

Nama xylopodum (Woot. & Standl.) C. L. Hitchc. Cliff nama. G3S3. Global range: Mountains of Trans-Pecos Texas and adjacent New Mexico. State range: Limestone and dolomite cliff faces and outcrops in the Guadalupe Mountains and Sierra Diablo of Culberson County (TEX-LL, 1998). Element code: PDHYD0A0N0.

Phacelia pallida I. M. Johnston. Pale phacelia. G2S1. Global range: Texas, Chihuahua and Coahuila. State range: Low elevation Chihuahuan Desert scrub on gypsum or limestone soils in southern Brewster County (Clark & Powell, 1984). Element code: PDHYD0C3E0.

Boraginaceae Borage Family

Cryptantha crassipes I. M. Johnston. Terlingua Creek cats-eye. G1S1. Global range: Endemic to the Chihuahuan Desert of Trans-Pecos Texas. State range: Brewster County, restricted to barren xeric gypseous clay or chalky shales on low rounded hills and gentle slopes (Poole, 1989). Element code: PDBOR0A0N0.

Cryptantha paysonii (Macbr.) I. M. Johnston. Payson's hiddenflower. G3S1. Global range: New Mexico and Trans-Pecos Texas. State range: Rocky limestone slopes in the mountains of Culberson and El Paso counties. Element code: PDBOR0A2C0.

Onosmodium helleri Small. Heller's marbleseed. G3S3. Global range: Endemic to the Edwards Plateau of central Texas. State range: Bandera, Bexar, Comal, Hays, Kendall, Kerr, Travis and Uvalde counties (Turner, 1995; Mahler, 1981), occurring in loamy calcareous soils in oak-juniper woodlands on rocky limestone slopes, often in more mesic portions of canyons. Element code: PDBOR0S010.

Verbenaceae Vervain Family

Citharexylum spathulatum Moldenke & Lundell. *Citharexylum brachyanthum* Gray var. *glabrum* C. L. Hitchc. & Moldenke; weakly distinguished from *Citharexylum brachyanthum* and submerged within it by some authors, e.g., Jones, Wipff & Montgomery (1997). Mission fiddlewood; smooth fiddlewood. G3QS3. Global range: Endemic to the Lower Rio Grande Valley of Texas; not yet reported from adjacent Mexico. State range: Hidalgo, Starr and Zapata counties; locally common between La Joya and Rio Grande City in mixed thorn shrublands on shallow sandy to gravelly soils underlain by the Goliad Formation. Element code: PDVER06060.

Lamiaceae Mint Family

Brazoria arenaria Lundell. Sand brazos-mint. G3S3. Global range: Endemic to Texas. State range: Sandy areas in South Texas, with records from Aransas, Brooks, Hidalgo, Jim Hogg, Jim Wells, Kenedy, Kleberg, Refugio and San Patricio counties (Lundell, 1969; TEX-LL, 1998). Element code: PDLAM07010.

Brazoria enquistii M. W. Turner. Enquist's sandmint. G2S2. Global range: Endemic to central Texas. State range: Apparently restricted to Burnet, Llano and Mason counties in the Llano Uplift (Central Mineral Basin), where it occurs primarily on sand banks along granitic streambeds (Turner, 2003). Element code:

Brazoria truncata (Benth.) Engelm var. *pulcherrima* (Lundell) M. W. Turner. *Brazoria pulcherrima* Lundell. Centerville brazos-mint. G3S3. Global range: Endemic to east-

- central Texas. State range: Open areas on deep loose sands in the post oak belt, with records from Anderson, Freestone, Henderson, Houston, Leon and Robertson counties (Lundell, 1969; Mahler, 1979). Element code: PDLAM07041.
- Hedeoma apiculatum* W. S. Stewart. McKittrick pennyroyal. G3S2. Global range: Endemic to the Guadalupe Mountains of New Mexico and Texas. State range: Open limestone rock surfaces, boulders, cliffs, and ledges, in oak-maple woodlands in canyons in the Guadalupe Mountains (Sivinski & Lightfoot, 1992). Element code: PDLAM0M020.
- Hedeoma molle* Torr. Hairy false-pennyroyal. G3S3. Global range: endemic to mountains of Trans-Pecos, Texas. State range: various mountain ranges in Brewster, Jeff Davis and Presidio counties (TEX-LL, 1998). Note: quantity of specimens at SRSC in Aug 2000 suggest a rank of G4 may be more appropriate. Element code: PDLAM0M0R0.
- Hedeoma pilosum* Irving. Old Blue pennyroyal. GHSH. Global range: endemic to Texas. State range: known only from the type specimen collected in 1940 from Old Blue (Baldy) Mountain in the Glass Mountains, Brewster County (Irving, 1970; Miller, 1984). Element code: PDLAM0M0C0.
- Monarda punctata* L. var. *stanfieldii* (Small) Cory. *Monarda stanfieldii* Small; *Monarda punctata* L. subsp. *stanfieldii* (Small) Epling. Stanfield's horsemint. G5T3S3. Global range: Endemic to Texas. State range: Largely confined to sands along the middle course of the Colorado River and its tributaries (Turner, 1994), with records from Blanco, Burnet, Llano and Travis counties. Element code: PDLAM170N0.
- Monarda viridissima* Correll. Texas beebalm. G3S3. Global range: Endemic to Texas. State range: Bastrop, Caldwell, Colorado (or Lavaca?), Guadalupe, Lee and Wilson counties (Turner, 1994; TEX-LL, 2002), mostly in open areas on deep sands of the Post Oak Belt. Element code: PDLAM170M0.
- Physostegia correllii* (Lundell) Shinnery. *Dracocephalum correllii* Lundell. Correll's false dragonhead. G2S2. Global range: Louisiana and Texas south to Coahuila, Nuevo León and Sonora (Cantino, 1982). State range: Widely scattered across eastern and southern parts of Texas, with records from Bexar, Galveston, Montgomery, Travis, Val Verde and Zapata counties. Occurs in wet silty clay loams (Irving, 1980) on streamsides, in creekbeds, irrigation channels, and roadside drainage ditches. No known extant occurrences in Texas. Element code: PDLAM1G020.
- Physostegia longisepala* Cantino. Longsepal false dragonhead. G2G3S2. Global range: western Gulf Coastal Plain of Louisiana and East Texas. State range: Jasper, Hardin, Newton, Orange and Tyler counties; Singhurst (1996) added Jefferson County but provided no specimen citations or locational information. Originally found in moist acid loams in the fire-maintained transition zone between pine flatwoods and coastal prairies; now found primarily in secondary habitats such as wet borrow ditches along roadsides and moist areas in man-made clearings in pine forests (Gilmore & Smith, 1988). Element code: PDLAM1G0B0.
- Rhododon angulatus* (Tharp) B. L. Turner. *Stachydeoma angulata* Tharp; included within *Rhododon ciliatus* (Benth.) Epling in recent floras such as Correll & Johnston (1970) and Jones (1977). Tharp's rhododon. G1QS1. Global range: Endemic to the Coastal Bend of South Texas. State range: Aransas and Refugio (Jones, 1977) counties, known only from deep loose sand in sparsely vegetated areas on stabilized dunes of Pleistocene barrier islands; the report from Nueces County (map in Turner, 1995) is erroneous (B. L. Turner, pers. comm., 2004). Element code: PDLAM1P020.

- Rhododon ciliatus* (Benth.) Epling. Texas sandmint. G3S3. Global range: Endemic to Texas. State range: Open sandy areas in the Post Oak Belt of east-central Texas, with records from Anderson, Austin, Bastrop, Burlison, Caldwell, Freestone, Gonzales, Lee, Leon, Limestone, Milam, Montgomery, Robertson, Smith, Van Zandt and Waller counties (Turner, 1995; TEX-LL, 2002). Element code: PDLAM1P010.
- Salvia penstemonoides* Kunth & Bouché. Big red sage. G1G2S1S2. Global range: Endemic to Texas. State range: Edwards Plateau, with records from Bandera, Bexar, Gillespie, Guadalupe, Kendall, Kerr, Real and Wilson counties; introduced into Travis County. Occurs in moist to seasonally wet clay or silt soils in creekbeds and on seepage slopes of limestone canyons, in full sun or partial shade. Element code: PDLAM1S1A0.
- Salvia summa* A. Nelson. Great sage. G3S2. Global range: Endemic to the Guadalupe Mountains and the San Andres-Organ-Franklin range of eastern New Mexico and Trans-Pecos Texas (Sivinski & Lightfoot, 1992). State range: Limestone cliffs and slopes in the Guadalupe and Franklin Mountains. Element code: PDLAM1S1Q0.
- Scutellaria laevis* Shinnery. Smoothstem skullcap. G1S1. Global range: Endemic to mountains of Trans-Pecos Texas. State range: Known from the Beach and Guadalupe Mountains of Culberson and Hudspeth counties, where it occurs on slopes and in arroyos along dry streambeds (Higgins, 1989). Element code: PDLAM1U0P0.

Solanaceae Potato Family

- Lycium puberulum* Gray var. *berberoides* (Correll) Chiang. *Lycium berberoides* Correll. Silvery wolfberry. G4T3S3. Global range: Endemic to Trans-Pecos Texas. State range: Brewster and Presidio counties, occurring in Chihuahuan Desert grasslands and shrublands on gravel and clay hills and in creosote shrublands on gravel flats. Element code: PDSOL0G0E1.
- Lycium texanum* Correll. Texas wolfberry. G2S2. Global range: Endemic to Trans-Pecos Texas. State range: Brewster, Culberson and Hudspeth counties, where it is found in semi-desert grasslands and thorn shrublands on sandy, gravelly, and/or loamy soils, on very gently sloping terrain as well as in rocky areas in canyons, often over limestone at moderate elevations. Element code: PDSOL0G0J0.
- Solanum davisense* M. D. Whalen. Davis Mountains horse-nettle. G3S2. Global range: Texas and northern Coahuila (Whalen, 1976). State range: Chisos, Davis and Chinati mountains of Brewster, Jeff Davis and Presidio counties; strictly montane (Whalen, 1976) but sometimes weedy where it occurs. Element code: PDSOL0Z0E0.
- Solanum leptosepalum* Correll. Tigna potato; feral spud. G2S1. Global range: Apparently restricted to oak-pinyon zones in mountains of the Chihuahuan Desert region; reported by Henrickson & Johnston (in prep.) from the Sierra Rica of Chihuahua, the Sierra de la Madera and Sierra de la Gloria in Coahuila, and Texas. State range: Mountains of Jeff Davis and Presidio counties, mostly in rocky igneous soils. Element code: PDSOL0Z170. [Note: The upcoming treatment of *Solanum* in the Flora of North America will place this specie in synonymy under a more widespread species.]

Scrophulariaceae Figwort Family

- Agalinis auriculata* (Michx.) Blake. *Gerardia auriculata* Michx.; *Tomanthera auriculata* (Michx.) Raf. Earleaf false-foxtail. G3SH. Global range: Known at least historically from 21

- states in the eastern half of the United States, from Maryland to Michigan south to Texas and South Carolina (Rawinski, 1990; central BCD, 1997). State range: known in Texas solely from a specimen collected in the late nineteenth century by J. Reverchon, the label of which reads only "Benbrook," presumably the Benbrook of Tarrant County. In Oklahoma the habitat is described as degraded prairies and floodplains, fallow fields, borders of upland sterile woods (Watson, 1989). Element code: PDSCR01130.
- Agalinis calycina* Penn. *Gerardia calycina* (Penn.) Penn. Leoncita false-foxglove. G1S1. Global range: Restricted to cienegas and other desert wetlands in Coahuila and adjacent Trans-Pecos Texas. State range: Brewster and Pecos counties. Element code: PDSCR01050.
- Agalinis densiflora* (Benth.) Blake. *Tomanthera densiflora* (Benth.) Penn.; *Gerardia densiflora* Benth. Denseflower false-foxglove. G3S2. Global range: Central Kansas south through Oklahoma to central Texas (McGregor et al., 1977). State range: Known at least historically from Bell, Bexar, Blanco, Bosque, Brown, Comal, Dallas, Hays, Hood, Shackelford, Tarrant and Wise counties (Pennell, 1921; Stanford, 1971; TEX-LL, 1997); also Cooke, Coryell, Montague, Palo Pinto and Parker counties (Diggs, Lipscomb & O'Kennon, 1999). Most records are from grasslands on shallow, gravelly, well drained, calcareous soils. Element code: PDSCR01140.
- Agalinis navasotensis* Dubrule & Canne-Hilliker. Navasota false-foxglove. G1S1. Global range: Endemic to Texas. State range: Originally described from Grimes County, where it occurs in sparsely vegetated areas on sandy soils on a calcareous sandstone outcrop of the Oakville Formation (Canne-Hilliker & Dubrule, 1993); recently reported from Tyler County (Jason Singhurst pers. comm., Jan 2004). Element code: PDSCR01180.
- Castilleja ciliata* Pennell. Fringed paintbrush. G1QS1. Global range: Endemic to the Davis Mountains of Jeff Davis County, Texas, where it is found on steep rocky barren to grassy igneous slopes (Clark & Powell, 1983). According to Nesom (1992), these plants are conspecific with plants of the Sacramento and White Mountains of southeastern New Mexico, where they are known by the earlier name *Castilleja wootonii* Standl. *Castilleja wootonii*, even with this expanded range, might still be G3. Element code: PDSCR0D0G0.
- Castilleja elongata* Pennell. Tall paintbrush. G2QS2. Global range: Endemic to mountains of Trans-Pecos Texas. State range: Brewster County, found in grasslands, shrublands and woodlands on rocky igneous soils at high elevations, most commonly in the Chisos Mountains. According to Nesom (1992), these plants are not distinct from *Castilleja integra* Gray, a species known from Brewster, Culberson, El Paso, and Jeff Davis Counties as well as Arizona, Colorado, New Mexico, Chihuahua, Coahuila, Durango, Nuevo León, and Sonora. Element code: PDSCR0D0V0.
- Mimulus dentilobus* Robinson & Fernald. Fringed monkeyflower. G2S1. Global range: Baja California, Sonora and Arizona east to Chihuahua, New Mexico and Texas (Wiggins, 1980; Kearney & Peebles, 1960). State range: Presidio County, occurring in perennially wet areas near springs, on wet cliff-faces at waterfalls, and in creekbeds. Element code: PDSCR1B0Y0.
- Penstemon alamosensis* Penn. & Nisbet. Alamo beardtongue. G3S1. Global range: New Mexico and Texas. State range: El Paso County, where it occurs in semi-desert grassland on rocky soils, usually on sheltered, often N-facing slopes and in mesic canyon bottoms, occasionally in rock crevices or among unbrowsed shrubs (Spellenberg, 1981; Worthington, 1991). Note however that Straw in Henrickson & Johnston (in prep.) includes *Penstemon alamosensis* in

- synonymy under *Penstemon havardii* Gray, which is probably a G4 species. Element code: PDSCR1L040.
- Penstemon cardinalis* Woot. & Standl. subsp. *regalis* (Nelson) Nisbet & Jackson. Royal red penstemon. G3T2S2. Global range: Mountains of southeastern New Mexico and Trans-Pecos Texas. State range: Culberson and Jeff Davis counties, in pine-oak woodlands at higher elevations in the Sierra Diablo and the Guadalupe and Davis Mountains. Element code: PDSCR1L152.
- Penstemon guadalupensis* Heller. Guadalupe penstemon. G3S3. Global range: Endemic to Texas. State range: Scattered in calcareous prairies on the Lampasas Cutplain and Edwards Plateau, with specimen records from Brown, Coke, Comanche, Gillespie, Irion, Kerr, Llano, McCulloch, Mitchell, Nolan, San Saba, Scurry, Tom Green and counties (BRIT/SMU, 1999; TAES, 1999; TEX-LL, 1998). A specimen attributed to Travis County (Edwards Plateau, 30 Mar 1935, B. C. Tharp s.n., TEX-LL) was probably collected elsewhere. Element code: PDSCR1L2V0.
- Penstemon triflorus* Heller subsp. *integrifolius* Penn. Threeflower penstemon. G3T3S3. The taxa in this complex represent a serious taxonomic problem. B. L. Turner at TEX-LL recognizes no subspecific taxa, including both subsp. *triflorus* and subsp. *integrifolius* within a single entity; this taxonomic decision has not yet been published. Nonetheless, the species remains G3, and with the two combined varieties it is S3 in Texas. Global range (of *Penstemon triflorus* sensu lato): Central and west Texas to Coahuila. State range (of *Penstemon triflorus* sensu lato): Bandera, Bexar, Coleman, Crockett, Edwards, Gillespie, Hays, Kerr, Reagan, Real, Schleicher, Tom Greene, Uvalde and Val Verde counties (TEX-LL, 1998), occurring sparingly on rock outcrops and in grasslands associated with juniper-oak woodlands. Element code: PDSCR1L6B1.
- Penstemon triflorus* Heller subsp. *triflorus*. G3T3SR. See above. Element code: PDSCR1L6B2.
- Penstemon wrightii* Hook. Wright's penstemon. G3S3. Global range: Trans-Pecos Texas and eastern Chihuahua, where apparently uncommon (Straw in Henrickson & Johnston, in prep.). State range: Brewster, Jeff Davis, Presidio and Reeves counties (TEX-LL per RPSC), occurring mostly in montane grasslands and woodlands. Element code: PDSCR1L6R0.
- Schwalbea americana* L. American chaffseed. G2SR. Global range: Extant in New Jersey, North Carolina, South Carolina, Georgia, Florida, and Mississippi; apparently extirpated from Massachusetts, Connecticut, New York, Delaware, Maryland, Virginia, Kentucky, Tennessee and Alabama (Peters, 1994); recently discovered in Louisiana (Latimore Smith, pers. comm., 1999). State range: Reported from East Texas in Correll & Johnston (1970), but the basis of this report is unknown. No specimens have been found in Texas herbaria, nor has mention of its Texas occurrence been found in sources (e.g., Small, various works by Pennell) from which Correll & Johnston may have taken their information. Element code: PDSCR1Q010.
- Seymeria texana* (Gray) Penn. Texas seymeria. G3S3. Global range: Endemic to the Edwards Plateau of central Texas. State range: Bandera, Bexar, Comal, Gillespie, Hays, Kendall, Kerr, Kimble, Travis, Uvalde and Val Verde counties (Turner, 1982; TEX-LL, 1998; BRIT/SMU, 2001), where it is found primarily in grassy openings in juniper-oak woodlands on dry rocky slopes but sometimes on rock outcrops in shaded canyons. Element code: PDSCR1T050.

Martyniaceae Unicornplant Family

Proboscidea sabulosa Correll. Dune unicornplant. G3S2. Global range: New Mexico, Texas and Chihuahua. State range: Andrews, Crane, Loving, Ward and Winkler counties, found in sparsely vegetated area, fallow fields and openings in Havard oak shinneries on deep sand of the Monahans and Kermit sandhills (Sivinski & Cully, 1990). Element code: PDPED06050.

Proboscidea spicata Correll. Manyflower unicornplant. G1S1. Global range: Trans-Pecos Texas and southwestern Coahuila (Henrickson & Johnston, in prep). State range: Brewster, Jeff Davis and Presidio counties; historical specimens are mostly from dry sandy alluvial and/or eolian soils on terraces along Rio Grande or from disturbed sandy soils along roadsides. Element code: PDPED06060.

Acanthaceae Acanthus Family

Justicia runyonii Small. Runyon's water-willow. G2S2. Global range: South Texas, Tamaulipas and San Luis Potosí. State range: Cameron, Hidalgo and Willacy counties; reports from Brazoria and Goliad counties are questionable. Mostly in openings in subtropical woodlands on calcareous silts and clays of the Rio Grande delta (Poole, 1989; Wasshausen, 1966). Element code: PDACA0E0G0.

Justicia warnockii B. L. Turner. Warnock's justicia. G3S3. Global range: Trans-Pecos Texas and adjacent Coahuila and Chihuahua (Daniel, 1980; TEX-LL, 1998). State range: Brewster, Crockett, Hudspeth, Pecos and Presidio counties (TEX-LL, 1998; Powell, 1998), occurring mostly on xeric limestone uplands and rock outcrops. Element code: PDACA0E0H0.

Justicia wrightii Gray. Wright's justicia. G2S2. Global range: West Texas and New Mexico (Daniel, 1980). State range: Brewster, Pecos and Val Verde counties, in shortgrass grasslands and shrublands on dry gravelly clay soils over limestone on flats and low hills. Element code: PDACA0E0J0.

Yeatesia platystegia (Torr.) Hilsenbeck. *Tetramerium platystegium* Torr. Texas shrimp-plant. G3G4S3S4. Global range: Coahuila, Nuevo León, Tamaulipas and south and southwest Texas (Hilsenbeck, 1989). State range: Duval, Kinney, McMullen, Starr, Terrell, Uvalde, Val Verde and Webb counties (Hilsenbeck, 1989; Mase, 1979, Texas BCD, 2002), occurring very sparingly in a variety of shrublands and canyon woodlands at widely scattered locations. Element code: PDACA0Q020.

Rubiaceae Madder Family

Galium correllii Dempster. Cliff bedstraw. G2S1. Global range: Known from a few sites along the Rio Grande and its tributaries in West Texas and adjacent northern Coahuila, (Dempster, 1968; Dempster, 1978; Poole, 1985). State range: Brewster and Val Verde counties, occurring mostly or exclusively on dry, steep or vertical limestone cliff faces. Element code: PDRUB0N0N0.

Houstonia correllii (W. H. Lewis) Terrell. *Hedyotis correllii* W. H. Lewis. Correll's bluet. G1S1. Global range: Apparently endemic to South Texas. State range: Collected to date only from Zapata County, where it occurs in sandy soils in openings in mesquite woodlands or thorn shrublands (Terrell, 1996). Element code: PDRUB1T0B0.

- AHoustonia croftiae* Britt. & Rusby. *Hedyotis croftiae* (Britt. & Rusby) Shinn. Croft's bluets. G3S3. Global range: Endemic to south Texas. State range: Duval, Hidalgo, Jim Wells, Refugio, San Patricio, Starr, Webb and Zapata counties (Terrell, 1996), where it occurs in sparsely vegetated areas in grasslands or among shrubs. Element code: PDRUB1T0C0.
- Stenaria butterwickiae* (Terrell) Terrell. *Houstonia butterwickiae* Terrell; *Hedyotis butterwickiae* (Terrell) Nesom. Mary's bluets, Butterwick's bluets. G1S1. Endemic to Trans-Pecos Texas. State range: Brewster County, found in shallow pockets or crevices in limestone bedrock on ridgetops. Element code: PDRUB0W1G0.
- Stenaria mullerae* (Fosb.) Terrell var. *pooleana* (B. L. Turner) Terrell. *Hedyotis pooleana* B. L. Turner. Jackie's bluets. G2T1QS1. Described as a new species in 1995 (Turner, 1995); placed in synonymy under *Hedyotis mullerae* Fosb. by Terrell in 1996 (Terrell, 1996); resurrected by Turner in 1997 (Turner, 1997). Global range: Known only from the Dead Horse Mountains in the Chihuahuan Desert of eastern Brewster County, Texas, where it occurs on vertical limestone cliff faces in canyons (Turner, 1995). Element code: PDRUB0W1T0.

Caprifoliaceae Honeysuckle Family

- Symphoricarpos guadalupensis* Correll. McKittrick snowberry. GHQSH. Global range: A questionable taxon thought to be endemic to the Guadalupe Mountains of Texas (Poole, 1987; Higgins, 1989). Powell (1988) reported seeing similar plants in the Sierra del Carmen of northern Coahuila. Element code: PDCPR05030.

Valerianaceae Valerian Family

- Valeriana texana* Dyal. Guadalupe valerian. G3S2. Global range: Guadalupe, Sacramento and Capitan mountains of New Mexico and Trans-Pecos Texas (Sivinski & Lightfoot, 1992; Meyer, 1951). State range: Pine-oak-juniper woodlands and moist crevices in limestone boulders and cliff faces in higher canyons of the Guadalupe Mountains. Element code: PDVAL030G0.
- Valerianella florifera* Shinn. Largeflower cornsalad. G3S3. Global range: Endemic to Texas. State range: Grasslands and early-successional openings in the post oak belt of east-central Texas, with records from Fayette, Franklin, Lee, Robertson and San Jacinto counties (Eggers, 1969; TEX-LL, 1997). Element code: PDVAL04050.
- Valerianella stenocarpa* (Engelm.) Krok. [*Sensu stricto*; plants treated in Correll & Johnston (1970) as *Valerianella stenocarpa* var. *parviflora* S. Dyal are, according to Jones, Wipff & Montgomery (1997), now lumped under *Valerianella radiata* (L.) DuRoi. and are not included here.] Bigflower cornsalad. G3S3. Global range: Endemic to Texas. State range: Comal, Dallas, Kerr, Medina, San Saba, Tarrant and Travis counties, usually along creekbeds or in vernal moist grassy open areas. Diggs, Lipscomb & O'Kennon (1999) indicate that reports from north and north-central Texas. i.e., Dallas, San Saba, Tarrant and Travis counties, may be erroneous [based on var. *parviflora* = *V. radiata*?]; the species would thus be limited to the southern Edwards Plateau. Element code: PDVAL040C0.
- Valerianella texana* Dyal. Llano corn-salad. G2S2. Global range: Endemic to the Llano Uplift (Central Mineral Basin) of central Texas. State range: Burnet, Gillespie and Llano counties (Mahler, 1981), occurring in shallow, well drained but seasonally moist gravelly soils

derived from igneous or metamorphic rocks, often along the downslope margin of rock outcrops, in full sun or in partial shade of oak-juniper woodland. Element code: PDVAL040D0.

Cucurbitaceae Gourd Family

Cucurbita texana (Scheele) Gray. *Cucurbita pepo* L. subsp. *ovifera* (L.) Decker var. *texana* (Scheele) Decker. Texas gourd. G3S3. Global range: Long considered endemic to Texas, but recently reported from Eddy County, New Mexico (Sivinski & Lightfoot, 1992). State range: Widespread, occurring in several natural regions in the eastern half of the state, with records from Aransas, Bell, Bexar, Brazos, Burleson, Caldwell, Calhoun, Comal, Denton, Dewitt, Fayette, Goliad, Gonzales, Grimes, Hamilton, Jackson, Kinney, Kleberg, Lee, Llano, Madison, Menard, Milam, Navarro, Refugio, Robertson, San Jacinto, San Patricio, Sutton, Travis, Val Verde and Washington counties. Known historically from all major drainage systems in Texas; much of its bottomland habitat has presumably been lost to impoundments, agriculture and urban development, but a thorough assessment of its current status is difficult due to the ephemeral nature of the plant (Wilson, 1992). Element code: PDCUC0A080.

Sicyos glaber Woot. Smooth bur-cucumber. G3S3. Global range: Mountains of southeastern New Mexico and Trans-Pecos Texas (Henrickson & Johnston, in prep.). State range: Mesic canyons in the Chisos and Guadalupe Mountains (Henrickson & Johnston, in prep.). Element code: PDCUC0N060.

Campanulaceae Bellflower Family

Campanula reverchonii Gray. Basin bellflower. G2S2. Global range: Endemic to central Texas. State range: Primarily in Burnet, Gillespie, Llano and Mason counties of the Llano Uplift, but also collected in 1938 and 1940 in Travis County from unknown locations and in 1935 from Kendall County. Known populations are on sandy/gravelly substrates associated with outcrops of Precambrian igneous and metamorphic rocks; historical collections from beyond the Llano Uplift may have come from sandy river terraces. Element code: PDCAM020R0.

Asteraceae Sunflower Family

Ambrosia cheiranthifolia Gray. South Texas ambrosia. G2S2. Global range: South Texas and Tamaulipas. State range: Cameron, Jim Wells, Kleberg and Nueces counties, occurring in coastal prairies on various substrates (Turner, 1983). Element code: PDAST0C070.

Arida blepharophylla (Gray) Morgan & Hartman. *Aster blepharophyllus* Gray; *Machaeranthera gypsitherma* G. L. Nesom, Vorobik & R. L. Hartman; see Morgan and Hartman, 2003. Gypsum hot-spring aster. G1S1. Global range: endemic to the Chihuahuan Desert of west Texas, New Mexico and Chihuahua. State range: seepy areas in gypsum canyons in Presidio County (Turner & Nesom, 2003). Element code: PDAST64170.

Arida mattturneri B. L. Turner & G. Nesom. Matt Turner's aster. G1S1. Global range: apparently endemic to the Chihuahuan Desert of west Texas. State range: Known only from gypsum walls of Blumberg Canyon north-northwest of Ruidosa, Presidio County (Turner & Nesom, 2003). Element code:

- Aster laevis* L. var. *guadalupensis* A. G. Jones. Guadalupe Mountains aster. G5T1QS1. Nesom (1994) submerged this taxon within *Symphotrichum laeve* Löve & Löve var. *geyeri* (A. Gray) Nesom (*Aster laevis* L. var. *geyeri* A. Gray); it is how this effects global range and T rank, which is T2Q in Texas BCD and T1Q in central BCD. Global range (of var. *guadalupensis* sensu Jones): Apparently endemic to the Guadalupe Mountains of Texas and adjacent New Mexico. State range (of var. *guadalupensis* sensu Jones): Limestone soils along streams and elsewhere in wooded canyons above 5000 feet in the Guadalupe Mountains. Element code: PDAST0T1N4.
- Aster puniceus* L. var. *scabricaulis* (Shinners) A. G. Jones. *Aster scabricaulis* Shinners; *Aster puniceus* L. subsp. *elliottii* (T. & G.) A. G. Jones var. *scabricaulis* (Shinners) A. G. Jones; *Symphotrichum puniceum* (L.) Löve & Löve var. *scabricaulis* (Shinners) Nesom. Rough-stem aster. G5T2S2. Global range: Mostly in East Texas, with collections from one parish in Louisiana and two counties in Mississippi (Nesom, 1997). State range: Anderson, Franklin, Henderson, Hopkins, Smith, Van Zandt and Wood counties (Nesom, 1997). Occurs in wet unshaded habitats including sphagnum bogs, marshes, pond margins, open streambanks and roadside ditches, usually in areas underlain by deep Eocene sands. Element code: PDAST0T2L4.
- Brickellia baccharidea* Gray. Resin-leaf brickellbush. G2S1. Arizona, New Mexico, Sonora and Trans-Pecos Texas. State range: Known only from the Franklin Mountains of El Paso County, occurring in mixed desert shrublands on gravelly soils derived from limestone and perhaps also from igneous rocks, on bajada slopes and in arroyos. Element code: PDAST1H040.
- Brickellia dentata* (DC.) Sch. Bip. *Brickellia riddellii* (T. & G.) Gray. Gravelbar brickellbush. G3S3. Global range: Endemic to Texas. State range: Bexar, Blanco, Comal, Edwards, Hays, Real, Travis, Uvalde, Val Verde and Williamson counties (TEX-LL, 1997); a specimen attributed to Trinity County (TEX-LL) is probably erroneous as to location. Essentially restricted to frequently scoured gravelly alluvial beds in creek and river bottoms (Mahler, 1981). Element code: PDAST1H0E0.
- Brickellia eupatorioides* (L.) Shinners var. *gracillima* (Gray) Turner. *Kuhnia leptophylla* Scheele; *Brickellia leptophylla* (Scheele) Shinners. Narrowleaf brickellbush. G5T3S3. Global range: Endemic to Texas. State range: Mostly on the Edwards Plateau, with reports from Bexar, Blanco, Comal, Edwards, Gillespie, Kerr, Kimble, Kinney, Travis, Uvalde, Val Verde and Zavala counties, usually occurring in moist to dry gravelly alluvial soils along riverbanks but also on limestone slopes (Correll & Johnston, 1970; Turner, 1989, TEX-LL, 2000). Element code: PDAST1H0G6.
- Brickellia hinckleyi* Standl. var. *hinckleyi*. *Brickellia brachyphylla* (Gray) Gray var. *hinckleyi* (Standl.) Flyr. Hinckley's brickellbush. G2T2QS2. Global range: Endemic to Trans-Pecos Texas. State range: Brewster and Jeff Davis counties, found in rocky soils in higher elevation mountain canyons. Element code: PDAST1H062.
- Brickellia hinckleyi* Standl. var. *terlinguensis* (Flyr) B. L. Turner. *Brickellia brachyphylla* (Gray) Gray var. *terlinguensis* Flyr. Terlingua brickellbush. G2THSH. Global range: Endemic to Trans-Pecos Texas. State range: Chihuahuan Desert in Brewster and Hudspeth counties; collected from slopes in the Chisos and Eagle Mountains and along a creek bottom near Terlingua. Element code: PDAST1H063.
- Brickellia parvula* Gray. Mt. Davis brickellbush; dwarf brickellbush. G3S1. Global range: Mountains of southeastern Arizona, southern New Mexico and Trans-Pecos Texas

- (Henrickson & Johnston, in prep.). State range: Guadalupe Mountains (Culberson County), Franklin Mountains (El Paso County) and Sierra Diablo (Hudspeth County); apparently uncommon in all three ranges (TEX-LL, 1998). Element code: PDAST1H100.
- Brickellia viejensis* Flyr. Sierra Vieja brickellbush. G1G2QS1S2. Global range: Endemic to Trans-Pecos Texas. State range: Known only from Presidio County, occurring in shrublands on rocky soils in mountain canyon headers. Note that Turner (1990) placed this taxon in synonymy under *Brickellia lemmonii* Gray var. *lemmonii*; this view was not followed by Kartesz (1994). Element code: PDAST1H190.
- Chaetopappa effusa* (Gray) Shinnars. Spreading least-daisy. G3G4S3S4. Global range: Endemic to Texas. State range: Southern Edwards Plateau, with records from Bandera, Bexar, Blanco, Comal, Edwards, Gillespie, Hays, Kendall, Kerr, Medina, Real and Uvalde counties; a specimen from Travis County (*B. C. Tharp 7480*, TEX-LL) is probably erroneous as to location. Locally common in loamy soils in shade of oak-juniper woodlands on mesic rocky slopes or in limestone canyons. Element code: PDAST22030.
- Chaetopappa hersheyi* Blake. Mat leastdaisy. G3S2. Global range: Endemic to the Guadalupe Mountains of New Mexico and Texas. State range: Culberson and Hudspeth counties, occurring on dry limestone cliffs and ledges in open pinyon-oak-juniper woodlands at higher elevations in the Guadalupe Mountains (Higgins, 1989). Element code: PDAST22040.
- Chaetopappa imberbis* (Gray) Nesom. *Chaetopappa asteroides* (Nutt.) DC. var. *imberbis* Gray. Bristleless least-daisy. G3S3. Global range: Endemic to sandy regions of southern and south-central Texas. State range: Atascosa, Aransas, Bexar, Caldwell, Goliad, Gonzales, Guadalupe, Kenedy, Nueces and Wilson counties (Nesom, 1988), occurring in early successional openings in post oak and live oak woodlands on deep sands of the Carrizo and other Eocene formations as well as Pleistocene strata along the Gulf coast. Given its ability to colonize disturbed sites, a rank of G4 may be more appropriate. Element code: PDAST22090.
- Chaetopappa parryi* Gray. Parry's least-daisy. G3S1. Global range: Mountains of north-central Coahuila to southeastern Nuevo León and Tamaulipas (Henrickson & Johnston, in prep.; TEX-LL, 1998); also west Texas (Correll & Johnston, 1970). State range: Reported from Del Norte Mountains of Brewster County in Correll & Johnston (1970), but Texas is not mentioned in range by Henrickson & Johnston (in prep.). Element code: PDAST22050.
- Chrysothamnus nauseosus* (Pallas) Britt. subsp. *texensis* L. C. Anderson. Guadalupe Mountains rabbitbrush. G5T2S1. Global range: Endemic to the Guadalupe Mountains of New Mexico and Texas. State range: Limestone ledges and open gravel alluvial slopes in the Guadalupe Mountains of Culberson County (Anderson, 1980; Burgess & Northington, 1981). Element code: PDAST2C0G8.
- Chrysothamnus spathulatus* L. C. Anderson. Douglas rabbit-brush. G3S2. Global range: Mountains of southern New Mexico and adjacent Trans-Pecos Texas. State range: Guadalupe Mountains of Culberson County. Element code: PDAST2C0B0.
- Cirsium turneri* Warnock. Cliff thistle, Turner's crotch-thistle. G3S3. Global range: West Texas and adjacent Coahuila. State range: Brewster, Terrell and Val Verde counties, found mostly in fractures of vertical limestone cliff-faces in canyons along the Rio Grande (Warnock, 1960). Element code: PDAST2E2W0.
- Coreopsis intermedia* Sherff. Goldenwave tickseed. G3S3. Global range: East Texas; Caddo Parish, Louisiana; and Miller County, Arkansas (Singhurst, 1996). State range: In deep

- sandy soils of sandhills in openings in or along margins of post oak woodlands and pine-oak forests of east Texas, with records from Anderson, Cass, Cherokee, Franklin, Freestone, Harris, Harrison, Henderson, Houston, Leon, Limestone, Marion, Nacogdoches(?), Newton, Smith, Trinity, Upshur, Van Zandt, and Wood counties (Singhurst, 1996). Element code: PDAST2L0E0.
- Coreopsis nuecensis* Heller. Crown coreopsis. G3S3. Global range: Endemic to Texas. State range: Atascosa, Bastrop, Bee, Bexar, Brazos, Brooks, Burleson, Caldwell, Dewitt, Frio, Guadalupe, Karnes, San Patricio and Wilson counties, where it occurs in open areas on sandy substrates (Smith, 1974; Smith, 1976). The very similar *Coreopsis nuecensoides* E. B. Smith is ranked G4. Element code: PDAST2L0N0.
- Echinacea atrorubens* Nutt. Topeka purple-coneflower. G3S3. Global range: Kansas, Oklahoma and Texas, occurring mostly in tallgrass prairie of the southern Great Plains. State range: Cooke, Denton, Fannin, Galveston, Gonzales, Hunt, Kaufman, Navarro, Parker, Polk, Red River, Rockwall, Tarrant, Walker, Waller, Washington and Wise counties (Diggs, Lipscomb & O'Kennon, 1999; McGregor, 1968; TEX-LL, 2002) in blackland prairies but also in a variety of other sites. Element code: PDAST38020.
- Echinacea paradoxa* (Norton) Britt. var. *neglecta* R. L. McGregor. Neglected coneflower. G4T1T2SR. Global range: According to McGregor (1968), this variety is functionally endemic to the Arbuckle Mountains of south-central Oklahoma, although a Lindheimer specimen from 1843 (without locality) is attributed to Texas. State range: Unknown at present. Element code: PDAST39051.
- Echinacea sanguinea* Nutt. *Echinacea pallida* (Nutt.) Nutt. var. *sanguinea* (Nutt.) Gandhi & Thomas. Sanguin coneflower. G3S3. Global range: Arkansas and Oklahoma south to Louisiana and eastern Texas. State range: The common woodland coneflower in much of the eastern third of Texas; the G rank may be misleading. In June 2003, TEX-LL reported specimens from Anderson, Angelina, Bastrop, Brazos, Cass, Falls, Fayette, Gregg, Grimes, Hardin, Harris, Henderson, Houston, Jasper, Leon, Morris, Newton, Orange, Polk, Rusk, Sabine, San Jacinto, Trinity, Tyler, Van Zandt, Walker and Wood counties. Element code: PDAST38070.
- Encelia scaposa* (Gray) Gray. One-head encelia. G3S2. Global range: Trans-Pecos Texas and northeastern Chihuahua (Henrickson & Johnston, in prep.); also in New Mexico (central BCD, 1997). State range: Culberson, Hudspeth, Jeff Davis and Terrell counties, occurring on open gravelly clay flats (Henrickson & Johnston, in prep.; SRSC, 2000). Plants of Terrell County are sometimes distinguished as *Encelia scaposa* var. *stenophylla* Shinnery; others are then var. *scaposa*. Element code: PDAST3F040.
- Flyriella parryi* (Gray) R. King & H. Robinson. *Brickellia shineri* M. E. Jones; *Eupatorium parryi* Gray. Shiner's brickellbush. G3S2. Global range: Trans-Pecos Texas south through central Coahuila to Nuevo León and west to mountains of eastern Chihuahua (Henrickson & Johnston, in prep.; Baker & Turner, 1986). State range: Dry rocky limestone slopes in Brewster and Val Verde counties. Element code: PDASTCW010.
- Gaillardia aestivalis* (Walt.) Rock. var. *winkleri* (Cory) Turner. White firewheel, Winkler's firewheel. G5T2S2. Global range: Endemic to East Texas. State range: Apparently restricted to Hardin and Tyler counties, where it occurs in sandhill openings and clearings in longleaf pine-oak woodlands. Element code: PDAST3Y013.
- Grindelia oolepis* Blake. Plains gumweed. G2S2. Global range: Endemic to the Gulf Coastal Plain of South Texas. State range: Bee, Cameron, Nueces, Refugio and San Patricio counties,

- found in early successional patches in coastal prairie on heavy clay soils, sometimes in disturbed habitats along railroads and vacant lots in urban areas (Mahler, 1980; Mahler, 1981); collected by Robert Runyon from "crawfish lands" in Cameron County in 1923. Element code: PDAST470Q0.
- Helianthus neglectus* Heiser. Neglected sunflower. G2QS2. Global range: Texas and New Mexico. State range: Ector, Loving, Ward and Winkler counties, usually in deep sands on rolling hills and dunes. Element code: PDAST4N0Y0.
- Helianthus occidentalis* Riddell subsp. *plantagineus* (T. & G.) Heiser. Plantainleaf sunflower. G5T3QS3. Global range: Mostly in southeast Texas, with reports from one county in Arkansas (Smith, 1988) and one parish in Louisiana (MacRoberts, 1989). State range: Mostly in prairies on the coastal plain, with records from Austin, Bastrop, Caldwell, Colorado, Dewitt, Fayette, Goliad, Jackson, Lavaca, Lee, Victoria, Waller and Washington counties (TEX-LL, 1999; BRIT/SMU, 1999; SBSC, 1999); seemingly disjunct in Newton County in the Pineywoods. Element code: PDAST4N112.
- Helianthus paradoxus* Heiser. Puzzle sunflower. G2S1. Global range: Texas and New Mexico. State range: Pecos and Reeves counties, occurring in moist heavy alkaline/saline calcareous silty clays and loams in and around cienegas and associated wetlands (Poole, 1992). Element code: PDAST4N130.
- Helianthus praecox* Engelm. & Gray subsp. *hirtus* (Heiser) Heiser. *Helianthus debilis* Nutt. subsp. *hirtus* Heiser. Dimmit sunflower. G4T2QS2. Global range: Apparently endemic to South Texas. State range: Known only from Dimmit County, occurring in local abundance on well drained sandy soils in open shrublands. Element code: PDAST4N151.
- Helianthus praecox* Engelm. & Gray subsp. *praecox*. *Helianthus debilis* Nutt. subsp. *praecox* (Engelm. & Gray) Heiser. Galveston sunflower. G4T2S2. Global range: Endemic to Texas. State range: Sandy open areas along the upper Texas coast, with records from Brazoria, Chambers and Galveston counties (Correll & Johnston, 1970; TEX-LL, 1988). Element code: PDAST4N153.
- Hymenopappus biennis* B. L. Turner. Biennial woollywhite. G3S2. Global range: Mountains of New Mexico and Trans-Pecos Texas. State range: Known only from the Guadalupe Mountains, where it occurs in grasslands and open pine-juniper-oak woodlands on rocky calcareous soils above 6000 feet. Element code: PDAST51020.
- Hymenopappus carrizoanus* B. L. Turner. Sandhill woollywhite. G2S2. Global range: Endemic to south-central Texas. State range: Anderson, Atascosa, Bastrop, Bexar, Caldwell, Frio, Guadalupe, Leon, Medina and Robertson counties, in disturbed or open areas in grasslands and post oak woodlands on deep sands derived from the Carrizo and similar Eocene formations (Turner, 1989). Element code: PDAST510A0.
- Hymenoxys texana* (Coult. & Rose) Cockerell. Prairie-dawn. G2S2. Global range: Endemic to the Coastal Plain of southeast Texas. State range: Presently known from Fort Bend, Harris and Trinity counties; a report from La Salle County is probably based on a misattributed specimen. Restricted to sparsely vegetated areas on slightly saline soils that are sticky when wet but powdery when dry, often at the base of mima (pimple) mounds in open grasslands (Bridges, 1988; Mahler, 1983; U. S. Fish & Wildlife Service, 1989). Element code: PDAST530L0.
- Lepidospartum burgessii* Turner. Gypsum scalebroom. G2S1. Global range: Endemic to salt basin on west side of the Guadalupe Mountains in New Mexico and Texas. State range: Found

- only on gypsum dunes in the salt basin east of Dell City in northern Hudspeth County (Turner, 1977; Rowell, 1983; Worthington & Reid, 1985). Element code: PDAST5Q010.
- Liatris bracteata* Gaiser. Coastal gayfeather. G2G3S2S3. Global range: Endemic to the Coastal Plain of Texas. State range: Aransas, Brazoria, Colorado, Galveston, Harris, Live Oak, Matagorda, Refugio, San Patricio and Waller counties, occurring in coastal prairies on a variety of loamy substrates. Element code: PDAST5X040.
- Liatris cymosa* (H. Ness) K. Schum. Branched gayfeather. G2S2. Global range: Endemic to the post oak belt of south-central Texas. State range: Brazos, Burleson, Grimes, Lee, Madison, San Jacinto, Walker and Washington counties, where it occurs in somewhat barren grassland openings in post oak (*Quercus stellata*) woodlands on tight clay, chalky, or gravelly soils. Element code: PDAST5X070.
- Liatris tenuis* Shinnars. Slender gayfeather. G3S3. Global range: Endemic to the Western Gulf Coastal Plain of east Texas and western Louisiana. State range: Pineywoods of East Texas, with records from Angelina, Hardin, Jasper, Newton, Orange, Sabine, San Augustine and Tyler counties, in fire-maintained dry upland longleaf pine savannas, mostly on the Catahoula Formation (Orzell, 1990; Singhurst, 1996). Element code: PDAST5X0X0.
- Packera texensis* R. J. O'Kennon & D. K. Trock. Llano butterweed, llano groundsel. G2S2. Global range: Endemic to Texas. State range: Known from Gillespie, Llano and Mason counties in the Llano Uplift area; evidently disjunct in Callahan County on the Rolling Plains. Most sites are open to partially shaded sites on soils derived from granite, gneiss or other igneous or metamorphic rocks (Trock & O'Kennon, 2003); collections from the Rolling Plains are from sandy soils of other derivation. Element code: PDASTE60G0.
- Perityle aglossa* Gray. Rockdaisy. G3S3. Global range: southern Trans-Pecos Texas and adjacent Coahuila (Henrickson & Johnston, in prep.). State range: Crevices in limestone outcrops along the Rio Grande in Brewster and Terrell counties (Henrickson & Johnston, in prep.). Element code: PDAST70010.
- Perityle angustifolia* (Gray) Shinnars. Rayless rock-daisy. G3S3. Global range: Apparently endemic to west Texas (A. Powell in Henrickson & Johnston, in prep.). State range: Crevices of limestone bluffs and cliff-faces in Crockett, Pecos, Terrell and Val Verde counties (Powell, 1973). Element code: PDAST70020.
- Perityle bisetosa* (Gray) Shinnars var. *appressa* Powell. Appressed two-bristle rockdaisy. G2T2S2. Global range: Texas and Coahuila. State range: Brewster County, occurring in crevices in limestone exposures on bluffs and other rock outcrops (Powell, 1973; Powell, 1988). Element code: PDAST70031.
- Perityle bisetosa* (Gray) Shinnars var. *bisetosa*. Two-bristle rock-daisy. G2T2S2. Global range: Texas and Coahuila. State range: Brewster, Pecos and Terrell counties, usually in crevices in limestone bluffs (Powell, 1973; Powell, 1988; TEX-LL, 2000). Element code: PDAST70032.
- Perityle bisetosa* (Gray) Shinnars var. *scalaris* Powell. Stairstep two-bristle rockdaisy. G2T1S1. Global range: known only from Brewster County, Texas, where it occurs in limestone crevice habitats similar to those of other varieties of the species (Powell, 1973; Powell, 1988). Element code: PDAST70033.
- Perityle cinerea* (Gray) Powell. Gray rockdaisy. G2S2. Global range: Endemic to west Texas. State range: Pecos, Reeves, Terrell and Upton counties, occurring in crevices in limestone caprock of mesas (Hanks & Powell, 1983). Element code: PDAST70070.

- Perityle dissecta* (Torr.) Gray. Slimlobe rock-daisy. G2S2. Global range: Southern Trans-Pecos Texas and northern Chihuahua. State range: Limestone outcrops and cliffs in southern Brewster and southern Presidio counties. Element code: PDAST700B0.
- Perityle fosteri* Powell. Foster's rock-daisy. G1S1. Global range: Apparently endemic to the Apache Mountains of Culberson County, Texas, where it occurs on rock faces on limestone boulders and bluffs in deep protected canyons (Powell, 1983). Element code: PDAST70110.
- Perityle huecoensis* Powell. Hueco Mountains rock-daisy. G1S1. Global range: El Paso County, Texas and the Sierra Juarez in adjacent Chihuahua (Powell & Yarborough, 1997). State range: Known only from limestone cliff-faces in the Hueco Mountains. Element code: PDAST70100.
- Perityle lindheimeri* (Gray) Shinnery var. *halimifolia* (Gray) Powell. Devils River rockdaisy. G4T3S3. Global range: Endemic to Texas. State range: Limestone cliff-faces in Val Verde County eastward to central Texas (A. Powell in Henrickson & Johnston, in prep.). Element code: PDAST700H1.
- Perityle quinqueflora* (Steyermark) Shinnery. Five-flower rock-daisy. G3S3. Global range: Eddy County, New Mexico and Trans-Pecos Texas (Powell, 1969; Henrickson & Johnston, in prep.). State range: Rock crevices and cliff faces in Culberson, Hudspeth, Jeff Davis and Presidio counties (Powell, 1969). Element code: PDAST700M0.
- Perityle rupestris* (Gray) Shinnery var. *albiflora* Powell. Whiteflower rock-daisy. G4T3S3. Global range: Endemic to Trans-Pecos Texas. State range: Locally common on igneous rock outcrops in Brewster, southern Jeff Davis and eastern Presidio counties (Powell, 1969). Element code: PDAST700N1.
- Perityle rupestris* (Gray) Shinnery var. *rupestris*. Leafy rock-daisy. G4T3S3. Global range: Endemic to Trans-Pecos Texas. State range: Igneous rock outcrops in Culberson, Jeff Davis and Presidio counties (Powell, 1969). This variety may well prove to be T4. Element code: PDAST700N2.
- Perityle vitreomontana* Warnock. Glass Mountains rockdaisy. G1S1. Global range: Trans-Pecos Texas. State range: Chisos and Glass mountains of Brewster County, occurring in crevices in limestone exposures on cliffs and rock outcrops (Poole, 1992; Powell, 1969; Powell, 1988). Element code: PDAST700W0.
- Perityle warnockii* Powell. Warnock's rockdaisy. G1S1. Global range: Known only from a few limestone cliff-faces in Val Verde County, Texas (Powell, 1973; Powell, 1988). Element code: PDAST700X0.
- Pinaropappus parvus* Blake. Little rock-lettuce. G3S3. Global range: Endemic to the Chihuahuan Desert Region of Trans-Pecos Texas, southern New Mexico and Coahuila (J. Poole in Henrickson & Johnston, in prep.). State range: Guadalupe Mountains in Culberson County and from Victorio Canyon in the Sierra Diablo of Hudspeth County (J. Poole in Henrickson & Johnston, in prep.; TEX-LL, 1998). Element code: PDAST78010.
- Porophyllum greggii* Gray. Gregg's poreleaf. G3S3. Global range: Trans-Pecos Texas and northern Chihuahua (Henrickson & Johnston, in prep.). State range: Apparently rare in a variety of habitats in desert grasslands and on limestone and igneous slopes in Brewster, Culberson, Jeff Davis and Presidio counties (TEX-LL, 1998). Element code: PDAST7H020.
- Prenanthes barbata* (T. & G.) Milstead. Barbed rattlesnake-root. G3S3. Global range: Alabama, Arkansas, Georgia, Kentucky, Louisiana, Tennessee, and Texas. State range: Pineywoods of East Texas, with records from Angelina, Cass, Cherokee, Hardin, Jasper, Lamar,

- Nacogdoches, Newton, Polk, Rusk, Sabine, San Augustine and Shelby counties. Element code: PDAST7K060.
- Prenanthes carrii* Singhurst, O'Kennon, & Holmes. Canyon rattlesnake-root. G2S2. Global range: Endemic to Texas. State range: Restricted to mesic forested canyons of the southern Edwards Plateau, with records from Bandera, Gillespie, Kerr and Real counties (Singhurst, O'Kennon, & Holmes, 2004).
- Pseudoclappia arenaria* Rydb. Cienega pseudoclappia. G3S2. Global range: West Texas and the White Sands area of southern New Mexico south to central Coahuila and Chihuahua. State range: Bailey, Culberson, Gaines, Hall, Hudspeth, Pecos and Reeves counties, mostly in alkali sacaton (*Sporobolus airoides*) grasslands on alkaline, gypseous or saline soils of alluvial flats around cienegas, playa lakes and other desert wetlands. Element code: PDAST7Q010.
- Pseudoclappia watsonii* Powell & Turner. Watson's pseudoclappia. G1S1. Global range: Endemic to Trans-Pecos Texas. State range: Brewster, Hudspeth and Presidio counties, in Chihuahuan Desert shrublands on dry rocky gypseous clay hills (Powell & Turner, 1976). Note: The collection attributed to Presidio County may actually have been taken from Jeff Davis County. Element code: PDAST7Q020.
- Psilactis heterocarpa* (Hartman & Lane) Morgan. *Machaeranthera heterocarpa* Hartman & Lane; only recently recognized as distinct from *Machaeranthera tenuis* (S. Wats.) Turner & Horne, under which it is discussed in Correll & Johnston (1970) and Jones (1977). Welder machaeranthera. G2G3S2S3. Global range: Endemic to the Coastal Plain of South Texas. State range: Goliad, Jackson, Karnes, Kleberg, Nueces, Refugio, San Patricio and Victoria counties, in coastal prairie grasslands and open mesquite-huisache woodlands on mostly gray-colored clayey to silty soils over the Beaumont and Lissie Formations (Carr, 1995). Element code: PDAST64120.
- Rayjacksonia aurea* (Gray) Hartman & Lane. *Machaeranthera aurea* (Gray) Shinners. Houston daisy. G2S2. Global range: Endemic to the Gulf Coastal Plain of southeast Texas. State range: Known only from Galveston and Harris counties, most conspicuous on and around naturally barren or sparsely-vegetated slick spots or pimple mounds on coastal prairie, usually on loamy to sandy loam soils (Clodine, Gessner, and Wockley series); occasionally found in disturbed pastures and on roadsides in places where natural conditions are imitated (Mahler, 1980; Mahler, 1981; Mahler, 1983). Element code: PDAST64050.
- Rudbeckia scabrifolia* L. E. Brown. Bog coneflower. G2G3S2. Global range: Western Gulf Coastal Plain of Louisiana and Texas (Orzell, 1990). State range: Angelina, Jasper, Newton, Sabine and Shelby counties, a denizen of hillside seepage bogs and associated broadleaf semievergreen acid seep forests, most often those on the Catahoula Formation (Miocene) or near the Catahoula-Willis contact (Orzell, 1990). Element code: PDAST850M0.
- Senecio quaylei* T. M. Barkley. Quayle's butterweed. G1S1. Global range: Endemic to north-central Texas. State range: Known only from the type location in Parker County, where it occurs in a weedy roadside ditch (Barkley, 2001). Element code: PDAST8H470.
- Shinnersia rivularis* (Gray) King & Robinson. *Trichocoronis rivularis* Gray. Springrun whitehead. G3S1. Global range: Isolated aquatic systems in southwestern Texas, northern Coahuila and northern Nuevo León (King & Robinson, 1970; King & Robinson, 1987; Turner, 1997). State range: Spring-fed streams in Uvalde and Val Verde counties. Element code: PDAST9F020.

- Silphium reverchonii* Bush. Reverchon's rosin-weed. G1G3QSR. Placed in synonymy under *Silphium simpsonii* Greene var. *wrightii* Perry in Correll & Johnston (1970), which in turn was placed in synonymy under *Silphium gracile* Gray in Kartesz (1994) and Jones, Wipff & Montgomery (1997). However, Kartesz recognizes *Silphium reverchonii* as a separate entity, whereas Jones et al. do not. Global range: Texas (central BCD, 1997). State range: Unknown; all *Silphium* specimens have been on loan from TEX-LL for some time. Element code: PDAST8L0C0.
- Solidago mollis* F. Bartling var. *angustata* Shinnery. Rolling Plains goldenrod. G5T3S2. Global range: Endemic to extreme south-central Oklahoma and north-central Texas (Shinnery, 1951; Taylor & Taylor, 1984). State range: Briscoe, Childress, Hall, Hardeman, Wichita and Wilbarger counties, where it occurs on gypsum outcrops and other xeric habitats (Shinnery, 1951; Taylor & Taylor, 1984; TEX-LL, 2001). Element code: PDAST8P111.
- Tetranneuris turneri* (Parker) Parker. *Hymenoxys turneri* Parker. Billie's bitterweed. G3S3. Global range: Mostly in South Texas, with one record from Coahuila (McPio. Allende, Hwy 47, 0.4 mi S of El Infante, 15 May 1982, *L. J. Dorr & T. L. Atkins* 2222, TEX-LL). State range: Grasslands on shallow sandy soils and caliche outcrops in Bee, Goliad, Karnes, Jim Wells, Live Oak and San Patricio counties (TEX-LL, 1998). Element code: PDASTDY0B0.
- Thelesperma burridgeanum* (Regel) Blake. Burrige greenthread. G3S3. Global range: Endemic to South Texas. State range: Sandy open areas in Atascosa, Bexar, Dimmit, Frio, Karnes, La Salle, Medina, Wilson and Zavala counties (TEX-LL, 1998). Element code: PDAST98020.
- Thurovia triflora* Rose. *Gutierrezia triflora* (Rose) M. A. Lane. Threeflower broomweed. G2G3S2S3. Global range: Endemic to Texas. State range: Aransas, Brazoria, Calhoun, Galveston, Harris, Jackson, Matagorda, Refugio, San Patricio and Waller counties, in sparsely vegetated slick spots in coastal salty prairies and along drier upper margins of ecotone between salty prairies and tidal flats. Element code: PDASTCZ010.
- Thymophylla tephroleuca* (Blake) Strother. *Dyssodia tephroleuca* Blake. Ashy dogweed. G2S2. Global range: Endemic to South Texas. State range: Starr, Webb and Zapata counties, occurring in mesquite savannas and openings in shrublands on sandy substrates mostly over the Laredo and Yegua formations, often where mantled by Holocene eolian sand deposits. Element code: PDASTDZ080.
- Trichocoronis wrightii* (T. & G.) Gray var. *wrightii*. Wright's trichocoronis. G4T3S2. Global range: California, southern Texas, Tamaulipas and San Luis Potosí (King & Robinson, 1970). State range: Aransas, Cameron, Hidalgo, Kleberg, Nueces, Willacy counties (King & Robinson, 1970); also Brooks, Gonzales, Karnes, Kenedy, Lavaca (or Dewitt?), Live Oak, Refugio, San Patricio, Victoria and Wilson counties (various herbaria). Most records from Texas are historical, perhaps indicating a decline as a result of alteration of wetland habitats. Element code: PDAST9F031.
- Verbesina oreophila* Woot. & Standl. Mountain crownbeard, cookie-loving crownbeard. G3S2. Global range: Southern Trans-Pecos Texas to Coahuila. State range: Pinyon-oak-juniper chaparral to pine forests in the Chisos, Davis and Guadalupe mountains of Brewster, Jeff Davis and Culberson counties, respectively (TEX-LL, 1998; SRSC, 2000). Element code: PDAST9R0E0.
- Xylorhiza wrightii* (Gray) Greene. *Machaeranthera wrightii* (Gray) Cronquist & Keck. Wright's machaeranthera. G3S3. Global range: Trans-Pecos Texas and Coahuila. State range: