

## Can Wild Gingers Ever be Tamed? The Search for Natural Enemies Hots up

D. Djeddour and R. Shaw

CABI Europe-UK, Bakeham Lane, Egham, Surrey, TW20 9TY, UK d.djeddour@cabi.org

### Abstract

Kahili ginger, *Hedychium gardnerianum* Sheppard ex J. B. Ker Gawler, and yellow ginger, *H. flavescens* W. Carey ex W. Roscoe (Zingiberaceae), stunning and fragrant ornamental herbs native to the Eastern Himalayan foothills, have escaped cultivation to become aggressive colonizers of indigenous and intact forest habitats, smothering unique and delicate ecosystems and threatening specialized communities. In the worst affected countries such as the US (Hawaii) and New Zealand, Kahili ginger continues its range expansion through seed spread to new pristine sites, while large monotypic infestations are deemed lost causes, with management efforts largely restricted to outlier populations. In 2008, consortium funding allowed an exploratory survey to the states of Assam, Meghalaya and Sikkim in India, with reviews of the scientific and botanical literature, as well as historical herbarium records providing the geographical focus. Since then, repeated field trips across the season have been conducted in Sikkim, where the most natural populations of Kahili ginger were identified. Whilst literature studies highlighted a dearth of damaging species associated with wild gingers in the introduced range, the plant was always subject to significant natural enemy pressure in India, from a diverse entomofauna occupying a range of niches/guilds as well as from pathogenic fungi. Here we report the results of surveys with emphasis on those agents which have shown the most promise as biological control agents based on identifications, field observations and preliminary specificity studies. Future prospects and opportunities are discussed in the light of the access and benefit sharing challenges faced thus far.