Liquidambar styraciflua - Liriodendron tulipifera (*Platanus occidentalis*) */ Carpinus caroliniana – Halesia tetraptera var. monticola / Amphicarpaea bracteata* Forest

COMMON NAME	Sweetgum - Tuliptree – (Sycamore) / Ironwood – Moutain Silverbell / Hog-peanut Forest
SYNONYM	Montane Sweetgum Alluvial Flat
PHYSIOGNOMIC CLASS	Forest (I)
PHYSIOGNOMIC SUBCLASS	Deciduous forest (I.B)
PHYSIOGNOMIC GROUP	Cold-deciduous forest (I.B.2)
PHYSIOGNOMIC SUBGROUP	Natural/Semi-natural (I.B.2.N)
FORMATION	Temporarily flooded cold-deciduous forest (I.B.2.N.d)
ALLIANCE	*Platanus occidentalis - (Liquidambar styraciflua, Liriodendron tulipifera)* Temporarily Flooded Forest Alliance

CLASSIFICATION CONFIDENCE LEVEL 3

USFWS WETLAND SYSTEM Upland

RANGE
Globally
No information

Great Smoky Mountains National Park
Sweetgum-dominated alluvial forests were sampled from both the Cades Cove and Mount Le Conte quadrangles and are likely in other areas of the Park. They were sampled from the northern portion of the Mount Le Conte quadrangle, on the floodplain of the Little Pigeon River, northeast of the Greenbrier Campground and also near the confluence with Ted's Branch; on the Lower Little Pigeon River, near the northern Park boundary; and on the broad floodplain of Dud's Branch, near Dudley Creek. On the Cades Cove quadrangle this community was sampled in the northern half of the quadrangle, off the Cades Cove Loop Road, in the vicinity of Mills Creek and Abrams Creek and along Rowans Branch; and just south of the Loop Road, in the vicinity of Mill Creek and Forge Creek Road.

ENVIRONMENTAL DESCRIPTION
Globally
No information

Great Smoky Mountains National Park
This forest is found on large alluvial flats and high terraces along large rivers (*e.g.* Little Pigeon River) or on small, disturbed flats along medium-sized perennial streams. This community often occurs on sites that were formerly cleared for farming or settlement. Soils are typically deep, loamy silts but can have large rocks and cobbles. The mean elevation of samples is 1680 feet, ranging from 1480 to 1900 feet.

MOST ABUNDANT SPECIES
Globally

Stratum	Species
No information	

Great Smoky Mountains National Park

Stratum	Species
Tree Canopy	*Liquidambar styraciflua, Liriodendron tulipifera*, (*Platanus occidentalis)*
Tree Subcanopy	*Carpinus caroliniana, Cornus florida*
Herbaceous	variable

CHARACTERISTIC SPECIES
Globally
No information

Great Smoky Mountains National Park
Liquidambar styraciflua, Liriodendron tulipifera, *Platanus occidentalis, Carpinus caroliniana, Cornus florida*, *Tsuga canadensis, Juglans cinerea, Halesia tetraptera* var. *monticola, Rhododendron maximum, Ilex opaca, Amphicarpaea bracteata, Microstegium vimineum, Toxicodendron radicans* ssp. *radicans*

VEGETATION DESCRIPTION
Globally
No information

Great Smoky Mountains National Park
This forest has an open to closed canopy dominated by *Liquidambar styraciflua* and *Liriodendron tulipifera*, often with *Platanus occidentalis*. Other minor species that are variably present in the canopy include *Acer rubrum, Fraxinus americana, Juglans nigra, Pinus virginiana, Prunus serotina, Robinia pseudoacacia, Tilia americana* var. *heterophylla,* and *Ulmus americana.* The subcanopy is absent to well-developed. Typical dominants are *Carpinus caroliniana, Cornus florida*, and *Acer rubrum*. Other species that can be present in the subcanopy include *Betula alleghaniensis, Betula lenta, Tsuga canadensis, Juglans cinerea, Halesia tetraptera* var. *monticola, Acer pensylvanicum, Acer saccharum, Amelanchier laevis, Oxydendrum arboreum*, and *Prunus serotina*. The shrub stratum is absent to moderately dense. *Rhododendron maximum* and *Tsuga canadensis* are the most common shrubs, although other species can be present. Herbaceous cover is often absent or sparse, with groundcover dominated by litter and duff. On smaller streams, near open fileds or where animal grazing is evident, herbaceous cover can approach 100 percent cover. Species often present with high coverage include *Amphicarpaea bracteata, Dichanthelium boscii, Microstegium vimineum, Thelypteris noveboracensis*, and *Toxicodendron radicans* ssp. *radicans*. Other common species include *Arisaema triphyllum, Asplenium platyneuron, Aster divaricatus, Cares* spp. *(e.g. Carex digitalis, Carex intumescens, Carex laxiflora* var. *laxiflora, Carex plantaginea, Carex platyphylla, Carex retroflexa, Carex swanii, Carex torta), Dichanthelium* spp. *(e.g. Dichanthelium commutatum, Dichanthelium dichotomum, Dichanthelium sphaerocarpon), Houstonia serpyllifolia, Laportea canadensis, Mitchella repens, Parthenocissus quinquefolia, Polystichum acrostichoides, Prenanthes* spp.*, Sanicula canadensis,* and *Verbesina alternifolia.*

OTHER NOTEWORTHY SPECIES
No information

CONSERVATION RANK G?

RANK JUSTIFICATION
The conservation status of this community has not yet been assessed.

DATABASE CODE CEGL007880

COMMENTS
Globally
This association was defined from disturbed floodplains in the Great Smoky Mountains National Park and may represent a subset of the more broadly defined *Platanus occidentalis - Liriodendron tulipifera - Betula (alleghaniensis, lenta) / Alnus serrulata - Leucothoe fontanesiana* Forest (CEGL004691), Montane Alluvial Forest (Large River Type). However, natural forests strongly dominated by *Liquidambar styraciflua* are uncommon in southern Blue Ridge landscapes, thus this forest may represent a community that is more common west of the Blue Ridge, in the Ridge and Valley. Information from a larger geographic range is needed to distinguish this association. A similar alliance is the *Liquidambar styraciflua - (Liriodendron tulipifera, Acer rubrum)* Temporarily Flooded Forest Alliance, but it is currently not defined for the southern Blue Ridge.

Great Smoky Mountains National Park
Given the taxonomic uncertainty of this association, consideration should be given to mapping this vegetation at the Alliance level.

REFERENCES
None