S1. Climate variables from 1960 to 2019 for Yaté Mairie, with reported mass-flowering events in southern New Caledonia. Widespread flowering (dashed lines, unfilled points) was witnessed by us in 2003 and 2017 in the south of the main island. Flowering was also witnessed by us in the region of Col de Mouirange and Pic du Grand Kaori in 1996, and evidence on study sites suggests it was widespread in the south. Veillon (1971) reported localised mass flowering in 1963-1969 in the south, in particular at Touaourou (close to Yaté) in 1969 and at Tontouta-Kalouéhola in 1967 (grey dashed line). Data presented are delta rainfall for January-March (the main wet season) (a), and delta mean monthly (MM) maximum temperature for January-March (b), where delta is the difference in values between the current and previous years. Mean maximum temperature data are available only from 1968. Note, rainfall at Tontouta is typically lower than that at Yaté (Maitrepierre 2012). Meteorological data were kindly provided by Meteo-France.

