

CURRICULUM VITAE

A. General Information

- a) Name : **Mary Nirmala Borgia**
- b) Address (Residential) : **Samrudhi, Arattuthara PO, Mananthavady**
- c) Ph. No. : **04935-242518 , 9947 644 699**
- d) Designation : **Associate Professor**
- e) Department : **Zoology**
- f) Date of Birth : **24. 01. 1968**
- g) Area of Specialization : **Entomology- Insect Endocrinology and Biological control of insect pests.**

B. Academic Qualifications

| Exam Passed | Board/ University | Subjects | Year | Division/Grade Merit etc. |
|---|------------------------------|-----------------------------|-------------|--------------------------------------|
| High School | Board of Pub.Exam. | All | 1983 | I Class |
| Higher Secondary or Pre-degree | Uty. of Kerala | II group | 1985 | I Class |
| Bachelor's Degree (s) | Uty. of Kerala | BSc. Zoology | 1988 | I Class |
| Master's Degree (s) | Uty. of Kerala | General &Applied Zoology | 1990 | I Class-II Rank |
| Research Degree (s) MPhil. | Uty. of Kerala | Zoology | 1992 | A-Grade- I Rank |
| PhD. | Uty. of Kerala | Zoology | 2018 | |
| BEd | Uty of Kerala | Natural Science | 1994 | I Class |

* Teachers already in employment at the time of introduction of the scheme and for new entrants at the time of joining of the institution.

C. Research Experience & Training

a) Research works performed

1. Carried out 'Effect of temperature on the life history of *Drosophila ananassae*', during MSc. course at Dept. of Zoology, Uty. of Kerala, Kariavattom, Trivandrum.
2. Carried out 'Mechanism of action of JH analogue S-methoprene on Ovarian Development of *Drosophila ananassae*' during MPhil course at Dept. of Zoology, Uty. of Kerala, Kariavattom, Trivandrum.
3. Carried out research on BIOCONTROL POTENTIAL OF THE ENTOMO PATHOGENIC NEMATODE *Heterorhabditis indica* AGAINST SELECTED PESTS OF CUCURBITS' during PhD course at Dept. of Zoology, Fatima Mata National College, Kollam under Uty. of Kerala.

b) Student projects for the Degree Course.

1. Estimation of lipid contents in Common Non-vegetarian Food items (1998 - 1999)
2. Studies on Common and Interesting Insects of Mananthavady (1999-2000)
3. A Study on Mammalian Fauna of Muthanga Forest (2000- 2001)
4. Common Butterflies of our Campus (2001- 2002).
5. A Survey on Plastic Waste Disposal of Mananthavady Panchayath (2002-2003)
6. A Survey on Plastic Waste Disposal of Mananthavady Panchayath (2003-2004)
7. Designs of Rain Water Harvesting .(2004-2005)
8. A Survey on Pesticide Application and Methods on Agricultural Crops of Mananthavady Panchayath – (2005-2006) .
9. Solid Waste Management in Mananthavady (2006 – 2007).
10. A study on Addiction and Deddiction (2007 – 2008)

11. Sickle Cell Anaemia- Occurance, Frequency and Prevalence in Mananthavady Thaluk (2008 - 2009)
12. A Study on Common Insects of the Class Room (2009 - 2010)
13. Methods and Application of Pesticides on Common Agricultural Crops of Mananthavady Thaluk (2010- 2011).
14. Pests and Effective Pesticides of Agricultural Crops of Mananthavady Panchayath (2011-2012)
15. Common Insect Pests of Cucurbits in Mananthavady (2012-2013).
16. Common insect pests of bitter gourd, *Momordica charantia* in the agricultural fields of Mananthavady - Chettappalam, Kaniyaram and Thonichal (2017-2018).
17. Common insect pests of bitter gourd, *Momordica charantia* in the agricultural fields of Mananthavady- Kammana, Dwaraka and Ondayangadi (2018-19).

D. Publications

1. **Mary Nirmala Borgia 2008.** Methods and Application of Pesticides on Common Agricultural Crops of Mananthavady-2006. Proceedings of National Seminar on Challenges of Environmental Pollution-2008.
2. **Mary Nirmala Borgia and Mary Teresa P. Miranda 2016.** Biomomics, Damage caused, Biology and Morphometrics of 28-spotted Lady beetle *Epilachna vigintioctopunctata* (Fab.) (Coleoptera: Coccinellidae) - A serious pest of Bitter gourd, *Momordica charantia* in Kerala. *International journal of Applied and Pure Science and Agriculture (IJAPSA)*, **2** (6): 262-267.
3. **Mary Nirmala Borgia and Mary Teresa P. Miranda 2016.** Pest potential, Bionomics, Rearing and Morphometrics of Melon Fruit fly (Diptera) - A serious Pest of Cucurbits in Kerala. *Journal of Ecotoxicology and Environmental Monitoring*, **26**(1): 08-13.
4. **Mary Nirmala Borgia, A. Josephraj Kumar and Mary Teresa P. Miranda 2017.** Biocontrol potential of *Heterorhabditis indica* against the maggot of *Bactrocera cucurbitae* (Diptera:Tephritidae). *ENTOMON*, **42**(1): 69-74.
5. **Mary Nirmala Borgia and Mary Teresa P. Miranda 2015.** Bionomics, Method of Laboratory rearing and Life cycle of the 28-Spotted Lady Beetle, *Epilachna vigintioctopunctata* (Fab.)(Coleoptera: Coccinellidae)- A Serious Pest of Bitter

gourd, *Momordica charantia* in Kerala. *In. Book of Abstracts, 25th Swadesi Science Congress, December 16 – 18, 2015.*

- 6. Mary Nirmala Borgia and Mary Teresa P. Miranda 2016.** Bionomics, Damage caused and Laboratory rearing of the Melon Fruit Fly, *Bactrocera cucurbitae* (Coquillett) (Diptera: Tephritidae)- A Serious Pest of Cucurbits in Kerala. National Seminar on '*Recent Challenges in Biodiversity Conservation*, March 22 – 23, 2016.

E. Seminars, Conferences, Symposia, Workshops etc. attended

1. Attended *XIII National Conference of Comparative Animal Physiology* at Dept. of Zoology, Uty. of Kerala, Kariavattom, Trivandrum, on 20.09.1991.
2. *Orientation Programme in Multidiscipline* sponsored by UGC in University of Kerala from 30.05.2001 to 26.06.2001 .
3. *Refresher Course in Environmental Science* sponsored by UGC at University of Kerala from 14.03.2002 to 04.04.2002 .
4. *Refresher Course in Environmental Science* sponsored by UGC at University of Kerala from 10.03.2004 to 31.03.2004.
5. *Refresher Course in Life Science* sponsored by UGC at University of Kerala from 25.10.2006 to 14.11.2006.
6. NAAC sponsored *State Level Workshop, organized by IQAC*, Mary Matha Arts And Science College, Mananthavady on 20.06.2006 and 21.06.2006.
7. Seminar on *Grading at Under Graduate Level organized by IQAC*, Mary Matha Arts and Science College, Mananthavady on 08.08.2008.
8. National Seminar on *Challenges of Environmental Pollution* organized by Dept. Of Chemistry, Mary Matha Arts and Science College, Mananthavady, on 11.12. 2008 & 12.12.2008
9. One Day Workshop on *Choice Based Credit & Semester System* sponsored by Kannur University at Govt.College, Mananthavady 25.09.2009.
10. Co-ordinated certificate course on '*Organic Farming 2010-'12*' organized by Dept. of Zoology, Mary Matha Arts & Science College, Mananthavady.

11. 'National Seminar on *Biodiversity Conservation: Prospects and Challenges*' organized by Research Department of Zoology, Govt. College, Kasaragod held on 11th and 12th of December, 2012.
12. National Seminar on *Challenges in Biodiversity Conservation in the context of Climate Change* held at Dept. of Zoology, Uty of Kerala, Kariavattom, TVM from 28th-29th May 2013.
13. *Pollinator Conservation and Education Training Workshop* held at Tamil Nadu Agricultural University (TNAU), Coimbatore from 3rd – 5th June, 2013.
14. National Symposium on *Emerging trends in Ecofriendly Insect Pest Management*, organized by Department of Agricultural Entomology, Centre for Plant Protection studies, Tamil Nadu Agricultural University (TNAU), Coimbatore from 22-24 January, 2014.
15. 26th *Kerala Science Congress* at KVASU, Pookode, Wayanad from 28th to 31st January, 2014.
16. *Five days Bee keeping Training Course* conducted by the District Khadi and Village industries office, Kollam under the 'thenkalavara' project from 5th to 9th January 2015 at Ramankulangara village Industries Park .
17. 25th *Swadesi Science Congress* held at Sree Sankaracharya University of Sanskrit, Kalady during 16th -18th December 2015.
18. National seminar on '*Recent Challenges in the Biodiversity Conservation*' held on 22nd and 23rd March 2016 at the dept. of Zoology, Uty of Kerala, Kariavattom, TVM.
19. 29th *Kerala science Congress* held at Marthoma College, Thiruvalla during 28-30 January 2017.
20. *The Western Ghats Fresh water biodiversity Conservation Education Workshop* held at Mary Matha Arts & Science College, Mananthavady, Wayanad on 25th November, 2017.

F. Teaching Experience

| 1. Courses Taught | Duration | Name of the Uty/ College/ Institution |
|---------------------------------------|---------------------------|--|
| Junior Lecturer in Biology | 15.07.1996 to 31.10.1996. | VHSE, Nandikkara, Trichur. |

| | | |
|----------------------|---------------------------|---|
| B.Sc. Zoology | 1.08.1996 to 1.11.1996 | Govt. Sanscrit college, Pattambi |
| ” | 2.11.1996 to 13.03.1997 | Mary Matha Arts & Science College, Mananthavady |
| ” | 8.09.1997 till date | Mary Matha Arts & Science College, Mananthavady |

2. **Total Teaching Experience** : 22years.

3. **Under-graduate (Hons.)** : 22years

4. **Post-graduate** : Nil

G. Innovations/Contributions in Teaching

a) Design of Curriculum

Syllabus restructuring and modification, question paper setting of other universities etc.

b) Teaching methods

Lecture method, Demonstration method, Experimental method, Smart classes, Power point presentations etc. according to the needs and requirements of the students.

c) Laboratory experiments

Frequently using the laboratory equipments and experiments including microscopes, moicrotome, pH meter, colorimeter, chromatography, experiments in Physiology, Biochemistry, Embryology etc.

d) Evaluation methods

Test Papers, Assignments, Seminars, Projects, Discussions, viva voce etc.

e) Preparation of resource materials including books, reading materials, laboratory manuals etc.

Select materials from recent books, journals, internet and prepare notes for theory and practical purposes.

f) Remedial Teaching / Student Counseling (academic)

Actively involved in remedial teaching and frequent counseling to the students for their academic and personal problems; and also providing moral, mental, financial and personal support to the students. Also mentor of final year BSc. Zoology class.

g) Any other

Participated in the College Level Monitoring Committee for the Effective Implementation of the Credit and Semester System. Functioned as Head of the Department of Zoology from 1.06.2009 to 10-2-2012 and involved in each and every academic matter of students and appointments of teachers. Skilled assistant for practical examinations of degree students of our college. Examiner of practical examinations of other colleges and participate in centralized valuation camps of the University examinations. Had been Secretary to Staff Council, PTA Executive Council Member, Staff Association Secretary, Member of the College Co-operative Store Director Board, Member of Library Advisory Committee etc.

H) Extension Work/Community Service

Involved in activities and projects on relevant local issues related to science. Organizing programs like seminars, workshops, quiz programs and exhibitions to the public and students of other institutions for rendering scientific attitude, knowledge, aptitude and interest. Support and encourage students to do community service

through NCC, NSS, various clubs, associations etc. Co-ordinating ECOFRIENDS and organizing programs of scientific and local importance involving both students and public. Conducting and co-ordinating certificate course on ‘Organic Farming- Container farming.’ Guidance is given to students to perform projects on important local and environmentally relevant issues. **00000000**

I). Participation in Corporate Life

Please give a short account of your contribution to:

a) Co-Curricular Activities -College/University/Institution

Co-ordinated and conducted certificate course on Organic Farming, Organic Farming with special reference to Container Farming, one day workshop on ‘Fresh water biodiversity of Western Ghats’, participated in a one day Seminar on ‘Apiculture’ and co-ordinated two day workshop on ‘Getting Along with Elephants’ etc.

b) Enrichment of Campus Life . (Hostels, sports, games, cultural activities)

Support and participate in campus enrichment life by acting as Co-ordinator to Fine Arts Committee, Judge of University Youth festival selection competitions, Judge of University Sports selection competitions etc.

c) Students Welfare and Discipline

Actively involving and co-ordinated various student oriented programs as advisor to the Student’s Union (thrice), Fine Arts co-ordinator, co-Ordinator of ECOFRIENDS, co-ordinator to Canteen Committee, co-ordinator to Women Harassment Prevention Committee, co-ordinator of Anti-harassment Committee, co-ordinator of Certificate Course on Organic Farming, member of Career Guidance and Counselling Cell, member of Grievance Redressal and Counselling Cell, member of

Carreer Guidance and Placement Cell, member of Prevention of Ragging and Campus Violence Cell, member Anti-ragging Squad, member of Discipline Committee etc.

d) Membership/Participation in Bodies/Committees on Education and National Development

(a) Membership of Professional Bodies, Societies etc.

1. Member, Board of Studies UG - Kannur University
2. Member, Faculty of Science - Kannur University
3. Member of Association for Advancement of Entomology (AAE).

(b) Editorship of Journals - Nil

e) Any other information

Attended Research work under UGC-FIP from 12th June 2014 to 11th June 2017 and successfully completed the course and the degree is awarded in March, 2018.

(Signature of the Teacher)