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## Recent Trends of Animal Research in Northeast India

The pandemic outbreak of COVID-19 (SARS-CoV-2) shows the necessity of rapid and efficient scientific research; free of plagiarism and manipulation; reliable and cost-effective. The dependability of scientific research should be to the extent that the life of humans and environment can safely rest upon it. Thus, it must withstand repetitive tests through time and space. It would be erroneous to qualify one line of research as more important than other types because there is no certainty when it comes to catastrophic consequences. As a most evolved species, its struggle for survival is subjected on how we can handle the evolution of other species, like viruses and microbes that has killed millions of humans and other animals. Yet, our fight will persist as long as our species survive on this planet, and with the ever increase in human population, it is likely that another species annihilation threats will arise in impending time.

In this advanced technological scientific era, need frequently arises for the amalgamation of sophisticated technologies and the understanding of basic research. The International Conference on Recent Advances in Animal Sciences 2019 (ICRAAS2019) held from November 6 – 8, 2019 at Pachhunga University College, Aizawl, Mizoram, India, served as a platform where scientific researches were presented. ICRAAS2019 was an international event where scientists with different research backgrounds gathered to share their findings and ideas. The conference hosted 72 and 60 oral and poster presentations. Although it was tempting to publish all the papers received for the conference, however, space being a limiting factor only 19 research papers were selected for this Special issue entitled “**Recent Trends of Animal Research in Northeast India**” in the *Journal of Environmental Biology*. The findings and presentations are deemed important and interesting for the readers. Although their fields are diverse, this special issue aimed to address the current researches in Animal Sciences and its related fields including Biodiversity, Microbiology, Pharmaceutical Science, Aquatic Biology, Taxonomy, Ecology, Developmental Biology, Epidemiology, Parasitology, Phytochemistry and Environmental concerns of the Indian subcontinent. The original research papers of this Special issue reveal the vast potential for further research in all branches of Animal Sciences. This Special Issue is expected to contribute a fundamental element to advance information in various fields of Animal Sciences. The technical contents of these papers would enrich the current scientific knowledge of each field, and hopefully will be utilized for the welfare of mankind, either directly or indirectly. I hope the information content of this Special Issue will make a useful reference and benefit the readers of JEB.

The landscape of Northeast India includes many gigantic rivers, mountains, flood plains, steamy rainforests, cold wilderness, snowy peaks, etc. Abrupt variations in the altitude from 10 - 5800 m provide range of ecological variations, thereby producing different types of climatic conditions from warm subtropical in the foothills; moderate in the middle and cool temperate in high hills; which determine the vegetation pattern and faunal composition as well. Northeast India supports almost all types of vegetation from cultivated plains to grasslands, meadows, marshes, swamps, scrub-forests, tropical forests, temperate forests and alpine vegetation. Thus, the North-east regions of India, blessed with rich flora and faunal diversity and abundance, are included in two world-renowned biodiversity hot-spots, viz., the Himalayan biodiversity hotspot and Indo-Myanmar biodiversity hotspot, separated by the Brahmaputra river.

Animal Science research in Northeast India is an ever-growing research field for more than a century ago. Zoological Survey of India stationed at Kolkata has pioneered for animal science research in the north-eastern region. Wildlife Institute of India, Dehradun has also extended their fields in North-east India. The establishment of Universities and research institutions in the region by the Government of India and private sectors has elevated the research from fundamental to advance molecular level. Therefore, animal research in North-east India is rapidly growing by employing sophisticated equipment and information technology. From the tiniest creature like microbes to varieties of giant animals like Bengal tiger, Asian elephant; from aquatic to edaphic, aerial and terrestrial animals have been studied in different research institutions. This has enormously enriched scientific knowledge, and more utilization of animal for human welfare and health. However, along with these, more and more anthropogenic pressure in the region has resulted in loss of some precious animal species and dwindling of their population. Therefore, gathering of animal science researchers in the region was convened not only for sharing and interaction among scientists, but also to motivate young research scholars, and for sustainable utilization and conservation of

rich animal diversity in North-east India. There is a wide scope for animal science research and almost virgin fertile fields in many branches of animal science in this highly faunal diverse Northeast India.

I would like to thank the authors who have contributed their research works for publication in this Special Issue and appreciate their efforts for patiently revising their papers to meet the suggestions of reviewers and responding to the requirement of the journal. I am very thankful to all reviewers for their valuable input for the technical improvement of each manuscript.

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