



भारतीय वन्यजीव संस्थान
Wildlife Institute of India

RAVI CHELLAM
SCIENTIST 'SD'

DO NO WII/WB/IV MSC/93

Dated October 28, 1993

Dear Dr. Daniels,

Sub: Teaching M.Sc. (Wildlife Science) Course at WII.

Our IV M.Sc. batch has got off to a good start and we have 7 young, bright and enthusiastic students. We need expert inputs from outside WII to enable us to conduct this course successfully and one such subject area is ~~Animal Behaviour~~. We are requesting you to kindly come and deliver a few lectures for the M.Sc. class. Please find attached a copy of the syllabus. This course is slated to be taught between 28th February and 15th April 1994. A minimum of one and a maximum of two lectures can be delivered everyday and a few related practical classes would also have to be conducted. Your return flight tickets and a suitable honorarium would be paid. Kindly send an early reply expressing your willingness, the suitable dates and the portions you are interested in teaching. Looking forward to your early reply.

With warm regards and best wishes,

⊗ AVIAN BIOLOGY &
ORNITHOLOGY

Yours sincerely,

Ravi Chellam
(Ravi Chellam)

Encl: as above.

Dr. R. J. Ranjith Daniels,
C/o Dr. R. Sukumar,
Centre for Ecological Sciences,
Indian Institute of Science,
BANGALORE - 560 012

This course assumes some background knowledge of animal behaviour from WB 305 and concentrates on aspects of vertebrate behaviour which are related to the environment in which a species lives.

Relevance of ethology to wildlife biology. Evolution of behaviour patterns and adaptive significance of behavioural patterns. Concepts of behavioural ecology. Behaviour patterns of individuals. Activity budgets. Use of space, territoriality. Patterns of social organization in birds and mammals. Reproductive behaviour: breeding cycles, courtship, copulation, nesting, parturition, care of young etc. The adaptability of social organization to environment. Implications of body size and group size. Sociobiology. Concept of ecological fitness.

Study methods: Use of scan and focal sampling etc. Relevance of captive studies. Behaviour in captivity. Abnormal behaviour. Behaviour and wildlife management.

Practicals: Observation/recording of group structures and spatial distribution in readily observable species on campus e.g. rhesus macaques, birds. (Further studies of group structure and interaction e.g. in cervids, will be made in the field). Behavioural sampling techniques, ethograms, nearest neighbour etc. (Observation of rutting, courtship, mating, nest building and care of young will be made, as appropriate, on field courses).

WB 305

Biology of Indian Wildlife : II ✓

Total 3 units

305.1 Birds

1.5 units

(15 lectures)

Origin and radiation of Birds, Morphological and Physiological adaptation. Review of Indian birds: taxonomy, general natural history, literature. Biogeographic patterns in Indian avifauna and their affinities. Emphasis on Montane avifauna: Himalayas, Western & Eastern Ghats; Island avifauna, Waterfowl, Desert avifauna; Birds of cultivation and degraded habitats. Habitat mosaics.

Migration and linkages between breeding & winter areas. Breeding ecology, wintering ecology. Avian community ecology and habitat selection; temperate-tropical comparisons. Avian guilds and competition. Bird census: review of techniques and problems. Endangered/ threatened groups, pheasants, bustards & flamingos, cranes, waterfowl, raptors. Threats to passerines and general problem of avian extinction.

Practicals: Examination and drawing of museum material (skins, skulls, feet, eggs, nests etc.) of characteristic species. Bird skin preparation. Measurement of specimens. Mist netting techniques and methods for handling birds, Bird census on campus. (Birds will also be observed and discussed in their natural habitat during appropriate field courses).