

# Curriculum Vitae

## 1- CONTACT INFORMATION:

Name: **Basma Mohamed Abdel Moety Sheta**  
Job: Professor of Animal Ecology.  
Advisor to the EEAA president for Biodiversity, Ministry of Environment.  
Head of Project Management, International agreement and conferences unit- International office-Damietta University.

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## 2- ACADEMIC QUALIFICATIONS:

2014 Ph.D degree, thesis entitled “**Modelling the Avian Influenza Virus in Migratory, Resident and Backyard Poultry Birds – The Role of Ecology in Virus Susceptibility and Transmission between Europe and Africa**” This work was also supported by a Joint Supervision Fellowship funded by the Cultural Affairs and Mission sectors of the Egyptian Ministry of Higher Education to UCLA, California.

2010 M.Sc. in Zoology (Animal Ecology) from Zoology Department, Faculty of Science at Damietta, Mansoura University, Egypt. M.Sc. thesis title: “**Impact of some human activities on different bird species biodiversity at Damietta region, Egypt**”.

2005 B.Sc. in Zoology, New Damietta Faculty of Science, Mansura University, Egypt. (Grade: *Excellent with honors*).  
Graduation Project: “Update survey on Bird Migration”. Grade: *Excellent*.

## 3- WORK EXPERIENCE:

2025-Now Advisor to EEAA President for Biodiversity, Ministry of Environment

2024 – Now Professor of Animal Ecology at Zoology Department, Faculty of Science at Damietta, Damietta University, Egypt.

2019 – 2024 Associate Professor of Animal Ecology at Zoology Department, Faculty of Science at Damietta, Damietta University, Egypt.

2014 – 2019 Lecturer of Animal Ecology at Zoology Department, Faculty of Science at Damietta, Damietta University, Egypt.

2012–2014	PhD student in Center for Tropical Research (CTR) Institute of the Environment, University of California- Los Angeles.
2010-2014	Assistant Lecturer at Zoology Department, Faculty of Science, Damietta University, Egypt
2005-2010	Demonstrator at Zoology Department, Faculty of Science at Damietta, Mansoura University, Egypt

#### **4- TEACHING EXPERIENCE:**

- Contribute and coordinate the teaching of undergraduate and postgraduate courses in Zoology department. Develop and foster students' active learning skills
- Supervise graduation projects in the field of Animal Ecology.

##### **Undergraduate Courses**

- Animal Ecology
- Egyptian Fauna
- Biodiversity and Conservation
- Animal Behaviour and relationship
- Ecology of Infectious Disease
- Environmental Toxicology
- Pollution

##### **Postgraduate Courses**

- Biostatistics
- Population Dynamics
- Ornithology
- Migration Ecology
- Ecophysiology

##### **BSc Training Programme & Field trips**

- Manzalla Lake.
- Burullus Lake.
- New Damietta Coastal Area.
- National Institute of Oceanography and Fisheries, Baltim.
- Supervising various field trips for BSc students

#### **5- OTHER SKILLS:**

- Computer Skills**
- Information and Communication Technology Programme (ICTP; equivalent to ICDL) with experience of using Microsoft Office, e.g., Word, Excel, PowerPoint, Access, Outlook, FrontPage and managing files / information.
  - Other specific software including statistical analysis such as internet user and web search.
- Language competence**
- Arabic is mother language
  - Good in English ( writing; reading and speaking)
- Awarded Skills**
- Communication, presentation and team work
  - Experience in applying advanced techniques bird monitoring, survey and Identification.
  - Experienced on Arc.GIS, R-programming and statistical analysis.

- Participating in an Environmental Impact Assessment (EIA) studies

## **6- RESEARCH EXPERIENCE & PUBLICATIONS:**

- Conduct and develop research programme and initiate joint research initiatives. Supervise postgraduate research students in the field of Animal Ecology.
- Highly committed to avian biodiversity, conservation, ecology of infectious disease, conservation genetics, poverty alleviation.
- **Publications:**
- **Sheta, B.M.** (2009): New records of Black-winged Stilts *Himantopus Himantopus* breeding on the Mediterranean coast of Egypt. *WSGB*, 116 (3) :196-197.
- **Sheta, B.M.**, Bedir, M.A., Orabi, G, Elbokl, M.M., Habbak, L.Z. (2010): Impact of some human activities on bird species biodiversity at Damietta region –Egypt. *CATRINA* . 5 (1): 49-61.
- **Sheta, B.M.**, Bedir, M.A., Orabi, G, Elbokl, M.M., Habbak, L.Z. (2012): Impact of Some Anthropogenic Activities on the Diversity of Resident Bird Species at Damietta Region, Egypt. *CATRINA* (2011), 6 (1): 59 -74.
- **Sheta, B. M.** ; Fuller, T. L. ; Larison, B.; Njabo, K. Y.; Samy, A.; Harrigan, R.; Chasar, A.; Aziz, S. A.; Khidr, A.A.; Elbokl, M. M.; Habbak, L.Z.; Smith, T. B. (2013): Putative risk factors for avian influenza virus infections in backyard poultry in Egypt. *Veterinary Microbiology*, (168) 208–213.
- Njabo, K. Y.; Zanonian, L.; **Sheta, B.**; Samy, A.; Galal, S.; Schoenberg, F. P.; Smith, T. B. (2016): Living with avian FLU—Persistence of the H5N1 highly pathogenic avian influenza virus in Egypt. *Veterinary Microbiology*, (187) 82–92.
- Smith, C. R.; Flaxman, S. M.; Scordato, E. C. ; Kane, N. C. ; Hund, A. K.; **Sheta, B. M.**; Safran, R. J. (2018): Demographic inference in barn swallows using whole-genome data shows signal for bottleneck and subspecies differentiation during the Holocene. *Molecular Ecology*, 27, 4200-4212.
- Kayed,A.S.; Kandeil, A.; Gomaa1, M. R. ; El-Shesheny,R.; Mahmoud,S.; Hegazi,N.; Fayez,M.; **Sheta,B.**; McKenzie,P.P.; Webby, R. J.; Kayali,G., Ali, M.A.(2019): Surveillance for Avian Influenza Viruses in Wild Birds in Egypt, 2014-2016. *Influenza and Other Respiratory Viruses*, 1-8.
- **Sheta, B.M.**; Abd El-Hamid, H.T. and El-Alfy, M. A. (2019): Human Health Risk via Cadmium Concentration in Different Tissues of Domesticated Japanese Quail (*Coturnix japonica*) and Wild Common Quail (*Coturnix coturnix*). *CATRINA* , 18 (1): 65-70.

- **Sheta, B.M.**; El-Alfy, M. A. and Abd El-Hamid, H.T. (2019): A Heavy Metal Exposure Risk assessment Model to Migratory Birds and Human in Burullus Lake, Egypt. *Journal of Bioscience and Applied Research*, 5 (2):141 -135.
- **Sheta, B.M.** and Beheary, M.S. (2019): Using Egyptian fruit bat (*Rousettus aegyptiacus*) as a bioindicator of environmental health, across some Egyptian Governorates. *Journal of Medical and Life Science*, 1 (2): 34 -42.
- **Sheta, B.M.** (2019): Biodiversity and habitat use of wintering and breeding waterbirds in Burullus Lake (Ramsar site), Egypt. *CATRINA*, 19 (1):47-54.
- Beheary, M.; **Sheta, B.M.**; Hussein, M.; Nawareg, M.; El-Matary, F.A.; Hyder, A. (2019): Environmental Remediation of Tilapia Aquaculture Using *Ceratophyllum demersum* and *Lemna minor*. *Egyptian Journal of Aquatic Biology and Fisheries*, 23(2): 379 - 396.
- Schield D.R.; Scordato, E. SC; Smith, C. CR.; Carter, J. K.; Cherkaoui, S. I.; Gombobaatar, S.; Hajib, S.; Hanane, S.; Hund, A. K.; Koyama, K.; Liang, W.; Liu, Y.; Magri, N.; Rubtsov, A.; **Sheta, B.**; Turbek, Sh. P.; Wilkins, M. R.; Yu, L.; Safran, R. J. (2021): Sex-linked genetic diversity and differentiation in a globally distributed avian species complex. *Molecular Ecology*. 30(10): 2313-2332.
- El-Matary, F. A.; **Sheta, B. M.**; Beheary, M. S.(2021): Integrated Comparative Impacts of Using Dietary Supplementation Plant Wastes (*Opuntia Ficus-Indica*, *Moringa Oleifera* and *Telfairia Occidentalis*) on Hemato Biochemical Blood Status of *Oreochromis Niloticus* Exposed to Mercury Toxicity. *Egyptian Journal of Aquatic Biology & Fisheries*. 25(1): 25 – 45.
- Soliman, A.; **Sheta, B.M.**; Bahnasway, M.; Orabi, G.M. (2022): Avifaunal updated survey in St. Catherine protectorate, Egypt. *Journal of Medical and Life Science*.4 (1): 9-17.
- **Sheta, B.M.**; El-Qenawy, I.M.; El-Gammal, H.L (2022): Utilization of birds of different mating system behavior and feeding habits as a bioindicator for urbanization lead pollution. *CATRINA* (2022), 26(1): 67-73.
- El Sayed, S.Y.; Kadry, M.A.; **Sheta, B.M.** (2023): Status of abundant bird species in Lake Qaroun, Egypt. *International journal of advanced scientific research and innovation*. 6, ( 2), 13 – 26.
- **Sheta, B.M.**; Abdelhalim, A.A.; Elgyar, E.E.; Khalil, M.A.; Ageba, M.F. (2023): Wetland Habitat Suitability and Diversity for Migratory and Resident Birds in the Ramsar Site Lake Burllus, Egypt. *Egyptian Journal of Aquatic Biology & Fisheries*. 27 (1): 253 – 274.
- El Sayed, S.Y.; Kadry, M.A.; **Sheta, B.M.** (2024): Temporal and Spatial Variation in Avian Diversity at Lake Qaroun, Egypt. *Egyptian Journal of Aquatic Biology & Fisheries*. 28(1): 35 – 76.

- **Sheta, B.**, Waheed, O.; Ayad, E.; Habbak, L.; Hyder, A. (2024): Constitutive immunity is influenced by avian influenza virus-induced modification of gut microbiota in Eurasian teal (*Anas crecca*). *Comparative Biochemistry and Physiology Part C: Toxicology & Pharmacology*, 278: 1-8.
- **Sheta, B.M.**, El-Zahed, M.; Nawareg, M.; Elkhiary, Z.; Sadek, S.; Hyder, A. (2024): Nanoremediation using green iron oxide nanoparticles immobilized in a macroporous cryogel improves cadmium-polluted tilapia culture conditions and fish health. In Publication.
- **Sheta, B.M.**; Surtasi, E.E.; Shalouf, A.; Shohdi, W.M. (2024): Unraveling the significance of plant cover for avian and aquatic insect diversity in a wetland ecosystem. In Publication.
- **Sheta, B.M.** (2024): The effect of purifying Lake Manzala, Egypt by dredging on the diversity of waterbirds. In Publication.
- **Sheta, B.M.**, Hassan, A.; Sallam, A.; Habbak, L.; Hyder, A. (2025): Phylogenetic and lipid metabolic differences between migratory and Egyptian-domesticated Mallard ducks (*Anas platyrhynchos*). *Comp Biochem Physiol A Mol Integr Physiol*. 2025.
- El-Gamal, R., Sallam, A. E. D., & **Sheta, B. M.** (2025). MODELING THE SPATIAL DISTRIBUTION AND HABITAT SUITABILITY OF THE EGYPTIAN FRUIT BAT (*ROUSETTUS AEGYPTIACUS*) IN EGYPT. *Egyptian Journal of Zoology*.
- El Gamal, R., Sallam, A. E. D., & Khayat, R. & **Sheta, B. M.** (2025). Land Use-Land Cover Utilization by Egyptian Fruit Bats at Nile Valley and Delta, Egypt. *Scientific Journal for Damietta Faculty of Science*, 15(2), 48-57.

## **7- PRESENTATIONS & CONFERENCES:**

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|--------------------------------|---|
| 15-19 March 2022               | Participated in 7th international Conference on <b>Biological and Environmental Sciences</b> , Faculty of Science, Mansoura University.                                   |
| 4 <sup>th</sup> April 2019     | The 4th International Conference of the of Society of <b>Pathological Biochemistry and Hematology</b> , Faculty of Science, Alexandria University, Egypt (Participate).   |
| 20-22 March 2018               | International Conference of Humboldt kolleg <b>Applied Research in Energy, Environment and Development</b> , Suez Canal University, Ismalia, Egypt (Participate).         |
| 16 February 2016               | The 1st International Conference under the theme of <b>Society of Pathological Biochemistry and Hematology</b> , Faculty of Science, Menoufia University, Egypt (Attend). |
| 17–20 <sup>th</sup> Nove. 2015 | The Third International Conference of Advanced Applied Sciences (ICAAS_III) Bani Sauif University, Hurghada, Egypt (Participate).   |
| 2-4 February 2015              | The Sixth International Environmental of the <b>Egyptian Society for Environmental Sciences (ESES)</b> (Genetics, Biotechnology and                                       |

sustainable Development in safe Environment),Ismailia, Egypt (Participate).

8 – 10 July 2013 **7th Annual CEIRS Network Meeting**, Cotton Row, Cook Convention Center Memphis, TN, USA.

## **8- WORKSHOPS:**

- Completed a three-day training workshop on "The Global Standard for Key Biodiversity Areas (KBAs)" 22 - 24 July 2024 | Cairo – Egypt.
- Participated in the 8th international conference of the Egyptian Society for Environmental Sciences (ESES), " Scientific research and sustainable development", 24<sup>th</sup> February, 2024, Ismailia, Egypt.
- Holding training entitled "**Methods of monitoring and identifying water birds and protecting them from the hazards of climate change**" 10 -11 February 2024 at Faculty of Science- Damietta University.
- Holding training entitled "**waterbird census techniques**" 30 November -1 December 2022 at Faculty of Science- Damietta University.
- Certified trainer in center of environmental excellence in Gabel El Zayt, Red Sea, Egypt: Participated in the training course entitled **classification basics of migratory soaring birds**" held Autumn and spring seasons in 2021 and 2022, 2023.
- Attended the COP 27 and present a presentation about "effect of climate change on biodiversity" 7-17 November, Sharm Elsheik. Egypt.
- Participated the 1<sup>st</sup> symposium of the research program of climate change, Environmental research Department about "**Climate change and its Impact on Aquatic Environment, Biodiversity and Human Health**" Theodor Bilharz Research Onstitute on 30<sup>th</sup> May. 2022.
- Participated in the 7<sup>th</sup> international conference on Biological and Environmental Sciences , 15-19 March 2022, Mansoura-Luxoe-Aswan.
- 16-18 March 2012 workshop „**Mechanisms for mainstreaming biodiversity into the urban planning sector**" Arranged by *Egyptian Environmental Affairs Agency (EEAA)*.
- 10 March 2018 Workshop "**Modern trends in soil, water, and plant analysis**" and participation by presentation "**Modern trends in water analysis**" Arranged by Department of Botany and Microbiology in cooperation with the Community Service and Environment Development Sector, Faculty of Science, Damietta University.
- 12 July 2017 Workshop" **How to Create an Account on Research Gate**" Arranged by iT Unit, Faculty of Science, Damietta University, at Damietta-Egypt.
- Participated in "**Using internet to find the scientific reference**" workshop, Faculty of Science, Mansoura University, Egypt. 14<sup>th</sup> December, 2015.
- Attended and participated in "**How to write an Erasmus proposal**" workshop, Faculty of Agriculture, Cairo University, Egypt. 28<sup>th</sup> December, 2014.
- Participated in "Avian Influenza in Egypt: A capacity building workshop on GIS and predictive modeling " from February 28- March 1 2012, Cairo, Egypt , sponsored by *the university of California, Los Angeles and the fogarty international; center, National institute of health, USA*.
- Participated in "Information Management Training" from 23-26 November 2010, Kigali, **Rwanda** coordinated by Birdlife International and sponsored by *BirdLife International and the Royal Society for the Protection of Birds, UK*.
- Participated in Monitoring, Outreach and Education Workshop at Azraq wetlands Reserve, **Jordan**, March 28 – April 1, 2010 supervised by *US Forest services, PRBO Conservation Science and Royal society for the Conservation of Nature*.
- Attended Training on Bird Census Techniques organized by Conservation of Nubian Oases Biodiversity Project 1<sup>st</sup> – 5<sup>th</sup> December 2008, Aswan, Egypt under the supervision of *Egyptian Environmental Affairs Agency (EEAA)* .

## **9- FUNDED RESEARCH PROJECTS:**

- Trainer at Green Hurgada project funded by UNDP on Bird Identification basics
- “Annual monitoring and winter counting of migratory waterfowl and follow-up of the implementation of the decision to regulate bird hunting” Funded by the Ministry of environment, role: 2023-2022 Principle investigator of the project. Report link [وزارة البيئة | التقارير \(ceaa.gov.eg\)](http://www.ceaa.gov.eg)
- “Genetic structuring of migratory birds infected with avian influenza: Role of geographic origin and host species in virus susceptibility and transmission between Europe and Africa.” Funded by STDF young researcher 2019 award project ID 33454, role: Principle investigator of the project.
- “Knocking out Fatty Acid Binding Protein (FABP) genes may protect pancreatic islets and prevent pathogenesis of diabetes.” Funded by STDF Basic and applied research grant (BARG) id 3710, role: Co-PI of the project.
- “Sustainable Development of the Coastal zone between Ras El-Bar and the Damietta Harbour in response to sea-level rise and climatic changes.” Funded by ASRT climate change funds, role: team member of the project.
- “Phytoremediation as a green technology to recycle aquaculture wastewater” Funded by ASRT Award 2018 Egypt.
- “The application of the early warning system in the counties of the Suez Canal to assess and reduce the environmental risks posed by climate change” Funded by UNESCO in collaboration with Suez Canal University 2015-2016.
- “Socioeconomic, historical and biodiversity of Manzalla Lake” Funded by Damietta University, Egypt, 2015 - 2016.
- “Role of wild birds in the spread and maintenance of avian influenza virus in Egypt.” Funded by MISTI seed fund in collaboration with MIT, Boston 2013.
- Field Assistant with the University of California, Center for Tropical Research Project on *Dynamics of cross-species influenza transmission: an international collaboration – Egypt*, Funded by NIH 2010-2012.

## **10- SUPERVISED RESEARCH STUDENTS:**

Supervision of number undergraduate and postgraduate MSc. students in the field of animal ecology including biodiversity and conservation, sexual selection, risk assessment.

## **11- MEMBERSHIPS:**

- Member of the National Committee for developing the Egyptian lakes in the Ministry of Environment 2024.
- Member of Nature Conservation of Egypt ( NCE ) since 2007
- Member of Ornithological Society of the Middle East (OSME) since April 2010.
- Member of Egyptian Society of Environmental Science.