



# Biological Control of Invasive Species Mikania Micrantha with Reference to Eri Silkworm Samia Ricini Donovan

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## ABSTRACT

Biological invasion is one of the major threats to the Biodiversity and Ecosystem of nature. Mikania micrantha kunth ex H.B.K. commonly known as Mile a minute is one of the 100 world's worst alien species and pose a serious threat to biodiversity and ecosystem. In this paper the Foliar constituents of Mikania micrantha and the impact of feeding Ricinus communis fortified with different concentrations (10% to 100%) of leaf extracts of Mikania micrantha on silk quality parameter (Denier, Tenacity and Elongation) of eri silk worm have been investigated. Significantly the finer denier ( $1.766 \pm 0.070$ ), higher tenacity ( $3.880 \pm 0.150$ ) and lowest percentage of elongation at break ( $24.033 \pm 1.383$ ) have been observed in eri silkworm fed with 40% Mikania micrantha extracts over control. Thus, Mikania micrantha a commonly available weed all over can be commercially exploited for better growth and silk yield of Eri silkworm. As the mechanical control method of Mikania are labour intensive, expensive and not effective in longer term the biological control mechanism can help in controlling its spread to new regions and conserve biodiversity.

**Keywords:** Biodiversity conservation; Foliar constituents; Silk quality; Silk yield; Weed plant.