

# Dr. Debnath Palit



## Designation

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Principal,

West Bengal Senior Education Service (WBSES)

## Qualification

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M.Sc. (Botany), Ph.D. (Botany) (*The University of Burdwan*)

## Experience

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### Teaching Experience

(West Bengal Educational Service)

Undergraduate Level: 22 Years

Postgraduate Level: 16 Years

### Research Experience

24+ Years

## Contact

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### Address:

Principal, Durgapur Government  
College, J.N. Avenue, Durgapur,  
Paschim Bardhaman, West  
Bengal-Pin Code: 713214

### Email:

dgcprincipal2021@gmail.com

## Institutions Served

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- **Durgapur Government College**

Principal

West Bengal Senior Educational Service

(Feb 09, 2021 to till date )

Associate Professor & Head, Department of Botany

(Nov 17, 2016 to Feb 09, 2021)

Associate Professor/Assistant Professor

(Dec 03, 2008 to Aug 01, 2016)

- **Dr. APJ Abdul Kalam Government College**

Associate Professor of Botany

(Aug 3, 2016 to Nov 16, 2016)

- **Bidhannagar Government College**

Lecturer (Sr. Scale), Botany

(Aug 02, 2007 to Dec 02, 2008)

- **Darjeeling Government College**

(*Affiliated to North Bengal University*)

Lecturer, Botany

## Research Award

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- Fellow of East Himalayan Society for Spermatophyte Taxonomy
- Recipient of "**Scientist Award**" in the International Scientist Award on Engineering Science and Medicine, March 29-30, 2022 held in Pondicherry India

## Research Interest

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Ecology of Wetlands, Pit-lakes and Forest, Phyto- and Microbial remediation of coal mined generated wastelands, Air Pollution Control, Environmental Impact Assessment

## Research Publications

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**Research Publications in International and National Journals: 95 (Ninety Five)**

**Books Published: 5 (Five)**

**Book Chapters: 39 (Thirty Nine)**

**Conference Proceedings: 8 (Eight)**

## Research Guidance

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- **PhD.s (Degree Awarded): 6** (*under the affiliation of The University of Burdwan*)
- **PhD.s (Presently Registered): 8** (*under the affiliation of Kazi Nazrul University, Asansol*)
- **M.Sc. Dissertations: 23** (*The University of Burdwan, North Bengal University, Kazi Nazrul University*)

## Research Projects (Sponsored)

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1. **Dr. Debnath Palit** (PI), "Eco-friendly technology for restoration mined wastelands in Raniganj Colliery areas", UGC Minor Research Project, Total Grant: Rs. 93500/- ; Tenure: 2009-2011.
2. **Dr. Debnath Palit** (PI), "Ecological and limnological investigations on wetlands of Bankura District: implications for promoting sustainable management and wise use of wetlands'. UGC Minor Research Project, Total Grant: Rs. 95000/- ; Tenure: 2013-2015
3. **Dr. Debnath Palit** (Co-PI), " Integrated Project on Conservation, Demonstration and Training on sustainable use of Medicinal Plants for up gradation of Livelihood of the poor families of backward classes in Bankati Gram Panchayat area, Burdwan District, West Bengal", Department of Science & Technology, Government of West Bengal, Implemented at The University of Burdwan; Total grant: Rs. 21,00,000/- Tenure: 2010-2014.
4. **Dr. Debnath Palit** (PI), "Ecological appraisal of pit lakes of Raniganj coal field (RCF), West Bengal, India: implications for conservation and sustainable use", Department of Science & Technology, Government of West Bengal, Total Grant: Rs. 29,17,533/- Tenure: 2014-2017.
5. **Dr. Debnath Palit** (PI), " Eco-restoration of wetlands in Birbhum district, West Bengal for sustainable use", Department of Environment, Government of West Bengal, Total Grant: Rs. 4,60,000/-; Tenure: 2010-2013.

## Guidance of PhD Scholars (Degree Awarded)

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1. Santanu Gupta (*Awarded: 2016, The University of Burdwan*) Assessment of Ecological and Socioeconomic Valuation of Wetlands in Birbhum District, West Bengal, India for conservation and sustainable use,
2. Aparajita Mukherjee (*Awarded: 2016, The University of Burdwan*) Studies on the ecological and socio-economic services of wetlands to the rural people of Bankura district, West Bengal, India,
3. Debalina Kar (*Awarded: 2016, The University of Burdwan*) Phytoremediation of some selected wastelands in colliery belt of Raniganj, West Bengal, India,
4. Shiboram Banerjee (*Awarded: 2020, The University of Burdwan*) Air Quality Monitoring Using Available Plant Species of Durgapur Industrial Township, West Bengal,
5. Payel Majumder (*Awarded: 2020, The University of Burdwan*) Studies in microbial diversity through time of coal mine generated wastelands of West Bengal in understanding their role in soil reclamation.
6. Babli Garai (*Awarded: 2020, The University of Burdwan*) Succession of Plant Diversity based on selected pit lakes of Raniganj Coal fields, India,

## Guidance of PhD Scholars (Presently Registered)

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1. **Nazma Khatun** (2021, Registered: Kazi Nazrul University) Phytoplankton Diversity and its relationship with environmental factors in pit-lake ecosystem
2. **Subhra Bandopadhyay** (2021, Registered: Kazi Nazrul University) Non-timber forest products and their utilization for sustainable livelihood development in some parts of Birbhum District, West Bengal, India
3. **Priyaranjan Mondal** (2021, Registered: Kazi Nazrul University) Macrophytes composition and their ecological roles in some selected pit lakes of Raniganj Coal Field Area, West Bengal, India
4. **Trinankur Bhattacharjee** (2021, Registered: Kazi Nazrul University) Vegetation dynamics in coal mine generated wasteland of Raniganj Coal Field Area, West Bengal, India
5. **Kajori Mondal** (2021, Registered: Kazi Nazrul University) Impact assessment of water and soil for sponge iron industries in Barjora Industrial Area, West Bengal
6. **Animesh Karmakar** (2021, Registered: Kazi Nazrul University) Mass cultivation of white sandalwoods (*Santalum album* L) for sustainable yield in Rarh Bengal, India
7. **Chittaranjan Naskar** (2021, Registered: Kazi Nazrul University) Potentiality of Dragon fruits (*Hylocereous lemairei* (Hook.) Britton and Rose) as an alternative cultivation in Southern parts of Sunderban, West Bengal, India
8. **Anamika Pandey** (2021, Registered: Kazi Nazrul University) Spatio temporal variability of air pollutants on selected tree species: implications for assessment of CO<sub>2</sub> mitigation potential

## Membership in State/National level bodies

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- Life Membership of International Academy of Science and Research, Kolkata, India
- Member of Review committee in respect of rapid Socio-Economic and environmental impact studies by National Water Development Agency (Ministry of Water Resources, Government of India) for proposed Farakka-Sundarban Link Project
- Member of Review committee in respect of rapid Socio-Economic and environmental impact studies by National Water Development Agency (Ministry of Water Resources, Government of India) for proposed Ganga –Damodar - Subarnarekha Link Project.
- Life Member, National Environmental Science Academy, New Delhi
- Natural Member, East Himalayan Society for Spermatophyte Taxonomy, Department of Botany, North Bengal University, Siliguri, Darjeeling.
- Life Member, The Zoological Association of Burdwan, Sarat Pally, Burdwan
- Member, Under Graduate Board of Studies (UGBS) in Botany, Kazi Nazrul University, Asansol (2016-2019)
- Member, Governing Body and Finance Committee of Michael Madhusudan Memorial College, Durgapur, University Nominee from Kazi Nazrul University, Asansol
- Course Convener of Botany and Chief Coordinator of Botany, Kazi Nazrul University, Asansol
- Chairperson, Under Graduate Board of Studies (UGBS) in Botany, Kazi Nazrul University, Asansol (2020-2024)

## Administrative Experience

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- **Principal, Durgapur Government College** (February 9, 2021 to till date)
  - ☞ *Institution received DBT STAR COLLEGE SCHEME in 2022 from the Department of Biotechnology, Government of India*
  - ☞ *Institution hosted the Regional Science and Technology Congress 2024 in association with Department of Science and Technology and Biotechnology, Government of West Bengal*
- **Officer-in-Charge, Durgapur Government College** (October 19, 2011 to August,20, 2013)
- **Centre -in-Charge, Netaji Subhas Open University Study centre** (PG Department of Zoology) at Durgapur Government College (October 19, 2011 to August,20, 2013)
- **Centre -in-Charge, Netaji Subhas Open University Study centre** (Bachelor Degree Programme and Post Graduate Programme) at Durgapur Government College (July 2012 to August 2013)
- **Coordinator, UGC- Career Oriented Programme (COP)** in Corporate Communication and Communicative English, (October 19, 2011 to August,20, 2013)
- **Head, Department of Conservation Biology**, Durgapur Government College (November 6, 2009 to December 03, 2014)
- **Head, Department of Botany**, Durgapur Government College (August, 2017 to February 2021)

## Research Publications

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1. Chittaranjan Naskar and **Debnath Palit** (2024), Dragon fruits and strawberries in the same field, a new paradigm in the farming of Sundarban, West Bengal, India, *Journal of Advanced Zoology*. <https://doi.org/10.53555/jaz.v45i2.3901>
2. Anamika Pandey and **Debnath Palit** (2024) Air pollution in Durgapur, West Bengal : an assessment of the trees' potential to sequester carbon dioxide, *Indian Journal of Applied and Pure Biology* (**accepted**)
3. Anamika Pandey and **Debnath Palit** (2024) PM 2.5 pollution : evolution and seasonal variation in Durgapur, West Bengal and it's impact on plants, *Indian Journal of Applied and Pure Biology*, Vol. 39(2), Page No. 1089-1099
4. Animesh Karmakar, **Debnath Palit**, Jagatpati Tah (2024) Analysis of Sandalwood (*Santalum album L.*) Oil: A Brief Report from West Bengal, *Indian Journal of Applied and Pure Biology*, Vol. 39(2), Page No. 1132-1138
5. Priyaranjan Mondal, Arnab Banerjee, **Debnath Palit** (2023) Water quality of selected Pitlakes of Raniganj coal fields, West Bengal, India, *Indian Journal of Applied and Pure Biology*, Vol 38(3), Page No. 1563-1574
6. S. Banerjee, A. Banerjee, and **Debnath Palit** (2022). Morphological and biochemical study of plant species –A quick tool for assessing the impact of air pollution *Journal of Cleaner Production*. (Elsevier), Vol. 339, 130647. **Impact factor: 11.072** <https://doi.org/10.1016/j.jclepro.2022.130647>
7. Saikat Mondal, **Debnath Palit**, Niladri Hazra (2022) Study on composition and spatio-temporal variation of zooplankton community in coal mine generated pit lakes, West Bengal, India. *Tropical Ecology* (Springer) **Impact factor: 1.333** <https://doi.org/10.1007/s42965-022-00274-6>
8. Saikat Mondal, **Debnath Palit**, Niladri Hazra\*, Spatial pattern analysis of zooplankton and surface water of pit lakes (Raniganj coal field, India), *Water Science*, Pages 98-116 | Published online: 12 Jun 2023 <https://doi.org/10.1080/23570008.2023.2221069>
9. Saikat Mondal, **Debnath Palit**, Ecological assessment of pit lakes in Raniganj, India: Application of different indices and multivariate statistics, *Water Science*, Pages 57-70 | Published online: 23 May 2023, <https://doi.org/10.1080/23570008.2023.2215573>
10. S. Banerjee, A. Banerjee, and **Debnath Palit** (2021). Ecosystem services and impact of industrial pollution on urban health: evidence from Durgapur, West Bengal, India. *Environ Monit Assess (Springer)* 193, 744 (2021). <https://doi.org/10.1007/s10661-021-09526-9> **Impact factor: 2.513**
11. Barsali Banerjee, **Nivedita Acharjee\***, Debnath Palit (2023) Revealing the cyclization selectivity in intramolecular [3+2] cycloaddition reactions of allenic nitrones from the molecular electron density theory perspective, *Structural Chemistry (Springer)*, (**IF = 1.795**) <https://doi.org/10.1007/s11224-023-02175-3>
12. Asmita Mondal, **Nivedita Acharjee\***, Debnath Palit (2023) Unveiling [3+2] cycloaddition reactions of pyridinium bis(methoxycarbonyl)methylides and pyridinium dicyanomethylides with cyclooctyne for indolizine synthesis from the molecular electron density theory perspective, *Structural Chemistry (Springer)*, (**IF = 1.795**) <https://doi.org/10.1007/s11224-023-02193-1>
13. Saikat Mondal, Pinaki Chattopadhyay, Arnab Banerjee, **Debnath Palit\*** (2021) Ecological assessment of tree communities and pedological characteristics of coal mined generated wastelands of Ranigaunj Coal Field Area, West Bengal, India. *Vegetos (Springer)* <https://doi.org/10.1007/s42535-021-00305-y>.
14. Payel Majumder Ghosh, Debnath Palit (2021) Responses of microbial population using metagenomics of selective coal mine generated wastelands in ranigaunj coalfield, *Pollution Research*, 40(4):1403-1409.
15. Saikat Mondal, **Debnath Palit\***, Niladri Hazra (2021) Rotifer Diversity in Coal Mine Generated Pit Lakes of Raniganj Coal Field Area, West Bengal, India, *LIMNOFISH-Journal of Limnology and Freshwater Fisheries Research* 7(2): 115-127.

16. Saikat Mondal, **Debnath Palit\***, Pinaki Chattopadhyay (2020), Impact of Mining on Tree Diversity of the Coal Mining Forest Area at Raniganj Coal Field Area of West Bengal, India. *Ecology, Environment and Conservation*, 26 (Spl. Issue) S66-S72.
17. Saikat Mondal, **Debnath Palit\***, Pinaki Chattopadhyay (2020), Vegetation Analysis in Chora and Joyalbhanga Forest Area of Raniganj Coal Field, West Bengal, India. *Indian Journal of Ecology* , 47(3): 831-841.
18. S. Banerjee, **Debnath Palit** and A. Banerjee (2020) Variation of tree biochemical and physiological characters under different air pollution stresses. *Environmental science and Pollution research*. <https://doi.org/10.1007/s11356-020-11674-3>
19. Saikat Mondal, **Debnath Palit\*** (2019), Evaluation of water quality using water quality index of pit lakes, Raniganj coal field area, West Bengal, India. *Research Journal of Life Sciences, Bioinformatics, Pharmaceutical and Chemical Sciences*. <http://www.rjlbpccs.com/article-pdf-downloads/2019/28/656.pdf>
20. Saikat Mondal, **Debnath Palit\*** (2019), Inventory of Plant Species, Phytosociology and Species Diversity of Gunjan Ecological Park Pit Lake, West Bengal, India. *International Journal of Scientific Research and Reviews*, 8 (2), 1990-2006. [https://www.ijssr.org/down\\_82562.php](https://www.ijssr.org/down_82562.php)
21. Saikat Mondal , **Debnath Palit\***, Pinaki Chattopadhyay (2019), Species diversity and vegetation structure of coal mine generated wasteland of Raniganj Coal Field, West Bengal, India. *International journal of current research and review*. [https://www.ijcrr.com/uploads/2617\\_pdf.pdf](https://www.ijcrr.com/uploads/2617_pdf.pdf)
22. Siboram Banerjee, Arnab Banerjee, **Debnath Palit\*** (2018), Assessment of vegetation under air pollution stress in urban industrial area for green belt development in Durgapur, West Bengal, India. *International Journal of Environmental Science and Technology*, 16, 5827-5870. <https://link.springer.com/article/10.1007/s13762-018-1963-9>
23. **Debnath Palit\***, Saikat Mondal, Pinaki Chattopadhyay (2018), Analysing water quality index of selected pit-lakes of Raniganj Coal Field Area, India. *Environment and Ecology*, 36 (4A): 1167-1175.
24. **Debnath Palit\***, Debalina Kar, Ambarish Mukherjee (2018), Flowering and fruiting responses of the wetland macrophytes in Birbhum district, West Bengal, India. *The Asian Journal of horticulture*, 13(1):8-13.
25. **Debnath Palit\***, Debalina Kar, Ambarish Mukherjee (2017), Developmental perspective of wetlands in Birbhum district, West Bengal, India. *Indian Journal of Applied Research*, 7(6): 484-486.
26. **Debnath Palit\***, Debalina Kar, Sharmila Roy Choudhury, Aparajita Mukherjee (2017), Sediment characterization on pit-lake water body of Raniganj Coal Fields, West Bengal, India. *Indian Journal of Applied Research*, 7(10): 555-557.
27. **Debnath Palit\***, Debalina Kar, Sharmila Roy Choudhury, Aparajita Mukherjee (2017), Water Quality Assessment of Pit-Lakes in Raniganj Coalfields Area, West Bengal, India. *International Journal of Current Research and Review*, 9(11): 10-15.
28. **Debnath Palit\***, Debalina Kar, Ambarish Mukherjee (2017), Studies on Macrophyte Diversity in Lalbandh Wetland, Birbhum, West Bengal, India. *International Journal of Interdisciplinary and Multidisciplinary Studies.*, 4(2): 198-203.
29. **Debnath Palit\***, Debalina Kar (2017), A Study of physico-chemical characteristics of overburden dump soil in selected coal mining areas of Raniganj coal fields, West Bengal, India. *International Research Journal of Natural and Applied Sciences*, 4(6): 1-12.
30. **Debnath Palit\***, Debalina Kar, Ambarish Mukherjee (2017), Studies on Grass Flora in the Wetland of Birbhum District, West Bengal, India. *Journal of Plant Sciences*, 12: 59-67 <https://scialert.net/abstract/?doi=jps.2017.59.67>
31. Payel Majumder, **Debnath Palit\*** (2017), Isolation, Identification and Characterization of Bacteria of Coal Mine Soil at Sonepur Bazari of Raniganj Coalfield, West Bengal. *International Journal of Applied Environmental Sciences*, 12(6), pp. 1131-1140.
32. **Debnath Palit\***, Arnab Banerjee (2016), Traditional uses and conservative lifestyle of lepcha tribe through sustainable bio resource utilization – case studies from Darjeeling and north Sikkim, India. *International Journal of Conservation Science*, 7(3): 735-752.
33. **Debnath Palit\***, Aparajita Mukherjee, Debalina Kar, Sharmila Roy Choudhury , Babli Garai, Piyali Kar, P, Santanu Gupta (2016), Determinants of Pitlake Usage in Raniganj Coalfield Region, West Bengal: Implications for Sustainable Use. *International Journal of Innovative Research in Engineering & Management.*, 3(2): 72-79
34. Sanchita Banerjee, Debalina Kar, Arnab Banerjee, **Debnath Palit\*** (2016), Studies on limnology and macrophytes in selected water bodies of Durgapur, West Bengal, India. *American Journal of Innovative Research and Applied Sciences*, 2(4): 174-180.
35. Debalina Kar, **Debnath Palit\*** (2016), Natural occurrence of plant species on Bankola area of Raniganj Coalfield, West Bengal, India. *International Educational Scientific Research Journal*, 2(6): 37-38.
36. **Debnath Palit\***, Debalina Kar , Sharmila Roy Choudhury , Aparajita Mukherjee, Babli Garai, Piyali Kar (2016), Species Composition of Plant Communities in Pitlakes of Raniganj Coal Field, West Bengal, India. *International Journal of Current Research in Biosciences and Plant Biology*, 3(6): 82-86. <http://dx.doi.org/10.20546/ijcrbp.2016.306.010>
37. Debalina Kar, **Debnath Palit\*** (2016), Assessment of plant species assemblages with their distribution in an open cast mining area of Raniganj Coalfield, West Bengal, India. *International Journal of Scientific & Engineering Research*, 7(7): 443-452.
38. Siboram Banerjee, **Debnath Palit\***, Arnab Banerjee, (2016), Changing Strategies of Biochemical and Physiological Features of Selected Plant Species on Effect of Air Pollution in Eastern Steel City, Durgapur, India. *International Journal of Current Microbiology and Applied Sciences* , 5 (9): 733-741. <https://www.ijcmas.com/5-9-2016/Shiboram%20Banerjee.%20et%20al.pdf>
39. Minu Mishra, Arnab Banerjee, **Debnath Palit\*** (2016), Variation of Nutrient Level in Soil and Leaf Litter of Selected Tree Species: A Case Study. *International Journal of Ecology and Environment*, 31(2): 99-111. <http://www.ceser.in/ceserp/index.php/ijed/article/view/4325>

40. Payel Majumder, **Debnath Palit\*** (2016), Microbial Diversity of Soil in Some Coal Mine Generated Wasteland of Raniganj Coalfield, West Bengal, India. *International Journal of Current Microbiology and Applied Sciences*, 5(2): 637-641. <https://www.ijcmas.com/5-2-2016/Payel%20Majumder%20and%20Debnath%20Palit.pdf>
41. Aparajita Mukherjee, **Debnath Palit\***, Santanu Gupta (2015), Rare record on Plaintive Cuckoo (*Cacomantis merulinus*) from a fresh water wetland of Bankura district, West Bengal, India. *Zoosprint*, XXX (3): 19-21. <https://zoosprint.zooreach.org/index.php/zp/article/download/730/716>
42. Santanu Gupta, Aparajita Mukherjee, **Debnath Palit\*** (2015), Reporting of (Sand?) Martin Riparia (riparia?) From Durgapur Barrage, West Bengal, India. *Zoosprint*, 30 (7):6-9 <https://www.zoosprint.zooreach.org/index.php/zp/article/view/768/754>
43. Tripti Bouri **Debnath Palit\***, Ambarish Mukherjee (2015), Livelihood dependency of rural people utilizing non-timber forest product (NTFPs) in a moist deciduous forest zone, West Bengal, India. *International Journal of Advanced Research*, 3(4): 1030-1040. [http://www.journalijar.com/uploads/597\\_IJAR-4192.pdf](http://www.journalijar.com/uploads/597_IJAR-4192.pdf)
44. Tripti Bouri **Debnath Palit\***, Ambarish Mukherjee (2014) An investigation of plant communities in Basudha beat of Durgapur forest range, West Bengal, India. *International Journal of Current Microbiology and Applied Sciences* 3 (9): 596-607. <https://www.ijcmas.com/vol-3-9/Tripti%20Bouri,%20et%20al.pdf>
45. **Debnath Palit\***, Arnab Banerjee, (2014), The Diversity and Richness of Vegetation of Gaddikhana Forest Beat in Darjeeling Himalaya, West Bengal, India. *International Journal of Latest Technology in Engineering, Management & Applied Science*, III(X): 106-112. <https://www.ijltemas.in/DigitalLibrary/Vol.3Issue10/106-112.pdf>
46. **Debnath Palit\***, Arnab Banerjee, (2014), Inventory of Plant Species, Phytosociology, Species Diversity and Pedological characteristics of Rambhi Beat, Senchal East Zone Forest Range, Darjeeling, West Bengal, India. *Journal of Forest Science*, 30(4): 331-341.
47. Santanu Gupta, **Debnath Palit \*** (2014), A Contribution to the Fish faunal status in wetlands of Birbhum District, West Bengal, India. *Asian Academic Research Journal of Multidisciplinary*, 1(28): 40-53.
48. Santanu Gupta, **Debnath Palit \*** (2014), Biosurveillance of wetlands in Eastern India (Birbhum, West Bengal) for wise use. *International Journal of Science, Environment and Technology*, 3(6): 2136 – 2144. <http://www.ijset.net/journal/460.pdf>
49. Santanu Gupta, **Debnath Palit \***(2014), Preliminary Assessment of Designated Usages/ Effective Wetland Management Strategies (EWMS) in Wetlands of Birbhum District, West Bengal, India. *Journal of Environmental Science, Computer Science and Engineering & Technology*, 3(4): 1881-1894.
50. Debalina Kar, **Debnath Palit\*** (2014), Phyto-Diversity on Selected Coal Mine Areas of Raniganj Coalfields, India. *International Journal of Green and Herbal Chemistry*, 3(1): 049- 055. [https://www.researchgate.net/publication/333700910\\_PHYTODIVERSITY\\_OF\\_SELECTED\\_COAL\\_MINE\\_S](https://www.researchgate.net/publication/333700910_PHYTODIVERSITY_OF_SELECTED_COAL_MINE_S)
51. Santanu Gupta, **Debnath Palit\***. (2014), A study on wetlands in Birbhum district, West Bengal, India. *Journal of Applied Sciences in Environmental Sanitation*, 9(2):79-84.
52. Debalina Kar, **Debnath Palit\*** (2014), Perception Regarding Reclamation Strategies in Coal Mine of RCF in West Bengal - A Case Study from India: Implications for Future Development Perspectives in Wasteland Eco restoration. *Journal of Applied Technology in Environmental Sanitation*, 4(1): 1-6.
53. Debalina Kar, Arnab Banerjee, **Debnath Palit\*** (2014), Studies on Phyto-diversity of different types (OCP, PIT, INCLINED) of mines in Raniganj coalfield area, West Bengal, India. *Asian Academic Research Journal of Social Science and Humanities*. 1(19): 515-522.
54. **Debnath Palit\***, Aparajita Mukherjee, Santanu Gupta, Debalina Kar (2014), Water quality in the pit lakes of Raniganj coal field, West Bengal, India. *Journal of Applied Sciences in Environmental Sanitation*, 9(1): 1-6.
55. Partha Sarathi Basu , **Debnath Palit\***, Arnab Banerjee (2013), Assessment of Diversity and Resource Potential of Non-Timber Forest Product(NTFP) in Selected Sites of Bishnupur Forest Division of Bankura District, West Bengal, India, *New York Science Journal*, 6(5): 46-53.
56. Tripti Bouri, **Debnath Palit\***, Ambarish Mukherjee (2013), Phytosociology and Pedological characteristics of selected beats of Durgapur forest range, W.B, India. *Communications in Plant Science*, 3(3-4): 37-45. <https://doaj.org/article/4c891ba297f1469388ee3a527aec9bac>
57. Mousumi Garai, Debalina Kar, **Debnath Palit\***, Arnab Banerjee (2013), Phytosociological Assessment of Vegetation of Durgapur Government College Campus, Durgapur, West Bengal, India. *International Journal of Engineering Research and applications*, 3(6): 835-840. [http://www.ijera.com/papers/Vol3\\_issue6/EK36835840.pdf](http://www.ijera.com/papers/Vol3_issue6/EK36835840.pdf)
58. Santanu Gupta, **Debnath Palit\*** (2013), Effect of Limnochemical Variables on the Aquatic Macrophyte Composition in Wetlands of Birbhum District. *Pollution Research*, 32(4) : 737- 742. [http://www.envirobiotechjournals.com/article\\_abstract.php?aid=4766&iid=165&jid=4](http://www.envirobiotechjournals.com/article_abstract.php?aid=4766&iid=165&jid=4)
59. Santanu Gupta, **Debnath Palit\*** (2013), Inventory and characterization of wetlands in Birbhum district, West Bengal, India: implications for conservation. *Ecology, Environment and Conservation*, 19(4): 995-1000. [http://www.envirobiotechjournals.com/article\\_abstract.php?aid=4811&iid=166&jid=3](http://www.envirobiotechjournals.com/article_abstract.php?aid=4811&iid=166&jid=3)
60. Santanu Gupta, **Debnath Palit\***, Aparajita Mukherjee, Debalina Kar (2013), Inventory of Pit Lakes in Raniganj Coal Field, West Bengal India. *Journal of Applied Technology in Environmental Sanitation*, 3(1): 55-60.
61. Santanu Gupta, Aparajita Mukherjee, **Debnath Palit\***, Paromit Chatterjee, Indrani Biswas (2013), A Reporting on Wire Tailed Swallows (Hirundomithii) winter visit to Durgapur Barrage, West Bengal, India. *Zoosprint*, 28(8): 22-24.
62. **Debnath Palit\***, Arnab Banerjee (2013), Species Diversity and Pedological Characteristics in Selected Sites of Senchal Wildlife Sanctuary, West Bengal, India. *Journal of Environment and Ecology*, 4(1): 111- 137.
63. **Debnath Palit\***, Debalina Kar, Priyanka Mishra, Arnab Banerjee, (2013), Assessment of Air Quality Using several

- Biomonitoring of selected sites of Durgapur, Burdwan District by Air Pollution tolerance index approach. *Indian Journal of Scientific Research*, 4(1): 149-152. [https://www.ijsr.in/upload/744301032CHAPTER\\_27.pdf](https://www.ijsr.in/upload/744301032CHAPTER_27.pdf)
64. Aparajita Mukherjee, **Debnath Palit\*** (2013), Appraisal of Use Pattern in Wetlands of Bankura, a Drought Prone Region from Eastern India. *Journal of Applied Technology in Environmental Sanitation*, 3(4): 141-146.
  65. **Debnath Palit,\*** Santanu Gupta, Arnab Banerjee, Aparajita Mukherjee (2013), Macro invertebrate Community-Environmental Interrelationship in Selected Lotic Ecosystem from Durgapur, West Bengal, India. *Journal of Applied Sciences in Environmental Sanitation*, 8(4): 231-236.
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## Guidance of M.Sc. Dissertation Projects

### *University of North Bengal*

Topic of Dissertation	Academic Session
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Ecological study of Tea Garden Weeds in Happy Valley Tea Estate Darjeeling	2003-2004
Phytosociology and soil characteristics in Senchal East Zone Forest Range, Darjeeling.	2004-2005
Vegetation vis-a-vis soil of Gaddikhana Forest Areas, Darjeeling.	2004-2005
Ecological study of Rajmata Dighi, a wetland in Cooch-behar District, West Bengal.	2004-2005
Ethno botanical study with special reference to some tribal communities in Darjeeling Hill areas.	2004-2005
Phytosociology and pedological characteristics of forest soils of Rambhi Forest Beat, Senchal East Zone Forest Range, Darjeeling.	2005-2006
Ecological study on the plant diversity and influence of vegetation on the properties of soil in Rangirum Forest Beat, Senchal West Zone Forest Range, Darjeeling.	2005-2006
Ecological study on Chatterjee Dighi, a wetland in Falakata, Jalpaiguri	2006-2007
Ethnobotanical implications of plants among Lepchas in East Sikkim.	2006-2007
Eco-taxonomic study on <i>Polygonum</i> in different altitudes ranging from tropical to temperate realms.	2006-2007
Environmental Impact assessment from a copper mining industry in Roogpu, Sikkim.	2006-2007

### *The University of Burdwan*

Topic of Dissertation	Academic Session
The Effect and Evaluation of Toxicity of Municipal sewage Water on Colonization Rate and Community Structure of Zooplankton : A Microcosm Study	2007-2009
Seasonal & Temporal Variation of Entomofaunal Diversity with Reference to Different Light Condition	2007-2009
People's Dependency on Bioresources A Socio-Economic Survey in Durgapur Subdivision of West Bengal	2007-2009
The diversity of Aquatic Macro invertebrates as an indicator of water quality and ecosystem health: A case study for Durgapur, West Bengal, India.	2008-2010
A study on the avifaunal diversity of Satragachi wetland (Ramsar site) West Bengal India.	2008-2010
Comparative study on the aquatic macrophyte diversity in lentic and lotic ecosystem from urban areas of Durgapur, West Bengal, India	2008-2010
A preliminary study on the aquatic macro invertebrate diversity in different lentic and lotic environments from Durgapur, West Bengal, India	2008-2010
A study on the zooplankton diversity in relation to physicochemical parameters of different lentic and lotic environments from Durgapur, West Bengal, India.	2008-2010

### *Kazi Nazrul University*

Topic of Dissertation	Academic Session
Composition, diversity and economic prospects of plants in and around Dalurbandh, a fresh water Pit lake in Raniganj Coal Field Areas (RCF), West Bengal	2017-2018
Floristic composition and vegetation structure in Roopganj Forest Beat, Durgapur Forest Range, Burdwan Forest Division, West Bengal	2018-2019
Assessment of vegetation structure and estimation of Carbon storage potential of dominant species in Pardaha Natural Forest, Durgapur Forest Division, West Bengal	2018-2019