

Volunteer Opportunities for West Tennessee State Natural Areas near Nashville

Volunteers should contact:

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Auntney Hollow State Natural Area Projects

Auntney Hollow is a privately-owned natural area near the Natchez Trace Parkway in Lewis County. There is no parking or trails for this property. Because of these conditions and also do to the lengthy distance between the natural area and the Parkway, only volunteers that are willing to hike off-trail (a little over a mile) and work in an isolated area should consider these project.

Projects include:

Exotic Watch

Two invasive exotic plants have been found along the Little Swan Creek: Marsh dayflower (*Murdannia keisak*) and small carpgrass (*Arthraxon hispidus*). Both exotics are best searched for in September and October. If a volunteer finds one of these plants in the natural area, notes should be taken on location, extent of the infestation, and what stage (vegetative, flowering or in seed) the plant are in. An attempt at pulling plants can be made but it is important that plants are bagged and removed from the area.

Broad-Leaved Barbara's Buttons (*Marshallia trinervia*) Assessments and Surveys

This state threatened plant is known to occur within and around the natural area. There haven't been many surveys for new locations or monitoring of known locations recently. Volunteers would search proper habitat for new locations. If plants are found they should be counted (or approximated) and mapped. Volunteers that assess known locations would write up a short report on presence, number of plants, and any possible threats. The best time to survey for this plant is when it is in flower which is spring to midsummer.

Eggert's Sunflower (*Helianthus eggertii*) Surveys

This state special concern plant is known to occur along the Little Swan Creek outside the natural area. Surveys for this plant should be conducted in the natural area. Volunteers would search proper habitat for new locations. If plants are found they should be counted (or approximated) and mapped. The plant flowers in late summer-fall. Unlike other sunflowers, Eggert's sunflower is easily identified due to the strongly glaucous underside of leaves.

Butternut (*Juglans cinerea*) Surveys

Records for butternut occur in the area. Habitat includes rich, mesic woods and streambanks. It is highly likely that this tree occurs in or at least near the natural area. The tree looks very much like black walnut

and can be misidentified as such. The tree is best identified when it has leaves and/or fruit. Fruit occurs in the fall.

Fen Orchid (*Liparis loeselii*) Surveys

A few records for fen orchid occur in the area. Fen orchid occurs in moist to wet cool ravines, along seepage slopes, swamps and within marshes. There are a number of wet cool ravines in the natural area. It is likely that this orchid occurs in the natural area. The plant flowers in late spring. Since the natural area is seldom visited in the spring, this plant could easily be missed.

Shining Ladies'-Tresses (*Spiranthes lucida*) Surveys

There is a record for shining ladies'-tresses in the area. The plant occurs in sunny limestone seeps and moist places near streams. Unlike other ladies'-tresses this plant flowers in the late spring (all other flower midsummer to frost). The natural area is seldom visited in the spring and so this plant, if it occurs, could most likely be missed.

Water Stitchwort (*Stellaria fontinalis*) Surveys

There is a single record for water stitchwort in the area north of the natural area. The plant occurs in seeps and along stream margins. Habitat listed at NatureServe is as follows: Open to partially shaded wet areas with thin limestone soil where natural disturbances keep woody and weedy competition to a minimum. The plant inhabits stream banks, washouts, moss-covered cliffs overlooking streams, and calcareous seeps in glade woods. It is associated with mosses and algae, as well as with wetland plants such as jewel-weed (*Impatiens* spp.). The inconspicuous small, green flowers are present (petals are either absent or much reduced) in the spring. The plant is easily overlooked.

Summer Pulling of Exotics

Bristly ladies'-thumb and Japanese stiltgrass grows along the Little Swan Creek and Georgia Branch. Because bristly ladies'-thumb is only fairly common, it is possible to eradicate this exotic from the natural area with annual pulling. Stiltgrass is abundant along both streams. It most likely will not be eradicated from the natural area but with continued yearly pulling we hope to reduce its extent in the area and reduce its ability to impact native plants and communities.

Carroll Cabin Barrens State Natural Area Volunteer Plan

Carroll Cabin Barrens State Natural Area is located in Bath Springs, Decatur County. The natural area has a parking lot and a 3-mile trail. Information on this site can be found at <https://www.tn.gov/environment/program-areas/na-natural-areas/natural-areas-west-region/west-region/carroll-cabin-barrens.html>.

Trail Maintenance

In 2017, a trail assessment was written. This assessment found a number of issues with the trail system. As a result, there will be many projects for improving the trail in the coming months/years. One project that is definitely needed every fall through winter is the removal of leaves from the trail. Leaf build-up covers the trail making it hard to follow. Volunteers can either rake or use a leaf blower to remove the leaves. Mowing of herbaceous vegetation is also needed during the growing season.

Clifton Bend Spring and Fall Butterfly Counts

Volunteers that can identify butterflies or have an interest in learning butterflies will love this activity. This is an important citizen science project sponsored by the North American Butterfly Association. All data is used to estimate butterfly population trends over time. The spring count is typically in April and the fall count is typically in August. Counts start in the natural area and go to lunch. We eat lunch at the nearby Cajun restaurant Meo Mios. After lunch the count continues outside the natural area. Counters have the option of counting all day or leaving anytime during the count.

Trash Removal from Roadsides

The natural area gets relatively little trash throughout the year. Unfortunately, the roadsides adjacent to the natural area do get a considerable amount of trash. Roadsides include Gravel Pit Road and Carroll Cabins Road. These areas could be cleaned up within a few hours. Volunteers can remove trash on their own or work with a group on trash pick-up events.

Rare Plant Surveys in the Barrens

The West Tennessee Stewardship Ecologist would like to have all 14 barrens inventoried of their state-listed plants. To date, eight listed plants have been found in the barrens. Many of these plants probably occur in all or a large percentage of the barrens. Volunteers would learn how to identify the plants and then would search barrens for their occurrence. Notes on location, and number of plants (or an estimate) should be taken and reported to the stewardship ecologist.

Search for State-listed Plants Potentially occurring in the Natural Area

There are five state-listed plants that may occur in the natural area. It would be good to document their occurrence. Volunteers would pick a plant or two to learn and then search the appropriate habitat for their existence.

Devil's Backbone State Natural Area Volunteer Plan

Devil's Backbone State Natural Area is located near Hohenwald along the Natchez Trace Parkway in Lewis County. The natural area has a parking lot and a 3-mile trail. Information on this site can be found at <https://www.tn.gov/environment/program-areas/na-natural-areas/natural-areas-west-region/west-region/devil-s-backbone.html>.

Trail maintenance

The Devil's Backbone trail is approximately three miles long. In 2017, a trail assessment was written. This assessment found a number of improvements that can be made on the trail system. As a result, there will be many projects for improving the trail in the coming months/years. One project that is definitely needed every summer is the cutting back of overhanging vegetation from the trail.

John Noel at Bon Aqua State Natural Area Volunteer Plan

John Noel at Bon Aqua State Natural Area is located in Bon Aqua (south of Dickson) in Hickman County. The natural area has a parking lot and a short 1-mile trail. Information on this site can be found at <https://www.tn.gov/environment/program-areas/na-natural-areas/natural-areas-west-region/west-region/john-noel-at-bon-aqua.html>.

Trail Maintenance

The natural area trail is approximately one mile long. In 2017, a trail assessment was written. This assessment found a small number of issues with the trail system. One project that is definitely needed every fall through winter is the removal of leaves from the trail. Leaf build-up covers the trail making it hard to follow. Volunteers can either rake or use a leaf blower to remove the leaves. Mowing of herbaceous vegetation is also needed during the growing season.

Adopt-an-Exotic

Chinese privet and winter creeper are three invasive exotic plants that can be removed by pulling. Chinese privet occurs mostly along the first portion of the trail. They are easily pulled from the ground. Winter creeper is found in a few concentrated areas along the trail. Continuous pulling of the creeping vines may result in the eradication of this exotic. All winter creeper vines pulled must be bagged and removed from the area.

Langford Branch State Natural Area Volunteer Plan

Langford Branch State Natural Area is located along TN Route 412/99 in Lewis County. The site does not have a parking lot or trails. Due to these conditions volunteering is limited. Information on the site can be found at <https://www.tn.gov/environment/program-areas/na-natural-areas/natural-areas-west-region/west-region/langford-branch.html>.

Trash Removal

Unfortunately, passing motorists throw trash from their cars into the natural area. For such an isolated natural area it does accumulate a lot of trash over a few months. Volunteers would work with either the state or the Swan Conservation Trust to schedule days throughout the year to remove trash.

Fen Orchid Searches

The state threatened fen orchid was reported for the natural area. This report is considered historical and thus the plant is not currently thought to be part of the area flora. Volunteers would search for this plant in the appropriate habitat (seepage slopes, ravines, and wetlands). The plant is typically identified from the closely-related *Liparis lilifolia* by flower color and length and thus the best time for surveys is during the flowering period. Fen orchid flowers in late spring. Since the natural area is seldom visited in the spring, this plant could easily be missed from year to year.

Small Carpgrass and Japanese Stiltgrass Pulls

Allan J. Trently first located small carp grass in the natural area on October 3, 2017. The exotic was potentially brought into the area on construction vehicles during the widening of TN Route 412/99 prior to 2017. Carp grass occurs along the steep bluff overlooking Langford Branch (the stream) which is adjacent to the Tennessee yellow-eyed grass fen. It grows in dense patches within drier sites and is found sparingly within wetter sites where it co-occurs with Japanese stiltgrass (*Microstegium vimineum*). Much of the steep bluff community is devoid of native plants due to the occurrence of both these exotics.

Carp grass is invasive to sunny, moist, disturbed habitats such as fields, ditches, pastures, roads and trails, but can also invade native sites such as shaded upland woods, floodplain forests, streambanks, and shorelines. The TN Exotic Plant Council lists hand-pulling or mowing before seed production. Flowers appear from September to October. Mowing/pulling is most effective when plants are in flower and before seeds are produced.

Japanese stiltgrass forms dense near-monocultures (to 100% coverage) in the drier, shadier portions of the Tennessee yellow-eyed grass fen. It also occurs, but in a lower density, along the edges of wetter, sunnier sites within the fen. All of the seeps including the bluff-side seeps contain dense growths of the grass. Stiltgrass along with carp grass (*Arthraxon hispidus*) make up a large portion of the flora along the steep bluff adjacent to the fen; to the extent that the native steep bluff community is nearly nonexistent. Stiltgrass also grows along the stream, streambanks, and forested hillsides. Since it is a threat to the rare fen, it is considered a significant threat.

TN Invasive Plant Council recommends the following: Mow plants as close to the ground as possible using a weed-eater or similar grass cutting tool. Treatments should be made when plants are in flower and before seeds are produced. Treatments made earlier may result in plants producing new seed heads in the axils of lower leaves.

It is hoped that continuous pulling (and mowing) annually will eventually reduce the number of these exotics to a more manageable level.

Stillhouse Hollow Falls State Natural Area Volunteer Plan

Stillhouse Hollow Falls State Natural Area is located 21 miles southwest of Columbia in Maury County. The site contains a parking lot with a 3-mile trail. Information on the site can be found at <https://www.tn.gov/content/tn/environment/program-areas/na-natural-areas/natural-areas-middle-region/middle-region/na-na-stillhouse-hollow-falls.html>.

Trash Removal

Unfortunately litter is a significant problem at the natural area. Litter accumulates in the parking lot and along the Falls Trail (mostly during the warmer months; the Elk Ridge Trail gets limited litter build-up). During the warmer months litter should be removed weekly if not twice a week. Winter litter could also be removed weekly but could go to biweekly without a significant amount of litter build-up.

Volunteers should wear gloves or use a “pick-up” stick when removing litter. Litter that is found off steep sections of trail should only be retrieved with caution since there is a high potential of falling and disturbance of the soils and plants.

Site Checks

Volunteers are needed for regular site checks of the area. Volunteers that hike the trails should send a report to the West Tennessee Stewardship Ecologist whenever they hike a trail to report issues but reports of no issues are also important. Issues may include vandalism, trail problems, litter build-up, and other related issues. Illegal issues should also be reported to the stewardship ecologist but also to the Maury County Sheriff's Department.

Trail Maintenance

The natural area trail is approximately two miles long. In 2018, a trail assessment was written. This assessment found a small number of issues with the trail system. Trail projects that will need volunteers will be announced by the West Tennessee Stewardship Ecologist.

Walker Branch State Natural Area Volunteer Plan

Walker Branch State Natural Area is located south of Savannah in Hardin County. The site contains a small parking lot but has no trails. Hunting is allowed at the site. For more information visit <https://www.tn.gov/content/tn/environment/program-areas/na-natural-areas/natural-areas-west-region/west-region/walker-branch.html>.

Privet Pull Eradication! Adopt a Unit!

The natural area has recently been broken up into small management units. Each unit has Chinese privet. Some of these units have few small privet shrubs and zero to few large privet shrubs. In these units a single volunteer day with enough people could completely eradicate privet from the unit. These would make excellent volunteer projects since pulling would result in the attainment of a management goal. Though privet may never be eradicated from the entire natural area, volunteers could feel the satisfaction of reaching a goal. Individuals or small groups may wish to “adopt a unit” in which they would be responsible for pulling all the privet. Other invasive exotics that can be pulled should also be part of the goal for eradication.

Adopt an Exotic

For this project, volunteers choose an exotic (or more than one) to focus treatment on. Treatment will include pulling or digging up of plants (making sure all or most of the root is retrieved) and possibly cutting of plants. The following exotics contain the list of plants that volunteers can work on:

Small Tree-of-Heaven (larger ones will need to be treated with herbicide)
Chinese Privet- see project above for more details

Goldenseal (*Hydrastis canadensis*) Searches

Goldenseal is known to occur in rich woods, especially along streams and in ravines. It is likely that goldenseal occurs in the natural area.

Goldenseal can be identified in all stages. It is best surveyed for when it is either in flower or fruit. Flowering occurs from April to May and fruiting occurs from June to July. The bright red berries are conspicuous and thus surveys during the summer are recommended.

Fraser's Loosestrife (*Lysimachia fraseri*) Searches

A single Fraser's loosestrife location occurs about 9.5 km south of the natural area. The *Guide to Vascular Plants of Tennessee* lists steep, open, rocky slopes and edges of dry to mesic woods as habitat. These habitat types occur in the natural area. Fraser's loosestrife is best searched for in the summer when it is in flower.

Virginia Bunchflower (*Melanthium virginicum*)

A population of Virginia bunchflower occurs about 1 km south of the natural area. About 200 plants were located here in 1989. The *Guide to Vascular Plants of Tennessee* lists wet woodlands and glades as

habitat. Walker Branch contains a number of wet forests. Virginia bunchflower is best searched for in the summer when it is in flower.

American Ginseng (*Panax quinquefolius*)

There are a number of records for American ginseng in the vicinity. The *Guide to Vascular Plants of Tennessee* lists mesic woods as habitat. NatureServe notes the following about habitat: Plants occur primarily in rich, cool, moist but not extremely wet woods, under a closed canopy. They occur especially on slopes or ravines and often over a limestone or marble parent material on soil with a good humus component. The forests where plants are found are typically hardwood-dominated or mixed. The natural area has these habitat types.

Ginseng flowers usually around June and July and is in fruit August to September. The bright red fruit make ginseng easy to spot and thus successful surveys are best during this time.

Trash Removal

Unfortunately, litter is a problem at this natural area. Trash accumulates along Pittsburgh Landing Road throughout the year. Trash also accumulates in the bottoms due to littering and floodwaters. Although the West Tennessee Stewardship removes trash upon each visit, it isn't enough effort to keep the area clean. Volunteers would work as individuals, small groups, or with planned trash pick-up days.