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Anomalies in Australian municipal tree managers' street-tree planting and species selection principles

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Abstract

There is scant research on Australian municipal tree managers' motivations for street tree planting and the rationales for street tree species selections. Tree managers from 129 city councils across Australia were surveyed to address this knowledge gap. This paper presents the findings from 115 (89%) usable survey responses. Tree managers reported four primary motives for street tree planting: visual and aesthetic (97%), environmental (92%), socio-cultural and community (87%), and health (70%). In contrast, tree species characteristics (97%), management and maintenance issues (92%), visual and aesthetic benefits (89%), site environmental factors (80%) and problems caused by different species (70%) were reported to govern street tree species selection. In spite being the primary motives for planting, considerations for socio-cultural and community benefits (61%) and environmental benefits / ecosystem services (61%) had minor influence on street tree species selection. In absence of established research, Australian city councils' institutional culture is biased by personal opinions on potential threats to city's vital infrastructure posed by street tree, resulting in the mismatch between planting and species selection principles. Future research correlating species characteristics to specific ecosystem services / disservices might help Australian city councils to adopt an ecosystem services based approach to street tree planting and species selection.

Keywords: Disservices; Ecosystem Services; Rationales; Tree Professionals; Urban Forest

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