

16.20 **TRIPOGON** Roem. & Schult.¹

Pl per or ann; csp or tufted. Clm 4–65 cm, erect, slender. Lvs linear, flat, usu becoming folded and filiform; lig memb, ciliate. Infl tml, unilat linear spikes or spikelike rcm, with 1 spklt per nd, exceeding the lvs; rchs visible, not concealed by the spklt. Spklt appressed, in 2 rows along 1 side of the rchs, with 3–20 bisx flt, distal flt strl or stnt; dis above the glm and between the flt. Glm unequal, 1(3)-veined; lm 1–3-veined, backs slightly

keeled or rounded, apc lobed or bifid, mucronate or awned from between the lobes, lat veins smt also excurrent, awns usu straight; anth 1–3.

Tripogon is a genus of approximately 30 species, most of which are native to the tropics of the Eastern Hemisphere, especially Africa and India. One species, *Tripogon spicatus*, is native to the Western Hemisphere.

1. *Tripogon spicatus* (Nees) Ekman AMERICAN
TRIPOGON [p. 435, 532]

Tripogon spicatus grows in shallow rocky soils, usually on granite outcroppings, occasionally on limestone. The flowering period, April–July (October, November), apparently depends on rainfall. Its

range includes the West Indies, Mexico, and South America, in addition to central Texas.

16.21 **TRICHONEURA** Andersson²

Pl ann or per. Clm 12–155 cm, nd glab, intnd solid. Lig memb; bld linear, narrow, usu flat. Infl tml, pan of 5–40 racemously arranged, spikelike br, exceeding the lvs; br spreading to appressed, persistent, unilat, with 1 spklt per nd. Spklt 5.3–14 mm long, with 2 or more flt, typically with 2–8 bisx flt, strl or stnt flt smt present distal to the bisx flt; rchl intnd pilose bas, apc oblique; dis above the glm and below the flt. Glm from shorter than to greatly exceeding the flt, equal or subequal to

each other, narrow, apc acuminate and mucronate, awnlike, or awned; cal well-developed, strigose; lm 3-veined, conspicuously hairy adjacent to and on the lat veins, apc cleft, midveins excurrent from the sinuses, smt forming awns.

Trichoneura is a genus of seven species that grow in dry, sandy, or stony soils. Five species are native to the Eastern Hemisphere and two to the Western Hemisphere, one of which is native to the *Manual* region.

1. *Trichoneura elegans* Swallen SILVEUS GRASS [p. 436, 532]

Trichoneura elegans usually grows in dry, deep, sandy soil. Its range extends from south central Texas to northern Tamaulipas, Mexico.

16.22 **DINEBRA** Jacq.³

Pl ann. Clm 13–120 cm, not wd. Lig memb, truncate, lacerate, smt ciliate; bld linear, flat. Infl tml, pan of 1–70, 1-sided, spikelike br, irregularly disposed on elongate rchs, clearly exceeding the up lvs; br with 2 rows of 1 or more closely imbricate, sessile spklt, proximal spklt smt replaced by short, tardily deciduous, sec br; dis at the base of the br or at the base of the sec br and (eventually) beneath the flt. Spklt lat compressed, cuneate, with 1–3 flt. Glm subequal, much longer than the flt, usu

exceeding the distal flt, coriaceous or memb, strongly keeled, acuminate-aristate; lm thinly memb, weakly keeled, 3-veined, pilose over the veins, apc acute to 2-lobed, cent veins excurrent, forming mucros. Car elliptic-oblong, trigonous.

Dinebra, a genus of three species, is native from Africa to Madagascar and India. One species has been reported from the *Manual* region.

1. *Dinebra retroflexa* (Vahl) Panz. VIPER GRASS [p. 436, 532]

Dinebra retroflexa is native from southern Africa through tropical Africa to Egypt, Iraq, Pakistan, and India. It has reportedly been found on chrome ore piles in Canton, Maryland, as well as in

Mecklenberg County, North Carolina, and Riverside County, California. It is a common weed of rich soils in moist, tropical regions.

16.23 **ERAGROSTIS** Wolf⁴

Pl ann or per; usu synoecious, smt dioecious; csp, stln, or rhz. Clm 2–160 cm, not wd, erect, decumbent, or geniculate, smt rooting at the lo nd, simple or brchd; intnd solid or hollow. Lvs not strongly distichous; shth open, often with tufts of hairs at the apc, hairs 0.3–8

mm; lig usu memb and ciliolate or ciliate, cilia smt longer than the memb base, occ of hairs or memb and non-ciliate; bld flat, folded, or involute. Infl tml, smt also ax, simple pan, open to contracted or spikelike, tml pan usu exceeding the up lvs; pulvini in the axils of the

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pri br glab or not; br not spikelike, not disarticulating. Spklt 1–27 mm long, 0.5–9 mm wide, lat compressed, with (1)2–60 flt; dis below the flt flt, smt also below the glm, acropetal with deciduous glm and lm but persistent pal, or basipetal with the glm often persistent and the flt usu falling intact. Glm usu shorter than the adjacent lm, 1(3)-veined, not lobed, apc obtuse to acute, unawned; cal glab or sparsely pubescent; lm usu glab, obtuse to acute, (1)3(5)-veined, usu keeled, unawned or mucronate; pal shorter than the lm, longitudinally bowed-out by the car, 2-keeled, keels usu ciliate,

intercostal region memb or hyaline; anth 2–3; ov glab; sty free to the bases. Cleistogamous spklt occ present, smt on the ax pan, smt on the tml pan. Car variously shaped.

Eragrostis, a genus of approximately 350 species, grows in tropical and subtropical regions throughout the world. About 110 species are native or adventive in the Western Hemisphere; 25 species are native in the *Manual* region, 24 are introduced. In most taxa native to the Western Hemisphere, disarticulation is acropetal and the lemmas fall with the caryopses, leaving the paleas attached to the rachilla.

1. Plants annual, tufted or mat-forming, without innovations [for opposite lead, see p. 203].
2. Palea keels prominently ciliate, the cilia 0.2–0.8 mm long.
 3. Spikelets 1–3.6 mm long, 0.9–2 mm wide, with 4–12 florets; lemmas 0.7–1.3 mm long.
 4. Anthers 2; pedicels 0.1–1 mm long, mostly shorter than the spikelets, straight 1. *E. ciliaris*
 4. Anthers 3; pedicels 1–4(7) mm long, as long as or longer than the spikelets, mostly curved 3. *E. amabilis*
 3. Spikelets 5–20 mm long, 1.4–4 mm wide, with 10–42 florets; lemmas 1.3–2.8 mm long.
 5. Lemmas and culms without glands; anthers 0.1–0.2 mm long, purplish 2. *E. cumingii* (in part)
 5. Lemmas with 1–3 crateriform glands on the keels, similar glands also often present below the cauline nodes; anthers 0.2–0.5 mm long, yellow 18. *E. cilianensis* (in part)
2. Palea keels smooth or scabrous, the scabridities less than 0.2 mm long.
 6. Plants mat-forming; panicles 1–3.5 cm long; erect portion of culms (2)5–20 cm, the basal portion prostrate and rooting at the nodes.
 7. Spikelets bisexual; anthers 2, 0.2–0.3 mm long 4. *E. hypnoides*
 7. Spikelets and plants unisexual; anthers 3, 1.4–2.2 mm long 5. *E. reptans*
 6. Plants usually not forming mats; panicles 3–55 cm long; culms (2)6–130 cm tall, not prostrate or rooting at the lower nodes.
 8. Ligules membranous, neither ciliolate nor ciliate 6. *E. japonica*
 8. Ligules membranous and ciliolate to ciliate, the cilia often longer than the basal membrane.
 9. Caryopses with a shallow or deep ventral groove, ovoid to rectangular-prismatic or dorsally compressed, if dorsally compressed, the surface striate or smooth.
 10. Bases of the caryopses greenish; caryopses dorsally compressed, the distal $\frac{2}{3}$ translucent, the surface smooth; leaf sheaths with oblong glands; in the *Manual* region, known from a single collection at Canton, Maryland 7. *E. cylindriflora*
 10. Bases of the caryopses reddish-brown or brownish; caryopses laterally compressed or rectangular-prismatic to ovoid, the distal $\frac{2}{3}$ opaque, the surface striate; sheaths without oblong glands, sometimes with glandular pits; plants found at many locations in the *Manual* region.
 11. Spikelets 4–11 mm long, with 5–15 florets; pedicels somewhat divergent to almost appressed 12. *E. mexicana*
 11. Spikelets 1.4–5 mm long, with 2–7 florets; pedicels divergent.
 12. Panicles 4–20 cm long, less than $\frac{1}{2}$ the height of the plant; pedicels 1.5–5 mm long; glandular pits often present below the cauline nodes, on the rachises, and on the panicle branches 13. *E. frankii* (in part)
 12. Panicles 10–45(55) cm long, $\frac{2}{3}$ or more the height of the plant; pedicels 4–25 mm long; plants without glandular pits 14. *E. capillaris*
 9. Caryopses without a ventral groove, usually globose, rarely flattened, pyriform, obovoid, ellipsoid, or rectangular-prismatic, the surface smooth to faintly striate.
 13. Plants with glandular pits or bands somewhere, the location(s) various, including any or all of the following: below the cauline nodes, on the sheaths, blades, rachises, panicle branches, or pedicels, or on the keels of the lemmas and paleas.
 14. Panicles 0.5–2 cm wide, contracted; primary panicle branches usually appressed, occasionally diverging up to 30° from the rachises; spikelets light yellowish, occasionally with reddish-purple markings 15. *E. lutescens*
 14. Panicles 2–18 cm wide, open to somewhat contracted; primary panicle branches diverging 20–110° from the rachises; spikelets plumbeous, greenish, or reddish-purple.

15. Spikelets 1.7–5.6 mm long, with 3–6 florets 13. *E. frankii* (in part)
15. Spikelets (2)3.5–20 mm long, with (3)5–40 florets.
16. Spikelets 0.6–1.4 mm wide; pedicels 1–10 mm long, lax, appressed or divergent 16. *E. pilosa* (in part)
16. Spikelets 1.1–4 mm wide; pedicels 0.2–4 mm long, stiff, straight, usually divergent.
17. Lemmas 2–2.8 mm long, with 1–3 crateriform glands along the keels; spikelets 6–20 mm long, 2–4 mm wide, with 10–40 florets; disarticulation below the florets, the rachillas persistent; anthers yellow 18. *E. cilianensis* (in part)
17. Lemmas 1.4–1.8 mm long, rarely with 1 or 2 crateriform glands along the keels; spikelets 4–7(11) mm long, 1.1–2.2 mm wide, with 7–12(20) florets; disarticulation below the lemmas, both the paleas and rachillas usually persistent; anthers reddish-brown.
18. Panicles with glandular regions below the nodes, the glandular tissue forming a ring or band, often shiny or yellowish; anthers 3; blade margins without crateriform glands; pedicels without glandular bands 19. *E. barrelieri*
18. Panicles sometimes with areas, but rarely rings, of glandular spots or crateriform pits below the nodes, the glands usually dull greenish-gray to stramineous; anthers 2; blade margins sometimes with crateriform glands; pedicels usually with glandular bands 20. *E. minor*
13. Plants without glandular pits or bands.
19. Spikelets (1.6)2–4 mm wide; florets disarticulating intact from the persistent rachillas 21. *E. unioloides*
19. Spikelets 0.6–2.5 mm wide; lemmas disarticulating separately from the paleas, sometimes both the paleas and the rachillas persistent.
20. Spikelets with 3–6 florets; plants of the central and northeastern United States and southern Ontario, Canada 13. *E. frankii* (in part)
20. Spikelets with (3)5–42 florets; plants from throughout the contiguous United States and southern Ontario, Canada.
21. Lemmas 1.6–3 mm long; caryopses 0.7–1.3 mm long, obovoid, smooth, light brown to white; plants cultivated, occasionally escaping 22. *E. tef*
21. Lemmas 1–2.2 mm long; caryopses 0.3–1.1 mm long, subglobose, pyriform, or obovoid to prism-shaped, smooth or faintly striate, brownish; plants native species or established introductions, variously distributed.
22. Lemmas with conspicuous, often greenish lateral veins; caryopses 0.3–0.6 mm long, ovoid, subglobose to obovoid.
23. Spikelets 5–12(18) mm long, with 12–42 florets; primary branches 6–10 per culm; lemmas 1.3–2 mm long; anthers 3 2. *E. cumingii* (in part)
23. Spikelets 2–4.6 mm long, with 5–15 florets; primary branches (12)15–20 per culm; lemmas 1–1.3 mm long; anthers 2 23. *E. gangetica*
22. Lemmas with inconspicuous to moderately conspicuous lateral veins, the veins usually not greenish; caryopses 0.5–1.1 mm long, pyriform or obovoid to prism-shaped.
24. Lower glumes 0.5–1.5 mm long, at least $\frac{1}{2}$ as long as the lowest lemmas; spikelets 1.2–2.5 mm wide; panicle branches solitary or paired at the lowest 2 nodes; lemmas with moderately conspicuous lateral veins 17. *E. pectinacea*
24. Lower glumes 0.3–0.6(0.8) mm long, usually less than $\frac{1}{2}$ as long as the lowest lemmas; spikelets 0.6–1.4 mm wide; panicle branches usually whorled at the lowest 2 nodes; lemmas with inconspicuous lateral veins 16. *E. pilosa* (in part)
1. Plants perennial, sometimes rhizomatous, forming innovations at the basal nodes [for opposite lead, see p. 202].
25. Paleas with a broad lower portion forming a wing or tooth on each side, these often projecting beyond the lemmas.

26. Spikelets 5.5–16 mm long, 2.7–9 mm wide; lemmas 3–5 mm long, the keels without crateriform glands; pedicels with a narrow band or abscission line just below the apices; anthers 1.4–2.8 mm long 24. *E. superba*
26. Spikelets 2–5 mm long, 2–3.5 mm wide; lemmas 1.8–2.3 mm long, the keels with a few crateriform glands; pedicels without a narrow band or abscission line just below the apices; anthers 0.5–0.9 mm long 25. *E. echinochloidea*
25. Paleas without a broad lower portion forming a wing or tooth, the bases never projecting beyond the lemmas.
27. Plants rhizomatous; disarticulation always below the florets, the paleas falling with the lemmas and caryopses.
28. Plants with long, scaly rhizomes, 4–8 mm thick; spikelets 8–14 mm long; lemmas 3.8–4.5 mm long, 3–5-veined, the apices acute to obtuse, usually erose; caryopses 1.6–2 mm long 26. *E. obtusiflora*
28. Plants with short, knotty rhizomes less than 4 mm thick, often stout but never elongated; spikelets 2.5–7.6 mm long; lemmas 1–2.5 mm long, 3-veined, the apices acute, usually entire; caryopses 0.5–0.8 mm long.
29. Sheaths, blades, and culms not viscid or glandular; caryopses strongly flattened, the ventral surface with 2 prominent ridges separated by a groove; anthers 0.3–0.5 mm long; lemmas leathery 27. *E. spectabilis*
29. Sheaths, blades, and/or culms often viscid, sometimes glandular; caryopses terete, the ventral surfaces without 2 ridges separated by a groove; anthers 0.2–0.4 mm long; lemmas membranous.
30. Pedicels 0.2–1.2 mm long, appressed; lemmas 1.5–2.2 mm long; caryopses 0.6–0.8 mm long 28. *E. curtipedicellata*
30. Pedicels (1)1.5–12 mm long, divergent or appressed; lemmas 1.1–1.4 mm long; caryopses 0.5–0.6 mm long 29. *E. silveana*
27. Plants not rhizomatous; disarticulation often below the lemmas, the paleas persistent, sometimes below the florets and the paleas falling with the lemmas and caryopses.
31. Panicles 0.3–0.6 cm wide, spicate, dense; spikelets with 2–3 florets 30. *E. spicata*
31. Panicles 1–45 cm wide, ovate to obovate or elliptic, open to somewhat condensed and glomerate; spikelets with 1–45 florets.
32. Caryopses with shallowly to deeply grooved adaxial surfaces, rectangular-prismatic to ellipsoid, ovoid, or obovoid in overall shape [for opposite lead, see p. 205].
33. Caryopses strongly dorsally compressed, translucent, mostly light brown, bases sometimes greenish.
34. Lemmas 1.8–3 mm long; panicles 16–35(40) cm long, (4)8–24 cm wide; blades 12–50(65) cm long; caryopses 1–1.7 mm long; ligules 0.6–1.3 mm long 9. *E. curvula* (in part)
34. Lemmas 1.4–1.7 long; panicles 6–18 cm long, 2–8 cm wide; blades 2–12 cm long; caryopses 0.4–0.8 mm long; ligules 0.3–0.5 mm long.
35. Plants without woolly hairs at the base; glumes unequal; lateral lemma veins not green, inconspicuous throughout; spikelets 0.8–1.2 mm wide; naturalized in the southwestern United States 10. *E. lehmanniana* (in part)
35. Plants with conspicuous, woolly hairs at the base; glumes subequal; lateral lemma veins green, conspicuous basally, obscure near the lemma apices; spikelets 1.3–2 mm wide; in the *Manual* region, known only from waste areas near a woolen mill in South Carolina 11. *E. setifolia* (in part)
33. Caryopses laterally compressed, terete, or slightly dorsally compressed, usually opaque, usually reddish-brown.
36. Lateral veins of the lemmas conspicuous, often greenish, the lemmas strongly keeled.
37. Panicles 2–8 cm wide, contracted to somewhat open, narrowly oblong to narrowly lanceolate; primary branches appressed or diverging up to 30° from the rachises; lemmas with punctate glands along the keels; pedicels 1–7 mm long, appressed; plants native to Africa, in the *Manual* region, known only from waste areas near sheep and cattle lots in South Carolina and Alabama 31. *E. plana*
37. Panicles 4–30 cm wide, open, ovate to oblong; primary branches diverging 10–90° from the rachises; lemmas without punctate glands

- on the keels; pedicels 0.4–22 mm long, usually diverging, occasionally appressed; plants native to the southern United States.
38. Pedicels with a glandular band; culms with a glandular band below the nodes; anthers 0.3–0.5 mm long; restricted to southern Texas 32. *E. swallenii*
38. Pedicels and culms without glandular bands; anthers 0.6–1.6 mm long; often found outside southern Texas.
39. Glumes 1.8–4 mm long, the upper glumes generally equaling or exceeding the lower lemmas; spikelets 1.5–3.6 mm wide, greenish-yellow with a reddish-purple tinge; lemmas 2.2–3.5 mm long; caryopses 0.8–1.3 mm long 33. *E. trichodes*
39. Glumes 1.1–2.2 mm long, the upper glumes exceeded by the lower lemmas; spikelets 1–2 mm wide, plumbeous; lemmas 2–2.6 mm long; caryopses 0.6–0.8 mm long 34. *E. palmeri* (in part)
36. Lateral veins of the lemmas inconspicuous, the lemmas sometimes only weakly keeled.
40. Lemmas 1.2–1.8 mm long; culms 30–70 cm tall.
41. Culms with a glandular ring below the nodes; bases of primary panicle branches with a glandular band; panicles 2–7 cm wide; pedicels glandular; known, in the *Manual* region, from only a few collections at Canton, Maryland 8. *E. trichophora*
41. Culms without a glandular ring below the nodes; bases of primary panicle branches without a glandular band; pedicels not glandular at the base; panicles 5–27 cm wide; plants known from many parts of the southern United States.
42. Spikelets 1.1–1.6 mm wide, uniformly plumbeous; sheaths sometimes densely pilose dorsally and on the collars; distal margins of the lemmas not hyaline 35. *E. polytricha*
42. Spikelets 0.5–1(1.3) mm wide, plumbeous to reddish-purple; sheaths usually glabrous dorsally and on the collars; distal margins of the lemmas hyaline 36. *E. lugens* (in part)
40. Lemmas 1.6–3 mm long; culms (30)40–110(120) cm tall.
43. Spikelets greenish with a purplish tinge, with 2–6 florets; blades 25–60 cm long, 3–11 mm wide, flat to loosely involute; sheaths densely hirsute with papillose-based hairs on the collar, back, and base 37. *E. hirsuta* (in part)
43. Spikelets olivaceous to plumbeous, with (3)5–12 florets; blades (4)10–35 cm long, 1–3.8 mm wide, involute or flat; sheaths never with papillose-based hairs, sometimes villous over the back.
44. Lemmas 1.6–2.2 mm long; anthers 0.5–0.8 mm long, purplish 38. *E. intermedia*
44. Lemmas 2–3 mm long; anthers 0.6–1.7 mm long, purplish to yellowish.
45. Caryopses 0.8–1.6 mm long; lemmas 2.4–3 mm long 39. *E. erosa*
45. Caryopses 0.6–0.8 mm long; lemmas 2–2.6 mm long 34. *E. palmeri* (in part)
32. Caryopses not grooved on the adaxial surfaces, ellipsoid, subellipsoid, ovoid, obovoid, globose, to pyriform in overall shape [for opposite lead, see p. 204].
46. Anthers 2.
47. Panicles 15–45 cm wide, open, diffuse, broadly ovate to obovate; primary branches lax; pedicels 0.5–35(50) mm long, the lower pedicels longer or shorter than the spikelets.
48. Spikelets with appressed pedicels; only the terminal pedicels of each branch longer than the spikelets; disarticulation usually in the rachilla beneath the florets 40. *E. refracta*
48. Spikelets with divergent pedicels; all pedicels usually longer than the spikelets; disarticulation below the lemmas, the paleas persistent 41. *E. elliottii*
47. Panicles (1)2–17 cm wide, contracted to open, narrowly ovate to oblong; primary branches stiff; pedicels absent or 0.3–6 mm long, always shorter than the spikelets.

49. Spikelets 2.4–5 mm wide; glumes 1.7–4 mm long; lemmas 2–6 mm long, the apices usually acuminate or attenuate 42. *E. secundiflora*
49. Spikelets 1–2.4 mm wide; glumes 1–2.2 mm long; lemmas 1.1–2.5 mm long, the apices usually acute, occasionally acuminate.
50. Spikelets 0.7–1.4 mm wide; anthers 0.2–0.3 mm long; caryopses flattened ventrally 43. *E. prolifera*
50. Spikelets 1.3–2.4 mm wide; anthers (0.2)0.3–0.7 mm long; caryopses rounded, not flattened ventrally.
51. Terminal panicles 1–3.5 cm wide, contracted, condensed into glomerate lobes; primary branches 0.8–3 cm long 44. *E. elongata*
51. Terminal panicles (1)2–17 cm wide, open to contracted; primary branches 1–15 cm long.
52. Plants without axillary panicles; terminal panicles 15–45 cm long; blades (8)12–40 cm long, 2–5 mm wide, flat to involute; caryopses 0.6–0.8 mm long, striate, obovoid to ellipsoid 45. *E. bahiensis*
52. Plants usually with axillary panicles, these contracted and partially to completely enclosed by the subtending sheaths; terminal panicles 5–15 cm long; blades 4–8(18) cm long, 1–2 mm wide, usually involute; caryopses 0.5–0.6 mm long, smooth, globose 46. *E. scaligera*
46. Anthers 3.
53. Primary panicle branches not rebranched; proximal spikelets on each branch sessile or subsessile, the pedicels shorter than 0.4 mm 47. *E. sessilispica*
53. Primary panicle branches usually with secondary branches; proximal spikelets on each branch usually pedicellate, the pedicels longer than 0.4 mm.
54. Spikelets 1.3–2 mm long, with 1–3 florets; lemmas 0.8–1.2 mm long 48. *E. airoides*
54. Spikelets 2–19 mm long, with 2–22 florets; lemmas 1.2–2.4 mm long.
55. Spikelets 2–4.5(5) mm long.
56. Blades 25–60 cm long, 3–11 mm wide; lemmas 1.6–2.4 mm long; spikelets 1–1.7 mm wide; sheaths densely hirsute, with papillose-based hairs on the base, back, and collar 37. *E. hirsuta* (in part)
56. Blades 4–22 cm long, 1–3.5 mm wide; lemmas 1.2–1.8 mm long; spikelets 0.5–1.3 mm wide; sheaths sometimes hirsute, at least partially, but the hairs never papillose-based 36. *E. lugens* (in part)
55. Spikelets 4–19 mm long.
57. Spikelets with 10–22 florets; caryopses terete to laterally compressed, opaque, uniformly reddish brown 49. *E. atrovirens*
57. Spikelets with 3–12(14) florets; caryopses dorsally compressed, translucent, greenish over the embryo.
58. Lemmas 1.8–3 mm long; panicles 16–35(40) cm long, (4)8–24 cm wide; blades 12–50(65) cm long; caryopses 1–1.7 mm long; ligules 0.6–1.3 mm long 9. *E. curvula* (in part)
58. Lemmas 1.4–1.7 long; panicles 6–18 cm long, 2–8 cm wide; blades 2–12 cm long; caryopses 0.4–0.8 mm long; ligules 0.3–0.5 mm long.
59. Plants without woolly hairs on the base; glumes unequal; lateral lemma veins not green, inconspicuous throughout; spikelets 0.8–1.2 mm; naturalized in the southwestern United States 10. *E. lehmanniana* (in part)
59. Plants with conspicuous, woolly hairs on the base; glumes subequal; lateral lemma veins green, conspicuous basally, obscure near the lemma apices; spikelets 1.3–2 mm wide; in the *Manual* region, known only from waste areas near a woolen mill in South Carolina 11. *E. setifolia* (in part)

1. *Eragrostis ciliaris* (L.) R. Br. GOPHERTAIL LOVEGRASS
[p. 436, 532]

Eragrostis ciliaris is native to the paleotropics. It is naturalized in parts of the United States, growing along roadsides, on waste sites, in xerothermic vegetation, and sometimes in saline habitats, at 0–200 m. It may be more widespread than indicated.

1. Panicles 0.2–1.5 cm wide, contracted, the branches mostly appressed to the rachises, congested, forming glomerate lobes; spikelets densely packed var. *ciliaris*
1. Panicles 1.5–5 cm wide, open, the branches spreading 20–50° from the rachises; spikelets widely separated from each other var. *laxa*

Eragrostis ciliaris (L.) R. Br. var. *ciliaris* [p. 436]

Eragrostis ciliaris var. *ciliaris* is more common than *E. ciliaris* var. *laxa* in the *Manual* region.

Eragrostis ciliaris var. *laxa* Kuntze [p. 436]

Eragrostis ciliaris var. *laxa* grows in five counties of Florida, the Caribbean Islands, and the Yucatan Peninsula, Mexico.

2. *Eragrostis cumingii* Steud. CUMING'S LOVEGRASS [p. 436, 533]

Eragrostis cumingii is native to southeast Asia and Australia. Within the *Manual* region, it has become established in Florida, growing in waste places and along roadsides in sandy or gravelly soils, at 0–150 m.

3. *Eragrostis amabilis* (L.) Wight & Arn. ex Nees
JAPANESE LOVEGRASS [p. 436, 533]

Eragrostis amabilis is native to the Eastern Hemisphere. It is now naturalized in the southeastern United States, growing in open areas such as cultivated fields, forest margins, and roadsides at 0–200 m.

4. *Eragrostis hypnoides* (Lam.) Britton, Sterns & Poggenb. TEEL LOVEGRASS, ÉRAGROSTIDE HYPNOÏDE [p. 436, 533]

Eragrostis hypnoides grows along muddy or sandy shores of lakes and rivers and in moist, disturbed sites, at 10–1600 m. It is native to the Americas, extending from southern Canada to Argentina.

5. *Eragrostis reptans* (Michx.) Nees CREEPING
LOVEGRASS [p. 436, 533]

Eragrostis reptans grows in wet sand, gravel, and clay soils along rivers and lake margins from the United States to northern Mexico, at 0–400 m, frequently with *Cynodon dactylon* and *Heliotropium*. It flowers from April through November.

6. *Eragrostis japonica* (Thunb.) Trin. POND LOVEGRASS
[p. 436, 533]

Eragrostis japonica is native to the tropics of the Eastern Hemisphere; it is now established in moist areas along rivers and streams in the southern portion of the contiguous United States, usually in sandy soils, at 0–200 m.

7. *Eragrostis cylindriflora* Hochst. [p. 437, 533]

Eragrostis cylindriflora is native to Africa. It is not established in the *Manual* region, but has been collected from a disturbed site in Canton, Maryland.

8. *Eragrostis trichophora* Coss. & Durieu [p. 437]

Eragrostis trichophora is native to Africa, where it often grows in moist, disturbed or overgrazed sites. It has been collected from disturbed sites at Canton, Maryland.

9. *Eragrostis curvula* (Schrad.) Nees WEEPING
LOVEGRASS [p. 437, 533]

Eragrostis curvula is native to southern Africa. It is often used for reclamation because it provides good ground cover but, once introduced, it easily escapes. In the *Manual* region, it grows on rocky slopes, at the margins of woods, along roadsides, and in waste ground, at 20–2400 m, usually in pine-oak woodlands, and yellow pine and mixed hardwood forests.

10. *Eragrostis lehmanniana* Nees LEHMANN'S
LOVEGRASS [p. 437, 533]

Eragrostis lehmanniana is native to southern Africa, where it grows in sandy, savannah habitats. It was introduced for erosion control in the southern United States, where it often displaces native species. In the *Manual* region, it grows in sandy flats, along roadsides, on calcareous slopes, and in disturbed areas, at 200–1830 m. It is commonly found in association with *Larrea tridentata*, *Opuntia*, *Quercus*, *Juniperus*, and *Bouteloua gracilis*.

11. *Eragrostis setifolia* Nees NEVERFAIL LOVEGRASS [p. 437]

Eragrostis setifolia is an Australian species that was collected around the Santee Wool Combing Mill, Jamestown, Berkeley County, South Carolina, in 1958. It is not known to have spread from that location.

12. *Eragrostis mexicana* (Hornem.) Link MEXICAN
LOVEGRASS [p. 437, 533]

Eragrostis mexicana grows along roadsides, near cultivated fields, and in disturbed open areas, at 100–3000 m. It is native to the Americas, its native range extending from the southwestern United States through Mexico, Central and northern South America, to Argentina. Within the *Manual* region, it has been introduced beyond its native range, often becoming an established part of the flora.

1. Spikelets ovate to oblong in outline, 1.5–2.4 mm wide; lower glumes 1.2–2.3 mm long; sum of the spikelet width and lower glume length 2.7–4.7 mm; culms and sheaths sometimes with glandular depressions subsp. *mexicana*
1. Spikelets linear to linear-lanceolate, 0.7–1.4 wide; lower glumes 0.7–1.7 mm long; sum of the spikelet width and lower glume length 1.5–3.1 mm; culms and sheaths without glandular depressions subsp. *virescens*

Eragrostis mexicana (Hornem.) Link subsp. *mexicana*
[p. 437]

Eragrostis mexicana subsp. *mexicana* grows from Ontario through the midwestern United States to California, South Carolina, and Texas and southwards to Mexico.

Eragrostis mexicana subsp. *virescens* (J. Presl) S.D.
Koch & Sánchez Vega [p. 437]

Eragrostis mexicana subsp. *virescens* has a disjunct distribution, growing in California and western Nevada and, in South America, from Ecuador to Chile, southern Brazil, and northern Argentina. It has also been found, as an introduction, at various other locations in North America, including eastern North America.

13. *Eragrostis frankii* C.A. Mey. ex Steud. SANDBAR
LOVEGRASS, ÉRAGROSTIDE DE FRANK [p. 437, 533]

Eragrostis frankii is native in the central and eastern United States, but it has been found, as an introduction, in southern Ontario, and appears to be increasingly common in the northeastern United States. It grows in moist meadows, along streams and sand bars, in forest openings, and along roadsides, at 5–1500 m, usually in association with *Pinus*, *Quercus*, *Acer*, and *Fagus grandiflora*. *Eragrostis frankii*

differs from *E. capillaris* in its frequent possession of glandular pits, its flat or more shallowly grooved caryopses, shorter pedicels, and glabrous sheath margins, and in having panicles that are usually less than half as long as the culms.

14. *Eragrostis capillaris* (L.) Nees LACEGRASS [p. 437, 533]

Eragrostis capillaris is native to the eastern portion of the *Manual* region. It grows in open, dry, sandy riverbanks, floodplains, rocky roadsides, and gravel pits, at 150–1500 m, usually in association with *Pinus*, *Quercus*, *Carrya*, and *Liquidambar styraciflua*. Its range extends into northeastern Mexico. It differs from *E. frankii* in its lack of glandular pits, deeply grooved caryopses, longer pedicels, pilose sheath margins, and larger panicles. The two species are sympatric over much of the eastern United States.

15. *Eragrostis lutescens* Scribn. SIXWEEKS LOVEGRASS [p. 437, 533]

Eragrostis lutescens grows on the sandy banks of streams and lakes and in moist alkaline flats of the western United States at 300–2000 m. It has not been reported from Mexico.

16. *Eragrostis pilosa* (L.) P. Beauv. INDIA LOVEGRASS, ÉRAGROSTIDE POILUE [p. 437, 533]

Eragrostis pilosa is native to Eurasia but has become naturalized in many parts of the world. In the *Manual* region, it grows in forest margins and disturbed sites such as roadsides, railroad embankments, gardens, and cultivated fields, at 0–2500 m.

1. Plants with numerous glandular pits scattered over the whole plant, especially on the midribs of the sheaths and blades; lemmas 1.8–2 mm long var. *perplexa*
1. Plants with a few glandular pits scattered on the culms or without any glandular pits; lemmas 1.2–1.8 mm long var. *pilosa*

Eragrostis pilosa var. *perplexa* (L.H. Harv.) S.D. Koch [p. 437]

Eragrostis pilosa var. *perplexa* is known from widely scattered locations in Wyoming, North Dakota, Nebraska, Colorado, and northwestern Texas.

Eragrostis pilosa (L.) P. Beauv. var. *pilosa* [p. 437]

Eragrostis pilosa var. *pilosa* is more common than *E. pilosa* var. *perplexa* in the *Manual* region. Most of the records shown on the map are for this variety.

17. *Eragrostis pectinacea* (Michx.) Nees TUFTED LOVEGRASS, ÉRAGROSTIDE PECTINÉE [p. 438, 533]

Eragrostis pectinacea is native from southern Canada to Argentina. In the *Manual* region, it grows in disturbed sites such as roadsides, railroad embankments, gardens, and cultivated fields, at 0–1200 m.

1. Anthers 0.5–0.7 mm long var. *tracyi*
1. Anthers 0.2–0.4 mm long.
 2. Pedicels appressed, rarely diverging to 20° from the branches var. *pectinacea*
 2. Pedicels widely divergent, usually diverging 20–60° from the branches var. *miserrima*

Eragrostis pectinacea var. *miserrima* (E. Fourn.) Reeder [p. 438]

Eragrostis pectinacea var. *miserrima* grows in the southern United States, from Texas to Florida, and south through the lowland tropics to Brazil. It usually flowers from July–November in the *Manual* region.

Eragrostis pectinacea (Michx.) Nees var. *pectinacea* [p. 438]

Eragrostis pectinacea var. *pectinacea* grows throughout the range of the species, including most of the contiguous United States. Within the *Manual* region, it is most common in the eastern states and usually flowers from July–November.

Eragrostis pectinacea var. *tracyi* (Hitchc.) P.M. Peterson [p. 438]

Eragrostis pectinacea var. *tracyi* is known only from Lee, Manatee, and Sarasota counties, Florida. It flowers from March–May and August–December in the *Manual* region.

18. *Eragrostis cilianensis* (All.) Vignolo ex Janch. STINKGRASS, ÉRAGROSTIDE FÉTIDE [p. 438, 533]

Eragrostis cilianensis is an introduced European species that now grows in disturbed sites such as pastures and roadsides, at 0–2300 m, through most of the contiguous United States and southern Canada.

19. *Eragrostis barrelieri* Daveau MEDITERRANEAN LOVEGRASS [p. 438, 533]

Eragrostis barrelieri is a European species that is now naturalized in the *Manual* region, primarily in the southwestern United States. It grows on gravelly roadsides, in gardens, and other disturbed, sandy sites, especially near railroad yards, at 10–2000 m. The ring of glandular tissue is most conspicuous below the upper cauline nodes.

20. *Eragrostis minor* Host LITTLE LOVEGRASS, ÉRAGROSTIDE FAUX-PÂTURIN [p. 438, 533]

Eragrostis minor is a European species that now grows in gravelly roadsides and disturbed sites, especially near railroad yards, at 20–1600 m in southern Canada and the contiguous United States.

21. *Eragrostis uniolooides* (Retz.) Nees ex Steud. CHINESE LOVEGRASS [p. 438, 533]

Eragrostis uniolooides is an Asian species that is now established in the southeastern United States, growing along roadsides and in disturbed ground, at 20–150 m.

22. *Eragrostis tef* (Zucc.) Trotter TEFF [p. 438]

Eragrostis tef is native to northern Africa. In Ethiopia, it is used both as a grain and as fodder for cattle. It is also grown, but not commonly, for these purposes in the *Manual* region and is occasionally found as an escape from cultivation.

23. *Eragrostis gangetica* (Roxb.) Steud. SLIMFLOWER LOVEGRASS [p. 438, 533]

Eragrostis gangetica is an Asian species that now grows in the southeastern United States. It can be found in the sandy margins of ponds, roadsides, and ditches, at 0–100 m, usually in association with *Pinus*, *Taxodium distichum*, *Rynchospora*, and *Steinchisma hians*. It differs from *E. bahiensis* in its annual habit and shorter spikelets, lemmas, anthers, and caryopses.

24. *Eragrostis superba* Peyr. SAWTOOTH LOVEGRASS [p. 438, 533]

Eragrostis superba is native to Africa, where it is grown for hay, being fairly palatable and drought resistant. It is also used for erosion control and revegetation. In the *Manual* region, it grows on rocky slopes, in sandy flats, and along roadsides, at 480–1650 m, often with *Acacia*, *Prosopis*, *Fouquieria splendens*, *Juniperus*, and *Quercus*.

25. *Eragrostis echinochloidea* Stapf TICKGRASS [p. 438, 533]

Eragrostis echinochloidea is native to southern Africa. It is now established in Arizona, growing in gravel soils, often along roadsides

and in sidewalks, from 700–1000 m. It has also been found in Prince George's County, Maryland.

26. *Eragrostis obtusiflora* (E. Fourn.) Scribn. ALKALI LOVEGRASS [p. 438, 533]

Eragrostis obtusiflora is native to the southwestern United States and Mexico. It grows in dry or wet alkali flats, often in association with *Distichlis* and *Sarcobatus*, at 900–1400 m.

27. *Eragrostis spectabilis* (Pursh) Steud. PURPLE LOVEGRASS, ÉRAGROSTIDE BRILLANTE [p. 438, 533]

Eragrostis spectabilis is native in the eastern portion of the *Manual* region, extending from southern Canada through the United States, Mexico, and Central America to Belize. It grows in fields and on the margins of woods, along roadsides, and in other disturbed sites, usually in sandy to clay loam soils, at 0–1830 m, and is associated with hardwood forests, *Prosopis-Acacia* grasslands, and shortgrass prairies. A showy species, *E. spectabilis* is available commercially for planting as an ornamental.

28. *Eragrostis curtipedicellata* Buckley GUMMY LOVEGRASS [p. 438, 533]

The range of *Eragrostis curtipedicellata* extends from southern Colorado, Kansas, and Missouri to northeastern Mexico. It grows near fields, along roadsides, and in the margins of woods, at 10–1525 m.

29. *Eragrostis silveana* Swallen SILVEUS' LOVEGRASS [p. 439, 533]

Eragrostis silveana grows in various open habitats, from sandy prairies to clay loam flats, near roadsides, railroads, and fields at 0–100 m. Its range is limited to the coastal plain of Texas and northern Mexico. Morphologically, *E. silveana* is somewhat intermediate between *E. spectabilis* and *E. curtipedicellata*, and grows where the distribution of these two species overlaps.

30. *Eragrostis spicata* Vasey SPIKE LOVEGRASS [p. 439, 534]

Eragrostis spicata grows in moist areas in prairies, usually in deep, sandy, clay loam soils, at 0–70 m. It is native from southern Texas to Mexico and in Paraguay and Argentina. In North America, it grows with *Andropogon*, *Quercus stellata*, *Prosopis glandulosa*, and *Acacia*.

31. *Eragrostis plana* Nees [p. 439]

Eragrostis plana is native to southern Africa. It is known from two locations in the *Manual* region, both waste areas near sheep and cattle lots in Florence County, South Carolina.

32. *Eragrostis swallenii* Hitchc. SWALLEN'S LOVEGRASS [p. 439, 534]

Eragrostis swallenii grows in sandy sites along coastal grasslands and roadsides, often with *Andropogon* and *Spartina*, at 30–150 m. Its range extends around the Gulf Coast from Texas to Mexico.

33. *Eragrostis trichodes* (Nutt.) Alph. Wood SAND LOVEGRASS [p. 439, 534]

Eragrostis trichodes grows in sandy to gravelly prairies, open sandy woods, rocky slopes, and roadsides, at 100–2150 m, often in associations with *Quercus marilandica*, *Q. stellata*, *Juniperus*, and *Redfieldia flexuosa*. It is endemic to the contiguous United States, and is available commercially as an ornamental.

34. *Eragrostis palmeri* S. Watson RIO GRANDE LOVEGRASS [p. 439, 534]

Eragrostis palmeri grows on rocky slopes and hills between 300–2150 m, generally in association with *Pinus edulis*, *Juniperus monosperma*,

Bouteloua gracilis, and *Prosopis*. Its range extends from the southwestern United States into Mexico. It resembles *E. erosa*, but differs in its shorter lemmas and caryopses.

35. *Eragrostis polytricha* Nees HAIRYSHEATH LOVEGRASS [p. 439, 534]

Eragrostis polytricha grows in sandy and rocky areas, at 0–30 m, usually in open pinelands. It is native to Florida but its primary range lies to the south of the *Manual* region, from southern Mexico through Central America to Venezuela, Chile, and Argentina.

36. *Eragrostis lugens* Nees MOURNING LOVEGRASS [p. 439, 534]

Eragrostis lugens grows on sandy dunes and along river banks, at 1–300 m. Its range extends from the southern United States to Peru and Argentina.

37. *Eragrostis hirsuta* (Michx.) Nees BIGTOP LOVEGRASS [p. 439, 534]

Eragrostis hirsuta grows in sandy clay loams on the coastal plain and along roadsides, at 0–150 m, usually in association with *Pinus palustris* and *Quercus*. Its range extends from the southeastern United States through eastern Mexico to Guatemala and Belize.

38. *Eragrostis intermedia* Hitchc. PLAINS LOVEGRASS [p. 439, 534]

Eragrostis intermedia grows in clay, sandy, and rocky soils, often in disturbed sites, at 0–1850 m. Its range extends from the United States through Mexico and Central America to South America. *Eragrostis intermedia* differs from the more widespread *E. lugens* in having wider spikelets, longer lemmas, and caryopses with a prominent adaxial groove.

39. *Eragrostis erosa* Scribn. ex Beal CHIHUAHUA LOVEGRASS [p. 439, 534]

Eragrostis erosa grows on rocky slopes and hills, at 1200–2300 m, often in association with *Pinus edulis*, *Juniperus monosperma*, and *Bouteloua gracilis*. Its range extends from New Mexico and western Texas to northern Mexico.

40. *Eragrostis refracta* (Muhl.) Scribn. COASTAL LOVEGRASS [p. 439, 534]

Eragrostis refracta grows in sandy pinelands, savannahs, marshes, and woodlands on the coastal plain of the southeastern United States, at 0–150 m. It is not known from Mexico.

41. *Eragrostis elliottii* S. Watson ELLIOTT'S LOVEGRASS [p. 440, 534]

Eragrostis elliottii grows in sandy pinelands and live-oak woodlands on the coastal plain, at 0–150 m. Its range extends from the southeastern United States through the West Indies and Gulf coast of Mexico to Central and South America.

42. *Eragrostis secundiflora* J. Presl RED LOVEGRASS [p. 440, 534]

There are two subspecies of *E. secundiflora*; plants from the *Manual* region belong to *E. secundiflora* subsp. *oxylepis* (Torrey) S.D. Koch. They grow in sandy soils, dunes, grasslands, beaches, and roadsides of the southern United States and northern Mexico, at 0–1000 m. *Eragrostis secundiflora* J. Presl subsp. *secundiflora* grows in Mexico and Central and South America.

43. *Eragrostis prolifera* (Sw.) Steud. DOMINICAN LOVEGRASS [p. 440, 534]

Eragrostis prolifera grows on beaches, in brackish water, and along roadsides, at elevations below 5 m in Florida. Its range extends

southward from Florida through Mexico and Central America to Colombia.

44. *Eragrostis elongata* (Willd.) Jacq. LONG LOVEGRASS [p. 440]

Eragrostis elongata is native to southeastern Asia and Australia, where it grows in disturbed, sandy soils at 0–50 m. It was collected once near Washington, D.C., probably as an escape from the U.S. Department of Agriculture's experimental grass garden; it has not become established in the *Manual* region.

45. *Eragrostis bahiensis* (Schrad.) Schult. BAHIA LOVEGRASS [p. 440, 534]

Eragrostis bahiensis grows in sandy soils near river banks, lake shores, and roadsides, at 0–200 m. Its range extends south from the Gulf Coast of the United States through Mexico to Peru, Bolivia, Paraguay, and Argentina.

46. *Eragrostis scaligera* Salzm. ex Steud. [p. 440, 534]

Eragrostis scaligera is known from Lee and Collier counties, Florida, where it grows in sandy areas in the coastal scrub zone and along adjacent roadsides, at 0–10 m. It is native to French Guiana and Brazil.

47. *Eragrostis sessilispica* Buckley TUMBLE LOVEGRASS [p. 440, 534]

Eragrostis sessilispica grows in prairies, limestone mesas, partial forest openings, and grasslands, generally in sandy soils, at 0–1220

m, often in association with *Prosopis* and *Quercus*. Its range extends into northern Mexico.

48. *Eragrostis airoides* Nees [p. 440, 534]

Eragrostis airoides is a South American species that, in the *Manual* region, is known from roadsides and disturbed sites in Brazos County, Texas, and Lamar County, Alabama. It is often treated as *Sporobolus brasiliensis* (Raddi) Hack., but its frequent possession of spikelets with more than 1 floret and its mode of spikelet disarticulation argue for its retention in *Eragrostis*.

49. *Eragrostis atrovirens* (Desf.) Trin. ex Steud. THALIA LOVEGRASS [p. 440, 534]

Eragrostis atrovirens is native to northern Africa, but it is now established in southeastern United States, where it grows along railways and roads, on beaches and in ditches, often in wet sandy soils and in association with *Pinus*, *Taxodium*, and *Sabal*.

EXCLUDED SPECIES

The following species have been reported from the *Manual* region, but no specimens supporting their presence, other than in experimental plots, have been found: *Eragrostis acutiflora* (Kunth) Nees, *Eragrostis leptostachya* (R. Br.) Steud., and *Eragrostis suaveolens* Becker ex Claus.

16.24 CLADORAPHIS Franch.¹

Pl per; synoecious; rhz, occ also stln. Clm 2–80 cm, hard, persistent, brchd above the base. Lig memb, ciliate, cilia as long as or longer than the bas membrane; bld linear-lanceolate, becoming rolled, hard, and sharp-pointed. Infl tml, exceeding the up lvs, pan of racemosely arranged spikelike pri br; pri br wd, not disarticulating, apc hard, sharp; sec br shorter than 1

cm, otherwise similar to the pri br, smt clustered. Spklt 7–16 mm, lat compressed, with 3–16(20) flt; flt bisx; dis above the glm and beneath the flt. Glm more or less equal, markedly exceeded by the flt; lm 3-veined, unawned; lod 2; anth 3. Car glab.

Cladoraphis is a southern African genus of two species, both of which grow in open, xeric, sandy habitats.

1. *Cladoraphis cyperoides* (Thunb.) S.M. Phillips BRISTLY LOVEGRASS [p. 440]

Cladoraphis cyperoides was once collected on a ballast dump at Linnton (near Portland, Oregon). It is not known to have persisted in North America.

16.25 POGONARTHRIA Stapf²

Pl ann or per; csp. Clm 13–100(250) cm, not wd. Shth open; lig of hairs or memb and ciliate; bld flat or loosely involute. Infl tml, pan of numerous spikelike br on elongate rchs. Spklt in 2 rows on 1 side of the flat or trigonous br axes, with 2–8 flt, additional rdcd flt smt present distal to the fnctl flt; rchl intnd tipped with a few short hairs; dis initially above the glm and between the flt or the lm falling and the pal persistent, subsequently

at the bases of the pan br. Glm unequal, shorter than the spklt, keeled, acute to acuminate, unawned; lm 3-veined, keeled, memb, acute, acuminate, or shortly awned; pal shorter than the lm. Car ellipsoid to fusiform.

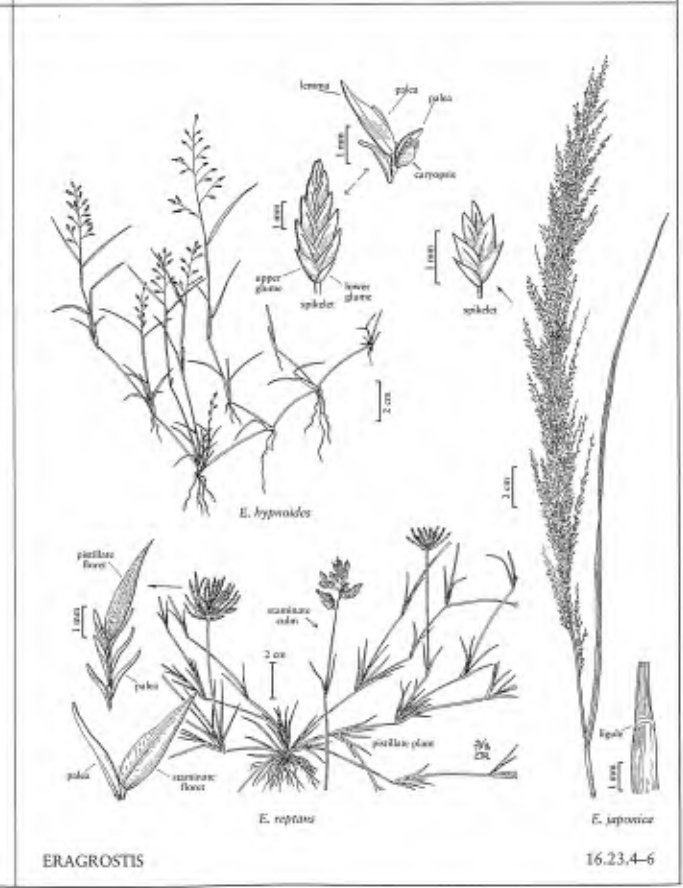
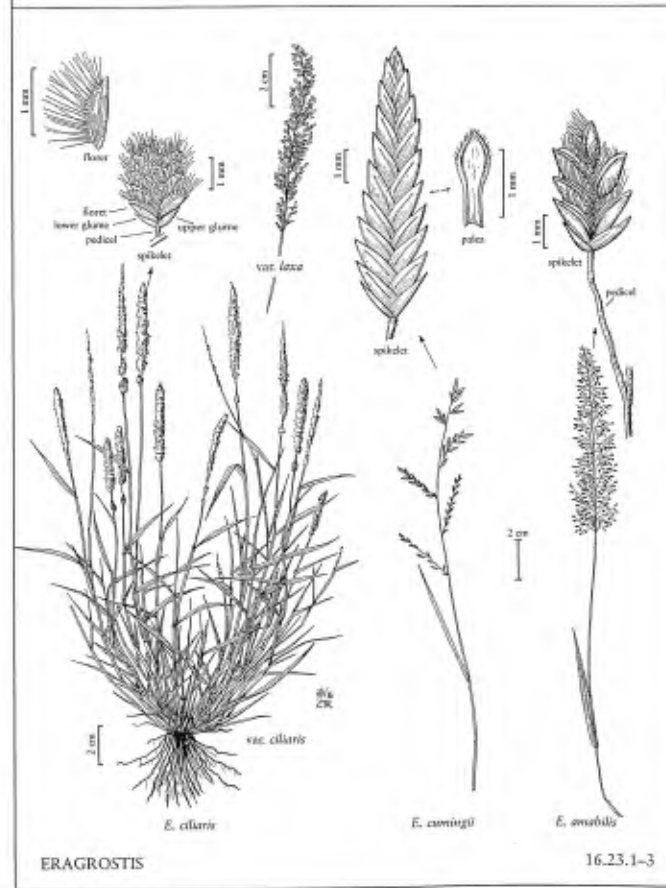
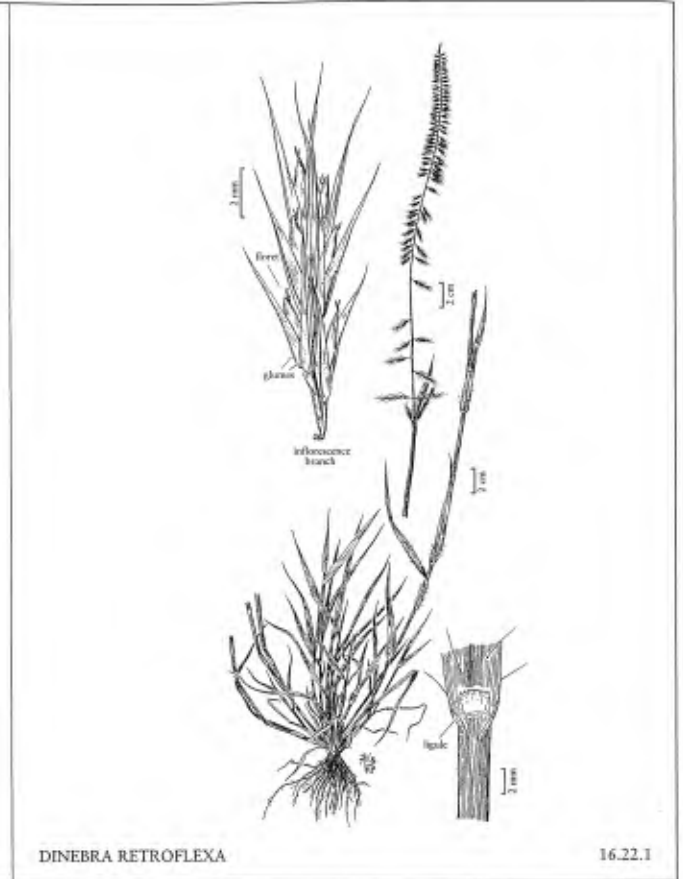
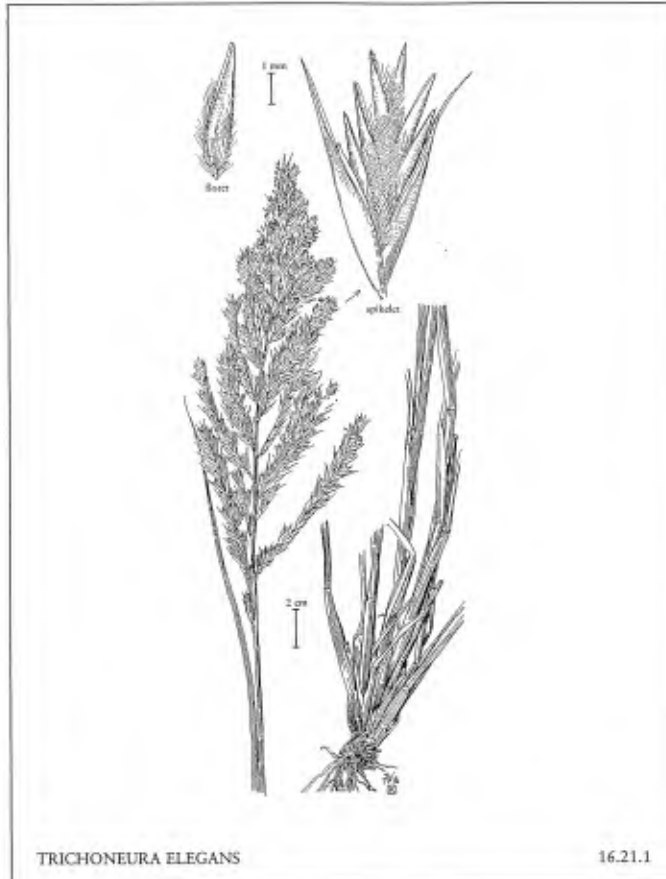
Pogonarthria includes four species, all of which are native to tropical and southern Africa. One species has become established in Arizona.

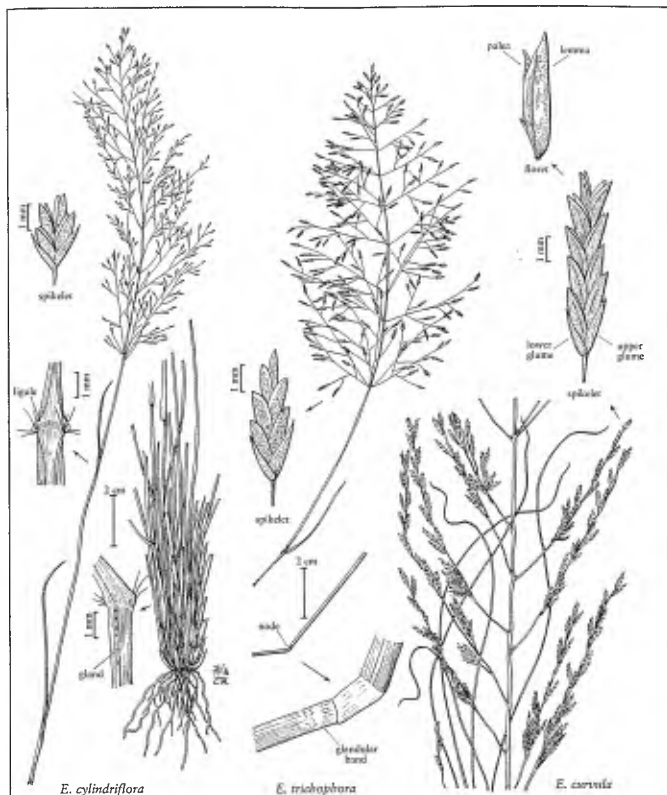
1. *Pogonarthria squarrosa* (Licht.) Pilg. HERRINGBONE GRASS, SEKELGRAS [p. 441, 534]

Pogonarthria squarrosa is native to eastern and southern Africa. In the *Manual* region, *P. squarrosa* grows spontaneously only in a small area in the foothills of the Huachuca Mountains, Cochise County, Arizona, at an elevation of about 1450 m, where it seems to be competing well with native grasses and *Eragrostis lehmanniana*,

another African introduction. The plants tend to grow in rather dense colonies of a few square meters, scattered through the area. It turns reddish-brown as it matures, causing it to stand out among its associates.

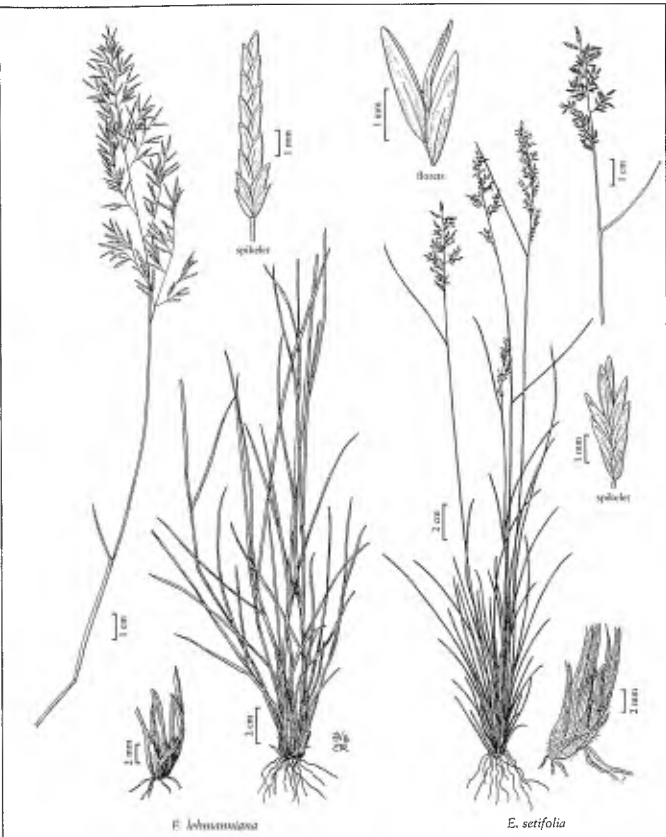
¹Mary E. Barkworth ²John R. Reeder





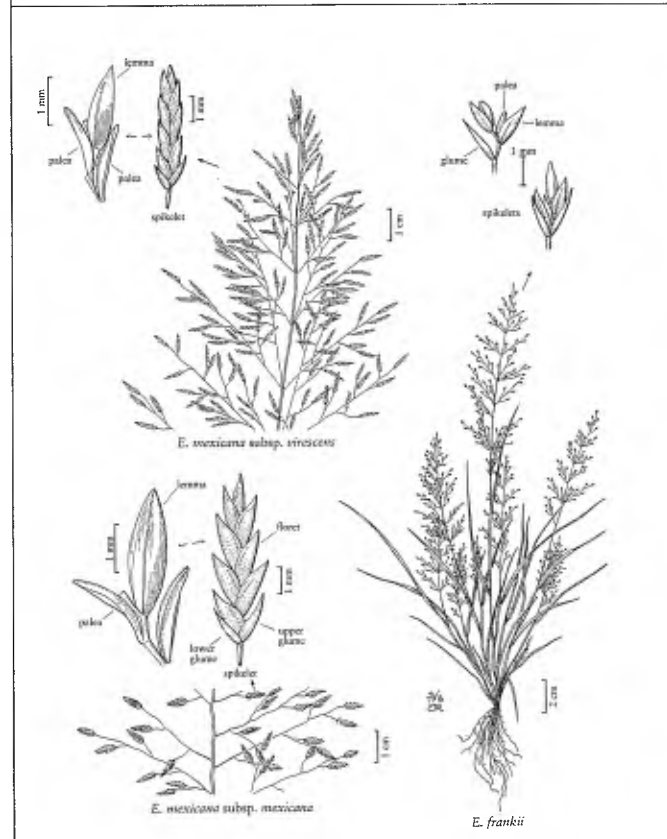
E. cylindriflora *E. trichophora* *E. carvula*

ERAGROSTIS 16.23.7-9



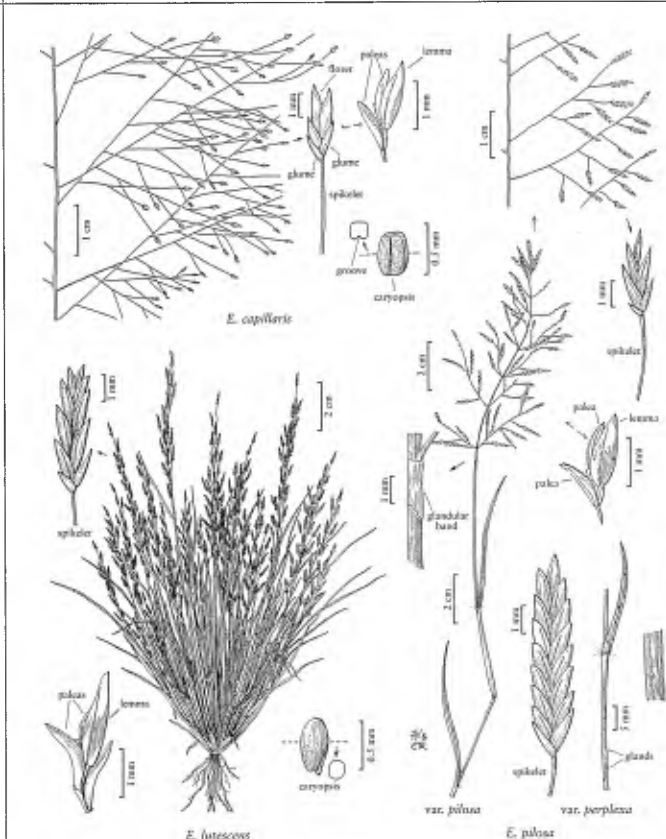
E. lehmanniana *E. setifolia*

ERAGROSTIS 16.23.10-11



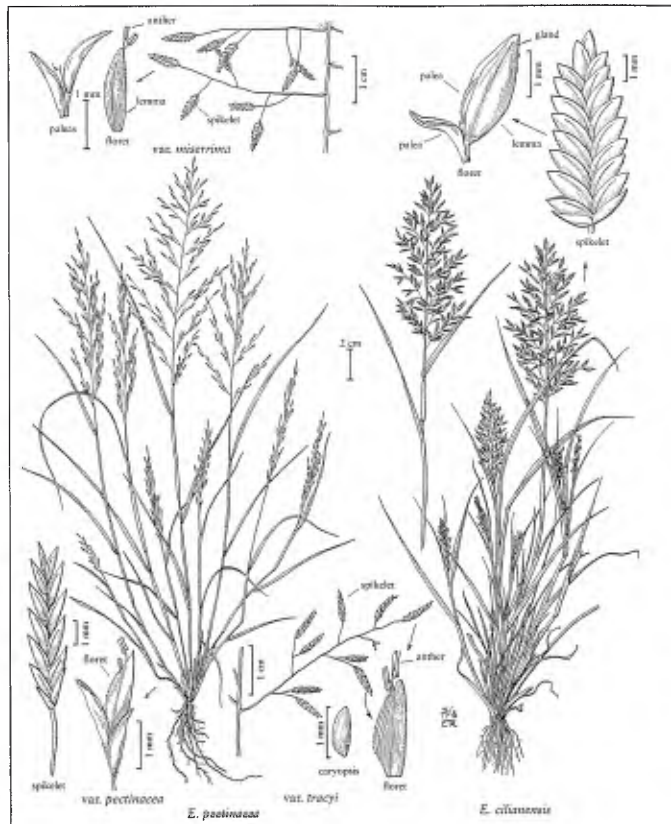
E. mexicana subsp. stricosa *E. mexicana subsp. mexicana* *E. frankii*

ERAGROSTIS 16.23.12-13



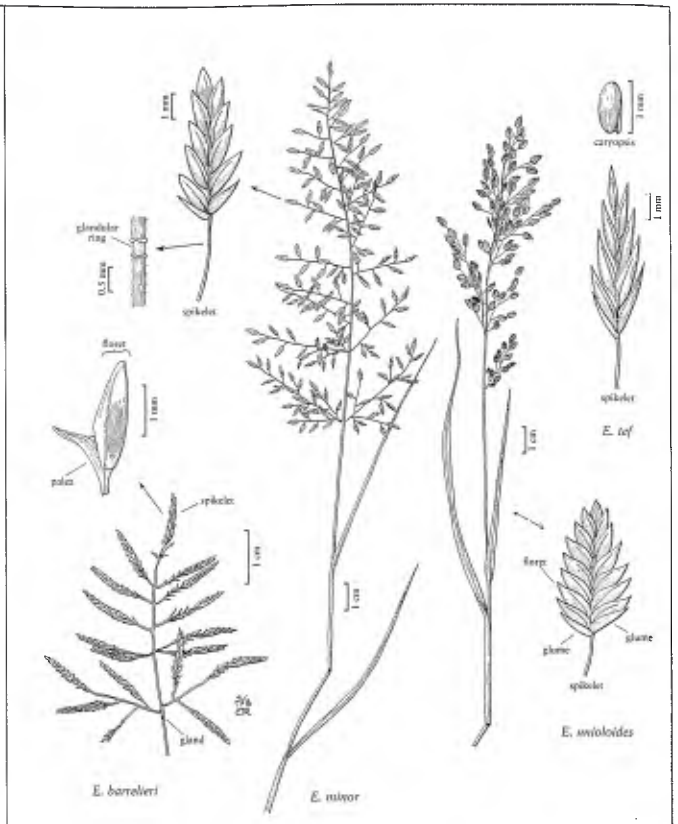
E. capillaris *E. lutescens* var. *pilosa* *E. pilosa* var. *perplexa*

ERAGROSTIS 16.23.14-16



ERAGROSTIS

16.23.17-18



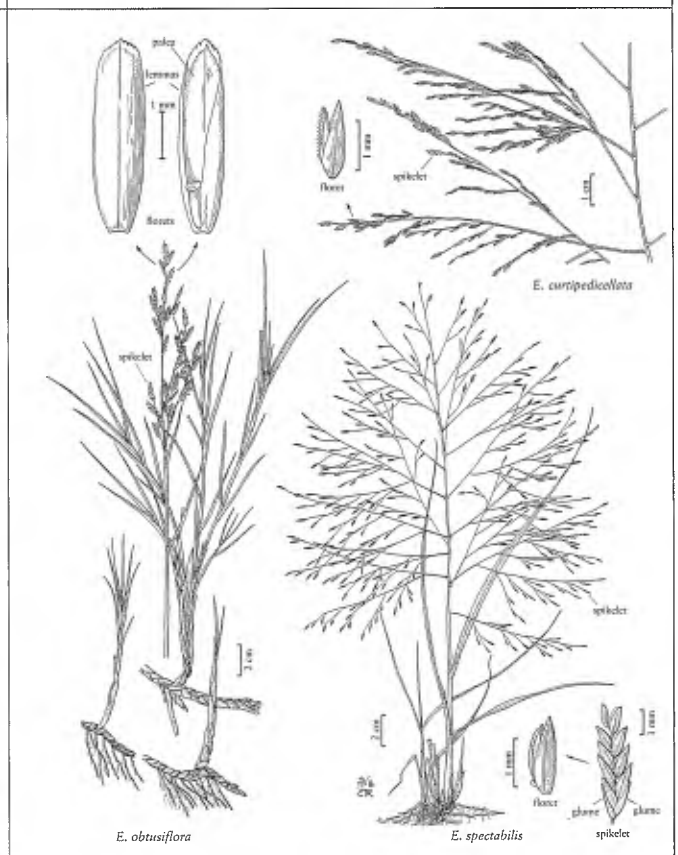
ERAGROSTIS

16.23.19-22



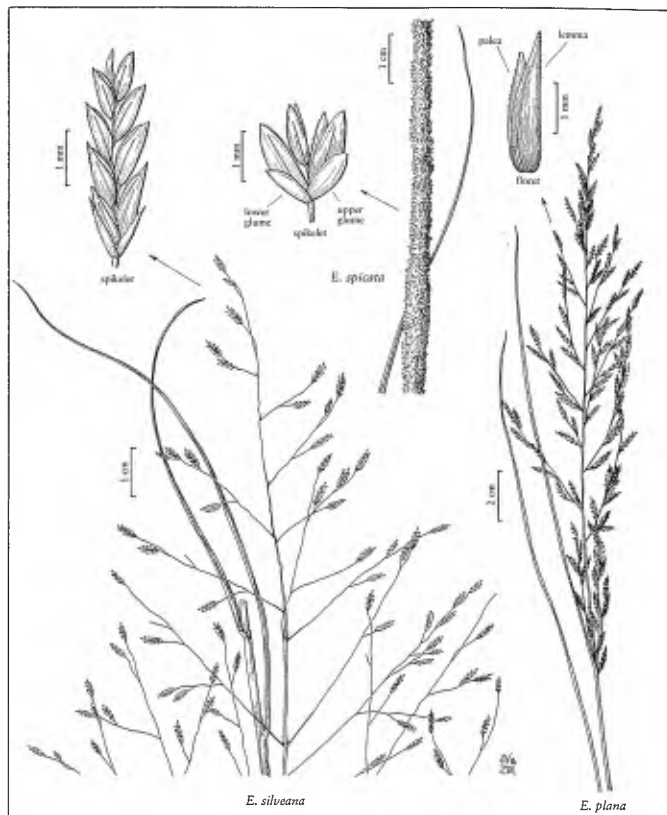
ERAGROSTIS

16.23.23-25



ERAGROSTIS

16.23.26-28

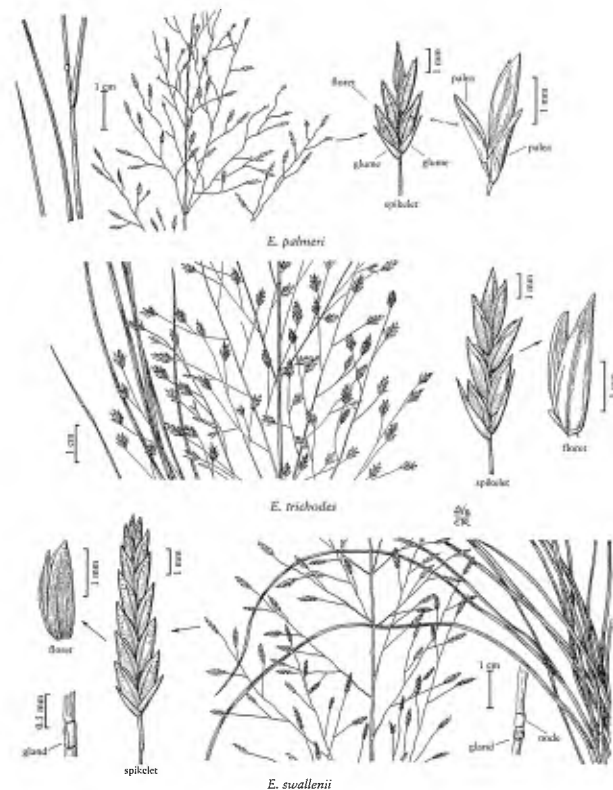


E. silveana

E. plana

ERAGROSTIS

16.23.29-31



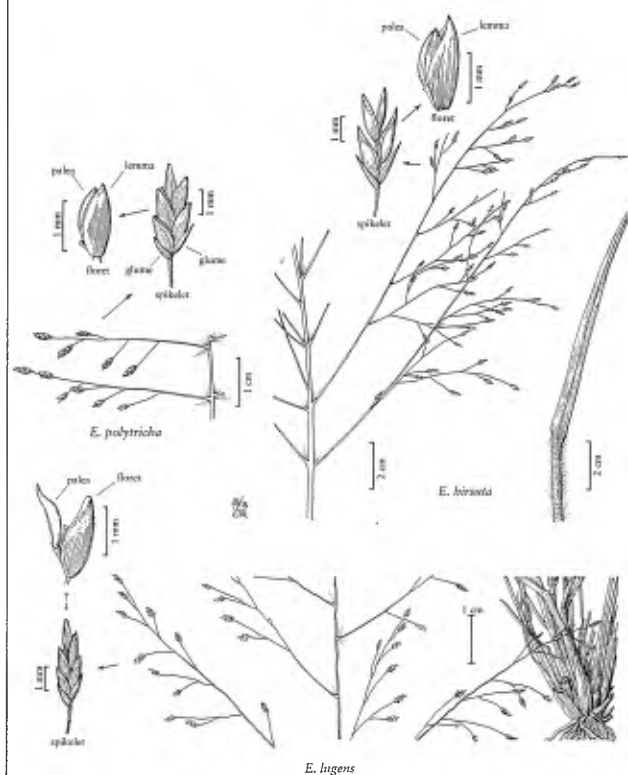
E. puberula

E. trichodes

E. swallenii

ERAGROSTIS

16.23.32-34



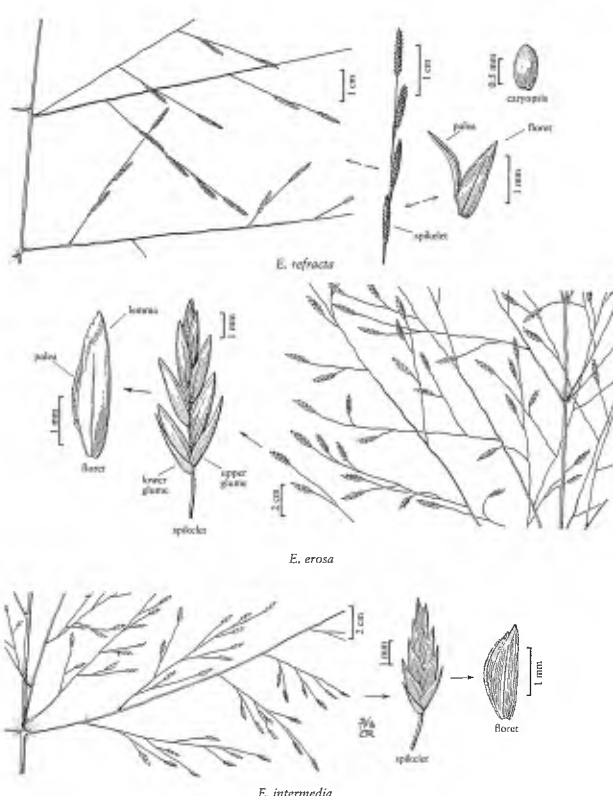
E. polytricha

E. horrida

E. lugens

ERAGROSTIS

16.23.35-37



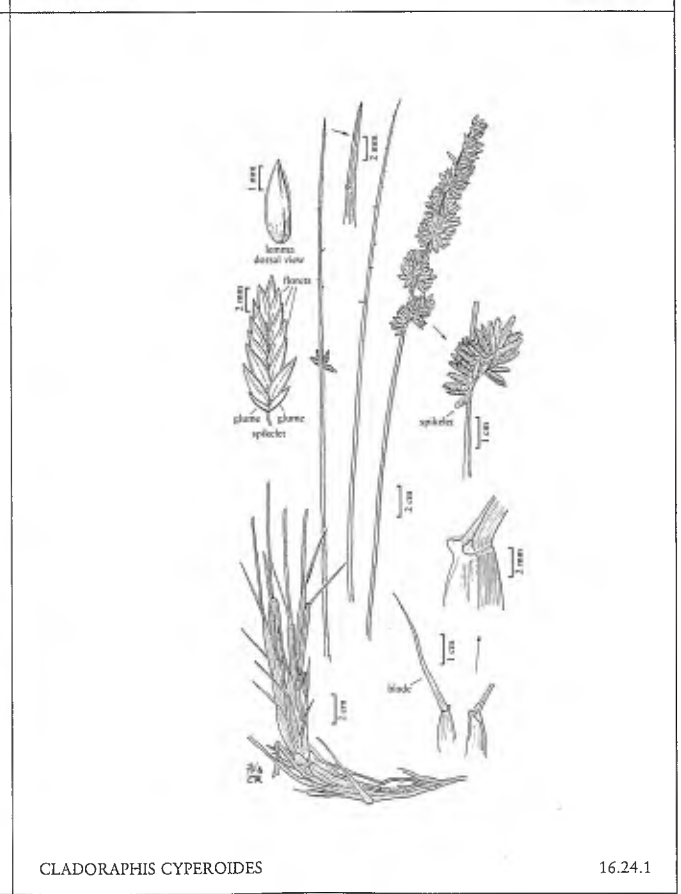
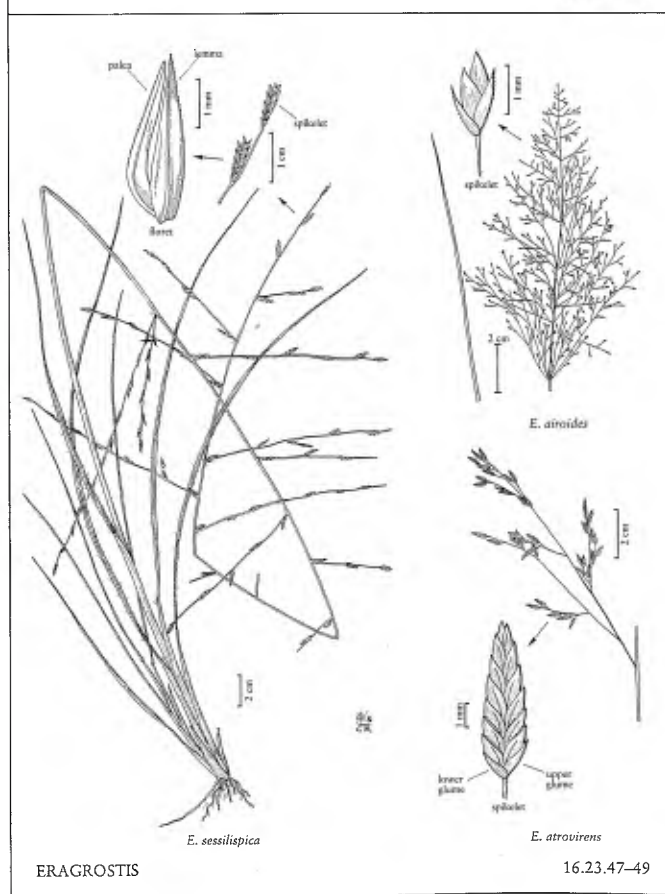
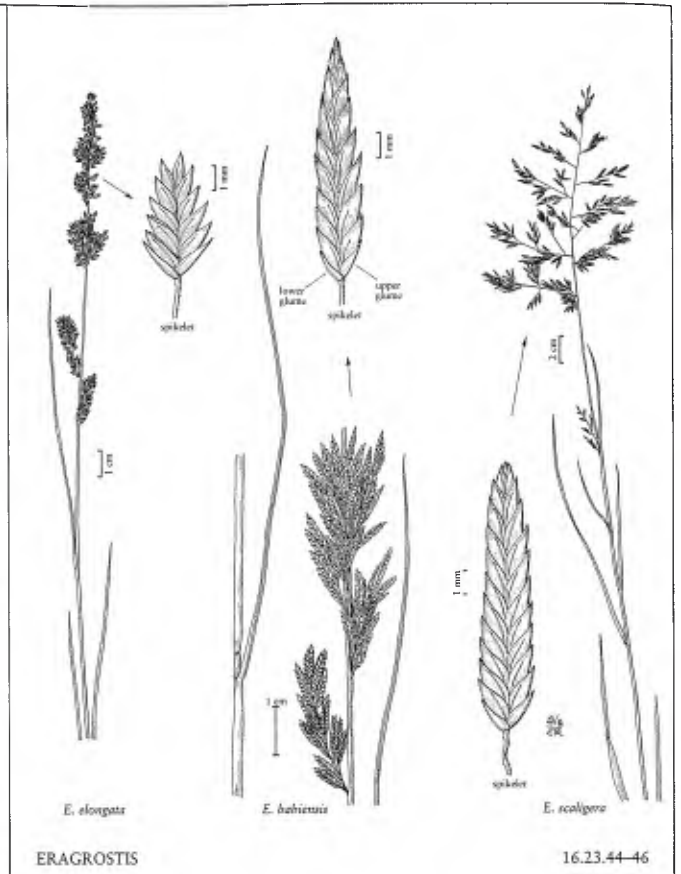
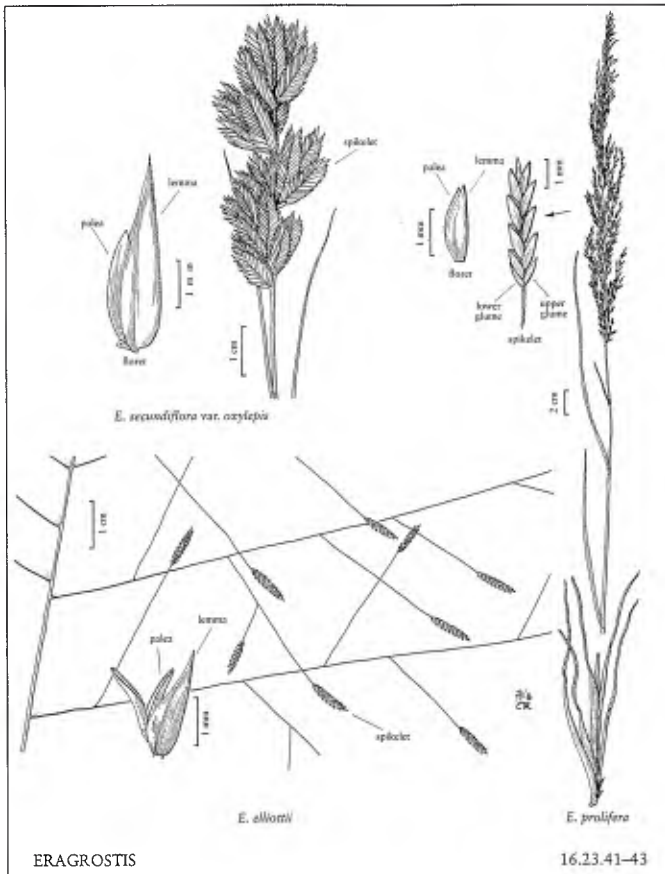
E. refracta

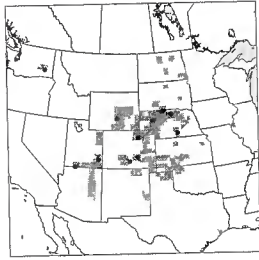
E. erosa

E. intermedia

ERAGROSTIS

16.23.38-40





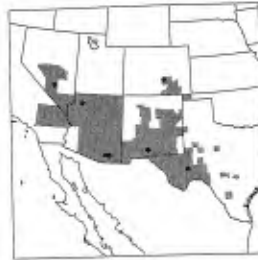
Redfieldia flexuosa
16.11.1



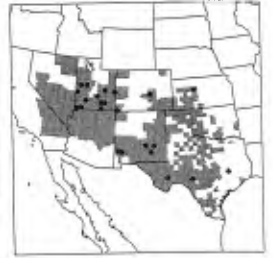
Triplasis americana
16.12.1



Triplasis purpurea
16.12.2



Scleropogon brevifolius
16.13.1



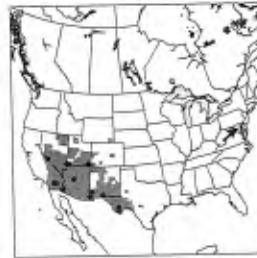
Erioneuron pilosum
16.14.1



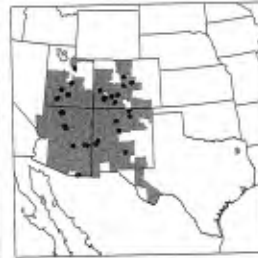
Erioneuron avenaceum
16.14.2



Erioneuron nealleyi
16.14.3



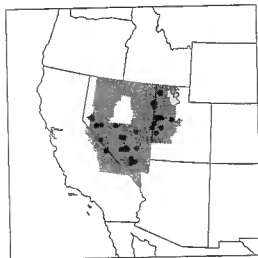
Dasyochloa pulchella
16.15.1



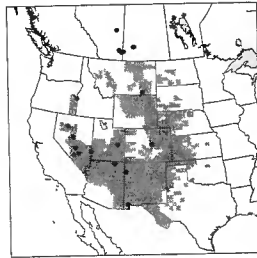
Blepharoneuron tricholepis
16.16.1



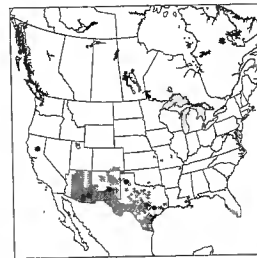
Blepharidachne bigelovii
16.17.1



Blepharidachne kingii
16.17.2



Munroa squarrosa
16.18.1



Leptochloa dubia
16.19.1



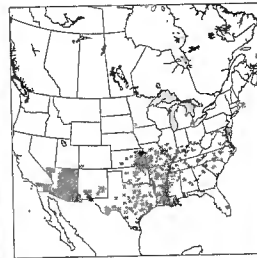
Leptochloa chloridiformis
16.19.2



Leptochloa virgata
16.19.3



Leptochloa fusca
16.19.4



Leptochloa panicea
16.19.5



Leptochloa nealleyi
16.19.6



Leptochloa scabra
16.19.7



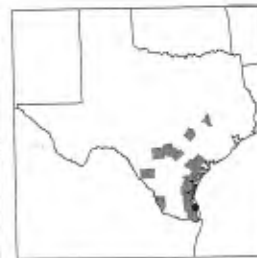
Leptochloa viscida
16.19.9



Leptochloa panicoides
16.19.10



Tripogon spicatus
16.20.1



Trichoneura elegans
16.21.1



Dinebra retroflexa
16.22.1



Eragrostis ciliaris
16.23.1



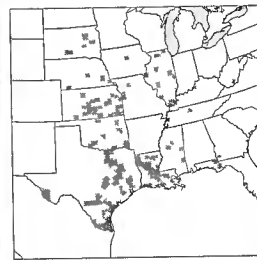
Eragrostis cumingii
16.23.2



Eragrostis amabilis
16.23.3



Eragrostis hypnoides
16.23.4



Eragrostis reptans
16.23.5



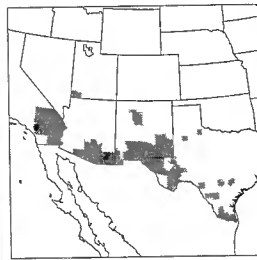
Eragrostis japonica
16.23.6



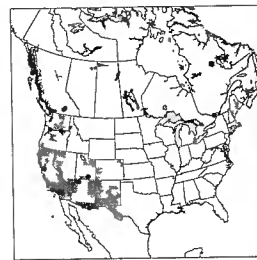
Eragrostis cylindriflora
16.23.7



Eragrostis curvula
16.23.9



Eragrostis lehmanniana
16.23.10



Eragrostis mexicana
16.23.12



Eragrostis frankii
16.23.13



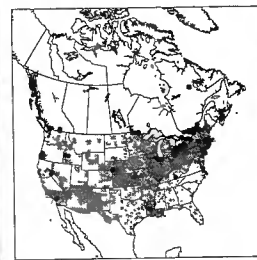
Eragrostis capillaris
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Eragrostis lutescens
16.23.15



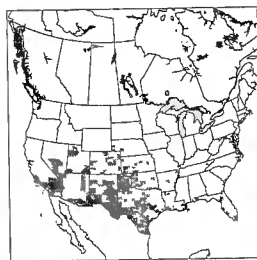
Eragrostis pilosa
16.23.16



Eragrostis pectinacea
16.23.17



Eragrostis cilianensis
16.23.18



Eragrostis barrelieri
16.23.19



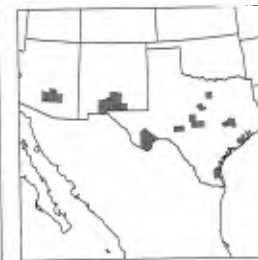
Eragrostis minor
16.23.20



Eragrostis uniolooides
16.23.21



Eragrostis gangetica
16.23.23



Eragrostis superba
16.23.24



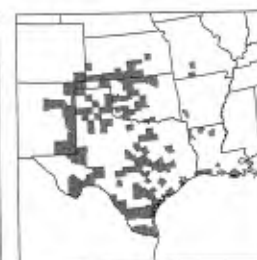
Eragrostis echinochloidea
16.23.25



Eragrostis obtusiflora
16.23.26



Eragrostis spectabilis
16.23.27



Eragrostis curtipedicellata
16.23.28



Eragrostis silveana
16.23.29



Eragrostis spicata
16.23.30



Eragrostis swallenii
16.23.32



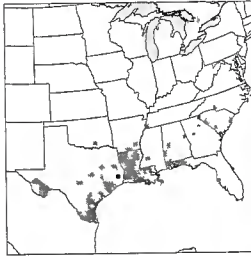
Eragrostis trichodes
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Eragrostis palmeri
16.23.34



Eragrostis polytricha
16.23.35



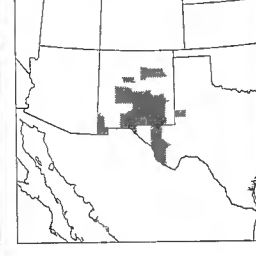
Eragrostis lugens
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Eragrostis hirsuta
16.23.37



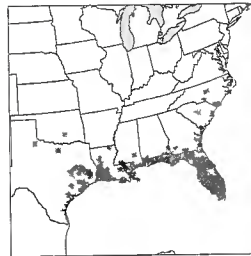
Eragrostis intermedia
16.23.38



Eragrostis erosa
16.23.39



Eragrostis refracta
16.23.40



Eragrostis elliottii
16.23.41



Eragrostis secundiflora
16.23.42



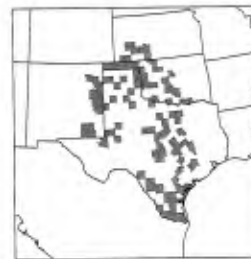
Eragrostis prolifera
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Eragrostis bahiensis
16.23.45



Eragrostis scaligera
16.23.46



Eragrostis sessilispica
16.23.47



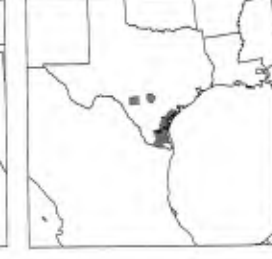
Eragrostis airoides
16.23.48



Eragrostis atrovirens
16.23.49



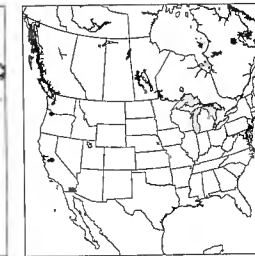
Pogonarthria squarrosa
16.25.1



Vaseyochloa multinervosa
16.26.1



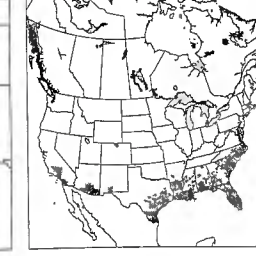
Eleusine indica
16.27.1



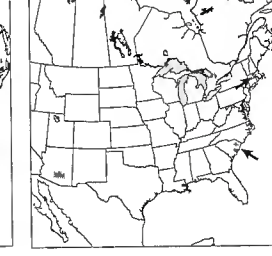
Eleusine tristachya
16.27.3



Acrachne racemosa
16.28.1



Dactyloctenium aegyptium
16.29.1



Dactyloctenium radulans
16.29.2

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