

Supplementary material

Table S1. Summary of Flesh-footed Shearwater surveys on breeding islands in South and Western Australia during 1921-2003. For some islands, the species is noted as being present, but population size is not known (reported as N/A). Islands where breeding has not been recorded are reported as N/R. Counts of burrows from historical surveys were multiplied by the occupancy rate (mean \pm SD) for Western Australia to provide an estimate of breeding pairs (see text).

Island	Coordinates	Survey date (D/M/Y)	Breeding pairs	Source
Arid	34°01'S, 123°10'E	9/11/1950	N/R	Fairbridge and Serventy (1954)
Anvil	33°44'S, 124°05'E	7/5/1991	N/R ^a	Smith et al. (2005)
Bald	34°55'S, 118°27'E	13-26/5/1976	N/R	Abbott (1981a)
Barrier	33°58'S, 123°8'E	1984	114 \pm 109	R. Johnstone pers. comm.
Bellinger	33°53'S, 123°39'E	18/4/1986	N/R	Smith and Johnstone (1987)
Bens	33°54'S, 122°45'E	10/11/1950	N/R	Fairbridge and Serventy (1954)
Beaumont	34°05'S, 122°32'E	9/11/1950	N/R	Fairbridge and Serventy (1954)
Black	33°55'S, 121°59'E	10/11/1950	N/R	Fairbridge and Serventy (1954)
Boxer	34°00'S 121°40'E	9/11/1950	N/R ^a	Serventy (1952)
Canning	33°55'S, 121°46'E	2/12/1981	N/R	Daw (1982)
Cape Hamelin (islet)	34°13'S, 115°00'E	Unknown	N/A	Serventy et al. (1971)

Cave	34°00'S, 122°46'E	20/11/1950	N/R	Fairbridge and Serventy (1954)
Charley	33°55'S, 121°53'E	21/10/1982	500-1000 ^b	Lane (1985a)
Chatham	35°01'S, 116°29'E	11-22/5/1975	500	Abbott and Watson (1978)
Christmas	33°51'S, 124°04'E	28/11/1950	N/A ^c	Fairbridge and Serventy (1954)
Cliff	34°01'S 122°05'E	Nov 1950	N/A ^c	Serventy et al. (1971)
Cloud	34°03'S 122°05'E	Nov 1950	N/R	Fairbridge and Serventy (1954)
Combe	34°05'S 122°58'E	21/11/1950	N/R ^d	Fairbridge and Serventy (1954)
Copper	34°14'S 123°37'E	Nov 1950	N/R	Fairbridge and Serventy (1954)
Corbett	34°07'S, 121°59'E	Nov 1950	N/A ^c	Fairbridge and Serventy (1954)
Cornwall	34°00'S, 122°32'E	Nov 1950	N/R	Fairbridge and Serventy (1954)
Creak	33°56'S, 122°43'E	Nov 1950	N/R	Fairbridge and Serventy (1954)
Daw	33°50'S, 124°08'E	7/5/1991	1893 ± 1304 ^e	Smith et al. (2005)
Dome	34°10'S, 123°21'E	Nov 1950	N/R	Fairbridge and Serventy (1954)
Doubtful	34°23'S, 119°35'E	Nov 1950	N/A	Serventy et al. (1971)
Douglas	34°10'S, 123°08'E	23/11/1950	N/R ^a	Fairbridge and Serventy (1954)
Draper	34°12'S, 122°30'E	Nov 1950	N/R	Fairbridge and Serventy (1954)
Figure of Eight	34°02'S, 121°37'E	1/11/1981	150 burrows ^d	Lane (1982a)

Finger	34°06'S, 121°21'E	Nov 1950	N/R	Fairbridge and Serventy (1954)
Forrest	33°55'S, 122°43'E	12/4/1986	55 ± 13 ^f	Smith and Johnstone (1988)
Free	33°57'S, 122°25'E	Nov 1950	N/R	Fairbridge and Serventy (1954)
George	34°03'S, 123°15'E	Nov 1950	N/A	Serventy et al. (1971)
Glassy (Glasse)	34°25'S, 119°24'E	23/11/1921	37 ± 21	Hull (1921)
Glennie	34°06'S, 123°07'E	Nov 1950	N/R	Fairbridge and Serventy (1954)
Green	34°59'S, 117°57'E	28/11/1978	Extirpated (see text)	Abbott (1978a)
Gull Rock	35°02'S, 118°00'E	28/11/1975	N/R	Kolichis (1978)
Hamelin	34°13'S, 115°01'E	5/2/1977	N/R	Abbott (1978b)
Harlequin (Manicorn)	34°01'S, 123°14'E	9/12/1987	37 ± 21	Johnstone (1990)
Hastings	34°06'S, 122°07'E	Nov 1950	N/R	Fairbridge and Serventy (1954)
Helby	34°07'S, 123°04'E	Nov 1950	N/R	Fairbridge and Serventy (1954)
Hood	34°09'S, 122°03'E	19/01/1977	N/R	Tingay and Tingay (1982a)
Hope	34°05'S, 122°10'E	Nov 1950	N/R	Fairbridge and Serventy (1954)
Howe	34°09'S, 122°02'E	Nov 1950	N/R	Fairbridge and Serventy (1954)
Hugo	34°09'S, 122°20'E	Nov 1950	N/R	Fairbridge and Serventy (1954)
Hull	33°58'S, 122°50'E	Unknown	N/A	Johnstone and Storr (1998)

Inshore	33°55'S, 122°50'E	Nov 1950	N/R	Fairbridge and Serventy (1954)
Lion	33°52'S, 122°01'E	Nov 1950	N/R	Fairbridge and Serventy (1954)
Lorraine	33°57'S, 122°34'E	10/11/1981	N/R	Lane (1982b)
MacKenzie (Round)	34°12'S, 122°06'E	8/11/1981	N/R	Lane (1981)
Marts	34°00'S, 122°39'E	Nov 1950	N/R	Fairbridge and Serventy (1954)
Michaelmas	35°03'S, 118°02'E	3-15/9/1975	100-1,000 ^g	Abbott (1978c)
Middle	34°07'S, 123°11'E	16/11/1976	N/R	Tingay and Tingay (1982b)
Miles	34°04'S, 123°14'E	Nov 1950	N/R	Fairbridge and Serventy (1954)
Mondrain	34°09'S, 122°15'E	29/2/1976, 27/4/1977	N/A ^{h,i}	Abbott (1981b)
Nares	33°56'S, 122°38'E	2/11/1981	N/R	Lane (1982c)
New	34°01'S, 122°09'E	Nov 1950	N/R	Fairbridge and Serventy (1954)
New Year	33°51'S, 124°03'E	5/5/1991	N/R	Smith et al. (2005)
North Twin Peaks	33°59'S, 122°50'E	19/11/1950	N/A ^c	Fairbridge and Serventy (1954)
Observatory	33°55'S, 121°48'E	24/9/1981	N/R	Lane (1982d)
Pasco	34°04'S, 122°06'E	12/11/1950	N/R	Fairbridge and Serventy (1954)
Pasley	34°01'S, 123°34'E	Feb 1943	N/R	Dulfer (1943)
Passage	33°59'S, 122°26'E	29/11/1950	N/R	Fairbridge and Serventy (1954)

Pearson	34°12'S, 122°21'E	12/11/1950	N/R	Fairbridge and Serventy (1954)
Pointer	33°43'S, 124°05'E	17/04/1986	N/R	Smith et al. (2005)
Quagering (Flat)	34°50'S, 115°57'E	9/11/1982	1,000-1,500 ^j	Lane (1985b)
Rabbit	33°55'S, 121°54'E	Unknown	N/A	Serventy et al. (1971)
Ram	34°02'S, 122°09'E	11/11/1981	300-500 ^k	Lane (1982e)
Remark	34°04'S, 121°59'E	28-30/10/1981	37 ± 21	Lane (1982f)
Rob	34°05'S, 122°15'E	Nov 1950	N/R	Fairbridge and Serventy (1954)
Round (South-east Isles)	34°05'S, 123°53'E	Nov 1950	N/R	Fairbridge and Serventy (1954)
Round	34°12'S, 122°06'E	18/11/1950	N/R	Fairbridge and Serventy (1954)
Saint Alouarn	34°24'S, 115°12'E	Nov 1976	100	Lane (1978)
Salisbury	34°21'S, 123°33'E	24/11/1950	N/R	Fairbridge and Serventy (1954)
Seal (Cape Leeuwin)	34°23'S, 115°09'E	Jan 1985	>500	Storr (1991)
Seal (King George Sound)	35°05'S, 117°59'E	28/11/1975	N/R	Abbott (1978d)
Slipper	34°03'S, 122°46'E	20/11/1950	N/R	Fairbridge and Serventy (1954)
Sir Joseph Banks	34°35'S, 136°17'E	1930	N/A	Baker (2004)
Six Mile	33°38'S, 123°57'E	23/2/1986	N/R	Johnstone and Smith (1987)
South Twin Peaks	34°00'S, 122°48'E	20/11/1950	N/A ^c	Serventy (1952)

Spindle	33°45'S, 124°09'E	7/5/1991	N/R	Smith et al. (2005)
Stanley	35°04'S, 117°09'E	7/11/1982	1,000-1,500 ^l	Lane (1984)
Station	33°58'S, 122°31'E	Nov 1950	N/A ^c	Fairbridge and Serventy (1954)
Table	33°55'S, 122°36'E	Nov 1950	N/R	Fairbridge and Serventy (1954)
Taylor	33°55'S, 122°52'E	Nov 1950	N/R	Fairbridge and Serventy (1954)
Termination	34°28'S, 122°00'E	18/11/1950	N/R ^a	Serventy (1952)
Thomas	33°58'S, 121°59'E	25/3/1951	<100 ^a	Serventy (1952)
Tizard	34°01'S, 122°41'E	29/11/1950	N/R	Fairbridge and Serventy (1954)
Tory	34°01'S, 122°18'E	Nov 1950	N/R	Fairbridge and Serventy (1954)
Tunney	33°57'S, 122°48'E	20/4/1986	37 ± 21	R. Johnstone pers. comm.
Wedge	34°05'S, 122°50'E	Nov 1950	<100 ^c	Fairbridge and Serventy (1954)
Wharton	33°59'S, 122°41'E	29/11/1950	N/R	Fairbridge and Serventy (1954)
Whidby Group	34°34'S, 134°19'E	Jan 1982	N/A ^d	Robinson et al. (1996)
Wilson	34°08'S, 122°00'E	Nov 1950	N/R	Fairbridge and Serventy (1954)
York	34°00'S, 122°35'E	Nov 1950	N/R	Fairbridge and Serventy (1954)

^aMost, or all, burrows belong to *Pterodroma macroptera*

^bThree (12%) of 25 burrows checked on 29/11/1921 contained Flesh-footed Shearwaters (Hull, 1921)

^cIsolated patches of burrows in soil of suitable depth

^dMost, or all, burrows belong to *Puffinus tenuirostris*

^eMost burrows thought to belong to *Eudyptula minor* and *P. tenuirostris* (see text)

^fFive (55%) of nine burrows checked on 21/4/1986 contained Flesh-footed Shearwaters (Smith and Johnstone, 1988)

^gFour (11.4%) of 35 burrows checked on 15/9/1975 contained Flesh-footed Shearwaters (Abbott, 1978c)

^hLarge numbers reported in 1920s and 1950s. The population (no estimate) much smaller and limited to periphery of the island in the 1970s, possibly due to frequent fires

ⁱApprox. one third of burrows checked on 3/11/1921 contained Flesh-footed Shearwaters (Hull, 1921)

^jTwenty-one (13.1%) of 160 burrows checked on 9/11/1982 contained Flesh-footed Shearwaters (Lane, 1985b)

^kFive (3.9%) of 126 'active' burrows checked on 11/11/1981 contained Flesh-footed Shearwaters (Lane, 1982e)

^lSixty-five (16.3%) of 400 fresh burrows checked in November 1982 contained Flesh-footed Shearwaters, 4.3% occupied by *E. minor* (Lane 1984b)

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