

INTEGRATED MOSQUITO, HOUSE FLY AND SAND FLY CONTROL IN BELEK AND ANTALYA, TURKEY

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In this study, it is presented the integrated control strategies against mosquitoes, house fly and sand flies in Belek Tourism Center which is surrounded by Mediterranean in the south, Tahtali Mountains, the part of Toros Mountains in the north, Aksu River in the west and Koprucay River in the east, in Antalya called the Turkish Riviera. Belek Special Protected Area is located in the east. Belek is one of the biggest and important Tourism Centers of Turkey which shows international standards by the control of Belek Tourism Investors Association (BETUYAB).

Mosquito, house fly and sand fly control is provided regularly in Belek, the place of different biotopes, for almost 4 years. In the scope of the "Integrated Mosquito, House Fly and Sand Fly Control" project sponsored by the BETUYAB, and conducted by Hacettepe University Ecology Section, the office and land mapping activities started in October 1995.

Integrated control studies was carried out in 14 residential center in Serik and Aksu villages, 20 different hotels, holiday villages and resorts which has 35,000 bed capacity and 5 golf areas which covers totally 270 square km area.

Before beginning the control program we obtained a lot of data to use in the control programmes about hydrology, vegetation, climatic parameters, breeding and feeding habitats, population dynamics, water quality, resistancy against widely used insecticides, soil typology, effectiveness of some biological control agents, biology and ecology of mosquito, house fly and sand fly species in the study area, resistance against widely-used insecticides.

Mosquito, house fly and sand fly species were identified in the whole area. Among them, the breeding and feeding sites and the control methods of different stages were determined. We found 14 different mosquito breeding habitats with presented 16 mosquito species, and 39 breeding and feeding habitats for house fly and sand fly species.

These methods can be outlined as follows,

- I. Education studies and coordination
- II. Integrated control studies
 - A. Infrastructure studies and physical arrangements
 - B. Bio-ecological studies
 - C. Chemical control studies
 - D. Biological control studies

The general vector populations in the region have been reduced at the rate of 85 % compared with the station prior to the date of starting the program.