

## 中国蔷薇科植物分类之研究(四)\*

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## TAXA NOVA ROSACEARUM SINICARUM (IV)

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通过编写《中国植物志》，作者鉴定和研究了我国历年来采集的大量悬钩子属标本，发现了一些新类群。本文包括 24 亚组 33 新种和 40 新变种，现予以发表。编排次序按中国植物志第 37 卷本属的系统。

组 1. 空心莓组 Sect. **Idaeobatus** Focke, emend. Yü et Lu

亚组 1. 圆锥序亚组 Subsect. **Thyrsidacii** (Focke) Yü et Lu, stat. nov.—Sect. *Idaeanthi* Focke Ser. *Thyrsidacii* Focke, Bibl. Bot. **72** (2): 192. 1911. p. p.

Folia 1—4-jugo-pinnata, subtus dense tomentosa vel pubescentia. Inflorescentiae magnae paniculatae vel racemosae. Fructus globosi vel subglobosi, pubescentes vel glabri.

1b. 脱毛弓茎悬钩子 新变种

**Rubus flosculosus** Focke var. **etomentosus** Yü et Lu, var. nov.

A var. *flosculoso* recedit calycibus extus etomentosis, tantum pubescentibus.

Sichuan (四川): Baoxing (宝兴), 23. VII. 1936, K. L. Chu (曲桂龄) 3232 (Typus, PE); ibidem, T. P. Soong (宋滋圃) 38987, 39205.

Fujian (福建): Chong'an (崇安), Wuyi Exped. (武夷山考察队) 745.

本变种花萼外绒毛渐脱落，仅有柔毛。

3. 丽水悬钩子 新种

**Rubus lishuiensis** Yü et Lu, sp. nov.

*R. innominato* S. Moore var. *macrosepalo* Metc. affinis, qui foliis plerumque ternatis, inflorescentiis tomentoso-villosis, calycibus majoribus, sepalis late ovatis, 8—12mm longis, 5—7 mm latis differt.

Frutex scandens, aculeis e basi dilatatis armatus. Folia 5—7-nata; foliola ovato-lanceolata vel oblongo-ovata, 5—7 cm longa, 2—3.5 cm lata, acuminata, basi late cuneata ad rotundata, subtus dense cinereo-tomentosa, margine inaequaliter grosse serrata vel

\* 本文中标本馆代号代表的单位见本刊第 20 卷 2 期 252 页一文。

inciso-duplicata; stipulae bracteaque lineari-lanceolatae vel lanceolatae. Racemi breves puberuli; sepala ovata, acuta. Fructus subglobosi, diam. ca. 1 cm, glabri, rubri.

Zhejiang (浙江): Lishui (丽水). 16. VIII. 1956, S. Y. Zhang (章绍尧) 6376 (Typus, PE).

本种和宽萼白叶莓 *R. innominatus* S. Moore var. *macrosepalus* Metc. 区别在于后者为 3 小叶, 花序被黄灰色或黄色绒毛状长柔毛; 花萼较宽大, 萼片宽卵形, 长 8—12 毫米, 宽 5—7 毫米。

#### 4. 大序悬钩子 新种 图版 1:1

***Rubus grandipaniculatus*** Yü et Lu, sp. nov.

*R. idaeopsis* Focke similis, qui glandulis breviter stipitatis, inflorescentiis racemosis vel subpaniculatis brevioribus, sepalis ovatis 5—7 mm longis, apice acutis distinguitur.

Frutex 1—3 m altus, dense pubescens, aculeolis sparsis glandulisque stipitatis purpureis inaequalibusque instructus. Folia 5—7-jugo-pinnata, raro ternata; foliola ovata vel ovato-lanceolata, 2.5—5 cm longa, 1.5—3 cm lata, acuminata, basi late cuneata ad subcordata, subtus cano-tomentosa, margine grosse serrata, terminale lobulatum; stipulae lineares, pubescentes. Paniculae multiflorae; calyces externe pubescentes et glandulosi; sepala ovato-lanceolatae; petala basi pubescentia, rosea vel purpurea; ovaria pubescentia. Fructus subglobosi, rubri, glabri vel subglabri.

Shaanxi (陕西): Pingli (平利), alt. 900m, 3. VII. 1960, Pashan Exped. Univ. Boreali-Occid. (西北大学生物系巴山队) 776 (Typus, PE), 497.

Sichuan (四川): Fengjie (奉节), H. F. Zhou et al. (周洪富等) 108635, 109321。

本种和拟复盆子 *R. idaeopsis* Focke 区别在于后者全体具短腺毛或仅于枝上无腺毛; 花成短总状花序或近圆锥花序; 萼片卵形, 长 5—7 毫米, 顶端急尖。

亚组 2. 伞房序亚组 Subsect. ***Idaeanthi*** (Focke) Yü et Lu, stat. nov.—Sect. *Idaeanthi* Focke, Bibl. Bot. **72**(2): 171. 1911. p. p.—Sect. *Pungentes* Focke, l. c. **72** (2): 160. 1911. p. p.

Folia 1—4-jugo (raro 5-jugo)-pinnata, subtus dense tomentosa. Flores in inflorescentias corymbosas dispositi vel pauci glomerati et solitarii. Fructus subglobosi, ovoideo-globosi vel oblongo-ovoidei, tomentosi.

#### 14b. 云南桉叶悬钩子 新变种

***Rubus eucalyptus*** Focke var. ***yunnanensis*** Yü et Lu, var. nov.

A var. *eucalypto* recedit foliis saepius septenatis, calycibus sparsim aculeolatis, sepalis latioribus 1.5—2 cm longis, fructibus diam. ad 2 cm.

Yunnan (云南): Huize (会泽) alt. 3380 m 27. IX. 1963, E. Sichuan Exped. (川东队) 92 (Typus, KUN).

本变种常具 7 小叶; 花萼刺较稀少, 萼片较宽大, 长 1.5—2 厘米; 果实直径达 2 厘米。

#### 14d. 脱毛桉叶悬钩子 新变种

***Rubus eucalyptus*** Focke var. ***etomentosus*** Yü et Lu, var. nov.

A typo differt foliis subtus glabrescentibus.

Sichuan (四川): Song-pan (松潘), alt. 2300m, 22. VII. 1959, Song-pan Exped. (松潘队), 1661(Typus, PE); Emei Shan (峨眉山), Yunnan Complex Exped. (云南综考队) 2314。

本变种叶片下面绒毛脱落至近无毛。

15b. 华北复盆子 新变种

**Rubus idaeus** L. var. **borealisinensis** Yü et Lu. var. nov.

A. var. *idaeo* ramulis, petiolis pedunculis pedicellisque cum calycibus sparsim aculeis acicularibus instructis vel subinermibus, ramulis et petiolis eglandulosis; pedunculis pedicellisque cum calycibus glandulosis recedit.

Nei Monggol (内蒙古): Liangcheng (凉城), Y. C. Ma et al. (马毓泉等) 59; Daqing Shan (大青山), W. Y. Hsia (夏纬瑛) 2703。

Shanxi (山西): Ningwu (宁武), Shanxi Exped. (山西队) 1106, 1747; Wutai (五台), K. C. Kuan et al. (关克俭等) 1819, 2462; Lishi (离石), X. Y. Liou (刘心源) 21236; Xing Xian (兴县), Huang He Exped. (黄河队) 2636。

Hebei (河北): Dongling (东陵), alt. 1600m, VI. 1931, T. Tang (唐进) 2133 (Typus, PE); ibidem, Y. Liou (刘瑛) 11995; ibidem, H. F. Chow (周汉藩) 40698; Laiyuan (涞源), K. M. Liou (刘继孟) 2640; Chongli (崇礼), Y. W. Tsui (崔友文) 2018; Zhoulü (涿鹿), W. Y. Hsia (夏纬瑛) 2374; Xiaowutai Shan (小五台山), T. P. Wang (王作宾) 409; ibidem, C. W. Wang (王启无) 61319; ibidem, H. W. Kung (孔宪武) 307; ibidem, Y. Liou (刘瑛) 12648; Baihua Shan (百花山), W. Y. Hsia (夏纬瑛) 2174; ibidem, W. T. Wang (王文采) 661; Fuping (阜平), K. M. Liou (刘继孟) 3618, 3622。

本变种枝、叶柄、总花梗、花梗和花萼具稀疏针刺或几无刺, 枝和叶柄均无腺毛, 仅总花梗、花梗和花萼具腺毛。

15c. 无毛复盆子 新变种

**Rubus idaeus** L. var. **glabratus** Yü et Lu, var. nov.

A. var. *idaeo* differt ramulis petiolisque cum pedicellis sparsissime aculeolatis, glabratis et eglandulosis.

Heilongjiang (黑龙江): Qiqihar (齐齐哈尔), 25, VII. 1956, China-Germany Exped. (中德队) 276 (Typus, PE); Shangzhi (尚志), China-Germany Exped. 1389。

本变种枝、叶柄和花梗具稀疏小刺, 无毛, 也无腺毛。

16b. 钝叶桔红悬钩子 新变种

**Rubus aurantiacus** Focke var. **obtusifolius** Yü et Lu, var. nov.

A. var. *aurantiaco* foliis minoribus, subrotundatis vel ovatis, apice obtusis, raro acutis, petiolis brevioribus diversa.

Yunnan (云南): Longling (龙陵), alt. 1550 m 20. V. 1955, Yunnan Complex Exped. (云南综考队) 1212(Typus, PE); Kunming (昆明), P. Y. Chiu (邱炳云) 51804; ibidem, T. N. Liou (刘慎谔) 18184, 19623; Yimen (易门), W. Q. Yin (尹文清) 46, 155;

Chengjiang (澄江), X. Wang (王孝) 41534; Songming (嵩明), P. Y. Chiu (邱炳云) 51616; Gejiu (个旧), T. N. Liou (刘慎谔) 19053。

Guizhou (贵州): Anshun (安顺), sine coll.; Qingzhen (清镇), sine coll.

本变种叶小,近圆形或卵形,顶端圆钝,稀急尖,叶柄较短。

18. 瓦屋山悬钩子 新种 图版 1:2

**Rubus wawushanensis** Yü et Lu, sp. nov.

Species *R. trijugo* Focke proxima, a quo ramulis pedicellis calycibusque dense aciculatis et glandulis stipitatis sparsis armatis, calycibus cano-tomentosis recedit. Ex affinitate *R. eucalypti* Focke, qui foliis 3—5-natis, ramulis petiolisque falcato-aculeatis, pedicellis et calycibus sparse aciculatis, calycibus externe pubescentibus distinguitur.

Frutex erectus, sparsim pubescens, dense aciculatus et sparse stipitato-glandulosus. Folia saepe pinnato-quinata-septenata; foliola ovata, rhombeo-ovata vel oblonga, 2.5—7 cm longa, acuta, terminale acuminatum, basi rotundata vel truncata, subtus dense cano-tomentosa, margine inciso-duplicato-serrata; stipulae et bractee lineares vel anguste lanceolatae. Flores solitari vel 2—3, diam. ad 2 cm; calyces cano-tomentosi, aciculis et glandulis stipitatis instructi; sepala longe ovato-lanceolata; petala alba, puberula. Fructus ovoidei diam. ca. 1 cm vel majores, densius longe cano-tomentosi.

Sichuan (四川): Hongya (洪雅), Wawu Shan (瓦屋山), 16. VII. 1931, T. H. Tu (杜大华) 276 (Typus, PE); Baoxing (宝兴) K. L. Chu (曲桂龄) 3295, 3536; sine loc. Y. C. Yang (杨銜晋) 3570。

本种和三对叶悬钩子 *R. trijugus* Focke 区别在于小枝、花梗和花萼密被针刺和疏腺毛;花萼外密被灰白色绒毛。和桉叶悬钩子 *R. eucalyptus* Focke 区别在于后者小叶 3—5 枚,小枝和叶柄具稀疏钩状皮刺;花梗和花萼具稀疏针刺,花萼外具柔毛。

亚组 3. 绒毛果亚组 Subsect. **Pileati** Yü et Lu, subsect. nov.—Sect. *Pungentes* Focke, Bibl. Bot. 72 (2): 160. 1911. p. p.—Sect. *Idaeanthi* Focke, l. c. 72 (2): 171. 1911. p. p.

Folia 1—4-jugo (raro 5-jugo)-pinnata, subtus pubescentia vel tantum in nervis pilosa. Flores in inflorescentias corymbosas compositi, rarius solitarii. Fructus hemisphaerici, ovoideo-globosi vel ovoidei, tomentosi. Typus subsectionis: *R. pileatus* Focke.

22b. 光梗假帽莓 新变种

**Rubus pseudopileatus** Card. var. **glabratus** Yü et Lu, var. nov.

A var. *pseudopileato* differt pedicellis glabris, calycibus externe glabratis tantum margine tomentosis.

Sichuan (四川): Baoxing (宝兴), T. P. Soong (宋滋圃) 38518 (Typus, PE); ibidem, T. H. Tu (杜大华) 4273; ibidem, T. T. Yü (俞德浚) 2094; Li Xian (理县), C. Ho et al. (何铸等) 12896; Emei Shan (峨眉山), K. H. Yang (杨光辉) 56510; ibidem, H. L. Tsiang et al. (蒋兴麇等) 31397; ibidem, T. N. Liou (刘慎谔) et al. 1281; Leibo (雷波), Z. T. Quan (管中天) 8711; ibidem, sine coll. 781, 787, 986.

本变种花梗光滑无毛;花萼外面无毛,仅萼片边缘有绒毛。

22c. 康定假帽莓 新变种

**Rubus pseudopileatus** Card. var. **kangdingensis** Yü et Lu, var. nov.

Petioli et pedicelli glabri aculeis acicularibus densis et glandulis stipitatis sparsis armati; calyces externe glabri solum interni margine tomentosi.

Sichuan (四川): Kangding (康定), VIII. 1930, Z. P. Huang et al. (黄治平等) 1697 (Typus, PE).

叶柄和花梗无毛,但有较密针刺和疏腺毛;花萼外面无毛,仅内萼片边缘具绒毛。

25b. 川西柔毛悬钩子 新变种

**Rubus pubifolius** Yü et Lu var. **glabriusculus** Yü et Lu, var. nov.

A var. *pubifolio* differt foliolis utrinque vel in nervis sparse pubescentibus, margine grosse serratis, calysibus ad 2.5 cm longis.

Sichuan (四川): Baoxing (宝兴), alt. 2400m, 11. VI. 1958, S. S. Chang et al. (张秀实等) 5309 (Typus, PE); Shimian (石棉), C. C. Hsieh (谢朝俊) 42008; Ebian (峨边), T. S. Chao (赵子孝), sine num.; ibidem, C. C. Cheng (郑止善) 39.

本变种小叶片两面或仅沿叶脉疏生柔毛,边缘锯齿较粗大;萼片长达 2.5 厘米。

亚组 4. 绒毛叶亚组 Subsect. **Stimulantes** Yü et Lu, subsect. nov.—Sect. Pungentes, Focke, *Bibl. Bot.* **72** (2): 160. 1911. p. p.—Sect. *Idaeanthi* Focke, l. c. **72** (2): 171. 1911. p. p.

Folia 1—4-jugo (raro 5—6-jugo)-pinnata, subtus dense tomentosa. Inflorescentiae saepissime corymbosae rarius flores nonnulli axillares vel solitarii. Fructus hemisphaerici, subglobosi vel ovoideo-globosi, glabri vel pubescentes. Typus subsectionis: *R. stimulans* Focke.

31. 红果悬钩子 新种

**Rubus erythrocarpus** Yü et Lu, sp. nov.

Species *R. stimulans* Focke affinis, qui planta pubescenti et sparsim stipitato-glandulosa, foliis saepius quinato-septenato-pinnatis distant. *R. subornato* Kocke similis, qui planta pubescenti et sparse aciculata vel subinermi, inflorescentiis corymbosis terminalibus, 6—10-floris vel floribus 1—3 ex axillis foliorum ortis distinguitur.

Frutex 1—2 m altus; ramuli glabri eglandulosique aculeolos tenuites inaequalesque gerentes. Folia ternata; foliola 4—10 cm longa, 2.5—6 cm lata, terminale ovatum ad ovato-lanceolatum, lateralia ovata vel elliptica, subtus cinereo-tomentosa in nervis sparsim aculeolata, margine dupliciter vel inaequaliter simpliciter grosse inciso-serrata; petioli sparse stipitato-glandulosi; stipulae lineari-lanceolatae. Flores 3—4 in corymboso-inflorescentias digesti vel interdum solitarii; pedicelli et calyces glabri, aciculati eglandulosique vel calyces sparse stipitato-glandulosi; sepala lanceolata vel ovato-lanceolata; petala rosea; ovaria pilosa. Fructus subglobosi diam. 1—1.5 cm, rubri, glabri.

Yunnan (云南): Gaoligong Shan (高黎贡山), alt. 3000m, 10. VII. 1937, T. T. Yü

(俞德浚)19285 (Typus, PE), 20363; ibidem, K. M. Feng (冯国楣) 7755, 7783, 8347。

本种和华西悬钩子 *R. stimulans* Focke 区别在于后者植株具柔毛和疏腺毛, 小叶常 5—7 枚。和美饰悬钩子 *R. subornatus* Focke 区别在于后者具柔毛, 有稀疏针刺或几无刺; 花常 6—10 朵成顶生伞房花序或 1—3 朵腋生。

31b. **腺萼红果悬钩子** 新变种

***Rubus erythrocarpus*** Yü et Lu var. ***weixiensis*** Yü et Lu, var. nov.

Calyces externe dense stipitato-glandulosi et aciculati.

Yunnan: Weixi (维西), alt. 3200m, 15. VI. 1940, K. M. Feng (冯国楣) 4611 (Typus, PE).

本变种花萼外密被腺毛和针刺。

34c. **脱毛喜阴悬钩子** 新变种

***Rubus mesogaeus*** Focke var. ***glabrescens*** Yü et Lu, var. nov.

A var. *mesogaeo* differt foliolis subtus glabrescentibus.

Sichuan (四川): Jinfo Shan (金佛山), alt. 2030 m 16. VI. 1957, G. F. Li (李国凤) 62246 (Typus, PE); Leibo (雷波), Z. T. Quan (管中天) 8874; sine loc. W. P. Fang (方文培) 7281。

本变种叶片下面绒毛逐渐脱落, 近于无毛。

35b. **腺毛密刺悬钩子** 新变种

***Rubus subtibetanus*** Hand.-Mazz. var. ***glandulosus*** Yü et Lu, var. nov.

A. var. *subtibetano* recedit planta dense stipitato-glandulosa. *R. mesogaeo* Focke var. *oxycomus* Focke affinis, qui planta subinermi vel sparsim aciculata et stipitato-glandulosa distinguitur.

Sichuan (四川): Baoxing (宝兴), 1954, T. P. Soong (宋滋圃) 38284 (Typus, PE).

Gansu (甘肃): Huang He Exped. (黄河队) 356。

和原变种区别在于植株密被腺毛。又和腺毛喜阴悬钩子 *R. mesogaeus* Focke var. *oxycomus* Focke 相近, 但后者近无刺或有稀疏针刺或腺毛。

36c. **柔毛粉枝莓** 新变种

***Rubus biflorus*** Buch.-Ham. ex Smith var. ***pubescens*** Yü et Lu, var. nov.

Petioli pedicellique et calyces externe dense pubescentes, sed eglandulosi.

Sichuan (四川): Yanyuan (盐源), alt. 2500 m, 10. VI. 1960, S. Chiang (姜恕) 5957 (Typus, PE).

叶柄、花梗和花萼外面密被柔毛, 但无腺毛。

亚组 5. **柔毛叶亚组** Subsect. ***Pungentes*** (Focke) Yü et Lu, stat. nov.—Sect. *Pungentes* Focke, Bibl. Bot. **72**(2): 160. 1911. p. p.—Sect. *Idaeanthi* Focke, l. c. **72**(2): 171. 1911. p. p.—Subgen. *Cylactis* Focke, l. c. **72**(1): 23. 1910. p. p.

Folia 1—5-jugo (rarius 7-jugo)-pinnata, subtus pubescentia interdum glabra. Inflorescentiae terminales e ramulis corymbosis vel breviter racemosis ortae, interdum flores pauci glomerati vel solitarii. Fructus globosi vel subglobosi, raro oblongi vel

ellipsoidei, pubescentes vel glabri.

40b. 小果秀丽莓 新变种

**Rubus amabilis** Focke var. **microcarpus** Yü et Lu, var. nov.

A var. *amabili* floribus minoribus diam. ad 2 cm, calycibus extus sparsim aciculatis, eglandulosis, fructibus minoribus, ovoideo-globosis vel ellipsoideis 8—13 mm longis distant.

Gansu (甘肃): Circa Jonê (卓尼附近), alt. 2800 m, 24. VII. 1936, T. P. Wang (王作宾) 5330 (Typus, PE), 5313, 5496, 5519.

与原变种区别在于花较小,直径达 2 厘米,花萼外有疏针刺,无腺毛;果实小,卵球形或椭圆形,长 8—13 毫米。

40c. 刺萼秀丽莓 新变种

**Rubus amabilis** Focke var. **aculeatissimus** Yü et Lu, var. nov.

A. var. *amabili* differt calycibus aculeis acicularibus densis glandulisque stipitatis sparsis instructis, pedicellis paullo stipitato-glandulosis, fructibus diam. 10—15 mm.

Sichuan (四川): Pingwu (平武), alt. 2520 m, 7. VII. 1958, T. L. Tai (戴天伦) 10753 (Typus, PE), 10712; Nanchuan (南川), T. H. Hsiung et al. (熊济华等) 91624。

花萼密被针刺和疏腺毛;花梗有少数腺毛;果实直径 10—15 毫米。

41. 毛果悬钩子 新种

**Rubus ptilocarpus** Yü et Lu, sp. nov.

Habitu *R. lutescenti* Franch. similis, qui suffruticibus humilibus, pubescentibus et saepissime eglandulosis, stipulis ovato-lanceolatis vel linearibus, calycibus extra interdum aciculatis, fructibus luteo-rubris diam. 1.4—2 cm differt.

Frutex 1—2 m altus; rami vetusti grabri, aculeati; ramuli floriferi et petioli pubescentes, stipitato-glandulosi et aculeati. Folia composita 3—11-foliolata; foliola ovata, ovato-lanceolata vel rhombéo-lanceolata, 1.5—4(6) cm longa, 1—3(4) cm lata, acuta, terminale apice breviter acuminatum, basi rotundata rarius subcordata, utrinque pubescentia, margine duplicato-dentata; stipulae lineares vel lineari-lanceolatae. Flores 1—3, terminales raro axillares; pedicelli calycesque pubescentes et pilis glanduliferis instructi; sepala ovata vel ovato-lanceolata; ovaria puberula. Fructus subglobosi diam. 1—1.2 cm, atro-purpurei, luteo-vel cano-puberuli.

Sichuan (四川): Zhegu Shan (鹤鹑山), alt. 3650 m, 2. IX. 1957, X. Li (李馨) 34313, 34365 (Typus, PE); Xiaojin (小金), S. S. Chang (张秀实) et al. 2651; Shuajingsi (刷经寺), X. Li 74844, 74965; Sêrtar (色达), Q. L. Zhang (张清龙) 61002, 350224。

Yunnan (云南): Yongshan (永善), H. T. Tsai (蔡希陶) 51036.

本种和黄色悬钩子 *R. lutescens* Franch. 近缘,但后者为低矮亚灌木,被柔毛,常无腺毛;托叶卵状披针形或线形;萼筒外有时具针刺;果实黄红色,直径 1.4—2 厘米。

41b. 长萼毛果悬钩子 新变种

**Rubus ptilocarpus** Yü et Lu var. **degensis** Yü et Lu, var. nov.

A var. *ptilocarpo* recedit floribus solitariis, pedicellis longioribus ad 6 cm longis, sepalis anguste lanceolatis vel lineari-lanceolatis ad 1.8 cm longis, longe caudatis.

Sichuan (四川): Dêgê (德格), 15. VII. 1951, Y. W. Tsui (崔友文) 4434 (Typus, PE).

与原变种区别在于花常单生;花梗较长,长达6厘米;萼片狭披针形至线状披针形,长达1.8厘米,顶端长尾尖。

## 46. 柱序悬钩子 新种 图版 1:3

**Rubus subcoreanus** Yü et Lu, sp. nov.

Species *R. coreano* Miq. affinis, qui inflorescentiis corymbosis, sepalis oblongo-ovatis ad ovato-lanceolatis, apice acuminatis, extus cano-pubescentibus, margine tomentosis, ad fructus maturitatem reflexis, petalis obovatis sepalis subaequilongis vel paullo brevioribus distinguitur.

Frutex erectus 1—2 m altus, aculeis erectis vel leviter falcatis armatus. Folia quinato-pinnata; foliola ovata, late ovata vel rhombeo-ovata, 2—6 cm longa, 1.5—4 cm lata, acuta, basi cuneata ad subrotundata, utrinsecus glabra vel in nervis pubescentia, margine grosse argute serrata vel incise duplicato-serrulata; stipulae lineari-lanceolatae, puberulae. Paniculae breviter columnares, lutescenti-pubescentes; flores diam. 5—8 mm; sepala ovata vel late ovata; petala spatulata, rarius obovata, purpurea, sepalismulto longiora; ovaria cano-villosa. Fructus subglobosi diam. 6—8 mm, rubri, glabri vel subglabri.

Shaanxi (陕西): Zhenba (镇巴), alt. 1360 m 19. V. 1960, Basha Exped. Univ. Boreali-occid. (西北大学生物系巴山队) 186 (Typus, PE); Pingli (平利), P. Y. Li (李培元) 1441; Mei Xian (眉县), K. T. Fu (傅坤俊) 2629; Foping (佛坪), K. T. Fu (傅坤俊) 4557; Nanwutai Shan (南五台山), T. N. Liou (刘慎谔) et al. 174; Chang'an (长安), Huang He Exped. (黄河队) 4; Hua Shan (华山), T. N. Liou (刘慎谔) 10647, 10648; Taibai Shan (太白山), T. P. Wang (王作宾) 6675; ibidem, K. T. Fu (傅坤俊) 2629; ibidem, T. N. Liou (刘慎谔) et al. 1930.

Gansu (甘肃): Tianshui (天水), K. M. Liou (刘继孟) 10064; ibidem, Huang He Exped. (黄河队) 3614。

Henan (河南): Xixia (西峡), sine coll. 462.

此种和插田泡 *R. coreanus* Miq. 区别在于后者为伞房花序;萼片长卵形至卵状披针形,顶端渐尖,外被灰白色短柔毛,边缘具绒毛,在果期反折;花瓣倒卵形,与萼片近等长或稍短。

## 49e. 线萼针刺悬钩子 新变种

**Rubus pungens** Camb. var. **linearisepalus** Yü et Lu, var. nov.

Ramuli subinermes vel sparsim aciculati; ramuli floriferi petiolique cum pedicellis calyceibusque stipitato-glandulosi et pubescentes; calyces densissime aciculati. Folia pin-



nato-quinata vel septenata, terminale saepe ovato-lanceolatum, utrinque densius pubescentia; sepala late linearia vel lineari-lanceolata ad 2 cm longa.

Yunnan (云南): Weixi (维西), alt. 3200 m 16. VII. 1940, K. M. Feng (冯国楫) 4639 (Thpus, PE); Lijiang (丽江), T. T. Yü (俞德浚), 15099.

枝上近无刺或有稀疏细针刺;花枝、叶柄、花梗和花萼具腺毛和柔毛;花萼密被针刺。小叶 5—7 枚,顶生小叶卵状披针形,两面被较密柔毛;萼片宽线形或线状披针形,长达 2 厘米。

亚组 6. **多心皮亚组** Subsect. **Rosaefolii** (Focke) Yü et Lu, stat. nov.—Sect. *Rosaefolii* Focke, Bibl. Bot. 72(2): 148. 1911.

Folia 1—4-jugo (raro 5-jugo)-pinnata, subtus pubescentia, rarissime glabra. Flores solitarii vel in corymbos raro paniculas dispositi. Fructus ellipsoidei, oblongi, ovoideo-globosi vel subglobosi.

59b. **腺毛大红泡** 新变种

**Rubus eustephanus** Focke ex Diels var. **glanduliger** Yü et Lu, var. nov.

A var. *eustephanus* differt ramis floriferis vel pedicellis sparse vel densius breviter stipitato-glandulosis.

Sichuan (四川): Chengkou (城口), W. P. Fang (方文培) 10282; Nanchuan, (南充) T. H. Hsiung (熊济华) et al. 90831; ibidem, sine coll. 3171; Chongqing (重庆) K. C. Kuan (关克俭) et al. 72; ibidem, T. T. Yü (俞德浚) 2759; Guan Xian (灌县), W. P. Fang (方文培) 12211; ibidem, C. Ho (何铸) 12205、12231; Ebian (峨边) T. T. Yü (俞德浚) 858; Tianquan (天全), alt. 1800 m, 1. IV. 1953, H. L. Tsiang (蒋兴麐) 33689 (Typus, PE); Shimian (石棉), C. C. Hsieh (谢朝俊) 39637、39875; Leibo (雷波), Z. T. Quan (管中天) 8290; Liang Shan (凉山), Z. T. Quan (管中天) 10057。

与原变种区别在于花枝或花梗有疏密不等的短腺毛。

亚组 7. **光叶亚组** Subsect. **Leucanthi** (Focke) Yü et Lu, stat. nov.—Sect. *Leucanthi* Focke, Bibl. Bot. 72(2): 146. 1911. p. p.

Folia saepius ternata, rarius pinnato-quinata vel simplicia, coriacea vel subcoriacea, subtus glabra. Flores solitarii vel nonnulli in corymbum dispositi; gynophorum breviter stipitatum vel substipitatum. Fructus subglobosi vel ovoideo-globosi, raro oblongi, glabri.

67. **草果山悬钩子** 新种 图版 1:4

**Rubus zhaogoshanensis** Yü et Lu, sp. nov.

Habitu *R. leucantho* Hance similis, sed foliolis 3—5, anguste ellipticis ad elliptico-lanceolatis, margine irregulariter minute et argute serratis vel dense incise duplicato-dentatis, sepalis ovato-lanceolatis, apice longe caudatis, fructibus diam. 1 cm differt. *R. columellari* Tutcher proxima, qui foliolis ellipticis vel ovato-lanceolatis, terminali laterilibus multo longiore, margine grosse serratis, floribus saepissime 3—7 in corymbum dispositis, sepalis acutis, carpellis numerosissimis ad 300, receptaculis stipitatis, fructibus

majoribus differt.

Frutex 0.8—1 cm altus, glaber et recurvo-aculeolatus; foliola 3—5, anguste elliptica ad elliptico-lanceolata, 6—9 cm longa, 2—3 cm lata, terminale lateralibus paullo longiore, acuminata ad caudata, basi cuneata ad rotundata, utrinque glabra, margine inaequaliter et argute simpliciter-dentata vel incise duplicato-serrata; stipulae et bractee lineares. Flores 2—3 vel solitarii; calyces extus glabri; sepala ovato-lanceolata, caudata; petala alba; ovaria glabra. Fructus ovoidei, diam. ca. 1 cm, glabri.

Yunnan (云南): Xichou (西畴), alt. 1600 m, 3. V. 1964, S. Z. Wang (王守正) 26 (Typus, PE).

此种和白花悬钩子 *R. leucanthus* Hance 相近, 惟后者小叶 3—5 枚, 狭椭圆形至椭圆披针形, 边缘具细密锐锯齿或缺刻状细密重锯齿; 萼片卵状披针形, 顶端长尾尖; 果实直径约 1 厘米。和小柱悬钩子 *R. columellaris* Tutcher 比较, 后者小叶椭圆形或卵状披针形, 顶生小叶比侧生者长得多, 边缘具不规则粗锯齿; 花常 3—7 朵成伞房状花序, 萼片顶端急尖; 心皮多达 300 枚; 花托具柄; 果实较大。

68b. 柔毛小柱悬钩子 新变种

***Rubus columellaris* Tutcher var. *villosus* Yü et Lu, var. nov.**

Ramuli, petioli foliolaque utrinque cum pedicellis calycibusque densius villosa.

Guangdong (广东): Lianshan (连山), alt. 400 m 1. VI. 1958, P. S. Taam (谭沛祥) 58254 (Typus, PE), 57967.

小枝、叶柄和叶片两面以及花梗和花萼被较密长柔毛。

69. 少齿悬钩子 新种

***Rubus paucidentatus* Yü et Lu, sp. nov.**

Habitu *R. columellari* Tutcher proxima, qui foliolis ellipticis vel ovato-lanceolatis, terminali lateralibus paullo longiore, margine densius serrulatis, floribus 3—7 in corymbum dispositis, ovariis glabris distinguitur.

Suffrutex, glaber vel subinermis et aculeolatus. Folia ternata; foliola anguste lanceolata, terminale 7—14 cm longo, lateralia (1.5)2—6 cm longa, 1—2.5 cm lata, acuminata, basi rotundata, utrinque glabra, margine sparsissime minute dentata; stipulae et bractee lineares, glabrae. Flores diam. 1.5—2 cm, solitarii vel 2—3 terminales; calyces externe glabri; sepala ovato-lanceolata vel triangulari-lanceolata, acuminata vel acuta; petala late obovata, alba, puberula; ovaria apice pubescentia.

Guangdong (广东): Yang Shan (阳山), alt. 1200m, 4. VI. 1956, L. Teng (邓良) 1266 (Typus, PE), 1202; Ruyuen (乳源), Y. K. Liu (刘煥光) 482; sine loc. Y. K. Liu (李荫昆) 40134.

和小柱悬钩子 *R. columellaris* Tutcher 区别在于后者小叶椭圆形或卵状披针形, 顶生小叶比侧生者稍长, 边缘具较密锯齿; 花常 3—7 朵成伞房状花序; 子房无毛。

69b. 广西少齿悬钩子 新变种

***Rubus paucidentatus* Yü et Lu var. *guangxiensis* Yü et Lu, var. nov.**

A var. *paucidentato* recedit foliolis oblongo-ellipticis vel ellipticis, 5—7 cm longis, margine subintegris, terminali lateralibus paullo longiore.

Guangxi (广西): Silè (思乐), Shiwan Dashan (十万大山), alt. 800 m, 15. V. 1944 S. H. Chun (陈少卿) 5110 (Typus, SCBI).

与原变种区别在于小叶片长圆状椭圆形或椭圆形,长5—7厘米,边缘近全缘,顶生小叶仅稍长于侧生小叶。

亚组 8. **大苞亚组** Subsect. **Wushanenses** Yü et Lu, subsect. nov.——Sect. *Pungentes* Focke, Bibl. Bot. **72**(2): 160. 1911. p. p.

Folia ternata vel pinnato-quinata (raro septenata), subtus densissime tomentosa; stipulae bracteaque magnae, ovatae vel rotundatae. Flores pauci in corymbum dispositi. Fructus globosi vel subglobosi, longe tomentosi. Typus subsectionis: *R. wushanensis* Yü et Lu.

### 72. 巫山悬钩子 新种

**Rubus wushanensis** Yü et Lu, sp. nov.

Ex affinitate *R. lasiostylis* Focke, a quo ramis floriferis 5—7-foliolatis, foliolo terminali elliptico, stipulis et bracteis majoribus, 1.2—1.8 cm longis subrotundatis vel late ovatis, sepalis late ovatis vel ovato-lanceolatis diagnositur.

Frutex 2 m altus, glaber vel sparsim pubescens et aculeolatus. Folia composita 5—7-foliolata, terminale ellipticum, lateralia oblonga vel ovato-lanceolata, 10—12 cm longa, 3.5—7 cm lata, acuminata, basi rotundata, subtus dense cinereo-tomentosa, margine grosse serrata; stipulae bracteaque majores, late ovatae vel subrotundatae, glabrae. Flores in corymbos aggregati; calyces glabri, rubro-brunnei; sepala late ovata vel ovato-lanceolata, breviter caudata; petala oblongo-obovata; ovaria longe cano-tomentosa. Fructus subglobosi diam. 1.5 cm dense longe cano-tomentosi.

Sichuan (四川): Wushan (巫山), alt. 2000 m, 26. VII. 1958, K. H. Yang (杨光辉) 59052 (Typus, PE).

本种和绵果悬钩子 *R. lasiostylus* Focke 近缘,但花枝具5—7小叶,顶生小叶椭圆形;托叶和苞片较宽大,长1.2—1.8厘米,近圆形或宽卵形;萼片宽卵形或卵状披针形。

亚组 9. **短柄亚组** Subsect. **Alpestres** (Focke) Yü et Lu, stat. nov.——Sect. *Alpestres* Focke, Bibl. Bot. **72**(2): 143. 1911.

Folia palmato-ternata vel quinata, subtus sparse pilosa. Flores solitarii vel pauci in inflorescentiam corymbosam dispositi; gynophorum stipitatum vel substipitatum. Fructus hemisphaerici vel subglobosi, glabri vel sparsim pilosa.

### 73c. 长萼掌叶悬钩子 新变种

**Rubus pentagonus** Wall. ex Focke var. **longisepalus** Yü et Lu, var. nov.

A var. *pentagono* recedit ramis petiolisque cum pedicellis calycibusque eglandulosis, calycibus aciculatis, floribus majoribus, sepalis 2—3 cm longis, apice longe caudatis.

Yunnan (云南): Pingbian (屏边), alt. 1500 m, 12. VI. 1934, H. T. Tsai (蔡希陶)

62571 (Typus, PE); Wenshan (文山), K. M. Feng (冯国楣) 22411。

枝、叶柄、花梗和花萼无腺毛, 仅于花萼上有针刺; 花较大, 萼片长 2—3 厘米, 顶端长尾尖。

73d. **无腺掌叶悬钩子** 新变种

**Rubus pentagonus** Wall. ex Focke var. **eglandulosus** Yü et Lu, var. nov.

A typo recedit planta eglandulosa, foliis palmatim quinquefoliolatis, floribus minoribus, sepalis ad 2 cm longis.

Xizang (西藏): Mèdong (墨脱), alt. 2000 m, 10. VIII. 1980, Plateau Group Inst. Bot. Acad. Sin. (植物所生态室高原组) 14142 (Typus, PE), 10700, 14056, 14582.

本变种植株无腺毛, 叶具掌状 5 小叶; 花较小, 萼片长在 2 厘米以下。

74. **五叶悬钩子** 新种 图版 2:1

**Rubus quinquefoliolatus** Yü et Lu, sp. nov.

*R. pentagono* Wall. ex Focke proxima, qui foliis palmato-ternatis, petiolis pedicellisque vel ramulis stipitato-glandulosis, calycibus glandulis stipitatis et aculeolis acicularibus inaequalibusque obsitis, fructibus glabris diagnoseitur.

Frutex 1.5 cm altus; rami et petioli juventute pubescentes mox glabrescentes, sparse aculeolati. Folia palmato-quinata; foliola elliptico-lanceolata vel rhombico-lanceolata, 3—7 cm longa, 1—2.4 cm lata, acuminata ad caudata, basi cuneata, utrinque in nervis pubescentia, margine grosse simpliciter vel dupliciter dentata; stipulae bracteaequae lineari-lanceolatae, puberulae. Flores saepissime solitarii, diam. 1.5—2 cm, terminales; calyces glabri, inermes vel sparsim aciculati; sepala ovato-lanceolata vel triangulari-lanceolata, caudata; petala ovata vel elliptica, alba, puberula; carpella 10—15, flavo-villosa. Fructus hemisphaerici diam. 1—1.5 cm, rubri, villosi.

Yunnan (云南): Jinping (金平), 13. V. 1956, Yunnan Complex. Exped. (云南综考队) 1437 (Typus, PE); Maguan (马关), C. A. Wu (武全安) 8180; Shuangjiang (双江), G. S. Sin (辛景三) 794; Wenshan (文山), K. M. Feng (冯国楣) 22342.

Guizhou (贵州): Anlong (安龙), Y. T. Chang et al. (张永田等) 4436.

本种和掌叶悬钩子 *R. pentagonus* Wall. ex Focke 相近, 惟后者为掌状 3 小叶; 叶柄、花梗或小枝有腺毛; 花萼具腺毛和疏密不等的针刺; 果实无毛。

亚组 10. **盾叶亚组** Subsect. **Peltati** (Focke) Yü et Lu, stat. nov.—Sect. *Peltati* Focke, Bibl. Bot. 72(2): 129. 1911.

Folia simplicia, magna, peltata, 3—5-palmato-loba, subtus pubescentia. Flores solitarii. Fructus cylindrici, pubescentes.

亚组 11. **球果亚组** Subsect. **Corchorifolii** (Focke) Yü et Lu, stat. nov.—Sect. *Corchorifolii* Focke, Bibl. Bot. 72(2): 129. 1911.

Folia simplicia, minora, subtus pubescentia vel glabra. Flores solitarii vel 2—3 glomerati vel pauci in racemum brevem dispositi. Fructus subglobosi vel ovoideo-globosi, pubescentes vel glabri.

## 81b. 三裂中南悬钩子 新变种

**Rubus grayanus** Maxim. var. **trilobatus** Yü et Lu, var. nov.

A var. *grayano* foliis trilobatis, lobis triangulari-ovatis, terminali lateralibus multo longiore, pedicellis 1—2 cm longis, glabris differt.

Fujian (福建): Chong'an Wuyi Shan (崇安武夷山), alt. 700 m, 4. IV. 1955, M. J. Wang et al. (王名金等) 3351 (Typus, PE), 3044.

本变种叶片3裂, 裂片三角卵形, 顶生裂片比侧生者长约1倍以上; 花梗长1—2厘米, 无毛。

组 4. 木莓组 Sect. **Malachobatus** Focke, emend Yü et Lu

亚组 12. 绢毛亚组 Subsect. **Lineati** (Focke) Yü et Lu, stat. nov.—Sect. *Lineati* Focke, Bibl. Bot. **72**(1): 45. 1910.

Folia palmato-ternata vel quinata, rarius simplicia; foliola penninervia, costulis numerosis approximatis parallelisque, subtus densius sericea. Flores ad apicem ramorum in paniculas corymbosas aggregati vel in axillis foliorum fasciculati; carpella ca. 50—100.

## 86c. 光秃绢毛悬钩子 新变种

**Rubus lineatus** Reinw. var. **glabrescens** Yü et Lu, var. nov.

A typo recedit pedicellis calycibusque glabrescentibus.

Yunnan (云南): Pingbian (屏边), alt. 1900m, 12. X. 1954, K. M. Feng (冯国楫) 4960 (Typus, PE); Jinping (金平), Yunnan Complex. Exped. (云南综考队) 2404.

花梗和花萼上的绢毛脱落, 仅具稀疏柔毛状毛。

亚组 13. 掌叶亚组 Subsect. **Cochinchinenses** (Focke) Yü et Lu, stat. nov.—Sect. *Cochinchinenses* Focke, Bibl. Bot. **72**(1): 49. 1910.

Folia palmato-quinata, rarius ternata, subtus tomentosa. Flores in inflorescentias corymboso-paniculatas terminales vel subracemosas axillares dispositi vel pauci in axillis foliorum fasciculati; carpella fere 30—40.

亚组 14. 托叶亚组 Subsect. **Foliaceistipulati** Yü et Lu, subsect. nov.

Folia palmato-ternata, subtus sparsim pilosa; stipulae bracteaque magnae et foliiformes, non lobulatae, dentatae. Flores 3—5 fasciculati vel in racemos breves aggregati; carpella ca. 50—60. Typus subsectionis: *R. foliaceistipulatus* Yü et Lu.

## 88. 托叶悬钩子 新种 图版 2:2

**Rubus foliaceistipulatus** Yü et Lu, sp. nov.

A speciebus ceteris recedit foliis palmato-ternatis, stipulis liberis, foliiformibus, 2—3.5 cm longis, floribus 3—5 fasciculatis vel in racemum brevem munitis, floribus diam. 2—3 cm.

Frutex ad 2 m altus, sparsim aculeatus et juventute pubescens. Folia palmato-ternata; foliola elliptica vel oblongo-elliptica, 6—14 cm longa, 2.5—5 cm lata, acuminata, basi late cuneata ad rotundata, subtus nervis puberulis exceptis glabra, margine irre-

gulariter grosse serrata, utrinque 10—15-costulata; stipulae liberae, foliiformes, ovatae vel oblongo-ovatae, 2—3.5 cm longae, 1.2—2 cm latae, margine inaequaliter dentatae. Flores 3—5 glomerati vel in racemum brevem dispositi; flores diam. 2—3 cm; calyces rubro-brunnei, glabri; sepala late ovata vel triangulari-ovata, 1.2—2 cm longa, caudata; petala elliptica vel spathulata, alba; ovaria glabra.

Yunnan (云南): Tengchong (腾冲), alt. 2800 m, 1. VI. 1964, S. K. Wu (武素功) 6972 (Typus, KUN), 6754.

本种为掌状 3 小叶; 托叶离生, 叶状, 长 2—3.5 厘米; 花 3—5 朵成束或成短总状花序, 花直径 2—3 厘米, 在悬钩子属中较为特殊。

亚组 15. 梨叶亚组 Subsect. **Pirifolii** (Focke) Yü et Lu, stat. nov.—Sect. *Pirifolii* Focke, Bibl. Bot. **72**(1): 63. 1910. p. p.

Folia simplicia, ovata, oblongo-ovata ad oblongo-lanceolata, apice acuta ad breviter acuminata, subtus glabra vel pubescentia. Flores in paniculas terminales congesti vel in axillis foliorum glomerati; carpella 5—15.

89d. 心状梨叶悬钩子 新变种

**Rubus pirifolius** Smith var. **cordatus** Yü et Lu, var. nov.

Folia basi leviter cordata; inflorescentiae calycesque sparsim pubescentes vel subglabri.

Yunnan (云南): Pingbian (屏边), alt. 1500 m, 15. VII. 1934, H. T. Tsai (蔡希陶) 62651 (Typus, PE); Maguan (马关), C. A. Wu (武全安) 8191.

叶基浅心形; 花序和花萼上毛较稀少或几无毛。

亚组 16. 尖叶亚组 Subsect. **Acuminati** (Focke) Yü et Lu, stat. nov.—Sect. *Acuminati* Focke, Bibl. Bot. **72**(1): 67. 1910.

Folia simplicia, late ovata vel oblongo-rotundata, apice acuminata ad caudata, subtus glabra vel pubescentia. Inflorescentiae paniculatae terminales, amplae angustaeque vel subracemosae ex axillis foliorum inferiorum ortae; carpella fere 10—14.

90b. 柔毛尖叶悬钩子 新变种

**Rubus acuminatus** Smith var. **puberulus** Yü et Lu, var. nov.

A var. *acuminato* differt petiolis pedicellisque cum calycibus puberulis, foliis margine grosse denticulatis.

Guizhou (贵州): Xingyi (兴义), alt. 1050 m, 15. VII. 1960, Y. T. Chang et al. (张永田等) 6207 (Typus, PE); Ceheng (册亨), Z. Y. Cao (曹子余) 536; sine loc., S. W. Teng (邓世纬) 90846.

叶柄、花梗和花萼微具柔毛; 叶边具粗大锯齿。

92. 独龙悬钩子 新种

**Rubus taronensis** Wu ex Yü et Lu, sp. nov.

Proxima *R. acuminato* Smith, qui omnino planta eglangulosa, pedicellis inflorescentiisque cum calycibus glabris recognoscitur.

Fruticosus. Ramuli et petioli tenuiter pubescentes, lutescenti-glandulosi, aculeolati. Folia ovato-lanceolata, 8—12 cm longa, 3—5 cm lata, longe caudata, basi rotundata, utrinsecus lutescenti-glandulosa, nervis pubescentibus exceptis glabra, margine irregulariter argute serrulata; stipulae deciduae. Inflorescentiae anguste paniculatae, terminales, axillares subracemosae, pubescentes, glandulis lutescentibus obductae; bractae lanceolatae vel lineares, integrae vel lobatae; sepala triangulari-ovata, acuminata vel caudata; petala oblonga, puberula; carpella ca. 15—20, glabra.

Yunnan (云南): Qiu Jiang (独龙江), alt. 1700 m, 27. VII. 1938, T. T. Yü (俞德浚) 19491 (Typus, PE).

此种和尖叶悬钩子 *R. acuminatus* Smith 区别在于后者全体无腺体, 叶柄、花序和花萼常无毛。

亚组 17. 长叶亚组 Subsect. **Dolichophylli** Yü et Lu, subsect. nov.—Sect. *Elongati* Focke, Bibl. Bot. **72**(1): 49. 1910. p. p.—Sect. *Pirifolii* Focke, l. c. **72**(1): 63. 1910. p. p.

Folia simplicia, ovato-oblonga ad lanceolata, apice acuminata ad caudata, subtus dense cano-helvolo-vel flavo-tomentosa, rarius glabra vel sparse pilosa. Flores ad apicem ramorum vel axillas foliorum in paniculam amplam vel angustam congesti vel paucis axillaribus concomitati; carpella 10—40. Typus subsectionis: *R. dolichophyllus* Hand.-Mazz.

#### 96b. 毛梗长叶悬钩子 新变种

**Rubus dolichophyllus** Hand.-Mazz. var. **pubescens** Yü et Lu, var. nov.

Rhachides pedicellique pubescentes; sepala fructificatione erecta.

Guizhou (贵州): Pan Xian (盘县), alt. 2100 m, 22. VIII. 1959, Anshun Exped. (安顺队) 955 (Typus, PE).

花序轴和花梗具柔毛, 萼片在果期直立。

#### 97. 饶平悬钩子 新种 图版 2:3

**Rubus raopingensis** Yü et Lu, sp. nov.

Species *R. dolichophyllo* Hand.-Mazz. similis, sed foliis non coriaceis, stipulis profunde dissectis, ramis petiolisque cum inflorescentiis calycibusque flavo-villosis et sparsim stipitato-glandulosis, sepalis ovato-lanceolatis diversa.

Frutex scandens; ramuli et petioli flavo-villosi glandulas stipitatas sparsasque cum aculeis falcatis paucisque gerentes. Folia non coriacea, lanceolata vel oblongo-lanceolata, 7—12 cm longa, 2—4.5 cm lata, acuminata, basi rotundata ad subcordata, supra in nervis pubescentia, subtus cano-tomentosa, margine inaequaliter argute serrata; stipulae et bractae profunde dissectae. Inflorescentiae paniculatae, terminales vel axillares, cum calycibus flavo-villosae et stipitato-glandulosae; flores diam. ca. 1 cm; calyces purpurei; sepala ovato-lanceolata, caudata, integra; petala nulla; carpella pauca, glabra. Fructus minores, nigri.

Guangdong (广东): Raoping (饶平), alt. 500 m, 28. V. 1957, S. C. Lee (李学根) 200813 (Typus, PE).

此种和长叶悬钩子 *R. dolichophyllus* Hand.-Mazz. 近缘, 但叶片非革质; 托叶深裂; 枝、叶柄、花序和花萼均被浅黄色长柔毛和疏腺毛; 萼片卵状披针形。

97b. 钝齿悬钩子 新变种

***Rubus raopingensis*** Yü et Lu var. ***obtusidentatus*** Yü et Lu, var. nov.

A typo foliis subtus glabrescentibus vetustate, margine obtuse minute dentatis distincta.

Fujian (福建): Nanjing (南靖), alt. 660 m, 2. VIII. 1963, Amoy Univ. Exped. (厦大队) 461 (Typus, PE), 507.

叶片下面绒毛在老时逐渐脱落, 边缘具细钝锯齿。

98. 西畴悬钩子 新种 图版 2:4

***Rubus xichouensis*** Yü et Lu, sp. nov.

Species *R. dolichophyllo* Hand.-Mazz. et *R. raopingensi* Yü et Lu affinis, a quibus planta eglandulosa, petiolis 10—15 mm longis, foliis subtus tomento flavo-vel cinereo-flavo obtectis, floribus in paniculam brevem terminalem vel racemum corymbumque axillarem dispositis, inflorescentiis et calycibus sericeo-villosis distinguitur.

Frutex scandens ca. 0.5—1 cm altus; ramuli flavo-villosi, inermes vel paullo aculeolati. Folia subcoriacea oblongo-lanceolata, 11—19 cm longa, 2.5—5 cm lata, caudata, basi rotundata, subtus tomento flavo vel cinereo-flavo obtecta, margine argute serrata; stipulae deciduae, anguste oblongae, apice palmato-laciniatae. Paniculae breves terminales vel racemi corymbique axillares, cum calycibus fulvo-sericeo-villosae; sepala late ovata, integra vel apice laciniata; petala alba; ovaria ca. 30—40, glabra.

Yunnan (云南): Xichou (西畴), 10. V. 1959, C. A. Wu (武全安) 8069 (Typus, KUN), 7504; ibidem, S. Z. Wang (王守正) 27.

本种和长叶悬钩子 *R. dolichophyllus* Hand.-Mazz. 以及饶平悬钩子 *R. raopingensis* Yü et Lu 易于区别, 其植株无腺毛; 叶柄长 10—15 毫米; 叶片下面被黄色或灰黄色绒毛; 花成短圆锥状、短总状或伞房状花序; 花序和花萼密被黄色绢状长柔毛。

(持续 to be continued)