## Figs (Ficus spp.) dispel the splendor of Colombo streets: A case study

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## **Abstract**

Street trees are considered as an essential element of urban infrastructure as they offer immeasurable services to maintain urban sustainability. At present several activities are being conducted to escalate and improve 'greenery' in urban ecosystems including Colombo City. However, some streets have become a sorry sight due to infestation by Figs (Moraceae; *Ficus* spp.). This study investigates the spread of Figs along streets in postal zone 07 (Cinnamon Gardens), in which the highest number of street trees is reported. Objectives of the study were to i) identify problematic (hemi-epiphytic) *Ficus* spp. ii) determine their growth stages and hosts iii) identify suitable measures to minimize population of Figs. Observations were recorded for all street trees located in Colombo 7 postal zone during April 2011. Hemi-epiphytic *Ficus* species and their hosts were identified using available literature. Growth stage of *Ficus* spp. was ranked according to a scale 1-7 (1= Fig sapling <1m, 2= sapling with developing roots, 3= Fig with hanging roots, 4= Fig roots touching ground, 5= host replacement initiation, 6=host almost replaced, 7= independent Fig with no clue of host). Girth measurements for host trees were recorded at approximately 1m above soil level and categorized into 9 classes (within <1m-8m range).

Out of 890 street trees observed (belonged to 45 species, 42 genera and 23 plant families), 38 were independent Fig trees (that have probably replaced hosts completely!). Among five hemi-epiphytic Ficus spp. identified, four (F. benghalensis, F. macrophylla, F. tinctoria ssp. parasitica, F. elastica) except Ficus religiosa showed strangling habit. Figs grew either separately or in a mixed manner on the same host tree. Nearly 17% of street trees in the study area were colonized by Ficus spp., majority being F. macrophylla and F. benghalensis. Among infested street trees were 60% Peltophorum pterocarpum, 25% Albizia saman and 5% Pithecelobium dulce all of which are exotic. With respect to populations of host tree species, 37% Peltophorum pterocarpum, 40% Albizia saman and 12% Pithecelobium dulce were affected. Distribution of Figs was high in host trees belong to girth classes >5 in Peltophorum pterocarpum and Albizia saman and none of these were free of Figs. Fork of branches had been the most (96%) favourable place for establishment of Figs. Decomposed areas due to cutting/damaging of host stem and other epiphytic growth also had provided suitable niches as colonization sites for Figs. Most of the strangling Figs were in their first stages of establishment indicating that many street trees could be made 'free of Figs' by complete removal of saplings. Number of independent Figs and those ranked at top of the growth scale reflected the intensity of hazardous situations they may cause to pedestrians as all of them have spread into street pavements. For these too, a complete removal is suggested.

Keywords: Figs, Ficus, street trees, Colombo