

Table 7.2 Temperatures, metabolic rates and thermal conductances of petrels

Species	Temperature (°C)		RMR (kJ day ⁻¹)		FMR ^c (kJ day ⁻¹)	Thermal conductance (mW g ⁻¹ °C ⁻¹)
	Body ^a (n)	Egg ^b	Adult ^c	Hatchling ^d		
<i>Diomedea exulans</i>	39.2(10)		1755	6.62	3354 3886(M), 3680(F)	
<i>D. epomophora</i>	38.7(4)					
<i>D. nigripes</i>	38.1(10)	35.0		4.30		
<i>D. immutabilis</i>	37.5(10)	35.8	645	4.16	2072	
<i>D. melanophrys</i>	38.7(5)					
<i>D. chrysosoma</i>	39.7(8)		735		2396	
<i>D. chlororhynchos</i>	38.2(4)		481			
<i>D. bulleri</i>	39.5(3)					
<i>Phoebastria fusca</i>	38.3(?)		715			
<i>P. palpebrata</i>	38.1(?)					
<i>Macronectes giganteus</i>	39.0(25)	35.5	1154 1566(M), 1432(F)	4.28	4270	0.153
<i>Fulmarus glacialis</i>	38.5(41)					0.187
<i>F. glacialisoides</i>	38.3(23)					
<i>Thalassoica antarctica</i>	38.5(11)					
<i>Daption capense</i>	39.1(29)					
<i>Pagodroma nivea</i>	38.7(26)					
<i>Lugensa brevirostris</i>	36.6(?)		195,153			
<i>Pterodroma macroptera</i>	37.5(5)		320,233	1.66		
<i>P. lessonii</i>	38.9(3)					
<i>P. incerta</i>	39.4(6)		213			
<i>P. ultima</i>	37.8(17)					
<i>P. mollis</i>	39.0(7)		151			
<i>P. hasitata</i>	39.1(9)					
<i>P. phaeopygia</i>	38.6(9)	34.9	469,367			
<i>P. hypoleuca</i>	38.2(10)	33.8	110,99,72	0.64		
<i>Halobaena caerulea</i>	38.4(23)		206,153			
<i>Pachyptila vittata</i>	38.7(16)					
<i>P. salvini</i>	38.9(22)		134	0.56		
<i>P. desolata</i>	40.3(46)			0.54		
<i>P. turtur</i>	38.6(43)					
<i>Bulweria bulwerii</i>	37.8(10)		44.0			
<i>Procellaria aequinoctialis</i>	39.1(9)		692,545	1.82		
<i>P. cinerea</i>	37.5(5)		433			
<i>Calonectris diomedea</i>	39.6(35)					
<i>C. leucomelas</i>	40.5(74)					
<i>Puffinus pacificus</i>	37.7(92)	36.4	119,128.5	0.78	614	0.24
<i>P. gravis</i>	39.8(25)		329			
<i>P. griseus</i>	37.8(3)		250			
<i>P. tenuirostris</i>	38.0(18)					
<i>P. nativitatis</i>	38.3(22)	35.3	127			
<i>P. puffinus</i>	37.8(41)		194.5 @ 23°C 298 @ 5°C	0.62		0.286 @ 5°C 0.357 @ 23°C
<i>P. opisthomelas</i>	37.0(4)					
<i>P. huttoni</i>	37.3(2)					
<i>P. lherminieri</i>	37.8(14)					
<i>P. ossiniensis</i>	38.6(4)		147			

Table 7.2 Continued

Species	Temperature (°C)		RMR (kJ day ⁻¹)		FMR ^c (kJ day ⁻¹)	Thermal conductance (mW g ⁻¹ °C ⁻¹)
	Body ^a (n)	Egg ^b	Adult ^c	Hatchling ^d		
<i>Oceanites oceanicus</i>	38.9(25)	35.7	37		157	0.653
<i>Garrodia nereis</i>	40.7(3)					
<i>Pelagodroma marina</i>	41.3(3)		73			
<i>Fregatta tropica</i>	39.8(2)					
<i>Oceanodroma leucorhoa</i>	39.1(42)	35.9	45.4, 61.0	0.16	142,161,124,123	0.692,0.831
<i>O. furcata</i>	39.7(61)	29.7	39,55	0.15		
<i>Pelecanoides georgicus</i>	38.7(?)		85,122	0.33	464	
<i>P. urinatrix</i>	39.1(6)	35.8	126	0.31	557	

^aMainly from Warham (1971), Jouventin and Mouglin (1981), Platania *et al.* (1986) and Brown (unpubl.).

^bValues from dummy eggs excluded.

^cFrom Iversen and Krog (1972), Vleck and Kenagy (1980), Ricklefs *et al.* (1980, 1986), Bech *et al.* (1982), Grant and Whittow (1983), Ricklefs and Matthew (1983), Adams and Brown (1984), Brown and Adams (1984), Ellis (1984), Pettit *et al.* (1985), Roby and Ricklefs (1986), Whittow *et al.* (1987), Gabrielsen *et al.* (1988), Montevecchi *et al.* (1992) and Brown (unpubl.).

^dFrom Klassen and Drent (1991).

^eFrom Adams *et al.* (1986), Costa and Prince (1987), Pettit *et al.* (1988) and Obst and Nagy (1992).

M, male; F, female.

Several figures in one cell represent determinations from several sources.