Impact of a prescribed burn on a threatened macrozamia in southeast Queensland

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Macrozamia parcifolia is one of about eight non-arborescent, spiral-leafed, threatened macrozamia species that live in regularly burnt vegetation in the southern half of Queensland. An investigation was initiated to determine the correctness of anecdotal observations suggesting burning kills M. parcifolia seedlings but promotes conning. Information derived to be used to better manage fire for M. parcifolia and similar threatened macrozamia species.

Preliminary results of the impact on M. parcifolia of a State forest prescribe burn found the percentage of adult plants conning post-fire was not significantly different between burnt and unburnt sites. The fire burnt off or killed the foliage of nearly all M. parcifolia on burnt sites, but most recovered with regrowth from underground. There was no mass mortality of seedling-sized plants from the fire. Litter samples pre- and post-fire, and other measures were used to determine fire intensity and to relate this back to fire impact. Preliminary analysis suggests M. parcifolia will not be significantly adversely affected in the short to medium term by prescribe burns of the intensity measured and at intervals between burns of at least five years.

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