

## **Quantifying efficacy of feral pig (*Sus scrofa*) population management**

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**Table S1.** Calculation of feral pig dung deposition rate from cage trials. Dung was collected from 23 feral pigs trapped as part of ongoing control programs operating over summer within the study area.

Trial	No. of Pigs	Size of pigs	Holding Time (h)	No. of Dung	Dung/pig/day
1	5	1x 30 kg, 4x 5 kg	20	12	2.33
2	5	40 kg	10	18	8.64
3	7	2x 30 kg, 5x 10-15 kg	10	12	4.11
4	6	5-10 kg each	24	49	8.17
Average deposition rate					5.83 ±2.65 SD

**Table S2.** Time to decay/disappearance of n=37 feral pig dung piles. The trial commenced December 2009 – February 2010 and ran until November 2011. Dung was deposited by feral pigs trapped as part of ongoing control programs operating over summer within the study area.

Deposition Date	Decay Date	Days to Decay	
		Total	Truncated at 6 months
1/02/2010	16/04/2010	74	74
	16/04/2010	74	74
	16/04/2010	74	74
	16/04/2010	74	74
	16/04/2010	74	74
10/12/2009	1/11/2011	638	183
	17/12/2010	372	183
	1/11/2011	691	183
18/01/2010	1/11/2011	691	183
	16/03/2011	422	183
24/12/2009	17/02/2011	395	183
	16/03/2011	447	183
	15/04/2010	50	50
26/02/2010	15/04/2010	50	50
	15/04/2010	50	50
	15/04/2010	50	50
7/02/2010	15/04/2010	48	48
	1/11/2011	613	183
	1/11/2011	613	183
14/02/2010	15/04/2010	67	67
	1/11/2011	632	183
	21/11/2010	287	183
7/02/2010	23/06/2010	129	129
	8/06/2011	479	183
	3/09/2010	201	183
1/02/2010	15/04/2010	67	67
	21/11/2010	287	183
	15/04/2010	67	67
1/02/2010	24/07/2010	173	173
	24/07/2010	173	173
	1/11/2011	638	183

15/02/2010	1/11/2011	624	183
23/02/2010	1/11/2011	616	183
3/03/2010	7/10/2010	218	183
10/03/2010	1/11/2011	601	183
23/03/2010	1/11/2011	588	183
24/12/2009	18/11/2010	329	183
18/01/2010	7/10/2010	262	183
Average		321.81	142.43
Std Dev		238.40	56.10

**Table S3.** Feral pig density estimates across each of the eight catchments subject to varying levels of pig control: no feral pig control (n=3 catchments), baiting at the commencement of year 2 (n=2 catchments) or trapping across all three years (n=3 catchments).

Treatment	Catchment	N transects	Mean	Median	Min	Max	Lower quartile	Upper quartile	Range	SD	-95% CI	+95% CI
No control	Harris	No effect of year on feral pig density estimates: Friedman ANOVA $\chi^2_{n=10,df=2} = 1.31$ p = 0.519										
	Year 1	10	0.48	0.30	0.00	1.20	0.00	0.90	1.20	0.51	0.35	0.94
	Year 2	10	0.37	0.15	0.00	1.20	0.00	0.67	1.20	0.49	0.34	0.89
	Year 3	10	0.22	0.15	0.00	0.60	0.00	0.34	0.60	0.25	0.17	0.46
	overall	30	0.35	0.30	0.00	1.20	0.00	0.60	1.20	0.43	0.34	0.58
	Stirling	No effect of year on feral pig density estimates: Friedman ANOVA $\chi^2_{n=8,df=2} = 3.74$ p = 0.154										
	Year 1	8	0.67	0.60	0.00	1.80	0.00	1.20	1.80	0.69	0.46	1.41
	Year 2	8	0.71	0.15	0.00	3.30	0.00	1.05	3.30	1.21	0.80	2.46
	Year 3	8	0.15	0.00	0.00	0.90	0.00	0.15	0.90	0.32	0.21	0.65
	overall	24	0.51	0.00	0.00	3.30	0.00	0.75	3.30	0.83	0.65	1.17
	Wungong	No effect of year on feral pig density estimates: Friedman ANOVA $\chi^2_{n=9,df=2} = 4.06$ p = 0.131										
	Year 1	9	2.00	1.01	0.54	6.55	0.54	1.93	6.01	2.17	1.46	4.15
Year 2	9	0.80	0.54	0.00	2.31	0.34	1.01	2.31	0.74	0.50	1.43	
Year 3	9	1.06	0.54	0.00	4.24	0.00	1.89	4.24	1.43	0.97	2.74	
overall	27	1.28	0.67	0.00	6.55	0.34	1.89	6.55	1.59	1.25	2.17	
Baited	Canning	Reduction in feral pig density over time: Friedman ANOVA $\chi^2_{n=10,df=2} = 12.67$ p = 0.002										
	Year 1	10	1.52	0.59	0.00	9.59	0.30	1.12	9.59	2.88	1.98	5.26
	Year 2	10	0.19	0.00	0.00	1.20	0.00	0.22	1.20	0.39	0.27	0.71
	Year 3	10	0.06	0.00	0.00	0.30	0.00	0.00	0.30	0.13	0.09	0.23
	overall	30	0.59	0.00	0.00	9.59	0.00	0.54	9.59	1.75	1.40	2.36
	Conjurunup	No effect of year on feral pig density estimates: Friedman ANOVA $\chi^2_{n=5,df=2} = 4.50$ p = 0.105										
	Year 1	5	1.44	0.60	0.00	3.92	0.00	2.70	3.92	1.77	1.06	5.10
	Year 2	5	2.42	0.90	0.00	8.34	0.54	2.31	8.34	3.42	2.05	9.82
	Year 3	5	0.80	0.27	0.00	2.94	0.00	0.77	2.94	1.24	0.74	3.56
	overall	15	1.55	0.60	0.00	8.34	0.00	2.70	8.34	2.27	1.66	3.58
Trapped	Lake Banksiadale	No effect of year on feral pig density estimates: Friedman ANOVA $\chi^2_{n=11,df=2} = 0.16$ p = 0.922										
	Year 1	11	1.14	0.45	0.00	3.47	0.00	2.36	3.47	1.33	0.93	2.34
	Year 2	11	0.78	0.39	0.00	3.24	0.00	1.08	3.24	0.94	0.66	1.65
	Year 3	11	1.04	1.35	0.00	3.15	0.00	1.35	3.15	0.94	0.66	1.65
	overall	33	0.99	0.90	0.00	3.47	0.00	1.35	3.47	1.06	0.86	1.41
	North Dandalup	No effect of year on feral pig density estimates: Friedman ANOVA $\chi^2_{n=10,df=2} = 2.06$ p = 0.358										
	Year 1	10	1.24	0.85	0.00	3.19	0.34	2.16	3.19	1.17	0.81	2.14
Year 2	10	2.41	1.95	0.00	6.47	0.81	3.19	6.47	2.12	1.46	3.88	

Year 3	10	1.45	0.90	0.00	5.01	0.39	2.21	5.01	1.51	1.04	2.75
overall	30	1.70	1.03	0.00	6.47	0.39	2.70	6.47	1.67	1.33	2.25
Serpentine	No effect of year on feral pig density estimates: Friedman ANOVA $\chi^2_{n=11,df=2} = 1.10$ $p = 0.575$										
Year 1	12	2.24	2.21	0.00	8.09	0.22	3.00	8.09	2.39	1.69	4.06
Year 2	12	1.85	1.35	0.00	6.86	0.34	1.84	6.86	2.19	1.55	3.71
Year 3	11	1.56	1.35	0.00	3.90	0.00	2.70	3.90	1.29	0.90	2.27
overall	35	1.89	1.35	0.00	8.09	0.00	2.70	8.09	1.99	1.61	2.61

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**Table S4.** Feral pig dig density (number of digs per km<sup>2</sup>) across each of the eight catchments subject to varying levels of pig control: no feral pig control (n=3 catchments), baiting at the commencement of year 2 (n=2 catchments) or trapping across all three years (n=3 catchments).

Treatment	Catchment	N transects	Mean	Median	Min	Max	Lower quartile	Upper quartile	Range	SD	-95% CI	+95% CI	
No control	Harris	No effect of year on dig density estimates: Friedman ANOVA $\chi^2_{n=10,df=2} = 1.45$ p = 0.485											
	Year 1	10	1,235	377	0	5,013	0	791	5,013	2,014	1,385	3,676	
	Year 2	10	1,833	264	0	8,865	0	2,904	8,865	3,012	2,072	5,500	
	Year 3	10	705	245	0	2,715	0	1,359	2,715	932	641	1,701	
	overall	30	1,258	264	0	8,865	0	1,359	8,865	2,136	1,701	2,872	
	Stirling	No effect of year on dig density estimates: Friedman ANOVA $\chi^2_{n=8,df=2} = 1.23$ p = 0.542											
	Year 1	8	2,728	2,336	264	8,137	358	4,020	7,873	2,699	1,785	5,494	
	Year 2	8	2,766	1,846	227	10,371	245	3,673	10,145	3,434	2,271	6,990	
	Year 3	8	2,049	1,225	0	9,871	113	1,922	9,871	3,259	2,155	6,634	
	overall	24	2,514	1,508	0	10,371	264	3,544	10,371	3,026	2,352	4,244	
	Wungong	No effect of year on dig density estimates: Friedman ANOVA $\chi^2_{n=9,df=2} = 1.19$ p = 0.552											
	Year 1	9	724	874	0	1,456	204	1,103	1,456	509	344	975	
	Year 2	9	1,113	237	0	4,509	0	1,384	4,509	1,632	1,102	3,127	
	Year 3	9	4,047	510	0	24,686	0	2,236	24,686	8,066	5,448	15,453	
	overall	27	1,961	510	0	24,686	0	1,456	24,686	4,817	3,794	6,601	
Baited	Canning	Reduction in dig density over time: Friedman ANOVA $\chi^2_{n=10,df=2} = 11.73$ p = 0.003											
	Year 1	10	1,629	870	0	6,335	431	1,835	6,335	1,938	1,333	3,538	
	Year 2	10	738	436	0	2,677	198	680	2,677	941	647	1,718	
	Year 3	10	355	0	0	1,998	0	408	1,998	648	445	1,182	
	overall	30	908	431	0	6,335	0	987	6,335	1,366	1,088	1,836	
	Conjurunup	No effect of year on dig density estimates: Friedman ANOVA $\chi^2_{n=5,df=2} = 0.20$ p = 0.779											
	Year 1	5	1,655	712	0	5,581	255	1,729	5,581	2,292	1,373	6,585	
	Year 2	5	1,530	475	0	4,165	0	3,008	4,165	1,932	1,157	5,551	
	Year 3	5	1,368	582	0	4,077	297	1,884	4,077	1,676	1,004	4,817	
	overall	15	1,518	582	0	5,581	0	3,008	5,581	1,840	1,347	2,901	
	Trapped	Lake											
		Banksiadale	No effect of year on dig density estimates: Friedman ANOVA $\chi^2_{n=11,df=2} = 2.33$ p = 0.311										
		Year 1	11	3,572	2,628	0	15,403	0	4,619	15,403	4,409	3,080	7,737
		Year 2	11	3,175	2,603	0	12,286	475	4,696	12,286	3,561	2,488	6,249
		Year 3	11	2,870	2,406	0	6,680	949	5,568	6,680	2,280	1,593	4,001
overall		33	3,206	2,603	0	15,403	949	4,619	15,403	3,427	2,756	4,533	
North Dandalup		No effect of year on dig density estimates: Friedman ANOVA $\chi^2_{n=10,df=2} = 2.11$ p = 0.349											
Year 1	10	3,773	2,402	678	14,004	1,165	4,254	13,326	4,146	2,852	7,569		

Year 2	10	4,693	4,197	1,018	11,871	2,637	4,894	10,854	3,105	2,136	5,669
Year 3	10	3,615	3,412	0	8,215	949	6,565	8,215	2,987	2,054	5,452
overall	30	4,027	3,437	0	14,004	1,274	4,894	14,004	3,366	2,681	4,525

Serpentine No effect of year on dig density estimates: Friedman ANOVA  $\chi^2_{n=10,df=2} = 0.20$  p = 0.905

Year 1	12	2,360	1,555	0	7,028	954	3,561	7,028	2,049	1,452	3,479
Year 2	12	2,746	1,635	0	9,411	820	4,220	9,411	2,800	1,984	4,754
Year 3	11	2,983	1,318	185	8,266	617	5,772	8,080	3,121	2,181	5,478
overall	35	2,688	1,527	0	9,411	802	4,527	9,411	2,613	2,114	3,424

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