

“Of Miconia and Men”: The Story of a Scientifically and Socially Successful Biological Control Program in Tahiti, French Polynesia

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Abstract

Many biological control programs against invasive plants have failed or have been abandoned because of negative human perceptions or strong conflicts of interests, e.g., the fear of introducing alien predators or pathogens (the so-called “pathophobia”, Warner, in press), the potential threats for related species of economic or conservation value, and the uncertainty of successful control (see e.g. Louda & Stiling, 2004). In this regard, biological control scientists often appear as sorcerer’s apprentices. This talk describes how a biological control program against the invasive tree *Miconia calvenscens* (Melastomataceae), a formerly popular ornamental plant species, was successfully conducted (1997-2010) on the island of Tahiti (French Polynesia, South Pacific) using a fungal pathogen (Meyer et al., 2008; Meyer et al., in press), despite the very bad reputation of past “biological control experiments” in the region (carnivorous snails introduced to control the Giant African snail, myna birds for wasps, raptors for rats, etc.). This case-study tries to demonstrate that rigorous scientific (pre- and post-release) studies are necessary but not sufficient for the acceptance of biological control by human society. Information and education at all levels (from public to politicians), consultation process including all stakeholders, and communication involving different media are equally important to avoid that “*The best laid schemes of mice and men go often askew*” (inspired by Robert Burns’ famous poem written in 1785). Paradoxically, biological control projects provide excellent opportunities to explain basic ecological processes and the methodology of science to the general public and schoolchildren in particular.

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