
The "French Connection": lessons learned from the management of invasive plants in French Overseas Tropical Island Territories

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Abstract

The French Overseas Territories comprise 11 tropical islands or archipelagoes located in three different oceans (Atlantic, Indian and Pacific), ranging from small atolls to high volcanic islands and from oceanic to semi-continental islands, located within the boundaries of 5 of the 36 global biodiversity hotspots. Their unique and speciose flora (with a total of more than 3,340 endemic vascular plants) is highly threatened by direct and indirect anthropogenic impacts, including alien plant invasions. A total of nearly 300 plant species invading natural and semi-natural ecosystems (excluding weeds in agrosystems) are currently documented from these island territories, with about 30% of them found in 3 territories or more. They include the small tree *Leucaena leucocephala* (in 8 island territories), the water hyacinth *Eichhornia crassipes* (in 6 of them), the succulent herb *Kalanchoe pinnata*, the erect subshrub *Furcraea foetida*, the thorny shrub *Lantana camara* and the tree *Syzygium jambos* (in 5), and the African tulip tree *Spathodea campanulata* (4). Other dominant invaders, such as the strawberry guava *Psidium cattleianum* (3), the melastomes *Clidemia hirta* and *Miconia calvescens* (3) and the large erect herb *Hedychium gardnerianum* (1) are particularly invasive in rainforests and montane cloud forests. Since 2005, The French Overseas Invasive Alien Species Initiative (" Initiative sur les Espèces Exotiques Envahissantes en Outre-Mer ") of the IUCN French Committee, allowed the creation of a network of local experts, the publication of invasive species management guides, and a dedicated website. Management efforts have greatly benefited from experiences and lessons learned in the different island territories. As an example, well-tested strategies and methods are used to control the small tree *Miconia calvescens* (Melastomataceae) introduced in the 30's in French Polynesia, the 60's in New Caledonia, and the 80's in Martinique. Regional collaborations with other neighboring tropical islands (e.g. Comoros, Mauritius and Seychelles in the Indian Ocean,

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Fiji and Hawai'i in the Pacific, the Caribbean Islands in the Atlantic) are also important, as they share the same insular challenges. In particular, it could help to prevent further invasions by using common risk assessment, early detection and rapid response systems.

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