

中国西北部的嵩草新类群

杨永昌

(中国科学院西北高原生物研究所)

NEW TAXA OF GENUS *KOBRESIA* WILLD. FROM NORTH-WESTERN CHINA

Yang Yongchang

(Northwest Plateau Institute of Biology, Academia Sinica)

莎草科嵩草属是我国西北和西南山区高寒地带广泛分布的一个属。它有较强的营养价值,而且耐践踏,适于生长在青藏高原各类生态环境中;群众认为,它是一种较好的优良牧草。为了开发利用本属植物资源,作者对本属所掌握的资料进行了整理,在整理中,发现了一些新植物,现发表于后。

岷山嵩草 图1

Kobresia minshanica Wang et Tang ex Y. C. Yang sp. nov. (Fig. 1)

Differt a *K. royleana* Boeck. rhachilla reducta 1, spiculis partialibus 2-9-floriferis, illis infimis ramiferis.

Herba perennis, (15)20-75 cm. alta. Culmi dense caespitosi. Folia linearia 15-20 cm. longa, 1.5-2(3) mm. lata plana, Culmis manifeste breviora. Inflorescentia terminalis oblonga, elliptica vel ovato-oblonga, atrobrunnea 1.2-2.2 cm. longa, e spiculis multis spicam compositam formans. Spiculae circ. 10, oblongae vel anguste ellipticae, 6-9 mm. longae, androgynae, eis infimis iateralis ramiferis, ex eis ramulosis sursum ad apices sensim simplicibus; hae inferiores 7-9 florum, quibus ♀ 3-4, ♂ 4-5 praeditae; hae summae 1-vel 2-florae, quibus ♀ 1 et ♂ 1 vel tantum 1 ♀ praeditae. Squamae ♀ ovatae vel oblongo-ovatae, 3.5-4 mm. longae. Prophyllum ovato-oblongum vel obovato-oblongum, 3-4 mm. longum, involutum basi connatum, in dorso 2-costae scabrae excurrens. Rhachilla reducta 1. Nux oblonga vel lanceolata-oblonga circ. 3 mm. longa, triangularis rostrata; stigmata 3.

Gansu; Minxian, (岷县) J. Q. Wang 228 (Typus! in Herb. Universitas Normalis Kansuensis) VIII. 10. 1978.

多年生草本,高(15)20-75厘米。秆密集丛生。叶线形,长15-20厘米,扁平,宽1.5-2(3)毫米,比秆短。花序顶生,长圆形、椭圆形或卵状长圆形,暗褐色,长1.2-2.2厘米

米，由多数小穗形成复穗状花序。小穗大约 10 枚，长圆形或狭椭圆形，长 6—9 毫米，雄雌顺序；2 枚最下部的侧生小穗有分枝；从分枝小穗向上到顶端逐渐减小，它的下部具花 7—9 朵，有 3—4 朵雌花，4—5 朵雄花，它的最上部有花 1 或 2 朵，雌花 1 朵和雄花 1 朵，或仅 1 朵雌花。雌花鳞片卵形或长圆状卵形，长 3.5—4 毫米。先出叶卵状长圆形或倒卵状长圆形，长 3—4 毫米，内卷，在基部结合，背部有粗糙的 2 脊；退化小穗轴 1 枚。小坚果长圆形或长圆状披针形，长约 3 毫米，具 3 稜，有咀；柱头 3。

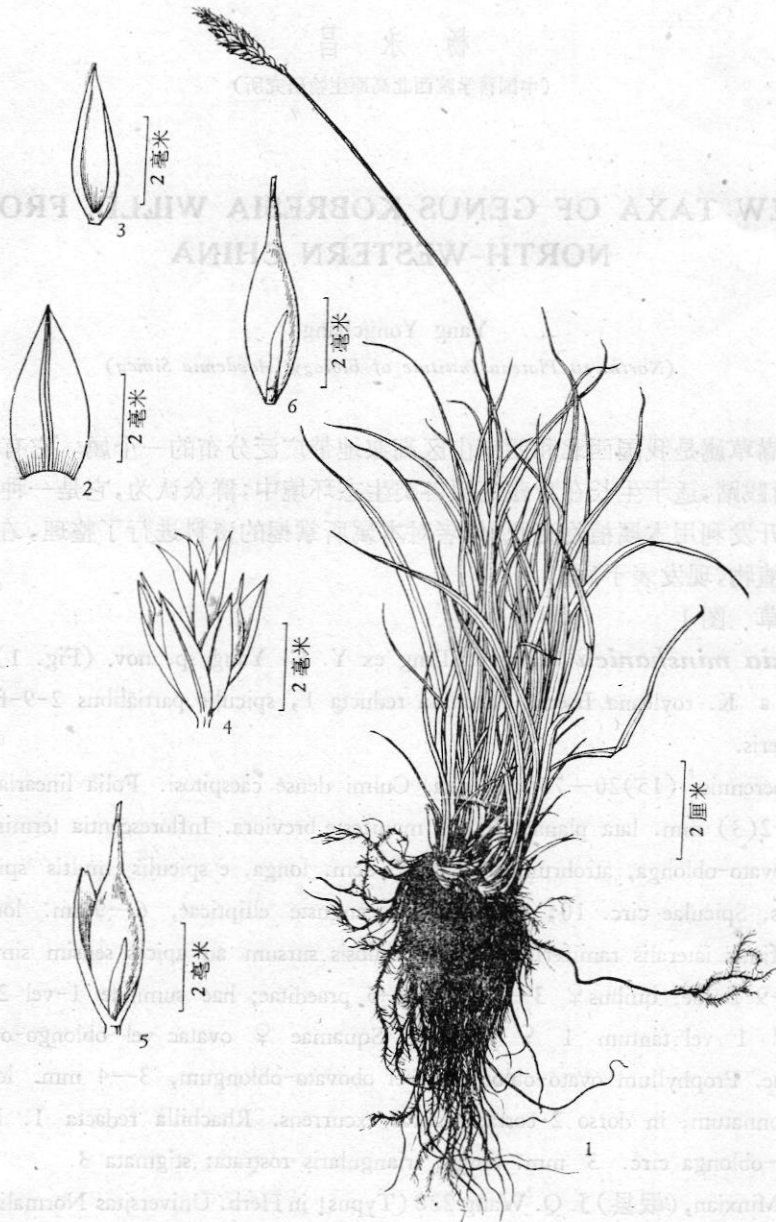


图 1 (Fig. 1) 岷山嵩草 (*Kobresia minshanica* Wang et Tang ex Y. C. Yang):
 1. 植株 (Habitus); 2. 鳞片 (Squama); 3. 先出叶 (Prophyllum); 4. 小穗 (Spicula);
 5. 先出叶、退化小穗轴 (Prophyllum cum rachilla reducta); 6. 小坚果、退化小穗轴
 (Nux cum rachilla reducta). (王颖绘)

不同于喜马拉雅嵩草 (*K. royleana* Boeck.), 由于退化小穗轴 1 枚; 侧生小穗具 2—9 朵花, 它的最下部有分枝。

甘肃, 岷县闰井, 王镜泉(模式标本! 存甘肃师范大学), 1978.8.10; 同地, 王镜泉 670; 同地, 甘肃草原队 124; 玛曲县黑水滩, 甘南草原队 246; 夏河桑梓, 王庆瑞等 7,231; 四川甘孜, 四川生物所植被调查队 28,477。

本种根据它的多数小穗组成的复穗状花序, 基部的 2—3 枚侧生小穗有分枝, 其上的侧生小穗不分枝、有含花较多的特性, 我们认为属于嵩草组(根据科坎多 (Georg Kükenthall) 的观点), 而它的位置像欧洲嵩草 (*K. simpliciuscula* (Wahlb.) Mack.) 一样, 都处于从嵩草组过渡到西伯利亚组 (*Elyna*) 类型。但本种花序的简化现象更近于嵩草组的花序类型。原因在于不分枝的侧生小穗所含的 7—9 朵花中, 在基部 3—4 朵雌花的先出叶内, 一般含有一很短的退化小穗轴, 其上着生一枚褐色的膜质不孕鳞片。这枚褐色的不孕鳞片, 显然可直接反映是由一朵花退化而来; 其退化小穗轴自然也可以说是由侧生枝小穗退化而来。也就是说, 它本来可能是一个含有多数侧生小穗和多数侧生枝小穗所组成的复穗状花序, 由于大多数的侧生枝小穗退化, 出现岷山嵩草的花序, 而欧洲嵩草的花序则无此明显现象。所以它应介于喜马拉雅嵩草和欧洲嵩草之间。

门源嵩草 图 2

Kobresia menyuanica Y. C. Yang sp. nov. (Fig. 2)

Haec species *K. cercostachyae* Kük. et *K. fragili* C. B. Clarke affinis, sed a prima inflorescentia panicula, spiculis inferioribus laxis, superioribus densis, bractea 1 aristata; a secunda bractea squamiformi aristata, prophylo involuto basi breviter connato differt.

Herba perennis, 45—60 cm. alta, Rhizoma breviter ferens. Culmi numerosi dense caespitosi, graciles sed rigidiusculi, erecti, obtuse triangulares, circ. 1 mm. diam. tantum sub inflorescentia scaberuli, basi vaginis veteris atrobrunneis vel fuscis 4—5 cm. longis obsiti. Folia linearia culmis breviora, plana, 1—1.5 mm. lata, marginibus nervisque scabra, apice longe acuminata. Inflorescentia terminalis, composito-spicata, inferne laxa, superne densa; bractea squamiformis aristata. Spiculae laterales inferiores ramiferae, superiores nullae, plerumque 6—8-florae, e basi sursum sensim minores. Squamae ♀ ovato-oblongae circ. 4 mm. longae, brunneae membranaceae. Prophyllum oblongum circ. 3.5 mm. longum, involutum, basi breviter connatum, in dorso costas 2 scabras excurrentes. Rhacheola redacta 1, brevissima. Nux oblonga circ. 2 mm. longa, triangularis fusca, rostro 1 mm. longo, stigmatis 2—3.

Qinghai: Menyuan (门源), X. M. Zhou 273 (Typus in Institutum Biologicum Plantarum Excelsae Boreali-Occidentalis Academiae Sinicae), IX. 6. 1980.

多年生草本, 高 45—60 厘米, 具短的根状茎。秆多数, 密丛生, 细而稍坚硬, 直立, 钝三棱形, 直径约 1 毫米, 仅在花序下稍粗糙, 基部有老的叶鞘; 叶鞘抱秆, 暗褐色或栗色, 长 4—5 厘米。叶线形, 比秆短, 扁平, 宽 1—1.5 毫米, 边缘和脉上粗糙, 顶端长渐尖。花序顶生, 复穗状, 下部稀疏, 上部紧密; 苞片鳞片形, 具芒。下部的侧生小穗具分枝, 上部无, 一般具 6—8 朵花, 渐向上渐少。雌花鳞片卵状长圆形, 长约 4 毫米, 褐色, 膜质。先出叶长圆形, 长约 3.5 毫米, 两边内卷, 在基部稍愈合, 背部有粗糙两脊; 退化小穗轴 1 枚, 极短。小坚果长圆形, 长约 2 毫米, 三棱形, 褐色, 喙长 1 毫米, 有 2—3 个柱头。

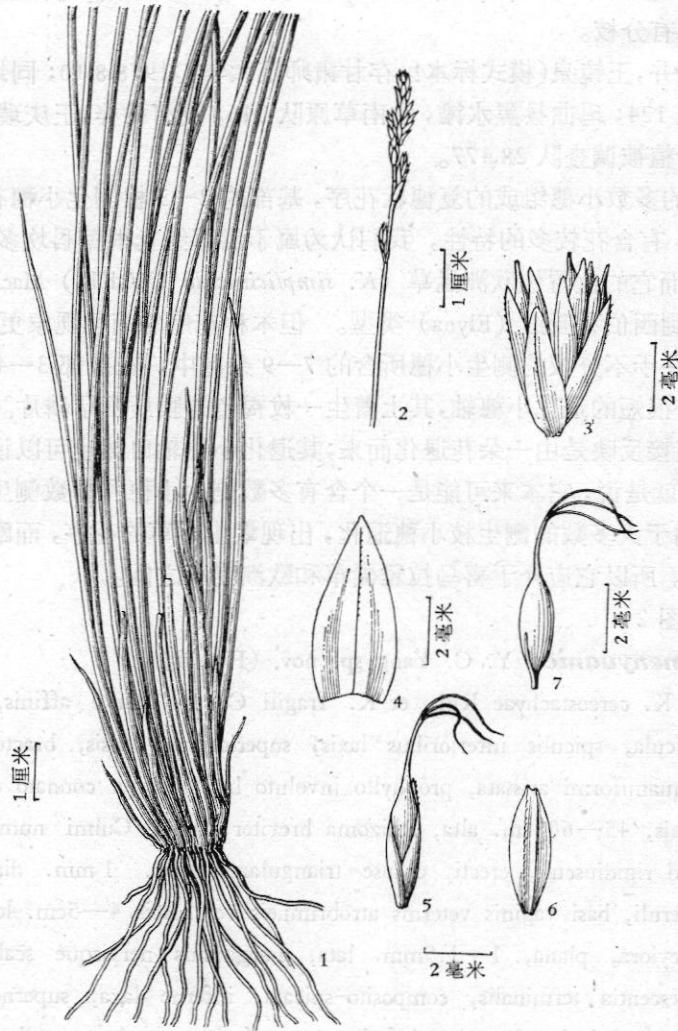


图2 (Fig. 2) 门源嵩草 (*Kobresia menyuanica* Y. C. Yang): 1. 植株 (下部) (Planta (pars inferior)); 2. 花序 (Inflorescentia); 3. 小穗 (Spicula); 4. 鳞片 (Squama); 5. 先出叶和小坚果 (Prophyllum cum nux); 6. 先出叶 (背面) (Prophyllum (dorsalis)); 7. 小坚果和退化小穗轴 (Nux cum rachilla reducta). (宁汝莲绘)

本种接近川滇嵩草和囊状嵩草, 前者的花序圆锥状, 下部小穗疏生, 上部紧密, 苞片1枚, 鳞片形, 具芒; 而后者, 苞片鳞片形, 先出叶的2边内卷, 在基部稍结合不同。

青海门源: 周兴民, 273 (模式标本, 存中国科学院西北高原生物研究所), 1980.9.6.

玛曲嵩草 图3

Kobresia maquensis Y. C. Yang sp. nov. (Fig. 3)

A *K. schoenoides* (C. A. Mey.) Steud. differt. squamis ♀ ovato-oblongis; prophyllis 1—2-costatis; nuce oblonga; spiculis lateralis (4)5—8-floris.

Herba perennis, 20—50 cm. alta. Culmi dense caespitosi triquetri, scaberuli, basi vaginis veteris aphyllis atrofusci 3—4 cm. altis, sublaceratis cincti. Folia saepe aciculares, rare plana glabra 15—30 cm. longa culmis breviora. Inflorescentia oblonga, 1.2—2cm. longa, atrofusca,

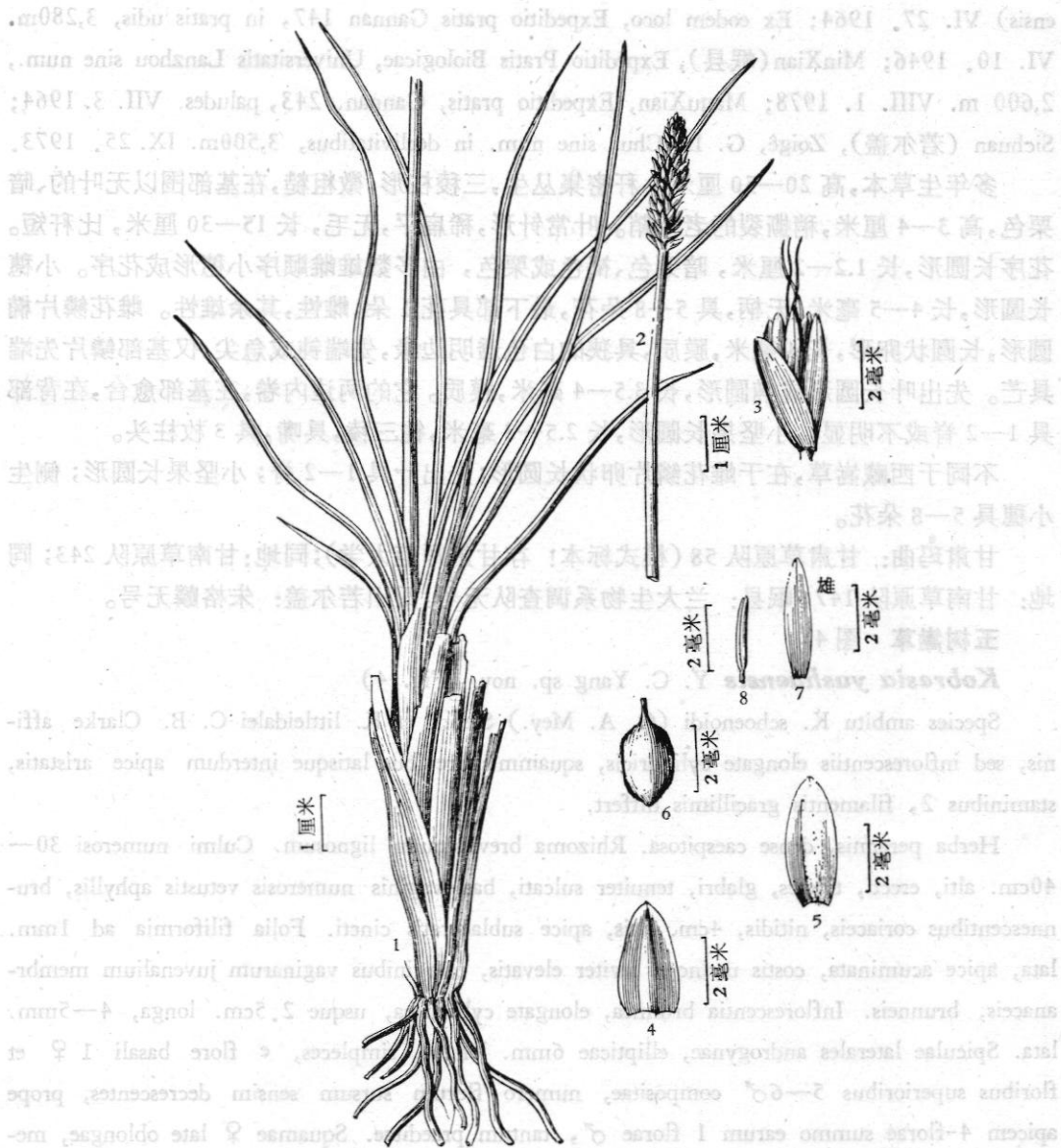


图3 (Fig. 3) 玛曲嵩草 (*Kobresia maquensis* Y. C. Yang): 1. 植株(下部) (Planta (pars inferior)); 2. 花序 (Inflorescentia); 3. 侧生小穗 (Spicula lateralis); 4. 雌花鳞片 (Squama feminea); 5. 先出叶 (Prophyllum); 6. 小坚果 (Nux); 7. 雄花鳞片 (Squama mascula); 8. 花药 (Anthera). (宁汝莲绘)

brunnea vel fusca, ea e spiculis numerosis androgynis aggregatis formata. Spiculae oblongae 4—5mm. longae, sessiles, 5—8-florae, infimis 1-florae ♀, ceterae ♂, Squamae ♀ ellipticae, oblongo-ovatae, 4mm. longae, membranaceae, marginibus anguste albo-hyalinae, apice obtusae vel acutae, tantum una basis aristatae. Prophyllum oblongum vel ellipticum 3.5—4mm. longum, membranaceum, involutum basi connatum, in dorso 1—2-costatum vel obscurum. Nux oblonga 2.5—3mm. longa, obtuse triquetra, rostrata; stigmata 3.

Gansu: Maqu (玛曲), Expeditio Pratis, Gansu 58 (Typus in Herb. Universitas Normalis Kansu-

ensis) VI. 27. 1964; Ex eodem loco, Expeditio pratis Gannan 147, in pratis udis, 3,280m. VI. 10. 1946; MinXian(岷县), Expeditio Pratis Biologicae, Universitatis Lanzhou sine num., 2,600 m. VIII. 1. 1978; MaquXian, Expeditio pratis, Gannan. 243, paludes. VII. 3. 1964; Sichuan (若尔盖), Zoigê, G. L. Chu, sine num. in declivitatibus, 3,500m. IX. 25. 1973.

多年生草本,高20—50厘米。秆密集丛生,三稜柱形,微粗糙,在基部围以无叶的、暗栗色,高3—4厘米,稍撕裂的老叶鞘。叶常针形,稀扁平,无毛,长15—30厘米,比秆短。花序长圆形,长1.2—2厘米,暗栗色、褐色或栗色,由多数雄雌顺序小穗形成花序。小穗长圆形,长4—5毫米,无柄,具5—8朵花,最下部具花1朵,雌性,其余雄性。雌花鳞片椭圆形,长圆状卵形,长4毫米,膜质,具狭的白色透明边缘,先端钝或急尖,仅基部鳞片先端具芒。先出叶长圆形或椭圆形,长3.5—4毫米,膜质。它的两边内卷,在基部愈合,在背部具1—2脊或不明显。小坚果长圆形,长2.5—3毫米,钝三稜,具嘴,具3枚柱头。

不同于西藏嵩草,在于雌花鳞片卵状长圆形;先出叶具1—2脊;小坚果长圆形;侧生小穗具5—8朵花。

甘肃玛曲:甘肃草原队58(模式标本!存甘肃师范大学);同地:甘南草原队243;同地:甘南草原队147;岷县:兰大生物系调查队无号;四川若尔盖:朱格麟无号。

玉树嵩草 图4

Kobresia yushuensis Y. C. Yang sp. nov. (Fig. 4)

Species ambitu *K. schoenoidi* (C. A. Mey.) Steud. et *K. littleidalei* C. B. Clarke affinis, sed inflorescentiis elongate cylindricis, squammis brevibus latisque interdum apice aristatis, staminibus 2, filamentis gracillimis differt.

Herba perennis, dense caespitosa. Rhizoma brevissimum lignosum. Culmi numerosi 30—40cm. alti, erecti, teretes, glabri, tenuiter sulcati, basi vaginis numerosis vetustis aphyllis, brunnescentibus coriaceis, nitidis, 4cm. altis, apice sublaceratis cincti. Folia filiformia ad 1mm. lata, apice acuminata, costis utrinque leviter elevatis, marginibus vaginarum juvenalium membranaceis, brunneis. Inflorescentia brunnea, elongate cylindrica, usque 2.5cm. longa, 4—5mm. lata. Spiculae laterales androgynae, ellipticae 6mm. longae, simpleces, e flore basali 1♀ et floribus superioribus 5—6♂ compositae, numero florum sursum sensim decrescentes, prope apicem 4-florae summo earum 1 florae ♂, tantum praeditae. Squamae ♀ late oblongae, membranaceae, usque 5mm. longae, 4mm. latae, apice obtusae undulatae, nervo medio pallide brunneo elevato. Prophyllum oblongum 3.5mm. longum, 1.5—2mm. latum, margine liberum, apice obtusum, obsolete 1-nerviium. Squamae ♂ lanceolatae plicatae 4mm. longae, staminibus 2, filamentis tenuissimis Nux elliptico-oblonga, 2.5mm. longa, apice in rostrum 1mm. longum sensim attenuata; stigmata 3.

Qinghai: Nangqen(囊谦), Y. C. Yang 1007 (Typus. in Herb. Institutum Biologicum Planitiei Excelsae Boreali-Occidentalis Academiae Sinicae) 4,300m. in declivitatibus VI. 20. 1965; Ex Yushuxian(玉树县), Cogansongduo, Y. C. Yang 240, 3,800m. in declivitatibus, VII. 4. 1964; Nangqen, Y. C. Yang 954, 4,200m. in pratis udis VII. 18. 1965.

多年生草本,密丛生。根状茎极短,本质。秆多数,高30—40厘米,直立、圆柱形、平滑、具细的沟槽,下部具多数枯死无叶片的叶鞘。淡褐色、革质、有光泽、高4厘米、先端

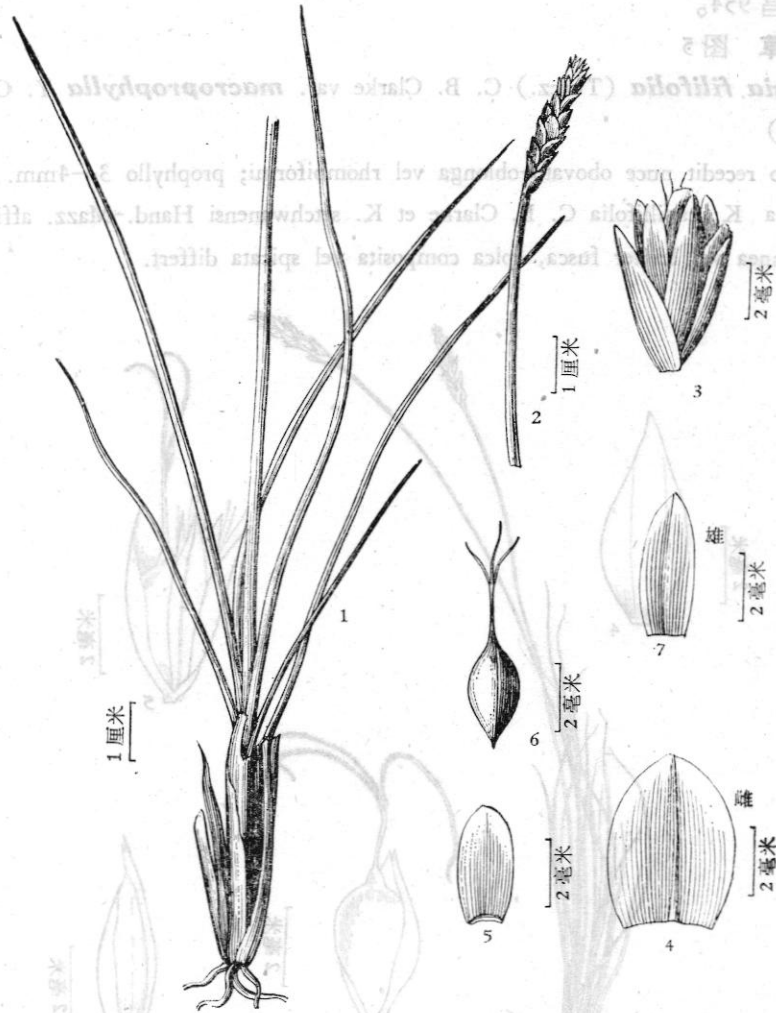


图4 (Fig. 4) 玉树嵩草 (*Kobresia yushuensis* Y. C. Yang): 1. 植株(下部) (Planta (pars inferior)); 2. 花序 (Inflorescentia); 3. 侧生小穗 (Spicula lateralis); 4. 雌花鳞片 (Squama feminea); 5. 先出叶 (Prophyllum); 6. 小坚果 (Nux); 7. 雄花鳞片 (Squama mascula). (宁汝莲绘)

稍撕裂,包围秆。叶丝状,宽达1毫米,先端渐尖,中脉两面稍凸起,幼年时叶鞘的边缘膜质,褐色。花序褐色,长圆柱形,长达2.5厘米,宽4—5毫米。侧生小穗雄雌顺序,椭圆形,长6毫米,不分枝,由基部1朵雌花和上部5—6朵雄花组成,花的数目向上渐减少,靠近顶端具花4朵,它的最顶端仅有1朵雄花。雌花鳞片宽长圆形,膜质,长达5毫米,宽4毫米,先端钝具波状齿,中脉淡褐色凸起。先出叶长圆形,长3.5毫米,宽1.5—2毫米,边缘分离,先端钝,具不明显的1脉。雄鳞片披针形,折叠,长4毫米,雄蕊2,花丝极细。小坚果椭圆状长圆形,长2.5毫米,先端渐狭成嘴,长1毫米;柱头3。

本种体态相似西藏嵩草和青藏嵩草,但花序长圆柱形,鳞片短而宽,有时先端具芒;雄蕊2,花丝极细不同。

青海囊谦: 杨永昌 1,007 (模式标本! 存西北高原生物研究所); 玉树: 杨永昌 240;

囊谦：杨永昌 954。

祁连嵩草 图 5

Kobresia filifolia (Turcz.) C. B. Clarke var. *macrophylla* Y. C. Yang var. nov. (Fig. 5)

A Typo recedit nucce obovato-oblonga vel rhombiformi; prophylo 3—4mm. longo nucce longiore; et a *K. capillifolia* C. B. Clarke et *K. setchwanensi* Hand.-Mazz. affinis sed inflorescentia brunnea vel leviter fusca, spica composita vel spicata differt.

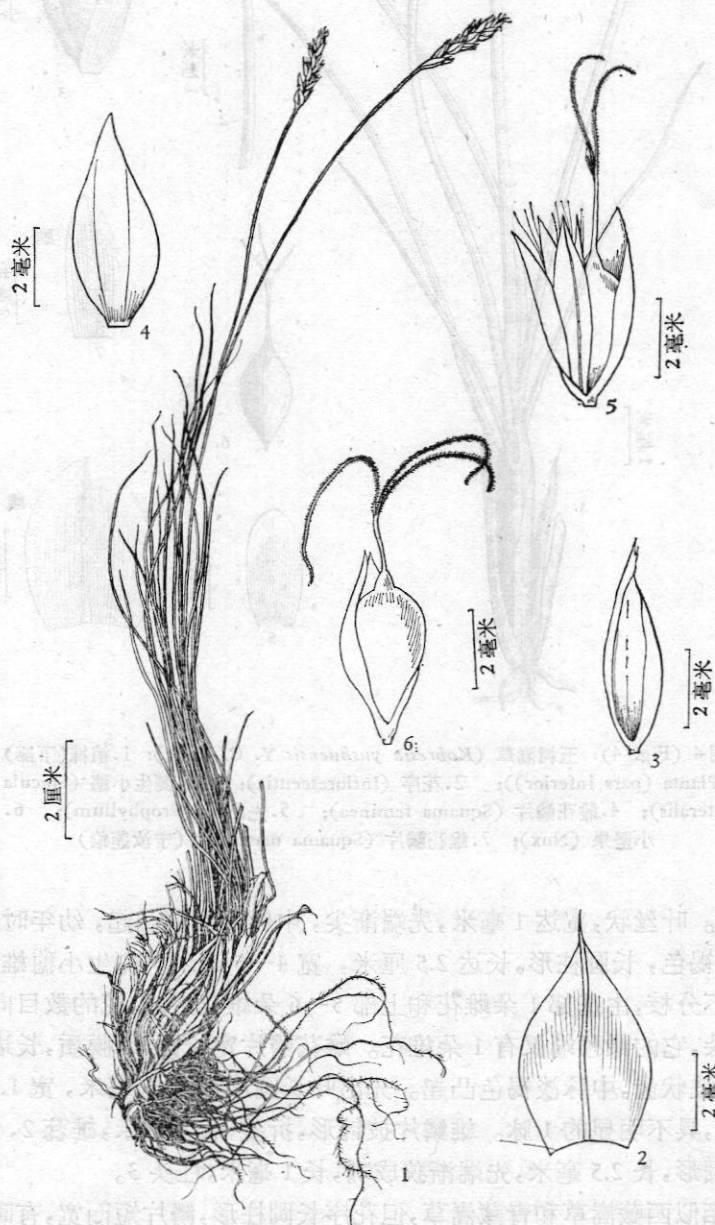


图 5 (Fig. 5) 祁连嵩草 (*Kobresia macrophylla* W. et T.): 1. 植株 (planta); 2. 鳞片 (Squama); 3. 先出叶(腹面) (Prophyllum); 4. 先出叶(背面) (Prophyllum (dorsalis)); 5. 小穗 (spicula); 6. 小坚果 (Nux).

Qinghai: Ledu (乐都县), P. C. Kuo 6,700 (Typus in Herb. Institutum Biologicum Planitiei Excelsae Boreali-Occidentalis Academiae Sinicae), 2,600m. prope sylvam. VI. 5. 1966; Yushu, Y. C. Yang 154, crescit intra fruticem in declivitatibus, 4,200m. VI. 21. 1964; Jainca (尖扎), L. H. Chou 815. intra frutices in declivitatibus. 3,600m. VI. 27. 1970; Xinghai (兴海), T. N. Ho 133. intra fruticem in declivitatibus. 3,500m. VI. 30. 1965; Nangqên, Y. C. Yang 949. intra fruticem in declivitatibus, 4,100m. VI. 17. 1965; Yushu Xian, Y. C. Yang 880, in declivitatibus, 3800m, VI. 3. 1965; Gansu: Maqu, Expeditio Pratis Gansu 58, sine num. VI. 27. 1964.

与原变种不同,在于小坚果倒卵状长圆形或菱形,先出叶长3—4毫米,长于小坚果。且与线叶嵩草和四川嵩草区别,在于花序褐色或淡栗色,花序为复穗状或穗状。

青海乐都县曲坛公社:郭本兆 6790 (模式标本!存西北高原生物研究所);玉树上巴塘:杨永昌 154;尖扎坎布拉:周立华 815;兴海河卡:何廷农 133;囊谦:杨永昌 949;玉树结古:杨永昌 880。

夏河嵩草 图 6

Kobresia squamaeformis Y. C. Yang sp. nov. (Fig. 6)

A, K. pygmaea C. B. Clarke et K. bellardii (All.) Degl. ad primas culmis altioribus, inflorescentia circ. 10-spiculata, squama asexuali 1; ad secundas, culmis robustioribus vel humioribus inflorescentia oblonga, spiculis 1-floriferis differt.

Herba perennis, 9—16cm. alta, rhizoma breviter ferens. Culmi dense caespitosi, erecti, obtuse triquetri laeves, basi vaginati; vaginis veteribus aphyllis, 5—10mm. latis obtecti. Folia aciculares culmis breviora, plana circ. 0.5mm. lata. Inflorescentia 10-spiculata, oblonga plerumque circ. 1.2cm. longa, 3mm. diam. Spiculae laterales ovato-ellipticae, circ. 3mm. longae, tantum 1-florae. Squamae ♀ late ovatae vel ovatae, circ. 3mm. longae, membranaeae, 3-nerves. Prophyllum obovatum usque 3mm. longum, 1.5mm. latum squamas aequans, involutum basi connatum, dorso et 2-costa omnino laeve in eo squamam sterilem unam, ovatam vel ovato-lanceolatam membraceam emittit. Nux obovato-oblonga vel oblonga 2.5mm. longa prophylo brevior, obtuse triquetra brunnea, nitida. breviter rostrata; stigmata 3.

Gansu; Xiahe (夏河), H. T. Zhao sine numero (Typus! in Herb. Partis Biologicae Universitatis Lanzhou), 3,300—3,600m. VIII. 14. 1980.

多年生草本,高9—16厘米,具短的根状茎。秆密丛,直立,钝三稜,表面平滑,基部具鞘;鞘高5—10毫米,无叶片的老叶鞘包围秆。叶针状,较秆短、扁平,宽约0.5毫米。花序含10枚小穗,长圆形,一般长1.2厘米,直径3毫米。侧生小穗卵状椭圆形,长约3毫米,仅含1朵花,雌花鳞片宽卵形或卵形,长约3毫米,膜质,具3脉。先出叶倒卵形,长达3毫米,宽1.5毫米,等长于雌花鳞片,两边向它的腹面内卷,基部结合,背部和两脊光滑;在先出叶内有不孕鳞片1枚,卵形和卵状披针形,膜质。小坚果倒卵状长圆形或长圆形,长2.5毫米,比先出叶短,钝三稜,褐色,有光泽,具短咀,柱头3。

不同于小嵩草和嵩草,与前者比,因秆较高,花序含10枚小穗,不孕鳞片1枚;与后者比,秆较粗壮而矮小,花序长圆形,侧生小穗含1朵花。

甘肃夏河:赵怀德,无号(模式标本存兰州大学生物系),海拔3,300—3,600米,

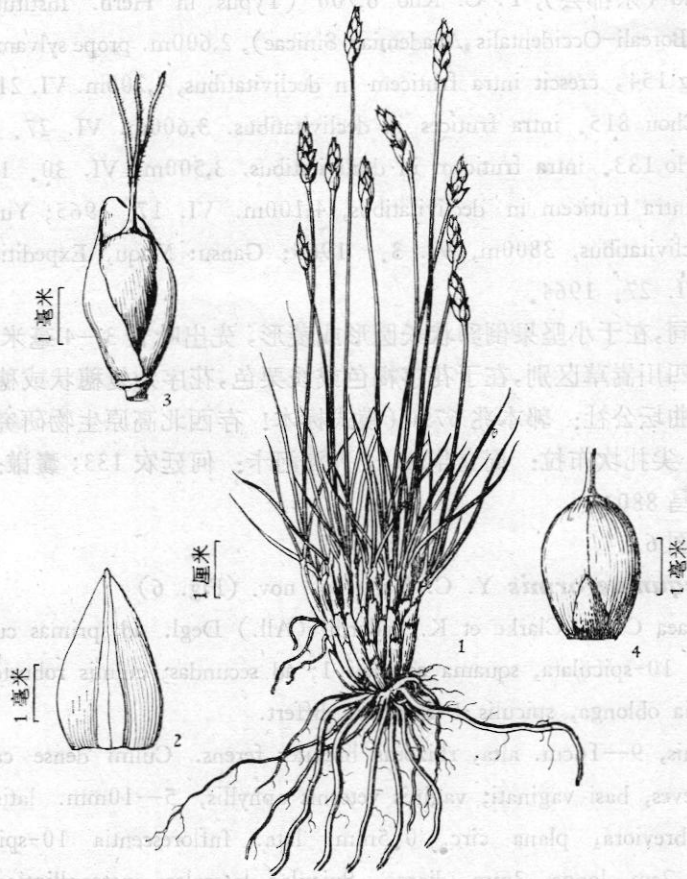


图 6 (Fig. 6) 夏河嵩草 (*Kobresia squamaeformis* Y. C. Yang): 1. 植株 (Habitus); 2. 雌花鳞片 (Squama feminea); 3. 小穗 (Spicula); 4. 小坚果与退化小穗轴 (Nux cum rhachilla reducta). (阎翠兰绘)

1980.8.14.

本种的花序是由许多单性花所组成的简单穗状花序, 每朵侧生雌花(实为侧生小穗退化而成)的腹面, 具 1 枚短小的退化小穗轴, 其上着生 1 枚不孕鳞片。像岷山嵩草一样, 其退化小穗轴和不孕鳞片是一枚真正小穗退化遗迹, 如果这枚不孕鳞片发育, 则为 2 朵花, 就形成了西伯利亚嵩草组的 2-数花特性; 如这枚鳞片退化, 则为 1 朵花, 应归于单穗嵩草组, 因而本种应属于这两组的过渡类型。

纤细嵩草 图 7

Kobresia gracilis Y. C. Yang sp. nov. (Fig. 7)

Haec species *K. prainii* Kükenth. et *K. prattii* C. B. Clarke congruens, sed differt prophylo anguste elliptico 3mm. longo, nuce rostrata, rostro 0.8—1mm. longo, rhachilla redacta 1.5mm. longa.

Herba perennis, circ. 12cm. alta; rhizoma valde abbreviatum. Culmi caespitosi, gracillimi, trigoni, laeves, basi vaginas veteras mortuas ephyllas ferentes, vaginis atrofuscis sine nitidis, 1cm. altis, apice et margine laceratis. Folia basilaria capillaria culmis breviora, margine

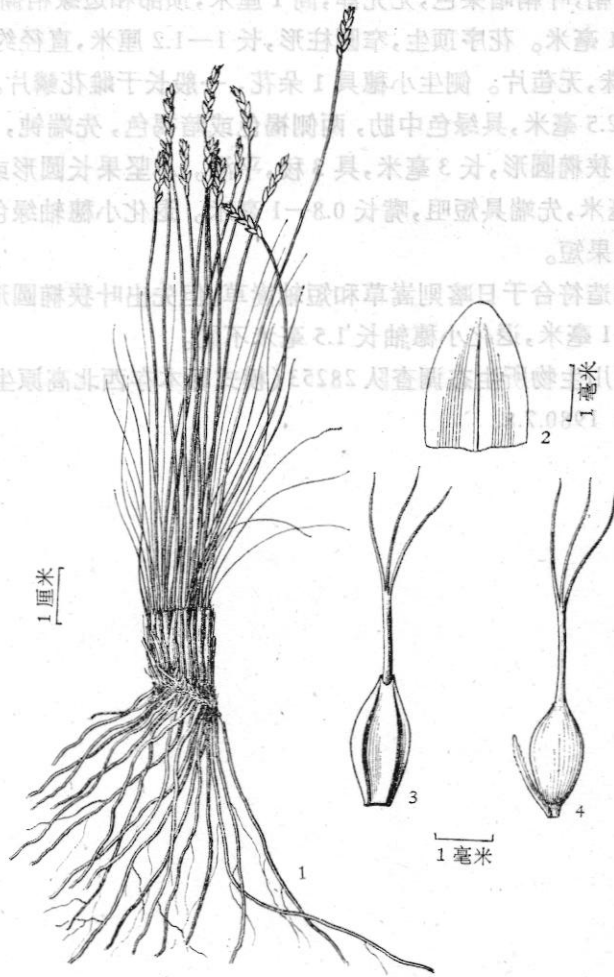


图7 (Fig. 7) 纤细嵩草 (*Kobresia gracilis* Y. C. Yang): 1. 植株 (Habitus);
2. 雌花鳞片 (Squama feminea); 3. 先出叶和小坚果 (Prophyllum cum nux);
4. 小坚果和退化小穗轴 (Nux cum rhachilla reducta). (宁汝莲绘)

involuta, vix 1mm. lata. Inflorescentia terminalis cylindrica, 1—1.2cm. longa, circ. 2mm. diam., dense spiraliter disposita, dioecia, ebracteata. Spiculae laterales uniflorae, generaliter squamis ♀ longiores. Squamae ♀ ellipticae vel ovato-oblongae, 2.5mm. longae, viridicostatae, utrinque brunneae vel atrobunneae, apice obtusae, margine membranaceae albae. Prophyllum membranaceum, utriculiforme, anguste ellipticum 3mm. longum, triquetrum laeve. Nux oblonga vel anguste obovato-oblonga, atrobunnea 2.2mm. longa, apice brevirostrata, rostro 0.8mm. longo. Rhachilla redacta viridis, anguste lanceolata, 1.5mm. longa, plana nuce brevior.

Sichuan; Litang(理塘), Expeditio Instituti Biologici Sichuan, 28,253 (Typus! in Herb. Institutum Biologicum Planitie Excelsae Boreali-Occidentalis Academiae Sinicae), 3,800m. in sylvis vallium, VII. 8. 1980.

多年生草本,高约12厘米;根状茎十分短缩。秆丛生,极纤细,三棱形,平滑,在基部

