

A POST-BURN FAUNA COUNT
IN THE NORTHERN JARRAH FOREST

by

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Following aeroplane prescribed burning which took place in late November 1971 in Dwellingup division, a quality control survey was carried out on foot. The primary aim of the survey was to assess the degree of crown scorch obtained and in general, to assess the nature of the burns. A record was made of all fauna sighted during the assessment.

THE BURNED AREA

The burned area is situated in the western sector of the division and includes all or part of the blocks - Myara, Wilson, Turner, Urbrae and Scott. The burning covered some 28,000 acres in hilly country broken up by gullies and creeks. On several sections of the assessment area, thick jarrah coppice occurred. Flats and creek beds contained dense scrub up to fifteen feet high in places whilst a remnant of the post Dwellingup fire period was evidenced by the presence of the occasional dense clump of *Bossiaea aquifolium* some four feet in height. The scrub clumps often occurred in conjunction with Jarrah coppice growth.

BURNING INTENSITY

The burning which took place could well be described as 'very good' in that 78.5% of the total ground area was burned. The remaining unburnt area had a light fuel amounting to 27% ground cover which was insufficient to carry a burn.

The crown scorch histogram gives an indication of the intensity of the burning which took place e.g. the bulk of crown scorch occurred in the 1"-3" girth class trees therefore an average scorch height of around 10 feet was obtained. In the 3"-6" and 6"-12" girth class trees scorch heights ranging from 20 to 50 feet were encountered in small pockets mainly in thick coppice, in scrub areas or in 'tops' in recently cut-over areas.

THE ASSESSMENT

Random points were established throughout the area and from each point a 60 chain line was assessed for crown scorch, ground area burned and presence of fauna. No random start point was accepted if it fell within five chains of a major road or track so as to avoid 'edge effect' bias. In all, 85 lines were sampled, representing a total distance of 64 miles.

THE FAUNA COUNT

On pacing the lines a total of 87 large marsupials were seen; there being 67 brush wallabies, 19 grey kangaroos and one bandicoot. Of avifauna, 29 species were sighted in a total of 277 individuals (re frequency table). Statistically speaking then, one large marsupial and four birds were encountered per paced mile with the brush/kangaroo ratio of three to one in favour of the brush wallaby being present.

There appears to be little room for pessimism at least where burns of this intensity are carried out. Should anyone experienced in such matters complain of a certain paucity in bird numbers: it is noted that the assessment was carried out in mid-summer between the hours of 10 a.m. and 3 p.m. daily at which time and in such conditions that bird activity would be at its lowest. The larger part of the assessment was carried out in temperatures between 90 and 100 degrees fahrenheit.

The assessment was completed in a period of seven weeks commencing five weeks after the burning took place. No account was taken of possible fauna migrations into or out of the area. Certainly a considerable number of bird feeding associations (Butler) were encountered. Close study of these associations and their flight range might be beneficial to the conservationist particularly where fire is considered.

ACKNOWLEDGMENT

The writer extends his thanks to A.D.F.O. Paul Jones on whom the sun shone constantly throughout this arduous if rewarding survey.

FREQUENCY TABLE
 BIRDS OBSERVED IN POST-BURN JARRAH
 January to February 1972

Name	No.	Name	No.
Grey Fantail	37	Currawong	5
Spinebill	28	Raven	4
Red Tipped Pardelote	26	Kookaburra	4
Yellow Tailed Thornbill	20	Spotted Pardelote	4
Rainbow Bird	19	Rosella	3
Broad Tailed Thornbill	17	Red Tailed Cockatoo	3
Splendid Wren	16	Twenty Eight Parrot	3
Western Thornbill	15	Black Faced Cookoo Shrike	2
Rufous Tree Creeper	13	White Tailed Cockatoo	2
Black Capped Sitello	11	Dusky Wood Swallow	2
Yellow Robin	10	Western Warbler	1
Golden Whistler	9	King Parrot	1
Frogmouth Owl	7	Bronzewing Pidgeon	1
Scarlet Robin	7	Little Eagle	1
Western Shrike Thrush	6	TOTAL	277

CROWN SCORCH HISTOGRAM - TREES PER ACRE

DWELLINGUP BURNS - 1971 85 SAMPLE LINES

FIG. 1

