## BIODATA

**NAME**: Dr. Narayan Ghorai

**ACADEMIC QUALIFICATION**: MSc, PhD

**TEACHING EXPERIENCE:** Total 30 years

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| **Courses Taught** | **Name of the University/ College/Institution** | **Duration** |
| Undergraduate | Darjeeling Govt. College  Hooghly Mohsin College  Presidency College | 19 years 6 months |
| Postgraduate | Darjeeling College  Presidency College  West Bengal State University | 17 years |

**SPECIALIZATION:**

ENTOMOLOGY & ECOLOGY

**COURSES TAUGHT:**

* Life Forms, Evolution & Taxonomy
* Cell Biology & Developmental Biology
* Ecology & Quantitative Biology
* Animal Behaviour & Conservation Biology
* Ecosystem and Environmental Hazards
* Elective 1- Applied Entomology and Vector Biology

**AREAS OF RESEARCH INTEREST**

Insect-Plant Interaction

## MAJOR PUBLICATIONS:

1. **Books published**:
   1. Animal interaction with pteridophytes with emphasis on Indian records. Chapter 28, In Pteridology in new millennium Kluwer Academic Publishers, Netherlands
   2. Lac culture In India, International Books and Periodicals Supply Service-New Delhi (Recommended book for the curriculum of University of Calcutta), 1995.
   3. Textbook of Biology (HS Level)-Volume I and II. Both English and Bengali. Tee Dee publishers, Kolkata, 2005.
   4. Study materials for Post Graduate teaching, Subject:Ethology Published by Netaji Subhas Open University, I, Woodburn Park, Kolkata-700020
   5. Madhymaik Jibanbigyan, Classes IX and X. Text Book No. LSO/B/IX- X/05/JOO18L dated 11.04.2005. Tee Dee publishers, Kolkata, 2005.

## Research Papers:

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| Sr.  No. | Title with page Nos. | Journal | ISSN/ISBN/ DOI No. | Peer- reviewed/ Impact  Factor |
| 1. | Bera Subir, Ghorai N., Raut S. K. 1994. Cynipid gall in *Selaginella*  *monospora* Spirng, vol.11. **67-70**. | Indian Fern Journal | ISSN- 0970-2741 | Peer- Reviewed  IF:0.4 |
| 2. | Bera Subir, Ghorai N.1995.Polypodiaceous fern as an alterative host for tea plant *Toxoptera aurantii* Boyar (Aphidae) from Darjeeling Himalayas, West  Bengal*,* vol.12:**168-172** | Indian Fern Journal | ISSN- 0970-2741 | Peer- Reviewed IF:0.4 |
| 3. | Bera Subir, Ghorai N.1995. *Acrostichum aurem* L.-Lepidopteran moth interaction from Suderbans,  West Bengal .vol. 12:**173-176** | Indian Fern Journal | ISSN- 0970-2741 | Peer- Reviewed IF:0.4 |
| 4. | Bera Subir, Ghorai N. 1997. On the occurrence of mite induced stem gall in *Odontospora chinensis* (Dennstaedtiaceae) from Darjeeling,  West Bengal. vol.14:**103-105** | Indian Fern Journal | ISSN- 0970-2741 | Peer- Reviewed IF:0.4 |
| 5. | Bera Subir, Ghorai N.1997. Secondary niche of Parasaissaeta nigra (Nietner) on the fern *Drynaria quercifera* (L) of Polypodiaceae  from Darjeeling and Sikkim Himalayas. Vol.14:**106-109.** | Indian Fern Journal | ISSN- 0970-2741 | Peer- Reviewed IF:0.4 |
| 6. | Bera Subir, Ghorai N.1997. On the interaction between *Podocarpus* sp and plutellid leaf miner from Darjeeling, West Bengal and their possible co-evolution. Vol.63 (9-  10):**239-241.** | Sci. & Cult. | ISSN- 0036-8156 | Peer- Reviewed IF:0.4 |
| 7. | Bera Subir, ‘Rozario A D and Ghorai N., 1998. Feeding niche of aphids on the ferns *Pteridium aquilinum* (L) Kuhn and *Athyrium*  *nigripes* Moor from Lachen Valley, North Sikkim. 52:**63-67.** | Nt. Bot. Soc. |  | Peer- Reviewed IF:0.4 |
| 8. | Bera Subir, Ghorai N.1998. A note on Bracken-*Pteridium aquilinum*(L) Kuhn as to it’s impacts on biological systems.  vol. 64(3-4):**73-74.** | Sci. &Cult. | ISSN- 0036-8156 | Peer- Reviewed IF:0.4 |
| 9. | Bera Subir, Ghorai N.1999. On the  occurrence of mite induced leaf gal | Indian Fern  Journal | ISSN-  0970-2741 | Peer-  Reviewed |

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|  | in *Angiopteris evcta* from Andaman  and Nicobar Islands. Vol 16:**15-18** |  |  | IF:0.4 |
| 10. | Bera Subir, Ghorai N.1999. On the interaction between greenhouse fern *Platycerium*-and Homopteran with special emphasis on interaction  mechanism. Vol. 16:**12-14.** | Indian Fern Journal | ISSN- 0970-2741 | Peer- Reviewed IF:0.4 |
| 11. | Ghorai N. and Bera Subir, 1999. Occurrence of emntomopathogenic fungus *Paecilomyces tenuipe* (Peck) Samson (Dueteromycetes: Moniliacea) on the tea bunch caterpillar *Andraca bipunctata*(Walker) (Lepidoptera:  Bombycidae)., (9-10):**323-324.** | Sci. & Cult. | ISSN- 0036-8156 | Peer- reviewed |
| 12. | Mandal S, Ray R and Ghorai N.2003.An observation on the destruction of *Calotropis gigantius* Br. (a medicinal plant) by  *Aulachophora* sp. | Indian J. of Environ. And Ecoplan | ISSN- 0972-1215 | Peer- reviewed |
| 13. | Roy A, Ghorai N and Sarkar N. K.2004. A preliminary study of phototaxis and chemotaxis in a stored grain pest *Sitophilus oryzae*  L. (Coleoptera: Cucurilionidae). Vol. 8(1&2):**11-16.** | Trans. Zool. Soc. Eat. India, |  | Peer- reviewed |
| 14. | Bera Subir, Ghorai N, Mandal K C, Bera S K and Trivedi A.2004. Role of *Syrphus serraria* Wied as a pollinator in Darjeeling Hills, West Bengal: Paleontological Assessment.  34(1-2):**115-119.** | Geophytology, | ISSN- 0376-5156 | Peer- reviewed |
| 15. | Saha R, Ghorai N and Bera Subir, 2004. Pollen collecting apparatus and mechanism of pollen collection in Asian Giant Honeybee (*Apis*  *dorsata*, Fabr.) vol. 57(2):**67-70.** | Proc. Zool. Soc. Calcutta, | ISSN- 0373-5893  (print) 0974-6919  (online) | Peer- reviewed |
| 16. | Saha R.,Ray R, Chakraborti D, Banerjee K K, Ghorai N and Mukherjee T. 2005. On the variation in *Statilia maculate* (Mantodea: Insecta) from Dudhwa National Park, U.P. India.  vol. 10(3):**939-949.** | Indian J. of Environ. And Ecoplan | ISSN- 0972-1215 | Peer- reviewed |
| 17. | Ghorai N, Mukhopadhyay T, Mukhopadhayay S. 2006. New record of *Hierodula doveri* (Insecta:  Mantodea) and morphology of phallic complex. vol. 21(1):**2112**. | Zoos’ Print Journal | ISSN- 0971-6378  (print) 0973-2543  (online) | Peer- reviewed |
| 18. | Chaterjee A, Ghorai | Proc. Zool. Soc., | ISSN- | Peer- |

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|  | N.2006.Compairtive account of Olfactory Learning Behaviour of Wild-type CsBz Strain and Mutant OK 284 Strain of *Drosophila melanigaster* with refernce to the odorant n-butanol. vol. 59(2):**151-**  **159.** | Calcutta, | 0373-5893  (print) 0974-6919  (online) | reviewed |
| 19. | Sengupta P, Ghorai N, Mukhopadhyay S, 2010. Food Preference and Foraging of Fire Ant *Solenopsis nitens.*  Vol. 63(1):**73-77.** | Proceedings of the Zoological Society, | ISSN- 0373-5893  (print) 0974-6919  (online) | Peer- reviewed |
| 20. | More S, Ghorai N, Bera S, 2010 Study on the Selection of Some Local Pollen Plants in West Bengal, India as Pollen Brood Feed in *Apis cerana* Fabr. Larvae by the Worker Bees, through Meconia Analysis and Community Ordination Method of  Recovered Pollen Taxa. Vol. 63(1):**39-44.** | Proceedings of the Zoological Society, | ISSN- 0373-5893  (print) 0974-6919  (online) | Peer- reviewed |
| 21. | Ghorai N, Raut S. K and Bhattacharyya A. K, 2010.Behavioural ecology of a tea pest,*Andraca bipunctata*(Lepidoptera: Bombycidae), in the Sub-Himalayan climate of Darjeeling(India)., 47(2):  **65-80.** | Biological Lett | ISSN- 1644-7700  (print) 1734-7467  (online) | Peer- reviewed |
| 22. | Mukherjee T. K, Stiewe Martin B.D and Ghorai N., 2010. A new species of praying mantis, *Ephestiasula woodmasoni* n. sp from Gujarat, India with a note on the location of types of some Indian species (Mantodea: Hymenopodidae).Vol.  21(2):**69-73**. | Genus |  | Peer- reviewed |
| 23. | Ghosh Ruby, Ghorai N., Bera S., 2010. On the feeding preference  of some common visitors of guava; a study through pollen analysis. Vol 64 (2): **169-174.** | Botanical society of Bengal. | ISSN- 0971-2976 | Peer- reviewed |
| 24. | Saha T.C, Ghorai N, Raut S.K. and Bhattacharyya A.K. 2011 Effect of temperature on growth, survivorship and reproduction of S*phaerodema*  *annulatum* Fabricius (Heteroptera : Belostomatidae)**.** Vol 1 (2): **20-26.** | Journal of Recent Trends In Biosciences (RTIBS), | ISSN 2249- 376X | Peer- reviewed |

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| 25. | Sengupta P, Ghorai N and Bera S., 2012 On the Quantification of Information Content of Flower- Insect  Interaction by the Species Diversity Indices: A Case Study  in Flower Visiting Hymenopterans. [Vol. 65(1](https://springerlink3.metapress.com/content/0373-5893/65/1/)): **57-60** | Proceedings of the Zoological Society, | ISSN- 0373-5893  (print) 0974-6919  (online) DOI: 10.1007/s12  595-012-  0029-0 | Peer- reviewed |
| 26. | Ghorai N, Chakraborty S, Guccahait S, Saha S and Biswas S., 2012 Estimation of total Terpenoids concentration in plant tissues using a monoterpene, Linalool as a standard  reagent | Protocol Exchange-Nature Publishing Group | DOI:10.103  8/protex.201 2.055 | IF:9.939 |
| 27. | Ray D, Yennawar P, Ghorai N and Mohapatra A., 2013 Addition of three Angelfish (Family: Pomasanthidae) to the Ichthyofauna of West Bengal. Vol. 109(3): **144-**  **147.** | Journal of Bombay Natural History Society |  | Peer- reviewed |
| 28. | Yasmin A, Ghorai N and Islam A.,2013 Alteration of haemogram in relation with varied ecological factors and pathological conditions in *Alphitobius diaperinus* (Coleoptera: Tenebrionidae)  Vol. VI (C): **956-962.** | Recent Advances in Animal Science Research | ISBN-  81-88094-  02-9 |  |
| 29. | Sengupta P and Ghorai N.,2013 On the plant-butterfly interaction in the surroundings of the upper Neora Valley National Park, a sub-tropical broad leaved hill forest in the eastern Himalayan landscape of West Bengal, India. Vol. IV (4):**21-30.** | NeBIO | ISSN-2278- 2281  (Online Version) ISSN-0976-  3597 (Print Version) | Peer- reviewed |
| 30 | Sengupta P.,K.K. Banerjee & Ghorai N.,2014 Seasonal diversity of Butterflies and their larval food plants in the surroundings of upper Neora Valley National Park, a sub- tropical broad leaved hill forest in the East Himalayan landscape, West  Bengal, India**.** 6(1): **5327-5342** | Journal of Threatened Taxa | ISSN-0974- 7907  (online) ISSN-0974-  7893 (print) | Peer- reviewed |
| 31 | Ghorai, N. and Sengupta, P. 2014 Altitudinal Distribution of Papilionidae butterflies along with their larval food plants, in the Easr  Himalayan landscape of West Bengal, India. 2: **1-8** | Journal of Biosciences and Medicines | DOI:  10.4236/jbm  .2014.21001 | Peer- reviewed |

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| 32 | Dey, S, Mukherjee, D., Chakraborty, S., Mallick, S., Dutta, A., Ghosh, J., Swapana, N., Maiti, S., Ghorai, N., Singh, C.B. & Pal, C. 2015 Protective effect of *Croton caudatus* Geisel leaf extract agaiest experimental visceral leishmaniasis induces proinflammatory cytokines  *in vitro* and *in vivo* 151-152; **84-95** | Experimental Parasitology |  | Peer- reviewed |
| 33 | Chatterjee, P and Ghorai, N. 2015. Patterns of population fluctuation of *Chrysocoris stollii* Wolf [Insecta:Hemiptera] in a natural ecosystem. Vol-III; 51-59 | Prommalia | ISSN:2320- 4311 | Peer- reviewed |

**OTHER NOTABLE ACTIVITIES**

**List of seminars/symposium/workshop attended**

* 1. 2014 Conference on Botany (CB 2014) between 12-14th March, 2014 in Suzhou, China
  2. International seminar on “Darwin and Human Evolution” organized by The Asiatic Society on the occasion of 200 years of the birth of Charles Darwin and 150 years of the publication of the book Origin of Species between 10-12th of February, 2010.
  3. National Seminar and Biennial Conference, 2010 on “Reforms in Higher Education: Meeting the Challenges” organized by University District Committee, WBCUTA in collaboration with Vidyasagar University Teachers’ Association held on 12th February, 2010.
  4. Seminar on “Awareness and Recent Development in life Science” organized by the UG and PG Department of Zoology, Bethune College and sponsored by the Department of Higher Education, West Bengal, held on 28th March, 2008.
  5. National Seminar on “Science since Linnaeus” organized by Bidhannagar College between 18-19th March, 2008.
  6. UGC Sponsored National Symposium on “Current Trends in Zoological Research” organized by the Department of Zoology , Presidency College, Kolkata between 9-10th March, 2007.
  7. UGC Sponsored Seminar on “ Issues of Autonomy in Government Colleges” organized by Sanskrit College, Kolkata and West Bengal Government College Teachers’ Association held at Presidency College, Kolkata on 27th January, 2007.
  8. National Seminar on “Evolutionary Biology and Biotechnology” to mark the Birth Centenary of Prof. Ernst Mayr, organized by The Zoological Society, Kolkata in collaboration with Zoological Survey of India and Department of Zoology, University of Calcutta and sponsored by the Department of Biotechnology, Ministry of Science and Technology, Govt. of India held at Meghnad Saha Auditorium of the CGCRI, Kolkata on 26th February, 2005.
  9. Ditiya Paschim Bongo Samajbigyan Congress organized by Hooghly Mohsin College and Indian Academy of Social Sciences held between 15-17th of November, 2002.

**Innovations/Contribution in teaching:**

Design of Curriculum:

1. Under graduate syllabus of Zoology of the University of Calcutta.
2. Post graduate syllabus of Zoology of Vidyasagar College, Bidhannagar College and Barasat Govt. College.
3. West Bengal State University
4. Regular councillor of the Postgraduate courses of Zoology of Netaji Open University.

**Participation in Corporate Life:**

Membership of professional bodies, societies etc.:

Zoological Society, Calcutta

West Bengal State University Teachers’ Association

West Bengal College and University Teachers’ Association

Editorship of Journals: Ekhon Aranyak (Bengali Magazine)

**Supervision of M-Phil / Ph D Degrees:**

**M-PHIL Awarded:**

1. On the relative efficacy of mosquito larvivory in Guppy (*Poecilia reticulata*) and Gambusia (*Gambusia affinis*). Dhruba Manta. Enrolment Number: 91/FSP/No. 084003. University of Calcutta, 2008.
2. Faunal Diversity of Aquatic Insects in Freshwater Wetlands of South-Eastern West Bengal. Asit Das. Enrolment Number: KU/MP/ZOO/0026/08. University of Kalyani, 2011.
3. Phytotelmata. Indrajit Ghosh. Enrolment Number: KU/MP/ ZOO/046/08. University of Kalyani, 2011.

**Registered Scholars for Ph D Degrees:**

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| **Sr No.** | **Name** | **Topic** | **Name of the University under which the candidate is registered** |
| 1 | Aziza Yasmin | Biology of *Alphitobius* sp. | West Bengal State University |
| 2 | Dipanjan Ray | Study of Icthyofauna of northern part of east coast of India with special references to ornamental fishes | West Bengal State University |
| 3 | Panchali Sengupta | Altitudinal Diversity and Habitat Preference of butterflies from the adjacent areas of protected regions in the East Himalayan Landscape of West Bengal India | West Bengal State University |
| 4 | Sanjay Naiya | Biology of honey bee (*Apis cerena indica*) | West Bengal State University |
| 5 | Prasad Tudu | Coastal marine biodiversity | West Bengal State University |
| 6 | Sandipan Chakraborty | Biology of lac insects | West Bengal State University |
| 7 | Md. Siraj-ul Haque | Behavioral Ecology of Baya Weaver Bird (*Ploceus* *philippinus*) | Netaji Subhas Open University |