

Appendix E

Community Measures at Offshore Sites

Community measures for mainland shelf, island shelf, slope and basin sampling sites. Sampling strata are assigned by depth: Inner Shelf: 5-30m, Mid Shelf: 31-120 m, Outer Shelf: 121-200 m, Island Shelf: 5-200 m, Upper Slope: 201-500 m, Lower Slope: 501-1000m. Abundance and number of taxa are for 0.1-m² Van Veen grab samples. The Shannon-Wiener Diversity Index (Shannon) was calculated using log_e; therefore, the units are nats. Evenness is the ratio of the observed Shannon diversity to the maximum, given the same no. of taxa (Pielou 1969).

Dominance is the minimum number of species whose combined abundance is equal to 75% of the individuals in the sample (Swartz *et al.* 1986). The Mainland Shelf Benthic Response Index (BRI; Smith *et al.* 2001) and condition categories are explained in Chapter 2. RL: Response Level; NA: No validated condition evaluation tool available (see Chapter 2).

| Site | Stratum | Abundance (0.1 m2) | No. of Taxa (0.1 m2) | Shannon (nats) | Evenness | Dominance | Shelf BRI | Condition |
|------|-------------|-----------------------|----------------------------|-------------------|----------|-----------|--------------|-----------|
| 7000 | Inner Shelf | 97 | 38 | 3.43 | 0.94 | 19 | 17.8 | Reference |
| 7002 | Mid Shelf | 1159 | 150 | 3.79 | 0.76 | 28 | 22.3 | Reference |
| 7008 | Outer Shelf | 193 | 79 | 4.00 | 0.91 | 34 | 12.3 | Reference |
| 7009 | Mid Shelf | 606 | 140 | 4.21 | 0.85 | 42 | 17.4 | Reference |
| 7019 | Mid Shelf | 504 | 110 | 3.49 | 0.74 | 24 | 10.3 | Reference |
| 7021 | Inner Shelf | 173 | 53 | 3.26 | 0.82 | 19 | 23.5 | Reference |
| 7022 | Lower Slope | 52 | 28 | 3.02 | 0.91 | 15 | | NA |
| 7024 | Inner Shelf | 605 | 44 | 1.60 | 0.42 | 3 | 13.6 | Reference |
| 7029 | Outer Shelf | 76 | 35 | 3.13 | 0.88 | 16 | -2.3 | Reference |
| 7032 | Outer Shelf | 414 | 93 | 3.08 | 0.68 | 22 | 16.7 | Reference |
| 7044 | Inner Shelf | 311 | 46 | 3.01 | 0.78 | 12 | 7.6 | Reference |
| 7045 | Upper Slope | 161 | 53 | 3.24 | 0.82 | 20 | 17.2 | Reference |
| 7056 | Upper Slope | 66 | 22 | 2.49 | 0.81 | 8 | 15.2 | Reference |
| 7064 | Upper Slope | 48 | 25 | 2.94 | 0.91 | 13 | | NA |
| 7068 | Mid Shelf | 284 | 63 | 2.99 | 0.72 | 15 | 11.1 | Reference |
| 7069 | Upper Slope | 73 | 28 | 2.77 | 0.83 | 11 | | NA |
| 7070 | Lower Slope | 36 | 19 | 2.71 | 0.92 | 10 | | NA |
| 7079 | Upper Slope | 97 | 32 | 2.93 | 0.84 | 10 | | NA |
| 7080 | Upper Slope | 77 | 27 | 2.88 | 0.87 | 10 | | NA |
| 7081 | Outer Shelf | 155 | 68 | 3.93 | 0.93 | 32 | 16.5 | Reference |
| 7082 | Lower Slope | 81 | 31 | 2.74 | 0.80 | 12 | | NA |
| 7091 | Inner Shelf | 96 | 30 | 2.80 | 0.82 | 11 | 8.1 | Reference |
| 7092 | Lower Slope | 32 | 19 | 2.63 | 0.89 | 11 | | NA |
| 7093 | Mid Shelf | 184 | 58 | 3.17 | 0.78 | 20 | 2.0 | Reference |
| 7094 | Lower Slope | 17 | 13 | 2.48 | 0.97 | 9 | | NA |
| 7096 | Upper Slope | 81 | 31 | 2.96 | 0.86 | 14 | 13.1 | Reference |
| 7097 | Lower Slope | 26 | 23 | 3.10 | 0.99 | 17 | | NA |
| 7098 | Outer Shelf | 250 | 67 | 3.28 | 0.78 | 22 | 17.7 | Reference |
| 7099 | Lower Slope | 41 | 24 | 2.97 | 0.93 | 14 | | NA |
| 7100 | Lower Slope | 42 | 26 | 3.14 | 0.96 | 16 | | NA |
| 7102 | Lower Slope | 17 | 13 | 2.48 | 0.97 | 9 | | NA |

| Site | Stratum | Abundance (0.1 m2) | No. of Taxa (0.1 m2) | Shannon (nats) | Evenness | Dominance | Shelf BRI | Condition |
|------|--------------|-----------------------|----------------------------|-------------------|----------|-----------|--------------|-----------|
| 7104 | Lower Slope | 21 | 18 | 2.85 | 0.98 | 13 | | NA |
| 7109 | Lower Slope | 13 | 9 | 2.03 | 0.92 | 6 | | NA |
| 7111 | Lower Slope | 44 | 17 | 2.49 | 0.88 | 7 | | NA |
| 7121 | Lower Slope | 26 | 17 | 2.67 | 0.94 | 11 | | NA |
| 7122 | Mid Shelf | 241 | 63 | 3.08 | 0.74 | 15 | 13.5 | Reference |
| 7123 | Upper Slope | 68 | 22 | 2.36 | 0.76 | 6 | | NA |
| 7126 | Lower Slope | 16 | 12 | 2.39 | 0.96 | 8 | | NA |
| 7128 | Mid Shelf | 179 | 51 | 3.05 | 0.78 | 15 | 7.4 | Reference |
| 7145 | Mid Shelf | 397 | 96 | 3.92 | 0.86 | 30 | 17.6 | Reference |
| 7155 | Lower Slope | 68 | 44 | 3.55 | 0.94 | 27 | | NA |
| 7158 | Outer Shelf | 118 | 49 | 3.52 | 0.90 | 23 | 16.9 | Reference |
| 7159 | Inner Shelf | 117 | 42 | 3.25 | 0.87 | 18 | 26.0 | RL 1 |
| 7165 | Outer Shelf | 278 | 68 | 3.51 | 0.83 | 21 | 15.0 | Reference |
| 7166 | Mid Shelf | 415 | 91 | 3.59 | 0.80 | 24 | 10.8 | Reference |
| 7167 | Mid Shelf | 266 | 86 | 3.79 | 0.85 | 30 | 12.6 | Reference |
| 7168 | Lower Slope | 33 | 19 | 2.71 | 0.92 | 11 | | NA |
| 7173 | Lower Slope | 24 | 16 | 2.64 | 0.95 | 10 | | NA |
| 7174 | Upper Slope | 66 | 28 | 2.95 | 0.89 | 12 | | NA |
| 7175 | Lower Slope | 58 | 35 | 3.31 | 0.93 | 21 | | NA |
| 7185 | Mid Shelf | 489 | 97 | 3.49 | 0.76 | 22 | 13.2 | Reference |
| 7186 | Upper Slope | 124 | 57 | 3.83 | 0.95 | 28 | | NA |
| 7193 | Upper Slope | 69 | 16 | 1.71 | 0.62 | 4 | | NA |
| 7200 | Lower Slope | 47 | 18 | 2.33 | 0.81 | 7 | | NA |
| 7206 | Lower Slope | 15 | 13 | 2.49 | 0.97 | 10 | | NA |
| 7207 | Lower Slope | 28 | 19 | 2.80 | 0.95 | 12 | | NA |
| 7208 | Outer Shelf | 532 | 103 | 3.74 | 0.81 | 28 | 12.7 | Reference |
| 7210 | Upper Slope | 80 | 30 | 3.08 | 0.91 | 13 | | NA |
| 7212 | Lower Slope | 13 | 3 | 0.90 | 0.82 | 2 | | NA |
| 7215 | Inner Shelf | 481 | 125 | 4.11 | 0.85 | 37 | 23.5 | Reference |
| 7231 | Inner Shelf | 212 | 57 | 3.10 | 0.77 | 15 | 7.8 | Reference |
| 7235 | Island Shelf | 374 | 77 | 3.61 | 0.83 | 23 | -2.8 | Reference |
| 7236 | Upper Slope | 79 | 27 | 2.63 | 0.80 | 9 | | NA |
| 7238 | Lower Slope | 203 | 22 | 1.35 | 0.44 | 2 | | NA |
| 7241 | Upper Slope | 75 | 36 | 3.17 | 0.88 | 18 | 21.9 | Reference |
| 7250 | Lower Slope | 15 | 12 | 2.43 | 0.98 | 9 | | NA |
| 7251 | Lower Slope | 56 | 27 | 2.89 | 0.88 | 13 | | NA |
| 7253 | Mid Shelf | 333 | 102 | 4.09 | 0.88 | 39 | 11.8 | Reference |
| 7269 | Mid Shelf | 445 | 110 | 4.12 | 0.88 | 37 | 18.1 | Reference |
| 7280 | Lower Slope | 11 | 9 | 2.15 | 0.98 | 7 | | NA |
| 7287 | Mid Shelf | 375 | 109 | 4.12 | 0.88 | 38 | 9.8 | Reference |
| 7288 | Lower Slope | 11 | 2 | 0.30 | 0.44 | 1 | | NA |
| 7293 | Inner Shelf | 195 | 72 | 3.37 | 0.79 | 27 | 21.7 | Reference |
| 7296 | Lower Slope | 75 | 23 | 2.75 | 0.88 | 10 | | NA |
| 7298 | Mid Shelf | 412 | 107 | 4.15 | 0.89 | 36 | 21.1 | Reference |
| 7300 | Inner Shelf | 595 | 121 | 4.10 | 0.85 | 39 | 24.3 | Reference |
| 7301 | Mid Shelf | 726 | 153 | 4.30 | 0.85 | 43 | 20.3 | Reference |
| 7305 | Inner Shelf | 687 | 155 | 4.28 | 0.85 | 42 | 22.6 | Reference |

| Site | Stratum | Abundance (0.1 m2) | No. of Taxa (0.1 m2) | Shannon (nats) | Even- ness | Domi- nance | Shelf BRI | Condition |
|------|--------------|-----------------------|----------------------------|-------------------|---------------|----------------|--------------|-----------|
| 7312 | Inner Shelf | 521 | 83 | 3.40 | 0.77 | 20 | 29.1 | RL 1 |
| 7313 | Inner Shelf | 231 | 50 | 2.79 | 0.71 | 10 | 22.9 | Reference |
| 7320 | Upper Slope | 31 | 15 | 2.54 | 0.94 | 8 | 33.9 | RL 1 |
| 7321 | Inner Shelf | 783 | 142 | 4.17 | 0.84 | 39 | 28.5 | RL 1 |
| 7324 | Inner Shelf | 430 | 91 | 3.81 | 0.84 | 28 | 20.8 | Reference |
| 7325 | Inner Shelf | 90 | 25 | 2.70 | 0.84 | 10 | -1.5 | Reference |
| 7355 | Inner Shelf | 709 | 67 | 2.03 | 0.48 | 5 | | NA |
| 7395 | Outer Shelf | 267 | 71 | 3.43 | 0.80 | 21 | 17.8 | Reference |
| 7401 | Lower Slope | 40 | 21 | 2.70 | 0.89 | 11 | | NA |
| 7403 | Mid Shelf | 576 | 102 | 3.57 | 0.77 | 23 | 11.0 | Reference |
| 7405 | Island Shelf | 277 | 126 | 4.49 | 0.93 | 57 | 9.1 | Reference |
| 7408 | Island Shelf | 330 | 100 | 3.81 | 0.83 | 29 | -1.3 | Reference |
| 7410 | Mid Shelf | 257 | 95 | 4.11 | 0.90 | 38 | 11.1 | Reference |
| 7412 | Lower Slope | 1 | 1 | 0.00 | 0.00 | 1 | | NA |
| 7413 | Lower Slope | 5 | 2 | 0.50 | 0.72 | 1 | | NA |
| 7415 | Mid Shelf | 448 | 118 | 4.10 | 0.86 | 37 | 14.5 | Reference |
| 7417 | Mid Shelf | 277 | 90 | 4.00 | 0.89 | 35 | 16.6 | Reference |
| 7426 | Mid Shelf | 281 | 105 | 4.32 | 0.93 | 47 | 8.4 | Reference |
| 7428 | Upper Slope | 258 | 47 | 3.09 | 0.80 | 12 | | NA |
| 7438 | Island Shelf | 351 | 103 | 3.78 | 0.82 | 33 | 8.3 | Reference |
| 7439 | Island Shelf | 536 | 151 | 4.27 | 0.85 | 47 | 9.3 | Reference |
| 7442 | Island Shelf | 562 | 104 | 3.49 | 0.75 | 24 | 21.4 | Reference |
| 7452 | Lower Slope | 26 | 8 | 1.48 | 0.71 | 2 | | NA |
| 7456 | Island Shelf | 263 | 85 | 3.93 | 0.88 | 32 | 17.2 | Reference |
| 7457 | Lower Slope | 63 | 16 | 2.26 | 0.82 | 6 | | NA |
| 7458 | Mid Shelf | 309 | 106 | 4.20 | 0.90 | 42 | 18.4 | Reference |
| 7460 | Lower Slope | 20 | 14 | 2.55 | 0.97 | 9 | | NA |
| 7461 | Mid Shelf | 508 | 117 | 4.09 | 0.86 | 36 | 17.4 | Reference |
| 7462 | Island Shelf | 401 | 137 | 4.22 | 0.86 | 50 | 12.4 | Reference |
| 7474 | Inner Shelf | 194 | 66 | 3.63 | 0.87 | 26 | 26.1 | RL 1 |
| 7475 | Island Shelf | 336 | 71 | 3.26 | 0.77 | 14 | 24.3 | Reference |
| 7476 | Island Shelf | 183 | 79 | 4.08 | 0.93 | 39 | 6.5 | Reference |
| 7477 | Outer Shelf | 121 | 55 | 3.56 | 0.89 | 25 | 21.1 | Reference |
| 7479 | Upper Slope | 86 | 26 | 2.72 | 0.83 | 10 | | NA |
| 7493 | Island Shelf | 1382 | 182 | 3.78 | 0.73 | 31 | 10.5 | Reference |
| 7494 | Island Shelf | 99 | 24 | 2.34 | 0.74 | 5 | 1.8 | Reference |
| 7499 | Mid Shelf | 342 | 92 | 3.76 | 0.83 | 27 | 14.7 | Reference |
| 7506 | Island Shelf | 1022 | 158 | 3.83 | 0.76 | 30 | 3.8 | Reference |
| 7517 | Inner Shelf | 782 | 137 | 4.00 | 0.81 | 35 | 27.2 | RL 1 |
| 7518 | Island Shelf | 249 | 90 | 4.16 | 0.92 | 38 | 11.7 | Reference |
| 7520 | Island Shelf | 1173 | 162 | 3.96 | 0.78 | 30 | 7.6 | Reference |
| 7522 | Inner Shelf | 375 | 93 | 3.80 | 0.84 | 28 | 22.9 | Reference |
| 7526 | Upper Slope | 43 | 27 | 3.11 | 0.94 | 17 | | NA |
| 7527 | Island Shelf | 1625 | 204 | 4.06 | 0.76 | 35 | 16.5 | Reference |
| 7528 | Outer Shelf | 83 | 41 | 3.42 | 0.92 | 21 | 21.8 | Reference |
| 7529 | Island Shelf | 480 | 87 | 3.70 | 0.83 | 23 | 12.2 | Reference |
| 7534 | Island Shelf | 234 | 59 | 3.37 | 0.83 | 18 | 14.3 | Reference |

| Site | Stratum | Abundance (0.1 m2) | No. of Taxa (0.1 m2) | Shannon (nats) | Even- ness | Domi- nance | Shelf BRI | Condition |
|------|--------------|-----------------------|----------------------------|-------------------|---------------|----------------|--------------|-----------|
| 7537 | Outer Shelf | 211 | 75 | 3.87 | 0.90 | 29 | 18.4 | Reference |
| 7540 | Island Shelf | 634 | 132 | 3.88 | 0.79 | 34 | 11.4 | Reference |
| 7542 | Outer Shelf | 89 | 43 | 3.36 | 0.89 | 21 | 22.6 | Reference |
| 7543 | Island Shelf | 357 | 127 | 4.47 | 0.92 | 55 | 17.4 | Reference |
| 7544 | Mid Shelf | 421 | 98 | 3.94 | 0.86 | 30 | 15.1 | Reference |
| 7549 | Island Shelf | 329 | 132 | 4.48 | 0.92 | 59 | 14.5 | Reference |
| 7550 | Mid Shelf | 437 | 109 | 4.05 | 0.86 | 32 | 18.7 | Reference |
| 7551 | Island Shelf | 493 | 114 | 3.96 | 0.84 | 34 | 18.9 | Reference |
| 7553 | Island Shelf | 3865 | 203 | 3.45 | 0.65 | 19 | 13.9 | Reference |
| 7555 | Island Shelf | 890 | 164 | 4.12 | 0.81 | 40 | 12.9 | Reference |
| 7556 | Island Shelf | 499 | 124 | 3.91 | 0.81 | 37 | 20.1 | Reference |
| 7557 | Inner Shelf | 207 | 74 | 3.71 | 0.86 | 26 | 19.6 | Reference |
| 7566 | Island Shelf | 565 | 133 | 4.20 | 0.86 | 42 | 2.2 | Reference |
| 7572 | Inner Shelf | 643 | 96 | 3.65 | 0.80 | 21 | 16.0 | Reference |
| 7573 | Island Shelf | 242 | 83 | 4.02 | 0.91 | 32 | 13.2 | Reference |
| 7583 | Outer Shelf | 194 | 48 | 2.93 | 0.76 | 12 | 32.6 | RL 1 |
| 7585 | Island Shelf | 669 | 207 | 4.93 | 0.93 | 81 | 15.6 | Reference |
| 7586 | Island Shelf | 590 | 141 | 4.15 | 0.84 | 40 | 8.1 | Reference |
| 7588 | Island Shelf | 381 | 113 | 4.25 | 0.90 | 42 | 13.1 | Reference |
| 7590 | Upper Slope | 71 | 38 | 3.48 | 0.96 | 21 | 19.9 | Reference |
| 7596 | Inner Shelf | 375 | 85 | 3.86 | 0.87 | 27 | 13.7 | Reference |
| 7604 | Outer Shelf | 389 | 103 | 3.68 | 0.79 | 29 | 12.8 | Reference |
| 7607 | Mid Shelf | 321 | 98 | 3.93 | 0.86 | 33 | 18.5 | Reference |
| 7609 | Upper Slope | 13 | 10 | 2.20 | 0.96 | 7 | | NA |
| 7611 | Upper Slope | 33 | 16 | 2.57 | 0.93 | 8 | | NA |
| 7615 | Upper Slope | 82 | 17 | 2.36 | 0.83 | 6 | | NA |
| 7617 | Upper Slope | 42 | 20 | 2.57 | 0.86 | 10 | | NA |
| 7619 | Inner Shelf | 208 | 74 | 3.91 | 0.91 | 30 | 26.8 | RL 1 |
| 7620 | Upper Slope | 53 | 20 | 2.65 | 0.89 | 8 | 31.0 | RL 1 |
| 7624 | Outer Shelf | 501 | 127 | 4.04 | 0.83 | 34 | 5.3 | Reference |
| 7625 | Upper Slope | 215 | 69 | 3.58 | 0.84 | 25 | 10.3 | Reference |
| 7629 | Inner Shelf | 446 | 113 | 3.90 | 0.83 | 34 | 24.9 | Reference |
| 7632 | Upper Slope | 26 | 16 | 2.56 | 0.92 | 10 | | NA |
| 7633 | Lower Slope | 11 | 3 | 0.76 | 0.69 | 2 | | NA |
| 7637 | Upper Slope | 25 | 13 | 2.19 | 0.85 | 7 | | NA |
| 7645 | Outer Shelf | 135 | 68 | 3.90 | 0.93 | 35 | 13.0 | Reference |
| 7647 | Inner Shelf | 135 | 54 | 3.70 | 0.93 | 26 | 28.2 | RL 1 |
| 7651 | Outer Shelf | 121 | 46 | 3.35 | 0.87 | 18 | 19.9 | Reference |
| 7652 | Outer Shelf | 390 | 110 | 3.83 | 0.81 | 30 | 5.3 | Reference |
| 7654 | Outer Shelf | 174 | 84 | 4.19 | 0.95 | 41 | 11.6 | Reference |
| 7668 | Upper Slope | 39 | 24 | 3.03 | 0.95 | 15 | 22.5 | Reference |
| 7671 | Outer Shelf | 134 | 56 | 3.81 | 0.95 | 29 | 10.5 | Reference |
| 7678 | Outer Shelf | 43 | 28 | 3.18 | 0.95 | 18 | 15.0 | Reference |
| 7681 | Inner Shelf | 144 | 32 | 2.24 | 0.65 | 7 | 28.6 | RL 1 |
| 7684 | Upper Slope | 33 | 15 | 2.09 | 0.77 | 7 | | NA |
| 7686 | Upper Slope | 16 | 9 | 1.98 | 0.90 | 5 | | NA |
| 7688 | Mid Shelf | 79 | 30 | 2.82 | 0.83 | 13 | 13.7 | Reference |

| Site | Stratum | Abundance (0.1 m2) | No. of Taxa (0.1 m2) | Shannon (nats) | Evenness | Dominance | Shelf BRI | Condition |
|------|-------------|-----------------------|----------------------------|-------------------|----------|-----------|--------------|-----------|
| 7696 | Outer Shelf | 60 | 30 | 3.12 | 0.92 | 15 | 11.9 | Reference |
| 7697 | Upper Slope | 25 | 16 | 2.60 | 0.94 | 10 | | NA |
| 7700 | Upper Slope | 28 | 14 | 2.39 | 0.91 | 7 | | NA |
| 7701 | Outer Shelf | 100 | 39 | 3.34 | 0.91 | 18 | 11.8 | Reference |
| 7708 | Mid Shelf | 134 | 67 | 3.83 | 0.91 | 34 | 14.4 | Reference |
| 7709 | Upper Slope | 39 | 20 | 2.68 | 0.89 | 11 | 20.9 | Reference |
| 7714 | Mid Shelf | 192 | 75 | 3.89 | 0.90 | 31 | 21.4 | Reference |
| 7716 | Upper Slope | 72 | 23 | 2.30 | 0.73 | 5 | | NA |
| 7717 | Inner Shelf | 115 | 26 | 2.31 | 0.71 | 7 | 13.7 | Reference |
| 7727 | Outer Shelf | 105 | 49 | 3.58 | 0.92 | 23 | 12.2 | Reference |
| 7728 | Inner Shelf | 260 | 89 | 4.01 | 0.89 | 35 | 23.7 | Reference |
| 7732 | Outer Shelf | 80 | 38 | 3.38 | 0.93 | 18 | 17.6 | Reference |
| 7735 | Inner Shelf | 356 | 100 | 4.00 | 0.87 | 32 | 26.4 | RL 1 |
| 7741 | Mid Shelf | 470 | 124 | 4.16 | 0.86 | 37 | 25.8 | RL 1 |
| 7744 | Outer Shelf | 43 | 27 | 3.06 | 0.93 | 17 | 20.0 | Reference |
| 7750 | Outer Shelf | 51 | 33 | 3.30 | 0.94 | 21 | 25.4 | RL 1 |
| 7752 | Mid Shelf | 515 | 139 | 4.29 | 0.87 | 48 | 14.6 | Reference |
| 7753 | Inner Shelf | 162 | 31 | 2.14 | 0.62 | 5 | 12.4 | Reference |