



Dailan Pugh, 9 December 2019

This paper provides a brief overview of the effects of wildfires since July on Koala populations on the North Coast of NSW.

As of yesterday, since July wild fires have burnt out over 1.6 million hectares of the north east NSW bioregion, this represents 28% of the region and 39% of native vegetation. This has encompassed some 24% of remaining Koala habitat. Eight Koala populations, encompassing 59% of Koala habitat, have had 73-90% of their Koala habitat burnt, leaving them in particular danger of imminent collapse.

Given that Koalas populations have declined on the north coast by 50% in the past 20 years, and the likely loss of over 2,000 Koalas out of a population estimated to total 8,400, NEFA requests the Committee supports a moratorium on logging of potential Koala habitat on both public and private lands until there has been a comprehensive assessment of bushfire impacts on Koala populations and a recovery strategy is identified.

For this assessment the two highest of 5 categories identified in Koala models (Law et.al. 2017 and DPIE 2019) were combined as an indication of potential Koala habitat. This was then confined to the 29 Areas of Regional Koala Significance identified by OEH to identify 1,093,296 ha of potential Koala habitat.

This modelled habitat was overlaid with a compilation of fires identified on Fires Near Me from July until 8 December 2019. This assessment shows that fires have burnt out 266,959 ha (24%) of the high quality Koala habitat identified in north-east NSW. My assessments of the Banyabba ARKS found that only small refugia have survived within the burnt areas, and the Koalas are under immense stress in these and continue to decline.

Some 284,504 ha (26%) of this habitat occurs on State Forests, of which 38% has been burnt. Some 216,210 ha (20%) of this habitat occurs on National Parks, of which 33% has been burnt.

Though the situation is more dire than indicated by these broad figures, as eight Koala populations (Gibraltar Range, Clouds Creek, Nowendoc, Banyabba, Crowdy Bay, Girard-Ewingar, Kiwarraak and Khappinghat ARKS), encompassing 59% of Koala habitat, have had 73-90% of their Koala habitat burnt and are thus in imminent threat of collapse. Also much of the modelled high quality habitat that has escaped burning has been [degraded by intensive logging](#), previous burning or other threats and no longer supports many Koalas.

Now some of the most significant remaining populations have been hit hard by the fires, including some of our largest known Koala colonies on the Richmond lowlands, Dorrigo Plateau and around Lake Innes. Within the burnt areas most leaves on the feed trees have been burnt, scorched or dropped, [leaving surviving Koalas with little to eat](#). It is still unknown how many Koalas survived, where they have fled to, or how long it will take for their trees to regenerate.

Table 1 showing the areas and percentages of north coast Koala populations (ARKS) burnt from July until 8 December 2019 (see maps at end for graphic depiction).

| ARKS | Area Burnt (ha) | Area not Burnt (ha) | % Burnt |
|---------------------------------|-----------------|---------------------|-----------|
| Gibraltar Range | 171 | 19 | 90 |
| Clouds Creek | 57707 | 10500 | 85 |
| Nowendoc | 330 | 68 | 83 |
| Banyabba | 59461 | 14239 | 81 |
| Crowdy Bay | 11301 | 2814 | 80 |
| Girard - Ewingar | 2744 | 903 | 75 |
| Kiwarraak | 11308 | 3912 | 74 |
| Khappinghat | 13542 | 4895 | 73 |
| Mt Pikapene | 6083 | 8491 | 42 |
| Wilson River | 20464 | 54291 | 27 |
| Port Macquarie | 4981 | 20387 | 20 |
| Comboyne | 23112 | 113287 | 17 |
| Coffs Harbour - North Bellingen | 22573 | 120080 | 16 |
| North Macleay - Nambucca | 18702 | 114952 | 14 |
| Woodenbong | 4704 | 29432 | 14 |
| North Grafton | 1156 | 12591 | 8 |
| Far north-east Hinterland | 6420 | 106723 | 6 |
| Southern Clarence | 781 | 18621 | 4 |
| Belmore River | 1190 | 41287 | 3 |
| Wang Wauk SF | 229 | 51381 | 0 |
| Far north-east | | 12743 | 0 |
| Tweed Coast | | 10158 | 0 |
| Barrington | | 14737 | 0 |
| Broadwater | | 7758 | 0 |
| Hawks Nest | | 1103 | 0 |
| Karuah - Myall Lakes | | 11060 | 0 |
| Port Stephens | | 688 | 0 |
| Wallingat NP | | 26202 | 0 |
| Tweed Ranges | | 13015 | 0 |
| TOTALS | 266959 | 826337 | 24 |

An expert workshop in 2012 estimated that Koala populations on the north coast had declined by 50% in the past 20 years, leaving an extant population of around 8,400 Koalas. It is likely that thousands of these survivors have been killed, with many populations now on the verge of collapse. Based on habitat loss it is likely that over 2,000 Koalas have died either in the fires or from starvation and dehydration since, though the actual numbers could be far greater.

In just one fire season, which is not over yet, thousands of koalas have lost their homes, and most of these are likely to have died. These fires have greatly compounded the plight of Koalas and driven them, and numerous other species, further towards extinction.

If we want to give Koalas a chance to survive this unfolding catastrophe then a logging moratorium must immediately be placed upon all potential Koala habitat in order to allow burnt feed trees a chance to recover, and to protect the remaining intact refuges essential as source areas for recolonisation.

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