Gesneriaceae of South China 华南苦苣苔科植物























弥勒苣苔属



【秘密特征】《年生节本、干油上等、叶均基生、聚众 【杨杏桂】多年生年、无世之。叶芍美生、聚中 花序集生、花少贵、亳乃之 秋、对生、花萼盛封对称。 红菜是、花居贵生(瑜培技、用记录中力常告、沟坡原 林木瓦斯十组后已承发生安化改良),二服养。 编辑— 次版市、不計解、比豫部分:微却温彩,上最礼装形, 下居不分裂。在自在当此、内藏、花再填彩。 消滅 成对玄景、内室平下,退位维加·秋、花园年秋,予成 线形,1室,侧膜胎座2个,内伸至子房近中央边缘叉 开,花柱短,柱头1个,小,扁头状,不分裂。蒴果长 問形, 披针形至长間状披针形, 至果梗均直, 不扭曲。 种子网络无附属物。

【种类与分布】 1种,分布于云南(弥勒、石林)、广 西(隆林)和贵州(兴义)。中国特有属。 【生境】生于石灰岩山地林内石壁上,海拔约1 200 m *西和春州) 或2000~2600 m (云南)。

【染色体数目】未知。 【異名来源】由希腊语前缀 "μαρα-, para-" 及全盏苣 苔属拉丁名Isometrum组成。① "μαρα-, para-" 意为 "在-----旁,附近,靠近";② "Isometrum" 即 "全 在……另,附近,单近 ; ② Isometrum 动 虫 盏苣苔属"。 【点评】弥勒苣苔的模式标本由法国传教士F.Ducloux

于1906年在云南弥勒县首次采集并存放于法国巴黎国立 自然历史博物馆显花植物标本馆(P),1997年,王文 标本、认为这是一个假标效的单种属、将其合名为弥勒置古图是Paratisometram W.T.Wang,为中国(三南)特 市。该特除模式标本之外曾在100年的时间里再元集 记录。直到最近极至民等(2006)、许为城等(2009) 和高乞等(2010)先后在三南石林县、广西隆林县和贵 州兴义市发现某种的新分布点。

本属在建立时被认为与全盏苣苔属Isa 接近,因两者均有2对可育雄蕊,冠檐远短于简部。 花冠5裂且近等长(李振宇和王印政,2004)。但实 际上很多证据表明本属与马铃苣苔属十分接近(梁荣 花, 2008)。最近的分子生物学证据表明(M.Möller 等。待发表)本属甚至可能是属于一个包括了百糖苣苔





冠形态,尤其是河口直瓣苣苔A.hekouensis Y.M.Shui & W.H.Chen所体现出来。弥勒苣苔甚至可能最后会被修订 成为某个大属中的一个种。

osette. Inflorescences axillary, few-flowered cymes, long

routes. Inforcescence axillar, few-flowered synes, long optimiler; barea; 3 opposite. Calys. S-paried to the base. Corolla yollow (editor)* anote: the original record showed that the corolla was purple. It may be that the colour of the dried speciments has changed), hillablastic, inside minutely pubreadent on bebes; the funniciliem ubular, not swellen, longer than limit, imba-2 lipide, adaixal in pl-bebed, over 2 times longer than abaxial lip, abaxial lip undivided. Sames 4, included authers barifices, cloterel in pine by adaixal surfaces, these aprailed, not confluent, delissing

ongitudinally, connective not projecting; staminode l

Disc ringlike, Ovary linear, 1-loculed, placentas 2, parietal

labitat: Grows on moss covered rocks or cliffs in limestone nountains, alt. 1,200-1,280 m (Guangxi and Guizhou) or .000-2,600 m (Yunnan).

me number: Unknown Etymology: Composed of the Greek prefix ugou-, para- =

ide, alongside, close by, and the generic name Ison







Comments: Ine type specimen of Paraisometrian
miliense W.T.Wang was first collected by the French
botanist Boanerges F.Ducloux in Mile, in 1906. The
specimen was conserved in Paris hortus siccus (P).
Wang Wen-Tsai (1997), when compiling the volume of Gesneriaceae for the Flora of China, checked the specimer Gesternaceae for the Fiora of China, checked the specimen from P, and considered it was very unusual, raising the species to the rank of genus as Paralsometrum W.T.Wang. It is apparently a Chinese (Yunnan) endemic. Formerly only It is apparently a Chinese (Yunnan) endemic. Formerly only known from the type collections in Mile, and not recollected for the next 100 years, when it was found by Shui Yu-Min et al. (2006), Xu Wei-Bing et al. (2009) and Gao Qi et al. (2001), in Shilin, Yunnan and Longlin, Guangxi, and Xingyi, Guizhou, respectively

The genus was considered close to because of the two pairs of fertile stamens, the corolla limb shorter than the tube and the corolla being five-lobed and of equal-length (Li Zhen-Yu & Wang Yin-Zheng, 2004). s suggest this genus to be closely related to Oreochari Benth. (Liang Rong-Hua, 2008). The latest molecular Benth. (Liang Rong-Hua. 2008). The latest molecular studies indicate that this taxon belongs to a group of genera including Anylostemon Craib, some Briggala Craib species. Oreocharis Benth. and Tremucron Craib (Moller et al., unpublished). The link to Anylostemon Craib is certainly supported by their similar corolla shape, particularly that nsis Y.M.Shui & W.H.Chen (Chen Wen-Hong and Shui Yu-Min. 2006). Paraisometrum W.T.Wang maeventually end up as a species among a large genu





长期間状態形, 长2~8 cm, 寬1~3 cm, 顶端急尖至圆形, 基部新狭至楔形, 边缘全缘或有不规则锯齿或圆锯 方。二歧聚伞花序近伞状, 1~9条, 每花序具2~5花, 花序梗长4~13 cm, 苞片2枚, 花梗长5~10 mm。花萼 钟状,5裂至近基部。花冠淡紫色或白色,长7~10: 直径6~9 mm, 筒长4~6 mm, 檐部二唇形, 上唇2裂, 比 下唇短、裂片相等、近圆形、下唇3裂、裂片相等、与 上曆同形。維姦2枚,退化維姦2枚。柱头1个,头状、稍膨大。蒴果族线形,长2~3.5 cm、螺旋状卷曲。花期

5~6月、果期5~7月。 【分布与生境】分布于广东、海南、广西、湖南和贵州、越南至菲律宾也有分布。生于山坡、路旁、林下阴湿岩石上、海拔100~800 m。 【染色体数目】未知。

【点评】广布种、分布区域十分广泛、但主要集中分布

在我国南方山地。本种极耐旱,是著名的复苏植物、但 在找国南方山地。本种收解早、是含否可复多植物,但 相对披荫苣苔而言牧不耐寒。产地生境形态多变,但多 见于典型的砂砾岩、流纹岩、沉积岩等酸性成土母质岩 石者,于丹霞地貌也较常见,亦有见于石灰岩等碱性成 土母质岩石者,部分甚至能生长在阳面、斜坡面的黄壤 一般苦苣苔科植物不见生长之处。

【属群情况】分布广泛、居群更新良好。

【瀕危情况】智无致危因素。 【建议的IUCN物种测点等级和标准】无价ILeast Con-

cem, LCJ, (写]种难度] 會 【簡確指而] 种子繁殖。 【裁培指而】由于本种的叶面具浓密毛被及除软沟躯 栽培过程中层过分潮湿。因其往往会放使叶片腐烂、

扁蒴苣苔

the billora Chun in Sunvatsenia 6: 283, 1946.



【形态特征】多年生草本、具匍匐茎。叶基生、叶) 倒卵形至倒披针形或椭圆形, 长4.5~12 cm, 宽2~6.5 cm, 顶端微钝, 基部便形, 边缘近全缘, 叶柄长2~14 cm。聚伞花序, 1~2条, 每花序具1~2花, 花序梗长 7~12 cm, 花萼左右对称, 萼荫短, 上既不分裂, 线形 至狭三角形,下唇4裂至中部或中部之上,裂片狭三角 形。花冠简状,淡紫色,简长约2.5~5 cm, 基部之上 缩成细简形,上唇不裂,下唇4裂、裂片近圆形。雄蕊 4枚,退化雄蕊无。蒴果狭椭圆形,长约1.6 cm。花期

【分布与生境】分布于海南(陂水、保亭)。生于溪谷 - ハルコエペ』/F甲 T神剛 (两岸瀬湿石上、海抜750~120(【染色体数目】未知。

【点评】本种特产于海南岛,是扁蒴苣苔属中唯一的-种。标本采集记录表明扁蒴苣苔曾广泛分布在海南(陵 水、保亭)一带,但自1973年后本种便再无采集记录。

实际上,在被水及保亭、本种的运宜生境仍然大多保存 良好,并且本种亦非传统的常用中草药。何种原因数 中种保管迅速或就剩不明了,但是一可以确定给是大套 减发生在20世纪70年代之后。但可能是在这个校矩的时 期之后。基于否包否科维物种群扩散十分缓慢和困难的 特点,使得本种陷于绝灭边缘。 14.00、10.00平作用了地次22.0%。 【展群情况】经过多次野外考察,我们发现了目前残存

· 的唯一一个居群,个体不足20株,处于绝灭的边缘。 【瀬倉情况】居群过小,目前尚无适宜的保育措施,这 【测胞情况】所唇过小、目前向允适在的除肾措施,这 热因素都有可能致使本种在数年之内消亡。本种依赖于 阴湿凉爽的石生生境,且不能忍耐干旱胁迫。 【建议的IUCN物种濒危等级和标准】 版位 [Critically

C2 (i, ii); D; E] ,

【栽培指南】不详



cription: Perennial herb. Creeping stem. Leaf blade accolate to obovate or elliptic, 4.5—12×2—6.5 cm, spex slightly obtuse, base cuneate, margin subentire; petiole 2-14 cm. Cymes 1-2, 1-2-flowered; peduncle 7-12 m. Calyx zygomorphic; tube adaxial lip linear to narrowly ingular; abaxial lip 4-lobed from above to near middle obes triangular. Corolla outside sparsely pilose; tube 2.5—5 cm long; adaxial lip lobe undivided, abaxial lip 4-lobed, obes suborbicular. Stamens 4; staminode absent. Capsule long; adaxsal lip Jobe undivided, abaxsal lip 4-lobed, es suborbicular. Stamens 4; staminode absent. Capsale owly elliptic. Fl. Jul.—Aug. tribution & Habitat: Hainan (Lingshui and Baoting). ows on damp rocks by streams in valleys, alt. 750—

Comments: The species is endemic to Hainan Island and the only species in the genus. We consulted almost all existing herbarium specimens, and the collecting records indicated that the species was common and universally idicated that the species was com ed in its original habitats. However the species h distributed in its original habitats. However the species has not been recollected since 1973, despite many attempts. In Lingshui and Baoting County, the suitable habitats close to streams were still well conserved well, but the species was absent. The factors leading to the rapid decline of the species are unclear, but the area was logged heavily after the Chun in this area. Inaddition, Gesneriaceae does not disperse well or over long distances. Population Status: The authors found nly one locality in a carefully planned and ive expedition. The population had only about 20 individuals, and is on the verge of

Endangered Status: The size of this popular is so small that, if no proper conservation strat is developed, the species will become extine in few years. The specie's growth is depen-

Proposed IUCN Category: Critically Endangered, C2

tion to Cultivat





pinulosa D.Fang & W.T.Wang in Bull. Bot. Res. 1(4): 67, photo. 12. 1981



【形态特征】多年生草本。叶基生或簇生于根状茎顶端,无柄,叶片草簇,线状披针形,长6~11 cm,宽 0.8~1.2 cm, 顶端渐尖至微钝, 基部楔形, 边缘有带刺的 小齿, 花序2回分枝, 有7~9花, 花序梗长15~20 cm, 苞 片2枚、对生,花梗长15~6 mm。花萼5裂达基部。花斑 薪營色,长约1.3 cm, 箭折箭状,长约10 mm, 口器百 5约2 mm, 上展2图 下展3型近中部 维萘2枚, 退化 在292 mm, 上面400、下面50000 mm, 单点200、1820. 雄蕊2枚。柱头2探裂。蒴果线形。花期7-9月。 【分布与生境】分布于广西(扶援)。生于石灰岩山阴

【桌子MATE AND LANGE OF THE STREET AND LANGE OF THE STRE Buch.-Ham. ex D.Don植物之一。本种根状茎可治风湿骨 痛等症。

【展群情况】已知分布地点仅1个,位于人为活动频繁 区域、极易受到人为干扰、植株个体不到50株、民群自

严禁积水,栽培土壤需疏松、透气性极好,pH值≥7.0 较好,喜强烈尤照。

中药材而被掠夺式开发,其花色艳丽、易遭人为破坏性

【建议的IUCN物种濒危等级和标准】极危[Critically

angered, CR B1ab (ii, v) + 2ab (ii, v)]。 本种是列入《中国物种红色名录》的6种居柱苣苔

Gesneriaceae of South China 华南苦苣苔科植物



gin subentire to irregularly serrate incle 4-13 cm: bract 2: nedice 5—10 mm. Calyx 5-parted near the base. Corolla purplish or white, 7— 10 mm long, 6—9 mm the in diam.; tube 4—6 mm long; adaxial lip lobes and abaxial lip lobes suborbicular. Stamens 2; staminodes 2. Stigmas 1, capitate. Capsule narrowly linear 2-3.5 cm long, spirally twisted, Fl May-Jun., fr. May-Jul.

the Philippines and Vietnam. Grows on shady'damp rocks in forests; alt. 100—800 m.

Comments: Boea philippensis C.B.Clarke is a uthern Chinese mountains. The energies is not insouthern Chinese mountains. The species is not winter harby but very dought lolerant in is a famous resurrection plant. The conditions of its habitats are very variable, but this species usually grows in typical acid soil forming rocks, such as sandstone, conglomerates and rhyolite. They are sometimes found growing on alkaline substrates of limentone and, in extreme cases, can be seen on yellow soil slopes, unsuitable for any other species of Gesneriaceae Population Status: Many populations with thou-





宽0.6~1.1 cm, 顶端圆, 全缘, 叶柄长0.4~2.5 cm。聚 伞花序1~4条, 1花, 花序梗长1.5~2.0 cm, 苞片1枚, 花梗长1~4 cm。花萼5裂。 花冠淡蓝紫色至粉红色、 长1.2~2.1 cm, 筒漏斗状, 口部宽1.5~1.7 cm, 基部 4~6 mm, 上唇2裂, 下唇3裂。雄蕊2枚, 退化雄蕊3 枚。子房卵状椭圆形。蒴果长卵状椭圆形, 室背开裂

【点评】本种是新属——巴柱苣苔属Liteorigma Y.G.Wei, Fang Wen & M.Möller的模式种,该属代表者一个联系原 产欧洲的原始属,如喉凸苣苔属Haberlea Friv.、欧洲苣 苔属Ramonda Rich 和希腊苣苔属Jancaea Boiss , 以及 亚洲马来植物区系和非洲区系(扭果花属Streats LindL) 較进化層的关線層、其可能是清失已久的、旧 世界之苦苣苔亚科进化链条中的一个过渡类群。

世界之帝宣音至再建远随条中的一个过渡失群。 【照前復元】编者2006年首次支援读称。但2000年再次 前往生等前号度。 采集标本的第一个分布点因为山洪 号设址信度性。 局群企愿更亡指定《规等措值作》体数 编版多、第2007年首公野外考度统计其种等数为1000~ 1500。2008年,编者是过多次考察。在原型社约38 km 处发现另一层层。个核数量约5000株。

及及现为一场研,个体数量等3 0000k。 【 **濒危情况**】目前已知2个分布点,但目前仅残存1个分 布点、个体数量约3 000株。由于生长地集中分布,因 此极易遭受来自自然界及人为的影响,可能面临类似第 个分布点一样的生存困境。 「建议的IIICN物种蛋食等级和标准】提供 [Critically

Endangered, (CR.Alc+Blac(iii)), [對神难度]金金金金 [繁殖指斯] 种子和中插繁殖 (野外观察到有新叶生根 的现象,但引种过程中无法实现)。 [栽培指斯] 不详。



erintion: Small perennial herb. Leaves 10-15, basal blade coriaceous, elliptic, 1=2.1 × 0.6=1.1 cm, unded, margin entire, slightly revolute; petiole 0.4= 2.5 cm long. Cymes 1-4, 1-flowered; peduncle 1.5-2 cm Let cut noting. Cytines 1-a, 1-thoreteen, permitted: 1.3-2 cut nong. 1-bracteate; pediced 1-4 cm long. Sepals 5. Corolla light bluish-pumple to pink, 1.2-2.1 cm long; tube infundibluiform, 1.5-1.7 cm in diameter at the orifice, 4-6 mm in fiameter near the base; adaxial lip 2-lobed nearly to the base, abaxial lip 3-lobed nearly to the base. Stamens 2; stami 3. Ovary ovoid-ellipsoid. Stigma crateriform. Capsule ovoid ellipsoid, loculicidally dehiscent into 4 valves. Fl Mar. - Ap

Distribution & Habitat: Guizho (Xingvi

surface of the leaves.

Chromosome Number: Unknown.

Comments: The species is the type species of a new genus, Litostigma Y.G.Wei, Fang Wen & M. Möller. First found at Xingyi in Guizhou.

This genus represents a key missing lin between basal Europe genera (for ex Haberlea Friv., Ramonda Rich, and Jan Boiss) and advanced Africa Asi

Lindl.). It may indicate that it represents an t transition genus between basal and derived Didymocarpoid lineages.

derived Didymocarpoid lineages.

Population Status: In 2006 we collected it for
the first time. In 2007 we returned to the same
place for further investigations, but we found the
locality destroyed by a landslide. In 2008, we
found a new distribution point about 38 km distant from the first, with about 3,000 plants.

Endangered status: Of the only two locations

known, one has disappeared. The remaining one has many plants. However, it could as easily disap-

osed IUCN Category: Critically Endangered, CR

Cultivation Guide: Unknown



报春苣苔属



【形态特征】多年生草本。叶均基生。聚伞花序似伞形花 【参与特社】多年生草本。 叶乃悬生。 陳幸化下似家於化 序,2四分枝。3~9花: 苞片2枚,对生。 花萼5深裂,裂片 获坡针形, 边崃有小齿。 花冠紫色, 近高脚碟状; 简细 筒状; 不明显三唇形,上唇比下唇梢短,2深裂,下唇3深 裂。能育雄蕊2枚,内藏,花药连着,长圆形,二室极叉 开,顶端汇合;进化雄蕊3枚,小。花盘由2腺体组成。于 房获卵形, 一幸, 侧膊粉碎2, 内藏, 2粉柱头1个, 展形 而他2块型,数量长幅而设形,安全开型,最后型后4颗。

在建筑号,2010) 生境】生于石灰岩山地林下石上、洞穴入口甚至洞中 阿流南岸石壁。

【属名来源】本属属名源自其植株形态类似于报春花属

Primua Linn.但句。 【点评】本属为我国的特有属,属内唯一的一种报春苣 lina tabacum Hance被列为我国的一级保护植物

法国以其花研员高额確據 花丝叶花药银 釉 该属以其花冠星系胸瘫缝状, 在丝比花药短、种子表面具瘤状突起手形态特征而与其他近缘属相区别 (Hance, 1883),然而其柱头唇形及具2浅襞,又还 似于握柱芭苗属(Lafrias Buch.-Ham. et D.Doad髓 的;幸 据中和王印政, 2004)。另外,最近一个尚未被描述的 苦苣苔科植物新种在广西西北部的一个石灰岩洞穴中被 发现,其特征形态恰好介于报春苣苔属与唇柱苣苔属之 间,这可能说明了两个属为近缘属。

不过,进一步的分子证据支持把报春苣苔属撤销。 同时亦撤销小花苣苔属Chiritopsis W.T.Wang,将此二属 并入居柱苣苔属Chirita Buch.·Ham. ex D.Don,并置于居柱











6-11 × 0.8-1.2 cm, apex acute to obtuse, base cun 9-flowered; peduncle 15-20 cm; bracts 2; pedicel 1.5-6 mm. Calyx 5-parted to the base. Corolla blue-purple, ca. 1.3 in diam.: adaxial lip 2-lobed. abaxial lip 3-lobed. Sta in diam; adaxial lip 2-lobed, abaxial lip 3-lobed Stamens 2; staminodes 2. Stigma 2-lobed Capuale linear Fl. Jul.—Sept. Distribution & Habitat: Guangai (Fusui). Grows in shaded areas on limestone hills, alt. ca. 100 m. Chromosome Number: Unknown. Comments: This species belongs to sect. Gibbonascus CB Clarke, It is one of three Cabrian Buch-Ham. eD. Don contents of Christia Buch-Ham. eD. Don

of Chirita Spinulosa D.Fang & W.T.Wang are used in

Population Status: There is only one locality known, on

natural regeneration of the population is good and the ease of cultivation makes in-situ Endangered Status: The sole existing locality is

Endangered Status: The sole existing locality is sited in a region often visited by people, and plants are indiscriminately collected for medicinal purposes. They are also picked for their vividy coloured flowers.

Proposed IUCN Category: Critically Endangered, CR Blab (ix,y) = 24b (ix,y).

This is one of the six Chirita Buch, 14m. ex. D. Don create which we fused on Chine Seader 8-2d 1st (When

species which are listed on China Species Red List (Wang Sung and Xie Yan, 2005). The endangered grade is CR B1 ab (ii, v) + 2ab (ii, v). The reasons are that only one locality was known, and the occupied area less than 10 km².

Introduction to Cultivation: ⊕ ⊕



Description: Perennial herbs, acaulescent. Leaves basal. Inflorescences umbel-like, dense, axillary, 2-branched, 3— 9-flowerd cymes: brasts 2, opposite. Calyx actinomorphic, Sparted. Corolla pale purple, zogramorphic, nearly salverform; tube cylindric, not swollen: limb indistinctly 2-lipped, adaxial lip 2-lobed, abaxial lip 3-lobed. Stamens 2, included, anthers dorsifixed, coherent, thecae divaricate, confluent at anex dehiscing longitudinally, connective not projecting; staminodes 3 Disc of 2 glands, ringlike. Ovary narrowly ovoid, 1-loculed, placentas 2, parietal, projecting inward, 2-cleft, stigma 1, obtrapeziform, 2-lobed. Capsule ellipsoid, dehiscing loculicidally to base, valves 2.

distribution points at Hezhou City (Wu Wang-Hui et al., 2010) is a new distributing record.

Habitat: Grows on limestone hills under forests, at the ne Number: Unknown

Council of the People's Kepuble of China, 1999).

According to some special features, such as the salverform corolla shape, shorter filaments (than anthers) and seed surface with strumose granules, it can easily be differentiated from similar genera (Hance, 1883). But its stigma, labiate with two bilobed segments, is similar to those found in Chirita Buch.-Ham. ex D.Don (Li Zhen-Yu and Wang Yin-Zheng, 2004). A new undescribed species Gibbosaccus C.B.Clarke, which also includes Chiritops W.T.Wang (M.Möller et al., 2009; Li Jia-Mei, 2007). niscent of those in some Chiritopsis W.T.Wang spe

