**NWRS Bee Survey Data Sheet**

**Station**

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| --- |
| **\*Refuge or Other Location** |
|  |
| **\*State** | **\*County** | **\*Country** |
|  |  | USA |

**Site**

|  |  |
| --- | --- |
| **Site Name** | **Elevation** |
|  |  |
|  |
| **\*Decimal Latitude** | **\*Decimal Longitude** | **\*Datum** |
|  | **-** |  |
| **~ or ~** |
| **UTM Easting** | **UTM Northing** | **UTM Zone** |
|  |  |  |
|  |
| **Location Notes:**  |

(e.g., WGS-84, NAD-83, NAD-27)

**Ecosystem Type**

|  |
| --- |
| **NVC Subclass: [from the GAP map – to be filled in by the survey coordinator]** |
|  |
| **NVC Ecological System: [from the GAP map – to be filled in by the survey coordinator]** |
|  |
| **Is site within the designated Ecological System? Y or N (circle one)** |
| **If not, what Ecological System is it in? (refer to local list)** |
|  |
| **Is the site within 100m of an edge or ecotone? Y or N (circle one)** |
| **If yes, what is the secondary Ecological System? (refer to local list)** |
|  |
| **Disturbances (from list), multiple disturbances can be recorded:** |
| **1)** | **2)** | **3)** |
| **Ecosystem Notes:** |

**\* Required**

**Site:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Page:\_\_\_\_\_ of \_\_\_\_\_\_**

**Survey**

|  |  |
| --- | --- |
| **Protocol Used** | **\*Survey Coordinator** |
|  |  |
| **\*Survey Method:** |
| **Survey Notes:** |

**Date/Time/Weather**

**Trapping Collection Start** (time bowls, arrays, or other traps set out)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **\*Time** | **\*Day** | **\*Month** | **\*Year** | **Temp**  | **Wind** | **Weather Conditions** | **Phenology** |
|  |  |  |  |  |  |  |  |

**Trapping Collection End** (time bowls, arrays or other traps picked up)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **\*Time** | **\*Day** | **\*Month** | **\*Year** | **Temp** | **Wind** | **Weather Conditions** | **Phenology** |
|  |  |  |  |  |  |  |  |
| **Nearest Weather Station:**  |
|  |

**Survey Method – Traps (Bowls, Malaise)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **\*Batch ID** | **\*Disposition** | **\*Traps** | **Yellow** | **Blue** | **White** |
| **#** | **Failed** | **#** | **Failed** | **#** | **Failed** | **#** | **Failed** |
|  |  |  |  |  |  |  |  |  |  |
| **Associated Plants** | **Scientific Name** | **Distance (m)** |
|  |  |  |

**\* Required**

**Site:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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**Survey Method – Netting or Observation**

**# People Netting/Observing: \_\_\_\_\_ Batch ID:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Caught/Observed**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **\*Label ID** **Species#** | **\*Collector** | **\*Specimen Disposition** | **Behavior** | **Associated Plant** | **#** |
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**\* Required**

**Site:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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**Specimen ID**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **\*Label ID** | **\*Disposition** | **\*Genus** | **Species** | **Subspecies** | **Sex** | **#** |
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**\* Required**

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| **Phenology** |
| Initial vegetation growth |
| Young leaves or needles |
| Leaves or needles |
| Colored leaves or needles |
| Falling leaves or needles |
| Flowers or pollen cones |
| Open flowers or pollen cones |
| Fruits or seed cones |
| Ripe fruits or seed cones |
| Recent fruit or seed drop |

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| **Behavior** |
| Flying |
| Resting |
| Nectoring |

 **Look-up Values**

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| --- | --- | --- |
| **Wind** | **MPH** | **Description** |
| Calm | < 1 | Smoke rises vertically |
| Light Air | 1-4 | Smoke drifts and leaves rustle |
| Light Breeze | 5-7 | Wind felt on face |
| Gentle Breeze | 8-11 | Flags extended, leaves move |
|  Moderate Breeze | 12-18 |  Dust and small branches move |
| Fresh Breeze | 19-24 | Small trees begin to sway |
| Strong Breeze | 25-31 | Large branches move, wires whistle, umbrellas are difficult to control |
| Near Gale | 32-38 | Whole trees in motion, inconvenience in walking |
| Gale  | 39-46 | Difficult to walk against wind, twigs and small branches blown off trees |
| Strong Gale | 47-54 | Minor structural damage may occur (shingles blown off roofs) |
| Storm  | 55-63 | Trees uprooted, structural damage likely |
| Violent Storm | 64-73 | Widespread damage to structures |

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| **Disturbance** |
| Animal Damage | Ice damage |
| Chained | Insect damage |
| Construction: building | Invaded by exotic species |
| Construction: road | Mowed |
| Construction: trail | Plowed/Disked |
| Destructive use (non-harvest) | Prescribed burn |
| Drought damage | Treated with fertilizer |
| Flooded | Treated with herbicide |
| Forest: clear cut | Treated with insecticide |
| Forest: selective harvest | Wildfire |
| Grazed | Wind event/blow down |

|  |
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| **Weather** |
| Full Sun |
| Partly Cloudy (> 50% sun) |
| Partly Sunny (< 50% sun) |
| Cloudy (some shadow cast) |
| Completely Cloudy (no shadow) |
| Rainy |

|  |
| --- |
| **Disposition** |
| Observed |
| Collected |
| Held |
| Held - ID’d |
| Pinned |
| Sent to lab for ID |
| Held at lab |
| Held at lab - ID'd |
| Destroyed |
| Destroyed - ID'd |