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## A Survey on the Longhorned Beetles Species (Cerambycidae) on *Acacia* Trees of Northern Kordofan State, Gum Arabic Belt-Sudan

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### Abstract

A field study was conducted in 2007 and 2008 in northern Kordofan state in the gum arabic belt (Sudan) on longhorned beetles (Cerambycidae), infesting *Acacia* species (*A. senegal*, *A. mellifera*, *A. seyal*) connected with severe economical losses of gum Arabic yield. Study design focused on the assessment of pest species spectrum and infestation characteristics (e.g., number, location and direction of holes of infestation). Environmental and silvicultural parameters were measured to predict the infestation; those are crown size, crown diameter, tree age, tree temperature, tree height and dbh. Spectrum and relative abundance of pest species were determined by catch results of flight interception traps, microclimatic conditions by data loggers, silvicultural parameters of trees by direct measurements.

Longhorned beetle species affecting *Acacia senegal* on the study sites were: *Crossotus subocellatus* (Fairmaire, 1886), *Titoceres jaspideus* (Audinet Serville, 1835), *Crossotus albicollis* (Guérin, 1844), *Coelodon servum* White, 1853, *Doesus telephoroides* Pascoe, 1862, *Tithoes maculates* (Fabricius, 1792), *Crossotus strigifrons* (Fairmaire, 1886). The results show that all of the *Acacia* tree species i.e. *A. senegal*, *A. mellifera*, and *A. seyal* indicate presence of holes of infestation by the longhorned beetles. Infestation rate of trees ranged between 20 and 100 % on the study sites (n = 6). With the exception of presence of holes in the north direction in *A. senegal*, holes were present in all directions of the tree trunk. *A. mellifera* indicated maximum presence of holes in the trunk, and *A. senegal* in the branches. Infestation rate correlated primarily with the age of trees.

**Keywords:** *Acacia mellifera*, *Acacia senegal*, *Acacia seyal*, Cerambycidae, gum belt, infestation, longhorned beetles, Sudan