

Is *Panicum trichocladum* Invasive?

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Panicum trichocladum is a grass, first reported in 2002 from Hanguranketha area in Sri Lanka. Invasiveness of *P. trichocladum*, which is listed as a potential invasive species, was assessed using the Post-entry Risk Assessment Protocol developed by the National Invasive Species Specialist Group (NISSG) of Ministry of Environment and Wildlife Resources. The assessment was done based on three criteria; (a) distribution of the plant species (12 queries), (b) impact of plant species on ecosystem (10 queries) and (c) invasive attributes of the species (16 queries), using secondary data and results of a field experiment that evaluated the impact of the weed (*P. trichocladum*) on *Zea mays* L. The field experiment was done in a RCBD with three replicates where the weed was planted at three densities; 25, 50 and 75 plants/12 m², having a weed-free control, with maize. Other weeds in the plots were removed weekly. Leaf area, plant height, plant dry weight of maize and the weed dry weight were taken at 60 days after planting (DAP). Cob length, number of kernel rows, seeds per cob, final grain yield of maize, and the weed dry weight were measured at 115 DAP. Pearson (parametric data) and Spearman's (non-parametric data) correlation coefficients were used to measure the strength of relationships between variables. Maize cob weight at 60 DAP and final grain yield decreased by 55% and 12%, respectively, at the highest weed dry weight compared to the control. High number of unknowns (6 out of 16 queries) was recorded under invasive attributes category in the protocol, with a total of 9 unanswered queries due to the absence of published data/information for all assessment categories. Results indicated that *P. trichocladum* will remain listed as a potential invasive alien plant in Sri Lanka, but requires re-assessment using more scientifically valid data/information.

Keywords: Invasiveness, *Panicum trichocladum*, Post-entry risk assessment, Weed competition, *Zea mays* L.

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