

TAXONOMIC KEY TO THE GENERA OF GRASSES (GRAMINEAE) FOUND AT CRATERS OF THE MOON NATIONAL MONUMENT

Agropyron	Wheatgrass
Agrostis	Bentgrass
Bromus	Brome-grass
Calamagrotis	Reedgrass
Dactylis	Orchard Grass
Deschampsia	Hairgrass
Elymus	Wild rye; Rye Grass
Festuca	Fescue
Glyceria	Mannagrass
Hordeum	Barley; Foxtail Barley; Foxtail
Koeleria	Junegrass
Leucopoa	Spikegrass
Melica	Melic grass; Oniongrass
Oryzopsis	Ricegrass
Phalaris	Canary Grass
Poa	Bluegrass
Sitanion	Squirreltail
Stipa	Needlegrass
X Agrositanion	
X Striporyzopsis	

- 1 - spikelets shed as a unit, glumes not persistent
- 2 - spikelets sessile or subsessile in a terminal spike, borne alternately on opposite sides of rachis
- 3 - spikelets, on average, 2-3 per node
- 4 - spikelets all alike, usually 2 per node
- 4 - spikelets dissimilar, usually 3 per node
- 3 - spikelets usually 1 per node
- 2 - spikelets pedicellate in open to greatly congested panicles or sessile and spiced, but only on one side of the rachis, spikes more than one
- 1 - spikelets disarticulate above the glumes, glumes are persistent
- 5 - sheaths closed at the base least 1/4 of the length, leaf tips folded or prow-like
- 6 - leaves folded in the bud, tips usually prow-like, lemmas sometimes awned
- 6 - leaves rolled in the bud, tips not prow-like, lemma sometimes awned
- 7 - lemmas unawned, prominently nerved, nerves not converging at the tip of the lemma
- 7 - lemmas either awned or obscurely convergent-nerved (or both)
- 8 - culms bulbous-based
- 8 - culms not bulbous-based
- 9 - upper 2-4 florets sterile and represented by empty lemmas that enfold one another, auricles lacking, sheaths often closed their full length, plants perennial
- 9 - upper 1 or 2 florets sometimes sterile but the lemmas not enfolding one another, a palea present in each, auricles sometimes present, sheaths never closed their full length, plants sometimes annual
- 10 - lemmas keeled on back, never bifid at tip, often with coveby callus, never awned
- 10 - lemmas rounded on the back, often bifid at the tip, not coveby on the callus, often awned
- 5 - sheaths closed less than 1/4 the length, leaf tips flat
- 11 - spikelets sessile or subsessile in spikes, either turned to one side of the rachis or in two rows on opposite sides of it, spikes either single and terminal (if so the leaves often with auricles), or more than one and racemose or digitately arranged
- 12 - spikelets averaging 2 - 3 per node
- 13 - fertile flowers mostly at least 2 per spikelet, spikelets usually 2 per node, all alike
- 14 - spikelets two at almost all nodes, glumes 1 - 5 nerved, narrow, entire to cleft, spikelets 2 - 6 flowered
- 14 - spikelets one at many nodes, glumes 3 - 9 nerved, usually more or less lanceolate, spikelets 3 - 12 flowered
- 13 - fertile flowers mostly only one per spikelet, spikelets usually 3 per node, the middle one sessile and perfect-flowered, the lateral pair pedicellate and usually sterile
- 12 - spikelets averaging 1 per node
- 11 - spikelets pedicellate (although often very shortly so) in open to contracted

SITANION

HORDEUM

AGROPYRON

PHALARIS

POA

GLYCERIA

MELICA

MELICA

POA

BROMUS

panic, the panicle (when contracted and pseudospicate) obviously bearing the spikelets all the way around the axis

15 - spikelets 1-flowered

16 - lemma hardened, much firmer than the glumes, usually terete to obcompressed, awned, callus sometimes hard and sharp

17 - awn deciduous, bent but mostly not twisted, lemma plump,

rarely more than 5 times as long as thick, callus rarely at

all sharp

17 - awn persistent, usually twisted as well as bent, lemma mostly

at least 6 times as long as thick, callus often hard and sharp

STIPA

16 - lemma membranous, usually no firmer than the glumes, more or

less compressed, often unawned, callus not hard and sharp

18 - callus with bearding 1/4 as long to as long as the lemma,

lemma awnless or awned from midlength or below, rachilla

prolonged behind the palea as a bristle, palea well developed,

usually subequal to the lemma

CALAMAGROSTIS

18 - callus not bearded or with bearding mostly less than 1/4th as

long as the lemma or rarely the bearding longer but then the

lemma unawned or awned form above the midlength, rachilla

rarely prolonged

15 - spikelets 2 to many flowered

19 - spikelets 2 or 3 flowered, the uppermost flower perfect and with

both a lemma and a palea, the lower flowers either staminate or

sterile, sometimes reduces to small, more or less bristle-like

remnants 9 (one of which might readily be mistaken for a prolonged

rachilla)

19 - spikelets 1 to many-flowered, the reduced flowers (if any) either

above, or both above and below the perfect ones

20 - glumes (one or both) longer than the first lemma, lemmas

usually awned, the awn arising from the back of the lemma or

sometimes from the sinus of a bifid apex, but never from a

pointed tip

21 - spikelets never more than 2 flowered nor more than 1

cm long, one or both lemmas awned

22 - lemmas erose-truncate, awned from (and

rounded on) the back, rachilla prolonged

DESCHAMPSIA

22 - lemmas acute, but not erose at the tip,

always awned from mid-length or below

CALAMAGROSTIS

21 - spikelets mostly more than 2 flowered or more than 1

cm. long, lemmas sometimes unawned

23 - lemmas erose-truncate at the tip, awned from

the back

DESCHAMPSIA

23 - lemmas acute or bifid at the tip, lemmas

FESTUCA

30 - lemmas not bifid, the awn (if any) terminal, ligules often higher on the sides than at the back

KOeleria

30 - lemmas more or less deeply bifid at the tips, the awn (if any) arising from the sinus between the teeth and therefore never truly terminal, ligules rarely higher on the sides than at the back

27 - auricles lacking

ELYMUS

29 - spikelets semi-spiced, at least some of them sessile

FESTUCA

28 - plant perennial, all pedicellate

29 - spikelets paniculate, all pedicellate

ELYMUS

28 - plant annual

27 - auricles well developed on at least some of the leaves

24 - leaf blades rolled in their young state, leaf tips pointed, not prow-like

KOeleria

26 - lemmas often awn-tipped, leaf tips not prow-like, sheaths pubescent, plants never rhizomatous

POA

26 - lemmas unwaxed, leaf tips usually prow-like, mostly the sheaths glabrous or the plants rhizomatous

25 - sheaths usually terete or only slightly flattened, if keeled the leaf tips prow-like, the panicle open to diffuse, or the lemmas not awn-tipped

DACTYLIS

25 - sheaths compressed-keeled, spikelets borne in 1-sided clusters on long, stiff, ascending panicle branches, plant perennial, the leaf tips not prow-like, lemmas awn-tipped

24 - leaf blades folded in their immature state, leaves often turned up at the tip and hooded or more or less like the prow of a canoe

20 - glumes (both) shorter than the first lemma, lemmas usually awnless but sometimes awned from the pointed tip or from near the tip

KOeleria

unawned or with a short straight awn