Identification of Milkweeds (Asclepias, Family Apocynaceae) in Texas



Texas milkweed (Asclepias texana), courtesy Bill Carr

Compiled by Jason Singhurst and Ben Hutchins jason.singhurst@tpwd.state.gov ben.hutchins@tpwd.state.gov Texas Parks and Wildlife Department Austin, Texas and Walter C. Holmes walter_holmes@baylor.edu Department of Biology Baylor University Waco, Texas

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Created in partnership with the Lady Bird Johnson Wildflower Center Design and layout by Elishea Smith

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Introduction

This document has been produced to serve as a quick guide to the identification of milkweeds (*Asclepias spp.*) in Texas. For the species listed in Table 1 below, basic information such as range (in this case county distribution), habitat, and key identification characteristics accompany a photograph of each species. This information comes from a variety of sources that includes the *Manual of the Vascular Flora of Texas, Biota of North America Project*, knowledge of the authors, and various other publications (cited in the text). All photographs are used with permission and are fully credited to the copyright holder and/or originator. Other items, but in particular scientific publications, traditionally do not require permissions, but only citations to the author(s) if used for scientific and/or nonprofit purposes. Names, both common and scientific, follow those in USDA NRCS (2015).

When identifying milkweeds in the field, attention should be focused on the distinguishing characteristics listed for each species. Additionally, we would appreciate being provided with photographs to document iNaturalist observations which should focus on leaf shape characteristics (margins, surfaces, and arrangement; i.e. opposite, whorled or alternate), flowers (which are highly modified depending on species), and inflorescences (cyme, raceme, umbel, or occasionally flowers borne singly). Participants are encouraged to contact the authors via email as needed.

National range maps (distributions) were created using the *Biota of North American Project (BONAP, Kartez 2014) National Plant Atlas*. A state is dark green if a species occurs there and is native to the state. A state is brown if a species does not occur there. A state is blue if a species occurs there and is not native to the state. Light green counties indicate that the species occurs in a given county. Yellow counties indicate that the species is rare in the state and occurs in a given county. Non-native species which are shown in turquoise and are questionable presence records are indicated by cross-hatched green.

Unless otherwise indicated, statements concerning the distributions of species apply only to Texas. The genus *Asclepias* was formerly placed in the family *Asclepiadaceae*, which has been subsumed into the *Apocynaceae*. Finally, errors, corrections, and improvement suggestions are welcome.

Table 1

Native and non-native milkweeds (Asclepias spp.) recorded from Texas. Non-native milkweeds are noted with an asterisk (*) next to the species name.

<u>Common Name</u>	<u>Scientific Name</u>	<u>Page</u>
Blunt-leaf milkweed	Asclepias amplexicaulis	6
Sand milkweed	Asclepias arenaria	7
Antelopehorns	Asclepias asperula	8
Bract milkweed	Asclepias brachystephana	9
Tropical milkweed	Asclepias curassavica (*)	10
Emory's milkweed	Asclepias emory	11
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Wheel milkweed	Asclepias uncialis	38
Redring milkweed	Asclepias variegata	39
Whorled milkweed	Asclepias verticillata	40
Green comet milkweed	Asclepias viridiflora	41
Green antelopehorn	Asclepias viridis	42

Floral and fruit characters of milkweed



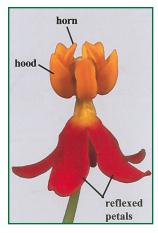
a) Inflorescence



b) Flower



c) Flowering plant



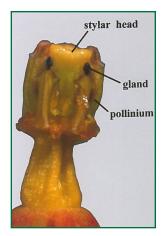
a) Flower



b) Flower with one hood and one horn removed

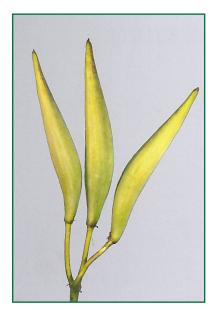


c) Flower with all hoods and horns removed



d) Gynoecium

Photos: Castner 2004.



a) Immature follicles



b) Follicles beginning of dehiscence



c) Follicle at full dehiscence releasing seeds with tuft of hairs for dispersal

Photos: Castner 2004.

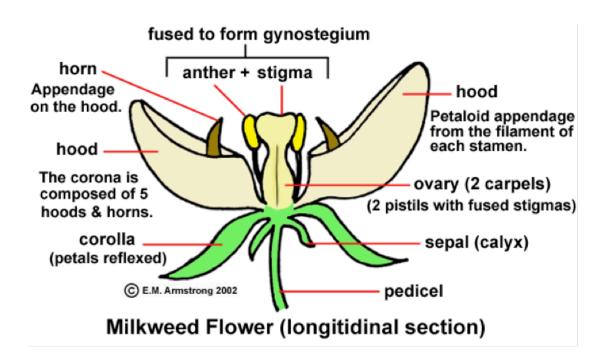


Image: © E.M. Armstrong 2002

Blunt-leaf milkweed (Asclepias amplexicaulis)

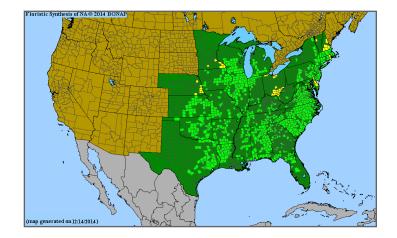


Photos: Doug Goldman, hosted by the USDA-NRCS PLANTS Database/USDA-NRCS-NPDT

Habitat: Longleaf Pine-Bluejack Oak sandhills and Shortleaf Pine-Bluejack Oak sandhills in east Texas, Sand Post Oak-Bluejack Oak sandhills in the Post Oak Savanna Ecoregion, sandhill terraces along the Red River in northeast Texas, and sandy prairies in northeast Texas.

Distinguishing characteristics:

Herbaceous perennials, the glabrous (hairless) stem has a whitish, waxy surface and



reaches 0.3-1.0 m in height; the sessile (stalkless) leaves that clasp the stem are distinctive among milkweeds, being opposite, broadly ovate or oval to oblong-lanceolate, bases broadly cordate and clasping (amplexicaul, i.e., embracing and surrounding the stem at base); inflorescences slender, terminal or solitary at the uppermost node; flowers greenish, corolla purple or rose.

Flowering: April-June.

Similar species: *Asclepias amplexicaulis* is similar to *Asclepias syriaca*, which has petiolate (stalked) leaves that do not clasp the stem, fruits (pods) with a bumpy surface and hairy stems. *Asclepias syriaca* is reported only in Randall County. *Asclepias amplexicaulis* is also similar to *A. purpurascens*, historically known in Texas only from Bowie County, is distinguished by its petiolate leaves.

Sand milkweed (Asclepias arenaria)

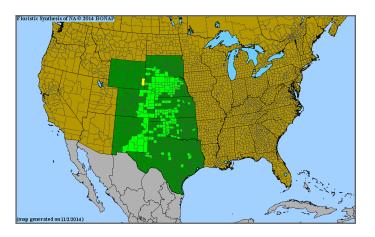




Photos: Brenda K. Loveless (left), Norman G. Flaigg (right)

Habitat: Dunes and sandhills in the High Plains, Rolling Plains, and Trans Pecos Ecoregions and deep sandhills ('blowouts') in the southern Post Oak Savanna Ecoregion.

Distinguishing characteristics: Herbaceous perennials growing to 8 dm or more tall; leaves opposite, petiolate, densely tomentulose, very broadly obovate-oval and more or less subquadrate, uniform in size and shape, 6-9 cm long and



4-8 cm broad, somewhat cordate at bases; inflorescences lateral or solitary at several of the upper nodes; flowers pale-green. Smells distinctly of bacon-cheeseburgers from a distance of up to 500 m. The smell is diagnostic for this species.

Flowering: June-August.

Similar species: Asclepias arenaria is similar to A. speciosa, which has flowers 15-28 mm tall with pale rose to pinkish-cream gynostegia (fused reproductive parts). Asclepias arenaria has flowers 11-14 mm tall, hairy, green to purplish calyx lobes and pale green, and reflexed corolla lobes. The gynostegia are white to creamy and glabrous. Asclepias arenaria is also similar to A. viridiflora which has pale green gynostegia and no horns.

Antelopehorns (Asclepias asperula)



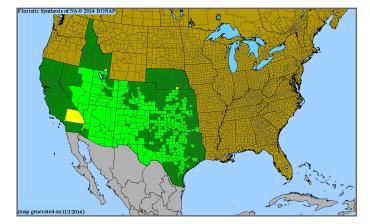
Photos: Brenda K. Loveless (left), Norman G. Flaigg (right)



Habitat: Rocky and sandy prairies; Blackland Prairie, Edwards Plateau, Grand Prairie, Rolling Plains, High Plains, and Trans Pecos Ecoregions.

Distinguishing characteristics:

Herbaceous perennials growing from stout rootstocks; stems usually clustered, ascending or somewhat decumbent, 2-6 dm tall; leaves are lanceolate to linear-lanceolate, 1-3 cm wide; inflorescences terminal, solitary,



usually many-flowered, very crowded, and sessile to long-pedunculate; flowers pale-yellowish, sometimes slightly flushed with purple without.

Flowering: April-September.

Similar species: Asclepias asperula is similar to A. viridis. Asclepias asperula typically has lanceolate to linear-lanceolate leaves that are narrowly acuminate at the apex while A. viridis leaves are broadly oblong to ovate and obtuse to shortly acute at apex. Asclepias asperula has a distribution that includes central, north central, and west Texas while A. viridis occurs in the eastern half of Texas.

In the *Manual of the Vascular Plants of Texas* (Correll and Johnston, 1970), *Asclepias asperula* is recognized as including two subspecies. One is *A. asperula* subspecies *capricornu*, based upon the reduction of *A. capricornu* Woodson (by Woodson himself) to the subspecies level under *A. asperula*. This reduction automatically created the name *A. asperula* subspecies *asperula*. The subspecies may be distinguished by the following key and comments quoted from Correll and Johnston (1970).

1a. Inflorescences usually obviously and rather long-pedunculate; hoods usually rather dark purple; leaves usually linear-lanceolate.....subsp. asperula

1b. Inflorescences sessile or subsessile; hoods usually greenish-cream color; leaves usually more broadly lanceolate subsp. *capricornu*

Subsp. asperula occurs mostly in w. Texas.

Subsp. capricornu (Woods.) Woods. occurs mostly in cen. Texas.

The mentioned differences between the two subspecies, accompanied by the differences in distributions, suggest (to the current authors) that the two subspecies may deserve recognition at the specific level.

Bract milkweed (Asclepias brachystephana)





Photos: Russ Kleinman, Department of Natural Sciences and Dale A. Zimmerman Herbarium, Western New Mexico University.

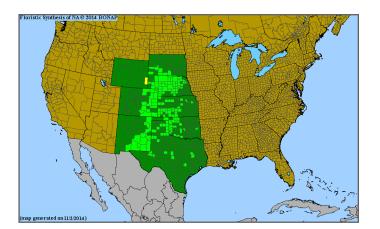
Habitat: Desert mountains, desert grasslands, and plains in igneous, sandy, and gypsum soils in the High Plains and Trans Pecos Ecoregion.

Distinguishing characteristics:

Herbaceous perennials; stems 1-4 dm tall, clustered from a rootstalk, branching repeatedly upwards; inflorescences lateral and solitary at the upper nodes; flowers conspicuously whitetomentulose, rather small; corolla reflexed; reddish-purple or violet.

Flowering: May-September.

Similar species: None.



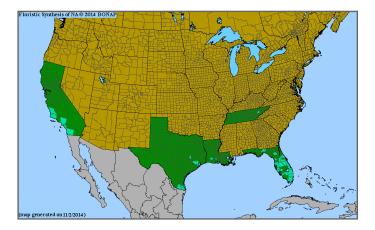
Tropical milkweed (Asclepias curassavica)



Photos: Wikimedia Commons

Habitat: Non-native and naturalized in very south Texas (Cameron and Hidalgo counties) and southeast Texas.





Distinguishing characteristics: Herbaceous perennials; stem to 9 dm; leaves narrow, pointed at tip, and 13-15 cm long; flowers very showy with yellow/orange corona and bright red corolla; fruits 8-10 cm long, spindle shaped.

Flowering: June-October.

Similar species: Easily recognized by the bright red and yellow/orange flowers. The species is often used in "butterfly" gardens. The flower color is suggestive of *Asclepias tuberosa*, but easily distinguished by comparison with the included photos.

Emory's milkweed (Asclepias emoryi)



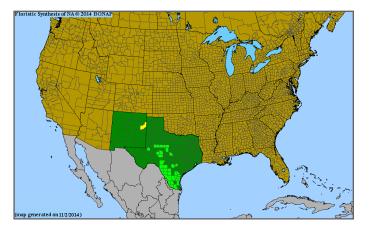


Photos: © 2014 Wynn Anderson, Encyclopedia of Life

Habitat: Grasslands in south Texas, western Edward's Plateau, and southern Rolling Plains. Usually growing in limestone, caliche, or sandy loam soils.

Distinguishing characteristics:

Herbaceous perennials; stems ascending or decumbent, branched from base 1-2 dm tall, originating from clustered rootstalks; leaves, opposite, long petiolate, rhombicovate to narrowly oblong-lanceolate, 4-8 cm long and 4 cm wide;



inflorescences lateral, solitary too few to several in the upper nodes; flowers pale-green to pale-greenish-cream; hoods blunt at apex, about 5 mm long, extending at least a third longer than anther head.

Flowering: March-September.

Similar species: Asclepias emoryi is similar to Asclepias oenotheroides. The hoods of *A. oenotheroides* are bi-lobed while those of Asclepias emoryi are "blunt" (and unilobed).

Engelmann's milkweed (Asclepias engelmanniana)

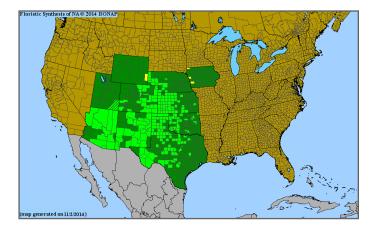




Photos: Sue Smith @ http://cals.arizona.edu/yavapaiplants

Habitat: Sandy, rocky or calcareous soils along creeks, canyons, open woodlands, and grasslands in the Grand Prairie, western Edward's Plateau, Rolling Plains, High Plains, and Trans Pecos Ecoregions.

Distinguishing characteristics: Herbaceous perennials; stems, erect, typically unbranched, 0.6-1.2(-1.5) m tall, glabrous to rather glaucous; leaves irregularly alternate to approximate, sessile, the blades linear, 5-25 cm long,



1-8 mm broad, apices and bases attenuate, surfaces glabrous, or with few hairs on the margins and midvein below; inflorescences lateral from several to many of the upper nodes. Flowers rather small, corolla pale-green and more or less flushed with purple without.

Flowering: May-September.

Similar species: None; very well-marked by the narrow leaves.

Nodding milkweed (Asclepias glaucescens)

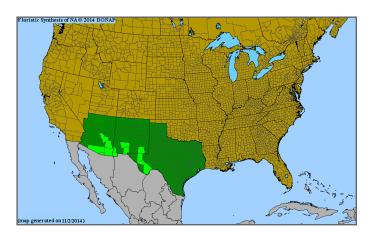




Photos: Ries Lindley, swbiodiversity.org

Habitat: Along stream beds and dry rocky slopes in open pine, juniper, or oak woodland canyons in the Chisos, Davis, and Guadalupe Mountains in the Trans Pecos Ecoregion.

Distinguishing characteristics: Herbaceous perennials to 3-7 dm tall; stems rather stout, simple; leaves opposite, sessile, very broadly oval to oblong; inflorescences terminal; flowers rather large, terminal or subterminal, flowers pale-green.



Flowering: June-September.

Similar species: This species is synonymous with *A. elata* (in essence meaning that both names refer to the same species). *Asclepias glaucescens* is similar to *A. amplexicaulis. Asclepias glaucescens* has a gynostegium that is sessile or essentially so and has a distribution restricted to far west Texas. The gynostegium of *A. amplexicaulis* is stipitate (stalked) and the distribution is limited to the eastern part of Texas.

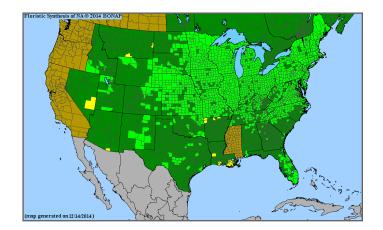
Swamp milkweed (Asclepias incarnata)



Photos: Jennifer Anderson (left), Jason Singhurst, Llano River, Llano County, Texas (right)

Habitat: More likely to be found in wet areas; along perennial streams in the Edwards Plateau and the northern High and Rolling Plains. Also bogs and marshes in east Texas.

Distinguishing characteristics: Herbaceous perennials growing to 6-15 dm tall; leaves 5-10 cm long, opposite or occasionally the internodes condensed to appear falsely whorled, ovate, margins shallowly toothed, petioles



about 1 cm long; inflorescences usually paired at the upper nodes, solitary below, several to many-flowered; flowers bloom in clusters, bright pink-carmine or rarely white, each with five upright hoods with curved horns pointed downward from each; fruits (pods) pointed, surfaces ridged, but not warty.

Flowering: August-October.

Similar species: None.

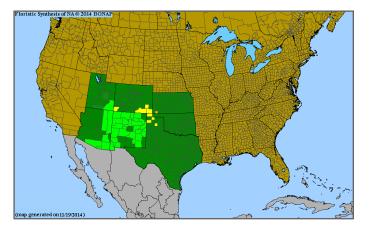
Dwarf milkweed (Asclepias involucrata)



Photos: Max Licher (left), Sue Smith @ http://cals.arizona.edu/ (right)

Habitat: Flat prairies and washes in sandy soils in the very northern High Plains of Texas. Currently, known only from Carson, Hartley, and Sherman counties in the northern Panhandle and therefor is considered rare.

Distinguishing characteristics: Herbaceous perennials, sprawling on the ground, usually 25 cm tall or less; leaves folded, twisted, and wavy-margined, covered with distinctly soft green tomentose



hairs; flower clusters (inflorescences) emerging from the ends of stems. In Texas, flowers are green to white. [In the Four Corners area (Colorado, New Mexico, Arizona, and Utah], flowers are almost always yellow.

Flowering: May-June.

Similar species: This is the only milkweed species in the very northern High Plains of Texas that has folded leaves.

Fewflower milkweed (Asclepias lanceolata)



Photos: Sally & Andy Wasowski, www.wildflower.org

Habitat: Wet prairies in the upper (northern) coastal plain and longleaf pine savannas in very southeast Texas.

Distinguishing characteristics: Herbaceous perennials; reaching a

mature height of about 12-15 dm; stems thin; leaves opposite, linearlanceolate; inflorescences terminal or on few side branches, each with few (less than 10 flowers); flowers brilliant orange to brick red in color. Floristic Synthesis of NA @ 2014 BOXAF

Flowering: June and July.

Similar species: *Asclepias lanceolata* is similar to *A. rubra*, typically a resident of peat bogs and seepage slopes further north. Hoods of this species are acute to obtuse at apex and leaves ovate to lanceolate. *Asclepias lanceolata* hoods are broadly rounded at apex and leaves are linear to slightly lanceolate. For much of the year, this milkweed is inconspicuous and hidden in the surrounding foliage. Emerging in the spring and very conspicuous because of the brightly colored flowers.

Broad-leaf milkweed (Asclepias latifolia)

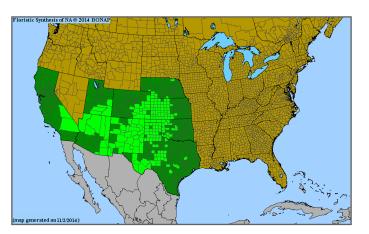


Photos: Pam Williams (left), Norman G. Flaigg (right), www.wildflower.org

Habitat: Dry plains, prairies, and breaks on sandy, clayey, or rocky calcareous soils. In Texas, *Asclepias latifolia* is primarily restricted to the High Plains, Rolling Plains, and Trans Pecos Ecoregions of Texas.

Distinguishing characteristics:

Herbaceous perennials to 3-6 dm tall with little branching; leaves numerous (and largely obscuring the stem), 7.6-10.2 cm long and 5.1 cm wide, coarse and with prominent veins; flowers pale green to yellowish, mostly hidden by the leaves.



Flowering: May-August.

Similar species: None. Characterized by the abundance of leaves.

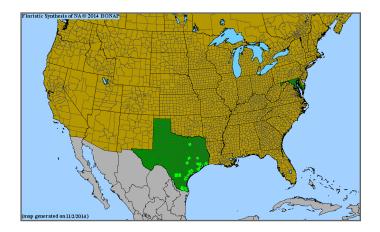
Slim milkweed (Asclepias linearis)



Photos: Bill Carr (left), Peggy Romfh (right), www.wildflower.org

Habitat: Coastal prairie and coastal prairie-salt marsh transitions, fringe of prairie potholes and seasonal depressional wetlands along the Texas coast. Also, mesquite woodland-savanna transitions in south Texas.

Distinguishing characteristics: Herbaceous perennials, to 2-5 dm tall; stems slender; leaves opposite (orientated at almost 90 degree angles), sessile, 3-9 cm long and 1-4 mm wide, glabrous except for



the minutely puberulent lower midrib; inflorescence solitary (one at a node) on several of the upper nodes; flowers greenish-white; seeds broadly oval; about 5 mm. long.

Flowering: April-October.

Similar species: *Asclepias linearis* may be confused with *A. verticillata*, a species with whorled, narrow leaves 1.5 mm or less wide.

Longleaf milkweed (Asclepias longifolia)

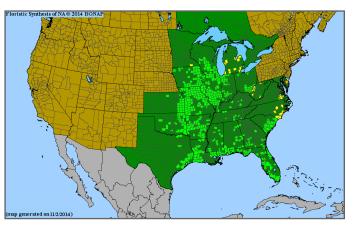


Photos: Peggy Romfh, www.wildflower.org

Habitat: Wet prairies in the upper (northern) coast, longleaf pine savannas in very southeast Texas, and Silveus Dropseed Prairies in northeast Texas.

Distinguishing characteristics:

Herbaceous perennials growing to 6 dm tall; stems rigid, thin; leaves numerous, alternate, linear, sessile, 7.5-15 cm long, pointing upward at an angle of 30-45 degree; inflorescences solitary, terminal and lateral from few of the uppermost



nodes; corollas reflexed-rotate, pale-greenish-white and liberally tinted with purple.

Flowering: May-September.

Similar species: *Asclepias longifolia* was included in Texas by some early authors (Gray, Britton & Brown) under the name *A. hirtella*. Woodson (1954), however, separated these taxa on the basis of distribution and distinctness in the field. Turner (2009) treated all specimens of this complex from Texas as *Asclepias longifolia var. hirtella*.



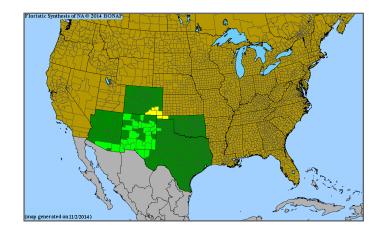
Longhood milkweed (Asclepias macrotis)



Photos: Russ Kleinman & Jim O'Hara, Western New Mexico University Department of Natural Sciences and the Dale A. Zimmerman Herbarium.

Habitat: Along the breaks of the Canadian River in Deaf Smith County in the High Plains, open limestone mountain slopes and canyons in the Guadalupe Mountains in Culberson County, and Sierra Diablo Mountains in Hudspeth County.

Distinguishing characteristics: Herbaceous perennials from woody bases; stems 15-35 cm tall, ascending, slender, and copiously branched; leaves opposite,



sessile, blades narrowly linear; 2-9 cm long, 0.5-1.5 mm broad, glabrous, margins revolute; inflorescences lateral, borne 1 too few at the upper nodes; flowers green to purple-tipped outside, greenish inside, the corolla lobes 4-5 mm long, hoods purple below, and yellowish white on the sides.

Flowering: June-August.

Similar species: Asclepias macrotis may be confused with A. sperryi. The species may be distinguished by the hoods, which in A. macrotis are ascending-spreading and narrowly acuminate at apex whereas A. sperryi hoods are abruptly deflexed at the base from the anther head, then ascending to an expanded apex.

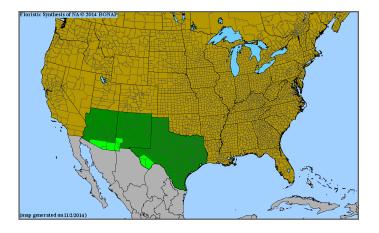
Tufted milkweed (Asclepias nummularia)



Photos: Patrick J. Alexander, hosted by the USDA-NRCS PLANTS Database

Habitat: Canyons, grasslands, and oak savannas in the Chisos and Davis Mountains in the Trans Pecos Ecoregion. Known only from Brewster, Jeff Davis, and Presidio County in Texas.

Distinguishing characteristics: Herbaceous perennials, diminutive in size (4-10 cm in height); stems usually several clustered from the rootstalk, decumbent to ascending; leaves opposite, very shortly petiolate, in 2- 3



closely approximate pairs, 1.5-4 cm long x 1-4 cm broad, very broadly ovate or to ovatelanceolate and broadly rounded to acute at apices, bases cordate to obtuse, lower surfaces tomentulose; inflorescences terminal and subterminal at the upper nodes, few to several flowered; flowers small, calyces purplish, corollas purplish-rose.

Flowering: April-August.

Similar species: None.

Pineland milkweed (Asclepias obovata)

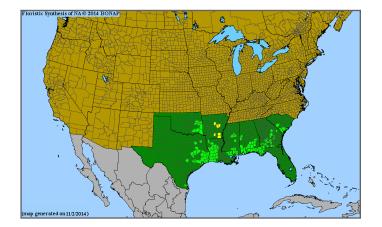


Photos: Larry Allain (left), Jeff McMillian (right)



Habitat: Post oak savannah sandhills, sandy coastal prairies in the upper (northern) coast and longleaf pine savannahs in southeast Texas.

Distinguishing characteristics: Herbaceous perennials to 1.5-5 dm tall from a deep slender taproot; stems rather stout, simple to infrequently branching; leaves softly tomentulose, opposite, short petiolate, and variable in size, 3-8 cm long and 1-4 cm broad,



lower leaves are usually oval to oblong, gradually decreasing in size and narrower above; inflorescences terminal, solitary or lateral from the uppermost few nodes; flowers several to many, rather large, corollas reflexed-rotate, pale-greenish-orange.

Flowering: May-August.

Similar species: *Asclepias obovata* is similar to *A. viridiflora*, which may be distinguished by its larger size (especially height) and hemispherical inflorescences crowded with flowers. *Asclepias obovata* is a smaller plant lacking hemispherical inflorescences.

Zizotes (Asclepias oenotheroides)

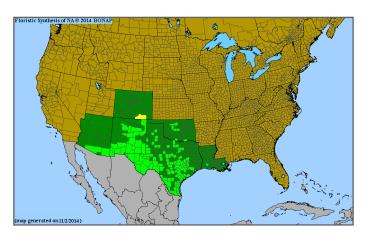




Photos: Ray Matthews (left), Norman C. Flaigg (right), LBJ

Habitat: Rocky calcareous limestone and igneous soils in the Edwards Plateau, High Plains, Rolling Plains, Trans Pecos, and Tamaulipan Ecoregions. Also, in tight sandy clay soils and dunes along the Texas coast.

Distinguishing characteristics: Herbaceous perennials to 1-5 dm tall; stems branched from the base, clustered from a thick rootstalk, ascending or decumbent, moderately stout; leaves opposite



or sub-opposite, petioles 1-2.5 cm long; leaves ovate, 2.5-10 cm long and 1-6 cm wide margins wavy; inflorescences lateral or solitary from few to several on the upper nodes; flowers with long slender hoods extending beyond the stigmatic groove, flare or bowing outward at the top; corollas are reflexed-rotate, greenish-white or yellow.

Flowering: April-November.

Similar species: The long slender hoods are unique among milkweeds and distinguish this species from all others.

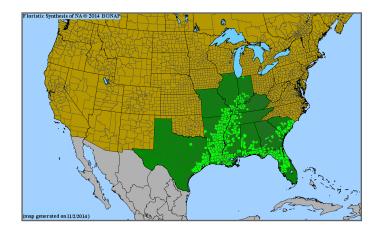
Shore milkweed (Asclepias perennis)



Photos: Jeff McMillian

Habitat: Moist bottomland hardwood forests of river deltas and edge of marshes, sloughs, swamps, and coastal prairie potholes. This milkweed species has heavily declined in Texas. *Note: Please notify us via email if you document a population of this milkweed in Texas.

Distinguishing characteristics: Herbaceous perennials growing from rather short and superficial rootstalks; stems slender, 3-5 dm



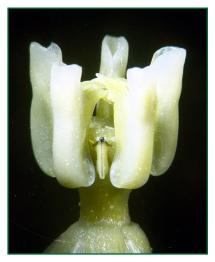
tall, usually branching at the base; leaves opposite, elliptic-lanceolate to narrowly oblong or broadly oval to ovate-elliptic, acuminate at the tips; inflorescences solitary at the upper most nods, several to many-flowered; flowers purple, the corollas reflexed-rotate and white to pale-pink.

Flowering: April-October.

Similar species: None.

Prostrate milkweed (Asclepias prostrata)

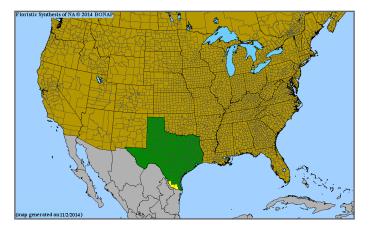




Photos: Richard Rintz, www.wildflower.org

Habitat: Endemic to the Tamaulipan thornscrub in Starr and Zapata counties and northern Tamaulipas, Mexico. Grasslands or openings in shrublands on loamy fine sands and fine sandy loams of the Copita, Hebbronville, and possibly other soil series over the Laredo, Yegua, and other Eocene formations. Globally rare.

Distinguishing characteristics: Herbaceous perennials with prostrate stems 10-40 cm long;



stems branched near the base or simple; leaves opposite, appearing 2-ranked due to twisting of stem, short-petiolate, triangular to deltoid-lanceolate, 15-35 mm long and 5-20 mm wide, apices acute, bases cordate to truncate, minutely pilose on both surfaces, margins usually wavy; inflorescences few-flowered umbels in axils of upper leaves; corollas greenish-white to rose.

Flowering: April-October.

Similar species: No other prostrate *Asclepias* species occur within the range of *A*. *prostrata*. According to Damude and Poole (1990), *Acleisanthes longiflora* may superficially resemble *Asclepias prostrata*, but lacks the milky latex and has leaves with a smoother and waxier appearance than those of *Asclepias prostrata*. Prostrate *Matelea* species, particularly *M. brevicoronata* and *M. parviflora*, in the sterile condition, also present a risk of misidentification. The leaves of *Matelea* generally are not as wavy-margined as those of *A. prostrata*. *Matelea* plants are white-pubescent or pilose, and (in the case of *M. parviflora*) malodorous. Also the peduncles are longer (to 7-8 cm).

Plains milkweed (Asclepias pumila)



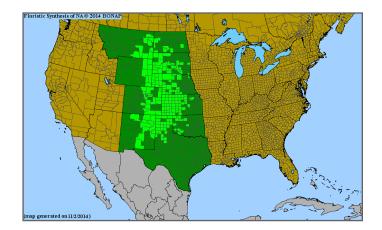


Photo: www.easterncoloradowildflowers.com

Habitat: Shortgrass prairies, limestone bluffs (buttes), and sandsage - Havard oak - dropseed vegetation in the High Plains.

Distinguishing characteristics:

Perennials from rather deep rootstalks; stems cespitose from the crown, simple or branching infrequently below ground level, relatively slender, to 3 dm, minutely puberulent; leaves spirally approximate and very crowded, the lowest occasionally



verticillate, sessile, filiform, strictly ascending, 2-4 cm long and about 1 mm broad, margins usually strongly revolute, glabrous; inflorescences subterminal, corymbosely clustered at the uppermost nodes, each several flowered; flowers small, corollas reflexed-rotate and white to faintly suffused with rose or yellowish-green.

Flowering: July-August.

Similar species: Asclepias pumila can be confused with *A. verticillata* which is rather rare in the High Plains. Asclepias pumila occurs throughout the High Plains. Additionally, the flowers of *Asclepias pumila* are rose or yellowish green in color, while those of *A. verticillata* are greenish-white.

Purple milkweed (Asclepias purpurascens)

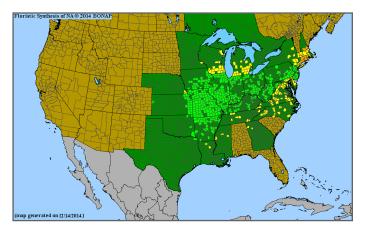




Photos: Albert F. W. Vick, www.wildflower.org

Habitat: Open hardwood slopes, in Texas restricted to Bowie County. Note: Please notify us via email if you document a population of this milkweed in Texas.

Distinguishing characteristics: Herbaceous perennials; stems rather stout, simple, 4-10 dm tall, minutely pilosulose when young, and becoming glabrate in age; leaves opposite, petiolate, broadly ovate or oval to ovate- or oblonglanceolate, 6-10 cm long and 3-10



cm broad, dark green and glabrate above, paler and densely puberulent below, obtuse to acute at apices, obtuse to broadly rounded at bases, the blades abruptly and shortly cuneate onto the petiole; inflorescences terminal and solitary or paired, several to rather many-flowered; corollas reflexed-rotate, deep rose.

Flowering: May-June.

Similar species: None, restricted to very northeast corner of Texas, hence is considered a peripheral species.

Red milkweed (Asclepias rubra)

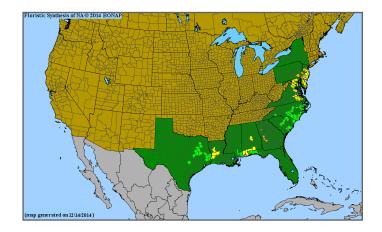




Photos: Carolyn Fannon, www.wildflower.org

Habitat: Hillside pitcher plant and seepage bogs in longleaf pine savannahs in the southeast portion of the Pineywoods Ecoregion and hillside and stream valley bogs in the central Post Oak Savannah.

Distinguishing characteristics: Herbaceous perennials; stems rather slender 4-10 dm tall, simple, glabrous or very inconspicuously pilosulose in decurrent lines from the nodes; leaves opposite, sessile or subsessile, broadly ovate to



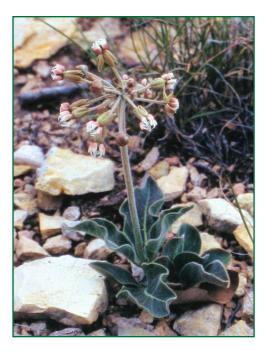
narrowly lanceolate, apices acute to acuminate, bases rounded to somewhat cordate, 5-16 cm long and to 6.5 cm broad, glabrous, dark green above, glaucous beneath; inflorescences terminal and lateral from the uppermost nodes, commonly paired when terminal, several to many-flowered; flowers moderately large, corolla reflexed-rotate and dull red to pinkish to purplish.

Flowering: June-August.

Similar species: None.

Bear Mountain milkweed (Asclepias scaposa)

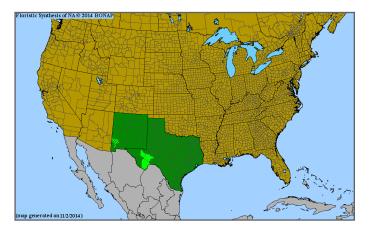




Photos: Richard Rintz, www.wildflower.org

Habitat: Talus slopes in the Wood Hollow Mountains in Brewster county and footslope above floodplain of Independence Creek in Terrell County. Restricted to the Trans Pecos Ecoregion in Texas.

Distinguishing characteristics: Small subscapose herbaceous perennials from a fleshy napiform rootstalk; stems simple or sparingly branched from the base, slender, to 2 dm tall, minutely puberulent or pilosulose; leaves are opposite,



petiolate, broadly oval to oblong-elliptic, obtuse to acute at apices, obtuse to rounded at bases, 2-6 cm long and 25 mm broad, generally pilosulose above and below; inflorescences terminal, solitary, several to many-flowered; flowers rather small, corolla reflexed-rotate, and livid-rose or purplish.

Flowering: April.

Similar species: None, very unique species.

Showy milkweed (Asclepias speciosa)

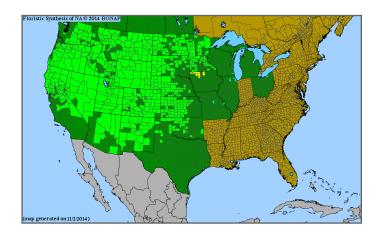




Photos: John Hixson, www.wildflower.org

Habitat: Seeps and mucky river bottoms on the Red River and Canadian River in Wheeler and Hemphill County in the Rolling Plains.

Distinguishing characteristics: Herbaceous perennials; stems usually very stout, simple, 6-10 dm tall, densely white-tomentose; leaves opposite, shortly petiolate, broadly ovate or oval to rather narrowly oblong or ovatelanceolate, 6-20 cm long and



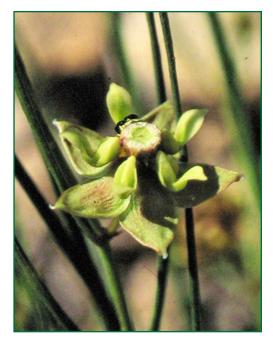
3-14 cm broad, apices usually very broadly obtuse to rounded, rarely acute, bases very broadly obtuse to rounded and sometimes broadly and shallowly cordate, surfaces densely white-tomentose beneath, more or less glabrate above; inflorescences lateral and solitary, few to several in the upper nodes, several to many-flowered, densely white-tomentose throughout; flowers very large and showy, corolla purplish-rose.

Flowering: June-August.

Similar species: Asclepias speciosa is closely related to the A. syriaca, with which it sometimes hybridizes at the eastern limits of its distribution. These species are similar in appearance and growth form (tall and robust), but can be distinguished by the layer of fine white hairs on A. speciosa and flowers that look like small crowns. These traits are not present in A. syriaca. Unlike A. syriaca, A. speciosa does not form large clones.

Sperry's milkweed (Asclepias sperryi)



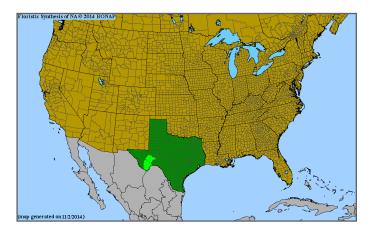


Photos: Richard Rintz, www.wildflower.org

Habitat: Limestone grassland slopes in the Del Norte, Glass, and Sierra Madera Mounatins in the Trans Pecos Ecoregion.

Distinguishing characteristics:

Low, semiwoody perennials; stems clustered from rootstalks, branching repeatedly and rather fastigiate, very slender, 1-3 dm tall, very minutely puberulent to essentially glabrous; leaves opposite, sessile, filiform, 6-8 cm long, and about 1 mm wide,



glabrous, margins revolute; inflorescences few at the uppermost nodes, sessile, 1 to very rarely 2 flowered; flowers are rather small with a rotate corolla, pale-greenish-yellow and more or less tinged with purple without.

Flowering: May-August.

Similar species: *Asclepias sperryi* may be confused with *A. macrotis*. The best characters that may be used to distinguish the two species are the hoods. In *Asclepias sperryi* the bases of the hoods are abruptly deflexed from the anther head, then ascending to an expanded apex whereas in *A. macrotis* the hoods are ascending-spreading, narrowly acuminate at apex.

Slimleaf milkweed (Asclepias stenophylla)

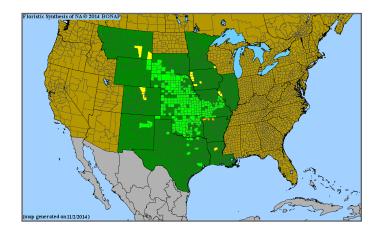




Photos: Janice Lynn, www.wildflower.org

Habitat: Rare in Texas, historically in Blackland and Coastal Prairies. Most recent collections were made from 1925 through 1953, with one from Cooke/Grayson County (Singhurst 1999). Note: Please notify us via email if you document a population of this milkweed in Texas.

Distinguishing characteristics: Herbaceous perennials from subnapiform tuberous rootstalks; stems rather slender, simple,



to 8 dm tall, minutely puberulent, rarely glabrate; leaves irregularly approximate, sessile, linear, 6-14 cm long and 2-4 mm broad, rather strictly ascending; minutely and scatteringly puberulent to glabrate; inflorescences lateral, few to several in the uppermost nodes, each several flowered, subsessile to very shortly pedunculate; flowers rather small, corolla rotate, pale-greenish-white or yellow.

Flowering: June-July.

Similar species: *Asclepias stenophylla* is similar to *A. verticillata,* but differs in having longer (6-14 cm) and wider (2-4 mm) leaves than *A. verticillata* has leaves 1.5-7 cm long and 1.5 mm wide. Restricted to northeast Texas.

Horsetail milkweed (Asclepias subverticillata)



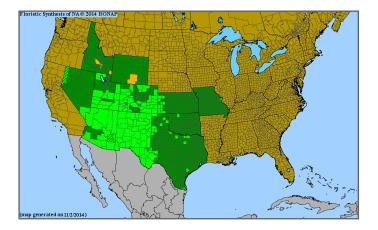


Photos: Max Licher, swbiodiversity.org

Habitat: Midgrass prairies in the High Plains, river terraces in the Rolling Plains, and High desert grasslands and mountain grasslands in the Trans Pecos Ecoregion.

Distinguishing characteristics:

Herbaceous perennials from rather stout woody rootstalks; stems to 12 dm tall, almost invariably with dwarf microphyllous branches, occasionally simple, more or less puberulent in decurrent lines



from the nodes; leaves predominately in whorls of 3-5 but occasionally opposite above on the flowering stems, shortly petiolate, linear, 2-13 cm long and 1-4 mm broad, glabrous to inconspicuously pilosulose; inflorescences usually solitary at the upper nodes, rarely paired, several to many-flowered; flowers are relatively small, corollas reflexed-rotate, white to rarely greenish-purple.

Flowering: June-October.

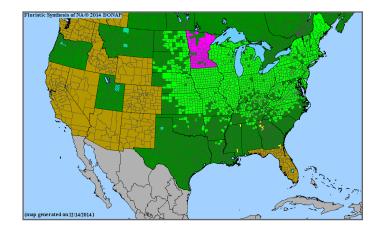
Similar species: Asclepias subverticillata is similar to A. verticillata. Asclepias subverticillata is distributed primarily in the western half of Texas, while A. verticillata is distributed in the eastern half of the state. Asclepias subverticillata has leaves that are rather lax, spreading and often longer than 8 cm. The leaves of Asclepias verticillata are strictly ascending.

Common milkweed (Asclepias syriaca)



Photos: W. D. and Dolphia Bransford (left) and R. W. Smith (right), www.wildflower.org

Habitat: Sandy, clayey, or rocky calcareous soils along the banks of flood plains of lakes, ponds, and waterways, in prairies, and forest margins. There is only one record of *Asclepias syriaca* in Texas, which is in Randall County. This record lacks habitat or location data and at present is not documented by a voucher specimen. ***Note: Please notify us via email if you document a population of this milkweed in Texas.**



Distinguishing characteristics: Perennial herbs growing from a deep rhizome; stems 6-20 dm, usually solitary from a simple to branched and thickened base, hairy; leaves opposite, broadly ovate to elliptic, 10-20 cm long and 5-11 cm wide; sparsely hairy above, densely hairy below, petioles 0.2-1.4 cm long; inflorescences borne in the upper leaf axils, 20-130 flowers per inflorescence; flowers small, 11-17 mm, petals green to purple-tinged, topped by a crown of five erect rose to purple, rarely white lobes.

Flowering: May-August.

Similar species: None. The species needs verification that it is in the state.

Texas milkweed (Asclepias texana)

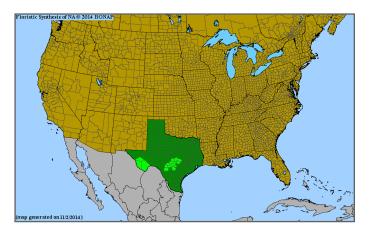


Photos: Harlen E. Aschen and Altus Aschen, www.asclepias.org

Habitat: Moist canyons in the Edwards Plateau Ecoregion and canyons in the Chisos, Davis, Del Norte, and Glass Mountains in the Trans Pecos Ecoregion.

Distinguishing characteristics:

Herbaceous perennials from a semi-woody base (in age); stems slender, to 5 dm tall; leaves opposite, broadly oval to narrowly oblong-elliptic, 2-7 cm long, to about 3.5 cm wide, petiolate, apices obtuse to acuminate, bases



obtuse to rarely attenuate; inflorescences solitary at the uppermost nodes, several to many-flowered; flowers small, corolla reflexed-rotate, pure white.

Flowering: May-August.

Similar species: None. There are no other white flowering milkweeds in canyons in west Texas.

Velvet-leaf milkweed (Asclepias tomentosa)

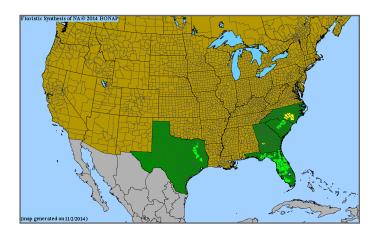


Photo: Robert L. Stone, www.wildflower.org

Habitat: Restricted to deep sandhill openings and woodlands in the central and northern post oak savannah..

Distinguishing characteristics:

Herbaceous perennials; stems 2-7 dm tall, rather stout, simple or branching infrequently, surfaces softly pubescent; leaves opposite, 4-9 cm long and 15-5 cm wide, petiolate, variable in outline and size, typically oblong or oval to oblong-lanceolate or obovate,



usually obtuse to acute or rounded to somewhat retuse at apices, broadly acute to rounded at bases, pubescent; inflorescences lateral and solitary at several or numerous of the upper nodes, sessile or subsessile, several to many-flowered; flowers rather large, corolla paleyellowish-green and somewhat flushed with orange.

Flowering: June-August.

Similar species: None, very distinct species.

Butterfly milkweed (Asclepias tuberosa)



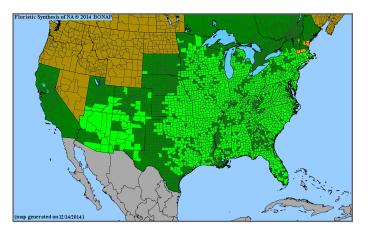


Photos: Jeff McMillian

Habitat: Blackland prairies, coastal prairies, Crosstimbers, Grand Prairie, post oak savannas, sandy Pine-oak savannas, sand terraces and sandhills in the Rolling Plains and Davis and Guadalupe Mountains in the Trans Pecos Ecoregion.

Distinguishing characteristics:

Herbaceous perennials from a deep woody rootstalk; stems rather stout, clustered from the crown, usually branching at the



inflorescence, growing to about 9 dm; leaves irregularly approximate, usually crowded, 3-11 cm long and 3 cm broad, rather shortly petiolate, extremely variable, very narrowly lanceolate to very broadly oblanceolate, rounded to acuminate at apices, cuneate to broadly cordate at bases, surfaces conspicuous hirsute; inflorescences one to several terminal or subterminal helicoid branches bearing few to numerous umbelliform cymes at nodes of more or less reduced and usually opposite leaves, each several to many-flowered; flowers moderately large, corolla reflexed-rotate, usually orange, occasionally yellow.

Flowering: April-September.

Similar species: None, very distinct species recognized by the bright orange flowers. The species is often used as an ornamental, particularly in "butterfly" gardens. It also lacks milky sap, so typical of the genus. Correll and Johnston (1970) recognize two subspecies in Texas. Subsp. *interior* is recognized by its deeply cordate leaf bases, while subsp. *terminalis* has leaf bases that are obtuse to truncate to slightly cordate. The two subspecies occur sympatrically (intermixed).

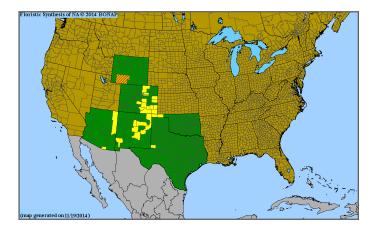
Wheel milkweed (Asclepias uncialis)



Photos: Russ Kleinman and Bill Norris



Habitat: Often in plains grassland - shortgrass communities on open hills and lower side slopes at the base of mesas, canyons, and bluffs. Also, found in open pinyonjuniper woodland communities and, in Arizona, in open grassland areas within Madrean evergreen woodland communities. This species has most often been found on bare, open patches of soil between clumps of grasses within these habitats. In Texas,



one historical collection was made in Andrews County. Similar landscapes to those described above exist in the High Plains and Trans Pecos Ecoregions..

Distinguishing characteristics: Herbaceous perennials; stems several to many, spreading or erect, 2.5-6.5 cm tall; leaves primarily opposite, the lower oval to lanceolate, 1.3-2 cm long, upper much narrower, 2-4 cm long and about 0.3 cm wide, surfaces glabrous except occasionally along the leaf margins; flowers grouped in clusters of 7 to 12 (to 18) at the tips of the stems, clusters occasionally occur below the stem tip; flowers about 0.6 cm wide and rose-purple in color.

Flowering: March-June.

Similar species: None, very distinct species.

Redring milkweed (Asclepias variegata)

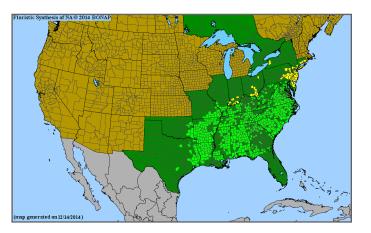


Photos: Ted Bodner (left) and Thomas G. Barnes (right), www.wildflower.org.

Habitat: Open pine-oak uplands, pine-oak slope and hardwoods slope forests, and the Pineywoods Ecoregion.

Distinguishing characteristics:

Herbaceous perennial; stems simple, rather slender, 3-12 dm in height, rootstalk fleshy fusiform; leaves opposite, petiolate, 8-15 cm long and 4-9 cm wide, broadly oval, apiculate to obtuse or broadly acute at apices, very broadly obtuse or rounded at bases; inflorescences



usually solitary and terminal, occasionally also lateral from few of the uppermost nodes, each rather many-flowered, very compactly hemispherical; flowers are rather large and with white corollas.

Flowering: May-June.

Similar species: None, a very distinct species restricted to the Pinewoods Ecoregion with one disjunct population in Gonzales County near the Ottine Swamp.

Whorled milkweed (Asclepias verticillata)

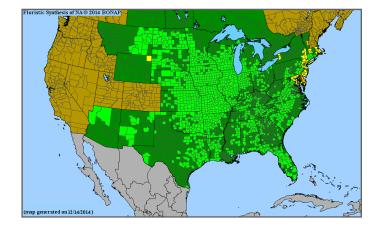


Photos: Thomas G. Barnes (left), Janice Lynn (right), www.wildflower.org.

Habitat: Blackland prairies, coastal prairies, Crosstimbers, Grand Prairie, post oak savannas, pineoak savannas in the Pineywoods Ecoregion, rare in live oak and post oak savannas in the Edwards Plateau, prairie fens in the High Plains and Rolling Plains, and rare in oak-pine savannas in the Davis Mountains in the Trans Pecos Ecoregion.

Distinguishing characteristics:

Herbaceous perennials; rootstalk a



rather short, superficial; stems sender to 9 dm; leaves whorled in 3s or 4s, rarely opposite in part, sessile or subsessile, linear, 1.5-7 cm long and 1.5 mm broad, membranous, glabrous or essentially so, usually somewhat revolute; inflorescences solitary or paired at the upper nodes, few to many-flowered; flowers small, corolla reflexed-rotate, greenish-white, occasionally flushed with purple without.

Flowering: May-November.

Similar species: *Asclepias verticillata* is similar to *A. subverticillata*. See that species for statements of distinction.

Green comet milkweed (Asclepias viridiflora)

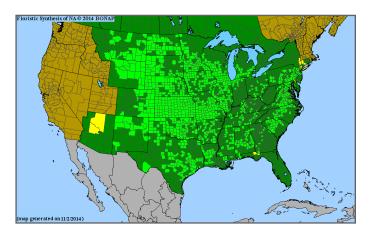




Photos: Larry Allain (left), Elaine Haug (right)

Habitat: Sandhills, Canadian Breaks and Palo Duro Canyon breaks in the High Plains, grasslands in the Glass Mountains of the Trans Pecos, Blackland prairies, coastal prairies, and oak savannas in the Edwards Plateau.

Distinguishing characteristics: Herbaceous perennials; stems to 9 dm tall, rather stout, simple, rarely branching, often zigzag above; leaves opposite to irregularly approximate, short petiolate,



suborbicular to linear, 4-13 cm long and 1-6 cm wide; inflorescences subterminal, solitary and usually lateral at few to many in upper nodes, each usually many-flowered, crowded and hemispherical; flowers reflexed-rotate, corollas pale-green.

Flowering: June-August.

Similar species: Asclepias viridiflora is similar to A. obovata, the distinctions are discussed under that species.

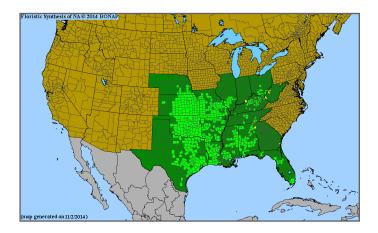
Green antelopehorn (Asclepias viridis)



Photos: Bill Carr (left), Peggy Romfh (right), www.wildflower.org

Habitat: Sandhills, Canadian Breaks and Palo Duro Canyon breaks in the High Plains, grasslands in the Glass Mountains of the Trans Pecos, Blackland prairies, coastal prairies, and oak savannas in the Edwards Plateau.

Distinguishing characteristics: Herbaceous perennials; stems to 9 dm tall, rather stout, simple, rarely branching, often zigzag above; leaves opposite to irregularly approximate, short petiolate,



suborbicular to linear, 4-13 cm long and 1-6 cm wide; inflorescences subterminal, solitary and usually lateral at few to many in upper nodes, each usually many-flowered, crowded and hemispherical; flowers reflexed-rotate, corollas pale-green.

Flowering: June-August.

Similar species: *Asclepias viridiflora* is similar to *A. obovata,* the distinctions are discussed under that species.

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