

## 4.0 SUBPLOT INFORMATION

Each subplot is described by a series of area parameters relating to topographic features and existing cover type. These data also relate to the microplot, since the microplot is contained within the subplot perimeter. If the subplot center cannot be accessed, do not collect and record data on the subplot except for SUBPLOT NUMBER and SUBPLOT CENTER CONDITION.

### ITEM 4010 SUBPLOT NUMBER (CORE 4.1)

Record the code corresponding to the number of the subplot.

When Collected: All subplots

Field width: 1 digit

Values:

- 1 Center subplot
- 2 North subplot
- 3 Southeast subplot
- 4 Southwest subplot

### ITEM 4020 SUBPLOT CENTER CONDITION (CORE 4.2)

Record the CONDITION CLASS NUMBER of the condition class at the subplot center.

When collected: All subplots

Field width: 1 digit

Values: 1 to 9

### ITEM 4030 MICROPLOT CENTER CONDITION (CORE 4.3)

Record the CONDITION CLASS NUMBER of the condition class at the microplot center.

When collected: All microplots where subplot center is CONDITION STATUS = 1, 2, 3, 7, or 9

Field width: 1 digit

Values: 1 to 9

### ITEM 4080 SUBPLOT CONDITION LIST (CORE 4.8)

This is a listing of all condition classes located within the 24.0-ft radius around the subplot center. A maximum of four conditions is permitted at any individual subplot. If a condition class has already been defined at a previously completed subplot, use the same condition class number whenever that condition is encountered. Define new condition classes as they are encountered. If more than one condition class is listed here, boundary data are required. If only one condition class is listed, this condition is automatically assigned to the subplot center and microplot center. If less than four condition classes occur on this subplot, complete the remainder of this field with zeros. For example, if condition 1 is the only condition class on a subplot, record 1000.

When collected: All subplots

Field width: 4 digits

Values: 1000 to 9876

**ITEM 4040 SUBPLOT SLOPE (CORE 4.4)**

Record the angle of the slope across the subplot to the nearest 1 percent. SUBPLOT SLOPE is determined by sighting the clinometer along a line parallel to the average incline (or decline) of each subplot. This angle is measured along the shortest pathway down slope before the drainage direction changes. To measure SUBPLOT SLOPE, Observer 1 should stand at the uphill edge of the subplot and sight Observer 2, who stands at the downhill edge of the subplot. Sight Observer 2 at the same height as the eye-level of Observer 1. Read the slope directly from the percent scale of the clinometer.

If slope changes gradually across the subplot, record an average slope. If slope changes across the subplot but the slope is predominately of one direction, code the predominate slope percentage rather than the average. If the subplot falls directly on or straddles a canyon bottom or narrow ridge top, code the slope as follows:

- If the subplot falls directly between two side hills, code the average slope of the side hill(s).
- If the subplot falls on a canyon bottom or on a narrow ridge top, but most of the area lies on one side hill, code the slope of the side hill.

When collected: All subplots with an accessible forest land condition class (CONDITION STATUS = 1)

Field width: 3 digits

Values: 000 to 155

**ITEM 4050 SUBPLOT ASPECT (CORE 4.5)**

Record the aspect across the subplot, to the nearest 1 degree. SUBPLOT ASPECT is determined along the direction of slope for land surfaces with at least 5 percent slope in a generally uniform direction. SUBPLOT ASPECT is measured with a hand compass along the same direction used to determine slope. If aspect changes gradually across the subplot, record an average aspect. If aspect changes across the subplot but the aspect is predominately of one direction, code the predominate direction rather than the average.

If the subplot falls on or straddles a canyon bottom or narrow ridge top, code aspect as follows:

- Code the aspect of the ridge line or canyon bottom.
- If the subplot falls on a canyon bottom or on a narrow ridge top, but most of the area lies on one side hill, code the aspect of the side hill.

When collected: All subplots with an accessible forest land condition class (CONDITION STATUS = 1)

Field width: 3 digits

Values:

000 no aspect, slope < 5 percent

001 1 degree

002 2 degrees

· ·

· ·

360 360 degrees, due north

**ITEM 4060 SNOW/WATER DEPTH (CORE 4.6)**

Record to the nearest 0.1 ft the average approximate depth of water or snow covering the subplot at the time of data collection. This variable is used to indicate subplots where some variables (e.g., seedling count, total heights) may be measured with less certainty due to conditions at the time of measurement. Only record this item when it impedes data collection.

When collected: All subplots with an accessible forest land condition class (CONDITION STATUS = 1)

Field width: 2 digits (x.y)

Values: 0.0 to 9.9

**ITEM R401, R403, R405, R407 INVASIVE EXOTIC PEST PLANTS OF THE SOUTH**

Identify and code the occurrence of up to 4 invasive exotic pest plants listed below that are found on any accessible forest portion of the subplot. **Do not record on nonforest conditions.**

If more than 4 pest plants are found on a subplot, code in order of most cover to least. **Stop at four species per subplot. If 5 species are found on subplot 1, record only four species, even if subplot 2 has none.**

If less than 4 pest plants are found on a subplot, record the presence of any of the following pest plants that occur off, but near the subplot. An exhaustive search outside the subplot boundary is not required. But if an exotic plant listed below is observed while completing other work on the subplot, record the species code and a COVERAGE = 9. This is only done when there are less than four species on the subplot.

The species below are known to cause ecological problems. All are displacing native forest communities. Species with an asterisk (\*) have been recommended as prohibited from introduction on National Forest land. The impact of invasive species is locally well known, but their abundance, regional impact, range and rate of spread in the environment are not well known. Nomenclature follows USDA NRCS PLANTS National Database (<http://plants.usda.gov/>). The most common synonyms are in parentheses.

The first digit of the code identifies the lifeform of the species in question:

|         |   |
|---------|---|
| 0=tree  | 4=grass                                     |
| 2=shrub | 5=fern                                      |
| 3=vine  | 6=forbs, herbs, and other nonwoody species. |

When collected: On the forested portion of all subplots with an accessible forest land condition class (CONDITION STATUS = 1)

Field width: 4 digits

Values: see below; use 0000 for none

### Southern Region Exotic/Invasive Pest Plants

Choose up to four species from this list before recording species off of any applicable state species list.

| CODE                                | COMMON NAME                                   | SCIENTIFIC NAME  |
|-------------------------------------|---|--|
| <b>TREES</b>                        |   |  |
| 0341                                | Tree-of-heaven                                | <u>Ailanthus altissima*</u>                                      |
| 0345                                | Silktree, Mimosa                              | <u>Albizia julibrissin*</u>                                      |
| 0712                                | Princesstree, Royal Paulownia                 | <u>Paulownia tomentosa*</u>                                      |
| 0993                                | Chinaberry                                    | <u>Melia azedarach</u>   |
| 0994                                | Tallowtree, Popcorn tree                      | <u>Triadica sebifera</u><br><u>(Sapium sebiferum)*</u>           |
| 0997                                | Russian Olive                                 | <u>Elaeagnus angustifolia</u>                                    |
| <b>SHRUBS</b>                       |   |  |
| 2037                                | Silverthorn, Thorny Olive                     | <u>Elaeagnus pungens</u>   |
| 2038                                | Autumn olive                                  | <u>Elaeagnus umbellata</u>                                       |
| 2042                                | Winged Burning Bush                           | <u>Euonymus alata</u>  |
| 2103                                | Chinese/European privet                       | <u>Ligustrum sinense*/L. vulgare</u>                             |
| 2104                                | Japanese privet                               | <u>Ligustrum japonicum*</u>                                      |
| 2105                                | Bush honeysuckles                             | <u>Lonicera spp.*</u>  |
| 2113                                | Sacred bamboo, Nandina                        | <u>Nandina domestica</u>   |
| 2160                                | Exotic roses                                  | <u>Rosa spp.</u>   |
| <b>VINES</b>                        |   |  |
| 3026                                | Oriental or Asian bitter sweet                | <u>Celastrus orbiculatus</u>                                     |
| 3030                                | Exotic climbing yams –<br>air yam/chinese yam | <u>Dioscorea bulbifera*/</u><br><u>D. oppositifolia</u>          |
| 3042                                | Wintercreeper                                 | <u>Euonymus fortunei</u>   |
| 3101                                | Japanese honeysuckle                          | <u>Lonicera japonica*</u>  |
| 3123                                | Kudzu   | <u>Pueraria montana var. lobata</u><br><u>(Pueraria lobata)*</u> |
| 3211                                | Exotic Vincas, Periwinkles                    | <u>Vinca minor/V. major</u>                                      |
| 3251                                | Chinese/Japanese wisteria                     | <u>Wisteria sinensis*/ W. floribunda</u>                         |
| <b>GRASSES</b>                      |   |  |
| 4008                                | Giant reed                                    | <u>Arundo donax</u>  |
| 4051                                | Tall fescue                                   | <u>Lolium arundinaceum*</u>                                      |
| 4055                                | Cogongrass                                    | <u>Imperata cylindrica*</u>                                      |
| 4080                                | Nepalese browntop                             | <u>Microstegium vimineum*</u>                                    |
| 4085                                | Chinese silvergrass                           | <u>Miscanthus sinensis*</u>                                      |
| 4130                                | Exotic bamboos                                | <u>Phyllostachys spp.</u><br><u>Bambusa spp</u>                  |
| <b>FERNS</b>                        |   |  |
| 5171                                | Japanese climbing fern                        | <u>Lygodium japonicum*</u>                                       |
| <b>FORBS/HERBS/OTHER HERBACEOUS</b> |   |  |
| 6002                                | Garlic mustard                                | <u>Alliaria petiolata*</u>                                       |
| 6052                                | Shrubby lespedeza                             | <u>Lespedeza bicolor</u>   |
| 6053                                | Chinese lespedeza                             | <u>Lespedeza cuneata*</u>  |
| 6095                                | Tropical soda apple                           | <u>Solanum viarum*</u>   |

### Florida Exotic/Invasive Pest Plants

The following exotic/invasive pest plants are only tallied in Florida. Use this list only after first exhausting the regional list to record four plants per subplot. For example: If there are no exotic species from the regional list above on the subplot, then up to four species from the Florida list can be recorded. If there are three exotic species from the regional list above on the subplot, then only one species from the Florida list can be recorded. This procedure will be used until a new field data collection program is produced to accept state optional items.

| CODE                                | COMMON NAME             | SCIENTIFIC NAME                  |
|-------------------------------------|-------------------------|----------------------------------|
| <b>TREES</b>                        |                         |                                  |
| FL02                                | Australian-pines        | <u>Casuarina spp.</u>            |
| FL03                                | Camphor tree            | <u>Cinnamomum camphora</u>       |
| FL04                                | Carrotwood              | <u>Cupaniopsis anacardioides</u> |
| FL06                                | Melaleuca               | <u>Melaleuca quinquenervia</u>   |
| FL08                                | Schefflera              | <u>Schefflera actinophylla</u>   |
| FL09                                | Java plum               | <u>Syzygium cumini</u>           |
| <b>SUBSHRUBS</b>                    |                         |                                  |
| FL11                                | Coral ardisia           | <u>Ardisia crenata</u>           |
| FL15                                | Lantana                 | <u>Lantana camara</u>            |
| <b>SHRUBS</b>                       |                         |                                  |
| FL22                                | Surinam cherry          | <u>Eugenia uniflora</u>          |
| FL26                                | Guava spp.              | <u>Psidium spp.</u>              |
| FL27                                | Downy rose myrtle       | <u>Rhodomyrtus tomentosa</u>     |
| FL28                                | Brazilian pepper        | <u>Schinus terebinthifolius</u>  |
| FL29                                | Wetland nightshade      | <u>Solanum tampicense</u>        |
| <b>VINES</b>                        |                         |                                  |
| FL31                                | Rosary pea              | <u>Abrus precatorius</u>         |
| FL35                                | Cat's-claw vine         | <u>Macfadyena unguis-cati</u>    |
| FL37                                | Skunk vines             | <u>Paederia spp.</u>             |
| <b>GRASSES</b>                      |                         |                                  |
| FL46                                | Napier grass            | <u>Pennisetum purpureum</u>      |
| <b>FERNS</b>                        |                         |                                  |
| FL54                                | Old World Climbing fern | <u>Lygodium microphyllum</u>     |
| FL56                                | Sword fern              | <u>Nephrolepis cordifolia</u>    |
| <b>FORBS/HERBS/OTHER HERBACEOUS</b> |                         |                                  |
| FL64                                | Hairy indigo            | <u>Indigofera hirsuta</u>        |

**ITEM R402, R404, R406, R408 EXOTIC PEST PLANT PERCENT COVERAGE**

Record the code that best describes the abundance of each exotic pest plant recorded on the subplot. Rate winter vegetation as if it were in a "leaf-on" condition.

One percent cover of the 24-foot radius subplot is equivalent to a square 4.2 feet on each side, or a circle with a radius of 2.4 feet. Ten percent cover is equivalent to a square 13.4 feet on each side, or a circle with a radius of 7.6 feet.

However, only record the coverage on the forested portion of the subplot. For example, 70% of a subplot is nonforest and 30% is forested. If the entire subplot was covered by kudzu, then the EXOTIC PEST PLANT PERCENT COVERAGE is code 3 (11-50% coverage) for 30%.

When collected: EXOTIC PEST PLANTS > 0000

Field width: 1 digit

Values:

- |   |  |
|---|--|
| 1 | Trace < 01%  |
| 2 | 01-10%   |
| 3 | 11-50%   |
| 4 | >50%   |
| 9 | The exotic pest plant is found in the forest around the subplot area, but not on the subplot |