

APPENDIX 1. PREY SPECIES BY NUMBER, MASS (GRAMS), AND PERCENT (BY NUMBER) IN THE DIETS OF 2,076 BIRDS OF 30 SPECIES SAMPLED IN THE ETP, 1983-1991.

| | Number | Mass | Percent |
|---|--------|----------|---------|
| Total | 10,374 | 59,661.5 | 100.0 |
| Fishes | 5,885 | 49,283.6 | 56.7 |
| Cephalopods | 2,785 | 10,179.9 | 27.1 |
| Miscellaneous invertebrates | 1,704 | 198.0 | 16.2 |
| Group 1. Photichthyids, gonostomatids, and sternoptychids | | | |
| Photichthyidae | 1,254 | 3,225.3 | 12.09 |
| <i>Vinciguerria lucetia</i> | 1,074 | 1,522.6 | 10.35 |
| <i>Vinciguerria</i> spp. | 885 | 1,239.0 | 8.53 |
| <i>Maurolucus muelleri</i> | 138 | 212.2 | 1.33 |
| <i>Ichthyococcus irregularis</i> | 2 | 2.8 | 0.02 |
| <i>Ichthyococcus irregularis</i> | 49 | 68.6 | 0.47 |
| Gonostomatidae | 19 | 95.8 | 0.18 |
| <i>Diplophos taenia</i> | 12 | 59.4 | 0.12 |
| unidentified Gonostomatidae | 7 | 36.4 | 0.06 |
| Sternoptychidae | 161 | 1,606.9 | 1.55 |
| <i>Sternoptyx</i> sp. | 1 | 4.8 | 0.01 |
| <i>Sternoptyx obscura</i> | 83 | 1,109.9 | 0.80 |
| <i>Argyropelecus lychnus</i> | 36 | 198.1 | 0.35 |
| <i>Argyropelecus</i> sp. cf. <i>A. lychnus</i> | 6 | 46.2 | 0.06 |
| <i>Argyropelecus</i> sp. | 33 | 233.9 | 0.32 |
| <i>Polyipmus</i> sp. | 2 | 14.0 | 0.02 |
| Group 2. Myctophids | 2,371 | 18,422.3 | 22.86 |
| <i>Protomyctophum</i> sp. | 11 | 54.0 | 0.11 |
| <i>Electrona risso</i> | 41 | 223.4 | 0.40 |
| <i>Hygophum proximum</i> | 58 | 332.8 | 0.56 |
| <i>Hygophum reinhardti</i> | 48 | 261.9 | 0.46 |
| <i>Benthoosema panamense</i> | 5 | 43.4 | 0.05 |
| <i>Benthoosema suborbitale</i> | 1 | 6.6 | 0.01 |
| <i>Diogenichthys laternatus</i> | 258 | 3,753.8 | 2.49 |
| <i>Myctophum nitidulum</i> | 26 | 132.2 | 0.25 |
| <i>Myctophum lychnobium</i> | 8 | 38.0 | 0.08 |
| <i>Myctophum spinosum</i> | 3 | 15.0 | 0.03 |
| <i>Myctophum aurolaternatum</i> | 230 | 1,650.1 | 2.22 |
| <i>Myctophum</i> sp. | 33 | 187.6 | 0.32 |
| <i>Symbolophorus evermanni</i> | 136 | 831.5 | 1.31 |
| <i>Lampadena luminosa</i> | 9 | 44.7 | 0.09 |
| <i>Bolinichthys photothorax</i> | 8 | 43.7 | 0.08 |
| <i>Bolinichthys longipes</i> | 2 | 10.9 | 0.02 |
| <i>Ceratoscopelus warmingii</i> | 407 | 2,914.2 | 3.92 |
| <i>Lampanyctus nobilis</i> | 64 | 377.3 | 0.62 |
| <i>Lampanyctus parvicauda</i> | 40 | 252.5 | 0.39 |
| <i>Lampanyctus idostigma</i> | 2 | 9.4 | 0.02 |
| <i>Lampanyctus omostigma</i> | 2 | 11.5 | 0.02 |
| <i>Diaphus parri</i> | 178 | 1,376.6 | 1.72 |
| <i>Diaphus jenseni</i> | 41 | 220.0 | 0.40 |
| <i>Diaphus lutkeni</i> | 59 | 386.1 | 0.57 |
| <i>Diaphus garmani</i> | 9 | 86.5 | 0.09 |
| <i>Diaphus mollis</i> | 28 | 134.4 | 0.27 |
| <i>Diaphus lucidus</i> | 1 | 4.8 | 0.01 |
| <i>Diaphus</i> spp. | 77 | 530.1 | 0.74 |
| <i>Notoscopelus resplendens</i> | 18 | 114.8 | 0.18 |
| <i>Gonichthys tenuiculus</i> | 17 | 93.7 | 0.17 |
| unidentified Myctophidae | 492 | 3,918.9 | 4.74 |
| Group 3. Bregmacerotids and diretmids | | | |
| Melamphaidae | 829 | 7,523.5 | 7.99 |
| Bregmacerotidae | 379 | 4,465.5 | 3.65 |
| <i>Bregmaceros bathymaster</i> | 315 | 3,987.8 | 3.04 |
| <i>Bregmaceros</i> sp. | 64 | 477.7 | 0.62 |
| Diretmidae | 169 | 1,208.9 | 1.63 |
| <i>Diretmus argenteus</i> | 139 | 1,001.6 | 1.34 |
| <i>Diretmus pauciradiatus</i> | 17 | 131.3 | 0.17 |

APPENDIX 1. CONTINUED.

| | Number | Mass | Percent |
|---|--------|----------|---------|
| Melamphaidae | 281 | 1,844.5 | 2.71 |
| <i>Melamphaes longirostris</i> | 37 | 201.9 | 0.36 |
| <i>Melamphaes</i> sp. | 25 | 160.0 | 0.24 |
| <i>Scopeloberyx robusta</i> | 122 | 817.5 | 1.18 |
| <i>Poromitra</i> sp. | 2 | 9.7 | 0.02 |
| unidentified Melamphaidae | 95 | 655.4 | 0.92 |
| Group 4. Hemirhamphids and exocoetids | 851 | 17,625.0 | 8.20 |
| Hemirhamphidae | 273 | 5,705.0 | 2.63 |
| <i>Hemirhamphus</i> sp. | 6 | 62.5 | 0.05 |
| <i>Oxyporhamphus micropterus</i> | 254 | 5,425.0 | 2.45 |
| unidentified Hemirhamphidae | 13 | 217.5 | 0.13 |
| Exocoetidae | 578 | 11,920.0 | 5.57 |
| <i>Exocoetus</i> spp. | 358 | 7,682.5 | 3.45 |
| <i>Hirudichthys</i> sp. cf. <i>H. speculiger</i> | 9 | 232.5 | 0.09 |
| <i>Cypselurus</i> sp. cf. <i>C. spilopterus</i> | 2 | 42.5 | 0.02 |
| <i>Cypselurus</i> sp. cf. <i>C. exilens</i> | 2 | 50.0 | 0.02 |
| <i>Cypselurus</i> sp. cf. <i>C. spilonotopterus</i> | 1 | 20.0 | 0.01 |
| <i>Cypselurus</i> spp. | 17 | 390.0 | 0.17 |
| <i>Prognichthys</i> sp. | 3 | 90.0 | 0.03 |
| unidentified Exocoetidae | 186 | 3,412.5 | 1.79 |
| Group 5. Carangids, coryphaenids, scombrids, gempylids, and nomeids | 218 | 2,087.0 | 2.10 |
| Carangidae | 4 | 70.0 | 0.04 |
| <i>Naucrates ductor</i> | 4 | 70.0 | 0.04 |
| Coryphaenidae | 13 | 345.0 | 0.13 |
| <i>Coryphaena</i> spp. | 13 | 345.0 | 0.13 |
| Scombridae | 104 | 707.0 | 1.00 |
| <i>Auxis</i> spp. | 3 | 105.0 | 0.03 |
| <i>Euthynnus</i> sp. | 101 | 602.0 | 0.97 |
| Gempylidae | 62 | 583.0 | 0.60 |
| <i>Nesiarchus nasutus</i> | 7 | 63.0 | 0.07 |
| <i>Promethichthys prometheus</i> | 8 | 74.0 | 0.08 |
| <i>Gempylus serpens</i> | 36 | 388.0 | 0.35 |
| unidentified Gempylidae | 10 | 46.0 | 0.10 |
| Nomeidae | 35 | 382.0 | 0.34 |
| <i>Psenes anomala</i> | 1 | 5.0 | 0.01 |
| <i>Cubiceps carnatus</i> | 34 | 377.0 | 0.33 |
| Group 6. Epipelagic cephalopods | 1,947 | 8,569.5 | 18.77 |
| Ommastrephidae | 1,283 | 8,073.8 | 12.37 |
| <i>Sthenoteuthis oualaniensis</i> | 936 | 7,704.8 | 9.02 |
| <i>Hyaloteuthis pelagica</i> | 7 | 71.0 | 0.07 |
| unidentified Ommastrephidae | 340 | 298.0 | 3.28 |
| Onychoteuthidae | 519 | 180.0 | 5.00 |
| <i>Onychoteuthis banksii</i> | 519 | 180.0 | 5.00 |
| Enoploteuthidae | 53 | 58.4 | 0.51 |
| <i>Pterygioteuthis giardi</i> | 16 | 20.2 | 0.15 |
| <i>Abrialopsis affinis</i> | 12 | 28.6 | 0.12 |
| <i>Abrialopsis</i> sp. | 25 | 9.6 | 0.24 |
| Cranchiidae | 77 | 169.1 | 0.74 |
| <i>Cranchia scabra</i> | 14 | 34.5 | 0.13 |
| <i>Leachia dislocata</i> | 27 | 20.7 | 0.26 |
| <i>Liocranchia</i> sp. | 5 | 25.1 | 0.05 |
| <i>Liocranchia reinhardti</i> | 8 | 66.0 | 0.08 |
| <i>Helicocranchia</i> sp. | 23 | 22.8 | 0.22 |
| Octopods | | | |
| Bolitaenidae | 4 | 21.9 | 0.04 |
| <i>Japetella heathi</i> | 4 | 21.9 | 0.04 |
| Tremoctopodidae | 2 | 8.5 | 0.02 |
| <i>Tremoctopus violaceus</i> | 2 | 8.5 | 0.02 |
| Ocythoidae | 7 | 47.8 | 0.07 |
| <i>Ocythoe tuberculata</i> | 7 | 47.8 | 0.07 |

APPENDIX 1. CONTINUED.

| | Number | Mass | Percent |
|--|------------|---------|---------|
| Group 7. Mesopelagic-bathypelagic cephalopods | 298 | 1,610.4 | 2.87 |
| Ommastrephidae | 6 | 36.8 | 0.06 |
| <i>Ornithoteuthis volatilis</i> | 6 | 36.8 | 0.06 |
| Pholidoteuthidae | 10 | 134.0 | 0.10 |
| <i>Pholidoteuthis boschmai</i> | 10 | 134.0 | 0.10 |
| Enoploteuthidae | 11 | 33.9 | 0.11 |
| <i>Ancistrocheirus lesueuri</i> | 11 | 33.9 | 0.11 |
| Octopoteuthidae | 27 | 98.0 | 0.26 |
| <i>Octopoteuthis deletron</i> | 4 | 52.5 | 0.04 |
| <i>Octopoteuthis</i> sp. | 23 | 45.5 | 0.22 |
| Histioteuthidae | 65 | 491.1 | 0.63 |
| <i>Histioteuthis</i> spp. | 24 | 36.0 | 0.23 |
| <i>Histioteuthis hoylei</i> | 26 | 228.0 | 0.25 |
| <i>Histioteuthis</i> sp. B | 7 | 120.0 | 0.07 |
| <i>Histioteuthis reversa</i> | 2 | 18.5 | 0.02 |
| <i>Histioteuthis corona</i> | 6 | 88.6 | 0.06 |
| Bathyteuthidae | 4 | 36.0 | 0.04 |
| <i>Bathyteuthis bacidifera</i> | 4 | 36.0 | 0.04 |
| Mastigoteuthidae | 27 | 48.0 | 0.26 |
| <i>Mastigoteuthis</i> sp. | 25 | 0.0 | 0.24 |
| <i>Idioteuthis</i> sp. | 2 | 0.0 | 0.02 |
| Chiroteuthidae | 42 | 192.5 | 0.40 |
| <i>Chiroteuthis calyx</i> | 8 | 0.0 | 0.08 |
| <i>Chiroteuthis</i> sp. A (different from next species) | 13 | 132.0 | 0.13 |
| <i>Chiroteuthis</i> sp. | 19 | 48.0 | 0.18 |
| <i>Valbyteuthis</i> sp. | 2 | 12.5 | 0.02 |
| Cranchiidae | 104 | 521.0 | 1.00 |
| <i>Liguriella</i> sp. | 12 | 0.0 | 0.12 |
| <i>Megalocranchia</i> sp. | 14 | 5.05 | 0.13 |
| <i>Taonius pavo</i> | 52 | 0.0 | 0.50 |
| <i>Taonius</i> sp. A | 1 | 0.0 | 0.01 |
| <i>Taonius pavo</i> B | 2 | 0.0 | 0.02 |
| <i>Galiteuthis pacifica</i> | 13 | 96.0 | 0.12 |
| unidentified Cranchiidae | 10 | 0.0 | 0.10 |
| Octopods | | | |
| Alloposidae | 2 | 19.2 | 0.02 |
| <i>Alloposus mollis</i> | 2 | 19.2 | 0.02 |
| Argonautidae | 2 | 10.0 | 0.02 |
| <i>Argonauta argo</i> | 2 | 10.0 | 0.02 |
| Group 8. Misc. invertebrates and eggs | 1,704 | 210.3 | 16.63 |
| eggs ^a | 14 (2,525) | 64.1 | 0.13 |
| <i>Lepas</i> sp. | 72 | 13.0 | 0.69 |
| Crustacea | 323 | 34.3 | 3.16 |
| Euphausiid (12–20 mm) | 184 | 17.5 | 1.77 |
| unidentified medium shrimp (21–30 mm) | 31 | 2.9 | 0.29 |
| unidentified large shrimp (31–50 mm) | 8 | 0.8 | 0.08 |
| Grammarid-hyperiid amphipod (4–7 mm) | 45 | 5.1 | 0.43 |
| Isopod (8 mm) | 2 | 0.2 | 0.02 |
| Cymothoid (<i>Nerocila</i> sp.) ^b (25–35 mm) | 16 | 5.8 | 0.35 |
| Portunid crab | 1 | 0.1 | 0.01 |
| unidentified crab megalops (3–5 mm) | 5 | 0.6 | 0.05 |
| Mysid sp. | 1 | 0.2 | 0.02 |
| unidentified crustacean | 30 | 3.4 | 0.29 |
| Scyphozoan | 703 | 59.2 | 6.75 |
| <i>Porpida</i> sp. | 563 | 47.8 | 5.43 |
| <i>Vellella</i> sp. | 59 | 4.8 | 0.57 |
| <i>Physalia</i> sp. | 81 | 6.6 | 0.78 |
| Gerrid insect | 286 | 8.7 | 2.76 |
| <i>Halobates</i> sp. (orange body) | 9 | 0.3 | 0.09 |
| <i>Halobates</i> sp. (black body) | 38 | 1.1 | 0.37 |
| <i>Halobates</i> sp. | 239 | 7.3 | 2.30 |

APPENDIX 1. CONTINUED.

| | Number | Mass | Percent |
|--|--------|-------|---------|
| Pelagic nudibranch | 13 | 1.0 | 0.13 |
| Snail | 136 | 14.2 | 1.31 |
| <i>Janthina</i> sp. (5–12 mm) | 113 | 10.8 | 1.09 |
| Unidentified snail sp. (2–3 mm) | 23 | 1.1 | 0.07 |
| Pteropod | 6 | 0.3 | 0.06 |
| Pteropod sp. | 6 | 0.3 | 0.06 |
| Bryzoan | 4 | 0.3 | 0.07 |
| Unidentified mollusc | 145 | 2.9 | 1.40 |
| Group 9. Misc. fishes | 295 | 400.5 | 2.84 |
| Engraulidae | 192 | 30.0 | 1.85 |
| <i>Engraulis ringens</i> | 186 | 29.1 | 1.79 |
| <i>Stolephorus apiensis</i> | 5 | 0.6 | 0.05 |
| unidentified Engraulidae | 1 | 0.3 | 0.01 |
| Argentinidae | 14 | 89.4 | 0.13 |
| <i>Microstoma microstoma</i> | 11 | 71.5 | 0.11 |
| <i>Nansenia</i> sp. | 3 | 17.9 | 0.03 |
| Bathylagidae | 4 | 18.0 | 0.04 |
| <i>Bathylagus</i> sp. | 4 | 18.0 | 0.04 |
| Alepocephalidae | 1 | 5.5 | 0.01 |
| unidentified Alepocephalidae (juv.) | 1 | 5.5 | 0.01 |
| Chauliodontidae | 8 | 46.1 | 0.08 |
| <i>Chauliodus sloani</i> | 8 | 46.1 | 0.08 |
| Synodontidae | 2 | 10.8 | 0.02 |
| <i>Saurida</i> sp. | 2 | 10.8 | 0.02 |
| Chlorophthalmidae | 2 | 9.6 | 0.02 |
| <i>Chlorophthalmus</i> sp. | 2 | 9.6 | 0.02 |
| Paralepididae | 2 | 10.5 | 0.02 |
| unidentified Paralepididae | 2 | 10.5 | 0.02 |
| Evermannellidae | 1 | 7.5 | 0.01 |
| <i>Evermanella ahlstromi</i> | 1 | 7.5 | 0.01 |
| Scomberosocidae | 3 | 10.0 | 0.03 |
| <i>Scomberesox scombroides</i> | 3 | 10.0 | 0.03 |
| Macrouridae | 3 | 15.6 | 0.03 |
| unidentified Macrouridae (juv.) | 3 | 15.6 | 0.03 |
| Moridae | 7 | 41.9 | 0.07 |
| unidentified Moridae (juv.) | 7 | 41.9 | 0.07 |
| Echeneididae | 1 | 4.8 | 0.01 |
| <i>Remora</i> sp. | 1 | 4.8 | 0.01 |
| Trachipteridae | 3 | 13.9 | 0.03 |
| <i>Trachipterus</i> sp. | 3 | 13.9 | 0.03 |
| Percichthyidae | 14 | 66.5 | 0.13 |
| <i>Howella</i> sp. | 14 | 66.5 | 0.13 |
| Trichiuridae | 2 | 9.5 | 0.02 |
| <i>Trichiurus</i> sp. cf. <i>T. nitens</i> | 2 | 9.5 | 0.02 |
| Holocentridae | 1 | 4.6 | 0.01 |
| <i>Adioryx</i> sp. | 1 | 4.6 | 0.01 |
| Tetradontidae | 2 | 6.3 | 0.01 |
| <i>Lagocephalus</i> sp. | 2 | 6.3 | 0.01 |
| Teleosts unidentifiable to family | 100 | 0.0 | 0.96 |
| Cephalopoda unidentifiable to family | 147 | 0.0 | 1.42 |
| Teuthoids unidentifiable to family | 395 | 0.0 | 3.81 |
| Octopods unidentifiable to family | 1 | 0.0 | 0.01 |

Notes: Prey species are given by species group as used in the diet analyses; numbers preceding family names are group numbers also used when presenting each of the 30 seabird species' diets (Appendices 3–32). Cephalopods having mass = 0 were those that were unmeasured or unidentifiable. Most eggs were probably from exocoetids.

^a The number 14 is number of egg bunches, where each individual bird contained no more than one bunch. Total number of eggs is given parentheses.

^b Isopod ectoparasite caught incidentally; isopod attached to exocoetid host.

APPENDIX 2. REGRESSION EQUATIONS USED TO CALCULATE STANDARD LENGTHS (SL), DORSAL MANTLE LENGTHS (DML), AND MASS (W) OF 19 SPECIES OF FISHES AND 17 SPECIES OF CEPHALOPODS EATEN BY ETP SEABIRDS.

| Prey species | Regression equation | Mean \pm SD | Range | N | Adjusted r ² | Source |
|---------------------------------|---|-----------------|------------|-----|-------------------------|---|
| Fishes | | | | | | |
| Photichthyidae | | | | | | |
| <i>Vinciguerria lucetia</i> | SL = 6.22 + 21.05ot | 37.4 \pm 7.2 | 25-52 | 35 | 0.81 | this study |
| Myctophidae | | | | | | |
| <i>Symbolophorus evermanni</i> | | | | | | |
| | SL = 8.78 + 13.70ot | NA | NA | 33 | 0.80 | Ohizumi et al. (2001) |
| | W = 1.32 - 0.101SL + 0.0022SL ² | 37.4 \pm 7.2 | 20.4-82.0 | 608 | 0.97 | RLP ^a , SWFSC (unpubl. data) |
| <i>Myctophum nitidulum</i> | | | | | | |
| | SL = 4.86 + 19.42ot | ? | ? | ? | ? | J. Caretta, SWFSC (unpubl. data) |
| | W = 1.34 - 0.107SL + 0.0024SL ² | ? | 17.6-78.8 | 568 | 0.97 | RLP, SWFSC (unpubl. data) |
| <i>Myctophum spinosum</i> | | | | | | |
| | SL = 2.19 + 19.00ot | NA | NA | 8 | 0.98 | Ohizumi et al. (2001) |
| | W _{log10} = -1.00 + 3.67ot _{log10} | NA | NA | 8 | 0.97 | |
| <i>Myctophum aurolaturnian</i> | | | | | | |
| | SL = -12.94 + 25.95ot | 36.0 \pm 23.1 | 25-65 | 7 | 0.89 | this study |
| | W = 3.41 - 0.180SL + 0.0031SL ² | ? | 18.3-110.1 | 328 | 0.99 | RLP, SWFSC (unpubl. data) |
| <i>Lampadena luminosa</i> | | | | | | |
| | SL = -19.31 + 16.51ot | NA | NA | 7 | 0.97 | Ohizumi et al. (2001) |
| | W _{log10} = -2.67 + 4.53 ot _{log10} | NA | NA | 7 | 0.94 | |
| <i>Lampanyctus nobilis</i> | | | | | | |
| | SL = -29.40 + 35.95ot | 92.8 \pm 38.7 | 47-140 | 6 | 0.61 | this study |
| <i>Bolinichthys longipes</i> | | | | | | |
| | SL = -9.29 + 23.25ot | NA | NA | 7 | 0.91 | Ohizumi et al. (2001) |
| | W _{log10} = -0.81 + 2.26ot _{log10} | NA | NA | 7 | 0.77 | |
| <i>Ceratoscopelus warmingii</i> | | | | | | |
| | SL = 4.60 + 17.4ot | NA | NA | 23 | 0.97 | Ohizumi et al. (2001) |
| | W _{log10} = -1.01 + 2.97ot _{log10} | NA | NA | 23 | 0.94 | |
| <i>Diaphus garmani</i> | | | | | | |
| | SL = 4.21 + 11.73 ot | NA | NA | 9 | 0.74 | Ohizumi et al. (2001) |
| | W _{log10} = -1.51 + 3.13 ot _{log10} | NA | NA | 9 | 0.87 | |
| <i>Diaphus mollis</i> | | | | | | |
| | lnSL = 3.00 + 0.79 lnrot | NA | NA | 22 | 0.96 | Smale et al. (1995) |
| <i>Electrona risso</i> | | | | | | |
| | lnSL = 2.48 + 1.15 lnrot | NA | NA | 13 | 0.94 | Smale et al. (1995) |
| | lnW = -3.78 + 3.93 lnrot | NA | NA | 9 | 0.98 | |
| <i>Hygophum proximum</i> | | | | | | |
| | SL = -0.75 + 21.29ot | NA | NA | 18 | 0.89 | Ohizumi et al. (2001) |
| | W _{log10} = -0.69 + 1.37 ot _{log10} | NA | NA | 18 | 0.90 | |

APPENDIX 2. CONTINUED.

| Prey species | Regression equation | Mean \pm SD | Range | N | Adjusted r^2 | Source |
|-------------------------------------|--|---|------------------------|-----------------|----------------------|--|
| Dirotidae | | | | | | |
| <i>Dirotinus argenteus</i> | InSL = 2.02 + 1.19 ln _{rot} lnW = -3.11 + 3.20 ln _{rot} | NA NA | NA NA | 18 17 | 0.99 0.99 | Smale et al. (1995) |
| Hemirhamphidae | | | | | | |
| <i>Oxyorhamphus micropterus</i> | SL = 11.13 + 22.97ot W = 25.32 - 19.14ot + 3.13ot ² | 121.8 \pm 27.7 21.4 \pm 12.7 | 65-194 4.2-68.4 | 47 22 | 0.81 0.88 | this study |
| Exocoetidae | | | | | | |
| <i>Exocoetus</i> spp. | SL = 11.77 + 20.73ot W = 6.63 - 5.16ot + 1.52ot ² | 88.9 \pm 51.3 27.5 \pm 20.9 | 24-180 1.7-65.0 | 60 23 | 0.94 0.92 | this study |
| Scombridae | | | | | | |
| <i>Euthynnus</i> sp. | SL = 15.28 + 39.40ot - 5.65ot ² | 53.5 \pm 9.7 | 38-85 | 24 | 0.94 | this study |
| Gempylidae | | | | | | |
| <i>Gempylus serpens</i> | SL = -8.99 + 110.91ot | 113.1 \pm 39.1 | 90-190 | 11 | 0.92 | this study |
| Cephalopods | | | | | | |
| Ommastrephidae | | | | | | |
| <i>Sitheroteuthis oualantiensis</i> | DML = 20.18 + 37.27r W = 1.81 - 5.81r + 9.28r ² DML = 6.98 + 39.25r | 70.8 \pm 13.9 11.7 \pm 7.4 NA | 45-118 3.5-34 NA | 120 64 NA | 0.87 0.82 0.93 | this study this study Wolff (1982) |
| Dosidictidae | | | | | | |
| <i>Dosidictus gigas</i> | DML = 44.20 + 35.79r lnW = 7.4 + 2.48lnr | NA NA | NA NA | NA NA | 0.84 0.91 | Wolff (1982) |
| Hyaloteuthidae | | | | | | |
| <i>Hyaloteuthis pelagica</i> | DML = 17.81 + 28.55r lnW = 5.87 + 2.12lnr | NA NA | NA NA | NA NA | 0.86 0.84 | Wolff (1984) |
| Onychoteuthidae | | | | | | |
| <i>Onychoteuthis banksii</i> | DML = -28.90 + 60.01r lnW = 9.1 + 3.70lnr | NA NA | NA NA | NA NA | 0.95 0.89 | Wolff (1982) |
| Pholidoteuthidae | | | | | | |
| <i>Pholidoteuthis bochmaii</i> | DML = 11.3 + 41.09r lnW = 0.976 + 2.83lnr | NA NA | NA NA | NA NA | NA NA | Clarke (1986) |
| Enoplateuthidae | | | | | | |
| <i>Abraaliopsis affinis</i> | DML = 9.80 + 19.28r lnW = 5.5 + 2.1lnr | NA NA | NA NA | NA NA | 0.88 0.81 | Wolff (1982) |
| Pterygioteuthidae | | | | | | |
| <i>Pterygioteuthis giardi</i> | DML = 6.20 + 33.16r lnW = 7.6 + 2.6lnr | NA NA | NA NA | NA NA | 0.41 0.70 | Wolff (1982) |
| Octopoteuthidae | | | | | | |
| <i>Octopoteuthis</i> sp. | DML = -0.4 - 17.33r lnW = 0.166 + 2.31lnr | NA NA | NA NA | NA NA | NA NA | Clarke (1986) |
| Histioteuthidae | | | | | | |
| <i>Histioteuthis hoylei</i> | DML = 7.69 + 14.55r lnW = 6.96 + 2.44lnr | NA NA | NA NA | NA NA | 0.97 0.98 | Wolff (1984) |

APPENDIX 2. CONTINUED.

| Prey species | Regression equation | Mean \pm SD | Range | N | Adjusted r^2 | Source |
|--------------------------------|---|---------------|----------|----------|----------------|----------------------|
| <i>Bathyteuthidae</i> | | | | | | |
| <i>Bathyteuthis</i> sp. | DML = 1.68 + 51.59r lnW = 2.855 + 3.38lnr | NA NA | NA NA | 17 17 | 0.56 0.68 | Clarke (1986) |
| <i>Mastigoteuthidae</i> | | | | | | |
| <i>Mastigoteuthis</i> sp. | DML = -1.80 + 29.08r lnW = 0.184 + 2.88lnr | NA NA | NA NA | 47 45 | 0.91 0.94 | Clarke (1986) |
| <i>Chiroteuthidae</i> | | | | | | |
| <i>Chiroteuthis</i> sp. | DML = 11.4 + 24.46r lnW = -0.241 + 2.70lnr | NA NA | NA NA | 23 14 | NA NA | Clarke (1986) |
| <i>Cranchiidae</i> | | | | | | |
| <i>Cranchia scabra</i> | DML = 17.7 + 28.03r lnW = 1.623 + 1.70lnr | NA NA | NA NA | 22 23 | NA NA | Clarke (1986) |
| <i>Leachia dislocata</i> | DML = 18.22 + 67.94r lnW = 0.627 + 2.39lnr | NA NA | NA NA | 10 10 | NA NA | Wolff (1982) |
| <i>Liocranchia reinhardtii</i> | DML = -1.90 + 80.22H lnW = 6.7 + 2.11lnr | NA NA | NA NA | NA NA | 0.89 0.80 | Wolff (1982) |
| <i>Megalocranchia</i> sp. | lnW = -0.108 + 2.73lnr | NA | NA | 20 | NA | Clarke (1986) |
| <i>Taonius parvo</i> | DML = 45.29 + 40.53r | NA | NA | 158 | 0.94 | Walker et al. (2002) |

Notes: Calculations made from measured otoliths lengths (OT) and lower rostral length (R; see Methods for details); r^2 = adjusted correlation coefficient. All lengths in millimeters; mass in grams.
^aRLP = Robert L. Pitman.

APPENDICES 3–32. NUMBER AND OCCURRENCE FREQUENCY OF PREY SPECIES IN THE DIETS OF THE 30 MOST ABUNDANT ETP SEABIRD SPECIES

Notes: These appendices are presented in the following order: Hydrobatids and *Bulweria*, Appendices 3–9; *Pterodroma*, Appendices 10–20; *Puffinus*, Appendices 21–23; Larids, Appendices 24–27; Pelecaniformes, Appendices 28–32. Numbers of prey (N) reported for fishes and cephalopods do not include prey not identified to family level. Counts of eggs refer to number of stomachs containing eggs, not total number of eggs (those values given using subscripts). In these appendices, and throughout this monograph, a prey identifiable only to genus was designated as genus spp.; a prey identified to genus, but which had a distinctive otolith or beak, was designated as genus sp.; and prey identified to genus, but having a distinctive otolith or beak that had been described in a previous study was designated as genus sp. A (the living animal possessing this otolith or beak has yet to be caught).

APPENDIX 3. DIET OF BULWER'S PETREL (*BULWERIA BULWERII*).

| | Number of prey | | Mass (g) | Prey occurrence | |
|---|----------------|------|----------|-----------------|------|
| | | % | | Frequency | % |
| Fishes | 53 | 44.9 | 355.2 | 22 | 51.2 |
| Cephalopods | 26 | 22.9 | 87.0 | 18 | 41.9 |
| Misc. invertebrates/eggs | 38 | 32.2 | 30.4 | 16 | 37.2 |
| Gonostomatidae | 1 | 0.9 | 4.6 | 1 | 2.3 |
| <i>Diplophos taenia</i> | 1 | - | 4.6 | - | - |
| Sternoptychidae | 7 | 6.0 | 36.2 | 5 | 11.6 |
| <i>Sternoptyx diaphana</i> | 2 | 1.7 | 8.9 | 1 | 2.3 |
| <i>Argyropelecus sladeni</i> | 2 | 1.7 | 9.2 | 2 | 4.7 |
| <i>Argyropelecus</i> sp. | 3 | 2.6 | 18.1 | 2 | 4.7 |
| Photichthyidae | 7 | 6.0 | 9.8 | 3 | 7.0 |
| <i>Viniguerria lucetia</i> | 5 | 4.3 | 7.0 | 2 | 4.7 |
| <i>Vinciguerria</i> sp. | 2 | 1.7 | 2.8 | 1 | 2.3 |
| Myctophidae | 32 | 27.3 | 272.6 | 15 | 34.9 |
| <i>Hygophum</i> sp. | 1 | 0.9 | 4.6 | 1 | 2.3 |
| <i>Diogenichthys laternatus</i> | 1 | 0.9 | 8.5 | 1 | 2.3 |
| <i>Myctophum</i> cf. <i>M. lychnobium</i> | 1 | 0.9 | 4.8 | 1 | 2.3 |
| <i>Symbolophorus evermanni</i> | 3 | 2.6 | 22.0 | 3 | 7.0 |
| <i>Ceratoscopelus warmingii</i> | 11 | 9.4 | 117.8 | 5 | 11.6 |
| <i>Diaphus parri</i> | 2 | 1.7 | 23.9 | 1 | 2.3 |
| <i>Diaphus jenseni</i> | 2 | 1.7 | 18.3 | 1 | 2.3 |
| <i>Diaphus lutkeni</i> | 2 | 1.7 | 18.3 | 1 | 2.3 |
| <i>Diaphus schmidti</i> | 3 | 2.6 | 16.1 | 3 | 7.0 |
| <i>Gonichthys tenuiculus</i> | 2 | 1.7 | 8.4 | 2 | 4.7 |
| unident. Myctophidae | 4 | 3.4 | 29.9 | 3 | 7.0 |
| Bregmacerotidae | 3 | 2.6 | 14.4 | 2 | 4.7 |
| <i>Bregmaceros bathymaster</i> | 3 | - | 14.4 | - | - |
| Melamphidae | 2 | 1.7 | 12.6 | 2 | 4.7 |
| <i>Melamphaes longivelis</i> | 1 | 0.9 | 6.6 | 1 | 2.3 |
| <i>Scopeloberyx</i> sp. | 1 | 0.9 | 6.0 | 1 | 2.3 |
| Nomeidae | 1 | 0.9 | 5.0 | 1 | 2.3 |
| <i>Cubiceps carnatus</i> | 1 | - | 5.0 | - | - |
| Unidentified teleosts | 1 | 0.0 | 0.0 | 1 | 2.3 |
| Ommastrephidae | 8 | 6.8 | 45.0 | 5 | 11.6 |
| <i>Sthenoteuthis oualaniensis</i> | 6 | 5.1 | 45.0 | 3 | 7.0 |
| Unidentified Ommastrephidae | 2 | 1.7 | 0.0 | 2 | 4.7 |
| Histioteuthidae | 4 | 3.4 | 0.0 | 3 | 7.0 |
| <i>Histioteuthis</i> sp. | 2 | 1.7 | 0.0 | 2 | 4.7 |
| <i>Histioteuthis</i> sp. cf. <i>H. hoylei</i> | 2 | 1.7 | 0.0 | 1 | 2.3 |
| Mastigoteuthidae | 3 | 2.6 | 12.0 | 3 | 7.0 |
| <i>Mastigoteuthis</i> sp. | 3 | - | 12.0 | - | - |
| Chiroteuthidae | 3 | 2.6 | 18.0 | 1 | 2.3 |
| <i>Chiroteuthis calyx</i> | 1 | 0.9 | 6.0 | - | - |
| <i>Chiroteuthis</i> sp. A | 2 | 1.7 | 12.0 | - | - |
| Cranchiidae | 8 | 6.8 | 12.0 | 7 | 16.3 |
| <i>Cranchia scabra</i> | 2 | 1.7 | 6.0 | 1 | 2.3 |
| <i>Leachia dislocata</i> | 1 | 0.9 | 6.0 | 1 | 2.3 |
| <i>Helicocranchia</i> sp. | 4 | 3.4 | 0.0 | 4 | 9.3 |
| <i>Galiteuthis pacifica</i> | 1 | 0.9 | 0.0 | 1 | 2.3 |
| Unidentified Cephalopoda | 5 | 0.0 | 0.0 | 5 | 11.6 |
| Unidentified Teuthoidea | 1 | 0.0 | 0.0 | 1 | 2.3 |
| Crustacea | 13 | 11.1 | 1.0 | 1 | 2.3 |
| Euphausiid | 3 | 2.6 | 0.3 | - | - |
| Gammarid/hyperiid amphipod | 10 | 8.5 | 0.7 | - | - |
| Scyphozoan | 2 | 1.7 | 0.16 | 2 | 4.7 |
| <i>Porpida</i> sp. | 2 | - | 0.16 | - | - |
| Gerrid insect | 18 | 15.4 | 0.54 | 8 | 18.6 |
| <i>Halobates</i> (black body) | 1 | 0.9 | 0.03 | 1 | 2.3 |
| <i>Halobates</i> sp. | 17 | 14.5 | 0.51 | 7 | 16.3 |
| ^a eggs | 5 | 4.3 | 28.7 | 5 | 11.6 |

Note: Sample size of petrels, N = 43, with prey 34; prey sample, N = 117.

^aFive egg bunches consisted of approximately 400, 400, 75, 50, and 30 eggs.

APPENDIX 4. DIET OF WHITE-FACED STORM-PETREL (*PELAGODROMA MARINA*).

| | Number of | | Mass (g) | Prey occurrence | |
|--|-----------|------|----------|-----------------|-------|
| | prey | % | | Frequency | % |
| Fishes | 70 | 21.9 | 412.6 | 15 | 100.0 |
| Cephalopods | 0 | 0.0 | 0.0 | 0 | 0.0 |
| Misc. invertebrates/eggs | 249 | 78.1 | 28.1 | 15 | 100.0 |
| Sternoptychidae | 1 | 0.3 | 6.0 | 1 | 6.7 |
| <i>Argyropelecus</i> sp. | 1 | – | 6.0 | – | – |
| Photichthyidae | 14 | 4.4 | 19.6 | 7 | 46.7 |
| <i>Viniguerria lucetia</i> | 5 | 1.6 | 7.0 | 3 | 20.0 |
| <i>Viniguerria</i> sp. | 8 | 2.5 | 11.2 | 3 | 20.0 |
| <i>Ichthyococcus</i> sp. | 1 | 0.3 | 1.4 | 1 | 6.7 |
| Myctophidae | 44 | 13.8 | 325.1 | 15 | 100.0 |
| <i>Hygophum</i> cf. <i>H. proximum</i> | 1 | 0.3 | 6.0 | 1 | 6.7 |
| <i>Hygophum</i> sp. | 2 | 0.6 | 9.7 | 2 | 13.3 |
| <i>Benthoosema suborbitale</i> | 1 | 0.3 | 6.6 | 1 | 6.7 |
| <i>Diogenichthys laternatus</i> | 6 | 1.9 | 30.7 | 4 | 26.7 |
| <i>Myctophum aurolaternatum</i> | 3 | 0.9 | 18.9 | 1 | 6.7 |
| <i>Symbolophorus evermanni</i> | 4 | 1.3 | 21.1 | 4 | 26.7 |
| <i>Ceratoscopelus warmingii</i> | 9 | 2.8 | 88.7 | 6 | 40.0 |
| <i>Diaphus parri</i> | 8 | 2.5 | 78.2 | 5 | 33.3 |
| <i>Diaphus lutkeni</i> | 1 | 0.3 | 4.9 | 1 | 6.7 |
| <i>Diaphus schmidti</i> | 4 | 1.3 | 32.8 | 3 | 20.0 |
| <i>Diaphus</i> sp. | 1 | 0.3 | 4.9 | 1 | 6.7 |
| <i>Gonichthys tenuiculus</i> | 1 | 0.3 | 5.5 | 1 | 6.7 |
| Unidentified Myctophidae | 3 | 0.9 | 17.1 | 3 | 20.0 |
| Bregmacerotidae | 3 | 0.9 | 16.3 | 3 | 20.0 |
| <i>Bregmaceros bathymaster</i> | 3 | – | 16.3 | – | – |
| Diretmidae | 3 | 0.9 | 20.4 | 3 | 20.0 |
| <i>Diretmus argenteus</i> | 3 | – | 20.4 | – | – |
| Melamphaidae | 4 | 1.3 | 20.2 | 3 | 20.0 |
| <i>Scopeloberyx</i> sp. | 1 | 0.3 | 4.2 | 1 | 6.7 |
| Unidentified Melamphaidae | 3 | 0.9 | 16.0 | 3 | 20.0 |
| Gempylidae | 1 | 0.3 | 5.0 | 1 | 6.7 |
| <i>Nesiarchus nasutus</i> | 1 | – | 5.0 | – | – |
| Unidentified teleosts | 4 | 0.0 | 0.0 | 1 | 6.7 |
| Lepas barnacle | 13 | 4.1 | 0.65 | 3 | 20.0 |
| <i>Lepas</i> sp. | 13 | – | 0.65 | – | – |
| Crustacea | 30 | 9.4 | 15.17 | 8 | 53.3 |
| Euphausiid | 2 | 0.6 | 0.16 | 1 | 6.7 |
| Gammarid/hyperiid amphipod | 24 | 7.5 | 2.25 | 4 | 26.7 |
| Crab megalops | 2 | 0.6 | 0.24 | 2 | 13.3 |
| unidentified crustacean | 2 | 0.6 | 2.89 | 2 | 13.3 |
| Scyphozoan | 3 | 0.9 | 0.3 | 1 | 6.7 |
| <i>Porpida</i> sp. | 3 | – | 0.3 | – | – |
| Gerrid insect | 104 | 32.6 | 3.12 | 14 | 93.3 |
| <i>Halobates</i> (orange body) | 7 | 2.2 | 0.21 | 1 | 6.7 |
| <i>Halobates</i> (black body) | 10 | 3.1 | 0.30 | 1 | 6.7 |
| <i>Halobates</i> sp. | 87 | 27.3 | 2.61 | 13 | 86.7 |
| Snail | 98 | 30.7 | 8.82 | 9 | 60.0 |
| <i>Janthina</i> | 93 | 29.1 | 8.37 | 9 | 60.0 |
| Small snail | 5 | 1.6 | 0.45 | 2 | 13.3 |
| Pteropod | 1 | 0.3 | 0.04 | 1 | 6.7 |
| Pteropod sp. | 1 | 0.3 | 0.04 | – | – |

Note: Sample size of storm-petrels, N = 15, all with prey; prey sample, N = 319.

APPENDIX 5. DIET OF WHITE-THROATED STORM-PETREL (*NESOFREGETTA FULIGINOSA*).

| | Number of | | Mass (g) | Prey occurrence | |
|-----------------------------------|-----------|------|----------|-----------------|------|
| | prey | % | | Frequency | % |
| Fishes | 41 | 42.8 | 124.7 | 15 | 68.2 |
| Cephalopods | 5 | 5.9 | 14.1 | 6 | 27.3 |
| Misc. invertebrates/eggs | 39 | 45.9 | 3.2 | 12 | 54.5 |
| Photichthyidae | 21 | 24.7 | 29.4 | 2 | 9.1 |
| <i>Viniguerria lucetia</i> | 20 | 23.5 | 28.0 | 2 | 9.1 |
| <i>Ichthyococcus</i> sp. | 1 | 1.2 | 1.4 | 1 | 4.5 |
| Myctophidae | 15 | 17.6 | 71.4 | 11 | 50.0 |
| <i>Electrona risso</i> | 3 | 3.5 | 13.1 | 3 | 13.6 |
| <i>Myctophum aurolateratum</i> | 1 | 1.2 | 4.6 | 1 | 4.5 |
| <i>Symbolophorus evermanni</i> | 4 | 4.7 | 19.1 | 4 | 18.2 |
| <i>Lampadena luminosa</i> | 1 | 1.2 | 4.8 | 1 | 4.5 |
| <i>Ceratoscopelus warmingii</i> | 1 | 1.2 | 4.9 | 1 | 4.5 |
| <i>Diaphus parri</i> | 2 | 2.4 | 11.1 | 2 | 9.1 |
| <i>Diaphus</i> sp. | 1 | 1.2 | 4.8 | 1 | 4.5 |
| Unidentified Myctophidae | 2 | 2.4 | 9.0 | 2 | 9.1 |
| Diretmidae | 3 | 3.5 | 14.5 | 2 | 9.1 |
| <i>Diretmus argenteus</i> | 2 | 2.4 | 9.6 | 1 | 4.5 |
| <i>Diretmus pauciradiatus</i> | 1 | 1.2 | 4.9 | 1 | 4.5 |
| Melamphidae | 2 | 2.4 | 9.4 | 2 | 9.1 |
| <i>Scopeloberyx robusta</i> | 1 | 1.2 | 4.6 | 1 | 4.5 |
| <i>Scopeloberyx</i> sp. | 1 | 1.2 | 4.8 | 1 | 4.5 |
| Ommastrephidae | 3 | 3.5 | 6.6 | 2 | 9.1 |
| <i>Sthenoteuthis oualaniensis</i> | 1 | 1.2 | 6.6 | 1 | 4.5 |
| Unidentified Ommastrephidae | 2 | 2.4 | 0.0 | 1 | 4.5 |
| Cranchiidae | 2 | 2.4 | 7.5 | 2 | 9.1 |
| <i>Helicocranchia</i> sp. | 2 | - | 7.5 | - | - |
| Unidentified Cephalopoda | 2 | 0.0 | 0.0 | 2 | 9.1 |
| Crustacea | 16 | 18.8 | 1.6 | 5 | 22.7 |
| Euphausiid | 15 | 17.6 | 1.5 | 4 | 19.2 |
| Small isopod | 1 | 1.2 | 0.1 | 1 | 4.5 |
| Scyphozoan | 19 | 22.4 | 1.40 | 8 | 36.4 |
| <i>Porpida</i> sp. | 3 | 3.5 | 0.12 | 2 | 9.1 |
| <i>Veleva</i> sp. | 5 | 5.9 | 0.4 | 2 | 9.1 |
| <i>Physalia</i> sp. | 11 | 12.9 | 0.88 | 8 | 36.4 |
| Gerrid insect | 2 | 2.4 | 0.06 | 1 | 4.5 |
| <i>Halobates</i> sp. | 2 | - | 0.06 | - | - |
| Nudibranch | 1 | 1.2 | 0.05 | 1 | 4.5 |
| Pelagic nudibranch sp. | 1 | - | 0.05 | - | - |
| Snail | 1 | 1.2 | 0.12 | 1 | 4.5 |
| Small snail | 1 | - | 0.12 | - | - |

Note: Sample size of storm-petrels, N = 15, all with prey; prey sample, N = 319.

APPENDIX 6. DIET OF WHITE-BELLIED STORM-PETREL (*FREGETTA GRALLARIA*).

| | Number of | | Mass (g) | Prey occurrence | |
|--|-----------|------|----------|-----------------|------|
| | prey | % | | Frequency | % |
| Fishes | 29 | 53.7 | 146.5 | 19 | 86.4 |
| Cephalopods | 14 | 25.9 | 14.3 | 8 | 36.4 |
| Misc. invertebrates/eggs | 11 | 12.4 | 0.33 | 5 | 22.7 |
| Photichthyidae | 10 | 18.5 | 14.0 | 8 | 36.4 |
| <i>Viniguerria lucetia</i> | 4 | 7.4 | 5.6 | 3 | 13.6 |
| <i>Vinciguerria</i> sp. | 6 | 11.1 | 8.4 | 5 | 22.7 |
| Myctophidae | 13 | 24.1 | 86.8 | 9 | 40.9 |
| <i>Hygophum</i> sp. | 1 | 1.9 | 6.6 | 1 | 4.5 |
| <i>Diogenichthys laternatus</i> | 1 | 1.9 | 4.6 | 1 | 4.5 |
| <i>Myctophum</i> sp. cf. <i>M. nitidulum</i> | 1 | 1.9 | 8.5 | 1 | 4.5 |
| <i>Myctophum aurolaternatum</i> | 2 | 3.7 | 9.6 | 1 | 4.5 |
| <i>Ceratoscopelus warmingii</i> | 5 | 9.3 | 35.1 | 4 | 18.2 |
| <i>Diaphus parri</i> | 1 | 1.9 | 8.5 | 1 | 4.5 |
| Unidentified Myctophidae | 2 | 3.7 | 14.1 | 2 | 9.0 |
| Bregmacerotidae | 3 | 5.6 | 21.2 | 3 | 13.6 |
| <i>Bregmaceros bathymaster</i> | 3 | - | 21.2 | - | - |
| Melamphaidae | 2 | 3.7 | 17.0 | 2 | 9.0 |
| Unidentified Melamphaidae | 2 | - | 17.0 | - | - |
| Percichthyidae | 1 | 1.9 | 7.5 | 1 | 4.5 |
| <i>Howella</i> sp. cf. <i>H. brodei</i> | 1 | - | 7.5 | - | - |
| Unidentified teleosts | 1 | 0.0 | 0.0 | 1 | 4.5 |
| Ommastrephidae | 2 | 3.7 | 5.0 | 2 | 2.7 |
| Unidentified Ommastrephidae | 2 | - | 5.0 | - | - |
| Onychoteuthidae | 1 | 1.9 | 0.0 | 1 | 4.5 |
| <i>Onychoteuthis banksii</i> | 1 | - | 0.0 | - | - |
| Histioteuthidae | 1 | 1.9 | 4.5 | 1 | 4.5 |
| <i>Histioteuthis corona</i> | 1 | - | 4.5 | - | - |
| Mastigoteuthidae | 1 | 1.9 | 0.0 | 1 | 4.5 |
| <i>Mastigoteuthis</i> sp. | 1 | - | 0.0 | - | - |
| Cranchiidae | 9 | 16.7 | 4.8 | 5 | 22.7 |
| <i>Leachia dislocata</i> | 3 | 5.6 | 0.0 | 2 | 9.0 |
| <i>Helicocranchia</i> sp. | 1 | 1.9 | 4.8 | 1 | 4.5 |
| <i>Liguriella</i> sp. | 1 | 1.9 | 0.0 | 1 | 4.5 |
| <i>Megalocranchia</i> sp. | 3 | 5.6 | 0.0 | 1 | 4.5 |
| Unidentified Cranchiidae | 1 | 1.9 | 0.0 | 1 | 4.5 |
| Unidentified teuthoids | 1 | 0.0 | 0.0 | 1 | 4.5 |
| Gerrid insect | 11 | 20.4 | 0.33 | 5 | 22.7 |
| <i>Halobates</i> sp. | 11 | - | 0.33 | - | - |

Note: Sample size of storm-petrels, N = 22; with prey 20; prey sample, N = 54.

APPENDIX 7. DIET OF LEACH'S STORM-PETREL (*OCEANODROMA LEUCORHOA*).

| | Number of Prey | % | Otolith or beak/ body length mean \pm SD (N) | Occurrence frequency % | Mass (g) |
|----------------------------------|-------------------|------|--|---------------------------|-------------|
| Fishes | 1,219 | 56.9 | | 335 (66.6) | 7,276.0 |
| Cephalopods | 84 | 3.9 | | 109 (21.7) | 92.6 |
| Invertebrates/eggs | 838 | 39.1 | | 186 (37.0) | 74.3 |
| Engraulidae | 3 | 0.1 | | 1 (0.2) | 10.0 |
| <i>Engraulis ringens</i> | 3 | - | | - | 10.0 |
| Argentinidae | 2 | 0.1 | | 2 (0.4) | 12.3 |
| <i>Microstoma microstoma</i> | 2 | - | | - | 12.3 |
| Bathylagidae. | 1 | <0.1 | | 1 (0.2) | 4.2 |
| <i>Bathylagus</i> sp. | 1 | - | | - | 4.2 |
| Alepocephalidae | 1 | <0.1 | | 1 (0.2) | 5.5 |
| Unidentified Alepocephalidae | 1 | - | | - | 5.5 |
| Gonostomatidae | 9 | 0.4 | | 7 (1.4) | 50.0 |
| <i>Diplophos taenia</i> | 6 | 0.3 | | 6 (1.2) | 28.0 |
| Unidentified Gonostomatidae | 3 | 0.1 | | 2 (0.4) | 22.2 |
| Sternoptychidae | 35 | 1.6 | | 24 (4.8) | 268.3 |
| <i>Sternoptyx</i> sp. | 1 | <0.1 | | 1 (0.2) | 4.8 |
| <i>Sternoptyx obscura</i> | 26 | 1.2 | 0.57 \pm 0.08 (26) | 18 (3.6) | 214.8 |
| <i>Argyropelecus lynchmus</i> | 4 | 0.2 | | 3 (0.6) | 25.3 |
| <i>Argyropelecus</i> sp. | 2 | 0.1 | | 2 (0.4) | 9.4 |
| <i>Polyipnus</i> sp. | 2 | 0.1 | | 2 (0.2) | 14.0 |
| Photichthyidae | 283 | 13.2 | 118 | (23.5) | 415.6 |
| <i>Vinciguerria lucetia</i> | 241 | 11.3 | 1.18 \pm 0.28 (201) | 95 (18.9) | 337.4 |
| <i>Vinciguerria</i> sp. | 36 | 1.9 | 23 | 4.6 | 69.4 |
| <i>Woodsia nonsuchae</i> | 1 | <0.1 | 0.2 | 1.8 | - |
| <i>Ichthyococcus irregularis</i> | 5 | 0.2 | | 5 (1.0) | 7.0 |
| Chauliodontidae | 3 | 0.1 | | 3 (0.6) | 20.0 |
| <i>Chauliodus macouni</i> | 3 | - | | - | 20.0 |
| Synodontidae | 1 | <0.1 | | 1 (0.2) | 6.6 |
| <i>Saurida</i> sp. | 1 | - | | - | 6.6 |
| Myctophidae | 638 | 29.8 | | 265 (52.7) | 4,237.7 |
| <i>Protomyctophum</i> sp. | 4 | 0.2 | | 3 (0.6) | 19.1 |
| <i>Electrona risso</i> | 9 | 0.3 | | 8 (1.6) | 43.2 |
| <i>Hygophum proximum</i> | 18 | 0.8 | | 16 (3.2) | 104.2 |
| <i>Hygophum reinhardti</i> | 12 | 0.5 | | 10 (2.0) | 64.4 |
| <i>Benthoosema panamense</i> | 3 | 0.1 | | 3 (0.6) | 13.3 |
| <i>Diogenichthys laternatus</i> | 53 | 2.5 | 1.04 \pm 0.15 (33) | 36 (7.0) | 366.4 |
| <i>Myctophum nitidulum</i> | 7 | 0.3 | | 7 (1.4) | 30.9 |
| <i>Myctophum lychnobium</i> | 2 | 0.1 | | 2 (0.4) | 10.3 |
| <i>Myctophum aurolaternatum</i> | 86 | 4.0 | 2.11 \pm 0.49 (70) | 51 (10.1) | 733.0 |
| <i>Myctophum</i> sp. | 10 | 0.5 | | 9 (1.8) | 63.2 |
| <i>Symbolophorus evermanni</i> | 48 | 2.2 | 3.40 \pm 0.77 (30) | 40 (8.0) | 351.1 |
| <i>Bolinichthys photothorax</i> | 6 | 0.3 | | 4 (0.8) | 34.6 |
| <i>Bolinichthys longipes</i> | 1 | <0.1 | | 1 (0.2) | 6.0 |
| <i>Ceratospopelus warmingii</i> | 106 | 5.0 | 2.49 \pm 0.64 (74) | 64 (12.7) | 719.6 |
| <i>Lampanyctus nobilis</i> | 7 | 0.3 | | 6 (1.2) | 34.1 |
| <i>Lampanyctus parvicauda</i> | 18 | 0.8 | | 15 (3.0) | 142.9 |
| <i>Lampanyctus omostigma</i> | 2 | 0.1 | | 2 (0.4) | 11.5 |
| <i>Diaphus parri</i> | 56 | 2.6 | 2.83 \pm 0.94 (44) | 40 (8.0) | 350.9 |
| <i>Diaphus jenseni</i> | 13 | 0.6 | | 10 (2.0) | 63.2 |
| <i>Diaphus lutkeni</i> | 12 | 0.6 | | 10 (2.0) | 53.3 |
| <i>Diaphus garmani</i> | 1 | <0.1 | | 1 (0.2) | 3.9 |
| <i>Diaphus schmidti</i> | 23 | 1.1 | 2.54 \pm 0.27 (22) | 16 (3.2) | 126.8 |
| <i>Diaphus</i> spp. | 27 | 1.3 | | 21 (4.2) | 196.2 |
| <i>Notospopelus resplendens</i> | 7 | 0.3 | | 7 (1.4) | 31.7 |
| <i>Gonichthys tenuiculus</i> | 2 | 0.1 | | 2 (0.4) | 9.1 |
| Unidentified Myctophidae | 105 | 4.9 | | 87 (17.3) | 654.8 |
| Scomberosocidae | 1 | <0.1 | | 1 (0.2) | 5.0 |
| <i>Scomberosox scombroides</i> | 1 | - | | - | 5.0 |
| Exocoetidae | 1 | <0.1 | | 1 (0.2) | 5.0 |
| <i>Exocoetus</i> spp. | 1 | - | | - | 5.0 |

APPENDIX 7. CONTINUED.

| | Number of Prey | % | Otolith or beak/ body length mean \pm SD (N) | Occurrence frequency % | Mass (g) |
|-----------------------------------|-------------------|------|--|---------------------------|-------------|
| Bregmacerotidae | 128 | 6.0 | | 72 (14.3) | 1,340.0 |
| <i>Bregmaceros bathymaster</i> | 117 | 5.5 | 1.44 \pm 0.35 (102) | 63 (12.5) | 1,248.1 |
| <i>Bregmaceros</i> sp. | 11 | 0.5 | | 9 (1.8) | 91.9 |
| Diretmidae | 23 | 1.1 | | 19 (3.8) | 123.4 |
| <i>Diretmus argenteus</i> | 14 | 0.7 | | 14 (2.8) | 70.4 |
| <i>Diretmus pauciradiatus</i> | 4 | 0.2 | | 3 (0.6) | 22.9 |
| <i>Diretmus</i> sp. | 5 | 0.2 | | 2 (0.4) | 30.1 |
| Melamphaidae | 77 | 3.6 | | 48 (9.5) | 681.4 |
| <i>Melamphaes longivelis</i> | 10 | 0.5 | | 7 (1.4) | 55.4 |
| <i>Melamphaes</i> sp. | 3 | 0.1 | | 3 (0.6) | 20.1 |
| <i>Scopeloberyx robusta</i> | 9 | 0.4 | | 8 (1.6) | 50.7 |
| <i>Scopeloberyx</i> sp. | 31 | 1.4 | | 16 (3.2) | 382.9 |
| Unidentified Melamphaidae | 24 | 1.1 | | 19 (3.8) | 192.4 |
| Percichthyidae | 7 | 0.3 | | 6 (1.2) | 30.0 |
| <i>Howella pammelas</i> | 7 | - | | - | 30.0 |
| Coryphaenidae | 2 | 0.1 | | 2 (0.4) | 10.0 |
| <i>Coryphaena</i> sp. | 1 | <0.1 | | 1 (0.2) | 5.0 |
| <i>Naucrates ductor</i> | 1 | <0.1 | | 1 (0.2) | 5.0 |
| Scombridae | 2 | 0.1 | | 1 (0.2) | 10.0 |
| <i>Euthynnus</i> sp. | 2 | - | | - | 10.0 |
| Gempylidae | 8 | 0.4 | | 8 (1.6) | 36.0 |
| <i>Pronethichthys prometheus</i> | 2 | 0.1 | | 2 (0.4) | 9.0 |
| <i>Gempylus serpens</i> | 4 | 0.2 | | 4 (0.8) | 18.0 |
| Unidentified Gempylidae | 2 | 0.1 | | 2 (0.2) | 9.0 |
| Nomeidae | 1 | <0.1 | | 1 (0.2) | 5.0 |
| <i>Cubiceps carnatus</i> | 1 | - | | - | 5.0 |
| Unidentified teleosts | 13 | 0.0 | | 12 (2.4) | 0.0 |
| Ommastrephidae | 19 | 0.9 | | 18 (3.6) | 20.0 |
| <i>Sthenoteuthis oualaniensis</i> | 4 | 0.2 | | 3 (0.6) | 15.0 |
| Unidentified Ommastrephidae | 15 | 0.7 | | 13 (2.6) | 5.0 |
| Onychoteuthidae | 9 | 0.4 | | 9 (1.8) | 7.5 |
| <i>Onychoteuthis banksii</i> | 9 | - | | - | 7.5 |
| Enoploteuthidae | 9 | 0.4 | | 7 (1.4) | 14.4 |
| <i>Pterygioteuthis giardi</i> | 4 | 0.2 | | 3 (0.6) | 0.0 |
| <i>Abraliopsis affinis</i> | 4 | 0.2 | | 4 (0.8) | 14.4 |
| <i>Abraliopsis</i> sp. | 1 | <0.1 | | 1 (0.2) | 0.0 |
| Octopoteuthidae | 5 | 0.2 | | 5 (1.0) | 9.0 |
| <i>Octopoteuthis deletron</i> | 1 | <0.1 | | 1 (0.2) | 4.5 |
| <i>Octopoteuthis</i> sp. | 4 | 0.2 | | 4 (0.8) | 4.5 |
| Histioteuthidae | 4 | 0.2 | | 4 (0.8) | 0.0 |
| <i>Histioteuthis</i> sp. | 2 | 0.1 | | 2 (0.2) | 0.0 |
| <i>Histioteuthis hoylei</i> | 1 | <0.1 | | 1 (0.2) | 0.0 |
| <i>Histioteuthis reversa</i> | 1 | <0.1 | | 1 (0.2) | 0.0 |
| Mastigoteuthidae | 2 | 0.1 | | 2 (0.4) | 0.0 |
| <i>Mastigoteuthis</i> sp. | 1 | <0.1 | | 1 (0.2) | 0.0 |
| <i>Idioteuthis</i> sp. | 1 | <0.1 | | 1 (0.2) | 0.0 |
| Chiroteuthidae | 5 | 0.2 | | 3 (0.6) | 0.0 |
| <i>Chiroteuthis calyx</i> | 2 | 0.1 | | 1 (0.2) | 0.0 |
| <i>Chiroteuthis</i> sp. | 1 | <0.1 | | 1 (0.2) | 0.0 |
| <i>Valbyteuthis</i> sp. | 2 | 0.1 | | 1 (0.2) | 0.0 |
| Cranchiidae | 29 | 1.3 | | 22 (4.4) | 36.7 |
| <i>Cranchia scabra</i> | 5 | 0.2 | | 4 (0.8) | 27.0 |
| <i>Leachia dislocata</i> | 12 | 0.6 | | 7 (1.4) | 4.2 |
| <i>Helicocranchia</i> sp. | 10 | 0.5 | | 9 (1.8) | 5.5 |
| Unidentified Cranchiidae | 2 | 0.1 | | 2 (0.4) | 0.0 |
| Argonautidae | 2 | 0.1 | | 1 (0.2) | 5.0 |
| <i>Argonauta argo</i> | 2 | - | | - | 5.0 |
| Unidentified cephalopods | 46 | 0.0 | | 45 (8.9) | 0.0 |
| Unidentified teuthoids | 3 | 0.0 | | 2 (0.4) | 0.0 |

APPENDIX 7. CONTINUED.

| | Number of Prey | % | Otolith or beak/ body length mean \pm SD (N) | Occurrence frequency % | Mass (g) |
|--------------------------------|-------------------|------|--|---------------------------|-------------|
| <i>Lepas</i> barnacle | 10 | 0.5 | | 1 (0.2) | 5.0 |
| <i>Lepas</i> sp. | 10 | - | | - | 5.0 |
| Crustacea | 108 | 5.0 | | 54 (10.7) | 12.96 |
| Unidentified crustacean | 14 | 0.6 | | 12 (2.4) | 1.14 |
| Euphausiid | 87 | 4.1 | 14.9 \pm 8.8 (75) | 40 (8.0) | 10.44 |
| Gammarid/hyperiid amphipod | 5 | 0.2 | | 3 (0.6) | 0.6 |
| Cymothoid, <i>Nerocila</i> sp. | 1 | <0.1 | | 1 (0.2) | 0.12 |
| Unidentified shrimp | 1 | <0.1 | | 1 (0.2) | 0.12 |
| Scyphozoan | 510 | 23.8 | | 134 (26.6) | 42.6 |
| <i>Porpida</i> sp. | 399 | 18.6 | 9.3 \pm 6.7 (277) | 92 (18.3) | 32.6 |
| <i>Veleva</i> sp. | 43 | 2.1 | 18.4 \pm 18.9 (42) | 17 (3.4) | 3.4 |
| <i>Physalia</i> sp. | 58 | 2.7 | 18.1 \pm 5.5 (43) | 48 (9.5) | 4.6 |
| Unidentified scyphozoan | 10 | 0.5 | | 2 (0.4) | 2.0 |
| Gerrid insect | 35 | 1.6 | | 19 (3.8) | 1.05 |
| <i>Halobates</i> (black body) | 14 | 0.7 | | 5 (1.0) | 0.42 |
| <i>Halobates</i> sp. | 21 | 1.0 | | 14 (2.8) | 0.63 |
| Nudibranch | 12 | 0.6 | | 3 (0.6) | 0.96 |
| Pelagic nudibranch | 12 | - | | - | 0.96 |
| Snail | 12 | 0.6 | | 7 (1.4) | 1.3 |
| <i>Janthina</i> sp. | 11 | 0.5 | | 6 (1.2) | 1.2 |
| Small snail | 1 | <0.1 | | 1 (0.2) | 0.1 |
| Pteropod | 1 | <0.1 | | 1 (0.2) | 0.06 |
| Pteropod sp. | 1 | - | | - | 0.06 |
| ^a Eggs | 1 | <0.1 | | 1 (0.2) | 4.2 |
| Other molluscs | 145 | 6.8 | | 2 (0.4) | 5.8 |
| Unidentified mollusc | 145 | - | | - | 5.8 |
| Bryzoan | 4 | 0.2 | | 2 (0.4) | 0.4 |
| Unidentified bryzoan | 4 | - | | - | 0.4 |

Notes: Sample size of storm-petrels, N = 503, with prey 433; prey sample, N = 2,141. Total length data are given in mm; body lengths given for misc. invertebrates only.

^a13 eggs in one clump.

APPENDIX 8. DIET OF WEDGE-RUMPED STORM-PETREL (*OCEANODROMA TETHYS*).

| | Number of | | Mass (g) | Prey occurrence | |
|--|-----------|------|----------|-----------------|------|
| | prey | % | | Frequency | % |
| Fishes | 723 | 84.3 | 80.1 | 281 | 68.4 |
| Cephalopods | 16 | 1.9 | 20.5 | 30 | 7.3 |
| Misc. invertebrates/eggs | 119 | 13.9 | 6.3 | 66 | 16.1 |
| Engraulidae | 1 | 0.1) | 5.0 | 1 | 0.2 |
| Unidentified Engraulidae | 1 | - | 5.0 | - | - |
| Argentinidae | 4 | 0.5 | 27.5 | 3 | 0.7 |
| <i>Microstoma microstoma</i> | 4 | - | 27.5 | - | - |
| Gonostomatidae | 1 | 0.1 | 4.5 | 1 | 0.2 |
| Unidentified Gonostomatidae | 1 | - | 4.5 | - | - |
| Sternoptychidae | 8 | 0.9 | 38.7 | 7 | 1.7 |
| <i>Sternoptyx obscura</i> | 7 | 0.8 | 33.9 | 6 | 1.5 |
| <i>Argyropelecus</i> sp. | 1 | 0.1 | 4.8 | 1 | 0.2 |
| Photichthyidae | 280 | 32.6 | 392.0 | 120 | 29.2 |
| <i>Viniguerria lucetia</i> | 244 | 28.4 | 341.6 | 91 | 22.1 |
| <i>Vinciguerria</i> sp. | 24 | 2.8 | 33.6 | 20 | 4.9 |
| <i>Ichthyococcus</i> sp. | 12 | 1.4 | 16.8 | 11 | 2.7 |
| Chauliodontidae | | | | | |
| <i>Chauliodus macouni</i> | 1 | 0.1 | 4.6 | 1 | 0.2 |
| Myctophidae | 352 | 41.0 | 2,094.0 | 191 | 46.5 |
| <i>Protomyctophum</i> sp. | 3 | 0.3 | 14.3 | 3 | 0.7 |
| <i>Electrona risso</i> | 3 | 0.3 | 16.2 | 3 | 0.7 |
| <i>Hygophum</i> sp. cf. <i>H. proximum</i> | 12 | 1.4 | 71.6 | 11 | 2.7 |
| <i>Hygophum</i> sp. | 11 | 1.3 | 55.9 | 11 | 2.7 |
| <i>Benthoosema panamense</i> | 2 | 0.2 | 30.1 | 1 | 0.2 |
| <i>Diogenichthys laternatus</i> | 72 | 8.4 | 570.2 | 51 | 12.4 |
| <i>Myctophum</i> sp. cf. <i>M. nitidulum</i> | 6 | 0.7 | 33.5 | 6 | 1.5 |
| <i>Myctophum</i> sp. cf. <i>M. spinosum</i> | 1 | 0.1 | 4.2 | 1 | 0.2 |
| <i>Myctophum aurolaternatum</i> | 36 | 4.2 | 191.0 | 29 | 7.1 |
| <i>Myctophum</i> sp. | 1 | 0.1 | 6.7 | 1 | 0.2 |
| <i>Symbolophorus evermanni</i> | 14 | 1.6 | 78.3 | 14 | 3.4 |
| <i>Ceratoscopelus warmingii</i> | 33 | 3.8 | 188.5 | 30 | 7.3 |
| <i>Lampanyctus nobilis</i> | 4 | 0.5 | 4.2 | 4 | 1.0 |
| <i>Lampanyctus parvicauda</i> | 5 | 0.6 | 27.0 | 5 | 1.2 |
| <i>Diaphus parri</i> | 19 | 2.2 | 98.6 | 19 | 4.6 |
| <i>Diaphus jenseni</i> | 3 | 0.3 | 14.4 | 2 | 0.5 |
| <i>Diaphus lutkeni</i> | 6 | 0.7 | 30.0 | 4 | 1.0 |
| <i>Diaphus schmidti</i> | 2 | 0.2 | 11.1 | 2 | 0.5 |
| <i>Diaphus</i> sp. cf. <i>D. mollis</i> | 28 | 3.3 | 134.4 | 4 | 1.0 |
| <i>Diaphus</i> spp. | 12 | 1.4 | 58.8 | 12 | 2.9 |
| <i>Notoscopelus resplendens</i> | 6 | 0.7 | 30.0 | 2 | 0.5 |
| <i>Gonichthys tenuiculus</i> | 8 | 0.9 | 47.6 | 8 | 2.0 |
| Unidentified Myctophidae | 65 | 7.5 | 377.4 | 58 | 14.1 |
| Exocoetidae | 1 | 0.1 | 5.0 | 1 | 0.2 |
| Unidentified Exocoetidae | 1 | - | 5.0 | - | - |
| Bregmacerotidae | 42 | 4.9 | 329.9 | 31 | 7.5 |
| <i>Bregmaceros bathymaster</i> | 36 | 4.2 | 283.9 | 27 | 6.6 |
| <i>Bregmaceros</i> sp. | 6 | 0.7 | 46.0 | 5 | 1.2 |
| Diretmidae | 2 | 0.2 | 9.0 | 2 | 0.5 |
| <i>Diretmus argenteus</i> | 2 | - | 9.0 | - | - |
| Melamphaidae | 25 | 2.9 | 139.9 | 20 | 4.9 |
| <i>Melamphaes longivellus</i> | 2 | 0.2 | 13.0 | 2 | 0.5 |
| <i>Melamphaes</i> sp. | 1 | 0.1 | 4.8 | 1 | 0.2 |
| <i>Scopeloberyx</i> sp. | 11 | 1.3 | 62.4 | 9 | 2.2 |
| Unidentified Melamphaidae | 11 | 1.3 | 59.7 | 8 | 2.0 |
| Gempylidae | 6 | 0.7 | 30.0 | 6 | 1.5 |
| <i>Nesiarchus nasutus</i> | 1 | 0.1 | 5.0 | 1 | 0.2 |
| <i>Gempylus serpens</i> | 1 | 0.1 | 5.0 | 1 | 0.2 |
| Unidentified Gempylidae | 4 | 0.5 | 20.0 | 4 | 1.0 |
| Unidentifiable teleosts | 20 | 0.0 | 0.0 | 19 | 4.6 |

APPENDIX 8. CONTINUED.

| | Number of | | Mass (g) | Prey occurrence | |
|-----------------------------------|-----------|------|----------|-----------------|------|
| | prey | % | | Frequency | % |
| Ommastrephidae | 4 | 0.5 | 4.0 | 4 | 1.0 |
| <i>Sthenoteuthis oualaniensis</i> | 3 | 0.3 | 0.0 | 3 | 0.7 |
| Unidentified Ommastrephidae | 1 | 0.1 | 4.0 | 1 | 0.2 |
| Onychoteuthidae | 2 | 0.2 | 0.0 | 2 | 0.2 |
| <i>Onychoteuthis banksii</i> | 2 | - | 0.0 | - | - |
| Enoploteuthidae | 3 | 0.3 | 4.8 | 3 | 0.7 |
| <i>Abraliopsis affinis</i> | 3 | - | 4.8 | - | - |
| Octopoteuthidae | 1 | 0.1 | 0.0 | 1 | 0.2 |
| <i>Octopoteuthis</i> sp. | 1 | - | 0.0 | - | - |
| Mastigoteuthidae | 1 | 0.1 | 0.0 | 1 | 0.2 |
| <i>Mastigoteuthis</i> sp. | 1 | - | 0.0 | - | - |
| Chiroteuthidae | 1 | 0.1 | 0.0 | 1 | 0.2 |
| <i>Chiroteuthis</i> sp. | 1 | - | 0.0 | - | - |
| Cranchiidae | 3 | 0.3 | 11.7 | 3 | 0.7 |
| <i>Cranchia scabra</i> | 1 | 0.1 | 7.5 | 1 | 0.2 |
| <i>Leachia dislocata</i> | 1 | 0.1 | 4.2 | 1 | 0.2 |
| <i>Galiteuthis pacifica</i> | 1 | 0.1 | 0.0 | 1 | 0.2 |
| Octopods | 1 | 0.1 | 0.0 | 1 | 0.2 |
| Ocythoidae | 1 | 0.1 | 0.0 | 1 | 0.2 |
| <i>Ocythoe tuberculata</i> | 1 | - | 0.0 | - | - |
| Unidentified cephalopods | 9 | 0.0 | 0.0 | 9 | 2.2 |
| Unidentified teuthoids | 5 | 0.0 | 0.0 | 5 | 1.2 |
| Crustacea | 94 | 11.0 | 5.5 | 51 | 12.4 |
| Unidentified crustacean | 5 | 0.6 | 0.3 | 5 | 1.2 |
| Euphausiid | 69 | 8.0 | 4.1 | 32 | 7.8 |
| Gammarid/hyperiid amphipod | 3 | 0.3 | 0.12 | 3 | 0.7 |
| Unidentified medium shrimp | 12 | 1.4 | 0.7 | 9 | 2.2 |
| Unidentified large shrimp | 3 | 0.3 | 0.18 | 3 | 0.7 |
| Small unidentified isopod | 1 | 0.1 | 0.04 | 1 | 0.2 |
| Mysid sp. | 1 | 0.1 | 0.03 | 1 | 0.2 |
| Scyphozoan | 3 | 0.3 | 0.14 | 3 | 0.7 |
| <i>Porpida</i> sp. | 1 | 0.1 | 0.04 | 1 | 0.2 |
| <i>Veleva</i> sp. | 1 | 0.1 | 0.05 | 1 | 0.2 |
| <i>Physalia</i> sp. | 1 | 0.1 | 0.05 | 1 | 0.2 |
| Gerrid insect | 20 | 2.3 | 0.6 | 13 | 3.2 |
| <i>Halobates</i> (black body) | 1 | 0.1 | 0.03 | 1 | 0.2 |
| <i>Halobates</i> sp. | 19 | 2.2 | 0.57 | 12 | 2.9 |
| Snail | 1 | 0.1 | 0.05 | 1 | 0.2 |
| Small snail | 1 | - | 0.05 | - | - |
| ^a Eggs | 1 | 0.1 | 10.0 | 1 | 0.2 |

Note: Sample size of storm-petrels, N = 411, with prey 308; prey sample, N = 858.

^aOne bunch of 500 eggs.

APPENDIX 9. DIET OF MARKHAM'S STORM-PETREL (*OCEANODROMA MARKHAMI*).

| | Number of | | Mass (g) | Prey occurrence | |
|---------------------------------|-----------|------|----------|-----------------|------|
| | prey | % | | Frequency | % |
| Fishes | 20 | 57.1 | 55.1 | 9 | 60.0 |
| Cephalopods | 2 | 5.7 | 4.8 | 5 | 33.3 |
| Misc. invertebrates/eggs | 13 | 37.1 | 3.9 | 9 | 60.0 |
| Photichthyidae | 12 | 34.3 | 16.8 | 5 | 33.3 |
| <i>Viniguerria lucetia</i> | 12 | - | 16.8 | - | - |
| Myctophidae | 8 | 22.9 | 38.3 | 3 | 20.0 |
| <i>Diogenichthys laternatus</i> | 7 | 20.0 | 32.9 | 3 | 20.0 |
| <i>Ceratoscopelus warmingii</i> | 1 | 2.9 | 5.5 | 1 | 6.7 |
| Cranchiidae | 2 | 5.7 | 4.8 | 2 | 13.3 |
| <i>Leachia dislocata</i> | 1 | 2.9 | 4.8 | 1 | 6.7 |
| <i>Galiteuthis pacifica</i> | 1 | 2.9 | 0.0 | 1 | 6.7 |
| Unidentified cephalopods | 4 | 0.0 | 0.0 | 3 | 20.0 |
| Crustacea | 2 | 5.7 | 0.24 | 2 | 13.3 |
| Euphausiid | 1 | 2.9 | 0.06 | 1 | 6.7 |
| Unidentified medium shrimp | 1 | 2.9 | 0.18 | 1 | 6.7 |
| Scyphozoan | 4 | 10.3 | 0.2 | 3 | 20.0 |
| <i>Porpida</i> sp. | 2 | 5.7 | 0.1 | 1 | 6.7 |
| <i>Veleva</i> sp. | 1 | 2.9 | 0.05 | 1 | 6.7 |
| <i>Physalia</i> sp. | 1 | 2.9 | 0.05 | 1 | 6.7 |
| Insect | 4 | 11.4 | 0.12 | 3 | 20.0 |
| <i>Halobates</i> sp. | 4 | - | 0.12 | - | - |
| Snail | 2 | 5.7 | 0.36 | 2 | 13.3 |
| <i>Janthina</i> sp. | 2 | - | 0.36 | - | - |
| ^a Eggs | 1 | 2.9 | 3.0 | 1 | 6.7 |

Note: Sample size of storm-petrels, N = 15, with prey 12; prey sample, N = 35.

^aOne clump of 150 eggs.

APPENDIX 10. DIET OF STEJNEGER'S PETREL (*PTERODROMA LONGIROSTRIS*).

| | Number of | | Mass (g) | Prey occurrence | |
|--|-----------|------|----------|-----------------|------|
| | prey | % | | Frequency | % |
| Fishes | 231 | 60.2 | 1,633.8 | 40 | 83.3 |
| Cephalopods | 30 | 7.8 | 61.1 | 18 | 37.5 |
| Misc. Invertebrates/eggs | 120 | 31.3 | 17.2 | 26 | 54.2 |
| Bathylagidae. | 1 | 0.3 | 4.2 | 1 | 2.1 |
| <i>Bathylagus</i> sp. | 1 | - | 4.2 | - | - |
| Gonostomatidae | 4 | 1.0 | 22.1 | 3 | 6.3 |
| <i>Diplophos taenia</i> | 3 | 0.8 | 17.3 | 2 | 4.2 |
| Unidentified Gonostomatidae | 1 | 0.3 | 4.8 | 1 | 2.1 |
| Sternoptychidae | 8 | 2.1 | 45.4 | 7 | 14.6 |
| <i>Sternoptyx diaphana</i> | 1 | 0.3 | 6.6 | 1 | 2.1 |
| <i>Argyropelecus sladeni</i> | 4 | 1.0 | 23.1 | 4 | 8.3 |
| <i>Argyropelecus</i> cf. <i>lychnus</i> | 2 | 0.5 | 9.7 | 1 | 2.1 |
| <i>Argyropelecus</i> sp. | 1 | 0.3 | 6.0 | 1 | 2.1 |
| Photichthyidae | 28 | 7.3 | 39.2 | 16 | 33.3 |
| <i>Viniguerria lucetia</i> | 21 | 5.5 | 29.4 | 8 | 16.7 |
| <i>Vinciguerria</i> sp. | 2 | 0.5 | 2.8 | 2 | 4.2 |
| <i>Woodsia nonsuchae</i> | 1 | 0.3 | 1.4 | 1 | 2.1 |
| <i>Ichthyococcus</i> sp. | 5 | 1.3 | 7.0 | 5 | 10.4 |
| Chauliodontidae | 1 | 0.3 | 6.6 | 1 | 2.1 |
| <i>Chauliodus macouni</i> | 1 | - | 6.6 | - | - |
| Myctophidae | 132 | 34.4 | 1,075.2 | 35 | 72.9 |
| <i>Electrona risso</i> | 1 | 0.3 | 4.2 | 1 | 2.1 |
| <i>Hygophum</i> sp. cf. <i>H. proximum</i> | 3 | 0.8 | 21.6 | 2 | 4.2 |
| <i>Hygophum</i> sp. | 1 | 0.3 | 4.8 | 1 | 2.1 |
| <i>Diogenichthys laternatus</i> | 9 | 2.3 | 73.4 | 6 | 12.5 |
| <i>Myctophum aurolaternatum</i> | 17 | 4.4 | 103.4 | 11 | 22.9 |
| <i>Myctophum</i> sp. | 3 | 0.8 | 13.8 | 2 | 4.2 |
| <i>Symbolophorus evermanni</i> | 9 | 2.3 | 45.9 | 7 | 14.6 |
| <i>Lampadena luminosa</i> | 2 | 0.5 | 11.9 | 1 | 2.1 |
| <i>Ceratoscopelus warmingii</i> | 36 | 9.4 | 349.3 | 18 | 37.5 |
| <i>Lampanyctus nobilis</i> | 3 | 0.8 | 21.0 | 2 | 4.2 |
| <i>Lampanyctus parvicauda</i> | 1 | 0.3 | 6.0 | 1 | 2.1 |
| <i>Lampanyctus idostigma</i> | 1 | 0.3 | 4.8 | 1 | 2.1 |
| <i>Diaphus parri</i> | 17 | 4.4 | 178.5 | 11 | 22.9 |
| <i>Diaphus lutkeni</i> | 4 | 1.0 | 33.2 | 3 | 6.3 |
| <i>Diaphus schmidti</i> | 2 | 0.5 | 8.8 | 2 | 4.2 |
| <i>Diaphus</i> sp. | 2 | 0.5 | 9.4 | 2 | 4.2 |
| Unidentified Myctophidae | 21 | 5.5 | 208.6 | 14 | 29.2 |
| Paralepididae | 1 | 0.3 | 3.9 | 1 | 2.1 |
| Unidentified Paralepididae | 1 | - | 3.9 | - | - |
| Exocoetidae | 4 | 1.0 | 40.0 | 1 | 2.1 |
| <i>Exocoetus</i> spp. | 4 | - | 40.0 | - | - |
| Bregmacerotidae | 26 | 6.8 | 215.4 | 15 | 31.3 |
| <i>Bregmaceros bathymaster</i> | 22 | 5.7 | 187.1 | 11 | 22.9 |
| <i>Bregmaceros</i> sp. | 4 | 1.0 | 27.7 | 4 | 8.3 |
| Diretmidae | 13 | 3.4 | 113.3 | 7 | 14.6 |
| <i>Diretmus argenteus</i> | 12 | 3.1 | 104.4 | 7 | 14.6 |
| <i>Diretmus pauciradiatus</i> | 1 | 0.3 | 8.9 | 1 | 2.1 |
| Melamphaidae | 11 | 2.9 | 53.5 | 7 | 14.6 |
| <i>Melamphaes longirostris</i> | 5 | 1.3 | 24.9 | 4 | 8.3 |
| <i>Scopeloberyx robusta</i> | 2 | 0.5 | 9.6 | 1 | 2.1 |
| <i>Scopeloberyx</i> sp. | 1 | 0.3 | 4.6 | 1 | 2.1 |
| Unidentified Melamphaidae | 3 | 0.8 | 14.4 | 3 | 6.3 |
| Scombridae | 2 | 0.5 | 10.0 | 1 | 2.1 |
| <i>Euthynnus</i> sp. | 2 | - | 10.0 | - | - |
| Gempylidae | 3 | 0.8 | 5.0 | 1 | 2.1 |
| Unidentified Gempylidae | 3 | - | 5.0 | - | - |
| Unidentified teleosts | 2 | 0.5 | 0.0 | 2 | 4.2 |
| Ommastrephidae | 12 | 3.1 | 32.0 | 4 | 8.3 |
| <i>Sthenoteuthis oualaniensis</i> | 7 | 1.8 | 8.0 | 2 | 4.2 |

APPENDIX 10. CONTINUED.

| | Number of | | Mass (g) | Prey occurrence | |
|---------------------------------|-----------|------|----------|-----------------|------|
| | prey | % | | Frequency | % |
| <i>Ornithoteuthis volatilis</i> | 3 | 0.8 | 16.0 | 1 | 2.1 |
| Unidentified Ommastrephidae | 2 | 0.5 | 8.0 | 2 | 4.2 |
| Onychoteuthidae | 1 | 0.3 | 0.0 | 1 | 2.1 |
| <i>Onychoteuthis banksii</i> | 1 | - | 0.0 | - | - |
| Enoploteuthidae | 1 | 0.3 | 4.8 | 1 | 2.1 |
| <i>Abrialopsis</i> sp. | 1 | - | 4.8 | - | - |
| Octopoteuthidae | 1 | 0.3 | 0.0 | 1 | 2.1 |
| <i>Octopoteuthis</i> sp. | 1 | - | 0.0 | - | - |
| Chiroteuthidae | 1 | 0.3 | 12.0 | 1 | 2.1 |
| <i>Chiroteuthis</i> sp. A | 1 | - | 12.0 | - | - |
| Cranchiidae | 2 | 0.5 | 4.8 | 2 | 4.2 |
| <i>Megalocranchia</i> sp. | 1 | 0.3 | 0.0 | 1 | - |
| <i>Galiteuthis pacifica</i> | 1 | 0.3 | 4.8 | 1 | - |
| Octopoda | 1 | 0.3 | 7.5 | 1 | 2.1 |
| Bolitaneidae | 1 | 0.3 | 7.5 | 1 | - |
| <i>Japetella heathi</i> | 1 | - | 7.5 | 1 | - |
| Unidentified Cephalopods | 5 | 0.0 | 0.0 | 5 | 10.4 |
| Unidentified Teuthoids | 2 | 0.0 | 0.0 | 2 | 4.2 |
| Lepas barnacle | 3 | 0.8 | 0.3 | 3 | 6.3 |
| <i>Lepas</i> sp. | 3 | - | 0.3 | - | - |
| Crustacea | 11 | 2.9 | 1.14 | 6 | 12.5 |
| Unidentified crustacean | 2 | 0.5 | 0.24 | 2 | 4.2 |
| Euphausiid | 3 | 0.8 | 0.3 | 2 | 4.2 |
| Unidentified crab megalops | 2 | 0.5 | 0.2 | 1 | 2.1 |
| Unidentified medium shrimp | 4 | 1.0 | 0.4 | 2 | 4.2 |
| Scyphozoan | 101 | 26.3 | 10.5 | 20 | 41.7 |
| <i>Porpida</i> sp. | 90 | 23.4 | 9.0 | 18 | 37.5 |
| <i>Veleva</i> sp. | 1 | 0.3 | 0.1 | 1 | 2.1 |
| <i>Physalia</i> sp. | 10 | 2.6 | 1.4 | 4 | 8.3 |
| Gerrid insect | 1 | 0.3 | 0.03 | 1 | 2.1 |
| <i>Halobates</i> sp. | 1 | - | 0.03 | - | - |
| Snail | 1 | 0.3 | 0.12 | 1 | 2.1 |
| <i>Janthina</i> sp. | 1 | - | 0.12 | - | - |
| Pteropod | 2 | 0.5 | 0.1 | 1 | 2.1 |
| Pteropod sp. | 2 | - | 0.1 | - | - |
| ^a Eggs | 3 | 0.8 | 5.3 | 3 | 6.3 |
| Exocoetid eggs | 2 | 0.5 | 3.3 | 2 | 4.2 |
| Unidentified eggs | 1 | 0.3 | 2.0 | 1 | 2.1 |

Note: Sample size of petrels, N = 48, with prey 46; prey sample, N = 384.

^a Three clumps of eggs: exocoetid eggs, N = 75, 7; unidentified eggs, N = 50.

APPENDIX 11. DIET OF DEFILLIPPE'S PETREL (*PTERODROMA DEFILIPPIANA*).

| | Number of | | Mass (g) | Prey occurrence | |
|---------------------------------|-----------|------|----------|-----------------|-------|
| | prey | % | | Frequency | % |
| Fishes | 92 | 78.0 | 292.4 | 7 | 100.0 |
| Cephalopods | 1 | 0.8 | 16.8 | 4 | 57.1 |
| Invertebrates | 25 | 21.2 | 1.3 | 6 | 85.7 |
| Sternoptychidae | 2 | 1.7 | 9.8 | 1 | 14.3 |
| <i>Sternoptyx obscura</i> | 2 | - | 9.8 | - | - |
| Photichthyidae | 48 | 40.7 | 67.2 | 5 | 71.4 |
| <i>Vinciguerria lucetia</i> | 48 | - | 67.2 | - | - |
| Myctophidae | 38 | 32.2 | 181.8 | 7 | 100.0 |
| <i>Diogenichthys laternatus</i> | 27 | 22.9 | 116.1 | 4 | 57.1 |
| <i>Ceratoscopelus warmingii</i> | 2 | 1.7 | 10.3 | 2 | 28.6 |
| <i>Diaphus schmidti</i> | 4 | 3.4 | 31.4 | 2 | 28.6 |
| Unidentified Myctophidae | 5 | 4.2 | 24.0 | 3 | 42.9 |
| Bregmacerotidae | 4 | 4.2 | 33.6 | 2 | 28.6 |
| <i>Bregmaceros bathymaster</i> | 4 | - | 33.6 | - | - |
| Pholidoteuthidae | 1 | 0.8 | 12.0 | 1 | 14.3 |
| <i>Pholidoteuthis boschmai</i> | 1 | - | 12.0 | - | - |
| Octopoda | 1 | 0.8 | 4.8 | 1 | 14.3 |
| Bolitaneidae | 1 | 0.8 | 4.8 | 1 | 14.3 |
| <i>Japetella heathi</i> | 1 | - | 4.8 | - | - |
| Unidentified Teuthoids | 4 | 0.0 | 0.0 | 2 | 28.6 |
| <i>Lepas</i> barnacle | 4 | 3.4 | 0.4 | 1 | 14.3 |
| <i>Lepas</i> sp. | 4 | - | 0.4 | - | - |
| Crustacea | 1 | 0.8 | 0.15 | 1 | 14.3 |
| Crab megalops | 1 | - | 0.15 | - | - |
| Gerrid insect | 18 | 15.3 | 0.54 | 3 | 42.9 |
| <i>Halobates</i> sp. | 18 | - | 0.54 | - | - |
| Snail | 2 | 1.7 | 0.24 | 2 | 28.6 |
| <i>Janthina</i> sp. | 2 | - | 0.24 | - | - |

Note: Sample size of petrels, N = 7, all with prey; prey sample, N = 118.

APPENDIX 12. DIET OF WHITE-WINGED PETREL (*PTERODROMA LEUCOPTERA*).

| | Number of | | Mass (g) | Prey occurrence | |
|--|-----------|------|----------|-----------------|------|
| | prey | % | | Frequency | % |
| Fishes | 797 | 78.4 | 5,502.8 | 128 | 92.1 |
| Cephalopods | 133 | 13.1 | 627.7 | 76 | 54.7 |
| Misc. invertebrates | 87 | 8.6 | 8.7 | 22 | 15.8 |
| Argentinidae | 3 | 0.3 | 13.8 | 2 | 1.4 |
| <i>Microstoma microstoma</i> | 3 | – | 13.8 | – | – |
| Gonostomatidae | 2 | 0.2 | 8.4 | 2 | 1.4 |
| <i>Diplophos taenia</i> | 1 | 0.1 | 4.2 | 1 | 0.7 |
| Unidentified Gonostomatidae | 1 | 0.1 | 4.2 | 1 | 0.7 |
| Sternoptychidae | 30 | 2.9 | 176.0 | 25 | 18.0 |
| <i>Sternoptyx obscura</i> | 13 | 1.3 | 76.7 | 12 | 8.6 |
| <i>Argyropelecus sladeni</i> | 10 | 1.0 | 56.9 | 8 | 5.7 |
| <i>Argyropelecus</i> sp. cf. <i>A. lychnus</i> | 2 | 0.2 | 15.3 | 2 | 1.4 |
| <i>Argyropelecus</i> sp. | 5 | 0.5 | 27.1 | 5 | 3.6 |
| Photichthyidae | 191 | 18.8 | 267.4 | 40 | 28.8 |
| <i>Viniguerria lucetia</i> | 140 | 13.8 | 196.0 | 26 | 18.7 |
| <i>Vinciguerria</i> sp. | 44 | 4.3 | 61.6 | 12 | 8.6 |
| <i>Ichthyococcus</i> sp. | 7 | 0.7 | 9.8 | 6 | 4.3 |
| Myctophidae | 370 | 36.4 | 3,322.6 | 110 | 79.1 |
| <i>Electrona risso</i> | 7 | 0.7 | 39.4 | 7 | 5.0 |
| <i>Hygophum</i> sp. cf. <i>H. proximum</i> | 5 | 0.5 | 24.7 | 5 | 3.6 |
| <i>Hygophum</i> sp. | 6 | 0.6 | 28.6 | 5 | 3.6 |
| <i>Diogenichthys laternatus</i> | 54 | 5.3 | 1,028.6 | 28 | 20.1 |
| <i>Myctophum</i> sp. cf. <i>M. nitidulum</i> | 3 | 0.3 | 16.8 | 3 | 2.2 |
| <i>Myctophum</i> sp. cf. <i>M. lychnobium</i> | 1 | 0.1 | 4.6 | 1 | 0.7 |
| <i>Myctophum aurolaternatum</i> | 36 | 3.5 | 260.5 | 23 | 16.5 |
| <i>Myctophum</i> sp. | 4 | 0.4 | 20.1 | 3 | 2.2 |
| <i>Symbolophorus evermanni</i> | 18 | 1.8 | 100.2 | 15 | 10.8 |
| <i>Ceratoscopelus warmingii</i> | 54 | 5.3 | 356.3 | 54 | 38.8 |
| <i>Lampanyctus nobilis</i> | 9 | 0.9 | 44.2 | 9 | 6.5 |
| <i>Lampanyctus parvicauda</i> | 6 | 0.6 | 28.5 | 6 | 4.3 |
| <i>Lampanyctus idostigma</i> | 1 | 0.1 | 4.6 | 1 | 0.7 |
| <i>Diaphus parri</i> | 37 | 3.6 | 405.1 | 23 | 16.5 |
| <i>Diaphus jenseni</i> | 5 | 0.5 | 35.6 | 4 | 2.9 |
| <i>Diaphus lutkeni</i> | 10 | 1.0 | 64.4 | 5 | 3.6 |
| <i>Diaphus garmani</i> | 6 | 0.6 | 73.4 | 4 | 2.9 |
| <i>Diaphus schmidti</i> | 7 | 0.7 | 31.7 | 6 | 4.3 |
| <i>Diaphus</i> spp. | 6 | 0.6 | 31.9 | 5 | 3.6 |
| <i>Notoscopelus resplendens</i> | 5 | 0.5 | 44.1 | 4 | 2.9 |
| <i>Gonichthys tenuiculus</i> | 2 | 0.2 | 10.0 | 2 | 1.4 |
| Unidentified Myctophidae | 88 | 8.7 | 669.3 | 55 | 39.6 |
| Paralepididae | 1 | 0.1 | 6.6 | 1 | 0.7 |
| Unidentified Paralepididae | 1 | – | 6.6 | – | – |
| Exocoetidae | 51 | 5.0 | 510.0 | 29 | 20.9 |
| <i>Exocoetus</i> spp. | 17 | 1.7 | 170.0 | 8 | 5.7 |
| <i>Cypselurus</i> sp. | 3 | 0.3 | 30.0 | 2 | 1.4 |
| unidentified Exocoetidae | 31 | 3.0 | 310.0 | 21 | 15.1 |
| Bregmacerotidae | 53 | 5.2 | 509.8 | 31 | 22.3 |
| <i>Bregmaceros bathymaster</i> | 36 | 3.5 | 384.2 | 18 | 12.9 |
| <i>Bregmaceros</i> sp. | 17 | 1.7 | 125.6 | 13 | 9.4 |
| Diretmidae | 42 | 3.8 | 22 | 22 | 15.8 |
| <i>Diretmus argenteus</i> | 36 | 3.5 | 322.4 | 19 | 13.7 |
| <i>Diretmus pauciradiatus</i> | 5 | 0.5 | 24.7 | 3 | 2.2 |
| <i>Diretmus</i> sp. | 1 | 0.1 | 4.8 | 1 | 0.7 |
| Melamphaidae | 45 | 4.4 | 297.0 | 29 | 20.9 |
| <i>Melamphaes longivelis</i> | 1 | 0.1 | 4.8 | 1 | 0.7 |
| <i>Melamphaes</i> sp. | 6 | 0.6 | 37.3 | 4 | 2.9 |
| <i>Scopeloberyx robusta</i> | 7 | 0.7 | 48.2 | 4 | 2.9 |
| <i>Scopeloberyx</i> sp. | 21 | 2.1 | 149.4 | 15 | 10.8 |
| <i>Poromitra</i> sp. | 1 | 0.1 | 5.5 | 1 | 0.7 |
| Unidentified Melamphaidae | 9 | 0.9 | 51.8 | 7 | 5.0 |
| Trachipteridae | 2 | 0.2 | 9.7 | 2 | 1.4 |
| <i>Trachipterus</i> sp. | 2 | – | 9.7 | – | – |
| Percichthyidae | 2 | 0.2 | 9.6 | 1 | 0.7 |
| <i>Howella</i> sp. cf. <i>H. brodei</i> | 2 | – | 9.6 | – | – |

APPENDIX 12. CONTINUED.

| | Number of | | Mass (g) | Prey occurrence | |
|---|-----------|-----|----------|-----------------|------|
| | prey | % | | Frequency | % |
| Coryphaenidae | 1 | 0.1 | 5.0 | 1 | 0.7 |
| <i>Coryphaena</i> sp. | 1 | - | 5.0 | - | - |
| Gempylidae | 1 | 0.1 | 5.0 | 1 | 0.7 |
| <i>Pronethichthys prometheus</i> | 1 | - | 5.0 | - | - |
| Nomeidae | 3 | 0.3 | 10.0 | 2 | 1.4 |
| <i>Cubiceps carnatus</i> | 3 | - | 10.0 | - | - |
| Unidentified teleosts | 11 | 0.0 | 0.0 | 11 | 7.9 |
| Ommastrephidae | 70 | 6.3 | 280.0 | 23 | 16.5 |
| <i>Sthenoteuthis oualaniensis</i> | 47 | 4.2 | 264.0 | 15 | 10.8 |
| Unidentified Ommastrephidae | 23 | 2.1 | 16.0 | 11 | 7.9 |
| Onychoteuthidae | 27 | 2.4 | 112.0 | 17 | 12.2 |
| <i>Onychoteuthis banksii</i> | 27 | - | 112.0 | - | - |
| Enoploteuthidae | 8 | 0.7 | 38.5 | 7 | 5.0 |
| <i>Pterygioteuthis giardi</i> | 2 | 0.2 | 9.7 | 2 | 1.4 |
| <i>Abrialopsis affinis</i> | 1 | 0.1 | 4.8 | 1 | 0.7 |
| <i>Abrialopsis</i> sp. | 4 | 0.4 | 19.2 | 3 | 2.2 |
| <i>Ancistrocheirus lesueurii</i> | 1 | 0.1 | 4.8 | 1 | 0.7 |
| Octopoteuthidae | 4 | 0.4 | 24.0 | 4 | 2.9 |
| <i>Octopoteuthis deletron</i> | 1 | 0.1 | 12.0 | 1 | 0.7 |
| <i>Octopoteuthis</i> sp. | 3 | 0.3 | 12.0 | 3 | 2.2 |
| Histioteuthidae | 11 | 1.0 | 72.0 | 9 | 6.5 |
| <i>Histioteuthis</i> sp. | 6 | 0.5 | 36.0 | 5 | 3.6 |
| <i>Histioteuthis</i> sp. cf. <i>H. hoylei</i> | 2 | 0.2 | 12.0 | 2 | 1.4 |
| <i>Histioteuthis</i> sp. B | 1 | 0.1 | 12.0 | 1 | 0.7 |
| <i>Histioteuthis corona</i> | 2 | 0.2 | 12.0 | 1 | 0.7 |
| Bathyteuthidae | 1 | 0.1 | 12.0 | 1 | 0.7 |
| <i>Bathyteuthis bacidifera</i> | 1 | - | 12.0 | - | - |
| Chiroteuthidae | 1 | 0.1 | 12.0 | 1 | 0.7 |
| <i>Chiroteuthis</i> sp. | 1 | - | 12.0 | - | - |
| Cranchiidae | 9 | 0.8 | 42.0 | 8 | 5.8 |
| <i>Cranchia scabra</i> | 2 | 0.2 | 24.0 | 2 | 1.4 |
| <i>Liocranchia reinhardti</i> | 1 | 0.1 | 12.0 | 1 | 0.7 |
| <i>Helicocranchia</i> sp. | 1 | 0.1 | 0.0 | 1 | 0.7 |
| <i>Megalocranchia</i> sp. | 1 | 0.1 | 0.0 | 1 | 0.7 |
| <i>Galiteuthis pacifica</i> | 2 | 0.2 | 6.0 | 2 | 1.4 |
| Unidentified Cranchiidae | 2 | 0.2 | 0.0 | 2 | 1.4 |
| Octopoda | 3 | 0.3 | 25.6 | 3 | 2.2 |
| Tremoctopodidae | 1 | 0.3 | 6.0 | 1 | 0.7 |
| <i>Tremoctopus violaceus</i> | 1 | - | 6.0 | - | - |
| Ocythoidae | 1 | 0.1 | 4.8 | 1 | 0.7 |
| <i>Ocythoe tuberculata</i> | 1 | - | 4.8 | - | - |
| Bolitaenidae | 1 | 0.1 | 4.8 | 1 | 0.7 |
| <i>Japetella heathi</i> | 1 | - | 4.8 | - | - |
| Alloposidae | 1 | 0.1 | 4.8 | 1 | 0.7 |
| <i>Alloposus mollis</i> | 1 | - | 4.8 | - | 0.7 |
| Unidentified Cephalopods | 16 | 0.0 | 0.0 | 13 | 9.4 |
| Unidentified Teuthoids | 68 | 0.0 | 0.0 | 15 | 10.8 |
| Lepas barnacle | 12 | 1.2 | 1.2 | 1 | 0.7 |
| <i>Lepas</i> sp. | 12 | - | 1.2 | - | - |
| Crustacea | 16 | 1.6 | 1.9 | 13 | 9.4 |
| Unidentified crustacean | 6 | 0.6 | 0.7 | 6 | 4.3 |
| Euphausiid | 4 | 0.4 | 0.5 | 2 | 1.4 |
| Gammarid/hyperiid amphipod | 2 | 0.2 | 0.2 | 1 | 0.7 |
| Unidentified medium shrimp | 3 | 0.3 | 0.4 | 3 | 2.2 |
| Unidentified large shrimp | 1 | 0.1 | 0.1 | 1 | 0.7 |
| Scyphozoan | 52 | 5.1 | 5.2 | 7 | 5.0 |
| <i>Porpida</i> sp. | 52 | - | 5.2 | - | - |
| Gerrid insect | 6 | 0.6 | 0.2 | 3 | 2.2 |
| <i>Halobates</i> sp. | 6 | - | 0.2 | - | - |
| Snail | 1 | 0.1 | 0.2 | 1 | 0.7 |
| Small snail | 1 | - | 0.2 | - | - |

Note: Sample size of petrels, N = 139, with prey 135; prey sample, N = 1,017.

APPENDIX 13. DIET OF BLACK-WINGED PETREL (*PTERODROMA NIGRIPENNIS*).

| | Number of | | Mass (g) | Prey occurrence | |
|--|-----------|------|----------|-----------------|------|
| | prey | % | | Frequency | % |
| Fishes | 573 | 87.3 | 3,673.9 | 80 | 90.9 |
| Cephalopods | 77 | 11.7 | 285.7 | 40 | 45.5 |
| Misc. invertebrates/eggs | 6 | 0.9 | 4.0 | 6 | 6.8 |
| Engraulidae | 1 | 0.1 | 5.0 | 1 | 1.1 |
| <i>Engraulis ringens</i> | 1 | — | 5.0 | — | — |
| Argentinidae | 1 | 0.1 | 4.8 | 1 | 1.1 |
| <i>Nansenia</i> sp. | 1 | — | 4.8 | — | — |
| Sternoptychidae | 32 | 4.9 | 187.4 | 15 | 16.9 |
| <i>Sternoptyx obscura</i> | 21 | 3.2 | 123.9 | 7 | 7.9 |
| <i>Argyropelecus sladeni</i> | 5 | 0.8 | 27.4 | 5 | 5.6 |
| <i>Argyropelecus</i> sp. cf. <i>A. lychnus</i> | 1 | 0.1 | 6.6 | 1 | 1.1 |
| <i>Argyropelecus</i> sp. | 5 | 0.7 | 29.5 | 3 | 3.4 |
| Photichthyidae | 86 | 13.1 | 120.4 | 29 | 32.6 |
| <i>Viniguerria lucetia</i> | 68 | 10.4 | 95.2 | 20 | 22.5 |
| <i>Vinciguerria</i> sp. | 11 | 1.7 | 15.4 | 6 | 6.7 |
| <i>Ichthyococcus</i> sp. | 7 | 1.1 | 9.8 | 6 | 6.7 |
| Myctophidae | 316 | 48.2 | 2,272.7 | 74 | 83.1 |
| <i>Protomyctophum</i> sp. | 3 | 0.5 | 16.1 | 3 | 3.4 |
| <i>Electrona risso</i> | 6 | 0.9 | 30.0 | 5 | 5.6 |
| <i>Hygophum</i> sp. cf. <i>H. proximum</i> | 11 | 1.7 | 66.1 | 10 | 11.2 |
| <i>Hygophum</i> sp. | 6 | 0.9 | 37.1 | 5 | 5.6 |
| <i>Diogenichthys laternatus</i> | 22 | 3.4 | 115.9 | 9 | 10.1 |
| <i>Myctophum</i> sp. cf. <i>M. nitidulum</i> | 7 | 1.1 | 33.4 | 5 | 5.6 |
| <i>Myctophum</i> sp. cf. <i>M. lychnobium</i> | 3 | 0.5 | 13.6 | 3 | 3.4 |
| <i>Myctophum</i> sp. cf. <i>M. spinosum</i> | 1 | 0.1 | 6.6 | 1 | 1.1 |
| <i>Myctophum aurolaternatum</i> | 21 | 3.2 | 132.4 | 14 | 15.7 |
| <i>Myctophum</i> sp. | 5 | 0.8 | 29.5 | 3 | 3.4 |
| <i>Symbolophorus evermanni</i> | 17 | 2.6 | 92.9 | 16 | 18.0 |
| <i>Lampadena luminosa</i> | 1 | 0.1 | 4.6 | 1 | 1.1 |
| <i>Bolinichthys</i> sp. cf. <i>B. pyrsobolus</i> | 1 | 0.1 | 4.6 | 1 | 1.1 |
| <i>Bolinichthys</i> sp. cf. <i>B. longipes</i> | 1 | 0.1 | 4.9 | 1 | 1.1 |
| <i>Ceratoscopelus warmingii</i> | 72 | 11.0 | 595.6 | 38 | 42.7 |
| <i>Lampanyctus nobilis</i> | 9 | 1.4 | 54.6 | 8 | 9.0 |
| <i>Lampanyctus parvicauda</i> | 2 | 0.3 | 9.0 | 2 | 2.2 |
| <i>Diaphus parri</i> | 17 | 2.6 | 121.2 | 13 | 14.6 |
| <i>Diaphus jenseni</i> | 10 | 1.5 | 47.6 | 7 | 7.9 |
| <i>Diaphus lutkeni</i> | 11 | 1.7 | 109.8 | 7 | 7.9 |
| <i>Diaphus garmani</i> | 1 | 0.1 | 4.6 | 1 | 1.1 |
| <i>Diaphus schmidti</i> | 12 | 1.8 | 94.3 | 9 | 10.1 |
| <i>Diaphus</i> spp. | 10 | 1.5 | 65.4 | 7 | 7.9 |
| Unidentified Myctophidae | 67 | 10.2 | 582.9 | 36 | 40.4 |
| Exocoetidae | 2 | 0.3 | 20.0 | 2 | 2.2 |
| <i>Exocoetus</i> sp. | 1 | 0.1 | 10.0 | 1 | 1.1 |
| Unidentified Exocoetidae | 1 | 0.1 | 10.0 | 1 | 1.1 |
| Moridae | 1 | 0.1 | 4.6 | 1 | 1.1 |
| Unidentified Moridae | 1 | — | 4.6 | — | — |
| Bregmacerotidae | 79 | 12.1 | 655.9 | 35 | 39.3 |
| <i>Bregmaceros bathymaster</i> | 64 | 9.8 | 530.8 | 25 | 28.1 |
| <i>Bregmaceros</i> sp. | 15 | 2.3 | 125.1 | 11 | 12.4 |
| Diretmidae | 8 | 1.2 | 48.0 | 7 | 7.9 |
| <i>Diretmus argenteus</i> | 6 | 0.9 | 38.6 | 6 | 6.7 |
| <i>Diretmus</i> sp. | 2 | 0.3 | 9.4 | 2 | 2.2 |
| Melamphaidae | 43 | 6.6 | 331.5 | 27 | 30.3 |
| <i>Melamphaes longivelis</i> | 8 | 1.2 | 46.5 | 8 | 9.0 |
| <i>Melamphaes</i> sp. | 3 | 0.5 | 14.2 | 2 | 2.2 |
| <i>Scopeloberyx</i> sp. | 16 | 2.4 | 147.4 | 9 | 10.1 |
| Unidentified Melamphaidae | 16 | 2.4 | 123.4 | 11 | 12.4 |
| Gempylidae | 2 | 0.3 | 10.0 | 2 | 2.2 |
| <i>Nesiarchus nasutus</i> | 1 | 0.1 | 5.0 | 1 | 1.1 |
| <i>Gempylus serpens</i> | 1 | 0.1 | 5.0 | 1 | 1.1 |

APPENDIX 13. CONTINUED.

| | Number of | | Mass (g) | Prey occurrence | |
|--|-----------|-----|----------|-----------------|------|
| | prey | % | | Frequency | % |
| Trichiuridae | 1 | 0.1 | 4.8 | 1 | 1.1 |
| <i>Trichiurus</i> sp. cf. <i>T. nitens</i> | 1 | - | 4.8 | - | - |
| Nomeidae | 1 | 0.1 | 5.0 | 1 | 1.1 |
| <i>Cubiceps carnatus</i> | 1 | - | 5.0 | - | - |
| Unidentified teleosts | 6 | 0.9 | 0.0 | 4 | 4.5 |
| Ommastrephidae | 44 | 6.7 | 182.5 | 18 | 20.2 |
| <i>Sthenoteuthis oualaniensis</i> | 24 | 3.7 | 144.0 | 13 | 14.6 |
| Unidentified Ommastrephidae | 20 | 3.1 | 38.5 | 6 | 6.7 |
| Onychoteuthidae | 9 | 1.4 | 24.0 | 7 | 7.9 |
| <i>Onychoteuthis banksii</i> | 9 | - | 24.0 | - | - |
| Enoploteuthidae | 3 | 0.5 | 9.2 | 2 | 2.9 |
| <i>Abrialopsis</i> sp. | 2 | - | 4.8 | - | - |
| <i>Ancistrocheirus lesueuri</i> | 1 | 0.1 | 4.8 | 1 | 0.7 |
| Octopoteuthidae | 1 | 0.1 | 4.8 | 1 | 1.1 |
| <i>Octopoteuthis</i> sp. | 1 | - | 4.8 | - | - |
| Histioteuthidae | 2 | 0.3 | 9.6 | 2 | 2.2 |
| <i>Histioteuthis</i> sp. | 2 | - | 9.6 | - | - |
| Mastigoteuthidae | 5 | 0.8 | 0.0 | 3 | 3.4 |
| <i>Mastigoteuthis</i> sp. | 5 | - | 0.0 | - | - |
| Chiroteuthidae | 1 | 0.1 | 4.8 | 1 | 1.1 |
| <i>Chiroteuthis</i> sp. A | 1 | - | 4.8 | - | - |
| Cranchiidae | 10 | 1.5 | 36.0 | 6 | 6.7 |
| <i>Helicocranchia</i> sp. | 3 | 0.5 | 0.0 | 1 | 1.1 |
| <i>Megalocranchia</i> sp. | 3 | 0.5 | 24.0 | 3 | 3.4 |
| <i>Galiteuthis pacifica</i> | 4 | 0.6 | 12.0 | 2 | 2.2 |
| Octopods | 2 | 0.3 | 9.6 | 2 | 2.2 |
| Ocythoidae | 1 | 0.1 | 4.8 | 1 | 1.1 |
| <i>Ocythoe tuberculata</i> | 1 | - | 4.8 | - | - |
| Alloposidae | 1 | 0.1 | 4.8 | 1 | 1.1 |
| <i>Alloposus mollis</i> | 1 | - | 4.8 | - | - |
| Unidentified cephalopods | 9 | 0.0 | 0.0 | 9 | 10.1 |
| Unidentified teuthoids | 7 | 0.0 | 0.0 | 3 | 3.4 |
| Crustacea | 3 | 0.5 | 0.3 | 3 | 3.4 |
| Unidentified medium shrimp | 2 | 0.3 | 0.12 | 2 | 2.2 |
| Portunid crab | 1 | 0.1 | 0.1 | 1 | 1.1 |
| Gerrid insect | 1 | 0.1 | 0.03 | 1 | 1.1 |
| <i>Halobates</i> sp. | 1 | - | 0.03 | - | - |
| Snail | 1 | 0.1 | 0.15 | 1 | 1.1 |
| Small snail | 1 | - | 0.15 | - | - |
| ^a Eggs | 1 | 0.1 | 3.8 | 1 | 1.1 |
| Unidentified fish eggs | 1 | - | 3.8 | - | - |

Note: Sample size of petrels, N = 89, with prey 88; prey sample, N = 655.

^a One clump of 125 eggs.

APPENDIX 14. DIET OF HERALD PETREL (*PTERODROMA ARMINJONIANA*).

| | Number of | | Mass (g) | Prey occurrence | |
|---------------------------------|-----------|------|----------|-----------------|------|
| | prey | % | | Frequency | % |
| Fishes | 26 | 86.7 | 129.1 | 11 | 84.6 |
| Cephalopods | 2 | 6.7 | 44.5 | 7 | 53.8 |
| Misc. invertebrates/eggs | 2 | 6.7 | 0.1 | 2 | 15.4 |
| Sternoptychidae | 1 | 3.3 | 6.0 | 1 | 7.7 |
| <i>Sternoptyx diaphana</i> | 1 | - | 6.0 | - | - |
| Photichthyidae | 4 | 13.3 | 5.6 | 4 | 30.8 |
| <i>Viniguerria lucetia</i> | 4 | - | 5.6 | - | - |
| Myctophidae | 14 | 46.7 | 91.7 | 8 | 61.5 |
| <i>Hygophum proximum</i> | 1 | 3.3 | 4.6 | 1 | 7.7 |
| <i>Myctophum aurolaternatum</i> | 1 | 3.3 | 6.0 | 1 | 7.7 |
| <i>Myctophum</i> sp. | 2 | 6.7 | 12.5 | 2 | 15.4 |
| <i>Ceratoscopelus warmingii</i> | 1 | 3.3 | 5.5 | 1 | 7.7 |
| <i>Diaphus parri</i> | 3 | 10.0 | 18.0 | 3 | 23.1 |
| Unidentified Myctophidae | 6 | 20.0 | 45.1 | 5 | 38.5 |
| Moridae | 1 | 3.3 | 6.0 | 1 | 7.7 |
| Unidentified Moridae | 1 | - | 6.0 | - | - |
| Bregmacerotidae | 1 | 3.3 | 6.0 | 1 | 7.7 |
| <i>Bregmaceros bathymaster</i> | 1 | - | 6.0 | - | - |
| Diretmidae | 1 | 3.3 | 4.6 | 1 | 7.7 |
| <i>Diretmus argenteus</i> | 1 | - | 4.6 | - | - |
| Melamphaidae | 4 | 6.7 | 9.2 | 2 | 15.4 |
| <i>Melamphaes longivelis</i> | 2 | - | 4.6 | - | - |
| Unidentified Melamphaidae | 2 | 6.7 | 6.6 | 2 | 15.4 |
| Onychoteuthidae | 1 | 3.3 | 8.5 | 1 | 7.7 |
| <i>Onychoteuthis banksii</i> | 1 | - | 8.5 | - | - |
| Chiroteuthidae | 1 | 3.3 | 36.0 | 1 | 7.7 |
| <i>Chiroteuthis</i> sp. A | 1 | - | 36.0 | - | - |
| Unidentified Cephalopoda | 4 | 0.0 | 0.0 | 4 | 30.8 |
| Unidentified Teuthoidea | 1 | 0.0 | 0.0 | 1 | 7.7 |
| Gerrid insect | 2 | 6.7 | 0.06 | 2 | 15.4 |
| <i>Halobates</i> sp. | 2 | - | 0.06 | - | - |

Note: Sample size of petrels, N = 13, all with prey; prey sample, N = 30.

APPENDIX 15. DIET OF MURPHY'S PETREL (*PTERODROMA ULTIMA*).

| | Number of | | Mass (g) | Prey occurrence | |
|---------------------------------|-----------|------|----------|-----------------|------|
| | prey | % | | Frequency | % |
| Fishes | 21 | 56.8 | 127.3 | 7 | 87.5 |
| Cephalopods | 16 | 43.2 | 93.5 | 5 | 62.5 |
| Sternoptychidae | 1 | 2.7 | 5.9 | 1 | 12.5 |
| <i>Sternoptyx diaphana</i> | 1 | - | 5.9 | - | - |
| Myctophidae | 11 | 29.7 | 82.9 | 7 | 87.5 |
| <i>Ceratoscopelus warmingii</i> | 4 | 10.8 | 29.6 | 4 | 50.0 |
| <i>Lampanyctus nobilis</i> | 4 | 10.8 | 35.9 | 3 | 37.5 |
| <i>Lampanyctus parvicauda</i> | 1 | 2.7 | 4.9 | 1 | 12.5 |
| Myctophidae | 2 | 5.4 | 12.5 | 2 | 25.0 |
| Evermanellidae | 1 | 2.7 | 7.5 | 1 | 12.5 |
| <i>Evermanella ahlstromi</i> | 1 | - | 7.5 | - | - |
| Bregmacerotidae | 1 | 2.7 | 4.9 | 1 | 12.5 |
| <i>Bregmaceros bathymaster</i> | 1 | - | 4.9 | - | - |
| Diretmidae | 1 | 2.7 | 4.6 | 1 | 12.5 |
| <i>Diretmus argenteus</i> | 1 | - | 4.6 | - | - |
| Melamphaidae | 4 | 10.8 | 21.5 | 3 | 37.5 |
| <i>Scopeloberyx robusta</i> | 1 | 2.7 | 4.8 | 1 | 12.5 |
| Unidentified Melamphaidae | 3 | 8.1 | 16.7 | 2 | 25.0 |
| Unidentified teleosts | 2 | 5.4 | 0.0 | 2 | 25.0 |
| Ommastrephidae | 8 | 21.6 | 76.5 | 3 | 37.5 |
| <i>Ornithoteuthis volatilis</i> | 1 | 2.7 | 10.0 | 1 | 12.5 |
| Ommastrephidae | 7 | 18.9 | 66.5 | 2 | 25.0 |
| Onychoteuthidae | 2 | 5.4 | 17.0 | 2 | 25.0 |
| <i>Onychoteuthis banksii</i> | 2 | - | 17.0 | - | - |
| Mastigoteuthidae | 1 | 2.7 | 0.0 | 1 | 12.5 |
| <i>Mastigoteuthis</i> sp. | 1 | - | 0.0 | - | - |
| Chiroteuthidae | 1 | 2.7 | 0.0 | 1 | 12.5 |
| <i>Chiroteuthis calyx</i> | 1 | - | 0.0 | - | - |
| Cranchiidae | 1 | 2.7 | 0.0 | 1 | 12.5 |
| <i>Taonius pavo</i> | 1 | - | 0.0 | - | - |
| Unidentified Cephalopoda | 1 | 2.7 | 0.0 | 1 | 12.5 |
| Unidentified Teuthoidea | 2 | 5.4 | 0.0 | 2 | - |

Note: Sample size of petrels, N = 8, all with prey; prey sample, N = 32.

APPENDIX 16. DIET OF PHOENIX PETREL (*PTERODROMA ALBA*).

| | Number of | | Mass (g) | Prey occurrence | |
|---|-----------|------|----------|-----------------|------|
| | prey | % | | Frequency | % |
| Fishes | 50 | 44.2 | 283.5 | 18 | 85.7 |
| Cephalopods | 57 | 50.4 | 566.0 | 10 | 47.6 |
| Invertebrates | 6 | 5.3 | 0.7 | 1 | 4.8 |
| Sternoptychidae | 2 | 1.8 | 9.2 | 2 | 9.5 |
| <i>Sternoptyx diaphana</i> | 2 | — | 9.2 | — | — |
| Photichthyidae | 6 | 5.3 | 7.0 | 3 | 14.3 |
| <i>Viniguerria lucetia</i> | 6 | — | 7.0 | — | — |
| Myctophidae | 27 | 23.9 | 153.9 | 14 | 66.7 |
| <i>Electrona risso</i> | 1 | 0.9 | 8.5 | 1 | 4.8 |
| <i>Hygophum</i> sp. cf. <i>H. proximum</i> | 1 | 0.9 | 4.2 | 1 | 4.8 |
| <i>Myctophum</i> sp. cf. <i>M. spinosum</i> | 1 | 0.9 | 4.2 | 1 | 4.8 |
| <i>Myctophum aurolaterdatum</i> | 3 | 2.7 | 22.5 | 1 | 4.8 |
| <i>Symbolophorus evermanni</i> | 2 | 1.8 | 8.8 | 2 | 9.5 |
| <i>Lampadena luminosa</i> | 2 | 1.8 | 9.6 | 1 | 4.8 |
| <i>Ceratoscopelus warmingii</i> | 3 | 2.7 | 13.8 | 2 | 9.5 |
| <i>Lampanyctus nobilis</i> | 1 | 0.9 | 4.6 | 1 | 4.8 |
| <i>Diaphus parri</i> | 1 | 0.9 | 4.8 | 1 | 4.8 |
| <i>Diaphus</i> sp. | 3 | 2.7 | 21.2 | 1 | 4.8 |
| Unidentified Myctophidae | 9 | 8.0 | 51.7 | 7 | 33.3 |
| Moridae | 1 | 0.9 | 6.0 | 1 | 4.8 |
| Unidentified Moridae | 1 | — | 6.0 | — | — |
| Bregmacerotidae | 7 | 6.2 | 49.9 | 5 | 23.8 |
| <i>Bregmaceros bathymaster</i> | 7 | — | 49.9 | — | — |
| Diretmidae | 1 | 0.9 | 4.2 | 1 | 4.8 |
| <i>Diretmus argenteus</i> | 1 | — | 4.2 | — | — |
| Melamphaidae | 3 | 2.7 | 17.3 | 3 | 14.3 |
| <i>Scopeloberyx</i> sp. | 1 | 0.9 | 4.6 | 1 | 4.8 |
| Unidentified Melamphaidae | 2 | 1.8 | 12.7 | 2 | 9.5 |
| Nomeidae | 3 | 2.7 | 36.0 | 2 | 4.8 |
| <i>Cubiceps carnatus</i> | 3 | — | 36.0 | — | — |
| Ommastrephidae | 54 | 47.8 | 539.0 | 9 | 42.9 |
| <i>Sthenoteuthis oualaniensis</i> | 54 | — | 539.0 | — | — |
| Onychoteuthidae | 2 | 1.8 | 15.0 | 1 | 4.8 |
| <i>Onychoteuthis banksii</i> | 2 | — | 15.0 | — | — |
| Cranchiidae | 1 | 0.9 | 12.0 | 1 | 4.8 |
| <i>Galiteuthis pacifica</i> | 1 | — | 12.0 | — | — |
| Crustacea | 6 | 5.3 | 0.7 | 1 | 4.8 |
| Unidentified medium shrimp | 6 | — | 0.7 | — | — |

Note: Sample size of petrels, N = 21, all with prey; prey sample, N = 113.

APPENDIX 17. DIET OF TAHITI PETREL (*PTERODROMA ROSTRATA*).

| | Number of | | Mass (g) | Prey occurrence | |
|--|-----------|------|----------|-----------------|------|
| | prey | % | | Frequency | % |
| Fishes | 403 | 43.1 | 2,623.2 | 127 | 81.4 |
| Cephalopods | 498 | 53.2 | 3,241.5 | 126 | 80.8 |
| Misc. invertebrates/eggs | 35 | 3.7 | 2.7 | 9 | 5.8 |
| Argentinidae | 1 | 0.1 | 6.6 | 1 | 0.6 |
| <i>Nansenia</i> sp. | 1 | - | 6.6 | - | - |
| Bathylagidae. | 1 | 0.1 | 4.8 | 1 | 0.6 |
| <i>Bathylagus</i> sp. | 1 | - | 4.8 | - | - |
| Sternoptychidae | 15 | 1.6 | 93.5 | 11 | 7.1 |
| <i>Sternoptyx obscura</i> | 7 | 0.7 | 53.8 | 6 | 3.8 |
| <i>Argyropelecus sladeni</i> | 6 | 0.6 | 28.9 | 4 | 2.6 |
| <i>Argyropelecus</i> sp. cf. <i>A. lychnus</i> | 1 | 0.1 | 6.0 | 1 | 0.6 |
| <i>Argyropelecus</i> sp. | 1 | 0.1 | 4.8 | 1 | 0.6 |
| Photichthyidae | 14 | 1.5 | 19.6 | 12 | 7.7 |
| <i>Viniguerria lucetia</i> | 9 | 1.0 | 7.0 | 9 | 5.8 |
| <i>Ichthyococcus</i> sp. | 5 | 0.5 | 12.6 | 3 | 1.9 |
| Chauliodontidae | 2 | 0.2 | 10.8 | 2 | 1.3 |
| <i>Chauliodus macouni</i> | 2 | - | 10.8 | - | - |
| Synodontidae | 1 | 0.1 | 4.2 | 1 | 0.6 |
| <i>Saurida</i> sp. | 1 | - | 4.2 | - | - |
| Chlorophthalmidae | 1 | 0.1 | 4.8 | 1 | 0.6 |
| <i>Chlorophthalmus</i> sp. | 1 | - | 4.8 | - | - |
| Myctophidae | 257 | 27.5 | 1,732.4 | 110 | 70.5 |
| <i>Electrona risso</i> | 10 | 1.1 | 63.5 | 9 | 5.8 |
| <i>Hygophum</i> sp. cf. <i>H. proximum</i> | 3 | 0.3 | 14.4 | 3 | 1.9 |
| <i>Hygophum</i> sp. | 6 | 0.6 | 29.8 | 5 | 3.2 |
| <i>Diogenichthys laternatus</i> | 5 | 0.5 | 21.8 | 5 | 3.2 |
| <i>Myctophum</i> sp. cf. <i>M. nitidulum</i> | 2 | 0.2 | 9.1 | 2 | 1.3 |
| <i>Myctophum</i> sp. cf. <i>M. lychnobium</i> | 1 | 0.1 | 4.8 | 1 | 0.6 |
| <i>Myctophum aurolaternatum</i> | 15 | 1.6 | 85.9 | 14 | 9.0 |
| <i>Myctophum</i> sp. | 4 | 0.4 | 23.7 | 4 | 2.6 |
| <i>Symbolophorus evermanni</i> | 9 | 1.0 | 49.6 | 9 | 5.8 |
| <i>Lampadena luminosa</i> | 2 | 0.2 | 9.6 | 1 | 0.6 |
| <i>Bolinichthys</i> sp. cf. <i>B. pyrsobolus</i> | 1 | 0.1 | 4.6 | 1 | 0.6 |
| <i>Ceratoscopelus warmingii</i> | 53 | 5.7 | 274.7 | 36 | 23.1 |
| <i>Lampanyctus nobilis</i> | 18 | 1.9 | 111.5 | 14 | 9.0 |
| <i>Lampanyctus parvicauda</i> | 5 | 0.5 | 25.2 | 5 | 3.2 |
| <i>Diaphus parri</i> | 12 | 1.3 | 63.9 | 11 | 7.1 |
| <i>Diaphus jenseni</i> | 1 | 0.1 | 4.6 | 1 | 0.6 |
| <i>Diaphus lutkeni</i> | 5 | 0.5 | 26.5 | 5 | 3.2 |
| <i>Diaphus garmani</i> | 1 | 0.1 | 4.2 | 1 | 0.6 |
| <i>Diaphus schmidti</i> | 11 | 1.2 | 75.5 | 6 | 3.8 |
| <i>Diaphus lucidus</i> | 1 | 0.1 | 4.8 | 1 | 0.6 |
| <i>Diaphus</i> spp. | 11 | 1.2 | 71.5 | 8 | 5.1 |
| Unidentified Myctophidae | 81 | 8.7 | 753.2 | 57 | 36.5 |
| Exocoetidae | 2 | 0.2 | 40.0 | 2 | 1.3 |
| <i>Exocoetus</i> sp. | 1 | 0.1 | 20.0 | 1 | 0.6 |
| Unidentified Exocoetidae | 1 | 0.1 | 20.0 | 1 | 0.6 |
| Moridae | 2 | 0.2 | 11.4 | 2 | 1.3 |
| Unidentified Moridae | 2 | - | 11.4 | - | - |
| Bregmacerotidae | 18 | 1.9 | 120.8 | 15 | 9.6 |
| <i>Bregmaceros bathymaster</i> | 10 | 1.1 | 73.6 | 8 | 5.1 |
| <i>Bregmaceros</i> sp. | 8 | 0.9 | 47.2 | 7 | 4.5 |
| Macrouridae | 1 | 0.1 | 6.0 | 1 | 0.6 |
| Unidentified Macrouridae | 1 | - | 6.0 | - | - |
| Diretmidae | 38 | 4.1 | 247.2 | 31 | 19.9 |
| <i>Diretmus argenteus</i> | 28 | 3.0 | 153.2 | 24 | 15.4 |
| <i>Diretmus pauciradiatus</i> | 6 | 0.6 | 67.2 | 4 | 2.6 |
| <i>Diretmus</i> sp. | 4 | 0.4 | 26.8 | 3 | 1.9 |
| Melamphidae | 41 | 4.4 | 231.1 | 31 | 19.9 |
| <i>Melamphaes longivelis</i> | 6 | 0.6 | 32.8 | 6 | 3.8 |

APPENDIX 17. CONTINUED.

| | Number of | | Mass (g) | Prey occurrence | |
|--|-----------|------|----------|-----------------|------|
| | prey | % | | Frequency | % |
| <i>Melamphaes</i> sp. | 6 | 0.6 | 29.2 | 6 | 3.8 |
| <i>Scopeloberyx robusta</i> | 4 | 0.4 | 22.5 | 4 | 2.6 |
| <i>Scopeloberyx</i> sp. | 6 | 0.6 | 30.5 | 6 | 3.8 |
| Unidentified Melamphaidae | 19 | 2.0 | 116.1 | 16 | 10.3 |
| Trachipteridae | 1 | 0.1 | 4.2 | 1 | 0.6 |
| <i>Trachipterus</i> sp. | 1 | – | 4.2 | – | – |
| Percichthyidae | 2 | 0.2 | 8.0 | 2 | 1.3 |
| <i>Howella</i> sp. cf. <i>H. brodei</i> | 2 | – | 8.0 | – | – |
| Coryphaenidae | 1 | 0.1 | 25.0 | 1 | 0.6 |
| <i>Coryphaena</i> sp. | 1 | – | 25.0 | – | – |
| Gempylidae | 4 | 0.4 | 48.0 | 4 | 2.6 |
| <i>Nesiarchus nasutus</i> | 2 | 0.2 | 24.0 | 2 | 1.3 |
| <i>Rexea solandri</i> | 1 | 0.1 | 12.0 | 1 | 0.6 |
| <i>Gempylus serpens</i> | 1 | 0.1 | 12.0 | 1 | 0.6 |
| Trichiuridae | 1 | 0.1 | 4.8 | 1 | 0.6 |
| <i>Trichiurus</i> sp. cf. <i>T. nitens</i> | 1 | – | 4.8 | – | – |
| Unidentified teleosts | 11 | 0.0 | 0.0 | 11 | 7.1 |
| Ommastrephidae | 91 | 9.7 | 441.0 | 22 | 14.1 |
| <i>Sthenoteuthis oualaniensis</i> | 32 | 3.4 | 254.8 | 10 | 6.4 |
| <i>Ornithoteuthis volatilis</i> | 1 | 0.1 | 9.8 | 1 | 0.6 |
| Unidentified Ommastrephidae | 58 | 6.2 | 176.4 | 11 | 7.1 |
| Onychoteuthidae | 286 | 30.6 | 1,744.6 | 87 | 55.8 |
| <i>Onychoteuthis banksii</i> | 286 | – | 1,744.6 | – | – |
| Pholidoteuthidae | 2 | 0.2 | 36.0 | 2 | 1.3 |
| <i>Pholidoteuthis bochmai</i> | 2 | – | 36.0 | – | – |
| Enoploteuthidae | 16 | 1.7 | 36.0 | 14 | 9.0 |
| <i>Pterygioteuthis giardi</i> | 7 | 0.7 | 6.0 | 6 | 3.8 |
| <i>Abrialopsis</i> sp. | 4 | 0.2 | 4.8 | 3 | 1.9 |
| <i>Ancistrocheirus lesueuri</i> | 5 | 0.5 | 25.2 | 5 | 3.2 |
| Octopoteuthidae | 5 | 0.5 | 60.0 | 4 | 2.6 |
| <i>Octopoteuthis deletron</i> | 2 | 0.2 | 24.0 | 1 | 0.6 |
| <i>Octopoteuthis</i> sp. | 3 | 0.3 | 36.0 | 3 | 1.9 |
| Histioteuthidae | 19 | 2.0 | 312.0 | 15 | 9.6 |
| <i>Histioteuthis</i> sp. | 7 | 0.7 | 36.0 | 6 | 3.8 |
| <i>Histioteuthis hoylei</i> | 11 | 1.2 | 264.0 | 8 | 5.1 |
| <i>Histioteuthis</i> sp. B | 1 | 0.1 | 12.0 | 1 | 0.6 |
| Bathyteuthidae | 2 | 0.2 | 24.0 | 2 | 1.3 |
| <i>Bathyteuthis bacidifera</i> | 2 | – | 24.0 | – | – |
| Mastigoteuthidae | 10 | 1.1 | 36.0 | 8 | 5.1 |
| <i>Mastigoteuthis</i> sp. | 10 | – | 36.0 | – | – |
| Chiroteuthidae | 20 | 2.1 | 240.0 | 13 | 8.3 |
| <i>Chiroteuthis calyx</i> | 4 | 0.4 | 48.0 | 4 | 2.6 |
| <i>Chiroteuthis</i> sp. A | 3 | 0.3 | 36.0 | 1 | 0.6 |
| <i>Chiroteuthis</i> spp. | 13 | 1.4 | 156.0 | 8 | 5.1 |
| Cranchiidae | 47 | 5.0 | 297.5 | 29 | 18.6 |
| <i>Cranchia scabra</i> | 1 | 0.1 | 12.0 | 1 | 0.6 |
| <i>Liocranchia</i> sp. | 1 | 0.1 | 5.5 | 1 | 0.6 |
| <i>Liocranchia reinhardtii</i> | 2 | 0.2 | 22.0 | 5 | 3.2 |
| <i>Leachia dislocata</i> | 5 | 0.5 | 60.0 | 2 | 1.3 |
| <i>Helicocranchia</i> sp. | 1 | 0.1 | 12.0 | 1 | 0.6 |
| <i>Liguriella</i> sp. | 5 | 0.5 | 36.0 | 4 | 2.6 |
| <i>Megalocranchia</i> sp. | 2 | 0.2 | 36.0 | 2 | 1.3 |
| <i>Taonius pavo</i> | 26 | 2.8 | 108.0 | 15 | 9.6 |
| <i>Taonius</i> sp. A | 1 | 0.1 | 6.0 | 1 | 0.6 |
| Unidentified Cranchiidae | 3 | 0.3 | 0.0 | 3 | 1.9 |
| Octopoda | 2 | 0.2 | 9.6 | 2 | 1.3 |
| Bolitanidae | 1 | 0.1 | 4.8 | 1 | 0.6 |
| <i>Japetella heathi</i> | 1 | – | 4.8 | – | – |
| Alloposidae | 1 | 0.1 | 4.8 | 1 | 0.6 |
| <i>Alloposus mollis</i> | 1 | – | 4.8 | – | – |

APPENDIX 17. CONTINUED.

| | Number of | | Mass (g) | Prey occurrence | |
|---------------------------|-----------|-----|----------|-----------------|------|
| | prey | % | | Frequency | % |
| Unidentified Cephalopoda | 16 | 0.0 | 0.0 | 16 | 10.3 |
| Unidentified Teuthoidea | 94 | 0.0 | 0.0 | 94 | 60.3 |
| Unidentified octopod | 1 | 0.0 | 0.0 | 1 | 0.6 |
| Crustacea | 2 | 0.2 | 0.27 | 2 | 1.3 |
| Unidentified crustacean | 1 | 0.1 | 0.12 | 1 | 0.6 |
| Unidentified large shrimp | 1 | 0.1 | 0.15 | 1 | 0.6 |
| Gerrid insect | 20 | 2.1 | 0.6 | 5 | 3.2 |
| <i>Halobates</i> sp. | 20 | - | 0.6 | - | - |
| Snail | 13 | 1.4 | 1.8 | 3 | 1.9 |
| Small snail | 13 | - | 1.8 | - | - |

Note: Sample size of petrels, N = 156, with prey 154; prey sample, N = 936.

APPENDIX 18. DIET OF JUAN FERNANDEZ PETREL (*PTERODROMA EXTERNA*).

| | Number of | | Mass (g) | Prey occurrence | |
|--|-----------|------|----------|-----------------|------|
| | prey | % | | Frequency | % |
| Fishes | 599 | 54.7 | 6,338.6 | 167 | 78.0 |
| Cephalopods | 485 | 44.3 | 5,335.0 | 148 | 69.2 |
| Misc. invertebrates/eggs | 10 | 0.9 | 1.5 | 10 | 4.7 |
| Engraulidae | 187 | 17.1 | 261.8 | 1 | 0.5 |
| Unidentified Engraulidae | 187 | — | 261.8 | — | — |
| Argentinidae | 3 | 0.3 | 15.3 | 2 | 0.9 |
| <i>Microstoma microstoma</i> | 2 | 0.2 | 8.8 | 1 | 0.5 |
| <i>Nansenia</i> sp. | 1 | 0.1 | 6.5 | 1 | 0.5 |
| Bathylagidae | 1 | 0.1 | 4.8 | 1 | 0.5 |
| <i>Bathylagus</i> sp. | 1 | — | 4.8 | — | — |
| Sternoptychidae | 16 | 1.5 | 94.7 | 13 | 6.1 |
| <i>Sternoptyx diaphana</i> | 5 | 0.5 | 35.6 | 3 | 1.4 |
| <i>Argyropelecus sladeni</i> | 3 | 0.3 | 14.6 | 3 | 1.4 |
| <i>Argyropelecus</i> sp. | 8 | 0.7 | 44.5 | 7 | 3.3 |
| Photichthyidae | 2 | 0.2 | 2.8 | 2 | 0.9 |
| <i>Viniguerra lucetia</i> | 1 | 0.1 | 1.4 | 1 | 0.5 |
| <i>Ichthyococcus</i> sp. | 1 | 0.1 | 1.4 | 1 | 0.5 |
| Chloropthalmidae | 1 | 0.1 | 4.8 | 1 | 0.5 |
| <i>Chloropthalmus</i> sp. | 1 | — | 4.8 | — | — |
| Myctophidae | 68 | 6.2 | 324.8 | 54 | 25.2 |
| <i>Protomyctophum</i> sp. | 1 | 0.1 | 4.6 | 1 | 0.5 |
| <i>Hygophum</i> sp. cf. <i>H. proximum</i> | 3 | 0.3 | 15.5 | 3 | 1.4 |
| <i>Hygophum</i> sp. | 2 | 0.3 | 10.5 | 2 | 0.9 |
| <i>Diogenichthys laternatus</i> | 1 | 0.1 | 4.6 | 1 | 0.5 |
| <i>Myctophum aurolaterdatum</i> | 7 | 0.6 | 33.2 | 7 | 3.3 |
| <i>Symbolophorus evermanni</i> | 4 | 0.4 | 22.1 | 4 | 1.9 |
| <i>Lampadena luminosa</i> | 1 | 0.1 | 4.2 | 1 | 0.5 |
| <i>Ceratoscopelus warmingii</i> | 8 | 0.7 | 39.1 | 7 | 3.3 |
| <i>Lampanyctus nobilis</i> | 6 | 0.5 | 27.7 | 6 | 2.8 |
| <i>Lampanyctus parvicauda</i> | 2 | 0.2 | 9.0 | 2 | 0.9 |
| <i>Diaphus parri</i> | 2 | 0.2 | 9.4 | 2 | 0.9 |
| <i>Diaphus lutkeni</i> | 2 | 0.2 | 8.7 | 2 | 0.9 |
| <i>Diaphus</i> sp. | 4 | 0.4 | 17.4 | 2 | 0.9 |
| <i>Gonichthys tenuiculus</i> | 1 | 0.1 | 4.6 | 1 | 0.5 |
| Unidentified Myctophidae | 24 | 2.2 | 114.2 | 18 | 8.4 |
| Scomberosocidae | 2 | 0.2 | 9.8 | 1 | 0.5 |
| <i>Scomberosox scombroides</i> | 2 | 0.2 | 9.8 | — | — |
| Hemirhamphidae | 107 | 9.8 | 2,140.0 | 59 | 27.6 |
| <i>Oxyporhamphus micropterus</i> | 104 | 9.5 | 2,080.0 | 56 | 26.2 |
| Unidentified Hemirhamphidae | 3 | 0.3 | 60.0 | 3 | 1.4 |
| Exocoetidae | 155 | 14.2 | 3,100.0 | 90 | 42.1 |
| <i>Exocoetus</i> spp. | 92 | 8.4 | 1,840.0 | 55 | 25.7 |
| <i>Cypselurus exilens</i> | 1 | 0.1 | 20.0 | 1 | 0.5 |
| <i>Cypselurus spilonotopterus</i> | 1 | 0.1 | 20.0 | 1 | 0.5 |
| <i>Cypselurus</i> sp. | 1 | 0.1 | 20.0 | 1 | 0.5 |
| Unidentified Exocoetidae | 60 | 5.5 | 1,200.0 | 46 | 21.5 |
| Moridae | 1 | 0.1 | 6.6 | 1 | 0.5 |
| Unidentified Moridae | 1 | — | 6.6 | — | — |
| Bregmacerotidae | 9 | 0.8 | 45.7 | 8 | 3.7 |
| <i>Bregmaceros bathymaster</i> | 8 | 0.7 | 40.9 | 7 | 3.3 |
| <i>Bregmaceros</i> sp. | 1 | 0.1 | 4.8 | 1 | 0.5 |
| Macrouridae | 2 | 0.2 | 9.6 | 2 | 0.9 |
| Unidentified Macrouridae | 2 | — | 9.6 | — | — |
| Diretmidae | 25 | 2.3 | 193.3 | 15 | 7.0 |
| <i>Diretmus argenteus</i> | 24 | 2.2 | 188.4 | 14 | 6.5 |
| <i>Diretmus</i> sp. | 1 | 0.1 | 4.9 | 1 | 0.5 |
| Melamphaidae | 16 | 1.5 | 89.2 | 14 | 6.5 |
| <i>Melamphaes longivelis</i> | 3 | 0.3 | 13.4 | 3 | 1.4 |
| <i>Melamphaes</i> sp. | 4 | 0.4 | 31.0 | 3 | 1.4 |
| <i>Scopeloberyx robusta</i> | 3 | 0.3 | 15.2 | 3 | 1.4 |
| <i>Scopeloberyx</i> sp. | 4 | 0.4 | 20.8 | 4 | 1.9 |
| Unidentified Melamphaidae | 2 | 0.2 | 8.8 | 2 | 0.9 |

APPENDIX 18. CONTINUED.

| | Number of | | Mass (g) | Prey occurrence | |
|---|-----------|------|----------|-----------------|------|
| | prey | % | | Frequency | % |
| Percichthyidae | 2 | 0.2 | 11.4 | 2 | 0.9 |
| <i>Howella</i> sp. cf. <i>H. brodei</i> | 2 | - | 11.4 | - | - |
| Gempylidae | 2 | 0.2 | 24.0 | 2 | 0.9 |
| <i>Nesiarchus nasutus</i> | 1 | 0.1 | 12.0 | 1 | 0.5 |
| <i>Gempylus serpens</i> | 1 | 0.1 | 12.0 | 1 | 0.5 |
| Unidentified teleosts | 15 | 1.4 | 0.0 | 12 | 5.6 |
| Ommastrephidae | 279 | 25.5 | 3,047.0 | 74 | 34.6 |
| <i>Sthenoteuthis oualaniensis</i> | 181 | 16.5 | 1,991.0 | 58 | 27.1 |
| <i>Dosidicus gigas</i> | 3 | 0.3 | 11.0 | 1 | 0.5 |
| <i>Hyaloteuthis pelagica</i> | 2 | 0.2 | 22.0 | 2 | 0.9 |
| <i>Ornithoteuthis volatilis</i> | 1 | 0.1 | 11.0 | 1 | 0.5 |
| Unidentified Ommastrephidae | 92 | 8.4 | 154.0 | 21 | 9.8 |
| Onychoteuthidae | 122 | 11.1 | 1,307.9 | 55 | 25.7 |
| <i>Onychoteuthis banksii</i> | 122 | - | 1,307.9 | - | - |
| Pholidoteuthidae | 3 | 0.3 | 36.0 | 3 | 1.4 |
| <i>Pholidoteuthis boschmai</i> | 3 | - | 36.0 | - | - |
| Enoploteuthidae | 15 | 1.4 | 3.9 | 9 | 4.2 |
| <i>Pterygioteuthis giardi</i> | 2 | 0.1 | 0.0 | 2 | 0.9 |
| <i>Abrialiopsis affinis</i> | 2 | 0.2 | 0.0 | 1 | 0.5 |
| <i>Abrialiopsis</i> sp. | 7 | 0.6 | 0.0 | 3 | 1.4 |
| <i>Ancistrocheirus lesueurii</i> | 4 | 0.4 | 3.9 | 4 | 1.9 |
| Octopoteuthidae | 3 | 0.3 | 36.0 | 3 | 1.4 |
| <i>Octopoteuthis</i> sp. | 3 | - | 36.0 | - | - |
| Histioteuthidae | 16 | 1.5 | 216.0 | 13 | 6.1 |
| <i>Histioteuthis</i> sp. | 3 | 0.3 | 36.0 | 3 | 1.4 |
| <i>Histioteuthis</i> sp. cf. <i>H. hoylei</i> | 6 | 0.5 | 36.0 | 5 | 2.3 |
| <i>Histioteuthis</i> sp. B | 5 | 0.5 | 108.0 | 3 | 1.4 |
| <i>Histioteuthis corona</i> | 2 | 0.2 | 36.0 | 2 | 0.9 |
| Bathyteuthidae | 1 | 0.1 | 36.0 | 1 | 0.5 |
| <i>Bathyteuthis bacidifera</i> | 1 | - | 36.0 | - | - |
| Mastigoteuthidae | 3 | 0.3 | 108.0 | 3 | 1.4 |
| <i>Mastigoteuthis</i> sp. | 2 | 0.2 | 72.0 | 2 | 0.9 |
| <i>Mastigoteuthis</i> sp. A | 1 | 0.1 | 36.0 | 1 | 0.5 |
| Chiroteuthidae | 7 | 0.6 | 72.0 | 3 | 1.4 |
| <i>Chiroteuthis</i> sp. A | 5 | 0.5 | 36.0 | 1 | 0.5 |
| <i>Chiroteuthis</i> sp. | 2 | 0.2 | 36.0 | 2 | 0.9 |
| Cranchiidae | 33 | 3.0 | 415.7 | 23 | 10.7 |
| <i>Liocranchia</i> sp. | 3 | 0.3 | 19.7 | 2 | 0.9 |
| <i>Liocranchia reinhardti</i> | 1 | 0.1 | 36.0 | 1 | 0.5 |
| <i>Leachia dislocata</i> | 1 | 0.1 | 36.0 | 1 | 0.5 |
| <i>Liguriella</i> sp. | 3 | 0.3 | 72.0 | 3 | 1.4 |
| <i>Megalocranchia</i> sp. | 4 | 0.4 | 72.0 | 4 | 1.9 |
| <i>Taonius pavo</i> | 17 | 1.6 | 144.0 | 12 | 5.6 |
| <i>Galiteuthis pacifica</i> | 2 | 0.2 | 36.0 | 2 | 0.9 |
| Unidentified Cranchiidae | 2 | 0.2 | 0.0 | 1 | 0.5 |
| Octopoda | 3 | 0.3 | 32.5 | 2 | 0.9 |
| Tremoctopodidae | 1 | 0.1 | 8.5 | 1 | 0.5 |
| <i>Tremoctopus violaceus</i> | 1 | - | 8.5 | - | - |
| Ocythoidae | 2 | 0.2 | 24.0 | 1 | 0.5 |
| <i>Ocythoe tuberculata</i> | 2 | - | 24.0 | - | - |
| Unidentified Cephalopoda | 17 | 0.0 | 0.0 | 17 | 7.9 |
| Unidentified Teuthoidea | 172 | 0.0 | 0.0 | 23 | 10.7 |
| Crustacea | 9 | 0.8 | 1.5 | 9 | 4.2 |
| Unidentified crustacean | 2 | 0.2 | 0.3 | 2 | 0.9 |
| Gammarid/hyperiid amphipod | 1 | <0.1 | 0.2 | 1 | 0.5 |
| Cymothoid, <i>Nerocila</i> sp. | 4 | 0.4 | 0.8 | 4 | 1.9 |
| Unidentified large shrimp | 2 | 0.2 | 0.2 | 2 | 0.9 |
| Gerrid insect | 1 | 0.1 | 0.03 | 1 | 0.5 |
| <i>Halobates</i> sp. | 1 | - | 0.03 | - | - |

Note: Sample size of petrels, N = 214, with prey 204; prey sample, N = 1094.

APPENDIX 19. DIET OF WHITE-NECKED PETREL (*PTERODROMA CERVICALIS*).

| | Number of | | Mass (g) | Prey occurrence | |
|-----------------------------------|-----------|------|----------|-----------------|------|
| | prey | % | | Frequency | % |
| Fishes | 21 | 70.0 | 248.3 | 11 | 78.6 |
| Cephalopods | 8 | 26.7 | 47.3 | 6 | 42.9 |
| Invertebrates | 1 | 3.3 | 0.2 | 1 | 7.1 |
| Photichthyidae | 1 | 3.3 | 1.4 | 1 | 7.1 |
| <i>Ichthyococcus regularis</i> | 1 | - | 1.4 | - | - |
| Myctophidae | 8 | 26.7 | 52.9 | 5 | 35.7 |
| <i>Myctophum aurolaternatum</i> | 1 | 3.3 | 11.4 | 1 | 7.1 |
| <i>Ceratoscopelus warmingii</i> | 2 | 6.7 | 9.4 | 2 | 14.3 |
| <i>Lampanyctus nobilis</i> | 3 | 10.0 | 22.9 | 2 | 14.3 |
| <i>Diaphus parri</i> | 1 | 3.3 | 4.6 | 1 | 7.1 |
| Unidentified Myctophidae | 1 | 3.3 | 4.6 | 1 | 7.1 |
| Hemirhamphidae | 2 | 6.7 | 40.0 | 2 | 14.3 |
| <i>Oxyporhamphus micropterus</i> | 2 | - | 40.0 | - | - |
| Exocoetidae | 7 | 23.3 | 140.0 | 5 | 35.7 |
| <i>Exocoetus</i> spp. | 5 | 16.7 | 100.0 | 4 | 28.6 |
| Unidentified Exocoetidae | 2 | 6.7 | 40.0 | 2 | 14.3 |
| Dirietmidae | 2 | 6.7 | 9.4 | 2 | 14.3 |
| <i>Dirietmus argenteus</i> | 2 | - | 9.4 | - | - |
| Melamphidae | 1 | 3.3 | 4.6 | 1 | 7.1 |
| <i>Melamphaes longivelis</i> | 1 | - | 4.6 | - | - |
| Unidentified teleosts | 1 | 0.0 | 0.0 | 1 | 7.1 |
| Ommastrephidae | 6 | 20.0 | 41.3 | 3 | 21.4 |
| <i>Sthenoteuthis oualaniensis</i> | 4 | 13.3 | 33.0 | 2 | 14.3 |
| Unidentified Ommastrephidae | 2 | 6.7 | 8.3 | 1 | 7.1 |
| Onychoteuthidae | 1 | 3.3 | 6.0 | 1 | 7.1 |
| <i>Onychoteuthis banksii</i> | 1 | - | 6.0 | - | - |
| Cranchiidae | 1 | 3.3 | 0.0 | 1 | 7.1 |
| <i>Liocranchia</i> sp. | 1 | - | 0.0 | - | - |
| Unidentified Teuthoidea | 2 | 0.0 | 0.0 | 2 | 14.3 |
| Crustacea | 1 | 3.3 | 0.2 | 1 | 7.1 |
| Cymothoidae, <i>Nerocila</i> sp. | 1 | - | 0.2 | - | - |

Note: Sample size of petrels, N = 14, with prey 12; prey sample, N = 30.

APPENDIX 20. DIET OF KERMEDEC PETREL (*PTERODROMA NEGLECTA*).

| | Number of | | Mass (g) | Prey occurrence | |
|-----------------------------------|-----------|------|----------|-----------------|------|
| | prey | % | | Frequency | % |
| Fishes | 18 | 43.9 | 172.4 | 9 | 75.0 |
| Cephalopods | 23 | 56.1 | 189.2 | 9 | 75.0 |
| Invertebrates | 0 | 0.0 | 0.0 | 0 | 0.0 |
| Sternoptychidae | 2 | 4.9 | 8.8 | 1 | 8.3 |
| <i>Sternoptyx diaphana</i> | 1 | 2.4 | 4.4 | 1 | 8.3 |
| <i>Argyropelecus sladeni</i> | 1 | 2.4 | 4.4 | 1 | - |
| Photichthyidae | 3 | 7.3 | 4.2 | 1 | 8.3 |
| <i>Viniguerria lucetia</i> | 3 | - | 4.2 | - | - |
| Myctophidae | 5 | 12.2 | 35.3 | 4 | 33.3 |
| <i>Myctophum aurolaternatum</i> | 1 | 2.4 | 4.6 | 1 | 8.3 |
| Unidentified Myctophidae | 4 | 9.8 | 30.7 | 3 | 16.7 |
| Hemirhamphidae | 3 | 7.3 | 60.0 | 3 | 25.0 |
| <i>Oxyporhamphus micropterus</i> | 3 | - | 60.0 | - | - |
| Exocoetidae | 2 | 4.9 | 40.0 | 2 | 16.7 |
| <i>Exocoetus</i> sp. | 1 | 2.4 | 20.0 | 1 | 8.3 |
| <i>Cypselurus</i> sp. | 1 | 2.4 | 20.0 | 1 | 8.3 |
| Moridae | 1 | 2.4 | 7.5 | 1 | 8.3 |
| Unidentified juvenile Moridae | 1 | - | 7.5 | - | - |
| Diretmidae | 1 | 2.4 | 4.6 | 1 | 8.3 |
| <i>Diretmus argenteus</i> | 1 | - | 4.6 | - | - |
| Nomeidae | 1 | 2.4 | 12.0 | 1 | 8.3 |
| <i>Cubiceps carnatus</i> | 1 | - | 12.0 | - | - |
| Ommastrephidae | 12 | 29.3 | 132.0 | 4 | 33.3 |
| <i>Sthenoteuthis oualaniensis</i> | 7 | 17.1 | 77.0 | 3 | 25.0 |
| Unidentified Ommastrephidae | 5 | 12.2 | 55.0 | 1 | 8.3 |
| Onychoteuthidae | 7 | 17.1 | 24.5 | 4 | 33.3 |
| <i>Onychoteuthis banksii</i> | 7 | - | 24.5 | - | - |
| Pholidoteuthidae | 1 | 2.4 | 10.2 | 1 | 8.3 |
| <i>Pholidoteuthis boschmai</i> | 1 | - | 10.2 | - | - |
| Cranchiidae | 3 | 7.3 | 22.5 | 3 | 25.0 |
| <i>Leachia dislocata</i> | 1 | 2.4 | 7.5 | 1 | 8.3 |
| <i>Leachia</i> sp. B | 1 | 2.4 | 7.5 | 1 | 8.3 |
| <i>Helicocranchia</i> sp. | 1 | 2.4 | 7.5 | 1 | 8.3 |
| Unidentified Cephalopoda | 2 | 0.0 | 0.0 | 2 | 16.7 |

Note: Sample size of petrels, N = 12, with prey 11; prey sample, N = 41.

APPENDIX 21. DIET OF SOOTY SHEARWATER (*Puffinus griseus*).

| | Number of | | Mass (g) | Prey occurrence | |
|--|-----------|------|----------|-----------------|------|
| | prey | % | | Frequency | % |
| Fishes | 53 | 53.5 | 301.6 | 11 | 26.2 |
| Cephalopods | 35 | 35.4 | 80.0 | 27 | 64.3 |
| Invertebrates | 11 | 11.1 | 1.1 | 5 | 11.9 |
| Photichthyidae | 34 | 34.3 | 47.6 | 1 | 2.4 |
| <i>Viniguerria lucetia</i> | 34 | - | 47.6 | - | - |
| Chauliodontidae | 1 | 1.0 | 4.2 | 1 | 2.4 |
| <i>Chauliodus macouni</i> | 1 | - | 4.2 | - | - |
| Myctophidae | 4 | 4.0 | 12.0 | 4 | 9.5 |
| <i>Lampanyctus nobilis</i> | 3 | 3.0 | 8.2 | 3 | 7.1 |
| <i>Diaphus schmidti</i> | 1 | 1.0 | 3.8 | 1 | 2.4 |
| Hemirhamphidae | 2 | 2.0 | 40.0 | 2 | 4.8 |
| <i>Oxyporhamphus micropterus</i> | 2 | - | 40.0 | - | - |
| Exocoetidae | 7 | 7.1 | 140.0 | 3 | 7.1 |
| <i>Exocoetus</i> spp. | 4 | 4.0 | 80.0 | 3 | 7.1 |
| <i>Hirudichthys</i> sp. cf. <i>H. speculiger</i> | 2 | 2.0 | 40.0 | 1 | 2.4 |
| Unidentified Exocoetidae | 1 | 1.0 | 20.0 | 1 | 2.4 |
| Diretmidae | 2 | 2.0 | 8.8 | 2 | 4.8 |
| <i>Diretmus argenteus</i> | 2 | - | 8.8 | - | - |
| Coryphaenidae | 1 | 1.0 | 25.0 | 1 | 2.4 |
| <i>Coryphaena</i> sp. | 1 | - | 25.0 | - | - |
| Gempylidae | 1 | 1.0 | 12.0 | 1 | 2.4 |
| <i>Nesiarchus nasutus</i> | 1 | - | 12.0 | - | - |
| Nomeidae | 1 | 1.0 | 12.0 | 1 | 2.4 |
| <i>Cubiceps carnatus</i> | 1 | - | 12.0 | - | - |
| Unidentified teleosts | 2 | 2.0 | 0.0 | 1 | 2.4 |
| Ommastrephidae | 8 | 8.1 | 66.0 | 4 | 9.5 |
| <i>Sthenoteuthis oualaniensis</i> | 8 | - | 66.0 | - | - |
| Onychoteuthidae | 13 | 13.1 | 4.8 | 12 | 28.6 |
| <i>Onychoteuthis banksii</i> | 13 | - | 4.8 | - | - |
| Pholidoteuthidae | 1 | 1.0 | 0.0 | 1 | 2.4 |
| <i>Pholidoteuthis boschmai</i> | 1 | 0.0 | - | - | - |
| Enoploteuthidae | 2 | 2.0 | 9.2 | 2 | 4.8 |
| <i>Pterygioteuthis giardi</i> | 1 | 1.0 | 4.6 | 1 | 2.4 |
| <i>Abrialopsis affinis</i> | 1 | 1.0 | 4.6 | 1 | 2.4 |
| Histioteuthidae | 3 | 3.0 | 0.0 | 2 | 4.8 |
| <i>Histioteuthis</i> sp. | 1 | 1.0 | 0.0 | 1 | 2.4 |
| <i>Histioteuthis hoylei</i> | 2 | 2.0 | 0.0 | 1 | 2.4 |
| Chiroteuthidae | 1 | 1.0 | 0.0 | 1 | 2.4 |
| <i>Chiroteuthis</i> sp. | 1 | - | 0.0 | - | - |
| Cranchiidae | 7 | 7.1 | 0.0 | 6 | 14.3 |
| <i>Cranchia scabra</i> | 1 | 0.9 | 0.0 | 1 | 2.4 |
| <i>Liguriella</i> sp. | 1 | 0.9 | 0.0 | 1 | 2.4 |
| <i>Taonius pavo</i> | 3 | 2.8 | 0.0 | 3 | 7.1 |
| <i>Taonius pavo</i> B | 2 | 1.9 | 0.0 | 1 | 2.4 |
| Unidentified Cephalopoda | 5 | 0.0 | 0.0 | 5 | 11.9 |
| Crustacea | 3 | 3.0 | 0.36 | 2 | 4.8 |
| Unidentified crustacean | 2 | 2.0 | 0.24 | 1 | 2.4 |
| Cymothoidae, <i>Nerocila</i> sp. | 1 | 1.0 | 0.12 | 1 | 2.4 |
| Scyphozoa | 8 | 8.1 | 0.72 | 3 | 7.1 |
| <i>Veleva</i> sp. | 8 | - | 0.72 | - | - |

Note: Sample size of shearwaters, N = 43, with prey 31; prey sample, N = 99.

APPENDIX 22. DIET OF WEDGE-TAILED SHEARWATER (*Puffinus pacificus*).

| | Number of | | Mass (g) | Prey occurrence | |
|---|-----------|------|----------|-----------------|------|
| | prey | % | | Frequency | % |
| Fishes | 199 | 41.1 | 3,680.8 | 63 | 56.3 |
| Cephalopods | 283 | 58.5 | 1,784.7 | 71 | 63.4 |
| Invertebrates | 2 | 0.4 | 0.3 | 2 | 1.8 |
| Photichthyidae | 4 | 0.8 | 5.6 | 1 | 0.9 |
| <i>Viniguerria lucetia</i> | 4 | - | 5.6 | - | - |
| Myctophidae | 3 | 0.6 | 18.1 | 3 | 2.7 |
| <i>Ceratoscopelus warmingii</i> | 1 | 0.2 | 4.8 | 1 | 0.9 |
| <i>Gonichthys tenuiculus</i> | 1 | 0.2 | 8.5 | 1 | 0.9 |
| Unidentified Myctophidae | 1 | 0.2 | 4.8 | 1 | 0.9 |
| Hemirhamphidae | 52 | 10.7 | 1,040.0 | 27 | 24.1 |
| <i>Oxyporhamphus micropterus</i> | 50 | 10.3 | 1,000.0 | 25 | 22.3 |
| Unidentified Hemirhamphidae | 2 | 0.4 | 40.0 | 2 | 1.8 |
| Exocoetidae | 116 | 24.0 | 2,320.0 | 33 | 29.5 |
| <i>Exocoetus</i> spp. | 92 | 19.0 | 1,840.0 | 24 | 21.4 |
| <i>Cypselurus</i> sp. | 2 | 0.4 | 40.0 | 2 | 1.8 |
| Unidentified Exocoetidae | 22 | 4.5 | 440.0 | 15 | 13.4 |
| Dirietmidae | 1 | 0.2 | 4.8 | 1 | 0.9 |
| <i>Dirietmus argenteus</i> | 1 | - | 4.8 | - | - |
| Melamphidae | 1 | 0.2 | 4.6 | 1 | 0.9 |
| <i>Melamphaes</i> sp. | 1 | - | 4.6 | - | - |
| Holocentridae | 1 | 0.2 | 4.7 | 1 | 0.9 |
| <i>Adioryx</i> sp. cf. <i>A. microstomus</i> | 1 | - | 4.7 | - | - |
| Coryphaenidae | 3 | 0.6 | 75.0 | 3 | 2.7 |
| <i>Coryphaena</i> spp. | 3 | - | 75.0 | - | - |
| Carangidae | 1 | 0.2 | 22.0 | 1 | 0.9 |
| <i>Naucrates ductor</i> | 1 | - | 22.0 | - | - |
| Scombroidae | 3 | 0.6 | 18.0 | 3 | 2.7 |
| <i>Euthynnus</i> sp. | 3 | - | 18.0 | - | - |
| Gempylidae | 8 | 1.7 | 96.0 | 6 | 5.4 |
| <i>Gempylus serpens</i> | 8 | - | 96.0 | - | - |
| Nomeidae | 6 | 1.2 | 72.0 | 4 | 3.6 |
| <i>Cubiceps carnatus</i> | 6 | - | 72.0 | - | - |
| Unidentified teleosts | 7 | 1.4 | 0.0 | 6 | 5.4 |
| Ommastrephidae | 234 | 48.3 | 1,661.0 | 47 | 42.0 |
| <i>Sthenoteuthis oualaniensis</i> | 175 | 36.2 | 1,617.0 | 40 | 35.7 |
| Unidentified Ommastrephidae | 59 | 12.2 | 44.0 | 1 | 0.9 |
| Onychoteuthidae | 29 | 6.0 | 15.7 | 15 | 13.4 |
| <i>Onychoteuthis banksii</i> | 29 | - | 15.7 | - | - |
| Pholidoteuthidae | 1 | 0.2 | 36.0 | 1 | 0.9 |
| <i>Pholidoteuthis boschmai</i> | 1 | - | 36.0 | - | - |
| Enoploteuthidae | 1 | 0.2 | 0.0 | 1 | 0.9 |
| <i>Abrialopsis</i> sp. | 1 | - | 0.0 | 1 | - |
| Octopoteuthidae | 3 | 0.6 | 0.0 | 2 | 1.8 |
| <i>Octopoteuthis</i> sp. | 3 | - | 0.0 | - | - |
| Histioteuthidae | 5 | 1.0 | 72.0 | 4 | 3.6 |
| <i>Histioteuthis</i> sp. | 1 | 0.2 | 0.0 | 1 | 0.9 |
| <i>Histioteuthis</i> sp. cf. <i>H. hoylei</i> | 2 | 0.4 | 36.0 | 2 | 1.8 |
| <i>Histioteuthis</i> sp. B | 1 | 0.2 | 0.0 | 1 | 0.9 |
| <i>Histioteuthis corona</i> | 1 | 0.2 | 36.0 | 1 | 0.9 |
| Mastigoteuthidae | 1 | 0.2 | 0.0 | 1 | 0.9 |
| <i>Mastigoteuthis</i> sp. | 1 | - | 0.0 | - | - |
| Cranchiidae | 9 | 1.9 | 0.0 | 6 | 5.4 |
| <i>Cranchia scabra</i> | 1 | 0.2 | 0.0 | 1 | 0.9 |
| <i>Liguriella</i> sp. | 1 | 0.2 | 0.0 | 1 | 0.9 |
| <i>Liocranchia reinhardti</i> | 4 | 0.8 | 0.0 | 2 | 1.8 |
| <i>Taonius pavo</i> | 3 | 0.6 | 0.0 | 2 | 1.8 |
| Unidentified Cephalopoda | 6 | 1.2 | 0.0 | 5 | 4.5 |
| Unidentified Teuthoidea | 30 | 6.2 | 0.0 | 9 | 8.0 |
| Crustacea | 1 | 0.2 | 0.2 | 1 | 0.9 |
| Cymothoid, <i>Nerocila</i> sp. | 1 | 0.2 | 0.2 | - | - |
| Scyphozoan | 1 | 0.2 | 0.1 | 1 | 0.9 |
| <i>Porpida</i> sp. | 1 | - | 0.1 | - | - |

Note: Sample size of shearwaters, N = 112, with prey 95; prey sample, N = 484.

APPENDIX 23. DIET OF CHRISTMAS SHEARWATER (*Puffinus nativitatus*).

| | Number of | | Mass (g) | Prey occurrence | |
|-----------------------------------|-----------|------|----------|-----------------|-------|
| | prey | % | | Frequency | % |
| Fishes | 19 | 51.4 | 270.2 | 7 | 100.0 |
| Cephalopods | 18 | 48.6 | 156.5 | 6 | 83.3 |
| Invertebrates | 0 | 0.0 | 0.0 | 0 | 0.0 |
| Sternoptychidae | 1 | 2.7 | 4.2 | 1 | 16.7 |
| <i>Argyropelecus sladeni</i> | 1 | - | 4.2 | - | - |
| Myctophidae | 3 | 8.1 | 13.1 | 1 | 16.7 |
| <i>Ceratoscopelus warmingii</i> | 3 | - | 13.1 | - | - |
| Hemirhamphidae | 1 | 2.7 | 20.0 | 1 | 16.7 |
| <i>Oxyporhamphus micropterus</i> | 1 | - | 20.0 | - | - |
| Exocoetidae | 11 | 29.7 | 220.0 | 5 | 66.7 |
| <i>Exocoetus</i> spp. | 5 | 13.5 | 100.0 | 3 | 50.0 |
| <i>Cypselurus</i> sp. | 2 | 5.4 | 40.0 | 1 | 16.7 |
| Unidentified Exocoetidae | 4 | 10.8 | 80.0 | 2 | 16.7 |
| Bregmacerotidae | 2 | 5.4 | 8.5 | 1 | 16.7 |
| <i>Bregmaceros bathymaster</i> | 2 | - | 8.5 | - | - |
| Melamphidae | 1 | 2.7 | 4.4 | 1 | 16.7 |
| <i>Scopeloberyx robusta</i> | 1 | - | 4.4 | - | - |
| Unidentified teleosts | 1 | 2.7 | 0.0 | 1 | 16.7 |
| Ommastrephidae | 16 | 43.2 | 143.0 | 4 | 50.0 |
| <i>Sthenoteuthis oualaniensis</i> | 11 | 29.7 | 88.0 | 4 | - |
| Unidentified Ommastrephidae | 5 | 13.5 | 55.0 | 1 | - |
| Onychoteuthidae | 1 | 2.7 | 7.5 | 1 | 16.7 |
| <i>Onychoteuthis banksii</i> | 1 | - | 7.5 | - | - |
| Octopoda | 1 | 2.7 | 6.0 | 1 | 16.7 |
| Ocythoidae | 1 | 2.7 | 6.0 | 1 | 16.7 |
| <i>Ocythoe tuberculata</i> | 1 | - | 6.0 | - | - |

Note: Sample size of shearwaters, N = 7, all with prey; prey sample, N = 37.

APPENDIX 24. DIET OF SOOTY TERN (*ONYCHOPRION FUSCATA*).

| | Number of | | Mass (g) | Prey occurrence | |
|--|-----------|------|----------|-----------------|------|
| | prey | % | | Frequency | % |
| Fishes | 227 | 58.1 | 1816.4 | 9 | 74.2 |
| Cephalopods | 162 | 41.4 | 1,237.0 | 9 | 52.7 |
| Invertebrates | 2 | 0.5 | 0.2 | 1 | 1.1 |
| Photichthyidae | 24 | 6.1 | 33.6 | 4 | 4.3 |
| <i>Viniguerria lucetia</i> | 24 | - | 33.6 | - | - |
| Myctophidae | 9 | 2.3 | 50.5 | 4 | 4.3 |
| <i>Symbolophorus evermanni</i> | 4 | 1.0 | 20.4 | 2 | 2.2 |
| <i>Ceratoscopelus warmingii</i> | 2 | 0.5 | 15.7 | 1 | 1.1 |
| <i>Diaphus jenseni</i> | 3 | 0.8 | 14.4 | 1 | 1.1 |
| Hemirhamphidae | 34 | 8.7 | 425.0 | 17 | 18.7 |
| <i>Hemirhamphus</i> sp. | 5 | 1.3 | 62.5 | 2 | 2.2 |
| <i>Oxyporhamphus micropterus</i> | 25 | 6.4 | 312.5 | 12 | 12.9 |
| Unidentified Hemirhamphidae | 4 | 1.0 | 50.0 | 3 | 3.2 |
| Exocoetidae | 49 | 12.5 | 412.5 | 29 | 31.2 |
| <i>Exocoetus</i> spp. | 25 | 6.4 | 112.5 | 12 | 12.9 |
| <i>Hirudichthys</i> sp. cf. <i>H. speculiger</i> | 1 | 0.3 | 12.5 | 1 | 1.1 |
| Unidentified Exocoetidae | 23 | 5.9 | 287.5 | 18 | 19.4 |
| Diretmidae | 1 | 0.3 | 4.8 | 1 | 1.1 |
| <i>Diretmus argenteus</i> | 1 | - | 4.8 | - | - |
| Carangidae | 1 | 0.3 | 20.0 | 1 | 1.1 |
| <i>Naucrates ductor</i> | 1 | 0.3 | 20.0 | - | - |
| Scombridae | 73 | 18.7 | 438.0 | 11 | 11.8 |
| <i>Euthynnus</i> sp. | 73 | 18.7 | 438.0 | - | - |
| Gempylidae | 21 | 5.4 | 252.0 | 13 | 14.0 |
| <i>Pronethichthys prometheus</i> | 3 | 0.8 | 36.0 | 3 | 3.2 |
| <i>Gempylus serpens</i> | 17 | 4.3 | 204.0 | 11 | 11.8 |
| Unidentified Gempylidae | 1 | 0.3 | 12.0 | 1 | 1.1 |
| Nomeidae | 15 | 3.8 | 180.0 | 5 | 5.4 |
| <i>Cubiceps carnatus</i> | 15 | - | 180.0 | - | - |
| Unidentified teleosts | 3 | 0.0 | 0.0 | 3 | 3.2 |
| Ommastrephidae | 157 | 40.1 | 1,232.0 | 46 | 49.5 |
| <i>Sthenoteuthis oualaniensis</i> | 132 | 33.8 | 1,166.0 | 41 | 44.1 |
| Unidentified Ommastrephidae | 25 | 6.4 | 66.0 | 10 | 10.8 |
| Octopoteuthidae | 4 | 1.0 | 5.0 | 1 | 1.1 |
| <i>Octopoteuthis</i> sp. | 4 | - | 5.0 | - | - |
| Cranchiidae | 1 | 0.3 | 0.0 | 1 | 1.1 |
| <i>Taonius pavo</i> | 1 | - | 0.0 | - | - |
| Unidentified Teuthoidea | 2 | 0.5 | 0.0 | 2 | 2.2 |
| Crustacea | 1 | 0.3 | 0.15 | 1 | 1.1 |
| Mysid sp. | 1 | - | 0.15 | - | - |
| Gerrid insect | 1 | 0.3 | 0.03 | 1 | 1.1 |
| <i>Halobates</i> sp. | 1 | - | 0.03 | - | - |

Note: Sample size of terns, N = 93, with prey 82; prey sample, N = 391.

APPENDIX 25. DIET OF WHITE TERN (*GYGIS ALBA*).

| | Number of | | Mass (g) | Prey occurrence | |
|-----------------------------------|-----------|------|----------|-----------------|------|
| | prey | % | | Frequency | % |
| Fishes | 37 | 62.7 | 295.9 | 10 | 83.3 |
| Cephalopods | 5 | 8.5 | 45.0 | 4 | 33.3 |
| Invertebrates | 17 | 28.8 | 0.7 | 2 | 16.7 |
| Myctophidae | 3 | 5.1 | 17.6 | 2 | 16.7 |
| <i>Electrona risso</i> | 1 | 1.7 | 5.5 | 1 | 8.3 |
| Unidentified Myctophidae | 2 | 3.4 | 12.1 | 1 | 8.3 |
| Exocoetidae | 7 | 11.9 | 87.5 | 4 | 33.3 |
| <i>Exocoetus</i> spp. | 3 | 5.1 | 37.5 | 2 | 16.7 |
| Unidentified Exocoetidae | 4 | 6.8 | 50.0 | 3 | 25.0 |
| Scombridae | 21 | 35.6 | 126.0 | 5 | 41.7 |
| <i>Euthynnus</i> sp. | 21 | - | 126.0 | - | - |
| Gempylidae | 5 | 8.5 | 60.0 | 3 | 25.0 |
| <i>Pronethichthys prometheus</i> | 2 | 3.4 | 24.0 | 1 | 18.3 |
| <i>Gempylus serpens</i> | 3 | 5.1 | 36.0 | 2 | 16.7 |
| Tetradontidae | 1 | 1.7 | 4.8 | 1 | 8.3 |
| <i>Lagocephalus</i> sp. | 1 | - | 4.8 | - | - |
| Ommastrephidae | 5 | 8.5 | 45.0 | 4 | 33.3 |
| <i>Sthenoteuthis oualaniensis</i> | 5 | - | 45.0 | - | - |
| Gerrid insect | 14 | 23.7 | 0.42 | 1 | 8.3 |
| <i>Halobates</i> (orange body) | 2 | 3.4 | 0.06 | 1 | 8.3 |
| <i>Halobates</i> (black body) | 12 | 20.3 | 0.36 | 1 | 8.3 |
| Snail | 1 | 1.7 | 0.15 | 1 | 8.3 |
| <i>Janthina</i> sp. | 1 | - | 0.15 | - | - |
| Pteropod | 2 | 3.4 | 0.1 | 1 | 8.3 |
| Pteropod sp. | 2 | - | 0.1 | - | - |

Note: Sample size of terns, N = 12, with prey 11; prey sample, N = 59.

APPENDIX 26. DIET OF GRAY-BACKED TERN (*ONYCHOPRION LUNATUS*).

| | Number of | | Mass (g) | Prey occurrence | |
|---|-----------|------|----------|-----------------|-------|
| | prey | % | | Frequency | % |
| Fishes | 21 | 42.0 | 270.6 | 5 | 100.0 |
| Cephalopods | 1 | 2.0 | 6.0 | 1 | 20.0 |
| Invertebrates | 28 | 56.0 | 0.8 | 4 | 80.0 |
| Hemirhamphidae | 4 | 8.0 | 50.0 | 2 | 40.0 |
| <i>Hemirhamphus</i> sp. | 3 | 6.0 | 37.5 | 2 | 40.0 |
| <i>Oxyporhamphus micropterus</i> | 1 | 2.0 | 12.5 | 1 | 20.0 |
| Exocoetidae | 16 | 32.0 | 200.0 | 4 | 80.0 |
| <i>Exocoetus</i> spp. | 9 | 18.0 | 112.5 | 3 | 60.0 |
| <i>Cypselurus</i> sp. cf. <i>C. spilopterus</i> | 1 | 2.0 | 12.5 | 1 | 20.0 |
| Unidentified Exocoetidae | 6 | 12.0 | 75.0 | 3 | 60.0 |
| Carangidae | 1 | 2.0 | 20.0 | 1 | 20.0 |
| <i>Naucrates ductor</i> | 1 | - | 20.0 | - | - |
| Ommastrephidae | 1 | 2.0 | 6.0 | 1 | 20.0 |
| <i>Sthenoteuthis oualaniensis</i> | 1 | - | 6.0 | - | - |
| Gerrid insect | 28 | 56.0 | 0.84 | 4 | 80.0 |
| <i>Halobates</i> sp. | 28 | - | 0.84 | - | - |

Note: Sample size of terns, N = 5, all with prey; prey sample, N = 50.

APPENDIX 27. DIET OF PARASITIC JAEGER (*STERCORARIUS PARASITICUS*).

| | Number of | | Mass (g) | Prey occurrence | |
|-----------------------------------|-----------|------|----------|-----------------|------|
| | prey | % | | Frequency | % |
| Fishes | 5 | 10.4 | 16.6 | 4 | 44.4 |
| Cephalopods | 8 | 16.7 | 10.0 | 4 | 44.4 |
| Misc. Invertebrates/eggs | 35 | 72.9 | 18.7 | 5 | 55.6 |
| Photichthyidae | 2 | 4.2 | 2.8 | 1 | 11.1 |
| <i>Viniguerria lucetia</i> | 2 | - | 2.8 | - | - |
| Myctophidae | 1 | 2.1 | 4.8 | 1 | 11.1 |
| <i>Myctophum</i> sp. | 1 | - | 4.8 | - | - |
| Diretmidae | 1 | 2.1 | 4.8 | 1 | 11.1 |
| <i>Diretmus argenteus</i> | 1 | - | 4.8 | - | - |
| Melamphidae | 1 | 2.1 | 4.2 | 1 | 11.1 |
| <i>Poromitra</i> sp. | 1 | - | 4.2 | - | - |
| Unidentified teleosts | 2 | 0.0 | 0.0 | 2 | 22.2 |
| Ommastrephidae | 1 | 2.1 | 10.0 | 1 | 11.1 |
| <i>Sthenoteuthis oualaniensis</i> | 1 | - | 10.0 | - | - |
| Pholidoteuthidae | 1 | 2.1 | 5.0 | 1 | 11.1 |
| <i>Pholidoteuthis boschmai</i> | 1 | - | 5.0 | - | - |
| Enoploteuthidae | 5 | 10.4 | 0.0 | 2 | 22.2 |
| <i>Abraliopsis</i> sp. | 5 | - | 0.0 | - | - |
| Cranchiidae | 1 | 2.1 | 5.0 | 1 | 11.1 |
| <i>Liguriella</i> sp. | 1 | - | 5.0 | - | - |
| Lepas barnacle | 30 | 62.5 | 5.4 | 4 | 44.4 |
| <i>Lepas</i> sp. | 30 | - | 5.4 | - | - |
| Snail | 3 | 6.3 | 0.3 | 1 | 11.1 |
| <i>Janthina</i> sp. | 3 | - | 0.3 | - | - |
| ^a Eggs | 2 | 4.2 | 13.0 | 2 | 22.2 |
| Exocoetid eggs | 2 | - | 13.0 | - | - |

Note: Sample size of jaegers, N = 9, all with prey; prey sample, N = 48.

^aTwo egg bunches consisting of approximately 400 and 250 eggs.

APPENDIX 28. DIET OF RED-TAILED TROPICBIRD (*PHAETHON RUBRICAUDA*).

| | Number of | | Mass (g) | Prey occurrence | |
|-----------------------------------|-----------|------|----------|-----------------|------|
| | prey | % | | Frequency | % |
| Fishes | 20 | 23.8 | 610.0 | 9 | 81.9 |
| Cephalopods | 64 | 76.2 | 900.2 | 8 | 72.7 |
| Invertebrates | 0 | 0.0 | 0.0 | 0 | 0.0 |
| Hemirhamphidae | 4 | 4.8 | 120.0 | 2 | 18.2 |
| <i>Oxyporhamphus micropterus</i> | 4 | - | 120.0 | - | - |
| Exocoetidae | 14 | 16.7 | 420.0 | 6 | 54.5 |
| <i>Exocoetus</i> spp. | 11 | 13.1 | 330.0 | 6 | 54.5 |
| Unidentified Exocoetidae | 3 | 3.6 | 90.0 | 2 | 18.2 |
| Corphaenidae | 1 | 1.2 | 35.0 | 1 | 9.1 |
| <i>Coryphaena</i> sp. | 1 | - | 35.0 | - | - |
| Scombridae | 1 | 1.2 | 35.0 | 1 | 9.1 |
| <i>Auxis</i> sp. | 1 | - | 35.0 | - | - |
| Ommastrephidae | 60 | 71.4 | 885.0 | 8 | 72.7 |
| <i>Sthenoteuthis oualaniensis</i> | 55 | 65.5 | 825.0 | 7 | 63.6 |
| <i>Hyaloteuthis pelagica</i> | 5 | 6.0 | 60.0 | 2 | 18.2 |
| Enoploteuthidae | 2 | 2.4 | 10.4 | 2 | 18.2 |
| <i>Abraliopsis affinis</i> | 1 | 1.2 | 4.8 | 1 | 9.1 |
| <i>Ancistrocheirus lesueurii</i> | 1 | 1.2 | 5.6 | 1 | 9.1 |
| Cranchiidae | 1 | 1.2 | - | 1 | 9.1 |
| <i>Cranchia scabra</i> | 1 | - | 0.0 | - | - |
| Octopods | 1 | 1.2 | 4.8 | 1 | 9.1 |
| Ocythoidae | 1 | 1.2 | 4.8 | 1 | 9.1 |
| <i>Ocythoe tuberculata</i> | 1 | - | 4.8 | - | - |

Note: Sample size of tropicbirds, N = 11, with prey 10; prey sample, N = 84.

APPENDIX 29. DIET OF GREAT FRIGATEBIRD (*FREGATA MINOR*).

| | Number of | | Mass (g) | Prey occurrence | |
|-----------------------------------|-----------|------|----------|-----------------|-----|
| | prey | % | | Frequency | % |
| Fishes | 11 | 42.3 | 304.8 | 4 | 100 |
| Cephalopods | 14 | 53.8 | 210.0 | 2 | 50 |
| Invertebrates | 1 | 3.8 | 0.2 | 1 | 25 |
| Hemirhamphidae | 3 | 11.5 | 90.0 | 3 | 75 |
| <i>Oxyporhamphus micropterus</i> | 3 | - | 90.0 | - | - |
| Exocoetidae | 7 | 26.9 | 210.0 | 3 | 75 |
| <i>Exocoetus</i> spp. | 4 | 15.4 | 120.0 | 2 | 50 |
| <i>Cypselurus</i> sp. | 1 | 3.8 | 30.0 | 1 | 25 |
| Unidentified Exocoetidae | 2 | 7.7 | 60.0 | 1 | 25 |
| Dirietmidae | 1 | 3.8 | 4.8 | 1 | 25 |
| <i>Dirietmus argenteus</i> | 1 | - | 4.8 | - | - |
| Ommastrephidae | 8 | 30.8 | 120.0 | 2 | 50 |
| <i>Sthenoteuthis oualaniensis</i> | 8 | - | 120.0 | - | - |
| Onychoteuthidae | 6 | 23.1 | 90.0 | 2 | 25 |
| <i>Onychoteuthis banksii</i> | 6 | - | 90.0 | - | - |
| Crustacea | 1 | 3.8 | 0.2 | 1 | 25 |
| Cymothoid, <i>Nerocila</i> sp. | 1 | - | 0.2 | - | - |

Note: Sample size of frigatebirds, N = 4, all with prey; prey sample, N = 26.

APPENDIX 30. DIET OF MASKED BOOBY (*SULA DACTYLATRA*).

| | Number of | | Mass (g) | Prey occurrence | |
|--|-----------|------|----------|-----------------|-------|
| | prey | % | | Frequency | % |
| Fishes | 134 | 93.1 | 3,885.0 | 18 | 100.0 |
| Cephalopods | 7 | 4.9 | 105.0 | 2 | 11.1 |
| Invertebrates | 3 | 2.1 | 0.5 | 3 | 16.7 |
| Hemirhamphidae | 28 | 19.4 | 690.0 | 10 | 55.6 |
| <i>Oxyporhamphus micropterus</i> | 27 | 18.8 | 660.0 | 9 | 50.0 |
| Unidentified Hemirhamphidae | 1 | 0.7 | 30.0 | 1 | 5.6 |
| Exocoetidae | 97 | 67.4 | 2,940.0 | 16 | 88.9 |
| <i>Exocoetus</i> spp. | 64 | 44.4 | 1,920.0 | 12 | 66.7 |
| <i>Hirudichthys</i> sp. cf. <i>H. speculiger</i> | 5 | 3.5 | 150.0 | 3 | 16.7 |
| <i>Cypselurus</i> sp. cf. <i>C. spilopterus</i> | 1 | 0.7 | 30.0 | 1 | 5.6 |
| <i>Cypselurus</i> sp. cf. <i>C. exilens</i> | 1 | 0.7 | 30.0 | 1 | 5.6 |
| <i>Cypselurus</i> sp. | 5 | 3.5 | 150.0 | 1 | 5.6 |
| <i>Prognichthys</i> sp. | 3 | 2.1 | 90.0 | 2 | 11.1 |
| Unidentified Exocoetidae | 19 | 13.2 | 570.0 | 7 | 38.9 |
| Coryphaenidae | 4 | 2.8 | 140.0 | 3 | 16.7 |
| <i>Coryphaena</i> spp. | 4 | - | 140.0 | - | - |
| Scombridae | 2 | 1.4 | 70.0 | 2 | 11.1 |
| <i>Auxis</i> sp. | 2 | - | 70.0 | - | - |
| Nomeidae | 3 | 2.1 | 45.0 | 2 | 11.1 |
| <i>Cubiceps carnatus</i> | 3 | - | 45.0 | - | - |
| Ommastrephidae | 7 | 4.9 | 105.0 | 2 | 11.1 |
| <i>Sthenoteuthis oualaniensis</i> | 7 | - | 105.0 | - | - |
| Crustacea | 3 | 2.1 | 0.5 | 3 | 16.7 |
| Cymothoid, <i>Nerocila</i> sp. | 3 | - | 0.5 | - | - |

Note: Sample size of boobies, N = 18, all with prey; prey sample, N = 144.

APPENDIX 31. DIET OF NAZCA BOOBY (*SULA GRANTI*).

| | Number of | | Mass (g) | Prey occurrence | |
|--|-----------|------|----------|-----------------|-------|
| | prey | % | | Frequency | % |
| Fishes | 52 | 35.6 | 1,565.0 | 5 | 100.0 |
| Cephalopods | 92 | 63.0 | 1,380.0 | 5 | 100.0 |
| Invertebrates | 2 | 1.4 | 0.4 | 2 | 40.0 |
| Hemirhamphidae | 27 | 18.5 | 810.0 | 5 | 100.0 |
| <i>Oxyporhamphus micropterus</i> | 27 | - | 810.0 | - | - |
| Exocoetidae | 24 | 16.4 | 720.0 | 5 | 100.0 |
| <i>Exocoetus</i> spp. | 20 | 13.7 | 600.0 | 5 | 100.0 |
| <i>Hirudichthys</i> sp. cf. <i>H. speculiger</i> | 1 | 0.7 | 30.0 | 1 | 20.0 |
| <i>Cypselurus</i> sp. | 2 | 1.4 | 60.0 | 2 | 40.0 |
| Unidentified Exocoetidae | 1 | 0.7 | 30.0 | 1 | 20.0 |
| Coryphaenidae | 1 | 0.7 | 35.0 | 1 | 20.0 |
| <i>Coryphaena</i> sp. | 1 | - | 35.0 | - | - |
| Ommastrephidae | 92 | 63.0 | 1,380.0 | 5 | 100.0 |
| <i>Sthenoteuthis oualaniensis</i> | 92 | - | 1,380.0 | - | - |
| Crustacea | 2 | 1.4 | 0.4 | 2 | 40.0 |
| Cymothoid, <i>Nerocila</i> sp. | 2 | - | 0.4 | - | - |

Note: Sample size of boobies, N = 5, all with prey; prey sample, N = 146.

APPENDIX 32. DIET OF RED-FOOTED BOOBY (*SULA SULA*).

| | Number of | | Mass (g) | Prey occurrence | |
|-----------------------------------|-----------|------|----------|-----------------|------|
| | prey | % | | Frequency | % |
| Fishes | 11 | 10.9 | 330.0 | 3 | 60.0 |
| Cephalopods | 90 | 89.1 | 1,344.5 | 3 | 60.0 |
| Invertebrates | 0 | 0.0 | 0.0 | 0 | 0.0 |
| Hemirhamphidae | 6 | 5.9 | 180.0 | 2 | 40.0 |
| <i>Oxyporhamphus micropterus</i> | 6 | - | 180.0 | - | - |
| Exocoetidae | 5 | 5.0 | 150.0 | 1 | 20.0 |
| <i>Exocoetus</i> spp. | 5 | 4.0 | 150.0 | 1 | - |
| Ommastrephidae | 88 | 87.1 | 1,320.0 | 3 | 60.0 |
| <i>Sthenoteuthis oualaniensis</i> | 88 | - | 1,320.0 | - | - |
| Cranchiidae | 2 | 2.0 | 24.5 | 2 | 40.0 |
| <i>Leachia dislocata</i> | 1 | 1.0 | 12.5 | 1 | 20.0 |
| <i>Taonius pavo</i> | 1 | 1.0 | 12.0 | 1 | 20.0 |

Note: Sample size of boobies, N = 5, with prey 4; prey sample, N = 101.

APPENDIX 33. MINIMUM DEPTH DISTRIBUTIONS OF MYCTOPHIDS DURING NOCTURNAL VERTICAL MIGRATIONS.

| Prey species | Depth at night (m) | Information source | Maximum standard length (mm) |
|---------------------------------|--------------------|--|------------------------------|
| <i>Electrona risso</i> | surface | Wisner (1974) | 90 |
| <i>Hygophum proximum</i> | surface | Wisner (1974), R. L. Pitman (unpubl. data) | 50 |
| <i>Hygophum reinhardti</i> | surface | Wisner (1974) | 55 |
| <i>Benthoosema panamense</i> | surface | Wisner (1974), R. L. Pitman (unpubl. data) | 55 |
| <i>Benthoosema suborbitale</i> | unknown | Wisner (1974) | 33 |
| <i>Diogenichthys laternatus</i> | 100 | Wisner (1974), R. L. Pitman (unpubl. data) | 25 |
| <i>Myctophum nitidulum</i> | surface | Wisner (1974), R. L. Pitman (unpubl. data) | 79 |
| <i>Myctophum lychnobium</i> | surface | Wisner (1974), R. L. Pitman (unpubl. data) | 116 |
| <i>Myctophum spinosum</i> | surface | Wisner (1974), R. L. Pitman (unpubl. data) | 90 |
| <i>Myctophum aurolaterdatum</i> | surface | Wisner (1974), R. L. Pitman (unpubl. data) | 110 |
| <i>Symbolophorus evermanni</i> | surface | Wisner (1974), R. L. Pitman (unpubl. data) | 82 |
| <i>Lampadena luminosa</i> | 60 | Wisner (1974) | 150 |
| <i>Bolinichthys photothorax</i> | 50–150 | Wisner (1974) | 68 |
| <i>Bolinichthys longipes</i> | 50–150 | Wisner (1974) | 49 |
| <i>Ceratoscopelus warmingi</i> | 100 | Wisner (1974) | 75 |
| <i>Lampanyctus nobilis</i> | 100–200 | Wisner (1974) | 140 |
| <i>Lampanyctus parvicauda</i> | surface | Wisner (1974), R. L. Pitman (unpubl. data) | 110 |
| <i>Lampanyctus idostigma</i> | unknown | Wisner (1974) | 90 |
| <i>Lampanyctus omostigma</i> | surface | Wisner (1974) | 65 |
| <i>Diaphus parri</i> | 200 | Wisner (1974) as <i>Diaphus longleyi</i> | 55 |
| <i>Diaphus jenseni</i> | 85 | Wisner (1974) | 40 |
| <i>Diaphus lutkeni</i> | 90 | Wisner (1974) | 60 |
| <i>Diaphus garmani</i> | surface | Nakamura (1970), Wisner (1974) | 55 |
| <i>Diaphus schmidti</i> | 100 | Wisner (1974) | 40 |
| <i>Diaphus mollis</i> | surface | Wisner (1974) | 65 |
| <i>Diaphus lucidus</i> | 175 | Wisner (1974) | 78 |
| <i>Notoscopelus resplendens</i> | 200 | Wisner (1974) | 80 |
| <i>Gonichthys tenuiculus</i> | surface | Wisner (1974), R. L. Pitman (unpubl. data) | 58 |