



VIDYANAGAR COLLEGE

(ACCREDITED BY NAAC AND GRADED 'B+')

Vidyanagar, P.O.- Charashyamdass, South 24 Parganas

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Ref. No. :

Date : 23.09.22

Department of Zoology

NOTICE

Date: 23.09.2022

This is to notify for all students that one day webinar on '**Mosquito transmitted diseases of Man in Eastern India**' organized by ZOOLOGY Department & IQAC, Vidyanagar College in 28th September, 2022 at 11 a.m.

All the students are requested to join the webinar.

S.P. 23.9.22

Dr. S. P. Agarwala
Principal
Vidyanagar College
South 24 Parganas

[Signature] 23.9.22

Dept. of Zoology

Vidyanagar College
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Vidyanagar College
P.O.- Charashyamdass,
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REPORT

30/09/2022

**Mosquito Transmitted Diseases of Man in Eastern India Vidyanagar College,
West Bengal, India**

Department Of Zoology, in collaboration with IQAC Presents

One Day State Level Seminar

Topic- Mosquito Transmitted Diseases of Man in Eastern India

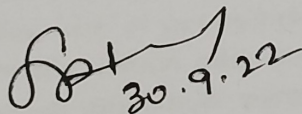
Speaker- Prof. Ananda Mukhopadhyay

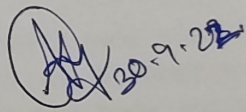
Venue- Vidyanagar College Seminar Room

Date- 28th September, 2022, Time- 1 P.M.

Number of Students participants- 93

Number of Faculty- 23


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MOSQUITO TRANSMITTED DISEASES OF MAN IN EASTERN INDIA

Ananda Mukhopadhyay

Former Professor of Zoology & Dean , Faculty of Science,

Entomology Research Unit, University of North Bengal, 734 013

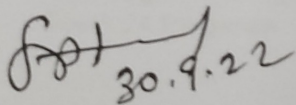
Mosquito borne diseases can be caused by viruses, protozoans and round worms. Mosquitoes that pose major threat to human health belong to the subfamilies Culicinae and Anophelinae. While the former includes the species of *Culex* and *Aedes*, the latter includes both distinct and sibling species of *Anopheles*. Only females having pillose (scanty hair) antennae and blood-sucking mouth parts are hematophagous. Female mosquitoes get attracted to man due to: (a) Silhouette & bipedality (b) carbon dioxide produced during breathing (c) convection current produced due to warm body (d) color and texture of skin & clothing (e) body odour (f) some more factors.

Only anophelines transmit sporozoan form of *Plasmodium* parasite to cause malaria in man. About 08 species of *Anopheles* are the major vectors. In eastern India , *A. culicifacies*, *A. stephensi*, *A. fuviatilis*, *A. minimus*, *A. dirus*, *A. annularis*, and to a lesser extent *A. sondaicus* & *A. philippiensis* . Species of *Culex* have been incriminated for carrying atleast two major diseases. *Cx. vishnui* and *Cx. pseudovishnui* are the chief vectors of Japanese-B Encephalitis (JE). *Culex pipiens fatigans* and *Cx. quinquefasciatus* are potential vectors for transmission of the round worm , *Wuchereria bancrofti* causing filariasis /elephantiasis in man. No less important are the day biting tiger mosquito, *Aedes*. In India *Ae. aegypti* ad *Ae. albopictus* are the principal vectors of Dengue flavivirus causing break-bone disease, and more recently transmitting alpha-virus causing Chikungunya fever.

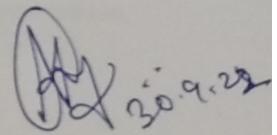
Critical density of infection tells us about the chances of a disease becoming epidemic due to status of a vector in a region. The CDI value depends on the number (density) of a vector (mosquito), number of mosquitoes, number of bites/day, longevity & disease carrying capacity of the mosquito.

Mosquito control depends on chemicals, such as DDT, Malathion, and fogging of pyrethroid pesticides. Non-conventional management includes removal of accumulated water, wherever possible, applying oil, and microbial pesticide (*Bt israelensis* & *B. sphaericus*) on water surface, releasing larvaevorous fishes (guppy, tilapia, gambusia, fundulus, & apolocheilus) in wells, ponds, and water bodies, use of permethrin or carbosulphan impregnated bed nets, use of mosquito repellents (*Citronella*, lemon oils, diethyl toluamide and eucalyptus essence) over body, use of fumigants (carbon-di-sulphide, & pyrethroids (Good night, all out), attract male mosquito to sound source simulating one of females & electrocuting them, mass trapping by attracting to a CO₂ in confined places.

Vector control measures that are environmentally friendly need to be implemented to a large extent with success. For suitable management of mosquito vectors active participation, cooperation, and awareness of local people at community level along with a sincere all out efforts of the government under vector eradication program are necessary.


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Figure A- From L-R, Prof. Sahidur Rahaman Laskar. Dr. Surja Prakash Agarwal, Prof. Ananda Mukhopadhyay, Prof. Subrata Sar, Dr. Arunima Roy Chowdhury, Dr. Sudipta Patra

S.P.A.
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VIDYANAGAR COLLEGE ,W.B, INDIA
PRESENTS
ONE DAY STATE LEVEL SEMINAR
ON
MOSQUITO TRANSMITTED DISEASES OF MAN IN EASTERN INDIA
SPEAKER: PROF. ANANDA MUKHOPADHYAY
(RTD. PROFESSOR, ENTOMOLOGY RESEARCH UNIT, DEPT. OF ZOOLOGY,
UNIVERSITY OF NORTH BENGAL, PO: NBU, DARJEELING 734013)
ORGANISED BY:
DEPARTMENT OF ZOOLOGY, VIDYANAGAR COLLEGE
IN COLLABORATION WITH IQAC
VIDYANAGAR COLLEGE
VENUE: VIDYANAGAR COLLEGE SEMINAR ROOM
DATE: 28th SEPTEMBER, 2022 TIME: 1 p.m


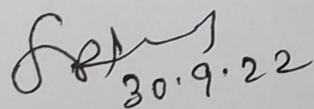
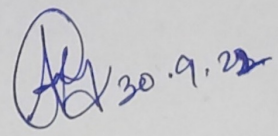


Figure B- Seminar Banner


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