**Table S1**

Information for the 18 alpine sites.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Mountains** | **Sites** | **Latitude** | **Longitude** | **Sampled elevation range (m asl)** | **Sampling tool counts** | **Species richness** | **Individual numbers** | **Capture rate** | **Coverage** |
| Gaoligong | Dandanglika | 28.095 | 98.206 | 3600~4000 | 2920 | 10 | 368 | 12.60% | 100.00% |
|  | Gawagapu | 27.946 | 98.499 | 3400~3800 | 3188 | 15 | 593 | 18.60% | 100.00% |
|  | Yaping | 27.207 | 98.709 | 3400~3600 | 1980 | 15 | 205 | 10.35% | 98.55% |
|  | Pianma | 26.054 | 98.682 | 3400~3600 | 2040 | 11 | 407 | 19.95% | 99.51% |
| Nushan | Meili | 28.262 | 98.730 | 3800~4200 | 3018 | 15 | 249 | 8.25% | 98.80% |
|  | Biluo | 26.575 | 99.014 | 3600~4000 | 3102 | 16 | 517 | 16.67% | 99.81% |
|  | Xuemeng | 25.952 | 98.949 | 3400~3600 | 2080 | 19 | 255 | 12.26% | 98.44% |
| Yunling | Baima | 28.337 | 98.989 | 4000~4400 | 3012 | 15 | 236 | 7.84% | 98.73% |
|  | Kangpu | 27.614 | 99.096 | 3600~4000 | 3084 | 16 | 496 | 16.08% | 99.60% |
|  | Laojun | 26.849 | 99.624 | 3800~4000 | 2058 | 10 | 219 | 10.64% | 100.00% |
|  | Longma | 26.195 | 99.201 | 3400~3600 | 2265 | 12 | 307 | 13.55% | 99.68% |
|  | Cangshan | 25.674 | 100.092 | 3600~4000 | 3015 | 15 | 418 | 13.86% | 99.28% |
| Shaluli | Xiongrong | 28.463 | 99.314 | 4000~4400 | 3014 | 10 | 100 | 3.32% | 98.06% |
|  | Langdu | 28.127 | 99.880 | 4000~4400 | 3046 | 13 | 243 | 7.98% | 99.18% |
|  | Shika | 27.781 | 99.609 | 3800~4200 | 2925 | 13 | 251 | 8.58% | 99.21% |
|  | Mianmian | 27.576 | 100.641 | 3800~4000 | 2000 | 8 | 200 | 10.00% | 99.00% |
|  | Haba | 27.345 | 100.090 | 3800~4200 | 3064 | 16 | 301 | 9.82% | 98.67% |
|  | Yulong | 27.017 | 100.175 | 3800~4200 | 2940 | 12 | 321 | 10.92% | 98.13% |
| Summary |  |  |  |  | 48751a | 44b | 5686a | 11.74%c |  |
| aThe sampling tool counts and captured individual numbers are summarized by summation.  bThe species richness is summarized as regional observed species richness.  cThe capture rate is summarized by average. | | | | | | | | | |