

## ***Curriculum Vitae***

**Name:** Shefali Begum, Ph. D.

**Date of birth:** 15th July, 1966

**Present Address:** 31/E, University of Dhaka, Dhaka 1000

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**Permanent Address:** 125/1-A, Tejkunipara, Tejgaon, Dhaka1215.

**Nationality:** Bangladeshi

**Religion:** Islam

**Present position:** Professor, Department of Zoology, University of Dhaka.

### **Academic qualifications**

<i>Examination passed</i>	<i>Board/University</i>	<i>Year</i>
Secondary School Certificate	Dhaka Board	1981
Higher Secondary Certificate	Dhaka Board	1983
B. Sc.(Hons) in Zoology	University of Dhaka	1986
M. Sc. in Zoology(Entomology)	University of Dhaka	1987
M. S. in Agriculture	Okayama University, Japan	1996
Ph. D. in Natural Science and Technology	Okayama University, Japan	1999

### **Awards, Achievements and Accomplishments**

1. Stood first in combined merit list in the faculty of Biological Sciences in B. Sc. (Hon's) examination and awarded Saydur Rahman Foundation Scholarship in 1986
2. Awarded Talent Pool Scholarship from Dhaka University for merit and regularity 1986
3. Awarded Silver Jubilee award from the Department off Zoology, Dhaka University for outstanding performance in B. Sc. (Hon's) Examination 1986
4. Awarded Dean's Honour Certificate from the Faculty of Biological Sciences, Dhaka Universit1984
5. Ministry of Education, Science, Sports and Culture of Japan (Monbusho) scholarship for Ph. D. program in 1992

**Research interest:**

Insect pest and Pest management

Vector Control

Pest Ecology

**Research Positions:**

INSTITUTION	POSITION	FROM	TO
Bangladesh Atomic Energy Commission	Scientific Officer	1991	1997

**Credentials and Memberships in Professional Bodies**

- Life Member, Zoological Society of Bangladesh (ZSB)
- Life Member, Japanese Universities Alumni Association (JUAAB)
- General Member, The Japanese Society of Entomology
- Life Member, Nature Conservation Club, Department of Zoology, University of Dhaka

**List of Research Publications:** 37 (5 in International Journals + 30 in National Journals + 2 in book)

**International**

1. **S. Begum**, R. Tsukuda, K. Fujisaki and F. Nakasuji. 1996. The effects of wild cruciferous host plants on the morphology, reproductive performance and flight activity in the Diamondback moth *Plutella xylostella* (Lepidoptera: Yponomeutidae). *Researches on Population Ecology* **38**, 257-263.
2. **S. Begum**, R. Tsukuda, K. Fujisaki and F. Nakasuji. 1996. Effects of wild cruciferous host plants on development of immature stages of the Diamondback moth *Plutella xylostella* (Lepidoptera: Yponomeutidae). *Japanese Journal of Applied Entomology and Zoology*. **38**, 15-18.
3. **S. Begum**, R. Tsukuda, K. Fujisaki and F. Nakasuji. 1997. Effects of host plants on flight muscle size and flight activity in the Diamondback moth *Plutella xylostella* (Lepidoptera: Yponomeutidae). *Applied Entomology and Zoology*, **32**, 651-654.

4. **S. Begum**, R. Tsukuda, K. Fujisaki and F. Nakasuji. 1999. Comparison of flight, fuel and other nutrients in the Diamondback moth *Plutella xylostella* (Lepidoptera: Yponomeutidae) grown on a wild host and cabbage. *Entomological Science* **2**, 13-19.
5. R. Tsukuda, **S. Begum**, O. Muhamad and F. Nakasuji. 1996. Influence of wild crucifers on biology and flight ability of the Diamondback moth *Plutella xylostella* (Lepidoptera: Yponomeutidae). Proceedings of poster presented in the International Congress of Entomology. Firenze, Italy. August 25-31, 1996.

## National

1. **S. Begum**. 1994. Host selection behavior of *Anisopteromalus calandrae* (Howard) (Hymenoptera: Pteromalidae). *Bangladesh Journal of Zoology*. **22**, 203-208.
2. **S. Begum**. 1995. Mating and oviposition behaviour of *Anisopteromalus calandrae* (Howard) (Hymenoptera: Pteromalidae). *Bangladesh Journal of Zoology*. **23**, 29-34.
3. A.J. Howlader, M. M. Rahman, **S. Begum** and R. Rahman. 1995. Effectiveness of different plant extracts on the suppression of pulse beetle, *Callosobruchus chinensis* (Coleoptera: Bruchidae). *Journal of Asiatic Society of Bangladesh*. **21**, 33-35.
4. **S. Begum**. 1999. Biology of the parasitoid, *Anisopteromalus calandrae* (Howard) (Hymenoptera: Pteromalidae). *Bangladesh Journal of Zoology*. **27**, 125-129.
5. **S. Begum** and M. K. Alam. (2001). Nutrient used as fuel during flight in Diamondback moth, *Plutella xylostella* (Lepidoptera: Yponomeutidae). *Dhaka University Journal of Biological Sciences*. **10**, 219-223.
6. **S. Begum**. 2004. A study on the trade-off between fecundity and flight activity in the Diamondback moth, *Plutella xylostella* (Lepidoptera: Yponomeutidae). *Bangladesh Journal of Zoology*. **32**, 13-17.
7. **S. Begum**. 2004. The occurrence of Diamondback moth, *Plutella xylostella* (Lepidoptera: Yponomeutidae) on various wild cruciferous host plants in Japan. *Bangladesh Journal of Zoology*. **32**, 109-110.
8. M. K. Alam, and **S. Begum**. 2006. Gamma irradiation induced formation of 8-hydroxy deoxyguanine at DNA level in CHO-K1 cell line. *Bangladesh Journal of Zoology* **34** (1) 41-46.
9. **S. Begum**. 2007. Habituation of the Diamondback moth, *Plutella xylostella* (Lepidoptera: Yponomeutidae) to wild host plant. *Bangladesh Journal of Zoology* **35** (1) 81-86.

10. **S. Begum**, M. Nasim and M. Z. R. Majumder. 2007. Some biological aspects of the Hairy Maggot Blowfly, *Chrysomya rufifacis* (Macquart, 1842) (Diptera: Calliphoridae). *Bangladesh Journal of Zoology* 35 (2) 367-380.
11. M. Z. R. Majumder. M. Nasim and **S. Begum**. 2008. Reproductive system of Hairy Maggot Blowfly, *Chrysomya rufifacis* (Macquart, 1842) (Diptera: Calliphoridae). *Journal of Asiatic Society of Bangladesh* 34 (1) 17-24.
12. **S. Begum**, R. A. Khan and M. Z. R. Majumder. 2009. Effect of radiation on male reproductive system and sterilization of *Lucilia cuprina* (Wiedemann) (Diptera: Calliphoridae). *Bangladesh Journal of Entomology*. 18 (2): 51-60.
13. **S. Begum**, M. S. Islam, M. Moniruzzaman and R. A. Khan and P. Noor. 2009. Management of the subterranean termite, *Odontotermes profoemosanus* AHMED using carbofuran 5G and its effects on soil components. *Bangladesh Journal of Entomology*. 18 (2): 81-89. . *Bangladesh Journal of Zoology* .37 (1) 81-86.
14. **S. Begum**, R. A. Khan and M. Z. R. Majumder. 2009. Some biological aspects of the Australian sheep blowfly, *Lucilia cuprina* (Wiedemann) (Diptera: Calliphoridae). *Bangladesh Journal of Zoology*
15. M. Z. R. Majumder. R. A. Khan and **S. Begum**. 2008. Effect of radiation on female reproductive system of *Lucilia cuprina* (Wiedemann) (Diptera: Calliphoridae). *Bangladesh Journal of Zoology*
16. **S. Begum**, Tangin Akter and Fatema Toj Zohra. Mortality Effects of garlic, *Allium sativum*, against the larvae of *Aedes aegypti* (Diptera: Culicidae). *Jahangirnagar Univ. Biol. Sci.* 2013. 2(2):143-146.
17. Nargis Sultana, Tangin Akter and **S. Begum**. Population study of tree hole breeding *Aedes* (Diptera: Culicidae) species in Dhaka University Campus and its adjacent Suhrawardi Park, Dhaka City, Bangladesh. *Bangladesh J Zool.* 2012. 40(1):1-11.
18. Tangin Akter, Shanjida Sultana, Mehjabin Rahman, Md. Reaz Mahmud and **Shefali Begum**. "Prevalence and abundance of insect pests in stored pulses collected from two local markets of Dhaka city." *Jahangirnagar University J. Biol. Sci.* 8(1): 75-82, 2019.
19. Sharmin Akter, Shanjida Sultana, Tangin Akter and **Shefali Begum**. "Oviposition deterrent and ovicidal activity of three edible oils (Black seed, sesame and soybean oils) against pulse beetle, *Callosobruchus Chinensis* (Lin.) (Coleoptera: Bruchidae) on green gram *Vigna Radiata*." *Bangladesh J. Zool.* 47(1): 59-65, 2019.
20. Sanjida Sekender, Shanjida Sultana, Tangin Akter and **Shefali Begum**. "Susceptibility of different stored pulses infested by pulse beetle, *Callosobruchus chinensis* (Lin.) (Coleoptera: Bruchidae)." *Dhaka Univ. J. Biol Sci.* 29(1):19-25, 2019.

21. Bani Halder, Shanjida Sultana, Tangin Akter and **Shefali Begum**. "Life cycle and feeding behavior of *Agrius cingulata* (Fabricius) and *Agrius convolvuli* (Linnaeus) of sweet potato leaf moth." *Dhaka Univ. J. Biol Sci.* 27(2):125-134, 2018.
22. Masuma Akhter, Shanjida Sultana, Tangin Akter and **Shefali Begum**. "Oviposition preference and development of rice weevil, *Sitophilus oryzae* (Lin.) (Coleoptera:Curculionidae) in Different Stored grains." *Bangladesh J. Zool.* 45(2): 131-138, 2017.
23. Kamrun Nahar, Shanjida Sultana, Tangin Akter and **Shefali Begum**. "Some biological traits and susceptibility of *Delia antiqua* (Meigen, 1826) (Diptera: Anthomyidae) in Bangladesh and India onion." *Bangladesh J. Zool.* 47(2): 325-332, 2019
24. Tangin Akter, Soheli Akther, Shanjida Sultana, Jannat Ara Jhorna and **Shefali Begum**. "The bees (Apocrita: Hymenoptera) of Dhaka city, Bangladesh." *J. Biodivers. Conserv. Bioresour. Manag.* 5(1):113-120, 2019.
25. Tangin Akter, Jannat ara Jharna, Shanjida Sultana and **Shefali Begum**. 2020 "Identification of wasps (Apocrita: Hymenoptera) in three areas of Dhaka city and study of their ecology." *Bangladesh J. Zool.* 2020 (in press).
26. Tangina Akter, **Shefali Begum** and Tangin Akter 2023. Predatory competence of *Danio rerio*(Cypriniformes: Cyprinidae and *Poecilia reticulata* (Cyprinodontiformes : Poeciliidae)as biocontrol agent of *Aedes* larvae (Diptera: Culicidae) under the laboratory condition. *Bangladesh J. Zool.* 51(3): 315-327.
27. Tangin Akter, Jannatul Ferdous and **Shefali Begum** 2024. Flower shape, size and color preferences of flower pollinators (insecta: Apidae) in selected areas of Dhaka city. *Bangladesh J. Zool.* 52(!):27-37.
28. Farhana Ferdousi, Shangida sultana, Tangin Akter, Pinakshi roy, **Shefali Begum** 2021. Flight muscle and flight activity of melonfly *Bactrocera cucurbitae*: *Tephritidae*). *Dhaka Univ. J. Biol. Sci.* 30(2): 179-185.
29. Tangin Akter, Samira Jahan, Sangita Ahmed Sangida Sultana, **Shefali Begum** 2021: *Isolation of multi-drug resistant potential pathogenic bacteria from blow fly collected from different areas of Dhaka city.* *Bangladesh J. Zool.* 49(2) :205-214
30. Chowdhury, S. F. N., N. Parven, M. Mahamud, S. Kamal, S. I. Belal, **S. Begum** 2023 Utilizing net traps to manage pyralid insect population in pond ecosystems: Investigating seasonal abundance and their association with duckweeds.

**b) Book:**

01. **Shefali Begum**. 2011. *Bangladesh Uddid & Prani Ghankosh, Arthropoda: Insecta-2.* Asiatic Society of Bangladesh. vol 20.

02. Md. Niamul Naser, Humayun Reza Khan, **Shefali Begum**, Aleya Begum, Md. Firoj Jaman, Rowshan Ara Begum, Md. Shamimul Alam, Tangin Akter. 2021. Development Goals: Insights from Zoological Education and Research. Department of Zoology, Faculty Biological Sciences, University of Dhaka. Chapter 2 & 4: Pp69-88 & 93-120.

## MS Thesis Research funded by NST Project: (26)

<u>TITLE</u>	<u>YEAR</u>	
	<u>FROM</u>	<u>TO</u>
1. Studies in some biological aspects of Green Hairy Maggot Blowfly <i>Chrysomya rufifacies</i> infesting fish during sun drying in Bangladesh.	2005	2006
2. Comparative study of insecticide Chlorpyrifos 20 EC and Carbofuran 5G for subterranean termite <i>Odontotermes proformosanus</i> (Ahmad) (Isoptera: Termitidae) control and their effect on soil components.	2007	2008
3. Studies on the reproductive biology and radio sensitivity of the Australian Sheep Blowfly <i>Lucilia cuprina</i> (Weidemann) (Diptera: Calliphoridae) infesting marine fish during sun drying.	2007	2008
4. Effects of different pests of plants extract on oviposition adult emergence and longevity of <i>C. chinensis</i> on mung plant.	2008	2009
5. Effects of edible oils on oviposition, adult emergence, longevity of <i>C. chinensis</i> on green mung plant.	2008	2009
6. Effectiveness of <i>Allium sativum</i> against the larvae of <i>Aedes aegyptii</i>	2011	2012
7. Life cycle and feeding behavior of <i>Agrius cingulata</i> (Fabricius) <i>Agrius</i> and <i>Convolvuli</i> (Linnaeus) (Lepidoptera: Sphingidae) of sweet potato leaf moth	2011	2012
8. Different biological traits and host preference of onion fly <i>Delia antique</i> (Meigen 1826) (Diptera: Anthomyiidae)	2011	2012
9. Oviposition Preference and development of pulse beetle, <i>Callosobruchus chinensis</i> (Bruchidae: Coleoptera) in different stored pulses	2013	2014
10. Development of secondary microbial infection on bitter gourds due to attack of <i>Bactrocera cucurbitae</i>	2015	2016
11. Biology and Host preference behavior fruitfly <i>Bactrocera cucurbitae</i>	2015	2016
12. Susceptibility of different stored pulses infested by pulse beetle. <i>Callosobruchus chinensis</i> (Linnaeus) (Coleoptera: Bruchidae)	2016	2017
13. Oviposition deterrent and Ovicidal activity of different edible oils against pulse beetle, <i>Callosobruchus chinensis</i> (Linnaeus) (Coleoptera: Bruchidae) on green gram, <i>Vigna radiata</i>	2016	2017
14. Flight muscle and flight activity of melon fly, <i>Bactrocera cucurbitae</i> (Diptera, Tephritidae)	2017	2018
15. Flight muscle and flight activity of <i>Junonia almana</i> and <i>Apis dorsata</i>	2017	2018
16. Assessment of flight performance with flight muscle and wing area in <i>Melipotis leda</i> (Lepidoptera: Nymphalidae), <i>Apis dorsata</i> (Hymenoptera: Apidae) and <i>Calliphora</i> sp. (Diptera: Calliphoridae)	2019	2020
17. Predatory efficiency of <i>Danio rerio</i> (Zebrafish) and <i>Poecilia reticulata</i> (Guppy) as a biocontrol agent of <i>Aedes larvae</i> (Diptera: Culicidae)	2019	2020
18. Diversity of mosquito in different areas of Dhaka City	2020	2021
19. An assessment of specific diversity and abundance of mosquitos at some selected areas of Dhaka city: Implications for public health	2020	2021

20. Oviposition behaviour of <i>Aedes</i> mosquitoes using ovitraps of different sizes and colors	2021	2022
21. Use of ovitraps for the seasonal and spatial monitoring of <i>Aedes</i> spp	2021	2022
22. Effect of temperature on the biology of pulse weevil, <i>Callosobruchus chinensis</i> (Brochidae coletera) in chickpea seeds	2021	2022
23. Influence of temperature on some biological traits of <i>Sitophilus oryzae</i> (Curculionidae, Coleoptera) in BR 28 Rice Grains	2021	2022
24. Efficacy of Bti solution at four different concentrations in doses on the larval mortality of <i>Aedes aegypti</i>	2021	2022
25. Effects of temperature on the life cycle of <i>Callosobruchus chinensis</i>	2021	2022
26. Effects of temperature on some biological traits of <i>Culex quinquefasciatus</i>	2021	2022

### Ongoing Projects: (3)

1. Efficacy of Bti solution at four different concentrations in doses on the larval mortality of *Aedes aegypti*
2. Effects of temperature on the life cycle of *Callosobruchus chinensis*
3. Effects of temperature on some biological traits of *Culex quinquefasciatus*