

## **PERSONAL PROFILE**

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**Google Scholar Citation** : 355 (h-index: 9.0)

**Research Gate Citation** : 257 (Index: 12.35); [https://www.researchgate.net/profile/Nayan\\_Roy3/2](https://www.researchgate.net/profile/Nayan_Roy3/2)

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## **Academic Information:**

### **Academic Score:**

Name of Examination	Name of the Board	Year of Passing	Division	Percentage of Marks
M.P.	W.B.B.S.E	2001	1 <sup>ST</sup>	81.75%
H.S.	W.B.C.H.S.E	2003	1 <sup>ST</sup>	72.70%
B.Sc.(ZOOH)	B.U.	2006	1 <sup>ST</sup>	61.62%
M.Sc.(ZOOLOGY)	B.U.	2008	1 <sup>ST</sup>	75.50%

❖ **M. Sc. Special Paper:** Ecology & Environment

❖ **M. Sc. Project Work:** “Preliminary observations of diversity and food web of mosquito immature and its insect predators in rice-fields” with Hossain, A. and Dutta, M.; 2008 under T. C. Banerjee and G. Aditya, Department of Zoology, The University of Burdwan.

❖ **Special Qualifications:**

1. **National Eligibility Test (NET, June, 2008): CSIR (JRF),** Roll No.-317112 (**Life Sciences**)
2. **State Level Eligibility Test (SET, 2008):** Roll No.-G140801 (SC) (**Life Science**)
3. **Ph.D. Course Work** in Zoology, 2010-2011, Roll No. CW ZOO/2011/28, from Department of Zoology, University of Burdwan.
4. **Ph.D. on Plant-insect interactions** from Burdwan University from 02.01.2009 to 20.08.2013 & Ph D. Registration No: Regn /Zoo/Sc/380. Dated: 02/06/2011.
5. **Ph.D. thesis** entitled “**Phytochemicals in the sunflower *Helianthus annuus* L. (CV. PAC-36) and their role in the interactions with defoliator, *Diacrisia casignetum* Kollar (Lepidoptera : Arctiidae)**” **awarded on 20<sup>th</sup> February 2014.**  
**URL: <http://hdl.handle.net/10603/121484>**

❖ **Area of Specialization:** Chemical Ecology of Plant-Insect Interactions & climate smart ecological pest management.

❖ **PhD Research Guidship in Science (Zoology) from BU [No. R-PhD/ Registration/Sc/Zoo/126; Dated: 07/12/2021.**

### **Doctoral Research:**

1. Worked as a CSIR Junior Research Fellow in Department of Zoology, University of Burdwan from 02.01.2009 to 31.03.2010 on “Phytochemicals in the sunflower (*Helianthus annus* L.) and their ecological Implications on the insect herbivore, *Diacrisia casignetum* Kollar” under the guidance of Dr. A. Barik, Department of Zoology, University of Burdwan.
2. Worked as a Part-time Research fellow (from 01.04.2010) under a project entitled “Phytochemicals in the sunflower, *Helianthus annus* L. (cv. PAC-36) and their role in the interactions with defoliator, *Diacrisia casignetum* Kollar (Lepidoptera: Arctiidae)” under the guidance of Dr. A. Barik. Department of Zoology, University of Burdwan.

### **Research Skills:**

1. **Technical Skills:** Microscopy (Light, dark field, fluorescence, Confocal and phase contrast), Electron Microscopy (Scanning and transmission), UV-Vis Spectrophotometry, Thermal gravimetric analysis (TGA), Chromatography (CC, TLC, HPLC, GC-FID, GLC, GC-MS and NMR) etc.
2. **Statistical Skills:** Significance tests, ANOVA, Multivariate regression analysis, PCA, Software packages used: SPSS statistical software 16.0, Origin pro 7.5, Chemoffice 2004, etc.
3. **Other Skills:** MS word, Excel, Power point presentation, Photoshop, Corel Draw etc.

**Professional activities:** Assistant Professor of Zoology (Emp. No. 01020847), M.U.C. Women’s College (under The Burdwan University), Department of Zoology, Burdwan-713104, West Bengal, India from 1<sup>st</sup> April 2010 to Present.

1. Assistant Professor (Stage-I): from 1<sup>st</sup> April, 2010 to 31<sup>st</sup> March 2014.
2. Assistant Professor (Stage-II): from 1<sup>st</sup> April, 2014 to 25<sup>th</sup> September 2019.

#### Minor/ Major Research projects completed:

1. **Minor Research project:** UGC MRP on “**Phytochemicals in *Chorchorus capsularis* (cv. Sonali; JRC-321) leaves and their role in the interactions with the defoliator, *Diacrisia casignetum* Kollar (Lepidoptera: Arctiidae)**” No.F. : PSW-025/13-14 dated: 18-Mar-2014 (Rs. 3,25,000/-).
2. **Major Research project:** WBDST approved on “**Green Pest Management (GPM) of *Spilosoma obliqua* Walker (Lepidoptera: Arctiidae): a major pest of Sesame (*Sesamum indicum* L., cv. Rama).**” File No.: ST/P/S&T/1G-29/2018; Memo No.: 214(Sanc.) ST/P/S&T/1G-29/2018 Date: 19/02/2019 (Rs. 6,80,000/-).

#### ❖ Professional/Educational Experience:

1. Orientation Programme (94<sup>th</sup>) at ASC, University of Burdwan, 24<sup>th</sup> January to 20<sup>th</sup> February, 2014.
2. Refresher Course (2<sup>nd</sup> RC in Biological Science) at ASC, University of Burdwan, 23<sup>rd</sup> September to 13<sup>th</sup> October, 2015.
3. Refresher Course (RC in Environmental Science & Disaster Management) at ASC, Ranchi University, 12<sup>th</sup> September to 25<sup>th</sup> September, 2019.
4. Refresher Course (RC in Environmental Science) at ASC, University of Burdwan, 9<sup>th</sup> February to 22<sup>nd</sup> February, 2021.

#### ❖ Academic Membership:

- ✧ Life member of **Zoological Association, Burdwan**, from 2010.
- ✧ Life member of **ASSOCIATION FOR ADVANCEMENT OF ENTOMOLOGY** (Reg. No. 146/75) from 2019.

#### ❖ Journal Editorial Board Member:

1. *Journal of Entomology and Zoology Studies* (Associate Editor from 13/08/2014)
2. *International Journal of Fauna and Biological Studies* (Associate Editor from 12/03/2015)
3. *International Journal of Pure & Applied Biosciences* (Associate Editor, 2016)
4. *International Journal of Zoology Studies* [UGC Approved] (Associate Editor from 2017)
5. *International Journal of Entomology Research* [UGC Approved] (Associate Editor from 2017)
6. *Journal of Biological Science* [Science Alert] (Technical Editor from 28/2/2017)
7. *International Journal of Zoological Research* [Science Alert] (Technical Editor from 28/2/2017)
8. *International Journal of Animal Research* [USA] (Associate Editor from 2017)
9. *Journal of Entomology* [Science Alert] (Technical Editor from 26/1/2018)
10. *International Journal of Agricultural Research* [Science Alert] (Technical Editor from 26/1/2018)
11. *International Journal of Biological Chemistry* [Science Alert] (Technical Editor from 26/1/2018)
12. *International Journal of Agricultural, Environment and Bioscience* (Associate Editor from April, 2018)

- **Reviewer of the Journal: Research on World Agricultural Economy (Nan Yang Academy of Sciences Pte Ltd. <https://ojs.nassg.org/index.php/RWAE>) on 14.01.2022**

#### ❖ Seminar Organized:

1. Organizing committee member of UGC sponsored national seminar on Resurgent vector-borne diseases and climate change: a threat to mankind on 15<sup>th</sup> & 16<sup>th</sup> December, 2010 in Department of Zoology, Maharajadhiraj Uday Cahand women's college, Burdwan, West Bengal, India.
2. Academic committee member of an International Conference (Web based) on Engineering biotic interactions in the light of social applicability on 7-9<sup>th</sup> August, 2020 in Department of Botany, Maharajadhiraj Uday Cahand women's college, Burdwan, West Bengal, India.
3. Convener of a state level webinar on “Mosquito Borne Diseases, Their Control and Perspectives of Environmental Health on 4<sup>th</sup> September, 2020 in Department of Zoology, Maharajadhiraj Uday Cahand women's college, Burdwan, West Bengal, India.

#### ❖ Invited Lecture:

1. Delivered a lecture on “Animal Behaviour” on 23<sup>rd</sup> May, 2021 (10 AM-11 AM) in the “**Faculty Exchange Programme**” (May 10-June 19, 2021) organized by the Department of Zoology, Bejoy Narayan Mahavidyalaya, Itachuna, Hooghly-712 147, West Bengal, India.

#### ❖ Journal MS Reviewer:

- a. MS on “Tropical house hold ants.....in penang, Malaysia”, of *Journal of Entomology and Zoology Studies*, ID: 4-1-41 IJEZS (2016).
- b. MS on “Gastropod living on three genera of macroalgae”, of *Pakistan Journal of Biological Science*, ID: 82625-PJBS-ANSI (2017).

- c. MS on “Effect of micronutrient Zinc and Boron on the incidence of soil pest on potato Ref.: Ms. No. PZOS-D-17-00072; **Proceedings of the Zoological Society** (2017).
- d. MS on “Temperature Effects on the Population Dynamics of the Rice Black Bug *Scotinophara coarctata* (Fabricious)”, of **JOURNAL OF AGRICULTURAL SCIENCE AND TECHNOLOGY; Islamic Republic of Iran**, Code No: J. 15391-97 (2018).
- e. MS on ‘Effect of Chemical Seed Protectants on Quality Parameters of Red Gram Seed against Pulse Beetle Under Ambient Storage’ MS Id: 250720185839; August, 2018; [www.premierpublishers.org](http://www.premierpublishers.org)
- f. MS on ‘**Bionomics of the Jute Hairy Caterpillar, *Spilarctia obliqua* (Walker)**’ by MS Id: **Israel Journal of Entomology** published by the Entomological Society of Israel ; Date: 16/02/21. **Corresponding author:** Md. Sohanur Rahman (E-mail:sohanbau2010@gmail.com; Orcid id: <https://orcid.org/0000-0001-6631-0552>; Department of Entomology, Bangladesh Jute Research Institute,Dhaka, Bangladesh.
- g. MS on “Diversity of wintering avifauna throughout the heterogeneous aquatic habitats of Bankura districts, West Bengal, India” Reviewed for **Journal of Threatened Taxa** on 25.10.21.

#### ❖ UG Research Guidance (Project Work):

1. Under Graduate (Zoology Hon’s) project on “Particulate Matter Air Quality Mapping Using Thin Plate Technique” in 2011-2012.
2. Under Graduate (Zoology Hon’s) project on “Air Quality Mapping by Suspended Particulate Matter (PM) in Urban and Rural Areas Road side and Interior side of Burdwan District” in 2012-2013.
3. Under Graduate (Zoology Hon’s) project on “Zooplankton diversity in fresh water pond ecosystem” in 2013-2014.
4. Under Graduate (Zoology Hon’s) project on “Control strategy of a stored grain pest, *Sitophilus oryzae* by UV irradiation” in 2014-2015.
5. Under Graduate (Zoology Hon’s) project on “Control strategy of a stored grain pest, *Calosobruchus maculatus* by different physical means” in 2015-2016.
6. Under Graduate (Envs) project on “Air Pollution by Road Vehicles” in 2011-2016 (for 6 years).
7. Under Graduate (Zoology Hon’s) project on “Control strategy of a stored grain pest, *Sitophilus oryzae* by different botanicals” in 2016-2017.
8. Under Graduate (Zoology Hon’s) project on “Control strategy of a stored grain pest, *Calosobruchus maculatus* by different botanicals” in 2017-2018.
9. Under Graduate (Zoology Hon’s) Review on “Modern approaches of pest management” in 2017-2018.
10. Under Graduate (Zoology Hon’s) Review on “Evolution of pesticides for pest management” in 2017-2018.
11. Under Graduate (Zoology Hon’s) Review on “Stored grain pests and their management” in 2017-2018.
12. Under Graduate (Zoology Hon’s [Sem II]) Review on “Larval forms of Echinoderms” from 2018 onward.

#### ❖ PhD Research Guidance:

1. Bio-ecology and management of *Leptocoris acuta* by S. Dutta (SET, Assistant Professor) under Dr. A. Hossain, Assistant Professor, SKBU, from 2019.
2. Population ecology and management of SGPs by N. Chowdhury (CSIR JRF), BU, from 02.07. 2022.
3. Population ecology and management of PCPs by P. Nandi (NET LS), BU, from 02.07. 2022.
4. Population ecology and management of GFP by B. Sarder (GATE), BU, from 02.07. 2022.
5. Population ecology and management of WMP by N. Kamal (NET, Assistant Professor) BU, from 01.06. 2022.

#### ❖ UG Skill Development Add-on Course: 2015-2018

Course on “Household stored grain pest management through green approaches”

##### ❖ Technical exposure:

- Designing of new insect management strategies
- Mass rearing of insects for nutritional and population ecology study
- Biological and demographic studies of insects
- Biochemical studies of host plants and insects
- Solvent extraction, purification and analysis of phyconstituents
- TLC (Thin Layer Chromatography), Column chromatography, Spectrophotometry,
- GC-FID, IR, GC-MS and their quantification from chromatogram
- New biorationals formulation and application
- Computer skills: MS Office
- Knowledge of statistical software – SSPS.

##### ❖ Research Interest:

- Crops and Weed management
- insect pest management
- Insect ecology, behaviour and biology
- Insect demography, population dynamics, nutritional ecology
- Alternate of pesticides
- Triple E concept of pest management, ET concept
- IPM, GPM, AESA-IPM, EPM, ESS-EE-ESGPM (E<sup>3</sup> Strategy)

❖ List of Publication:

- Roy, N. and Barik, A. (2010). The role of volatiles in tritrophic interactions. **Environment and Ecology**, 28(1): 352–355. ISSN 0970-0420
- Basu, M., Roy, N. and Barik, A. (2010). Seasonal abundance of net zooplankton correlated with physico-chemical parameters in a fresh water ecosystem. **International Journal of Lakes and Rivers**, 3(1): 67–77. ISSN 0973-4570
- Roy, N. and Barik, A. (2010). Green synthesis of silver nanoparticles from the unexploited weed resources. **International Journal of Nanotechnology and Applications**, 4(2): 95–101. ISSN 0973-631X
- Roy, N. and Barik, A. (2010). Allelopathic potential of *Ludwigia adscendens* (L.) on germination and seedling growth of green gram, *Vigna radiata* (L.) cultivated after rice. **Agricultural Science Digest**, 30(3): 192–196. ISSN 0253-150X
- Roy, N. Basu, M. Chattopadhyay C. and Barik A. (2011). Allelopathic effects of rice field weed, *Ludwigia adscendens* (L.) on germination and seedling growth of three economic crop plants. **International Journal of Horticulture and Crop Science Research**, 1(1): 15–20. ISSN 2249-4243
- Roy, N., Laskar, S. and Barik, A. (2012). The attractiveness of odorless esterified fatty acids to the potential biocontrol agent, *Altica cyanea*. **Journal of Asia-Pacific Entomology**, 15(2): 277–282. ISSN 1226-8615 (Elsevier Pub.)
- Roy, N. and Barik, A. (2012). The Impact of Variation in Foliar Constituents of Sunflower on Development and Reproduction of *Diacrisia casignetum* Kollar (Lepidoptera: Arctiidae). **Psyche**, vol. 2012: Article ID 812091, 9 pages, doi:10.1155/2012/812091. ISSN 0033-2615
- Mukherjee, A., Sarkar, N., Roy, N. and Barik, A. (2012). Green Approach of Gold Nanoparticle Synthesis from Sunflower Leaf. **International Journal of Nanotechnology and Applications**, 6 (2): 89–96. ISSN 0973-631X
- Roy, N. and Barik, A. (2013). Influence of four host plants on feeding, growth and reproduction of *Diacrisia casignetum* (Lepidoptera: Arctiidae). **Entomological Science**, 16(1): 112-118. doi:10.1111/j.1479-8298.2012.00546.x. ISSN 1479-8298 (Wiley Pub.)
- Roy, N. and Barik, A. (2012). Alkanes used for host recognition by the arctiid moth *Diacrisia casignetum* Kollar. **Journal of Entomological Research**, 36(4): 345-50. ISSN 0378-9519
- Roy, N., Laskar, S. and Barik, A. (2012). Determination of n-alkane profile through developmental state of sunflower leaves. **The South Pacific Journal of Natural and Applied sciences**. 30: 72-76. ISSN 1838-837X
- Roy, N., Laskar, S. and Barik, A. (2013). Amino acids through developmental stages of sunflower leaves. **Acta Botanica Croatica**, 72(1): 41-51. doi: 10.2478/v10184-012-0009-5. ISSN 0365-0588
- Roy, N., Chattopadhyay, C. and Barik, A. (2013). Assessing the Attractiveness of Odorous Esterified Fatty Acids to Arctiid Moth, *Diacrisia casignetum* Kollar. **The Ecoscan**, 3: 87-91. ISSN 0974-0376
- Roy, N. and Barik, A. (2014). Long-chain fatty acids: Semiochemicals for host location by the insect pest, *Diacrisia casignetum*. **Journal of the Kansas Entomological Society**. 87(1): 22-36. ISSN 0022-8567
- Roy, N. (2014). Role of *Chorchorus capsularis* phytochemicals on the feeding dynamics of *Diacrisia casignetum* Kollar (Lepidoptera: Arctiidae). **Journal of Entomology and Zoology Studies**. 2 (4): 227-236. ISSN 2349-6800
- Roy, N. (2015). Life table and population parameters of *Diacrisia casignetum* Kollar (Lepidoptera: Arctiidae) on jute, *Chorchorus capsularis* (cv. Sonali; JRC-321), leaves. **International Journal of Fauna and Biological Studies**. 2(3): 23-29. ISSN 2347-2677
- Roy, N. (2015). Host phytochemicals in regulation of nutritional ecology and population dynamics of *Podontia quatuordecimpunctata* L. (Coleoptera: Chrysomelidae). **International Journal of Horticulture**. 5(4): 1-11. (doi: 10.5376/ijh.2015.05.0004). ISSN 1927-5803
- Roy, N., Chowdhury, P., Dutta, S., Garain, R. and Das, T. (2015). Air quality analysis by suspended particulate matter in urban and rural areas of burdwan district. **JAST –A reviewed multidisciplinary research journal**. 1(1):88-91. ISSN:2395-4353
- Roy, N., Nag, D. and Chowdhury, S. K. (2015). Bottom up Phytofabrication of Silver Nanoparticles and Their Antimicrobial Activity. **Biomaterial and Biomedicine**. 5(37): 1-14. (doi: 10.5376/bb.2015.05.0037).
- Dutta, S. and Roy, N. (2016). Life table and population dynamics of a major pest, *Leptocoris acuta* (Thunb.) (Hemiptera: Alydidae), on rice and non-rice system. **International Journal of Pure & Applied Bioscience**. 4(1):199-207. (doi: http://dx.doi.org/10.18782/2320-7051.2202). ISSN: 2320 – 7051
- Sen, D., Dey, P., Pal, K., Mondal, R., Sain, A. and Roy N. (2016). Potency of UV Irradiation in Management of Rice Weevil, *Sitophilus oryzae* L. **JAST –A reviewed multidisciplinary research journal**. 2(1):61-67. ISSN:2395-4353
- Parui, A. and Roy, N. (2016). Ecofriendly and sustainable management of *Spilosoma obliqua* Walker on sesame (*Sesamum indicum* L.) crops by new botanicals. **Journal of Entomology and Zoology Studies**. 4 (6): 349-354. ISSN 2349-6800
- Roy, N. (2016). Life table of a bio-control agent *Altica cyanea* on the weed, *Ludwigia adscendens*. **FOCUS: An annual multidisciplinary refereed journal**. 7: 135-144. ISSN: 2278-1501
- Roy, N. (2017). Life Table and Nutritional Ecology of *Epilachna vigintioctopunctata* Fab. (Coleoptera: Coccinellidae) on Three Host Plants. **International Journal of Horticulture**. 7(2): 7-19. (doi: 10.5376/ijh.2017.07.0002). ISSN 1927-5803
- Mukherjee M., Mondal S., Biswas D., Das D. and Roy N. (2017). Eco-friendly and Sustainable Management of Pulse Beetle, *Callosobruchus maculatus* Fabr. **JAST –A reviewed multidisciplinary research journal**. 3(1):14-27. ISSN:2395-4353
- Dutta S. and Roy N. (2017). Population Dynamics and Host Selection of a Major Pest, *Leptocoris acuta* (Thunb.) in primary and secondary hosts. **Proceedings on UGC-SAP sponsored national seminar, KU**, Pp. 22-25. ISBN: 987-81-9-32401-2-0.
- Roy, N. (2018). Population Dynamics Study for Triple-E Sustainable Management of a Major Pest, *Leptocoris oratorius* Fabricius (Hemiptera: Alydidae). **International Journal of Entomology Research**. 3(2): 152-158. ISSN: 2455-4758
- Dutta, S. and Roy, N. (2018). Host preference and population dynamics of a Major Pest, *Leptocoris acuta* (Thunb.), for their Ecological Management. **International Journal of Biology Research**. 3(2): 31-39. ISSN: 2455-6548
- Dutta, S. and Roy, N. (2018). Population Dynamics and Host Preference of a Major Pest, *Scripophaga incertulus* Walker (Pyralidae: Lepidoptera). **International Journal of Advance Science and Research**. 3(2): 120-127. ISSN: 2455-4227
- Roy, N. (2018). Host preference and potency of *Altica cyanea* as a bio-control agent of major rice field weeds, *Ludwigia* spp. **International Journal of Zoology Studies**. 3(2): 227-231. ISSN: 2455-7269
- Roy, N. (2019). Jute leaf physicochemical cues mediated behavioral responses of *Diacrisia casignetum* Kollar. **Agricultural Research**. 8: 287-296. <https://doi.org/10.1007/s40003-018-0362-2>. ISSN: 2249-7218 (Springer Pub.)
- Roy, N. (2019). Life table and economic threshold concept for ecologically sustainable management of *Diacrisia casignetum* Kollar (Lepidoptera: Arctiidae) on Jute. **Entomon**. 44(2): 103-110. <https://doi.org/10.33307/entomon.v44i.436>. ISSN: 0377-9335.
- Mobarak, S. H., Roy, N. and Barik, A. (2020). Two-sex life table and feeding dynamics of *Spilosoma obliqua* Walker (Lepidoptera: Arctiidae) on three green gram cultivars. **Bulletin of Entomological Research**. 110(4): 219-230. IF: 1.814 (2019). <https://doi.org/10.1017/S0007485319000452> ISSN: 0007-4853 (Cambridge University Press)
- Roy, N. (2020). Population ecology and ETs based time series for climate smart pest management of *Spilosoma obliqua* Walker. **Entomon**. 45(1): 15-30. <https://doi.org/10.33307/entomon.v45i1.500>. ISSN: 0377-9335
- Dutta, S., Hossain A. and Nayan Roy (2020). Population ecology and economic thresholds for sustainable management of *Leptocoris acuta* (Thunb.) on three rice cultivars. **Annals of Entomology**, 38(01-02): 55-76. <https://connectjournals.com/01462.2020.38.55>. ISSN 0970-3721



36. Roy, N. (2020). Green management of rice weevil, *Sitophilus oryzae* L. (Coleoptera: Curculionidae) by new botanicals. *Journal of Entomological Research* 44(4): 565-574. <https://doi.org/10.5958/0974-4576.2020.00095.X>. ISSN: 0378-9519
37. Roy, N. (2020). Modern Strategies of Integrated Pest Management: A Review. *JAST –A reviewed multidisciplinary research journal*. 4(1):1-12. ISSN:2395-4353
38. Roy, N. (2021). Population dynamics and economic thresholds based time series for smart pest management of sesame. *International Journal of Tropical Insect Science*. PP1-12. <https://doi.org/10.1007/s42690-021-00437-3>. IF: 0.774 (Syr IF: 1.071; 2020). ISSN: 1742-7584 (Springer Pub.)
39. Roy, N. (2021). Two-sex life table and host preference studies of *Bactrocera dorsalis* Hendel (Diptera: Tephritidae). *Entomon*, 46(1): 11-24. <https://doi.org/10.33307/entomon.v46i1.582> E. ISSN: 0377-9335
40. Roy, N. (2021). Synergism in host selection behaviour of three generalists towards leaf cuticular wax of sesame cultivars. *Neotropical Entomology* 50 (5):812–827. IF: 1.434 (Syr IF: 1.46; 2020). <https://doi.org/10.1007/s13744-021-00892-0>. e-ISSN: 1678-8052 (Springer Pub.)
41. Roy, N. (2021). Population Dynamics and Nutritional Ecology Based Economic Threshold Calculation for Sustainable Management of *Spilosoma obliqua* Walker on Sesame Cultivars. *Tropical Ecology*. PP1-9. ID 179 . IF: 0.850 (Syr IF: 1.137; 2020). <https://doi.org/10.1007/s42965-012-00179-w>. e-ISSN:5643295 (Springer Pub.)
42. Dutta, S., Hossain A. and Nayan Roy (2021). Rice cultivar selection against *Leptocoris acuta* (thunb.) and their economic thresholds based ecological management. *Journal of Entomological Research*. 45(3): 405-414. <https://doi.org/10.5958/0974-4576.2021.00064.5> (MHP Pub.). ISSN: 0378-9519.
43. Chowdhury Swapan Kumar, Nayan Roy and Indrani Mukherjee (2021). Antimicrobial activity of silver nanoparticles synthesized from fruit epicarp of *Glycosmis pentaphylla*. *International Journal of Pharma and Bio Sciences*, 12(4): 35-46. <https://doi.org/10.22376/ijpbs.2021.12.4.B.35-46>. (Publisher: Ubitech Solutions). ISSN 0975-6299.
44. Mondal Swamrindu, Roy Nayan (2022). Pharmacognostic and Phytochemical Evaluation of Leaf of *Jatropha nana* var. *bengalense* C.H. Rahaman and S. Mondal: An Endemic Member of Euphorbiaceae. *Pharmacognosy Research*, 14(2):204-210. <https://doi.org/10.5530/pres.14.2.29>. (Publisher: Phcog.net).
45. Nayan Roy (2022). Population ecology and economic thresholds-based time series for climate smart pest management of *Spilosoma obliqua* Walker (Lepidoptera: Arctiidae) on three sesame cultivars. *The Journal of Basic and Applied Zoology*. (2022) 83:19, PP1-13. <https://doi.org/10.1186/s41936-022-00283-w>. (Springer Pub.)
46. Dutta S., Hossain A. and Nayan Roy (2022). Laboratory assessment of role of epicuticular waxes of two endemic rice cultivars in attraction and oviposition of *Leptocoris acuta* (Hemiptera: Alydidae). *Proceedings of the Zoological Society*. PP 1-12. <https://doi.org/10.1007/s12595-022-00437-2>. (Springer Pub.)
47. Nayan Roy and Mobarak S.H. (2021). Behavioral responses of a generalist pest, *Spilosoma obliqua* Walker, towards the leaf surface wax chemicals of three types of jute crop and implications in pest management. Research Square. <https://doi.org/10.21203/rs.3.rs-1148811/v1>.
48. Nayan Roy (2022). Population Ecology and ET Based Climate Smart Pest Management of a Generalist *Spilosoma obliqua* Walker on Twenty Economic Crops. *The Journal of Basic and Applied Zoology*. (Under Review).
49. Nayan Roy (2022). Four Notorious Generalist Pests as New Biocontrol Agent against Two Exotic Noxious Weeds: Behavioural and Population Based Comparative Study. *Journal of Tropical Agriculture*. (Under Review).
50. Nayan Roy (2022). Host Selection Behaviour of Generalist and Specialist Insect Pests to Leaf Cuticular n-Alkanes and Free Fatty Acids. *Applied Entomology and Zoology* (Under Review).
51. Nayan Roy (2022). Trap Crop Selection and ET Based Ecological Management of *Spilosoma obliqua* Walker for Climate Smart Agriculture of Sesame. *Arthropod plant interactions* (Under Review).

#### ❖ Book Chapter:

1. Roy, N. (2018). Agro Ecosystem Analysis and Ecosystem Service based Ecologically Sustainable Management of Rice Field Weed, *Ludwigia spp.*, by its Classical Bio-control Agent *Altica cyanea* Weber. In: ENV Books (Plant Response to Environmental Stress), Page: 60-89 (Chapter-5); Edited by: Dr. Alka Chauhan; Dr. Pawan Kumar 'Bharti' and Dr. Avnish Chauhan; Edition: 2018; Publisher by: Discovery Publishing House Pvt. Ltd. New Delhi (India). ISBN: 93-86841-58-4.
2. Roy, N. (2020). Population dynamics based triple-E sustainable management of a major stored grain pest *Sitophilus spp.* (Coleoptera: Curculionidae) in India. In: ENV Books (EXPERIMENTAL ANIMAL SCIENCE: BIRDS AND INSECTS; EB/2020/1451-1460/EAS), Page: 166-198 (Chapter-08; section-II); Edited by: Dr. Manoj Kumar Arya and Dr. Pawan Kumar 'Bharti' Edition: 2020; Publisher by: Discovery Publishing House Pvt. Ltd. New Delhi (India). ISBN: 93-88854-46-2.
3. Roy, N. (2022). Phytochemicals Mediated Feeding Dynamics and Life Table Study of *Spilosoma obliqua* Walker (Lepidoptera: Arctiidae) on Jute, *Chorchorus olitorius* (cv. JRO 524). (Under Review).

❖ Book Review: Roy, N. (2018). INSECT PESTS OF CROPS by S Pradhan, First Edition; ISBN: 978-81-237-1118-8

#### ❖ Seminar Presentations:

1. Roy, N. and Barik, A. (2009). Volatile Signaling: Talking-Tree. Presented in: 16th West Bengal State Science & Technology Congress, 28th February-1st March, 2009 at University of Burdwan; ROY-25, p 498.
2. Roy, N. and Barik, A. (2010). Fatty acid composition in weed parts, *Ludwigia adscendens* L. and assessing their role in the attraction of a biocontrol agent, *Altica cyanea* (Weber). Presented in: Golden Jubilee International Seminar on "Researches in Zoology-Basic and Applied", March 17-19; ORAL E7; P98.
3. Hossain, A., Roy, N., Kundu, M. and Aditya, G. (2010). Deciphering predators and mosquito prey links: food webs of rice-fields. Presented in: UGC sponsored national seminar on Resurgent vector-borne diseases and climate change: a threat to mankind on 15<sup>th</sup> & 16<sup>th</sup> December, 2010 in Department of Zoology, Maharajadhiraj Uday Cahand women's college, Burdwan, ORAL; P22.
4. Roy, N., Chattopadhyay, C. and Barik, A. (2013). Assessing the Attractiveness of Odorous Esterified Fatty Acids to Arctiid Moth, *Diacrisia casignetum* Kollar. Presented in: NASEED-2013 on 25–27 January 2013 at Sambalpur University. Published in: *The Ecoscan*, 3: 87-91.
5. Roy, N. (2013). Effects of Three Host-Plants on Larval Growth and Adult Fecundity of the Arctiid Moth *Diacrisia casignetum* Kollar (Lepidoptera: Arctiidae). Presented in: UGC-DRS Seminar on "Bioprospecting of Natural Products" held on 05 and 06th December, 2013 in Department of Zoology, University of Burdwan, Burdwan.
6. Roy, N. (2016). Nutritional ecology and host preference of a major pest, *Diacrisia casignetum* Kollar. Presented in: 23<sup>rd</sup> West Bengal State Science & Technology Congress, 28-29 th February, 2016 at Presidency University, Kolkata. Animal science 01.
7. Roy, N. (2016). Population Dynamics and Life Table of *Altica cyanea*: A Classical Bio-control Agent of Rice Field Weed, *Ludwigia spp.* Presented in: 1<sup>st</sup> Regional Science & Technology Congress-2016, 7-8<sup>th</sup> November, 2016 at Bankura Christian College, Bankura, in Burdwan Division, West Bengal, Zoology Section.
8. Roy, N. (2016). Green Management of a Major Pest *Diacrisia casignetum* Kollar . Presented in: 1<sup>st</sup> Regional Science & Technology Congress-2016, 13-14<sup>th</sup> November, 2016 at NIRRT, Kolkata, in Presidency Division, West Bengal, Environment section.

9. Dutta S. and Roy N. (2016). Population Dynamics and Host Selection of a Major Pest, *Leptocorisa acuta* (Thunb.) in primary and secondary hosts. Presented in: UGC-SAP sponsored national seminar on Effect of Climate Change on Faunal Diversity organized by Department of Zoology, University of Kalyani, Kalyani, West Bengal on 27<sup>th</sup> Feb 2017 in Taxonomy and Environment section as Poster Presentation.
10. Dutta S. and Roy N. (2016). Relationship of Nutritional Factor and Population Dynamics of a Major Pest, *Leptocorisa acuta* (Thunb.) Presented in: UGC sponsored national seminar at RU as Poster Presentation.
11. Dutta S. and Roy N. (2017). Population Dynamics of Major Pest, *Leptocorisa acuta* (thumb) in Primary and Secondary host. Presented in Government of West Bengal Sponsored National Seminar on Current Trends in Plant & Microbial Research (CTIPMR) on 23<sup>rd</sup> March 2017 at Department of Botany, Raiganj University, Raiganj, Raganj Uttar Dinajpur, West Bengal, India as Poster Presentation.
12. Dutta S. and Roy N. (2017). Host Phytochemicals and Nutritional Ecology of a Major Pest, *Leptocorisa acuta* (Thunb.). Presented in: International "Science Seminar" Jointly Organised by Burdwan Raj College and Indian Chemical Society on 10<sup>th</sup> October 2017 as Poster Presentation.
13. Dutta S. and Roy N. (2017). Population Dynamics of a Major Pest, *Scripophaga incertulus* Walker (Pyralidae: Lepidoptera). Presented in: 2<sup>nd</sup> Regional Science & Technology Congress-2017, 16-17<sup>th</sup> November, 2017 at BU, West Bengal, Animal science and Fishery section as Poster Presentation.
14. Monali Mukherjee<sup>1</sup>, Shreya Mondal<sup>2</sup>, Debarati Biswas<sup>2\*</sup>, Debaspriya Das<sup>2</sup> and Nayan Roy<sup>1\*</sup> (2017). Integrated Pest Management (IPM) of Pulse Beetle, *Callosobruchus maculatus* Fabr. Presented in: 2<sup>nd</sup> Regional Science & Technology Congress-2017, 16-17<sup>th</sup> November, 2017 at BU, West Bengal, Animal science and Fishery section as Poster Presentation.
15. Roy, N. (2017). Life Table and Economic Threshold Concept for Ecological Management of Bihar Hairly Caterpillar on Jute. Not presented in: 2<sup>nd</sup> Regional Science & Technology Congress-2017, 16-17<sup>th</sup> November, 2017 at BU, West Bengal, Environment section as Oral Presentation.
16. Dutta S. and Roy N. (2017). Life Table of a Major Pest *Scipophaga incertulus* (Walker) Presented in: International Science Seminar on Science: Past, Present and Future; Organised by Syamsundar College & Indian Chemical Society on 12<sup>th</sup> December 2017 as Oral Presentation.
17. Dutta S. and Roy N. (2017). Population Dynamics for Triple-E Sustainable Management of a Major Pest, *Leptocorisa acuta* (Thunb.), Presented in: 19<sup>th</sup> Odisha Biggyan "O" Paribesh Congress (OBPC)-2017, 25-26<sup>th</sup> November, 2017 at KIIT University, Bhubaneswar, India, Biological Sciences as Poster Presentation.
18. Dutta S. and Roy N. (2017). Population Dynamics and Ecological Management of a Major Pest, *Leptocorisa acuta* (Thunb.). Presented in: 2<sup>nd</sup> Regional Science & Technology Congress-2017, 14-15<sup>th</sup> December, 2017 at KU (Southern Region), West Bengal, Agriculture Science as Poster Presentation.
19. Dutta S. and Roy N. (2017). Population dynamics of a Major pest of *Scipophaga incertulus*. Presented in: 2<sup>nd</sup> Regional Science & Technology Congress-2017, 16-17<sup>th</sup> November, 2017 at BU (Western Region), West Bengal, Agriculture Science as Poster Presentation.
20. Roy, N. (2017). A Classical Bio-control Agent *Altica cyanea* Weber for Ecological Management of Rice Field Weed, *Ludwigia spp.* Presented in: 2<sup>nd</sup> Regional Science & Technology Congress-2017, 14-15<sup>th</sup> December, 2017 at KU, West Bengal, Agriculture Science as Oral Presentation.
21. Dutta S. and Roy N. (2018). Life table and ecological management of rice black bug, *Scotinophara coarctata*. Presented in: 3<sup>rd</sup> Regional Science & Technology Congress-2018, 12-13<sup>th</sup> December, 2018 at DEC (Northern Region), West Bengal, Agricultural Science as Oral Presentation.
22. Dutta S. and Roy N. (2018). Population dynamics and ecological management of rice brown planthopper, *Nilaparvata lugens* (Stal). Presented in: 3<sup>rd</sup> Regional Science & Technology Congress-2018, 18-19<sup>th</sup> December, 2018 at BGC (Southern Region), West Bengal, Agricultural Science as Oral Presentation.
23. Dutta S. and Roy N. (2018). Population dynamics based ecological management of rice green leafhopper, *Nephotettix nigropictus* Stal. Presented in: 3<sup>rd</sup> Regional Science & Technology Congress-2018, 20-21<sup>st</sup> December, 2018 at SKBU (Western Region), West Bengal, Agricultural Science as Oral Presentation.
24. Roy, N. (2018). E<sup>3</sup> Strategy for Ecological Management of Bihar Hairly Caterpillar of *Diacrisia casignetum* Kollar on White Jute. Presented in: 3<sup>rd</sup> Regional Science & Technology Congress-2018, 18-19<sup>th</sup> December, 2018 at BGC (Southern Region), West Bengal, Animal Science as Poster Presentation.
25. Roy, N. (2018). E<sup>3</sup> Strategy Based Triple-E Sustainable Management of *Diacrisia casignetum* Kollar on two types of Jute. Presented in: 3<sup>rd</sup> Regional Science & Technology Congress-2018, 20-21<sup>st</sup> December, 2018 at SKBU (Western Region), West Bengal, Environmental Science as Oral Presentation.
26. Dutta S. and Roy N. (2019). Population dynamics based ecological management of rice green leafhopper, *Chilo polychrysus* (Meyrick) Presented in: 4<sup>th</sup> Regional Science & Technology Congress-2019, 13-14<sup>th</sup> December, 2019 at BU (Western Region), West Bengal, Animal Science as Poster Presentation.

❖ **Seminar, Conference, Symposium and Workshop Attained:**

1. Workshop on Methylene blue reductase test & acid fast staining on February 28, 2007; Department of Zoology, University of Burdwan.
2. International conference on frontier of mathematics and applications on January 16-18, 2008; Department of Mathematics, University of Burdwan.
3. 16<sup>th</sup> West Bengal State Science & Technology Congress, 28<sup>th</sup> February-1<sup>st</sup> March, 2009 at University of Burdwan.
4. UGC sponsored state-level seminar on Application of spectroscopy: atomic to molecular systems on March 20-21, 2009 at Department of chemistry, Vivekananda mahavidyalaya, Burdwan.
5. International seminar on Biological thoughts: micro to the macro on February 9, 2010 in Department of Zoology, University of Calcutta.
6. National seminar on recent trends in biotechnology on 11-12 March, 2010 Organized by the Department of Biotechnology, University of Burdwan, Burdwan.
7. Golden Jubilee International Seminar on "Researches in Zoology-Basic and Applied" on March 17-19 in Department of Zoology, University of Burdwan, Burdwan.
8. National seminar cum exposition on modern microscopes and their applications on 08-09 April, 2010 in University science instrumentation centre, University of Burdwan, Burdwan.
9. UGC sponsored national seminar on Resurgent vector-borne diseases and climate change: a threat to mankind on 15<sup>th</sup> & 16<sup>th</sup> December, 2010 in Department of Zoology, Maharajadhiraj Uday Chand women's college, Burdwan, West Bengal.
10. UGC sponsored Two-day international seminar on Global warming on 23-24 November, 2011 in Burdwan Raj College, Burdwan.
11. UGC sponsored national seminar on women & society in colonial India: debates and Discourses on 29-30 November, 2011 in Department of History, Maharajadhiraj Uday Chand women's college, Burdwan, West Bengal.
12. UGC sponsored national seminar on Challenges of biology in the 21<sup>st</sup> century on 1<sup>st</sup>-2<sup>nd</sup> December, 2011 in Department of Botany, Maharajadhiraj Uday Chand women's college, Burdwan, West Bengal.
13. National seminar on Application of statistics in industry, social and biomedical sciences on 30<sup>th</sup> March, 2012 in the Department of Statistics, University of Burdwan.
14. National seminar on Ecology, Environment and Development (NASEED-2013) on 25-27<sup>th</sup> January, 2013 in the P. G. Department of Environmental Sciences, Sambalpur University, Jyoti Vihar-768 019, Odisha (India).
15. UGC-DRS Seminar on "Bioprospecting of Natural Products" held on 05 and 06<sup>th</sup> December, 2013 in Department of Zoology, University of Burdwan, Burdwan.
16. UGC sponsored national seminar on Frontier in Chemistry on 4<sup>th</sup> and 5<sup>th</sup> December, 2013 in Department of Chemistry, Maharajadhiraj Uday Chand women's college, Burdwan, West Bengal.
17. International symposium on combating climate change in C40 megacities on 22<sup>nd</sup> April, 2015 at Kolkata organized by SAFE and others.
18. "Bird Photography Workshop-2016" on January 12 to 14, 2016, organized by Nature Club (CANOPY), Bejoy Narayan Mahavidyalaya in association with WWF; Itachuna, Hooghly.
19. 23<sup>rd</sup> West Bengal State Science & Technology Congress, 28-29<sup>th</sup> February, 2016 at Presidency University, Kolkata.

20. 1<sup>st</sup> Regional Science & Technology Congress-2016, 7-8<sup>th</sup> November, 2016 at Bankura Christian College, Bankura, in Burdwan Division, West Bengal.
21. 1<sup>st</sup> Regional Science & Technology Congress-2016, 13-14<sup>th</sup> November, 2016 at NIRRT, Kolkata, in Presidency Division, West Bengal.
22. UGC-SAP sponsored national seminar on Effect of Climate Change on Faunal Diversity, on 27<sup>th</sup> Feb 2017, organized by Department of Zoology, University of Kalyani, Kalyani, West Bengal.
23. 2<sup>nd</sup> Regional Science & Technology Congress-2017, 16-17<sup>th</sup> November, 2017 at BU, West Bengal.
24. 2<sup>nd</sup> Regional Science & Technology Congress-2017, 16-17<sup>th</sup> November, 2017 at BU, West Bengal.
25. 19<sup>th</sup> OBPC -2017, 25-26<sup>th</sup> November, 2017 at KIIT University, Bhubaneswar, India.
26. 2<sup>nd</sup> Regional Science & Technology Congress-2017, 14-15<sup>th</sup> December, 2017 at KU, West Bengal.
27. 2<sup>nd</sup> Regional Science & Technology Congress-2017, 14-15<sup>th</sup> December, 2017 at KU, West Bengal.
27. 3<sup>rd</sup> Regional Science & Technology Congress-2018, 18-19<sup>th</sup> December, 2018 at BGC (Southern Region), West Bengal.
28. 3<sup>rd</sup> Regional Science & Technology Congress-2018, 20-21<sup>st</sup> December, 2018 at SKBU (Western Region), West Bengal.

❖ **Webinar attended:**

1. National webinar on “Current Challenges in Biology” organized by Rabindra Mahavidyalaya (RMV), Champadanga, West Bengal, India, on 1-3 and 10<sup>th</sup> July, 2020.
2. National webinar on “Recent Advance in Biological Research” organized by Midnapore City College, West Bengal, India, on 2<sup>nd</sup> September, 2020.
3. National webinar on “Public Policy and Governance in Indian Context” organized by Ranaghat College West Bengal, India, on 3<sup>rd</sup> August, 2020.
4. National webinar on “Impact of Covid-19 on Indian Economy.....” organized by Sonamukhi College, Bankura, West Bengal, India, on 3<sup>rd</sup> August, 2020.
5. National webinar on “Dengue and its Prevention” organized by Sammilani College, Bankura, West Bengal, India, 4<sup>th</sup> August, 2020.
6. National webinar on “Impact of virus and vector.....” organized by Krishnanagar Govt. College, West Bengal, India, on 5<sup>th</sup> August, 2020.
7. National webinar on “Bacterial Concrete - A Journey from Greenhouse to Green Home” organized by Shyampur Siddheswari Mahavidyalaya, Howrah, West Bengal, India, on 5<sup>th</sup> August, 2020.
8. National webinar on “Role of guidance and career.....” organized by Mankar College, West Bengal, India, on 5-6<sup>th</sup> August, 2020.
9. National webinar on “Mental Stability in Covid-19 Pandemic.....” organized by Prabhu Jagatbandhu College, West Bengal, India, on 6<sup>th</sup> August, 2020.
10. National webinar on “Climate Change & Human Health” organized by Ananda Chandra College, West Bengal, India, on 7<sup>th</sup> August, 2020.
11. National webinar on “Gender, Epidemics and health.....” organized by K. K. Das College, West Bengal, India, on 7<sup>th</sup> August, 2020.
12. National webinar on “Covid-19: Molecular aspects and its possible managements” organized by Kalna College, West Bengal, India, on 7-8<sup>th</sup> August, 2020.
13. National webinar on “ORGANIC LIVING” organized by DURGA MAHAVIDYALAYA RAIPUR, West Bengal, India, on 8<sup>th</sup> August, 2020.
14. National webinar on “Understanding of some philosophical.....” organized by Rishi Bankim Chandra College for Women, West Bengal, India, on 8<sup>th</sup> August, 2020.
15. National webinar on “Copyright: unravelling the confusions of academe” organized by Rabindra Mahavidyalaya, West Bengal, India, on 10<sup>th</sup> June, 2020.
16. National webinar on “Misinformation, fake news.....” organized by Derozio Memorial College, West Bengal, India, on 10<sup>th</sup> July, 2020.
17. National webinar on “DISASTER MANAGEMENT & COMMUNICATION: CHALLENGES & OPPORTUNITIES” organized by RAMAKRISHNA SARADA MISSION VIVEKANANDA VIDYABHAVAN, West Bengal, India, on 10<sup>th</sup> August, 2020.
18. National webinar on “ADMINISTRATIVE AFFAIRS THRUSTING UPON PROMOTION OF COLLEGE TEACHERS / LIBRARIANS UNDER CAS” organized by City College, West Bengal, India, on 11<sup>th</sup> July, 2020.
19. National webinar on “Glimpses of Bengal Rural Society: The Colonial Experiences” organized by Prasanta Chandra Mahalanobis Mahavidyalaya, West Bengal, India, on 14<sup>th</sup> July, 2020.
20. National webinar on “INDIAN ECONOMIC POLICY AND POPULISM” organized by MUC Women’s College, Burdwan, West Bengal, India, on 14<sup>th</sup> August, 2020.
21. International webinar on “Recent Advances in Biological Sciences” organized by Oriental Institute of Science and Technology, West Bengal, India, on 7-8<sup>th</sup> August, 2020.
22. National webinar on “POST PANDEMIC TEACHING-LEARNING METHOD: A PARADIGM SHIFT” organized by Bhairab Ganguly College and Sree Chaitanya College, West Bengal, India, on 14<sup>th</sup> June, 2020.
23. National webinar on “Digital Transformation In Higher Education” organized by Asannagar Madan Mohan Tarkalankar College, West Bengal, India, on 17<sup>th</sup> July, 2020.
24. National webinar on “Social Constrains in Pandemic Situation” organized by Amdanga J.K. Mahavidyalaya, West Bengal, India, on 18<sup>th</sup> July, 2020.
25. International webinar on “COVID 19: THE BIGGEST THREAT.....” organized by Netaji Mahavidyalaya, Arambagh, West Bengal, India, on 18-19<sup>th</sup> July, 2020.
26. National webinar on “Awareness programme on the use of online E-resources” organized by BRM Govt. Law College, Guwahati, India, on 19<sup>th</sup> August, 2020.
27. National webinar on “Struggle for coexistence: Affect of Anthropocene non-human life forms” organized by Sonamukhi College, West Bengal, India, on 20<sup>th</sup> June, 2020.
28. National webinar on “Role of medicinal plants.....” organized by Kolhan University, Jharkhand, India, on 20<sup>th</sup> July, 2020.
29. International webinar on “Covid-19: Pandemic.....” organized by SSLNT Mahila Mahavidyalaya, Jharkhand, India, on 22<sup>nd</sup> June, 2020.
30. National webinar on “CARE WOMEN’S HEALTH FOR A BRIGHTER FUTURE” organized by MUC Women’s College, Burdwan, West Bengal, India, on 22<sup>nd</sup> July, 2020.
31. National webinar on “Phychological and social.....” organized by Dum Dum Motijheel College, West Bengal, India, on 22<sup>nd</sup> August, 2020.
32. National webinar on “NURTURING INNOVATIONS: FROM ACADEMIA TO SOCIETY” organized by Gour Mahavidyalaya, West Bengal, India, on 22<sup>nd</sup> August, 2020.
33. National webinar on “FOUNDATION OF ODE WITH A CASE STUDY” organized by City College, West Bengal, India, on 24<sup>th</sup> July, 2020.
34. National webinar on “Food for life: Nutrition strategies to prevent diseases” organized by Hooghly Women’s College, West Bengal, India, on 24-25<sup>th</sup> July, 2020.
35. National webinar on “Recent Advances in Chemical Sciences” organized by Hooghly Women’s College, West Bengal, India, on 25-26<sup>th</sup> August, 2020.
36. National webinar on “COVID-19: FACTS AND FACETS” organized by Sarat Centenary College, West Bengal, India, on 26<sup>th</sup> June, 2020.
37. National webinar on “Impact of Covid-19.....” organized by Victoria Institution (College), West Bengal, India, on 26<sup>th</sup> July, 2020.
38. National webinar on “Walk through the Covid-19 Pandemic: viewing by the Lenses of Researchers and Commoners” organized by Rabindra Mahavidyalaya, West Bengal, India, on 26-27<sup>th</sup> June, 2020.
39. National webinar on “Covid-19 and social stigma.....” organized by Govment General Degree College, Singur, West Bengal, India, on 27<sup>th</sup> August and 2<sup>nd</sup> September, 2020.
40. International webinar on “The eve of world nature conservation day” organized by Gushkara Mahavidyalaya, West Bengal, India, on 28<sup>th</sup> July, 2020.
41. National Quize contest on “NSS & NYKS” organized by Bankura Sammilani College, West Bengal, India, on 28-31<sup>st</sup> August, 2020.



42. National webinar on “COVID 19: Immuno-informatics for disease diagnosis and next generation vaccine designing” organized by Bankura Sammilani College, West Bengal, India, on 29<sup>th</sup> June, 2020.
43. Global webinar series on “ENVIRONMENT AND EMERGENCIES IN THE FACE OF COVID-19: WHAT YOU NEED TO KNOW IN A PANDEMIC CONTEXT” organized by UNEP, India, on 29<sup>th</sup> July, 2020.
44. National webinar on “Astronomy in Radio Wavelengths” organized by Midnapore City College, West Bengal, India, on 29<sup>th</sup> August, 2020.
45. National webinar on “COVID 19: The Science and Impact of it on the Society” organized by MUC Women’s College, Burdwan, West Bengal, India, on 29<sup>th</sup> August, 2020.
46. International webinar on “CHEMSPIRATION 2020” organized by B.B. College, West Bengal, India, on 30<sup>th</sup> July, 2020.
47. National webinar on “Reflection of Bangladesh Liberation War, 1971” organized by Probhu Jagabandhu College, West Bengal, India, on 30<sup>th</sup> June, 2020.
48. Ten Days Faculty Development Programme (FDP) on “Museum and Archives, Art and Architecture and Tourism” organized by Probhu Jagabandhu College, West Bengal, India, on 10-19<sup>th</sup> July, 2020.
49. Participated in “Spit free India Movement” organized by EPSON, India, on July-August, 2020.
50. National webinar on “Recent Advancement in Biological Research” organized by Midnapore City College, West Bengal, India, on 2<sup>nd</sup> September, 2020.
51. National webinar on “Covid-19 and Social Stigma: Psychological Quest and Administrative Challenges” organized by Govt. General Degree College, Singur, West Bengal, India, on 27<sup>th</sup> August, 2020 and 2<sup>nd</sup> September, 2020.
52. National webinar on “Mosquito Borne Diseases, Their Control and Perspectives of Environmental Health” organized by MUC Women’s College, Burdwan, West Bengal, India, on 4<sup>th</sup> September, 2020.
53. National webinar on “Emerging Trends in.....Concerns” organized by Galsi Mahavidyalaya, Burdwan, West Bengal, India, on 7<sup>th</sup> September, 2020.
54. National webinar on “Recent Trends and Developments in Chemistry” organized by Kalna College, Burdwan, West Bengal, India, on 10<sup>th</sup> September, 2020.
55. National webinar on “Tribal Democratic Movements and Research Methodology” organized by Department of Political Science, MUC Women’s College, Burdwan, West Bengal, India, on 20<sup>th</sup> September, 2020.
56. National webinar on “WOMEN, HEALTHCARE AND PANDEMICS IN INDIA: LESSONS FROM THE PAST” organized by Maharani Kasiswari College, West Bengal, India, on 20<sup>th</sup> September, 2020.
57. International webinar on “A modern outlook in Molecular Biology and Environmental Modelling – Now and Beyond” organized by Department of Zoology, Government General Degree College, Mohanpur, West Bengal, India, on 20<sup>th</sup> September, 2020.
58. International webinar on “*Coxiella* sp. And Lysosome.....” organized by Panchakot Mahavidyalaya, Purulia, West Bengal, India, on 22<sup>nd</sup> September, 2020.
59. International webinar on “National education policy.....” organized by Gangadharpur Sikshan Mandir, Howrah, West Bengal, India, on 25<sup>th</sup> September, 2020.
60. International webinar on “The Search for King Solomon’s Ring in the New Age of Behavioural Neuroscience” organized by Department of Zoology, Michael Madhusudan Memorial College, Durgapur on 4<sup>th</sup> October, 2020.
61. National webinar on “World Environment Day 2021” organized by Eco Club & IQAC, Bankura Sammilani College, West Bengal, dated 05.06.2021.
62. National webinar on “ECOSYSTEM RESTORATION: STRIVING TOWARDS SUSTAINABILITY” organized by the Department of Geography under the aegis of Internal Quality Assurance Cell, Banwarilal Bhalotia College, Asansol, West Bengal, India, held on 5<sup>th</sup> June, 2021.
63. Two-day state level webinar on “CAS, WBHS & OTHER SERVICE BENEFITS FOR COLLEGE EMPLOYEES” organized by Department of Zoology, Women’s College, Kolkata, in collaboration with Bhairab Ganguly College, Kolkata on 8<sup>th</sup> and 9<sup>th</sup> June, 2021.
64. State level webinar on “Gateway to Career Diversification and Prospects” organized by Department of Zoology, Krishna Chandra College, Hetampur, Birbhum under the Strengthening Component of DBT-STAR College Scheme, Dept of Biotechnology, Ministry of Science and Technology, Govt of India on 13<sup>th</sup> of July, 2021.

**About me:** I have my Ph.D. in Zoology, university of Burdwan, under the supervision of Dr. Anandamay Barik (Assistant Professor) and presently appointed as an Assistant Professor, Department of Zoology, M.U.C. Women’s College, Burdwan, W.B., India. In due course of my research work, I became well acquainted with laboratory techniques on phytochemical analysis including isolation, chemical characterization and estimation as well as assessing their role in plant-insect interactions. I am equally efficient in field work for find out the biodiversity, pest biology including their behavioral ecology, allelopathy and green nanotechnology. I have a standing interest in how plants and insects interact and how they have affected each other in their growth and development. Herbivorous insects and green plants together make up over half of all known biodiversity. I am trying to find the range of behaviors shown by insects to unravel the complexity of their interactions with plants. The demographic study and nutritional ecology of the insect pest may help their ecological management in future. The potential for studying these topics in India is enormous toward applied issues for pest control as well as for fundamental ecology. I have extensively studied the top-down and bottom-up regulation of some crop plant by their defoliators. I am also working on the allelopathic effects of plants and synthesize metallic nanoparticles in green synthesis approach. Recently, I am very much concerned the insect pest management rather their control through the use of demography and nutritional ecology along with trap cropping system through climate smart pest management (CSPM) strategy, a branch of Integrated Pest Management (IPM) for sustainable CSA and human welfare.

I am looking for potential students and collaborators with allied research interest for new innovative research. Please feel free to inform me ([nayan909@gmail.com](mailto:nayan909@gmail.com)) with new ideas and proposals.

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