Recent Collections of the Sino-Himalayan *Meconopsis* (Papaveraceae)

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The specimens of *Meconopsis* which were recently collected in the Sino-Himalayan regions were identified based on monographic papers by Taylor (1934), Grey-Wilson (2000), Ohba (2006), and others. Although the taxonomy of *Meconopsis horridula* and the allied species is still insufficient, five species, *M. racemosa*, *M. horridula*, *M. prattii*, *M. rudis*, *M. prainiana*, are here recognized with some transitional forms among them. Notes are given for each species except for *M. integrifolia* and *M. pseudointegrifolia*. A new name, *M. psilonomma* Farrer var. *sinomaculata* (Grey-Wilson) H. Ohba is proposed.

**Key words:** Hengduan Mountains, Himalaya, *Meconopsis*, taxonomy, Tibetan Plateau.

The genus *Meconopsis*, distributed disjunctively in Europe and Sino-Himalaya, has been studied by several workers since Prain (1895, 1915) and Taylor (1934), Grey-Wilson (2000) published a rather well-prepared commentary of the all known species with many photographs, and Wu and Chuang (1999) treated the Chinese species. Recently Ohba (2006) published an account of the genus *Meconopsis* in Japanese, in which he recognized 50 species with some uncertain ones. Since 1983 a large amount of the specimens of *Meconopsis* have been collected from various areas in the Sino-Himalayan region. During their determinations we have noticed some remarkable occurrence beyond the known range and extraordinary variations in some species. This paper aims to publish a new name and list the specimens newly obtained with necessary notes on the occurrence or variations.


Specimens collected: Nepal. Dhaulagiri Zone, Mustang Dist., around Ommang, alt. 4330 m (T. Hoshino & al. 9666120, 1 Aug. 1996, TI); Muktnath, alt. 3650–4200 m (Y. Iokawa & al. 20020231, 15 Jul. 2000, TI); Gandaki Zone, Gorkha Dist., around Thangmanang Kharka, alt. 3740 m (M. Suzuki & al., 9485324, 6 Aug. 1954, TI); Sagarmatha Zone, Solukhumbu Dist., around Khola Lharka, alt. 4100 m (M. Wakabayashi & al. 9715099, 7 Aug. 1997, TI).

This is distributed in a narrow range from Central Nepal eastward to Bhutan, and seems to be common in Mustang and Gorkha Districts in Central Nepal near the western border of the range.

2) **Meconopsis dhwojii** G. Taylor ex T. Hay in New Fl. Silva 4: 225, fig. 82
(1934) – Grey-Wilson, Poppies: 170
(2006). [Fig. 1, right]

Specimens collected: Nepal. Gosainkund, alt. 4250 m (S. B. Malla & H. Kanai 674903, 26 Aug. 1969, TI);
Gosainkund Lake, alt. 4260 m (H. Kanai & S. B. Mall 15087, 27 Aug. 1969, TI); Gopte-Gosaikund, alt. 12000 ft (Saman & Bista 13215, 14 Jun. 1969, TI);

This has been considered erroneously as a poor individual of *M. paniculata* Prain, but
well distinguished from that by the spreading hairs on capsules and hairs on leaves with a blackish red purple base. A resembling species, *Meconopsis gracilipes* G. Taylor, differs from this in having more or less caducous hairs without blackish red purple base, and capsules with ascending hairs. The collections from Gosainkund are noticeable, because the type localities of two related species, *M. paniculata* and *M. napaulensis* DC., are Gosainkund. We have examined no specimens of the interspecific hybrids between *M. dhwojii* and these species collected there.

179, fig. 24 (2006).

Specimen collected: Nepal. Koshi Zone, Sankhuwa Sabha Distr., Dasa, alt. 3880 m (M. Suzuki & al. 885060, TI).

The plant has purple flowers with orange coloured anthers. *Meconopsis grandis* ranging from eastern Nepal to Bhutan through Sikkim and S Tibet, seems to be rather rare in Nepal except for the far eastern area.

sis* 213, fig. 49 (2006).


This is well distinguished from the other species by the sparsely stigrose-hairy entire or shallowly sinuate leaves with pale green undersurface, the cylindrical, usually unbranched rootstock to 1 cm across and the solitary blue purplish flowers. Wu & al. 103908 has blackish purple red anthers, but those of others examined are ivory before dehiscence.

5) *Meconopsis horridula* and the allied species

The delimitation of *M. horridula* and the allied has still diversified by workers. Taylor (1934) regarded all the following species as the synonyms of *M. horridula*. In this list of the specimens we follow Grey-Wilson (2000) tentatively, except for the treatment of *M. prainina*.

[Fig. 2, left]


[Fig. 2, right]

Xian and Nagqu (Nakchu), alt. 4300 m (D. E. Boufford & al. 30011, 11 Aug. 2000, TI); Maizhokunggar Xian, ca. 5 km W of pass on road between Maizhokunggar (Medro Gongkar) and Linzhi (Nyingtri), E of the town of Maizhokunggar (Medro Gongkar), alt. 4800 m (D. E. Boufford & al. 30022, 13 Aug. 2000, TI).

Chinese plants determined as *M. horridula* are different from those of the Himalayan regions in having so many flowers against a single or few flowers of the Himalayan ones. The Chinese plants seems to be derived from *Meconopsis racemosa* Maxim. of which they lost the aerial stems with numerous leaves and also inflorescence axes.


*Meconopsis prattii* and also *M. prainiana* can produce as many as 15 flowers without conspicuous leafy bract, two or three of which open simultaneously. The flowers of *M. prattii* have widely spreading pedicels usually shorter than 1.5 cm long. In Wu & al. 52 the plant on the left side is a transitional form between *M. prattii* and *M. rudis*.


The typical form is distinguished clearly from *M. horridula* or *M. racemosa* by the blue green, oblance-elliptic or narrowly oblong leaves with rather wide petioles, and the sparse prominent spine-like bristles on leaves with blackish red purple basal blotches.

The height is usually 20 to 25 cm and seldom more than 25 cm like *M. prattii* and *M. prainiana*. The racemes are condensed with 6 to 10 flowers, two or three of which open simultaneously. Akiyama & al. 1020 from Mt. Baima Xueshan (Dêqên Xian) is a transitional form between *M. rudis* and *M. prattii*, with blackish botched base of hairs on leaves.


Specimen examined: China. Xizang (Tibet). Nyingchi Xian, between the cities of Linzhi (Nyingchi) and Bomi (Pome); Seji (Serkym) La, alt. 4500 m (D. E. Boufford & al. 30116, 17 Aug. 2000, TI).

The type of this species was collected at Temo La, SE Tibet, and was regarded as a merely robust form of *M. horridula* by Taylor (1934). Grey-Wilson (2000) reduced this in the synonymy of *M. prattii*. The typical form of *M. prainiana* becomes more than 60 cm tall and has lanceolate or narrowly ovate leaves rather sparsely with coarse spine-like bristles 3–7 mm long without
Fig. 4. *Meconopsis prainiana* Kingdon-Ward. China. Xizang (Tibet): Nyingchi Xian, Seji (Serkyim) La (D. E. Boufford & al. 30116, TI).
blackish basal blotches and normally 4 or 5 petaled flowers 5–7 cm wide, and differs from *M. prattii* with plants usually less than 60 cm tall, ascending pedicels longer than 5 cm long, and leaves with relatively soft hairs. However, transitional forms between them have been collected in Tibet as follows: Baxoi Xian, Anjui La, between N of Rawu (Raog) and Baxoi (Paksho), alt. 4480–4650 m (D. E. Boufford & al. 29724, 27 July 2000, TI); loc. cit., alt. 4400 m (S. Akiyama & al. 105753, 4 Aug. 2000, TI).


This species seems to approach to *M. pseudovenusta* G. Taylor in having pinnate leaves with pale green undersurface and thick cylindrical, unbranched rootstock. The corolla usually consists of four petals, but sometimes of 5 or 6 ones. The conspicuous spreading bristle hairs on stalks and blue petals of this are remarkable points to distinguish this from *M. pseudovenusta* and also suggest the similarity with *M. horridula*.

7) **Meconopsis psilonomma** Farrer var. *sinomaculata* (Grey-Wilson) H. Ohba [Meconopsis: 206, fig. 42 (2006), comb. nud.], comb. et stat. nov.


*Meconopsis psilonomma* is similar to *M. henricii* but distinguishable by the height attaining 25 to 35 (–60) cm tall and the relatively large flowers (7–9 cm wide) with ascending petals. Variety *sinomaculata* differs from var. *psilonomma* in having blotched corolla (Grey-Wilson 2002).


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**References**


大場秀雄著1986：秋山恵，武素功：中國・ヒマラヤ地区から最近採集されたメコンOPSIS属植物（ケシ科）

ケンコメコンOPSISは、ヨーロッパに分布する1種を除き、すべての種が中国・ヒマラヤ（Sino-Himalaya）地区に産する。その分類にはまだ多くの問題が残されている。ある種は細胞を変異でカバーする有芽が摘出されていることに起因する同一種の細分化が、種の扱いについて諸説を生む背因となっていることが多い。

本稿は日本ならびにアメリカの調査チームにより最近中国・ヒマラヤ地区で採集された同属の標本についての同定結果を報告するものである。著者の1人、秋山はヒマラヤ、チベット及び横断山脈でのこの属の植物を実地に観察し、変異性についての知見を蓄えた。大場は2006年に日本語によるこの属の概説書を山と渓谷社（東京）から出版し、本属に53種（うち3種は付記とした）を認めた。同定では著者のこうした実験にもとづきノートを関連する種の項に記した。

1) Meconopsis bella Prain ネパール中部からブータンに分布する小形の種である。分布の西縁に近いムスタンとゴルカ地区では穂の多い草地に稀ではないようだ。

2) Meconopsis dhwojii G. Taylor ex T. Hay ネパールでは亜高山帯から高山帯下部に普通にみられる黄色の高茎種Meconopsis paniculataに似るが、果実に水平に開出する刺毛を生じるなどの違いがある。

3) Meconopsis grandis Prain ネパールからチッキム、ブータンとチベット南部に分布するが、東ネパールとチベット地方との境界地域を除くネパールでの分布は限られているようだ。

4) Meconopsis impedita Prain 形態からMeconopsis horridulaに近縁と考えられるが、葉が狭円形または倒披針形で、鎌歯はなく、まばらに毛を生じ、蒴果が狭楕円形になることなどで明確に区別される。

5) Meconopsis horridula Hook. f. & Thomson と近縁種、ヒマラヤの青いケシとして知られる表記の種は、広い変異性を有するようにみえる。それが本当にひとつの種の変異性なのか、それとも近似の複数種を混同した見かけ上のものなのか、今後の検討課題である。いくつかの型があり、その標本と特徴などを記した。Meconopsis racemosa Maxim.はMeconopsis horridulaに似るが、地上種があり、花は花序につく。Meconopsis horridulaは、その地上種がほとんど消失し、花が地際から多数連生するように変わった型であると考えられる。Meconopsis prattii（Prain）PrainはMeconopsis racemosaに似て多数の花をもつ地上種をもつが、花柄長く開出する。Meconopsis rudis（Prain）Prainは小形で、その葉は青銅色で、刺毛の基部が黒紅紫色となり目立つ。Meconopsis prainiana Kingdon-Wardは高茎種で、高さは通常60cmを超える。多数の花からなる花序をもつが、花柄は短く開出する。

6) Meconopsis pseudohorridula C. Y. Wu & H. Chuang チベットと雲南で採集した標本を検討したが、本種はMeconopsis pseudovenusta G. TaylorとM. horridulaの中間に位置づけられる種と考えられた。

7) Meconopsis psilonomma Farrer var. sinomaculata (Grey-Wilson) H. Ohba Grey-Wilsonが記載したM. sinomaculataをM. psilonommaの変種と考察した。


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