

## **Field Fire Update from established data sites that were within the December 2019/January 2020 fire area**

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In nature, lightning strike fires are one of several natural “reset buttons.”

When an event such as fire, occurs, nature is *not slow* to respond. Nature responds immediately. People on the other hand need time to assess, comprehend and plan. Nature’s time and people’s time are different in magnitude, composition and outcomes.

Nature is a dynamic multi tasker. Nature can adjust and process so quickly and subtly that we are not always aware of what is happening.

Some of the first obvious colonizers on the fire ground are the bacteria, moulds and fungi which begin the processes of ash neutralization (some of the ash pools are registering pH of 11- highly alkaline conditions necessary for germination of specific plants including many Kangaroo Island endemic plants.)



***Orange fungus and mould in fire ground***



Extreme chemical or pH conditions are part of a natural succession that neutralizes through coming weeks, months and seasons. Invertebrate colonizers and recyclers are inhabiting the scorched and burned plants and expanding their habitats within the soil. They are converting and transporting nutrients from the debris back to the soil. These areas are the active edge supply lines. In addition to termites we recorded several different ant species, carrion beetles, dragon flies, small flies and wolf spiders.

While monitoring some fire grounds that were still smoking, natural regeneration of the environment was already evident.



Investigating termite mounds that appeared at first sight to be destroyed, we found another story...renewal of life, recycling soil and food for others.



There are always casualties in a fire. But some islands of vegetation endure as refuge for remaining core animal populations. During past Kangaroo Island wild fires have documented that there are survivors and they are naturally resilient. The



survivors represent a core. The number of individuals within this core adjusts to the resources available. How a core evolves can be influenced by outside factors such as artificial revegetation and supplementary feeding. Nature follows a succession of plants, which provide food and shelter for expanding populations. The job of these successional species is to prepare for future species. Any food and shelter supplement programs must be strategically planned and well thought out. Poorly planned and executed supplementary programs can be detrimental and counter productive.

Most obvious in the fire areas were macropod tracks, traces and live sightings.



***Kangaroo Tracks***



***Evidence of browsing***

There were numerous areas of fresh echidna foraging in the burned sites and visual sightings of three large, very healthy individuals with no signs of fire trauma.



***Echidna sightings on West End Hwy and Tin Hut Road 25 Jan 2020***





End of January into February is the time of year when young echidnas are weaned. At weaning they are totally independent and have very little to no contact with adult echidnas. It will not be unusual to find small (young) echidnas foraging and travelling through burn impacted sites over the next months. It is BEST PRACTICE not to remove/relocate echidnas from these areas. Nursery burrows are well protected from fire. An open nursery with young at the entrance was found during monitoring on 25 Jan.

Weight of young can be between 800-1800g. Weight/size has nothing to do with age or health of the young. This is dependent on the size of the mother. Large females wean large young, small females, small young.

Rosenberg's goanna tracks and freshly dug burrows were also recorded in the monitored fire areas as well as a number of skinks and other reptiles. A variety of birds were sighted in and over the monitored areas and included, Wedge-tail eagle, Little eagle, Ravens, Grey Currawongs, Magpies, Nankeen Kestrel, Superb-blue wren, Bush Stone curlew, Striated Thornbill and much to my surprise the Western Whip bird. The Western Whip bird is frequently heard during surveys but they can be very secretive and elusive. The one we observed was within natural habitat, foraging between remaining vegetation and out into the skeletal habitat. It was interesting to directly observe their feeding habits on invertebrates within the fire grounds.



***Scrub where Western Whipbird was spotted hopping rapidly through***

We will continue monitoring over the next weeks, months and years. We are happy for people to share this information. We would welcome sightings of echidnas and goannas from the fire areas. End of January through the first week in March are recorded times for goanna egg laying. Keep your eyes open for this event. We can be contacted via e-mail at: [rismac@kin.net.au](mailto:rismac@kin.net.au)