## B-102 Post fire performance of ten savanna species in the Victoria-Randenigala-Rantembe sanctuary

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For scientific management of the Victoria-Randenigala-Rantembe (VRR) Sanctuary, it is important to understand among other aspects, the vegetation dynamics after fire in the degraded vegetation. This study examined the dynamics of 10 species considered to be fire tolerant in 3 sites, (which were burnt 1 (site 1), 3 (site 2) and 6+ (site 3) years before initial sampling) over the period 1993/97, using plot sampling.

In each of the sites the density of the study species collectively reduced from 1993 to 1997. The 3 leading dominant species in 1993 included, *Grewia damine* and *Bridelia retusa* in all sites; but the third was *Anogeissus latifolius* which ranked highest in site 1, and *Cassia roxburghii* in sites 2 and 3. In 1997, *G. damine* was replaced by *Mitragyna parvifolia* in site 1 and by *Bauhinia racemosa* in site 3. In site 2, *M. parvifolia* ranked first, followed by *C. roxburghii* and *Adina cordifolia*.

When sites and different sampling times were arranged in a chronosequence, the population dynamics of each of the species showed 3 different patterns: species that do best (i) in the early stages of the chronosequence, (ii) in the early and middle stages but absent or poorly represented in later stages, and (iii) those that continue to remain throughout the chronosequence. Recruitment trends observed showed that *B. retusa* and *C. roxburghii* germinated at all stages, *A. latifolius* and *Chukrassia tabularis* at the earlier stages and the remaining species (*Canthium coromandelicum, Cordia oblongifolia, B. racemosa, G. damine, A. cordifolia, M. parvifolia*) at the early or middle stages.

From the results, potentially promising species that could be used to enrich degraded areas may be selected.