

01/28/2008 Version Date

Office Use Only	
Date Received:	(yy-mm-dd)
Sourcecode:	TXUS
EOR transcribed/updated by:	(initials) (date)
Scientist/Reviewer:	(initials) EOR

Texas Natural Diversity Database Reporting Form
 Wildlife Diversity Program
 Texas Parks and Wildlife Department
 4200 Smith School Road
 Austin, TX 78744 (512) 389-8111

We Need Your Help. If you have information on the location of a rare plant or animal and would like to help us build the Texas Natural Diversity Database, please complete the form below. Thank you!

Instructions:

1. Complete this form for first hand field observations only.
2. **DO NOT COMPLETE THIS FORM** if the source of your information is a report, letter, conversation or other document. Send us the documentation.
3. Rare Birds: Complete this form only for observations during the breeding season or at large concentration areas during migration or in winter.
4. Attach a copy of a map (USGS 1:24,000 topographic map preferred) and mark the location of the rare species or its boundary (if known).
 Note, you may print copies of topo maps from the internet at <http://www.topozone.com>. Please use 1:24,000 or 1:25,000 scale only.

Source of Your Information: (check one of the following)

- ☒ Firsthand field observation Does the identification need to be confirmed? ☐ yes ☒ no
- ☐ Other: Please do not complete this form; send us a copy of the documentation instead. If source is a conversation with someone, send us a note.

Form Completed By:

Minnette Marr and Anita Tiller	2011-12-03	MM 214-908-1161 and AT 281-443-8731
Name	Date	Phone

Identification:

Complete only one form per rare plant or animal per site. If you need a list of rare species we are currently tracking, contact our office.

Name of the rare plant or animal:	Liatris tenuis		
Method of ID: (Source of key, photo, name of expert, other):	Flora of North America; Rare Plants of Texas		
Date First Observed:	2011-11-04	Date Last Observed:	2011-11-04

Observer:

Name:	Address:	Phone:
Minnette Marr	4801 La Crosse Avenue, Austin, TX 78739	214-908-1161
Anita Tiller	22306 Aldine Westfield Rd. Humble, TX 77338	281-443-8731
Pauline Singleton	903 E. Archer Rd Baytown, TX 77521	281-421-2469

Location:

GPS data:	Latitude:	31.09347	Longitude:	-94.25551
	Accuracy:	15m	GPS Brand:	Garmin GPS ETREX

Survey Site Name (locale or place name):	Angelina National Forest
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Directions (describe in detail the precise location of the species or community; begin with an easily identifiable starting point, include nearby landmarks, street names, and mileages):

Drive east on SH 63 from Zavalla to Forest Route 364. Turn left (north) onto Forest Rt. 364. The site is in Angelina County and south of Sam Rayburn Reservoir. This stand of *Liatris tenuis* is on the east and west side of Forest Route 364 just a few minutes walk from the intersection of NF 364 and SH 63.

County:	Angelina	Town:	Zavalla
Name of USGS 7.5' topo (if known)	Boykin Springs, Texas		

Observation Data:

For Animals: Indicate the number of adults, juveniles, nests, etc.

For Plants: Indicate 1) the number of flowering plants and/or sterile stems, 2) the number of separate plant groupings, 3) the health of the plants, etc.

We collected 1,389 seeds from 63 plants. The total number of plants in the stand was approximately 390.
Plants occurred on both side of Forest Rt. 364.

Site had been burned and lacked heavy underbrush, with little poison ivy
Did not observe damage from herbivores or pathogens.

Size:

Please indicate the estimated area occupied by the plant or animal:

	Acres or	1230.5	sq. meters
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If the area occupied is long and narrow (less than 12.5 meters wide), please indicate:

Length (meters):		Width (meters):	
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Habitat Description: Write a description of the habitat for the species at this location. Include ecological communities, dominants, associated species, substrates, soils, aspect, slope, hydrology, etc.

Mixed pine-oak forest. *Liatis tenuis* occurs along both sides of the road into the forest and ditch along road.
Pine tree bark sooty from prescribed burn. Understory very open with little poison ivy.
Highest density of *Liatis tenuis* appears near depressions remaining from complete burning of trees trunks and roots. These depressions appear to retain more moisture and the plants are more robust.
Canopy dominated by widely-spaced *Pinus taeda*, possibly some *P. ellioti* and some oak.
Understory open with scattered *Quercus* saplings, *Vaccinium arboreum*, *Callicarpa americana*. *Quercus* leaves were bristle-tipped and had stellate pubescence on undersurfaces, thus likely *Q. marilandica* as shown in Flora of N. Central TX.
Herbaceous associates include:
Pityopsis graminifolia, *Chasmanthium sessiliflorum*, *Croton capitatus*, *Eryngium yuccifolium*, *Ionactis linarifolia*, *Symphyotrichum* spp, *Baptisia* spp, *Hypericum* spp, *Smilax* spp.

Managed Area (Name of the state or federally owned area):

Angelina National Forest

Landscape (Describe the current landscape surrounding the plant or animal (i.e. farmland, residential, forest, etc.))

Open pine forest maintained by prescribed burns

Current and Potential Threats:

Fire suppression

Management Comments:

This large stand of *Liatis tenuis* seems to be benefiting from prescribed burns.

Specimen: Was a specimen taken? ☒ yes ☐ no

If yes, indicate the herbarium, collector(s) name(s) and number(s), accession #, and date collected:

Mercer Arboretum and Botanic Gardens Anita A. Tiller MERCA 4386 November 4, 2011

Photograph: Was a photo taken? ☒ yes ☐ no If yes, ☐ slide ☐ print ☒ digital If possible, please submit a copy of the photo.

Is a copy included with the form? ☒ yes ☒ no

General Comments:

01/28/2008 Version Date

Images will be provided by Pauline Singleton, Anita Tiller and/or Minnette Marr.
The total area of 1230.5 square meters did not include the road.
Area occupied by L. tenuis east of road was 583.9 square meters.
Area occupied by L. tenuis west of road was 646.6 square meters.

Show Masthead

Participating Institutions Only Entrance

Select Accession

Options

Taxon:	Liatris tenuis	CPC Num:	2539
Institution:	The Lady Bird Johnson Wildflower Center	Code:	LBJWC
Record Type:	Collateral Record		
Accession:	CPC20110003	Token:	17236
Accession Date:	12/15/2011	Created:	12/15/2011
Deaccession Date:	-1	Changed:	12/15/2011
Submitted By:	Minnette Marr		

Please note that fields in which there have been no values entered have been updated to "N/A" (for text fields) or "-1" (for numeric or date fields). "N/A" and "-1" do not appear on the Accession edit form.

Accession Number: CPC20110003

Accession Number: CPC20110005

General Accession Data					
Collection Date:	11/04/2011	Accession Date:	12/15/2011	Deaccessioned?	No
				Deaccession Date:	-1
Propagation Notes:			N/A		
Parent Accession(s):			N/A		
Required if propagated.					
Herbarium Collection Voucher:			Anita A. Tiller MERCA 4386		
Represented In Collection?			No		
Accession Notes: collected 11/04/2011					

Field Collection Data: Location Section			
Field Collection Form sent to CPC?:	True	Collector Name:	Anita A. Tiller
Collection State/Province:	Texas	Collection County:	Angelina
Location Popular Name:	Angelina Nationa Forest	Location Notes:	NFR 364
Landowner Type:	Federal - USFS	LandOwner Name and Address:	Other
EO-ID:	00-0000	Elevation (in Meters)	76
Latitude & Longitude:	31.09347 N 94.25551 W Formats: 39 07 09 or 39.1180		
UTM Zone, North, & East:	-1 -1 mN -1 mE 6 digits for mN & mE		
Meridian:	N/A		
Township & Range:	N/A T. N/A R. -1 Section N/A Qtr. Sec. Formats: T. 33N R. 07W Section 24 Qtr. Sec. SENW (not required) (not required)		
USGS topo Map:	Boykin Spring		

Field Collection Data: Habitat Section			
Light:	3/4 shade	Slope:	0-5%
Litter:	N/A	Exposure:	N/A
Phosphorus:	N/A	Potassium:	N/A
Calcium:	N/A	Magnesium:	N/A
Cation Exchange Capacity:	N/A	Soil Moisture:	N/A

Organic Matter:	N/A	Soil Type:	Sandy loam
Soil PH:	N/A		
Parent Rock :	Mudstone		
Plant Community :	Forest		
Associated Species:	Pinus taeda, Pinus elliotii, Quercus marilandica, Vaccinium arboreum, Callicarpa americana, Pityopsis graminifolia, Chasmanthium sessiliflorum, Croton capitatus, Eryngium yuccifolium, Ionactis linarifolium, Symphyotrichum spp., Sesbania spp., Smilax spp.		

Field Collection Data: Population Section			
Total number of plants present at collection:	101-500	Area covered (length in Meters)	N/A
Area covered (Width in Meters)	N/A	Average Plants per Square Meter	0.317
Maximum Plants per Square Meter	N/A	Percent Reproductives	16%
Percent Non-Reproductives	N/A	Percent Seedlings	N/A
Percent in Bud	N/A	Percent in Flower	N/A
Percent in Fruit	N/A	Number of Genets:	63
Threats	fire suppression		
Field Collection Notes	1,389 seeds collected by maternal lines		

Reason for Update?	
Indicate the reason this Accession is being updated?	New Accession
Submitted By: Minnette Marr	
Please add storage location and propagule information by clicking	
<input type="button" value="Go To Select Inventory"/>	

Site hosted by the [Missouri Botanical Garden](#)

Created by the Center for Plant Conservation: [contact us](#)

Monitoring

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EOB transcribed/updated by	(initials) (date)
Scientist Reviewer	(initials) EOB id

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Source of Your Information: (check one of the following)

☒ Firsthand field observation Does the identification need to be confirmed? ☐ yes ☒ no

☐ Other: Please do not complete this form; send us a copy of the documentation instead. If source is a conversation with someone, send us a note.

Form Completed By:

Minnette Marr	2011-11-10	214-908-1161
Name	Date	Phone

Identification:

Complete only one form per rare plant or animal per site. If you need a list of rare species we are currently tracking, contact our office.

Name of the rare plant or animal:	Liatris tenuis		
Method of ID: (Source of key, photo, name of expert, other):	Flora of North America; Rare Plants of Texas		
Date First Observed:	2011-11-06	Date Last Observed:	2011-11-06

Observer:

Name:	Address:	Phone:
Minnette Marr	4801 La Crosse Avenue, Austin, TX 78739	214-908-1161

Location:

GPS data:	Latitude:	31.17387	Longitude:	-094.34048
	Accuracy:	5m	GPS Brand:	Garmin GPS 60

Survey Site Name (locale or place name):	Angelina National Forest
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Directions (describe in detail the precise location of the species or community; begin with an easily identifiable starting point, include nearby landmarks, street names, and mileages):

Drive east on SH 63 from Zavalla to County Route 2743. Turn right onto CR 2743. CR 2743 forks almost immediately. The right fork goes to Caney Creek Recreation Area. Keep to the left on National Forest Route 308 until you see NF 308A. This stand of *Liatris tenuis* will be a three-minute walk from the intersection of NF308 and NF308A.

County:	Angelina	Town:	Zavalla
Name of USGS 7.5' topo (if known)	Cassells-Boykin Park, TX		

Observation Data:

For Animals: Indicate the number of adults, juveniles, nests, etc.

For Plants: Indicate 1) the number of flowering plants and/or sterile stems, 2) the number of separate plant groupings, 3) the health of the plants, etc.

Stopped counting at 60 plants due to close proximity of deer hunters. Will try to monitor this population again this year.
Did not observe damage from herbivores or pathogens.

Size:

Please indicate the estimated area occupied by the plant or animal:

	Acres or	369	sq. meters
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If the area occupied is long and narrow (less than 12.5 meters wide), please indicate:

Length (meters):		Width (meters):	
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Habitat Description: Write a description of the habitat for the species at this location. Include ecological communities, dominants, associated species, substrates, soils, aspect, slope, hydrology, etc.

Mixed pine-oak forest. *Liatris tenuis* more common in forest than in borrow ditch along road. Pine tree bark covered with ash from prescribed burn. Understory very open at this location.
Highest density of *Liatris tenuis* appears near depressions remaining from complete burning of trees trunks and roots.
Canopy dominated by widely-spaced *Pinus taeda*
Understory open with scattered *Quercus* saplings, *Vaccinium arboreum*, *Callicarpa americana*
Herbaceous associates include *Ambrosia psilostachya*, *Pityopsis graminifolia*, *Aristida purpurascens*, *Tridens flavus*, *Symphotrichum patens*, *Symphotrichum ericoides*

Managed Area (Name of the state or federally owned area):

Angelina Ntional Forest

Landscape (Describe the current landscape surrounding the plant or animal (i.e. farmland, residential, forest, etc.))

Open pine forest maintained by prescribed burns

Current and Potential Threats:

Fire suppression

Management Comments:

This represents the largest stand of *Liatris tenuis* that I have observed in the forest. The other locations were limited mostly to the ROWs.

Specimen: Was a specimen taken? ☐ yes ☒ no

If yes, indicate the herbarium, collector(s) name(s) and number(s), accession #, and date collected:

Photograph: Was a photo taken? ☒ yes ☐ no If yes, ☐ slide ☐ print ☒ digital If possible, please submit a copy of the photo.

Is a copy included with the form? ☒ yes ☐ no

General Comments:

I accidentally came across this stand while monitoring invasive species along the forest service road. A more thorough search of this area, especially earlier in the growing season, might turn up many more plants. This area has been in exceptional drought for most of the 2011 growing season.

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Form Completed By:

Minnette Marr	2011-11-10	214-908-1161
Name	Date	Phone

Identification:

Complete only one form per rare plant or animal per site. If you need a list of rare species we are currently tracking, contact our office.

Name of the rare plant or animal:	Liatris tenuis		
Method of ID: (Source of key, photo, name of expert, other):	Flora of North America; Rare Plants of Texas		
Date First Observed:	2011-11-05	Date Last Observed:	2011-11-05

Observer:

Name:	Address:	Phone:
Minnette Marr Pauline Singleton	4801 La Crosse Avenue, Austin, TX	214-908-1161 281-421-2469

Location:

GPS data:	Latitude:	31.31983	Longitude:	-094.20489
	Accuracy:		GPS Brand:	Garmin GPS 60

Survey Site Name (locale or place name):	Angelina National Forest, Upland Island Wilderness Area
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Directions (describe in detail the precise location of the species or community; begin with an easily identifiable starting point, include nearby landmarks, street names, and mileages):

Approximately 25 miles east of Lufkin.
 From Lufkin, take SH 103 to SH 147. Turn south on SH 147. Turn east on Forest Service Road 300 (Turkey Hill Road).

County:	San Augustine County	Town:	Broaddus
Name of USGS 7.5' topo (if known)	Harvey Creek		

Observation Data:

For Animals: Indicate the number of adults, juveniles, nests, etc.

For Plants: Indicate 1) the number of flowering plants and/or sterile stems, 2) the number of separate plant groupings, 3) the health of the plants, etc.

Eighty four individuals were observed.
All plants observed had finished flowering and had immature achenes.
No damage from insects or herbivores was observed.

Size:

Please indicate the estimated area occupied by the plant or animal:

	Acres or		sq. meters
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If the area occupied is long and narrow (less than 12.5 meters wide), please indicate:

Length (meters):	207	Width (meters):	2m x 2
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Habitat Description: Write a description of the habitat for the species at this location. Include ecological communities, dominants, associated species, substrates, soils, aspect, slope, hydrology, etc.

Most plants observed on shoulder of outside (forest side) bank of borrow ditch. No plants observed more than one meter into forest.
West side of National Forest Road: 52 plants observed. with a gap of approximately 100 meters between the plants 28 and 29
East side of National Forest Road 300: 32 plants observed
Turkey Hill Road cuts through a forest dominated by *Pinus taeda*. *Liatris tenuis* was observed in the borrow ditch along the road, not in the forest.
Associated species include *Aristida* species, *Pityopsis graminifolia*, *Symphyotrichum patens*, *Symphyotrichum ericoides*, *Tridens flavus*, *Dichanthelium* species, and seedlings of numerous woody species (*Vitis*, *Pinus*, *Quercus* and *Rubus*)

Managed Area (Name of the state or federally owned area):

Angelina National Forest, Bannister Wildlife Management Area

Landscape (Describe the current landscape surrounding the plant or animal (i.e. farmland, residential, forest, etc.))

Evergreen forest with an open understory maintained by prescribed fire surrounds this stand of *Liatris tenuis*
Unpaved road bisects this stand of *Liatris tenuis*

Current and Potential Threats:

Road widening, fire suppression; *Lygodium japonicum* invasion

Management Comments:

Liatris tenuis appears to benefit from maintenance of the borrow ditch along forest service road

Specimen: Was a specimen taken? ☒ yes ☐ no

If yes, indicate the herbarium, collector(s) name(s) and number(s), accession #, and date collected:

Lady Bird Johnson Wildflower Center, Minnette Marr, one specimen, accession number 1278, collected November 5, 2011

Photograph: Was a photo taken? ☒ yes ☐ no If yes, ☐ slide ☐ print ☒ digital If possible, please submit a copy of the photo.

Is a copy included with the form? ☒ yes ☐ no

General Comments:

As part of a grant from the National Forest Foundation, I am working with local volunteers to monitor rare species in the National Forests and Grasslands of Texas. Pauline Singleton and I searched for a stand noted by the MacRoberts in 1995.

Liatris tenuis (Asteraceae) SAN AUGUSTINECO. Angelina National Forest. Compartment 22/23. On both sides of FS 300, just north of FS 356. Mesic pine-oak woodlands edge. 8/9/1995 B. R. & M. H. MacRoberts 2864 [TEX 00391793]

Release of Audio-Visual Material

I give permission to the Center for Plant Conservation to use photographic or other visual material as listed below for use in that organization's publicity and education programs. I understand that the Center is a non-profit, charitable organization, that the materials produced are for educational purposes, and that no admission will be charged for viewing. Fill out the below for each photo:

Photo 1 File name: Hibiscus dasycalyx_calyx.tif

Photo 2 File name: Hibiscus dasycalyx_fruit.tif

Photo 3 File name: Hibiscus dasycalyx_habitat.tif

Photo 4 File name: Liatris tenuis_Angelina habitat.tif

Photo 5 File name: Liatris tenuis_fruit.tif

Photo 6 File name: Liatris tenuis_seedheads.tif

Photo 7 File name: Rudbeckia scabrifolia_habitat.tif

Photo 8 File name: Rudbeckia scabrifolia_infructescence.tif

Photo 9 File name:

Signed: Minnette Marr

Date 12-15-2011

Minnette Marr

Name

4801 La Crosse

Address

Austin, TX 78739

PLEASE put only one species per tab

	PHOTO 1	PHOTO 2	PHOTO 3	PHOTO 4	PHOTO 5
File name	Angelina habitat	Fruit	Seedheads		
Species name	Liatris tenuis	Liatris tenuis	Liatris tenuis		
Synonyms					
Name of people (if any)					
Location	Angelina National Forest	Angelina National Forest	Angelina National Forest		
Date (dd/mm/yyyy)	11/6/2011	11/6/2011	11/6/2011		
Photographer	Minnette Marr	Minnette Marr	Minnette Marr		
Image Owner (if different than photographer)					

	PHOTO 6	PHOTO 7	PHOTO 8	PHOTO 9	PHOTO 10
File name					
Species name					
Synonyms					
Name of people (if any)					
Location					
Date (dd/mm/yyyy)					
Photographer					
Image Owner (if different than photographer)					

	PHOTO 11	PHOTO 12	PHOTO 13	PHOTO 14	PHOTO 15
File name					
Species name					
Synonyms					
Name of people (if any)					
Location					
Date (dd/mm/yyyy)					
Photographer					
Image Owner (if different than photographer)					

	PHOTO 16	PHOTO 17	PHOTO 18	PHOTO 19	PHOTO 20
File name					
Species name					
Synonyms					
Name of people (if any)					
Location					
Date (dd/mm/yyyy)					
Photographer					
Image Owner (if different than photographer)					