V and Rani S (2015) Effects of light spectrum and intensity on the physiological responses in spotted munia (*Lonchura punctulata*). XXV National Symposium on Chronobiology - Time in Biology & Medicine, March 27-29, Pt. Ravishankar University, Raipur (abst. P35).
4. **Kumar J**, Malik S, Kumar V and Rani S (2015) Initial body mass affects the seasonal responses in migratory blackheaded bunting (*Emberiza melanocephala*). XXV National Symposium on Chronobiology - Time in Biology & Medicine, March 27-29, Pt. Ravishankar University, Raipur (abst. P37).
5. **Kumar J**, Malik S, Kumar V and Rani S (2014) Effect of initial body mass on the reproductive physiology of captive blackheaded bunting (*Emberiza melanocephala*). National Conference on Bioengineering & Biotechnology, October 16-17, Amity University, Lucknow Campus, Lucknow (abst. P76).
6. **Kumar J**, Singh O, Budki P, Malik S, Rani S, Kumar V (2012) Development of *Zugunruhe* affect the circadian period in migratory bunting (*Emberiza melanocephala*). XXIII National Symposium on Chronobiology and Seminar on Diversity and Physiology of Desert Fauna; March 1-3, Jodhpur (abst. P15).

Date: 03.12.2021

Place: Lucknow

Jayant Kumar