

太行花属——蔷薇科一新属

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我们在从事蔷薇科植物研究工作中,发现了残存在我国太行山南部海拔 1000—1400 米的山崖石壁上一个新属,因名太行花属。它是我国药学界和教育界的科技工作者近年来分别在河南和河北两省采集到的。不久以前,作者又亲赴该地*实地了解其生态环境,获得了比较完整的标本和活植物。蔷薇科中这一较为重要的发现,引起了我们对该科有关属的起源和进化问题的关注,现正在展开分析研究。本文先报道其分类学问题。

太行花属(仙女木族) 新属

Taihangia Yü et Li

多年生草本。地下根茎粗壮。花萼上无叶,仅有少数苞片,苞片 3 裂。基生叶为单叶,边缘有圆钝或急尖锯齿。单花顶生,稀 2 花,雄性和两性花同株或异株;萼筒倒圆锥形或陀螺形,萼片 5,镊合状排裂,副萼片 5,较萼片短小;花瓣 5,白色;雄蕊多数,着生在萼筒边缘;花盘环状,无毛;雌蕊多数,子房基部有短柄,在雄花中数目较少,败育,无毛,在雌花中数目较多,被疏柔毛,螺旋状着生在花托上;花柱顶生,延长,被短柔毛,柱头略为扩大。瘦果被柔毛。

中国太行山特有属,有一种两个变种。

属的模式种:太行花 *Taihangia rupestris* Yü et Li

本属接近羽叶花属 *Acomastylis* Greene 和路边青属 *Geum* L., 但本属与同族中各属植物相比较,花的结构甚为特殊,雄性和两性同株或异株;在雄性花内,雌蕊败育,完全无毛,而在两性花内,子房被疏柔毛,有短柄,螺旋状着生在细瘦的花托上,果时特别延长;花柱延长,被短柔毛;花瓣白色,长于萼片;花萼上无叶,仅有少数不孕苞片;基生叶为单叶。而羽叶花属则为两性花,花柱上半部无毛,在果期略微伸长或不延长,花瓣黄色,基生叶为羽状深裂或羽状复叶;路边青属的花也为两性,花柱顶端或上部弯曲,在果期脱落,花瓣大多为黄色,稀个别为白色,茎多挺拔,茎生叶发达,基生叶为羽状复叶或大头羽状深裂。三属很不相同,易于区别。

太行花 新种 图 1:1—5

Taihangia rupestris Yü et Li

太行花 (原变种)

T. rupestris Yü et Li var. ***rupestris***

多年生草本。根茎粗壮,根深长,扎入石缝中有时高达地上部分 4—5 倍。花萼几无毛或被稀疏柔毛,高 4—15 厘米,萼上无叶,仅有 1—5 枚对生或互生的苞片,苞片 3 裂,裂

* 注:在工作中承蒙河北师范大学张景祥、郭聚刚、河南林县药检所泰山林、张锁成等同志协助,在此表示感谢。

片带状披针形,无毛。基生叶为单叶,卵形或椭圆形,长2—10厘米,宽2—8厘米,顶端圆钝,基部截形或圆形,稀宽楔形,边缘有粗大钝齿或波状圆齿,上面绿色,无毛,下面淡绿色,几无毛或在叶脉基部有极稀疏柔毛;叶柄长2.5—10厘米,几无毛或被稀疏柔毛稀有时叶柄中部以上有1—2个极小的裂片。花雄性和两性同株或异株,单生花萼顶端,稀2朵,花开放后直径3—4.5厘米;萼筒陀螺形,无毛,萼片浅绿色或常带紫色,卵状椭圆形或卵状披针形,顶端急尖至渐尖;花瓣白色,倒卵状椭圆形,顶端圆形;雄蕊多数,着生在萼筒边缘;花盘环状;雌蕊多数,被疏柔毛,螺旋状着生在花托上,在雄性花中数目较少,不发育且无毛;花柱被短柔毛(毛长约0.2毫米),延长达14—16毫米,仅顶端无毛,花柱略扩大;花托在果时延长达10毫米,纤细柱状,直径约1毫米。瘦果长3—4毫米,被疏柔毛(毛长0.5毫米)。瘦果长3—4毫米,被疏柔毛。花果期5—8月。

河南:修武,一斗水,1974年,无采集人名262;林县,城关西郊黄华堰崮山,1978年6月24日,周可范、徐汉成,无采集号;同上地点,阴坡,石灰岩石缝中,海拔1100—1150米,1980年5月19日,李朝奎、郭聚刚1034(模式标本,存中国科学院植物研究所标本室)。

缘毛太行花 新变种 图 1:6

T. rupestris Yü et Li var. *ciliata*

Yü et Li, var. nov.

本变种与原变种不同在于,叶片呈心状卵形稀三角状卵形,大多数基部呈微心形,边缘锯齿较多,常较深稀有时微浅裂,显著具缘毛,叶柄显著被疏柔毛。花期5—6月。

河北:武安,列江梁沟东岭沟,山岩边,海拔1100米,1979年5月20日,贺土元20750;同上地点,山崖石壁上,海拔1200米,1979年5月20日,张景祥423;同上地点,阴坡,石灰岩峭壁石缝中,1300—1400米,1980年5月15日,张景祥、李朝奎、郭聚刚1010(模式标本,存中国科学院植物研究所标本室);同上,列江村申峽沟,阴坡,石灰岩峭壁石缝中海拔1060—1180米,1980年5月16日,张景祥、李朝奎、郭聚刚1011。

本属植物的生态环境,就我们目前对河北武安列江梁沟东岭沟和列江申峽沟,河南林县城西郊黄华堰崮山和潭桃

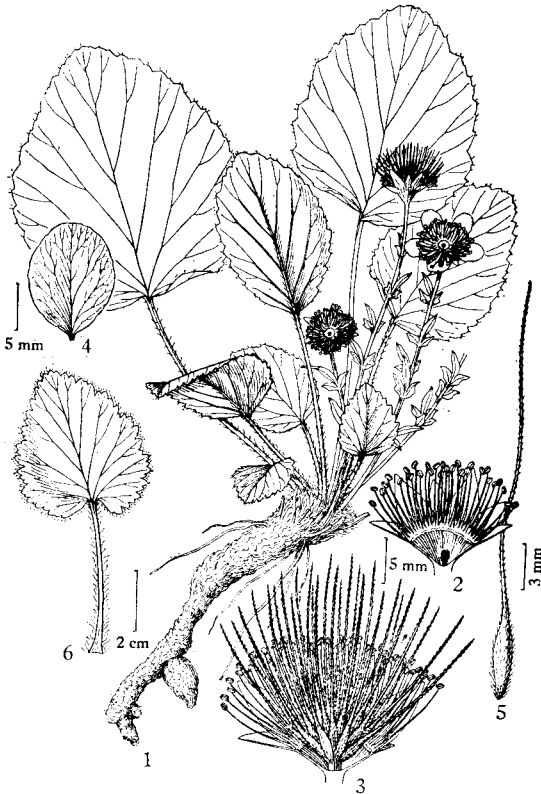


图 1 1—5. 太行花 *Taihangia rupestris* Yü et Li, 1. 植株; 2. 雄花剖面图 × 3; 3. 两性花剖面图 × 3; 4. 花瓣 × 3; 5. 雌蕊 × 5。 6. 缘毛太行花 *Taihangia rupestris* Yü et Li var. *ciliata* Yü et Li, 叶。

金登山四个地点的观察,山嶽地形大致相似。一般看来,大都是东南—南或西南—西北或北三面环山,在北或东北坡海拔1000—1300米以上这种特殊地形环境条件下,在沟岭峭

壁约 100 米上下的范围内,全天均不易遭受到阳光的直接照射,在阳光直接照射到的地方有时太行花分布逐渐消失,或有时这种生态条件下左右两侧可越过一定距离地段分布,并接受部分阳光的照射。根据多年在武安及其附近县分峭壁上采五灵芝的社员讲,这种花大多生长在阴坡石壁上,不见阳光,不干也不湿,这充分说明了太行花的主要生态环境,并且是中生性的。

TAIHANGIA YÜ ET LI—A NEW GENUS OF ROSACEAE FROM CHINA

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In the course of study on Chinese Rosaceae, we have recently discovered a new genus, collected from the south part of Taihang Mountain among the slits on the cliffs. Hence the new genus is named *Taihangia*. For many years numerous botanical expeditions in North China had not succeeded in discovering this peculiar plant, but of late years, specimens were collected from the mountaineous regions both in the Honan and Hopei provinces. Meanwhile we are carrying on further studies on the probable origin and evolution of this new genus in relation to affiliated taxa. The descriptions of the new genus, including one species with two varieties, are as follows:

Taihangia Yü et Li, gen. nov. (Tribe Dryadeae)

Herbae perennes, caudicibus validis, cylindricis. Scapi non foliosi, bracteis trisectis, paucis instructi. Folia basalia simplicia ovata, elliptica vel cordate-ovata, margine dentata. Flores terminales unici raro 2, andromonoecii vel androdioecii; calycis cupula obconica vel turbinata, sepalis internis 5, valvatis, externis majoribus; petala 5, alba; stamina numerosa, ad marginem disci inserta; discus annulatus, glaber; carpella numerosa, basi carpophoris brevibus armata, in floribus maribus numero pauca, abortiva, glabra, in bisexualibus pilis obtecta, ad receptaculum spiratim inserta; stylus terminalis, pubescens, elongatus, stigmatibus vix dilatato. Achenium pilosum.

Genus endemicum, specie una in montibus Taihang Sinae borealis.

Typus generis: *Taihangia rupestris* Yü et Li

Genus affinis *Geo* L. et *Acomastyli* Greene, a quibus floribus andromonoeciis vel androdioeciis, petalis albis, carpellis in floribus maribus numero paucis, abortis ac glabris, in bisexualibus pilis obtectis, ad receptaculum tenue elongatumque spiraliter insertis, stylis elongatis pubescentibus, receptaculis maturis elongatis tenuibusque, foliis basalibus simplicibus differt.

Taihangia rupestris Yü et Li, sp. nov.

T. rupestris Yü et Li var. **rupestris**

Herba perennis. Scapi glabri, 5—11 cm. alti, bracteis sterilibus 1—5, oppositis vel alternis, viridulis, 3-sectis, segmentis lanceolatis, mediis lateralibus majoribus, utrinque glabris. Folia basalia simplicia ovata vel elliptica, 2—10 cm. longa, 2—8 cm. lata,

apice obtusa, basi truncata vel rotundata raro late cuneata, margine dentibus undulato-crenatis vel obtusis, utrinque glabra vel subtus ad basin nervorum pilosa, interdum supra petiolorum medium 1—2 pinnulis minutissimis accessoriis; petiolis glabris vel parce pilosis. Flores solitarii, raro 2, terminales, andromonoecii vel androdioecii, 3—4.5 cm. diam.; sepala viridula vel purpurascens, interna ovato-elliptica vel ovato-lanceolata, apice acuta aut acuminata, multo longiora quam externa elliptico-lanceolata, apice acuta; petala alba, obovato-elliptica, apice rotundata vel emarginata; stamina numerosa; carpella numerosa, pilosa, in floribus maribus numero pauca, abortiva glabraque, ad receptaculum spiraliter inserta; stylus pubescentis 0.2 mm. longis obtectus vix apice glaber, non articulatus, elongatus, 14—16 mm. longus, stigmatate parum dilatato; receptaculum maturum elongatum, 10 mm. longum, tenue, 1 mm. diam.. Achenium 3—4 mm. longum, pilis tenuibus 0.5 mm. longis armatum.

Honan: Xiuwu Xian, Yi-Deu-Shui, V. 28, 1974, sine collect. 262; Lin Xian occid., Huanghua-Mangcha-Shan, VI. 24, 1978, K. F. Chao et H. C. Hsu sine num.; *ibid.*, in declivitatibus umbrosis ad rimas abruptorum calcareorum, alt. 1100—1150 m., V. 19, 1980, Li et J. G. Guo 1034 (Typus in HP).

T. rupestris Yü et Li var. **ciliata** Yü et Li, var. nov.

A typo foliis cordate-ovatis raro deltoideo-ovatis, basi leviter cordatis, margine leviter profunde dentatis interdum lobatis, conspicue ciliatis, petiolis pilosis differt.

Hopei: Wuan Xian occid., Le-Jiang, Liang-Go Tung-Ling-Go, in rupibus, alt. 1200 m., V. 20, 1979, C. Y. He 2075; *ibid.*, in abruptis, alt. 1100 m., V. 20, 1979, J. X. Chang 423; *ibid.*, in clivis umbrosis ad fissuras abruptorum calcareorum, alt. 1300—1400 m., V. 15, 1980, J. X. Chang, C. L. Li et J. G. Guo 1010 (Typus in HP); *ibid.*, Le-Jiang Cun, Shen-Jiao-Go, in declivitatibus umbrosis ad rimas abruptorum calcareorum, alt. 1060—1180 m., V. 16, 1980, J. X. Chang, C. L. Li et J. G. Guo 1011.

On May, 1980, we went to four localities of the Honan and Hopei provinces to understand the habitats of the genus *Taihangia* and to collect specimens and living plants. So far as the ecological conditions of the *Taihangia* is concerned. it was discovered that topography of the mountains, where the plants grow, are mostly similar. In general, these plants grow among the slits on the cliffs which are situated on the shady slope, surrounded by the south-east, south or south-west and north-west or north mountains. The habitat is not illuminated by the direct sunlight whole day. Where there is the sunlight, the *Taihangia* disappears gradually, or sometimes where the sunlight shines partly for a short time, the plants of *Taihangia* are present. According to a commune member, who has been collecting the wu-ling-chi (a Chinese medicine) on the cliffs for many years, this kind of plant grow on shady slope, neither arid nor wet, the sunlight disappearing from sight. This shows what primary ecological conditions are and that these herbs are mesic.