RESUME

Dr. Banumathi Balan
Science Campus, Alagappa University
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Education

- **Ph.D (Zoology)** Alagappa University (2019).
- **M. Phil (Zoology) 72 %**, Govt. Arts College, Coimbatore, Bharathiar University (2013).
- **M.Sc. Wildlife Biology** (Zoology) **88 %** (**GOLD MEDALIST**), Govt. Arts College, Ooty, Bharathiar University (2010).
- **B. Ed (Biological Science) 75.24 %**, Lady Willingdon Institute of Advanced study in Education, Chennai, Madras University (2008).
- **B.Sc (Animal Science and Bio-Technology) 84.18 %**, Govt. Arts college, Ooty, Bharathiar University (2007).
- **H.S.C. (71.4 %),** Sri Shanthi Vijai Girls Higher Secondary School, Ooty (2004).
- **S.S.L.C (85 %),** Sri Shanthi Vijai Girls Higher Secondary School, Ooty (2002).

Research

Ph.D Thesis

TITLE: Ethnomedicinal Plants and green synthesized zinc oxide nanoparticles for the control of *Rhipicephalus (Boophilus) microplus*, *Lucilia sericata* and *Aedes aegypti*.

AREA: Nilgiri Biosphere Reserve

DURATION: 5 years

M.Phil Dissertation

TITLE: Occurrence of Indicator Bacteria, Pathogens, Nutrients and Heavy metals in Sediments of Noyyal River near its Source and Downstream in Coimbatore District.

AREA: Coimbatore District.

DURATION: 1 year

M.Sc Dissertation

TITLE: Observations on Calliphorid flies infesting animal cadavers in The Nilgiris (Forensic Entomology).

AREA: Nilgiri Biosphere Reserve.

DURATION: 6 months

Research Publications

1. **Banumathi B,** Baskaralingam Vaseeharan (2015). A Report on Medicinal Plants Used in Ethno Veterinary Practices of Toda Tribe in the Nilgiri Hills. **Journal of Veterinary Science and Technology, 6 (5): 245** (Open Access).
2. **Banumathi B**, Malaikozhundan B, Vaseeharan B (2016). *In vitro* acaricidal activity of ethnoveterinary plants and green synthesis of zinc oxide nanoparticles against *Rhipicephalus (Boophilus) microplus*. **Veterinary Parasitology, 216: 93-100** (Elsevier, Netherlands, Impact Factor: **2. 356**).
3. **Banumathi B**, Vaseeharan B, Malaikozhundan B, Ramasamy P, Govindarajan M, Alharbi NS, Kadaikunnan S, Canale A, Benelli G (2018). Green larvicides against blowflies, *Lucilia sericata* (Diptera, Calliphoridae): screening of seven plants used in Indian ethno-veterinary medicine and production of green coated zinc oxide nanoparticles. **Physiological and Molecular Plant Pathology, 101: 214-218** (Elsevier, Netherlands, Impact Factor: **1.139**).
4. **Banumathi B**, Vaseeharan B, Ishwarya R, Govindarajan M, Alharbi NS, Kadaikunnan S, Khaled JM, Benelli G (2017). Toxicity of herbal extracts used in ethno-veterinary medicine and green-encapsulated ZnO nanoparticles against *Aedes aegypti* and microbial pathogens. **Parasitology Research, 116: 1637-1651** (Springer, Netherlands, Impact Factor: **2.329).**
5. **Banumathi B**, Vaseeharan B, Rajasekar P, Prabhu NM, Ramasamy P, Murugan K, Canale A, Benelli G (2017). Exploitation of chemical, herbal and nanoformulated acaricides to control the cattle tick, *Rhipicephalus (Boophilus) microplus* – A review. **Veterinary Parasitology** (Elsevier, Netherlands, Impact Factor: **2. 356**).
6. **Banumathi B**, Vaseeharan B, Suganya P, Citarasu T, Govindarajan M, Alharbi NS, Kadaikunnan S, Khaled JM, Benelli G (2017). Toxicity of *Camellia sinensis*-Fabricated Silver Nanoparticles on Invertebrate and Vertebrate Organisms: Morphological Abnormalities and DNA Damages. **Journal of Cluster Science**, **28: 2027-2040** (Springer, Netherlands, Impact Factor: **1.302**).

7. **Banumathi B**, Vaseeharan B, Thenmozhi C, Vijayakumar S, Govindarajan M, Alharbi NS, Kadaikunnan S, Khaled JM, Benelli G (2017). *Euphorbia rothiana*-fabricated Ag Nanoparticles showed high toxicity on *Aedes aegypti* larvae and growth inhibition on microbial pathogens: A focus on morphological changes in mosquitoes and antibiofilm potential against bacteria. **Journal of Cluster science, 28: 2857-2872** (Springer, Netherlands, Impact Factor: **1.302**).
8. Suganya P, Vaseeharan B, Vijayakumar S, **Banumathi B,** Govindarajan M, Alharbi NS, Kadaikunnan S, Khaled JM, Benelli G (2017). Biopolymer zein-coated gold nanoparticles: Synthesis, antibacterial potential, toxicity and histopathological effects against the Zika virus vector *Aedes aegypti*. **Journal of Photochemistry and Photobiology, B: Biology, 173: 404-411** (Elsevier, Netherlands, Impact Factor: **2.673**).
9. Ishwarya R, Vaseeharan B, Kalyani S, **Banumathi B,** Govindarajan M, Alharbi NS, Kadaikunnan S, Alanbr MN, Khaled JM, Benelli G (2018). Facile green synthesis of zinc oxide nanoparticles using *Ulva lactuca* seaweed extract and evaluation of their photocatalytic, antibiofilm and insecticidal activity. **Journal of Photochemistry and Photobiology, B: Biology, 178: 249-258** (Elsevier, Netherlands, Impact Factor: **2.673**).

Research Interest

- Pharmacological Nanotechnology
- Parasitology

Fellowship

- **UGC RGNF** (UGC-Rajiv Gandhi National Fellowship) 2013-2018: UGC letter no. F1-17.1/RGNF-2012-13-SC-TAM-23853 dated 28.02.2013

Additional qualification

- Computer- Cum Internet literacy programme passed in first class conducted by the Directorate of collegiate education, Department of Higher Education, Govt. of Tamilnadu in Govt. Arts College, Ooty (2004-2005).
- D.C.A (Diploma in Computer Applications) passed in the first class held at Kalaimagal Computer Education, Ooty. (2006).
- Completed the Course of Tailoring under Vocational Training Programme, Conducted by Nehru Yuva Kendra, Ooty.

- Trained in the Basic Guide Captain (The Bharat Scouts and Guides) 2008 held at Camp Tonakela, Avadi.

Achivements

International Conference

- Presented a poster in the International Conference on **"Environment Genes, Health and Diseases"** during the Year 2011 held at Bharathiar University, Coimbatore.
  Title: Observation on Calliforid flies infesting animal cadavers in the Nilgiris.

National Conference

- Presentend a paper in the **"9th NABS National Conference on New Biological Researches: Opportunities and Challenges for sustainable development**" during the year 2016 organized by Madurai Kamaraj University, Madurai.
  Title: Research and validation of Ethnoveterinary medicinal practices of Toda tribes in the Nilgiri hills, Tamil Nadu.

- Presentend a paper UGC sponsored national seminor on "**Implication of Biotechnology in Conservation in Biodiversity**" during the year 2009 held at Govt Arts College, Ooty.
  Title: Diversity of forensically important insects of Nilgiris.

- Presented a paper in national level seminar on "**Vistas in Plant and Microbial Biotechnology**" during the year 2010 held at Sengunthar Arts and Science College, Tiruchengode.
  Title: Pollution status of Ooty Lake.

- Presented a paper in a "**National Symposium on emerging trends in the life sciences**" during the year 2010 held at Rajah Serfoji Govt College, Thanjavur.
  Title: Status and distribution of the Black and Orange Flycatcher in the Nilgiris.

- Presented a paper in national seminar on "**Forest Bioresources Management**" during the year 2011 held at PSGR Krishnammal College for Women, Coimbatore.

Participation (Animal Census)

- Participated in the synchronized Tiger co-predators and prey base monitoring census program, 2010 at Mudumalai Tiger Reserve.
- Participated in the annual animal census 2009 at Tamilnadu Forests Nilgiri North Division.

Personal Details

Surname	:	Balan
Given Names (in full)	:	Banumathi Balan
Date of Birth	:	09/05/1987
Country of Birth	:	India
Citizenship	:	Indian
Mother tongue	:	Tamil
Marital status	:	Married
Languages known	:	Tamil and English
Official Address	:	Department of Animal Health Management Science Campus, Alagappa University Karaikudi - 630 003, India.
Permanent Address	:	48, Kerada road, Lovedale post, Ooty The Nilgiris 643 003, Tamil Nadu, India.

Declaration

I hear by all the above details furnished in this resume are true to the best of my knowledge.

Date : 25/06/2020

Place : Ooty

BANUMATHI. B