

Aquatic Insects Fauna of Meshkin Shahr, Ardabil Province, Northwestern Iran, 2014

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Abstract

Wolaita, Hadya, Dawuro zone, and Konta Special Woreda were investigated. Household and key informant interviews were used in the study. The study's goal was to determine the primary potential and limits for honey production in the SNNPR's central zones. Availability of ready and eager beekeepers to follow modern technology path, availability of natural forest with adequate apiculture flora and water resource, existence of strong bee colony and a number of colonies, diversity and seasonal availability of bee forages, and market access are some of the opportunities of a strong bee colony and a number of colonies. Lack of technical knowhow of small scale farmers, prevalence of honey bee enemies, lack of improved apiculture equipments, lack of improved honeybee flora, little attention given to apiculture development and technology introduction in the sector, lack of market oriented apiculture farming system and market irrationality were among the major constraints of apiculture farming identified in the study districts. The remedial measures for listed constraints of apiculture farming in the region recommended includes capacity building of small scale farmers, value chain analysis and value chain development adoption, pre-scaling up of proven apiary technologies and establishment of market oriented farmers apiary cooperatives.

Keywords: Aquatic, Insects, Faunistic, Meshkin

INTRODUCTION

Aquatic insects are a group of arthropods that can live in freshwater and brackish water successfully with spending at least one stage of their life cycle in water. Actually more than 30,000 species of aquatic insect have been identified which live in freshwater and only several hundred are living in marine environments. Vast majority of insect spend their primary stage in water while adults are terrestrial, for instance orders of Ephemeroptera (OD\fl\ Odonata (DrDgonfl\ and DDmselfl\ Plecoptera (Stonefl\ Trichoptera (CDddiesfl\ Megaloptera (\$lderfl\ Neuroptera (Lacewings), Diptera (Flies), Lepidoptera (Moths) and Hymenoptera (Wasps).

Some Coleoptera (Beetle) and Hemiptera (Bug) species are entirely aquatic, with larval, nymphal, and adult stages all existing in water. Semi-aquatic insects are associated with semi-aquatic and aquatic plants, as well as water margin and water surface habitats. Some aquatic insects are crucial in the transmission of diseases like Malaria, Yellow Fever, Dengue Fever, Filariasis, and other Arboviral infections.

Some of them, such as drDgonfl and dDmselfl, can be termatode hosts. By painful biting, a few of them cause physical and mental irritation as well as cutaneous harm to human and animal hosts. Ephemeroptera, Plecoptera, and Trichoptera (EPT) are examples of aquatic insects that play an important role as water resource contamination indicators. The number of EPT species is referred to as a "biological indicator" of water quality. The comparison of intolerant and tolerant species is used to assess water quality. Some of the themes from the early phases are employed in toxicological research. Aquatic insects play an important role in nutrient recycling and decomposition in freshwater. He acts as shredders, scrapers, filter feeders, and predators, among other things. Trichopterans, for example, are crucial in trophic dynamics, energy flow, and the food chain, and are one of the main food sources for amphibians and fishes, hence they play a vital role in ecosystems. We decided to perform a survey in Ardabil province, Meshkin shahr, northwestern Iran, in order to open a fresh window into the enormous world of aquatic insects due to the scarcity of fauna and biodiversity studies of aquatic insects in Iran.