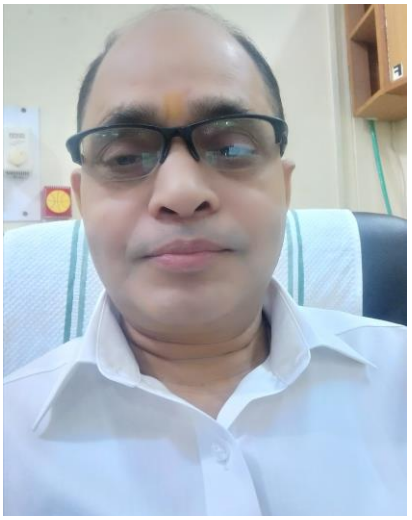
CURRICULAM VITAE



Name : Dr. JAY PRAKASH YADAV

Nationality : Indian

Date of birth : July 16, 1970

Address : Department of Zoology,
Institute of Basic
Science Bundelkhand
University,
Jhansi- 284 128, INDIA.

Mobile : +91-9839462439 (Personal)

E-mail : jaypyadav@yahoo.co.in

: jpya167@gmail.com

Education:

Degree	Department/ University	Date	Topic	Advisor
Ph. D	Banaras Hindu University (BHU), Varanasi	03/2005 (Submitted in September 2004)	Evolutionary Genetics of *Drosophila ananassae*: Study of trade-offs among different fitness traits.	Prof. B. N. Singh
M. Sc.	BHU, Varanasi	05/1999	*Spl. Paper:* Molecular Genetics & Applied and Clinical Genetics.	64.3%

Awards:

1. Best participant award in Departmental seminar of M. Sc. Zoology (1997-98).
2. National Eligibility Test (NET):
   (i) CSIR- UGC joint test June 2000: for Lectureship.
   (ii) CSIR- UGC joint test Dec. 2000: for CSIR- Junior Res. Fellowship (JRF).
3. CAS- JRF, Department of Zoology, BHU (2000).
4. RET-BHU Scholarship (2000).
5. JCS Travel Fellowship- 2003 (denied)
6. CSIR- Senior Research Fellowship (from August 1, 2003- March 5, 2005).

Academic Appointments:

March, 2005- Lecturer in Zoology- Bundelkhand University, Jhansi (From March 7, 2005).

December, 2004- Lecturer in Zoology- by U.P. Higher Education Services Commission, Allahabad (for State Government owned Colleges- denied).

Teaching Experience:

In my present assignment with Bundelkhand University, Jhansi (From March 7, 2005), I am teaching "Genetics, Biochemistry and Molecular Cell Biology" in-

1. B. Sc.
2. M. Sc. and
3. M. Phil courses (closed from 2015-16)

Total 57 M. Sc. students (IV semesters) have completed their specialization course in Cell Biology under my supervision (2005-15). Twelve M. Phil. students (Spl. paper- Genetics) have been awarded their M. Phil. degree in Zoology (2007-13) under my supervision.

Major Research Project:

1- Study on Longevity and its Impact on Associated Traits in *Drosophila ananassae*" – DST (SERB- Life Sciences), From July 2012 to January 2016. Total grant- **Rs. 20.99 Lakhs**.

2- Nutritional geometry and mitochondrial assessment for longevity and fitness related studies in Drosophila ananassae- CRG (Animal Sciences), SERB-DST, New Delhi, from March 30, 2019- 29th March, 2022; Total grants- **Rs. 40.70 Lakhs**.

PUBLICATIONS:

Citations: 79 h-index: 5 i10-index: 5 (Source: Google Scholar)

Research Papers:

1- Singh, A. K. and Jay P. Yadav*, 2000: Human population genetics III. Study of some morphological and behavioural traits in the students of KNI, Sultanpur, UP. **Journal of Scientific Research (BHU)**, **50: 217- 222**.

2- Yadav*, J. P. and B. N. Singh, 2003: Population genetics of *Drosophila ananassae*: inversion polymorphism and body size in Indian geographical population. **J. Zool. Syst. Evol. Research 41 (4): 217- 226.** Impact factor- 2.444.

3- Yadav, Jay P. and B. N. Singh, 2003: Rediscovery of *spread* mutation in *Drosophila ananassae*. **DIS 86: 172- 173**.

4- Yadav, Jay P. and B. N. Singh, 2005: Coexistence of three different *Drosophila* species by rescheduling their life history traits in a natural population. **J. Genetics, 84 (3): 283- 293**. Impact factor 0.995..

5- Yadav, Jay P. and B. N. Singh, 2005: Evolutionary genetics of *Drosophila ananassae*. III. effect of temperatures on certain fitness traits in two natural populations. **J. Thermal Biology, 30 (6): 457- 466.** Impact factor 2.157.

6- Yadav, Jay P. and B. N. Singh, 2006: Evolutionary genetics of *Drosophila ananassae*. I. effect of bi-directional selection on body size and inversion frequencies. **J. Zool. Syst. Evol. Research. 44 (4): 323- 329.** Impact factor- 2.444.

7- Yadav, Jay P. and B. N. Singh, 2007: Evolutionary genetics of *Drosophila ananassae*. evidence for trade-offs among several fitness traits. **Biol. J. Linn. Soc. 90 (4): 669-685**. Impact factor 2.288.

8- Yadav*J. P. and Pallav Singh, 2018: Effect of metabolites on starvation and longevity in a natural population of *Drosophila ananassae*. **Ind. J. Exp. Biol. 56: 716-724.** Impact factor 1.165.

9- Yadav* J. P. and P. Singh, 2018: Effect of metabolites on stress, adaptation and longevity in laboratory populations of *Drosophila* flies. **J. Zoology 305 (1): 43-52.** Impact factor- 2.322.

Review Article:

1- Singh, B. N. and J. P. Yadav (2015): Status of research on *Drosophila ananassae* at global level. **J. Genetics 94 (4): 785- 792**, Impact Factor 0.995.

* Corresponding author.

Citations of Research Works:

- **In Journal: 71 (22)**

  Canadian J. of Zoology, TRENDS in Ecology & Evolution, Current Science, Eur. J. Entomology, Genetics, Genetica, Journal of Thermal Biology, Journal of Heredity, Annual Review of Ecology, Evolution and Systematics, J. of Biosciences, Biol. J. of Linn. Soc., Fly, Proc. R. Soc. B, Indian J. Exp. Biology, J. Evolutionary Biology, J. Entomology and Nematology and Infection, Genetics & Evolution, Cell Biology Letter, etc.

- **In Book: 3**

  (1) Hoffman, A. A. (2009): *Drosophila* and selection in nature: From laboratory fitness components to field assessments. Chapter in Book: Adaptation and fitness in animal population. J. van der Werf et. al. (eds.), **Springer Netherlands**, Part III. (ISBN: 978-1-4020-9004-2), page 169- 182.

  (2) Angilletta Jr. Michael J. (2009): Thermal Adaptation: A Theoretical and Empirical Synthesis. **Oxford University Press**, New York (ISBN: 978-0-19-857088-5).

  (3) Singh Pranveer (2015): Evolutionary Population Genetics of *Drosophila ananassae*. **Springer,** New Delhi (ISBN: 978-81-322-2564-5).

- **In Foreign Ph. D. Thesis/ Dissertation: 5**

  (1) Gomez, Federico Hernan (2010): QTL para estrés de alta temperatura y evolución experimental de hormesis en el modelo *Drosophila*. Ph.D. Thesis of Universidad de Buenos Aires, Facultad de Ciencias Exactas y Naturales, Departamento de Ecologia, Genetica y Evolucion.

  (2) Lima, Margarida Rocha de (2011): Diferenciacao clinal e correlacao do polimorfismo cromossomico e tamanho do corpo em *Drosophila subobscura*. Ph. D. Thesis of Universidade De Lisboa, Faculdade De Ciencias, Departmento De Biologia Animal.

  (3) Ribeiro, Maria Stefania Przybylsna (2014): Plasticidade fenotipicade caracteristicas morfologicas de *Drosophila cardini*. Dissertacao submetida ao programa de Post-

graduacao em Ecologia, Instituto de Ciencias Biologicas, Universidade de Brasilia.

(4) Fragata, Inˆes Regina Lopes de Mendonca (2015): The Role of History, Chance and Selection During Adaptation: An Integrated Perspective. Ph. D.Thesis of Universidade De Lisboa, Faculdade De Ciencias, Departmento De Biologia Animal.

(5) Padilla, Yanira Jimenez (2016): Effects of gut-associated yeasts on *Drosophila melanogaster* performance. Ph. D. Thesis of the University of Western Ontario, Canada- Supervisor- Brent Sinclair.

Selected Citation List:

2- Werle, Sean F., Klekowski, Ed. and Smith, Douglas G, 2004: Inversion polymorphism in a Connecticut River Axarus species (Diptera: Chironomidae): biometric effect of a triple inversion heterozygote. Canadian J. of Zoology 82: 118- 129.

3- Hoffmann, Ary A., Carla, M. Sgro and Andrew, R. Weeks, 2004: Chromosomal inversion polymorphisms and adaptation. TRENDS in Ecology & Evolution 19 (9): 482- 488.

4- Singh, P. and Singh, B. N. 2004. Genetic differentiation among laboratory populations of D*rosophila ananassae* established from naturally impregnated females. Proc. Zool. Soc., Kolkata. 57: 105- 117.

5- Harini, B. P. and Ramchandra, N. B, 2007: Newly evolved cytoraces of *nasuta-albomicans* complex of *Drosophila* live better than their parents as revealed by life history trait analysis at three different temperatures. Current Science 93: 348- 356.

6- Driessen, G., Ellers, J. and Van Straalen N. M, 2007: Variation, selection and heritability of thermal reaction norm for juvenile growth in *Orchesella cincta*. Eur. J. Entomology 104: 39- 46.

7- Kennington, W. J., Hoffmann, A. A. and Partridge L, 2007: Mapping region within cosmopolitan inversion In (3R) Payne associated with natural variation in body size in *Drosophila melanogaster*. Genetics 177: 549- 556.

8- Hatadini, L. M. and Klaczko, L. B, 2008. Shape and size variation on the wing of *Drosophila mediopunctata*: influence of chromosome inversion and genotype-environment interaction. Genetica 133 (3): 335- 342.

9- Vishalakshi, C. and Singh, B. N., 2008: Effect of developmental temperature stress on fluctuating asymmetry in certain morphological traits in *Drosophila ananassae*. Journal of Thermal Biology 33 (4): 201-208.

10- Vishalakshi, C. and Singh, B. N., 2008: Effect of Mutations on Developmental Stability and Canalization in Morphological Traits in *Drosophila ananassae*. Journal of Heredity 99 (5): 539- 545.

11- Hoffman, A. A. and Rieseberg, Loren H. (2008): Revisiting the impact of inversions in evolution: From population genetic markers to drivers of adaptive shifts and speciation? Annual Review of Ecology, Evolution and Systematics 39: 21- 42.

12- Hoffman, A. A. (2009): *Drosophila* and selection in nature: From laboratory fitness components to field assessments. Chapter in Book: Adaptation and fitness in animal population. J. van der Werf et. al. (eds.), Springer Netherlands, Part III. (ISBN: 978-1-4020-9004-2), page 169- 182.

13- Singh, P. and Singh, B. N. (2008): Population genetics of *Drosophila ananassae*. Genetics Research 90: 409- 419.

14- Vishalakshi, C. and Singh, B. N. (2009): Effect of directional selection for body size on fluctuating asymmetry in certain morphological traits in *Drosophila ananassae*. J. of Biosciences 34 (2): 275- 285.
15- Sisodia, S. and Singh, B. N. (2009): Variations in morphological and life-history traits under extreme temperatures in *Drosophila ananassae*. J. of Biosciences 34 (2): 263- 274.
16- Scannapieco, Alejandra C., Sambucetti P. and Norry Fabian M. (2009): Direct and correlated response to selection for longevity in *Drosophila buzzatii*. Biol. J. of Linn. Soc. 97 (4): 738- 748.
17- Gomez Federico H., Defays Raquel, Sambucetti Pablo, Scannapieco A.C., Loeschcke Volker and Norry, F.M. (2009). Quantitative trait locus for starvation resistance in an intercontinental set of mapping populations of *Drosophila melanogaster*. Fly 3: 247- 252.
18- Angilletta Jr. Michael J. (2009): Thermal Adaptation: A Theoretical and Empirical Synthesis. Oxford University Press, New York (ISBN: 978-0-19-857088-5).
19- Muratori, Frederic B., Sophie Borlee and Russell H. Messing (2010): Induced niche shift as an anti-predator response for an endoparasitoid. Proc. R. Soc. B 277 (1687): 1475- 1480. Impact factor 4.248.
20- Sisodia, S. and Singh, B. N. (2010): Influence of developmental temperature on cold shock and chill coma recovery in *Drosophila ananassae*: Acclimation and latitudinal variation among Indian populations. J. of Thermal Biology 35 (3): 117- 124.
21- Singh, B. N. (2010): *Drosophila ananassae*- a good model species for genetical, behavioural and evolutionary studies. Indian J. Exp. Biology 48 (4): 333- 345.
22- Sisodia, S. and Singh, B. N. (2010): Resistance to environmental stress in *Drosophila ananassae*: latitudinal variation and adaptation among populations. J. Evolutionary Biology 23 (9): 1979- 1988.
22- Gomez, Federico Hernan (2010): QTL para estrés de alta temperatura y evolución experimental de hormesis en el modelo *Drosophila*. Ph.D. Thesis of Universidad de Buenos Aires, Facultad de Ciencias Exactas y Naturales, Departamento de Ecologia, Genetica y Evolucion.
23- Anderson, Laila H., Kristensen, Torsten N., Loeschcke, V., Toft, S. and Mayntz, D. (2010): Protein and carbohydrate composition of larval food affects tolerance to thermal stress and desiccation in adult *Drosophila melanogaster*. J. Insect Physiology 56: 336- 340.
24- Guruprasad, B. R., Pathak, Pankaj and Hegde, S. N. (2011): Assessment of *Drosophila* diversity during monsoon season. J. Entomology and Nematology 3 (4): 54- 57.
25- Lima, Margarida Rocha de (2011): Diferenciacao clinal e correlacao do polimorfismo cromossomico e tamanho do corpo em *Drosophila subobscura*. Ph. D. Thesis of Universidade De Lisboa, Faculdade De Ciencias, Departmento De Biologia Animal.
26- Ayala Diego, Harling Caro-Riano, Jean-Pierre Dujardin, Nil Rahola, Frederic Simard and Didier Fontenille (2011): Chromosomal and environmental determinants of morphometric variation in natural populations of the malaria vector Anopheles funestus in Cameroon. Infection, Genetics & Evolution 11(5): 940- 947.
27- Ribeiro, Maria Stefania Przybylsna (2014): Plasticidade fenotipicade caracteristicas morfologicas de *Drosophila cardini*. Dissertacao submetida ao programa de Post-graduacao em Ecologia, Instituto de Ciencias Biologicas, Universidade de Brasilia.
28- Singh, B. N. (2014): Features of the pattern of the chromosomal polymorphism in *Drosophila ananassae*. Cell Biology News Letter 33 (2): 5- 8.

29- Bitner-Mathe, B. C. and David J. R. (2015): Genetic variability and phenotypic plasticity of metric thoracic traits in an invasive drosophilid in America. Genetica, DOI 10.1007/s10709-015-9843-4.

30- Simoes, Pedro, Fragata, I, Lopes-Cunha, M, Lima, M, Kellen, B, Barbaro, M, Santos, M and Matos, M (2015). Wing trait-inversion associations in *Drosophila subobscura* can be generalized within continents, but may change through time. J. Evolutionary Biology, doi: 10.1111/jeb.12739.

31- Fragata, Inˆes Regina Lopes de Mendonca (2015): The Role of History, Chance and Selection During Adaptation: An Integrated Perspective. Ph. D.Thesis of Universidade De Lisboa, Faculdade De Ciencias, Departmento De Biologia Animal.

Guest Lecture:

1- Yadav, Jay P. 2006: Single Nucleotide Polymorphisms: A tool or a tale? KEPLER-2006, from January 28 to January 29, 2006, Organized by J. C. Bose Institute of Life Science, Bundelkhand University, Jhansi.

Techniques learnt:

1- Mini preparation of plasmid DNA.
2- Restriction mapping of plasmid DNA.
3- DNA extraction from *Drosophila*, mouse and human.
4- Quantitation of DNA on gel as well as using spectro-photometer.
5- Southern hybridization (with both non- radioactive and radio-labelled probes).
6- Extraction of Histones and analysis by PAGE.
7- PAGE analysis of LDH and G6PD.
8- DNA sequencing.
9- Amplification of DNA by PCR.
10- Preparation of competent cells (bacterial) and transformation.
11- Polytene chromosome preparation of *Drosophila* and identification of arms.
12- Heat shock response of *Drosophila* larvae- ^{3}H-uridine incorporation in polytene chromosome and auto radiography.
13- Pattern of expression of mutated gene in *Drosophila* by X-gal staining.
14- In situ hybridization on polytene chromosome of *Drosophila melanogaster* to localize P-insertion (FISH).
15- Tissue culture (Human lymphocyte) and chromosome preparations.
16- Human C- and G- banding and karyotyping.
17- Biochemical analysis of Sugar and Lipids.
18- Handling and uses of G. M. Counter and Gamma Scintillation Counter.

Workshop/ Contact Program/ Conference:

1. Participated in 7th contact program in Molecular Biology (Spons. by DST, Organized by Cytogenetics section, Department of Zoology, Banaras Hindu University, Varanasi, from June 24- July 6, 1998).

2. Participated in Workshop on Adaptation and Time (Organized by JNCASR, Bangalore, India, 2002), from August 27- September 4, 2002.
3. Participated in the training workshop "LEAD-er: Lead Educator Capacity Building in Organizing Lead Awareness" (Organized by Institute of Environment & Development Studies, Bundelkhand University, Jhansi, U.P. on November 5, 2008).
4. Participated in National Conference on "Electron Microscopy and Allied Fields" (Organized by Department of Physics, Bundelkhand University, Jhansi, U.P., from January 17- 20, 2009).
5. Participated in International Conference on "Functional Genomics: Prospects and Challenges" (Organized by Cytogenetics section, Department of Zoology, Banaras Hindu University, Varanasi, from October 2- 4, 2010).
6. Participated in International Symposium on "Population Genetics and Chromatin Dynamics" (Organized by Cytogenetics section, Department of Zoology, Banaras Hindu University, Varanasi, from January 22- 23, 2012).
7. Presented talk on *Drosophila* longevity in "Drosophila meeting- 2014" (Organized by Cytogenetics Laboratory, Department of Zoology, Banaras Hindu University, Varanasi, from March 12- 13, 2014).
8. Participated in Training Workshop on Plagiarism softwares- Turnitin & iThenticate by iGroup Infotech India Pvt. Ltd. On December 6, 2014 by Trainer Ms. Chander Kala Chauhan at Bundelkhand University, Jhansi, U.P.
9. Oral presentation in National seminar on "Current Trends in Biological Sciences: Advances and Challenges, organized by Department of Zoology, Janta College, Bakewar, Etawah (U.P.) during December 13-14, 2014 on "Study on stress and longevity related fitness traits in natural populations of *Drosophila ananassae*".
10. Participated in 97th National Workshop on "Radiochemistry and Applications of Radioisotopes" conducted jointly by DAE, BRNS & IANCAS- Trombay and Department of Chemistry, Bundelkhand University, Jhansi during December 4- 9, 2017.
11. **Organized**- Faculty Training Programme on Advance Scientific Research Equipments from- 3rd-6th October, 2018 at Innovation Centre, BU, Jhansi.
12. **Organized**- Research Scholars Training Programme on Advance Research Equipments from 10th-13th October, 2018 at Innovation Centre, BU, Jhansi.
13. **Organized**- "Summer Training Programme on Advanced Agro-Pharma-Biotechnology Research Equipments" (May 27 – June 05, 2019), at Innovation Centre, BU, Jhansi.

Academic Honors:

1. Acted as Judge in M. Sc. (F) seminar series for session 2002- 03.
2. Acted as Judge in KEPLER- 2009 (for Poster Session).
3. Life Member: Indian Society of Cell Biology and
4. Referee/Reviewer of journal– Heredity (Nature Publishing group), UK
   - Current Science, India
   - Biogerontology, Denmark.
   - Journal of Genetics, India.
   - Indian J. Expt. Biology
   - Aging

5. Member Editorial Board: (for 2008-09)
   (i) Journal Exp. Zoology (India)
   (ii) Biochemical and Cellular Archives.

Research Guidance (M. Phil. degree):

Awarded:

1. Swadesh Ranjan Giri, 2008: Evolutionary genetics of *Drosophila ananassae* mutants: study of body size and life-history traits.
2. Renuka, 2008: Quantitative genetics of *Drosophila ananassae* mutants: study of body size by line-cross analysis.
3. Vivek Kumar, 2009: Study of eco-geography and its impact on inversion polymorphisms in *Drosophila ananassae*.
4. Monika Srivastava, 2010: Comparative study of lipid contents in eco-geographically three different populations of *Drosophila melanogaster*.
5. Priyanka Pandey, 2010: Comparative study of sugar contents in three different *Drosophila* species.
6. Tariq Ahmad War, 2010: Study of adaptiveness in eco-geographically three different populations of *Drosophila melanogaster*.
7. Mahipat Singh, 2012: Study of *Drosophila* biodiversity in Jhansi and nearby regions.
8. Amit K. Singh, 2012: Study of effect of chill-coma on *Drosophila ananassae*.
9. Imtiyaz Rashid, 2012: Study of effect of Sodium sulphite on hypoxia in *Drosophila ananassae*.
10. Arif Ibrahim, 2013: Effect of urea feeding on carbohydrate and lipid contents in *Drosophila ananassae*.
11. Azhar Rashid Lone, 2013: Effect of urea on fecundity and pupation site preference in *Drosophila ananassae*.
12. Akanksha Verma, 2013: Long term effect of urea feeding on inversion polymorphism and body size in *Drosophila ananassae*.
    (Note: S.N. 10-12 awarded in Feb. 2015).

Ph. D.

1. Pallav Singh (CSIR-JRF) (Awarded in 2021): Study on longevity and its impact on associated traits in *Drosophila ananassae*.

Administrative Experience: (in Bundelkhand University, Jhansi)

1. Observer, B. Ed. Entrance Examination, June 4, 2006
2. Member, University Stock's Physical Verification Committee, 2006- 07
3. Asst. Centre Superintendent, B. Ed. Entrance Examination, October 8- 9, 2006.
4. Asst. Centre Superintendent, B. Sc. Annual Examination 2008 (March 31- May 21, 2008)
5. Co-coordinator, Housekeeping, Vigyan Bhawan, (from May 25, 2008)
6. Member, Purchase Committee, Department of Zoology, 2008- 10.
7. Co-coordinator, Counselling for various E. T. Courses, 2008- 09 (July 23, 25 & 26, 2008, August 28- 29, 2008, October 4, 2008, etc.).

8. Asst. Centre Superintendent, B. A. Part III and L.L.B. Annual Examinations- 2008 (March 2- April 21, 2009).
9. Convener, Information Bulletin and Guidelines for Entrance Test- 2009.
10. Co-coordinator, INSPIRE (Innovation in Science Pursuit for Inspired Research) Program of DST, Govt. of India, at BU Jhansi- 2010.
11. Centre Superintendent, L.L.B. I Semester Examination- 2009-10 (February 4- 13, 2010).
12. Centre Superintendent, L.L.B. II & IV Semesters Examinations- 2009-10 (March 27- April 16, 2010).
13. Centre Superintendent L.L.B. (I, II & III Years) and B. Sc. (I, II & III Years) Annual Examinations- 2011 (March 14- May 4, 2011).
14. Centre Superintendent (Additional) for B. Sc. IT and CS Annual Examinations 2011-12 at Chandra Shekhar Azad Science and Engg. College, Jhansi (Dec. 17, 2011- January 27, 2012).
15. Coordinator Flying Squad Team for Annual Examination 2013 of Bundelkhand University for Jhansi & Lalitpur regions.
16. Co-coordinator, Central Evaluation of BU, Jhansi for BA part III Examination- 2013 & 2014.
17. In charge of Evaluated answer books of BU, Jhansi, from September 2013- till date-to make available answer books for RTI, scrutiny etc.
18. Member, Pre- Ph. D. course 2014-15 presentation & Evaluation of assignments, BU, Jhansi.
19. Member, Digitalization of Marks-sheets and awards, from January 2015 for the period of 1990- 2014.
20. Co-coordinator, Central Evaluation of BU, Jhansi for BA part II Examination- 2015.
21. Convenor, M. Sc. (Physics) and M. Ed. Admission Counseling (3 days), 2015.
22. Nodal officer, E-Tendering, Bundelkhand University, from Dec 2015.
23. Tour-in charge for M. Sc. I Semester (2017-18)- 47 students- At Ghariyal Breeding Centre (Morena) and Gandhi Zoo (Gwalior).
24. Coding Incharge, BU, Jhansi (for all examinations)- from 2019- 2021.
25. Coordinator, Department of Zoology, from Feb 27, 2021.

(Dr. J. P. Yadav)
Deptt. of Zoology
Bundelkhand Univ., Jhansi