

Proposal for "Add-on Course"
Title: **BASICS OF ORNITHOLOGY**
Department of Zoology
Duration of the course: 30 hours
Credit: 02 (Theory + Practical)
Course Fee: Rs.400
Course Code: ZOO-AC-01
Eligibility: Student pursuing B.Sc. Fourth Semester
(Zoology honours) can take this course.
No. of Students: 27
Session: 2021-22



11/11/2021

Principal
Malbari College, Nalbari
Nalbari, Assam



Programme/Course overview: Ornithology is the scientific study of birds that concerns the methodological study and consequent knowledge of birds with all that relates to them. Several aspects of ornithology differ from related disciplines, due partly to the high visibility and the aesthetic appeal of birds. Birds are part of the kingdom Animalia, phylum Chordata, and class Aves. They are warm-blooded vertebrates, but they have hollow skeletal structures that make them lightweight,

Aim of the Course:

This course was created to provide detailed information about the biology of birds to the students, guiding them in study of birds from anywhere at any time. The course delves into many topics in great depth, ranging from evolution and anatomy to behavior and conservation. This course deepens the understanding of birds and helps in master everything from anatomy and behavior to ecology and conservation. Worldwide in scope, the experience will broaden student's bird knowledge and give them strong foundation in all things avian. Laboratories and field projects will focus on identification, systematics, and natural history, with particular attention to species from Assam.

Specific Learning Outcomes: Upon success completion of this course, students will accomplish the following objectives:

1. Students will develop their ability to make scientific observations and generate hypotheses about natural phenomena.
2. Students will be able to identify a wide variety of bird species in the wild.
3. Students will be able to use a variety of electronic tools to identify and record bird observations.
4. Students will understand the evolutionary history of birds.
5. Students will understand the form and function of birds.
6. Students will understand the behavioral and reproductive aspects of bird biology.
7. Students will understand the ecology and conservation of birds.
8. Students will be able to conduct independent research on bird biology.
9. Students will develop their critical thinking and communications skills.

11. Students will develop skills to advance ornithological research.

How is the Basics of Ornithology course beneficial ?

1. The individuals are inspired and motivated to join as ornithologist, ecologist, foresters and a lot more in this series.
2. They will get to know about how to become a forest range officers or as Zoo curators.
3. The individuals can also go for education sector for further research work.
4. An individual can also become a tourist guide with this certificate course.
5. Self sustaining economically by pursuing an important ornithological project.
6. Guest relations executive.

Details syllabus of proposed Add-on Course (Basics of ornithology):

Theory (Modules) (25 hours)

Module1: Introduction to Ornithology (3 hours)

Evolution of birds, Importance of birds, Avian diversity and classification.

Module 2: Avian Anatomy and Physiology & Avian Food and foraging (4 hours)

Exercise Physiology of flight, Avian Anatomy, Diversity of foods and foraging behaviors

Module 3: Avian Activities (4 hours)

Flying, Aerodynamics, Walking, Eating, Perching, Nesting, Avian vocal Behavior

Module 4: Avian Mating and Breeding Biology (6 hours)

Territoriality, Adaptive value of mate choice, Pair-bonds, courtship and divorce, Timing of breeding, Nest-building behaviors, Incubation and caring for young

Module 5: Avian Migration and Bird Conservation (8 hours)

Patterns and movements in migration, Causes of migration, Orientation and navigation, Significance of migration, Causes of avian population declines, Conservation solutions

Practicals (5 hours):

1. Practical for birds' anatomy through laboratory avian model. (1 hour)
2. Field visit for study of bird and their habitats. The trip will be day trip. (3 hours)
3. Web Surfing of birds. (45 min)
4. Presentations on Endangered Birds in Assam. (15 min)

Guest/Internal faculty:

1. Mr. Kumud Chandra Rabha



HOD, Department of Zoology,
Nalbari College, Nalbari

E-mail ID: kumud.rabha@yahoo.in

Area of interest: Entomology and Wildlife Conservation.

2. Dr. Nilutpal Mahanta.



M.Sc. in wildlife Biology

Ph.D. in Zoology

Specialists in grassland and avian ecology.

Have been working in the fields of ecology and wildlife biology since last 10 years.

3. Mr. Nejb Ahmed.



Wildlife Photographer, Avid Birder.

Founder secretary at Wild Wings, Assam. A true naturalist and photographic enthusiast person with a keen interest in wildlife photography. He believes that photography can play a significant role in establishing the richness of the region in terms of biodiversity and highlighting conservation issues. His photographic work got published on various national and international forums like National Geographic, BBC Wildlife Magazine, Sanctuary Asia Magazine, Nature in Focus etc.

Coordinator profile of the Add-on Course (Basics of Ornithology):

Dr. Bidyut Kumar Das



He is expertise in:

Books and references:

1. A Field Guide to the Birds of the Indian Subcontinent. By Krys Kazmierczak . Om Books International. 2015.
2. A Pictorial Field Guide to Birds of India by Bikram Grewal. Om Books International. 2018
3. Birds of India by Majumder, A. ZSI, Ministry of Environment, Forest and Climate Change. 2022.
4. Birds of the Indian Subcontinent by Richard Grimmett. Christopher Helm, 2016.
5. Bird Sense: What it's like to be a bird? Birkhead, T. Bloomsbury, NY. 2013.
6. Handbook of Bird Biology, Lovette, I.J and Fitzpatrick, J.W., 3rd ed. Wiley. 2016
7. Ornithology. Gill, F.B, and Prum, R.O., 4th ed. Macmillan. 2019
8. Ten Thousand Birds: Ornithology since Darwin. Birkhead, T., Wimpenny, J., and Montgomerie, B. Princeton University Press, Princeton, NJ. 2014.

ADD-ON COURSE

Title : Basics of ORNITHOLOGY
DEPARTMENT OF ZOOLOGY

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Issue of certificates to the students participating in Add-on programme
(2021-2022).

Principal
22/2/22
Habar College, Habari
Assam

S. NO.	ROLL NO.	STUDENT NAME	FATHER NAME	SIGNATURE
1	US-201-194-0006	ANURAG BAISHYA	Late Dhiren Baishya	Anurag Baishya
2	US-201-194-0007	ANUSKA KASHYAP	ARUN KUMAR DEKA	Anuska Kashyap
3	US-201-194-0017	BHASKARJYOTI DUTTA	PARESH DUTTA	Bhaskarjyoti Dutta
4	US-201-194-0031	DEBAPRATIM THAKURIA	ANUKUL THAKURIA	Debapratim Thakuria
5	US-201-194-0036	DHRITISMITA KALITA	RADHA KALITA	Dhritismita Kalita
6	US-201-194-0038	DHRUBAJYOTI DEKA	MAHENDRA DEKA	Dhrubajyoti Deka
7	US-201-194-0039	DIKSHITA MEDHI	NILAKANTA MEDHI	Dikshita Medhi
8	US-201-194-0045	GWMSAR BARO	PRASANNA BARO	Gwmsar Baro
9	US-201-194-0046	HIMANGSHU BHARADWAJ	SANKAR SARMA	Himangshu Bhavadwaj
10	US-201-194-0052	HRISHIKESH DEKA	NARAPATI DEKA	Hrishikesh Deka
11	US-201-194-0062	JUPIKA CHAKRAVARTY	AMULYA CHAKRAVARTY	Jupika Chakravarty
12	US-201-194-0064	JYOTISMITA TALUKDAR	HARMOHAN TALUKDAR	Jyotismita Talukdar
13	US-201-194-0071	KRITI SAGAR DUTTA	DIRITI DUTTA	Kriti Sagar Dutta
14	US-201-194-0073	LIKIMANI DEKA	BIPUL DEKA	Likimani Deka
15	US-201-194-0077	MANASI MAZUMDAR	ABANI MAZUMDAR	Manasi Mazumdar
16	US-201-194-0082	MRIDUSMITA MEDHI	HARICHARAN MEDHI	Mridusmita Medhi
17	US-201-194-0090	NIHARIKA DAS	UTPAL KUMAR DAS	Niharika Das
18	US-201-194-0092	NILANGANA DAS	NAGEN DAS	Nilangana Das
19	US-201-194-0095	NILOTPAL DEKA	PRATUL CHANDRA DEKA	Nilotpai Deka
20	US-201-194-0096	NISHANTA DEKA	Tapan Deka	Nishanta Deka
21	US-201-194-0104	PRABAL SARMA	JITUMONI SARMA	Prabal Sarma
22	US-201-194-0107	PRIMAN NARZARY	GAJEN NARZARY	Priman Narzary
23	US-201-194-0117	RAM CHANDRA BRAHMA	RAMESH BRAHMA	Ram Chandra Brahma
24	US-201-194-0118	RICHA BARMAN	BHABEN BARMAN	Richa Barman
25	US-201-194-0133	SOURAV DAS	Late Dhiren Das	Sourav Das