

## BIO-DATA

1. Name : Dr. Gurinder Kaur Walia
2. Designation : Professor
3. Department : Zoology & Env. Sciences
4. Date of Birth : 28.04.68
5. Address for Correspondence : Department of Zoology &  
Environmental Sciences,  
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6. Areas of Specialisation : Molecular Cytogenetics & Toxicology

### 7. Academic Qualifications:

Sr. no.	Degree Held	Year	Board/Univ./ Inst.	% of marks	Div./ Rank	Subjects Taken
1	B. Sc.	1987	Punjabi Univ. Patiala	75.88	First	Botany, Zoology, Chemistry
2	M. Sc.	1989	Punjabi Univ. Patiala	71.66	First	Zoology
3	Ph. D.	1997	Punjabi Univ. Patiala			Life Sciences (Zoology)
4	J.P.T.	1990	Punjab Univ. Chd.			Biology

**8. Membership of Professional Bodies/Organisations**

- i) Life member of Societas Internationalis Odonatologica regional Office in South Asia.**
- ii) Life Member of Punjab Academy of Life Sciences.**
- iii) Life member of Association of Entomologists.**
- iv) Member of Editorial Board of Zoological Sciences Journal.**

**9. Medals/Awards/Honours/Received**

- i) Award for continuous Research Contributions in the field of Odonatology by South Asian Council of Odonatology(SACO), Nagpur in 1998.**
- ii) Honored as “Outstanding Odonatologists of India” South Asian Council of Odonatology (SACO), Nagpur, 2014.**
- iii) Fellow of South Asian Council of Odonatology (FSACO).**
- iv) Associate Editor of “*Fraseria*” journal, South Asian Bulletin of Odonatology (2008 onwards).**

**10. Scholarships: Nil**

**11. Details of Experience: Research/ Teaching**

**i) Fellowship availed:**

<b>S. No.</b>	<b>Type of fellowship</b>	<b>Name of funding agency</b>	<b>Period</b>	<b>Salary (Rs.) Per month</b>	<b>Nature of duties</b>
<b>1</b>	<b>J.R.F. in Project (No. F 3-126 /90 (SR-II)</b>	<b>UGC, Delhi</b>	<b>1990-1991</b>	<b>1200/-</b>	<b>Research / Teaching</b>

2	S.R.F. (No. 9/140 (71) 91-EMR-I	CSIR, New Delhi	1992-1995	2800/-	Research / Teaching
3	R.A. (No. 9/140 (102) 96-EMR-I	CSIR, New Delhi	1996-2001	8000/-	Research / Teaching
4	S.R.A. (No. 13 (7670) 2001-Pool	CSIR, New Delhi	2001-2004	8000+DA +HRA	Research / Teaching
5	Research Scientist (No. SR/WOS-A/LS-122/2003	DST, New Delhi	2004 - 2006	20000/-	Research / Teaching

v) As Teacher:

S. No.	Name of the Inst./Employer	Position Held	Duration	Major Job Responsibilities and Nature of Experience
1.	Punjabi University, Patiala	Assistant Professor	03.10.06 – 03.10.2018	Teaching of M. Sc. (Zool) & M. Sc. ( Env. Sci.) Classes and research guidance to M.Phil. & Ph.D. Students.
2.	Punjabi University, Patiala	Associate Professor	04.10.2018-03.10.2021	Teaching of M. Sc. (Zool) & M. Sc. ( Env. Sci.) Classes and research guidance to M.Phil. & Ph.D. Students.
3.	Punjabi University, Patiala	Professor	04.10.2021-continuing	Teaching of M. Sc. (Zool) & M. Sc. ( Env. Sci.) Classes and research guidance to M.Phil. & Ph.D. Students.

12. Published Work (Please specify numbers only):

a. Research Papers: 81

i) National = 64

**ii) International = 17**

**b. Conference/Seminar Presentation : 51**

**i) Presented: 42**

**ii) Contributed: 9**

**c. Books:**

**i) Original : No**

**ii) Edited: Two chapters in the book *Ecobiology of Aquatic Insect*” edited by Dr. Arvind Kumar and Dr. H. Kaur, Daya Publishers, New Delhi.**

**11. R & D Projects: 03**

**i) CSIR Project entitled “Cytotaxonomic Studies on.....Distribution and conservation.”(2001-2004)**

**ii) DST Project entitled “Linear differentiation studies on odonates of Punjab.”(2004-2007)**

**iii) UGC Start up Project “ Cytogenetical studies on some species of family Libellulidae” (2013 -2015)**

**iv) CSIR Project entitled “DNA barcoding of dragonflies and damselflies (Odonata: Insecta) based on mitochondrial COI gene” (2018 -2023)**

**12. Invited Talks/Articles:**

**i) Articles in Punjabi: 2**

**iii) Invited talk on the topic “Health Hazards of Biomedical Wastes and its Management” at Akal Degree College Mastuana on 09.03.2016.**

**iv) Invited talk on the topic “Pedigree Analysis of Genetic Disorders” at PAU Ludhiana on 03.03.2022.**

- v) Invited talk on the topic “Pedigree Analysis of Genetic diseases and Their Counseling” at HRDC, Guru Nanak Dev University, Amritsar on 17.11.2022.
- vi) Invited talk on the topic “Genetic Disorders and Pedigree Analysis ” at HRDC, Punjabi University, Patiala on 22.07.2022.
- vii) Invited talk on the topic “Sex Chromosomes Abnormalities and Genetic Analysis” at HRDC, Punjabi University, Patiala on 05.09.2023.

**13. Ph.D. Students guided/under guidance (Details) :**

1.	<b>Diana Handa</b>	<b>Fish Toxicology</b>	<b>Completed (2016)</b>
2.	<b>Rohit Kalotra</b>	<b>Fish Toxicology</b>	<b>Completed (2016)</b>
3.	<b>Jaspreet Kaur</b>	<b>Odonata Cytogenetics</b>	<b>Completed (2017)</b>
4.	<b>Harkiran Kaur</b>	<b>Odonata Cytogenetics</b>	<b>Completed (2018)</b>
5.	<b>Sarabjit Singh</b>	<b>Odonata Cytogenetics</b>	<b>Completed (2020)</b>
6.	<b>Monika Devi</b>	<b>Odonata Cytogenetics &amp; Molecular studies</b>	<b>Completed (2021)</b>
7.	<b>Neha</b>	<b>Odonata Cytogenetics &amp; Molecular studies</b>	<b>Completed (2021)</b>
8.	<b>Dalveer Singh</b>	<b>Odonata Cytogenetics &amp; Molecular studies</b>	<b>Completed (2022)</b>
9.	<b>Gagandeep Kaur</b>	<b>Odonata Molecular studies</b>	<b>Submitted (2023)</b>
10.	<b>Hardeep singh</b>	<b>Odonata Cytogenetics &amp; Molecular studies</b>	<b>Registered</b>
11.	<b>Navdeep Singh</b>	<b>Odonata Cytogenetics &amp; Molecular studies</b>	<b>Registered</b>
12.	<b>Asha</b>	<b>Lepidoptera Molecular studies</b>	<b>Registered</b>
13.	<b>Diksha Chopra</b>	<b>Lepidoptera Molecular studies</b>	<b>Registered</b>
14.	<b>Jyoti</b>	<b>Lepidoptera Molecular</b>	<b>Registered</b>

		<b>studies</b>	
<b>15.</b>	<b>Neeraj</b>	<b>Lepidoptera Molecular studies</b>	<b>Registered</b>
<b>16.</b>	<b>Amanpreet</b>	<b>Lepidoptera Molecular studies</b>	<b>Enrolled</b>

**14. M.Phil./M.Tech Students guided :**

<b>1.</b>	<b>Diana Handa</b>	<b>Fish Toxicology</b>	<b>Completed (2012)</b>
<b>2.</b>	<b>Sarabjit Singh</b>	<b>Odonata Cytogenetics</b>	<b>Completed (2013)</b>
<b>3.</b>	<b>Jaspreet Kaur</b>	<b>Odonata Cytogenetics</b>	<b>Completed (2014)</b>
<b>4.</b>	<b>Hilal Ahmad Lone</b>	<b>Odonata Cytogenetics</b>	<b>Completed (2015)</b>
<b>5.</b>	<b>Neha</b>	<b>Odonata Cytogenetics</b>	<b>Completed (2016)</b>
<b>6.</b>	<b>Gagandeep Kaur</b>	<b>Odonata Molecular studies</b>	<b>Completed (2018)</b>
<b>7.</b>	<b>Neeraj</b>	<b>Odonata Molecular studies</b>	<b>Completed (2022)</b>

**15. M.Sc. (Environmental Sciences) Students guided :**

<b>1.</b>	<b>Dalveer Kaur</b>	<b>Effect of Pesticides</b>	<b>Completed (2019)</b>
<b>2.</b>	<b>Jobanpreet Singh</b>	<b>Green Revolution</b>	<b>Completed (2020)</b>

3.	Kanu Priya Kalia	Biomedical Waste Management	Completed (2021)1
4.	Richa Sharma	Covid -19 pandemic	Completed (2022)
5.	Baneet Sidhu	Genetically Modified Crops	Completed (2022)
6.	Parul	Effect of Smog in Delhi	Completed (2023)
7.	Dejan Araya	Climate change awareness among Univ. Students	Completed (2023)

16. List of Papers/Courses taught at P.G. and U.G. Level

S. No.	Paper	Class
1.	Cytogenetics & population genetics	M. Sc. I
2.	Research methodology	M. Sc. II (General paper)
3.	Membrane and Cytoplasm: Structure & Functions,	M. Sc. II (Cytogenetics)
4.	Human and medical genetics,	
5.	Cell differentiation and cellular interactions	
6.	Immunology	M. Sc. II (parasitology)
7.	General Ecology	M. Sc. I ( Env. Sci.)

<b>8.</b>	<b>Aquatic Environment</b>	<b>M. Sc. I ( Env. Sci.)</b>
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**17. Technical Proficiency:**

- 1. Basic cytogenetics, molecular cytogenetic techniques used for the study of insects.**
- 2. Study the genotoxic and histopathological effects of chemicals on fishes.**

**18. List of Papers Published :**

**A. Papers published**

1. Sandhu, R. and Walia, G.K. (1993). Chromosome complements in six species of damselflies. *Chrom. Inform. Serv.*, **54**: 22-23.
2. Sandhu, R. and Walia, G.K. (1994a). Karyological study on four female libellulids from Assam (India). *Fraseria*, **1**: 11-14.
3. Sandhu, R. and Walia, G.K. (1994b). Chromosomal studies of three species of libellulids (Anisoptera : Odonata). *La Kromosomo*, **II-75-76**: 2599-2604.
4. Sandhu, R. and Walia, G.K. (1994c). Karyological studies of four species of damselflies (Odonata : Zygoptera). *Advances in Oriental Odonatology* (Ed. V.K. Srivastava) : 101-109.
5. Sandhu, R., Walia, G.K. and Gulati, S. (1994). Chromosomal studies of three abundantly occurring damselflies from Himachal Pradesh (India). *Advances in Oriental Odonatology* (Ed. V.K. Srivastava) : 94-100.
6. Sandhu, R. and Walia, G.K. (1995a). Male germ cell chromosomes in *Elattonneura atkinsoni* (SEL) from Assam, India (Zygoptera: Protoneuridae). *Notul. odonatol.*, **4** (5): 91-92.

**Impact factor = .305**



7. Sandhu, R. and Walia, G.K. (1995b). A note on the karyotype of *Potamarcha conger* (Anisoptera : Libellulidae). *Chrom. Inform. Serv.*, **58**: 24-25.
8. Sandhu, R. and Walia, G.K. (1996a). Karyological studies of the genus *Rhinocypha* (Zygoptera : Chlorocyphidae). *Fraseria*, **3**: 15-19.
9. Sandhu, R. and Walia, G.K. (1996b). Cytogenetic data on genus *Pseudoagrion* (Zygoptera : Coenagrionidae). *Fraseria*, **3**: 21-25.
10. Sandhu, R. and Walia, G.K. (1997). Chromosome analysis of *Ischnura inarmata* (Coenagrionidae : Zygoptera : Odonata). *Chromosome Science*, **1**: 115-116.
11. Walia, G.K. and Sandhu, R. (1997). Karyotypic studies on five species of *Ischnura* (Zygoptera : Coenagrionidae). *Fraseria*, **4**: 9-12.
12. Walia, G.K. and Sandhu, R. (1998a). "Genetic Counselling" (In Punjabi). Punjabi Vikas Conference, 148-154.
13. Walia, G.K. and Sandhu, R. (1998b). Female karyotypic study of four species of family Libellulidae (Anisoptera : Odonata). *Fraseria*, **5**: 63-67.
14. Walia, G.K. and Lahiri A. R. (1998). On the status of female *Palpopleura sexmaculata* (Fabricius) (Anisoptera : Libellulidae) marked by preapical spot in hindwing. *Fraseria*, **5**: 61-62.
15. Walia, G.K. and Sandhu, R. (1999a). Karyological investigation on *Davidius zallorensis zallorensis* (Gomphidae : Anisoptera : Odonata). *Chromosome Science*, **3**: 43-44.
16. Walia, G.K. and Sandhu, R. (1999b). Karyotypic study of two species of the family Aeschnidae (Anisoptera : Odonata). *Chromosome Science*, **3**: 45-47.
17. Walia, G.K. and Sandhu, R. (1999c). Autosomal fragmentation in five species of the family Coenagrionidae. *Fraseria*, **6**: 15-20.
18. Sandhu, R. and Walia, G.K. (1999). Karyological studies of male and female *Pseudoagrion rubriceps* (Zygoptera : Coenagrionidae). *Bionature*, **19**: 1-5.

19. Walia, G.K. and Sandhu, R. (2002a). Chromosomal data on seven species of genus *Orthetrum* (Libellulidae : Anisoptera : Odonata). *Bionature*, **22** (1): 7-12.
20. Walia, G.K. and Sandhu, R. (2002b). Comparative chromosome data on twenty three species of family Coenagrionidae (Zygoptera : Odonata). *Bionature*, **22** (2): 79-97.
21. Walia, G.K. and Sandhu, R. (2002c). Cytogenetical data on *Neurobasis chinensis chinensis* (Zygoptera : Calopterygidae). *Fraseria*, **7**: 13-16.
22. Walia, G.K. and Sandhu, R. (2002d). Reduction in chromosome number of five libellulid species. *Fraseria*, **7**: 17-20.
23. Walia, G.K. (2005). "Immunoglobulins" (In Punjabi). *Vigayan de Nakash*, **42**: 73-85.
24. Walia, G.K., Sandhu, R. and Goyal., S. (2006). Cytogenetical analysis of *Nepogomphus modestus* from Palampur area of Himachal Pradesh, India (Gomphidae :Anisoptera). *Chromosome Science*, **9**: 99-100.
25. Walia, G.K. (2007a). Cytomorphological studies on *Gynacantha milliardi* Fraser of the family Aeschnidae (Anisoptera: Odonata). *Cytologia*, **72**(1): 57-62.

**Impact factor = .24**

26. Walia, G.K. (2007b). Chromosome variation in three libellulid species due to effect of pollutants in the aquatic ecosystem. *Journal, Punjab Academy Sciences*, **4**(1&2) 73-74.
27. Lahiri, A.R., Sandhu, R. and Walia, G.K. (2007). *Gynacantha pallampurica* sp. Nov. from Northern Himachal Pradesh, India (Odonata : Aeshnidae). *Rec. Zool. Surv. India*, **107** (Part-3):45-49.
28. Walia, G.K. (2008a). The effect of pollutants on the genotype of five species of family Coenagrionidae (Zygoptera: Odonata). "Insect and Aquatic Environment" edited by Dr. Arvind Kumar and Dr. H. Kaur, Daya Publishers, New Delhi pp.133-136.
29. Walia, G.K. (2008b). Main Cytogenetic Characters in the order Odonata. "Insect and Aquatic Environment" edited by Dr. Arvind Kumar and Dr. H. Kaur, Daya Publishers, New Delhi pp.137-162.
30. Walia, G.K. (2008c). Comparative cytological data on twenty-six species of Libellulidae (Anisoptera: Odonata). *Fraseria*, **8**: 77-82.

31. Walia, G.K. (2009). The impact of industrial effluent on moulting and emergence in the damselfly *Ceriagrion coromandelianum* (Fabricius) (Odonata: Zygoptera: Coenagrionidae). *National journal of Life Sciences*, **6**(1): 99-102.
32. Walia, G.K., Kaur, H. and Kaur, J. (2010). Cytogenetical studies on five species of the family Libellulidae (Anisoptera:Odonata). *Hislopi journal*, **3**(2): 149-157.
33. Walia, G.K., Kaur, H. and Kaur, J. (2011) Karyotypic variations in the chromosome complement of *Pantala flavescens* (Fabricius) of the family Libellulidae (Anisoptera: Odonata). *Cytologia*, **76**(3): 301-307.

**Impact factor = .43**

34. Walia, G.K. and Kaur, J. (2011) Karyological study on ten odonate species from Mangalore (Karnataka), India. *Hislopi journal*, **4** (1): 83-88.
35. Walia, G.K. (2012). Chromosomal studies on two species of family Platynmididae (Odonata: Zygoptera). *Hislopi journal*, **5**(1): 55-58.
36. Walia, G.K., Handa, D., Kaur, H. and Kalotra, R. (2013a). Erythrocyte abnormalities in a freshwater fish *Labeo rohita* exposed to tannery industry effluent. *International Journal of Pharmacy and Biological Sciences*, **3**(1): 287-295.

**Impact factor = .555**

37. Walia, G.K., Handa, D., Kaur, H. and Kalotra, R. (2013b). Behavioral and morphological changes in a freshwater fish, *Labeo rohita* exposed to tannery industry effluent. *International Journal of Scientific Research*, **2**(8): 514-516.
38. Walia, G.K., Handa, D., Kaur, H. and Kalotra, R. (2013c). Evaluation of genotoxic potential of tannery industry effluent in a freshwater fish, *Labeo rohita* via chromosomal aberration test. *Indian Journal of Applied Research*, **3**(12): 557-559.
39. Kaur, H., Kalotra, R., Walia, G.K. and Handa, D. (2013a). Genotoxic effects of dyeing industry effluent on a freshwater fish, *Cirrhinus mrigala* by chromosomal aberration test. *International Journal of Pharmacy and Biological Sciences*, **3**(1): 423-431.

**Impact factor = .555**

40. Kaur, H., Kalotra, R., Walia, G.K. and Handa, D. (2013b). Dyeing industry effluent induced behavioral and morphological changes in the fish *Cirrhinus mrigala*. *International Journal of Zoology and Research (IJZR)*, **3**(3): 13-20.
41. Kaur, H., Kalotra, R., Walia, G.K. and Handa, D. (2013c). Studies on induction of erythrocyte abnormalities in *Cirrhinus mrigala* exposed to dyeing industry effluent. *International Journal of Pharma and Bio Sciences*, **4**(4): 414-420.

**Impact factor = .47**

42. Kaur, H., Kalotra, R., Walia, G.K. and Handa, D. (2013d). Genotoxicity in a freshwater fish, *Cirrhinus mrigala* exposed to dyeing industry effluent by using micronucleus test. *International Journal of Recent Scientific Research (IJRSR)*, **4**(8): 1210-1213.
43. Walia, G. K. and Chahal, S. S. (2014). Distribution of Constitutive heterochromatin and Nucleolar Organizer Regions in two species of family Gomphidae (Odonata : Anisoptera). *The Nucleus*, **57**(3): 223-227.
44. Walia, G. K. and Hallan, H. K. (2014). Localization of Nucleolar Organizer Regions in four species of family Coenagrionidae (Zygoptera: Odonata). *Hislopia journal*, **7**(2): 1-6.
45. Walia, G.K., Kaur, H. and Kaur, J. (2015). Karyomorphological variations in the chromosome complement of *Orthetrum taeniolatum* of family Libellulidae (Odonata: Anisoptera). *Cytologia*, **80**(1): 95-99.

**Impact factor = .43**

46. Walia, G.K., Handa, D., Kaur, H. and Kalotra, R. (2015). Ecotoxicological studies on fish, *Labeo rohita* exposed to tannery industry effluent by using micronucleus test. *The Nucleus*, **58**(2):111-116
47. Walia, G.K. (2015). Unique Odonata and fresh water ecosystem. *Biojournal*, **10** (1): 13-19.
48. Walia, G. K. and Handa, D. (2016). Induction of chromosomal aberrations and altered behavioural responses in *Labeo rohita* exposed to tannery industry effluent. *International Journal of Scientific Research*, **5** (2): 32-35.
49. Walia, G. K. and Kalotra, R. (2016). Morphological changes and genotoxicity in *Cirrhinus mrigala* exposed to dyeing industry effluent. *Global Journal for Research Analysis*, **5**(2): 60-62.

50. Walia, G. K., Chahal, S. S. and Babu, R. (2016). Cytogenetic report on *Gynacanthaeschna sikkima* from India (Odonata: Aeshnidae). *Odonatologica*, **45**(1/2):87-94.

**Impact factor = .718**

51. Walia, G. K., Gill, J. K. and Hallan, H. K. (2016). C-Banding and AGNOR Staining on *Neurobasis chinensis chinensis* (Linnaeus) of Family Calopterygidae from Himachal Pradesh, India (Odonata: Zygoptera). *Cytologia*, **81**(2):175-178.

**Impact factor = .913**

52. Walia, G. K. and Hallan, H. K. (2016). Cytogenetic report on ten coenagrionid species (Coenagrionidae: Zygoptera: Odonata) from Harike Wetland, Punjab, India. *Hislopia journal*, **9**(1/2):13-19.

53. Walia, G. K. and Katnoria, N. (2017). Linear characterization of chromosomes in two species of family Euphaeidae (Odonata: Zygoptera). *International journal of Entomology Research*, **2**(4):75-78.

54. Walia, G. K. and Devi, M. (2018). Distribution of constitutive heterochromatin in four species of genus *Copera* of family Platycnemididae (Odonata: Zygoptera) from India. *International journal of Life Sciences*, **6**(2): 457-461.

55. Walia, G. K. and Chahal, S. S. (2018). Cytogenetic characterization of *Macromia moorei* Selys, 1874 of family Macromiidae (Odonata: Anisoptera) from India by C-banding, silver nitrate staining and sequence specific staining. *International journal of Life Sciences Research*, **6**(2): 64-68.

56. Walia, G. K., Chahal, S. S. and Somal D. S. (2018). Chromosome observations based on C-banding, Ag-NOR and sequence specific staining in two *Anax* species from India (Odonata: Aeshnidae). *Odonatologica*, **47**(1/2): 145-160.

**Impact factor = .769**

57. Walia, G. K., Katnoria, N. and Gill, J. K. (2018). Variation in chromosome complement and linear characterization of chromosomes in *Libellago lineata lineata* of family Chlorocyphidae (Odonata: Zygoptera). *Indian journal of Entomology* **80**(3): 737-740.

58. Walia, G. K. and Katnoria, N. (2018). Morphological variation in the chromosome complement of *Neurobasis chinensis chinensis* of family Calopterygidae (Odonata: Zygoptera). *International journal of Life Sciences Research*, **6**(4): 260-266.
59. Walia, G. K. and Chahal, S. S. (2019). Cytogenetic report on *Cordulegaster brevistigma* and *Watanabeopetalia atkinsoni* (Odonata: Cordulegastridae, Chlorogomphidae), with brief review of size of X element in the allied families Cordulegastridae, Corduliidae and Macromiidae. *Odonatologica*, **48**(1/2): 101-113.

**Impact factor = .769**

60. Walia, G. K. and Dhillon, G. K. (2019). Mitochondrial COI gene barcoding of four species of genus *Ischnura* (Odonata: Coenagrionidae) from India. *Journal of Advanced Zoology*, **40**(1): 69-77.
61. Handa, D. and Walia, G. K. (2019). Quantitative and semi- quantitative analysis on gills of a freshwater fish, *Labeo rohita* (Hamilton-Buchanan, 1822) exposed to tannery industrial effluent using histopathology as biomarker. *International Journal of Research and Analytical Review*, **6**(1): 980-989.
62. Walia, G. K. and Somal D. S. (2020). Cytogenetic report on *Gynacantha subinterrupta* Rambur, 1842 of family Aeshnidae (Odonata: Anisoptera) from Himachal Pradesh, India. *Journal of Advanced Zoology*, **40**(2): 128-135.
63. Walia, G. K. and Devi, M. (2020). Chromosome complement and distribution of C-heterochromatin in two species of genus *Coeliccia* of family Platycnemididae from Himachal Pradesh, India (Odonata: Zygoptera). *The Nucleus*. <https://doi.org/10.1007/s13237-020-00314-3>.
64. Walia, G. K. and Devi, M. (2020). Cytogenetic data of family Disparonurinae (Odonata: Zygoptera: Platycnemididae) based on distribution of C-heterochromatin, AgNOR's and AT-GC regions. *International Journal of Entomology Research*, **2**(5): 70-73.
65. Walia, G. K. and Chahal, S. S. (2020). Linear differentiation of chromosomes of anisogomphus bivittatus selys, 1854 from India (odonata: anisoptera: gomphidae). *International Journal of Entomology Research*, **2**(5): 120-122.

66. Sidhu, A K., Walia, G. K. and Mahil, J. (2021). Diversity of winter-flying butterflies in Shiwaliks of Hamirpur district (Himachal Pradesh). Accepted in *International Journal of Entomology Research*, **6**(2): 99-103.
67. Walia, G. K. and Singh, H. (2021). First cytogenetic report of four species of family Libellulidae (Odonata: Anisoptera) from India. Accepted in *International Journal of Entomology Research*, **6**(2): 223-227.
68. Walia, G. K., Chahal, S. S. and Singh, N. (2021). Cytogenetic studies on three species of genus *Burmagomphus* of family Gomphidae (Odonata: Anisoptera) from India. *International journal of Zoological Investigations*, **7**(1): 272-277.
69. Walia, G. K. and Katnoria, N. (2021). Chromosome characterization of four Calopterygid damselflies with cytogenetic review of family Calopterygidae (Odonata: Zygoptera). *Journal of Advanced Zoology*, **42**(1): 107-117.
70. Somal D. S. and Walia, G. K. (2021). Cytological review and first cytogenetic report on three species of family Macromiidae (Odonata: Anisoptera) from India. *International journal of Zoological Investigations*, **7** (2): 447-452.
71. Katnoria, N. and Walia, G. K. (2021). A cytological study of Euphaeid damselflies (Odonata: Zygoptera) from India. *Chromosome Science*, **24**: 55-61.
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