

# Biting Behavior Of *Culex quinquefasciatus* obtain from residential areas of kumaun belt in Uttrakhand (India).

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## ABSTRACT

There are several species of mosquitoes that readily attack people and some are capable of transmitting different diseases. The biting behavior of *Culex quinquefasciatus* was determined by using bare leg catch (BLC) techniques throughout the day 24 hours. The biting activity of *Culex quinquefasciatus* in selected localities were nocturnal feeders with multiple biting peak throughout the night. So this study help in the correct time for fogging operation in order to maximize the mortality of the targeted mosquitoes.

**KEYWORDS:** *Culex quinquefasciatus*

## INTRODUCTION

Mosquitoes are known to perceive visual Thermal and olfactory stimuli which enable them to detect light source, odor and other volatile chemicals emanating from the skin. Takken (1991), Davis (1994) Proposed these host seeking potential are necessary for the female mosquitoes which required a meal of blood in order to lays eggs culex mosquitoes are the major vectors of filariasis and Japanese encephalitis (Hemingway *et.al* 2000).It is also a potential of vector of urban lymphatic filariasis caused by the nematode parasite *wuchereria bancrofti*. According to Charlwood *et.al* (1982) light intensity control biting activity of mosquitoes. The host seeking behavior of mosquitoes would likely depend on presence of sunlight during sunrise and sunset several other reports have established the involvement of host odor ,lactic acid, sebum, carbon-dioxide ,sweat as attractants for these mosquitoes toward men. Schreck *et.al* (1990) and Knols *et.al* (1994). Oduola *et.al* (2006) reported other factors such as Environmental (Odors from other sources, Prohibitive wind speed). Physiological condition (circadian phase, Nutritional status and mosquito genotype (Olfactory proteins involved in response to external stimuli).Chee Dhang Chen *et.al* (2014),reported the biting activity mosquito is an approach to enhance the effectiveness of Integrated Vector management (IVM).

## MATERIAL AND METHODS

The study was carried out in three randomly selected areas of Haldwani bus station, Nawabi road and Kathgodam areas from April 15 to July 15 2015. The mosquito biting behavior was studied by using a bare leg catch (BLC) techniques as outlined by Haddow *et.al* (1954). Collected mosquitoes using glass tube once they landed and subsequently plugged tubes with cotton. The captured mosquitoes were identified segregated in batches.

## RESULT AND DISCUSSION

*Culex quinquefasciatus* is a nocturnal feeder because no biting activity was observed in 6 A.M. to 6:30 P.M. *Culex quinquefasciatus* was inactive during daytime and rested in dark corners of room, shelters and in vegetation. Mahanta *et.al* (1999) reported that the biting activity was seen throughout the night which was similar to our finding. But Sucharit *et.al* (1981) who showed that there were two minor peak of which the first peak was between 10 P.M. to 11 P.M. the later peak was after midnight at 1 A.M. to 4 A.M. But our study showed some differences for first peak was between 11 P.M. to 1:30 A.M.

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