

SMALL VERTEBRATE RESPONSES TO A "MILD" AND A "HOT" FIRE IN
THE SOUTHERN GREAT VICTORIA DESERT

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Areas of hummock grassland in Queen Victoria Spring Nature Reserve were subjected to three treatments to examine whether management intervention to alter existing fire regimes was necessary or beneficial for the conservation of small mammal and reptile assemblages. Plots were burnt under mild spring conditions resulting in a "patchy" burn; under hot summer conditions to simulate a wildfire; whilst others were left unburnt.

In the absence of fire, mature spinifex communities maintained high species diversity of small mammals and reptiles. Both fires led to a decline in diversity, with the summer fire having the greatest impact. The agamid, *Ctenophorus inermis* was the only vertebrate found only on areas burnt in summer. No species were found exclusively on areas burnt in the mild fire.

Some species which shelter and forage in spinifex were able to persist in severely burnt areas in very small patches of unburnt vegetation. Cover appears to be the major factor determining post-fire vertebrate assemblages. The season of fire *per se* appears unimportant, but summer fires tend to remove much more cover and so leave fewer refuges for spinifex-dependent species.