|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Sample ID** | **Reads** | **0.97** | | | | | |
| **OTU** | **ace** | **chao** | **coverage** | **shannon** | **simpson** |
| **MS1** | 37332 | 1197 | 1548 (1482,1629) | 1530 (1453,1631) | 0.989821 | 3.3 (3.27,3.32) | 0.1383 (0.136,0.1406) |
| **MS2** | 37332 | 1249 | 1647 (1575,1735) | 1632 (1547,1741) | 0.988723 | 3.27 (3.24,3.29) | 0.1409 (0.1386,0.1433) |
| **MS3** | 37332 | 1279 | 1689 (1615,1778) | 1681 (1592,1795) | 0.988669 | 3.33 (3.3,3.36) | 0.1388 (0.1366,0.1411) |
| **5YR1** | 37332 | 1825 | 2143 (2087,2211) | 2138 (2070,2225) | 0.988401 | 4.95 (4.93,4.98) | 0.0456 (0.0444,0.0468) |
| **5YR2** | 37332 | 1687 | 2016 (1958,2086) | 2005 (1936,2093) | 0.988428 | 4.33 (4.3,4.36) | 0.079 (0.0772,0.0807) |
| **5YR3** | 37332 | 1271 | 1720 (1640,1818) | 1696 (1601,1818) | 0.988696 | 4.55 (4.53,4.57) | 0.0346 (0.0338,0.0354) |
| **15YR1** | 37332 | 2245 | 2550 (2498,2614) | 2551 (2486,2634) | 0.987839 | 6.11 (6.09,6.13) | 0.0085 (0.0083,0.0088) |
| **15YR2** | 37332 | 2153 | 2502 (2443,2573) | 2530 (2452,2630) | 0.987196 | 6.12 (6.11,6.14) | 0.0068 (0.0066,0.0069) |
| **15YR3** | 37332 | 2178 | 2547 (2486,2620) | 2532 (2459,2623) | 0.986794 | 5.95 (5.93,5.97) | 0.0111 (0.0108,0.0115) |
| **28YR1** | 37332 | 2242 | 2585 (2527,2654) | 2616 (2538,2715) | 0.987169 | 6.09 (6.07,6.11) | 0.0107 (0.0103,0.0111) |
| **28YR2** | 37332 | 2202 | 2536 (2480,2603) | 2533 (2463,2620) | 0.987437 | 5.89 (5.86,5.91) | 0.0158 (0.0152,0.0163) |
| **28YR3** | 37332 | 2152 | 2506 (2447,2577) | 2547 (2465,2651) | 0.987008 | 5.76 (5.74,5.79) | 0.0186 (0.018,0.0192) |
| **34YR1** | 37332 | 2307 | 2625 (2571,2690) | 2662 (2588,2756) | 0.987303 | 6.25 (6.23,6.26) | 0.0066 (0.0064,0.0068) |
| **34YR2** | 37332 | 2258 | 2617 (2558,2688) | 2660 (2578,2764) | 0.986714 | 6.07 (6.05,6.09) | 0.0108 (0.0104,0.0112) |
| **34YR3** | 37332 | 2084 | 2409 (2354,2476) | 2397 (2330,2481) | 0.987839 | 5.52 (5.5,5.55) | 0.0254 (0.0246,0.0262) |
| **51YR1** | 37332 | 2158 | 2521 (2460,2593) | 2498 (2427,2587) | 0.987223 | 6.13 (6.11,6.15) | 0.007 (0.0068,0.0071) |
| **51YR2** | 37332 | 2199 | 2531 (2474,2598) | 2524 (2455,2612) | 0.987732 | 6.2 (6.18,6.22) | 0.0068 (0.0066,0.007) |
| **51YR3** | 37332 | 1882 | 2293 (2224,2376) | 2285 (2201,2392) | 0.987142 | 5.77 (5.75,5.79) | 0.0117 (0.0113,0.0121) |

**Table S1.** Diversity indices for 16S rDNA sequences in each sample of BSCs (%). MS, 5YR, 15YR, 28YR, 34YR and 51YR represent mobile sand, 5-, 15-, 28-, 34- and 51-year-old BSCs, respectively. Triplicate samples were analyzed in each age of BSCs.