**Supplementary materials Table S1** Alpha diversity indices including Observed\_ASVs, Chao1, Shannon, Faith\_pd, Simpson, and Pielou of sika deer sample group

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sample** | **Observed\_ASVs** | **Chao1** | **Shannon** | **Faith\_pd** | **Simpson** | **Pielou** |
| Sika deer\_01 | 134 | 147.15  | 3.40  | 4.94  | 0.81  | 0.62 |
| Sika deer\_02 | 56 | 66.11  | 2.01  | 3.96  | 0.57  | 0.36 |
| Sika deer\_03 | 143 | 176.30  | 2.93  | 5.63  | 0.66  | 0.53 |
| Sika deer\_04 | 159 | 194.43  | 4.49  | 6.82  | 0.93  | 0.82 |
| Sika deer\_05 | 37 | 38.88  | 1.28  | 2.82  | 0.36  | 0.23 |
| Sika deer\_07 | 151 | 176.83  | 3.99  | 5.46  | 0.87  | 0.73 |
| Sika deer\_08 | 144 | 166.24  | 3.84  | 5.96  | 0.84  | 0.70 |
| Sika deer\_09 | 37 | 41.00  | 1.87  | 3.11  | 0.51  | 0.34 |
| Sika deer\_10 | 67 | 101.00  | 1.69  | 4.47  | 0.50  | 0.30 |
| Sika deer\_11 | 122 | 129.92  | 2.87  | 5.54  | 0.67  | 0.52 |
| Sika deer\_12 | 154 | 191.06  | 4.20  | 6.22  | 0.91  | 0.76 |
| Sika deer\_13 | 49 | 58.00  | 2.12  | 2.99  | 0.68  | 0.38 |
| Sika deer\_14 | 77 | 105.88  | 3.34  | 3.88  | 0.84  | 0.61 |
| Sika deer\_15 | 68 | 93.50  | 2.09  | 3.92  | 0.57  | 0.388 |
| Sika deer\_16 | 44 | 51.00  | 1.20  | 2.95  | 0.34  | 0.21 |
| Sika deer\_17 | 39 | 45.00  | 1.44  | 2.22  | 0.40  | 0.26 |
| Sika deer\_18 | 133 | 176.15  | 4.06  | 5.96  | 0.90  | 0.74 |
| Sika deer\_19 | 147 | 198.25  | 4.12  | 5.85  | 0.88  | 0.75 |
| Sika deer\_20 | 35 | 37.33  | 1.11  | 2.57  | 0.37  | 0.20 |
| Sika deer\_21 | 68 | 89.11  | 2.63  | 4.19  | 0.74  | 0.48 |
| Sika deer\_22 | 164 | 187.25  | 4.25  | 6.64  | 0.91  | 0.77 |
| Sika deer\_23 | 45 | 52.00  | 1.17  | 3.19  | 0.30  | 0.21 |
| Sika deer\_24 | 146 | 181.77  | 4.07  | 6.05  | 0.89  | 0.74 |
| Sika deer\_25 | 45 | 52.00  | 1.07  | 3.27  | 0.27  | 0.19 |
| Sika deer\_26 | 157 | 183.25  | 4.31  | 6.94  | 0.92  | 0.78 |
| Sika deer\_27 | 105 | 122.27  | 3.08  | 5.55  | 0.78  | 0.56 |
| Sika deer\_29 | 100 | 111.18  | 2.35  | 5.14  | 0.68  | 0.43 |
| Sika deer\_30 | 159 | 231.77  | 3.94  | 6.28  | 0.87  | 0.72 |
| **Mean±SE** | **99.46±9.19** | **121.59±11.63** | **2.81±0.22** | **4.73±0.27** | **0.67±0.04** | **0.51±0.04** |