

## List of Research Publications

### **Book Publications**

1. Mazibur M Rahman, Muhsina Yasmin and Murshida Begum (2022). Insect Plant Interaction: Repellent Plants from Jahangirnagar University Campus: In Environmental Thoughts Part:II. *A Joint Collaboration of Centre for Management Reseach and Information Technology and Greentech Foundation Bangladesh. 2: 11-35.*
2. Murshida Begum, Tasrina Rabia Choudhury and Jakia Sultana (2021) Accumulation of heavy metals in Insects, Fish and Prawn: Histopathological evidence in brain and ovary. *Lambert Academic Publishing. 97pp*
3. Murshida Begum, Tasrina Rabia Choudhury and Khatune Jannat (2021) Accumulation of heavy metals in some arthropods, mollusks and marine fishes: Their impact on brain and ovary. *Lambert Academic Publishing. 145pp*
4. Murshida Begum, Tasrina Rabia Choudhury and Selina Akter (2021) Accumulation of heavy metals in Insects, Fish and Prawn: Accumulation of heavy metals. *Lambert Academic Publishing. 97pp*
5. Murshida Begum and Mousumi Khatun Morphometric study and Molecular identification of *Chrysomya megacephala* (Fabricius, 1794) (Diptera:Calliphoridae) of Dhaka city (2020). *Lambert Academic Publishing.61pp.*
6. Murshida Begum, Fahima Siddika and Tasrina Rabia Choudhury (2020) Evaluation of some metals accumulated in animal diversity of Cox's Bazar and Teknaf ares in bangladesh. *Lambert Academic Publishing.181pp.*
7. Murshida Begum, Humayun Reza Khan and Antara Saker(2019). Accumulation of metals in some insects of tannery and non-tannery area. *Lambert Academic Publishing. 125pp*

8. Begum, M. ``Search for possible bioassays in unraveling the brain-gonad axis in two model insect species`` (2004). *Katholieke Universiteit Leuven, Belgium*. 103pp
9. Murshida Begum, Tasrina Rabia Choudhury and Jakia Sultana (2021)

### ***International Journals***

1. Baggerman, G., Cerstiaens, A., Vandenbosch, L., Huybrechts, R., Clynen, E., Verleyen, P., Vercammen, T., Schoofs, L., **Begum, M.** & De Loof, A. (2002) Search for candidate gonadotropins in extracts of the corpus cardiacum of the flesh fly, *Neobellieria bullata*. *Invertebrate Reproduction and Development*. **41**(1-3): 119-125. *Impact Factor 0.419; (Published by Balaban in collaboration with the International Society of Invertebrate Reproduction, Israel)*.
2. **Begum, M.**, Macours, N., Schoofs, L., Rahman, M. M., De Loof, A. & Huybrechts, R. (2003) Cloning and tissue distribution of the cyclic AMP generating peptide of the grey flesh fly *Neobellieria bullata*. *Belgian Journal of Zoology*. **133**: 151-156. *Impact Factor 0.333; Published by the Royal Zoological Society of Belgium, Belgium*).
3. Rahman, M. M., Baggerman, G., **Begum, M.**, De Loof, A. & Breuer, M. (2003) Purification, isolation and search for possible functions of a phase -related 6080Da peptide from the haemolymph of the desert locust *Schistocerca gregaria*. *Physiological Entomology*. **28**: 39-45. *Impact Factor 1.355; Blackwell publishing published on behalf of the Royal Entomological Society of London, UK*).
4. Rahman, M. M., Vandingenen, A., **Begum, M.** Breuer, M., De Loof, A. & Huybrechts, R. (2003) Search for phase specific genes in the brain of desert locust, *Schistocerca gregaria* (Orthoptera : Acrididae) by means of differential display polymerase chain reaction. *Comparative Biochemistry and Physiology (Part A : Molecular & Integrative Physiology)*. **135**: 221-228. *Impact Factor 1.553; Elsevier Science, Canada*.
5. **Begum, M.**, Breuer, M., Kodrik, D., Rahman, M. M. & De Loof, A. (2004) The NMDA-receptor antagonist MK-801 inhibits vitellogenesis in the fleshfly *Neobellieria bullata* and in the desert locust *Schistocerca gregaria*. *Journal of Insect Physiology*. **50**: 927 – 934. *Impact Factor 2.019; Elsevier Science, UK*).

6. Sas, F., **Begum, M.**, Vandersmissen, T., Geens, M., Claeys, I., Van Soest, S., Huybrechts, J., Huybrechts, R. & De Loof, A. (2007) Development of a real-time PCR assay for measurement of yellow protein mRNA transcription in the desert locust *Schistocerca gregaria*: A basis for isolation of a peptidergic regulatory factor. *Peptides* **28**: 38 – 43. *Impact Factor 2.701; Elsevier Science, USA.*
  
7. Rahman, M. M., Beuer, M., **Begum, M.**, Baggerman, G., Huybrechts, J. and De Loof, A. (2008) Localization of the Phase-Related 6-kDa peptide (PRP) in different tissues of the desert locust *Schistocerca gregaria* – immunocytochemical and mass spectrometric approach. *Journal of Insect Physiology*, **54**:543-554. *Impact Factor 2.019; Elsevier Science, USA.*
  
8. **Begum, M.**, Rahman, M. M., Huybrechts, R. and De Loof, A. (2008) Developmental expression and hormonal regulation of male-specific Yellow Protein mRNA in adults of the desert locust, *Schistocerca gregaria*. *Pestycydy/Pesticides*. **1-2**:35-41.
  
9. Rahman, M. M., Vanden Bosch, L., **Begum, M.**, Breuer, M. & De Loof, A. (2008) Phase-related 6-kDa peptide titre in haemolymph of larvae and adult *Schistocerca gregaria* and its role in yellow-protein synthesis. *Physiological Entomology*. **33**:123-128. *Impact Factor 1.364; Wiley Online Library.*
  
10. Islam, A.T.M.F., Islam, M.H., Hossain, **Begum, M.**, Saifullah, A.S.M. and Yamanaka, A. (2016). Population structure of pierid butterflies in savar at North West part of Dhaka, Bangladesh. *Journal of Entomology and Zoological Studies*. **4**(5): 665-671.
  
11. Md. Ashiqur Rahman, Md. Sazedul Islam, Papia Haque, M. Nuruzzaman Khan, Makoto Takafuji, **Murshida Begum**, Gawsia W. Chowdhury, Mala Khan and Mohammed Mizanur Rahman. (2020). Calcium ion mediated rapid wound healing by nano-ZnO doped calcium phosphate-chitosan-alginate biocomposites. *Materialia*. **13** (100839): 1-11.
  
12. Gawsia Wahidunnessa Chowdhury, Md Nazmul Hasan Niloy, Md Emran Ahammed Emon, Md Ashikur Rahman Shome, Sukanya Hasan , Ashifa Akter, and **Murshida Begum (2022)**. The Conservation Status of the Aquatic Macroinvertebrates of Bangladesh. *Imperiled: The Encyclopedia of Conservation*. Pages 485-491.

## **National Journals**

1. Aminuddin, M., **Begum, M.**, Hossain, M. I. & Malek, M. A. (2002) Studies on the active ingredients in locally manufactured mosquito coils. *Bangladesh Journal of Science and Technology*. **4** (2): 321-324.
2. **Begum, M.**, Hossain, M. I., Malek, M. A. & Rahman, M. M. (2006) Efficacy and Chemical analyses of some locally produced mosquito repellents against *Culex quinquefasciatus* (Say). *Nuclear Science and Applications*. **15**(1): 108 – 115.
3. Rahman, M. M., Huque, R. and **Begum, M.** (2007) Some aspects of biology of the bean beetle, *Callosobruchus phaseoli* (Gyllenhal) (Coleoptera: Bruchidae). *Bangladesh Journal of Zoology*. **35**:311-317.
4. **Begum, M.**, Kabir, M.A., Khan, H.R. & Rahman, M.F. (2012) Efficacy of Monosodium glutamate in the Australian Blowfly, *Lucilia cuprina* Wiedmann(Diptera: Calliphoridae) *Bangladesh Journal of Zoology*. **40**(1):69-75.
5. **Begum, M.**, Khan, S., Ahmed, S., Rahman, M. F. & Khan, H.R. (2012) Susceptibility of *Culex quinquefasciatus* and *Aedes aegypti* larvae to *Bacillus thuringiensis israelensis*. *Nuclear Science and Applications*. **21**(1&2): 41-45.
6. **Begum, M.**, Hasan, M., Saifullah, A.S.M., and Howlader, M.A. (2014) Effects of Sodium chloride on oviposition and development of Blowfly, *Lucilia cuprina*, (Wiedmann) (Diptera: Calliphoridae). *Dhaka University Journal of Biological Science*. **23**(1): 47-51.
7. **Begum, M.**, Habiba, U. and Howlader, M.A. (2014). Nectar feeding behaviour of some butterflies in the Botanical Garden of Dhaka University. *Bangladesh Journal of Zoology*. **42**(1): 85-90.
8. **Begum, M.**, Shorna, M. K., Rahman, M. A. and Khan, H. R. (2014). Inhibition of ovarian development in *Chrysomya megacephala* (Fabricius, 1794) (Diptera: Calliphoridae) by monosodium glutamate. *Physiological Ecology and Environmental Science*. **5**(1&2): 33-38.
9. Islam, A.T.M.F., Islam, M.H., Islam, T., Yasmin, M., **Begum, M.** and Saifullah, A.S.M. (2014). Evaluation of fly pest population infesting dried fish at Sonadia Island, Cox's Bazar as a prerequisite for the practical application of Sterile Insect Technique (SIT). *Nuclear Science and Applications*. **23**(1&2) 67-70.

10. **Begum, M.**, Akbar, H., Saha, M.L. and Khan, H.R. (2015). Efficacy of *Bacillus thuringiensis* var. *israelensis* against larvae of *Aedes aegypti*. *Journal of Asiatic Society of Bangladesh*. **41**(1):33-44.
11. Begum, A., Sultana, Y., Sehrin, S., Sayed, A., Sayem, M. and **Begum, M.** (2015) Scabies infection and treatment among the out door patients of Birdem Hospital. *Physiological Ecology and Environmental Science*. **6**(1&2): 17-22.
12. **Begum, M.**, Islam, M.R., Parven, N. and Rahman, M. D. (2015). Morphometrics of the alimentary canal of five insect species in different feeding habits. *Physiological Ecology and Environmental Science*. **6**(1&2): 9-16.
13. **Begum, M** (2016). Histo-morphology of the larvae of *Aedes aegypti* (L.) (Diptera: Culicidae). *Journal of Biodiversity Conservation and Bioresource Management*. **2**(1):69-73.
14. **Begum, M.**, Mandal, M. K., Islam, M. A. and Howlader, M.A. (2018). Biology, Nature of infestation and control of the Aphid, *Aphis gossypii* (Glover, 1877) (Hemiptera: Aphididae) on arum plant, *Colocasia esculenta*. *Bangladesh Journal of Zoology*. **46**(1): 63-70.
15. D. Akter, H. R. Khan, M. M. Rahman and **M. Begum** (2018). Efficacy of Monosodium Glutamate against Larvae of *Culex Quiquefasciatus* Say (1823) (Diptera: Culicidae). *Journal of Nuclear Science and Applications*. **27**(1&2):19-2
16. Nowrin, S., Begum, M., Khatun, M and Howlader, M. A. (2019). The Abundance and mechanical control of *ICERYA PURCHASI* (Maskell, 1878) (Hemiptera: Monophlebidae) on *MANGIFERA INDICA* in Dhaka, Bangladesh. *Bangladesh Journal of Zoology*. **47**(1): 89-96.
17. **Murshida Begum** (2020). Possible Role of Migratory Birds on Corona Viruses Transmission: Scientific and Social Implications. *Bangladesh Journal of Zoology*. **48**(1): 211-212.
18. Syeda Fahmida Jahan, Arnob Saha, Md. Niamul Naser, Sanjida Sultana and **Murshida Begum** (2021). New distribution record and an updated map of Eupterote testacea (Walker, 1855) (Lepidoptera, Eupterotidae) from Sylhet division, Bangladesh. *Bangladesh Journal of Zoology*. **49**(1): 169-173.

### **Teaching and Research Experience (native and abroad)**

1. Experience of Twenty years of teaching and research work in the Department of Zoology, University of Dhaka.
2. One year research experience as an M. Sc student on “Efficacy and chemical analyses of some locally produced mosquito coils”, M. Sc. Thesis, Department of Zoology, University of Dhaka.
3. Four-year research experience as a Ph. D student on “Search for possible bioassays in unraveling the brain-gonad axis in two model insect species”, Ph. D Thesis, Zoological Institute, Catholic University of Leuven, Belgium.
4. One year (October 2006 -.September 2007) research experience as a post- doctoral researcher at General Zoology and Animal Physiology, Friedrich-Schiller University of Jena, Germany.

#### **Short Course**

1. Attended the course on “Radiation safety” was organized by Catholic University of Leuven, Belgium in March 2001.
2. Attended the short course on “Specimen Collection and Preservation Techniques” conducted by the Department of Zoology, University of Dhaka under “Faunal Survey and Enrichment of Facilities for Biodiversity Research Sub-Project” of Higher Education Quality Enhancement Project (HEQEP) with support of Bangladesh University Grants Commission during 28 August to 03 September, 2012.
3. Attended the short course on “Enhancement of Entomological Research Capability using DNA Barcoding” conducted by the Department of Zoology, Jahangirnagar University under “Faunal Survey and Enrichment of Facilities for Biodiversity Research Sub-Project” of Higher Education Quality Enhancement Project (HEQEP) with support of Bangladesh University Grants Commission during 05-06 September, 2018.

#### **Congress/Seminar/Workshop**

1. **Begum, M.**, Macours, N., Schoofs, L., Rahman, M. M., De Loof, A. & Huybrechts, R. (2002) The cAMP-generating peptide of the flesh fly *Neobellieria bullata*: gene cloning and effects on gonads. 21<sup>st</sup> Conference of European Comparative Endocrinologists held in 26-30 August, University of Bonn, Germany (**Poster**).
2. Rahman, M. M., Vandingenen, A., **Begum, M.**, Breuer, M., De Loof, A. & Huybrechts, R. (2002) Use of differential display as a tool for tracing phase specific gene expression in the brain of the desert locust, *Schistocerca gregaria*. 9<sup>th</sup> Benelux Congress of Zoology held in 8-9 November, University of Antwerp, Belgium (**Poster**).
3. Loof, A. D., Macours, N., **Begum, M.**, Huybrechts, R., Baggerman, G., Clynen, E., Verleyen, P. & Schoofs, L. (2001) Neuropeptides and reproduction in the fleshfly *Neobellieria bullata*. 9<sup>th</sup> International Congress on Invertebrate Reproduction and Development held in 15-20 July, Rhodes University, Grahams town, South Africa (**Oral**).
4. **Begum, M.** (2005). Efficacy and Chemical analyses of some locally produced mosquito repellents. Fifteen Biennial National Conference, Zoological Society of Bangladesh, held in 2 – 3 December, Department of Zoology, University of Dhaka (**Oral**).
6. **Begum, M.**, Rahman, M. M., Huybrechts, R. & De Loof, A. (2007). Developmental expression and hormonal regulation of adult male specific yellow protein mRNA of the desert locust, *Schistocerca gregaria*. V<sup>th</sup> International Conference on Arthropods: Chemical, Physiological and Environmental Aspects. Stefan Kopec Memorial Conference held in 16 – 21 September, Poland (**Poster**).
7. Mondal, M.K., **Begum, M.** And Howlader, M. A.(2012). Biology, nature of infestation and mechanical control of aphid, *Aphis gossypii* Glover ( Hemiptera: Aphididae) on arum plant, *Colocasia esculenta*. 18th Biennial conference and Annual general Meeting of Zoological Society of Bangladesh, held in December 22, 2012, Dhaka, Bangladesh.
8. **Begum, M.**, Akbar, H., Saha, M.L. and Khan, H.R. (2014). Efficacy of *Bacillus thuringiensis* var. *israelensis* (Berliner, 1715) against larvae of *Aedes aegypti* (Linn., 1762) (Diptera: Culicidae). 19th National conference and Annual general Meeting of Zoological Society of Bangladesh, held in April, 19, 2014, Dhaka, Bangladesh.

9. **Begum, M.**, Khan, S. And Khan, H. R. (2014). Efficacy of monosodium glutamate on the ovarian development of *Chrysomya megacephala* (Fabricius, 1794) (Diptera: Calliphoridae). 19th National conference and Annual general Meeting of Zoological Society of Bangladesh, held in April, 19, 2014, Dhaka, Bangladesh.
10. Dalia Akter and **Murshida Begum** "Efficacy Of Monosodium glutamate against larvae of *Culex quiquefasciatus* Say (1823) (Diptera: Culicidae)." 20th International Biennial Conference and Annual General Meeting of The Zoological Society of Bangladesh, 9-10 December 2017 , pp. 85-85. Dhaka, Bangladesh: 2017.
11. Tasrina R. Choudhury, Antara Sarker Adhri, Shamshad Begum Quraishi, Bilkis Ara Begum, **Murshida Begum** and Humyun Reza Khan ""Accumulation of metals in some insects of different food habits of Tannery and Non-Tannery areas in and around Dhaka city"." Bangladesh Chemical Congress, 17-19 October , 2018 , pp. 38. Dhaka, Bangladesh: 2018.
12. Antara Sarker Adhri, Tasrina Rabia Choudhury, AFM Mustafizur Rahman, Humayun Reza Khan and **Murshida Begum** "Accumulation of metals in a Nectarivore and a Saprophagous insect of two areas( Curzon-Anondobazar area and Savar Hemayetpur) Around Dhaka city". 3rd Young Scientist Congress , National Museum of Science & Technology Bhaban, Dhaka, Bangladesh, 14-15 September,2018, pp. 63. Dhaka, Bangladesh: 2018.
13. **Begum, M.** (2019). Trends of Mosquito control in Bangladesh and its future perspective. 21<sup>st</sup> International Biennial Conference and Annual general Meeting of Zoological Society of Bangladesh, held in 7-8 December, 2019, Dhaka, Bangladesh.