**Table 1**. Sampling sites collected in different habitats at the Shipley Skinner Reserve in December 2017. These habitats are characterized by distinct vegetation and soil type. Environmental variables included pH, soil nutrients (N: nitrogen, P: phosphorus, K: potassium), organic matter (OM), organic carbon (OC), soil texture (percentages of sand, silt, and clary), and soil bulk density (BD).

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Site** | **Habitat** | **Vegetation** | **Soil**  **Type1** | **Latitude** | **Longitude** | **Elevation** | **pH** | **N** | **P** | **K** | **OM** | **OC** | **Sand** | **Silt** | **Clay** | **BD** |
| **(m)** | **(mg/kg)** | | | **(%)** | | | | | **(g/cm3)** |
| 01 | Coastal  Sage Scrub  (CSS) | Riversidean  coastal sage  (*Artemisia* *arbuscula*)  and Black sage  (*Salvia* *mellifera*) | COMP | 33°36'7.07"N | 117° 1'35.88"W | 387 | 5.88 | 4.28 | 8.4 | 117 | 1.70 | 0.99 | 74.0 | 15.0 | 11.0 | 1.34 |
| 02 | 33°36'7.08"N | 117° 1'35.40"W | 405 | 5.95 | 5.52 | 5.9 | 164 | 2.20 | 1.28 | 61.6 | 24.2 | 14.2 | 1.33 |
| 03 | 33°36'7.32"N | 117° 1'35.70"W | 416 | 6.19 | 5.27 | 7.5 | 94 | 2.12 | 1.23 | 67.0 | 19.0 | 14.0 | 1.40 |
| 13 | Native  Grass  (NGR) | Purple needlegrass  (*Stipa pulchra*) | COMP | 33°37'19.86"N | 117° 1'8.40"W | 557 | 6.16 | 16.61 | 6.0 | 251 | 1.62 | 0.94 | 67.3 | 22.3 | 10.4 | 1.33 |
| 14 | 33°37'19.92"N | 117° 1'9.24"W | 559 | 6.19 | 8.42 | 4.7 | 204 | 1.09 | 0.63 | 75.0 | 19.0 | 6.0 | 1.24 |
| 15 | 33°37'20.34"N | 117° 1'8.94"W | 559 | 6.70 | 5.17 | 13.0 | 114 | 1.59 | 0.92 | 69.0 | 19.0 | 12.0 | 1.27 |
| 16 | Chaparral  (CHA) | Chamise plants  (*Adenostoma*  *fasciculatum*) | COMP | 33°37'15.18"N | 117° 1'6.96"W | 559 | 7.01 | 5.72 | 16.2 | 236 | 3.58 | 2.08 | 64.0 | 22.0 | 14.0 | 1.20 |
| 17 | 33°37'15.90"N | 117° 1'6.60"W | 560 | 6.71 | 14.76 | 18.7 | 321 | 3.98 | 2.31 | 63.3 | 24.3 | 12.4 | 1.20 |
| 18 | 33°37'15.78"N | 117° 1'6.24"W | 562 | 6.28 | 3.31 | 4.0 | 125 | 2.06 | 1.19 | 71.0 | 20.0 | 9.0 | 1.32 |
| 04 | Riparian  (RIP) | Willow (*Salix* spp.),  Cottonwood  (*Populus* spp.), and  non-native grass | UNCOMP | 33°36'10.14"N | 117° 1'39.48"W | 429 | 7.37 | 36.87 | 18.1 | 553 | 4.65 | 2.70 | 75.4 | 18.3 | 6.3 | 0.98 |
| 05 | 33°36'10.68"N | 117° 1'39.42"W | 436 | 7.32 | 15.22 | 21.2 | 211 | 1.99 | 1.16 | 88.0 | 9.0 | 3.0 | 1.21 |
| 06 | 33°36'10.50"N | 117° 1'39.30"W | 442 | 7.59 | 11.97 | 30.0 | 370 | 3.79 | 2.20 | 75.0 | 19.0 | 6.0 | 1.01 |
| 07 | Holly-leaf  Cherry  (HLC) | *Prunus ilicifolia* | UNCOMP | 33°36'44.22"N | 117° 2'39.54"W | 500 | 7.14 | 13.22 | 31.4 | 343 | 4.46 | 2.58 | 74.0 | 19.0 | 7.0 | 1.00 |
| 08 | 33°36'43.80"N | 117° 2'39.12"W | 502 | 7.10 | 17.52 | 60.4 | 673 | 4.32 | 2.50 | 75.0 | 18.0 | 7.0 | 1.09 |
| 09 | 33°36'42.84"N | 117° 2'38.76"W | 503 | 7.03 | 25.34 | 26.8 | 301 | 3.89 | 2.26 | 77.5 | 14.2 | 8.3 | 1.11 |
| 10 | Oak  Woodland  (OWL) | Oak trees  (*Quercus* spp.) and  non-native grass | UNCOMP | 33°37'21.00"N | 117° 1'11.34"W | 558 | 6.77 | 11.29 | 43.1 | 479 | 3.72 | 2.16 | 75.3 | 16.3 | 8.4 | 1.10 |
| 11 | 33°37'21.54"N | 117° 1'11.76"W | 557 | 7.24 | 14.12 | 29.2 | 280 | 6.39 | 3.70 | 66.0 | 26.0 | 8.0 | 1.00 |
| 12 | 33°37'21.90"N | 117° 1'12.12"W | 556 | 6.65 | 20.77 | 35.8 | 429 | 4.35 | 2.52 | 73.0 | 19.0 | 8.0 | 1.16 |

1 Soil types: Compacted (COMP) and Uncompacted (UNCOMP)