Balanggarra “Right Way Fire” in the Conservation Management of Threatened Gouldian Finches

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SYMPOSIUM: Conserving Northern Australia’s Culturally Important Species and Ecosystems, Hall B, November 28, 2018, 11:00 AM - 1:00 PM

Biography:

Ian is a Fire Ecologist whose research includes the effects of fire regimes, and other threatening processes, on threatened savanna biodiversity. James (Birdy) Gallagher is a Balanggarra Ranger engaged in burning for carbon and conservation management across the East Kimberley.

Current fire regimes are implicated in declines of many species including the threatened Gouldian Finch of northern Australian savannas. This is despite the main Gouldian finch food source, annual Sorghum grass seeds, thought to be more abundant under current fire regimes. This paradox has been partly addressed during recent research and “right way fire” management by the Balanggarra Rangers and researchers from Charles Darwin University and WA Parks and Wildlife. Rather than responding negatively to all fire as originally thought, this study found that finches benefitted from “right way fire” approaches to burning. Breeding finches preferred recently burnt areas (from last year) as long as they were in many small patches (fine-scale mosaic 10-100 m across) rather than fewer larger (high intensity) fires. Finches preferred areas burnt infrequently (<1 in 4 years). Recent, infrequent and patchy fires (right way fire) resulted in higher seed production and higher seed nutritional value for breeding finches compared to areas burnt in larger, more intense wildfires during the mid to late dry season (Jun to Oct). Active fire management to achieve patchy mosaics during the wet-dry transition (Mar-May) prevented later wildfires from damaging finch habitat both in terms of grass seed quality and availability, and in terms of destruction of large hollow-bearing trees used by breeding finches. The challenges of implementing fine grain fire mosaics during the hottest and most humid time of the year in the hottest part of Australia is discussed from an aboriginal ranger’s and a researcher’s perspective.

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