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## Study of *Lixus angustatus* at Union Council Harichand Khyber Pakhtunkhwa Pakistan

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### Abstract

*Lixus angustatus* having long, slender and slim instars, chrysalis and adult are consequently adoptive to mine the stem of herbaceous plants even though a few species attack the roots and buds. Female having long rostrums which are curved in shape in such a way that eggs are placed in the interior of the herbaceous stem species of *Lixus* has been to a broad spectrum of plant families that provide suitable oviposition sites. The total length of the *Lixus angustatus* is 17mm. Antennae 4mm, rostrum 3mm, head 1mm, thorax 3mm, abdomen 10mm.

**Keywords:** *Lixus angustatus*, Herbaceous plants, Antennae.

### 1. Introduction

Invertebrates, and among them arthropods, represent the greatest part of alien animals and are of pronounced importance in agriculture, horticulture and forestry, with a major economic impact. Their activity can alter ecosystems structure and functioning and eventually lead to the extinction of native species, inducing biodiversity losses. Vulnerability of ecosystems to alien species is probably one of the least studied and most difficult questions. Knowledge of alien species effects and potential threats is still insufficient being crucial for managing the risks related to species transfer (Munteanu *et al.* 2014) [4].

Family Curculionoidea, which contains more than 50,000 described variety, is the richest organisms known (O'Brien and Wibmer, 1978) [5]. The variety is hypothesized to result from assault of the adoptive region of firm phytophagy (Anderson, 1959). The use of the rostrum in preparing an oviposition position is painstaking key adaptations that make easy entrance by circumventing documented evolutionary barriers to puff feeding and permits. The use of an extensive range of plants parts as food sources (Anderson, 1995) [1].

### Material and Methods

#### Study Area

The present study was conducted in December 2014 at Union Council Harichand, Charsadda, Khyber Pakhtunkhwa, Pakistan. Union Council Harichand is situated in Charsadda District. The main crops are wheat, maize, sugarcane, plume, pear and strawberry etc. Harichand is enclosed and attached to District Mardan by South, West and North by District Malakand and East by Union Council Kaoz Bahram Dheri.

#### Materials

Forceps are used for the collection of *Lixus angustatus*. The collected specie was placed in to the formalin socked cotton cloth bottle and killed them.

#### Photographs

Photos of the collected specie were done on dorsal side as well as ventral side with the help of Samsung Galaxy.

#### Results and Discussion

This specie was collected from guava plant, destroyed their leaves. They are the real pest of these plants and camouflage on their leaver. They damages the fruits and spoilage the leaves well. According to the examination of this specie green yellowish scales were present on their elytra, thorax and head. The legs and abdomen having green yellowish hairs.

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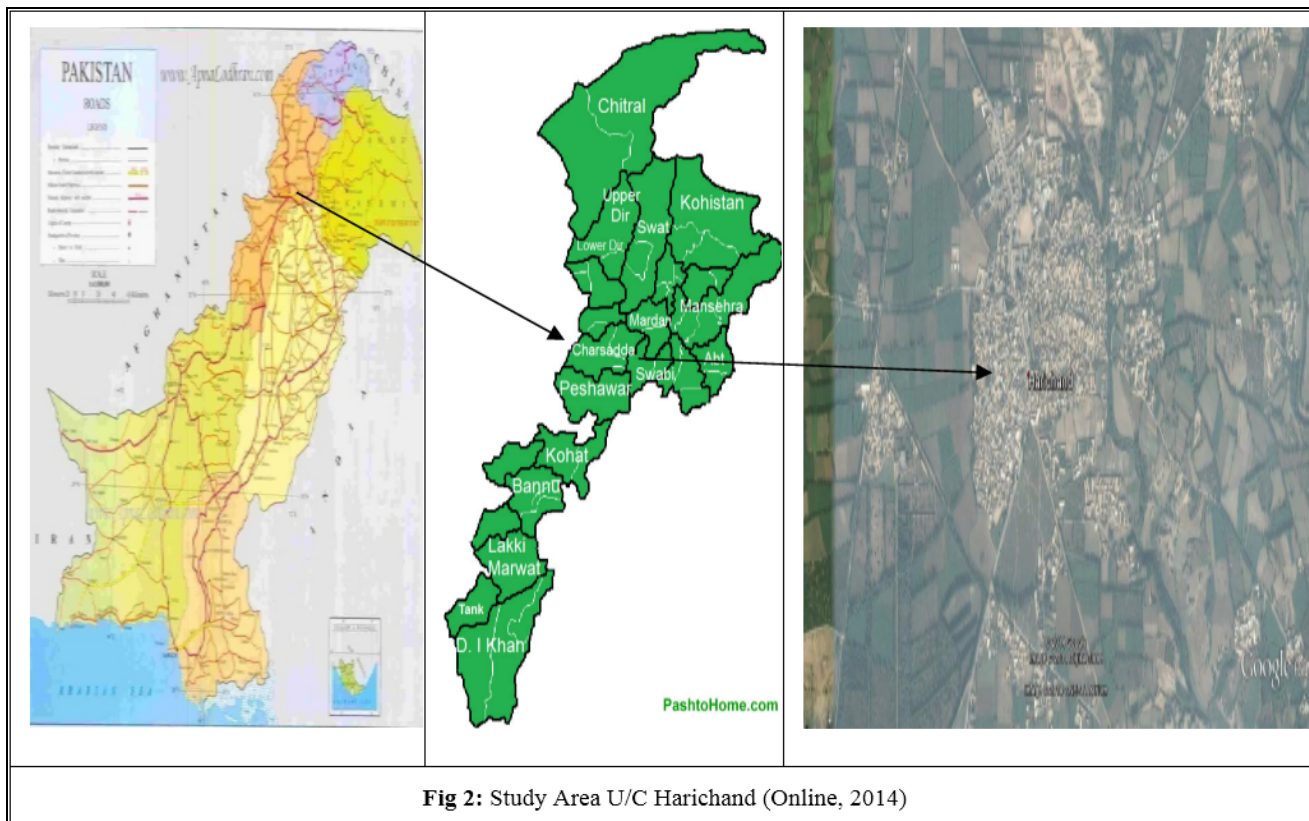


Table 1. Examination description of *Lixus angustatus*.

S. No	Antennae	Rostrum	Head	Thorax	Abdomen	Legs	Total length	Abdomen Segments
1	4mm	3mm	1mm	3mm	10mm	9mm	17mm	7

**Morphological Description of *Lixus angustatus***

(Fabricius, 1775)

The genus *Lixus* has a virtually wide-reaching allocation and comprises more than 500 in the Palaearctic area more than 150 species are found (Ter-Minassian, 1967) [7]. They having long, slender and slim larvae, pupae and adult are consequently adoptive to mine the stem of herbaceous plants even though a few species attack the roots and buds. The female rostrum is long, curved and shaped in such a way that eggs are placed in the interior of the herbaceous stem species of *Lixus* has been to a broad spectrum of plant families that provide suitable oviposition sites (Zwolfer and Haris, 1984) [10]. Congregation ranges together with such as families Chenopodiaceae, Brassicaceae and Apiaceae are well known species develop or at least feed on species of several genera of single species (Korotyaev and Gultekin, 2003) [3].

*Lixus angustatus* is a species of weevil found in Europe and the Mediterranean (Zimmerman, 1994) [9]. The general size of the weevil is about 5.5 mm. The coloration of the weevil is green yellowish. They are documented by their characteristic elongated snout and geniculate antennae among small clubs; further than to facilitate, curculionids have substantial multiplicity of appearance and dimension, with adult lengths ranging from 1 to 40 millimeters (0.04 to 1.57 in). Weevils are approximately entirely plant feeders, and most species are connected with a narrow range of hosts, in many cases only living on a single species (Wilhelm, 2011) [8].

**Systematic Classification**

<b>Kingdom:</b>	Animalia
<b>Phylum:</b>	Arthropoda
<b>Class:</b>	Insecta
<b>Order:</b>	Coleoptera
<b>Family:</b>	Curculionoidea
<b>Genus:</b>	<i>Lixus</i>
<b>Specie:</b>	<i>Lixus angustatus</i>



Dorsal Side



Ventral Side

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