

9. *Chusquea subtessellata*. See *Swallenochloa subtessellata*.
10. *Chusquea tessellata*. See *Swallenochloa tessellata*.
11. *Chusquea venezuelae*. See *Arthrostyloidium venezuelae*.
12. *Chusquea weberbaueri*. See *Swallenochloa weberbaueri*.

Invalid Species of *Chusquea*

1. *Chusquea caamani* Sodiro (1881:11). Nomen nudum.

Colantheia McClure and E. W. Smith, new genus

FIGURE 32

Plantae unicespitosae, inermes. Rhizomata pachymorpha. Culmi habitu staturaque late diversi, aut parum alti et erecti vel "decumbentes" (teste Hackellii sub *Arundinaria rhizantha*) aut "altissimi scandentes" (teste Trinii sub *Arundinaria distans*), nodis valde elevatis et anguste cristatis, nodo medio unoquoque juventute gemmam solitariam gerenti, prophylo gemmae et gemma ipsa in germinatione simul elongatis. Ramorum complementum ad nodos culmorum medianos axem ordinis primarii solitarium continens, idem basi vulgo mox proliferatum, ramis ordinis superioris axem primarium plus minusve valde superantibus. Vaginae internodia culmorum foventes basi cingulis latis post delapsam vaginarum persistentibus praeditae. Foliolorum laminae venulae transversae extra vulga haud manifestae.

Inflorescentiae semelauctantes, in speciebus plerisque vel infirme paniculatae vel racemosae, formis intermediis variis in ipsa planta interdum praesentibus; prophylla omnino haud ulla, bracteis dempta infima vel parvis vel obsoletis.

Glumae transitionales vulgo 2, rarissime vel 1 vel 3. Spiculae raro pauciflorae (ut in *Colantheia lanciflora*) pleraeque pluriflorae, angustissimae et fragilissimae, apice in anthecio sterili plus minusve valde depauperato terminantes. Lemma fertile in maturitate paleam suam basi tantum circumplectans. Palea dorso 2-carinata et late sulcata, marginibus vix vel haud imbricatis. Rachillae segmenta ob fragilitas articulorum (nodorum) suorum in maturitate facilissime disarticulantia. Lodiculae

typice 3, duae anticae plus minusve asymmetricae atque geminatae, postica symmetrica et vulgo minore. Stamina 3, filamentis filiformibus liberisque. Stigmata 2. Fructus non adhuc suppetens.

Plants unicespitate, unarmed. Rhizomes pachymorph. Culms of small to medium stature and erect or decumbent, to very tall and scandent, the nodes prominent with a narrow crest, each midculm node giving rise to but a single initial bud; the prophyllum of the bud growing while the bud germinates, the primordium producing a single (segmented, terete) primary axis, this dominant over the axes of secondary order usually proliferating promptly from buds typically present at its own proximal nodes. Sheath at midculm nodes provided with (and abscising from) a conspicuous persistent girdle (basal expansion zone). Leaf blades with transverse veinlets as a rule not manifest externally.

Inflorescences semelauctant, either paniculate or racemose (sometimes showing in the same specimen forms intermediate or intermixed between these two forms), part or all of the inflorescences (or even whole flowering branches) in a given specimen sometimes reduced individually to barely more than a solitary spikelet. Transitional glumes typically 2, rarely 1 or 3. Spikelets usually pedicellate, typically many-flowered (few-flowered in *Colantheia lanciflora*), very narrow and fragile, terminating apically in a more or less strongly depauperate sterile anthecium. Fertile lemma fully embracing its palea only basally at maturity. Palea 2-keeled and broadly sulcate dorsally, gaping ventrally. Rachilla segments (owing to their fragility at the nodes) easily disarticulating at maturity. Lodicules typically 3, the anterior 2 more or less asymmetrical and paired, the posterior one symmetrical and usually smaller. Stamens 3, the filaments filiform and free. Stigmas 2. Fruit not yet available.

ETYMOLOGY.—The name *Colantheia* (f.) is coined from the Greek *kolos*, shortened, and *anthele*, "plume or panicle of a reed" (R. W. Brown, 1954). It alludes to a tendency common to all of the currently recognized species of the genus. There is a noticeably to strongly manifested tendency toward a progressive reduction of the reproductive structures from weak panicles to simple racemes and, in some cases, even from whole flowering branches all the way to little more than solitary spikelets.

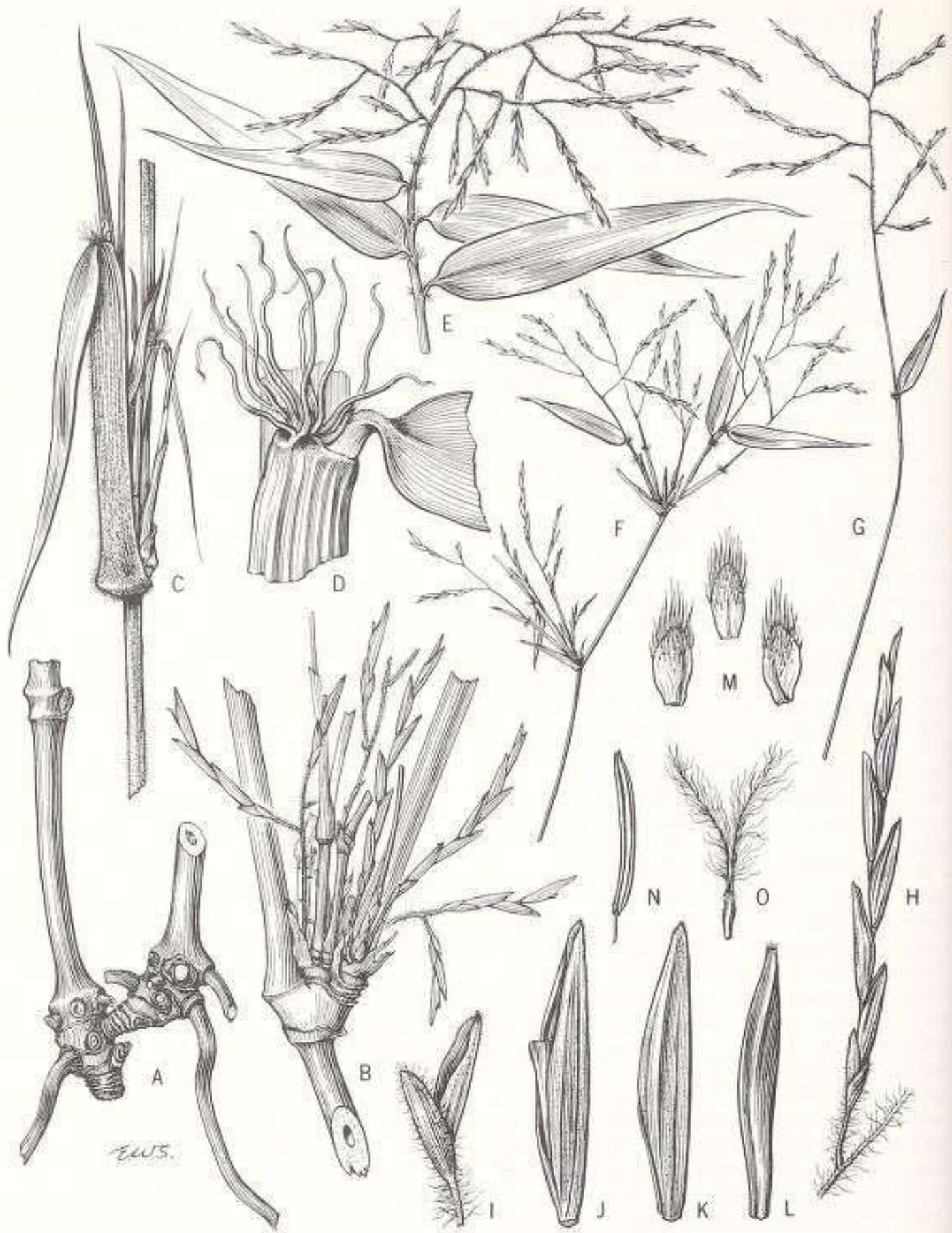


FIGURE 32.—*Colanthesia cingulata* (McClure and L. B. Smith) McClure. A, Rhizome and culm bases, $\times 0.6$; B, branch complement from midculm range, in flowering state, $\times 1.2$; C, culm sheath from above midculm range, with developing branch complement, $\times 0.9$; D, apex of leaf sheath and base of leaf blade, $\times 7.2$; E, paniculate inflorescence terminating a leafy flowering branch, $\times 0.6$; F, progressively depauperate leafy and leafless flowering branches, $\times 0.6$; G, flowering branch terminating in an inflorescence with mixed paniculate and racemose branching, $\times 0.6$; H, spikelet with its pulvinate pedicel, $\times 2.4$; I, transitional glumes, $\times 6$; J, floret, $\times 6$; K, lemma, $\times 6$; L, palea, $\times 6$; M, lodicule complement, $\times 12$; N, stamen, $\times 6$; O, gynoecium, $\times 12$. Drawings A-E, G-O based on Reitz and Klein 9679 (US), and F on Dusén 18011 (US).

TYPE-SPECIES.—*Colanthesia cingulata* (McClure and L. B. Smith) McClure.

RELATIONSHIPS.—Affinity toward *Aulonemia* is weakly suggested by the nature of the midculm branch complement; this possible affinity is reinforced by the occurrence of paniculate inflorescences in some species. Among available examples, a specimen of *Aulonemia haenkei* (US 1256334) from Peru shows an occasional flowering branch reduced to little more than a solitary spikelet. The feature to which the name *Colanthesia* alludes also comes to light here and there in members of other genera. Among bamboos of the Old World genera a few similarly reduced flowering branches sometimes appear in specimens of *Chimonobambusa marmorea*. Other attributes (e.g., racemose inflorescences) suggest affinity toward *Arthrostylidium*. Such divergent attributes are connected by intermediate expressions to form clines, both from one species to another and (in some cases) within the same specimen. In the available material representing the genus *Colanthesia*, the morphological gamut of the reproductive apparatus reaches from leafy to leafless branches, each terminating in either a panicle, a raceme, a combination between those two forms, or a single spikelet. Pertinence to the genus *Colanthesia* (among the known bamboo genera of the New World) is made plain in its known members (even in their vegetative state) by the overall delicacy of the plant, with distinctively small leaf blades, combined with pachymorph rhizomes, prominent narrow-crested midculm nodes, a wide girdle at the base of the sheath at each node, and the unarmed complements with the primary element clearly dominant. With the exception of *Colanthesia lanciflora*, all known mem-

bers of the genus have more or less distinctively long and narrow spikelets with more or less clearly exposed slender, elongate segments.

DISTRIBUTION.—As far as their natural distribution is a matter of record, all of the known species of *Colanthesia* are confined to Brazil. Three species have been reported from Santa Catarina, and one each from Minas Gerais, Paraná, Rio Grande do Sul, and São Paulo. The recorded altitudinal range extends from 30 m for *Colanthesia cingulata*, to 550 m for *C. intermedia*, to 710 m for *C. gracillima*, and to 1600 m for *C. lanciflora*.

Annotated Checklist of Recognized Species of the Genus *Colanthesia*

1. *Colanthesia burchellii* (Munro) McClure, new combination.

Arthrostylidium burchellii Munro, 1868:43.

Arundinaria burchellii (Munro) Hackel, 1903a:69.

2. *Colanthesia cingulata* (McClure and L. B. Smith) McClure, new combination (Figure 32).

Aulonemia cingulata McClure and L. B. Smith, in Reitz, ed., 1967:50.

3. *Colanthesia distans* (Trinius) McClure, new combination.

Arundinaria distans Trinius, 1835:621.

Trinius (1836, III:622) states, incorrectly, that a terminal rudiment is lacking in *Arundinaria distans* Trinius, q.v.

4. *Colanthesia intermedia* (McClure and L. B. Smith) McClure, new combination.

Aulonemia intermedia McClure and L. B. Smith, in Reitz, ed., 1967:52.

5. *Colanthesia lanciflora* (McClure and L. B. Smith) McClure, new combination.

Aulonemia lanciflora McClure and L. B. Smith, in Reitz, ed., 1967:47.

6. *Colanthesia macrostachya* (Nees) McClure, new combination. *Arundinaria macrostachya* Nees, 1834:481.

Arundinaria macrostachya Nees, 1834:481.

7. *Colanthesia rhizantha* (Hackel) McClure, new combination. *Arundinaria rhizantha* Hackel, 1909a:323.

Elytostachys McClure

FIGURES 33-35

Elytostachys McClure, 1942:173, figs. 4-6; 1957:202.

Plants unicespitate; unarmed. Rhizomes pachymorph. Culms self-supporting below, typically weak