



## **New combination arising from the publication of a new name for *Himalayacalamus intermedius* Bol**

Chris Stapleton

Dr Jean-Pierre Demoly of the French Bamboo Society has published a new name (Demoly 2000) in the French Bamboo Society Newsletter, *Bambou*, for the recently introduced Chinese bamboo previously referred to as *Himalayacalamus intermedius*, and his article is translated beginning on page 4 in this magazine. The species was collected in Sichuan by Japanese collectors circa 1980, and a plant was given to Gerald Bol by Dr Kashiwagi of Fuji Bamboo Garden as part of an exchange of cultivated bamboo species in winter of 1989/1990 (Bol 1990). Plants apparently from the same bamboo have been brought from Fuji Bamboo Garden to the West on several later occasions, and Demoly has named material taken from such a plant growing in Geneva.

Although this species was named in a relatively obscure publication, Demoly has published his new epithet *boliana* fully in accordance with the rules of the International Code of Botanical Nomenclature and the epithet *boliana* must now be used in preference to the provisional name *intermedius* (unless it is discovered that the species had already been given a valid name at an earlier date). Gerald Bol, through his pioneering work in arranging for the collection of new bamboos in the wild, and the exchange of a large number of cultivated bamboos between Europe, Asia, S America and the US, thoroughly deserves the honour of his name being attached to this plant.

**Publication of a new species name could be said to serve three important functions:**

- **The first function** is to bring it to the attention of the scientific world that a new species is thought to exist. This is achieved by describing its characteristics fully, so that they are recorded, and so that other scientists will know which particular plant the new name has been given to. It also allows others to check whether the species has already been given a name before.
- **The second function** is typification, allowing easy future reference to the actual collected material from which the species was described, in case anyone wants to check other details or to confirm its identity conclusively at a later date.
- **The third function** is the placement of the species in a system of plant classification, so that its similarities to other plants can be reflected, and so that it can be referred to under our binomial system of botanical names including both a species name (epithet) and an appropriate generic name.

As the French Newsletter *Bambou* has a somewhat limited distribution, it is felt necessary to highlight the publication of the new species name further. As only a brief diagnosis was given rather than a full description, it will also be necessary to describe the species fully, and this will be undertaken in a further article. A diagnosis merely summarises the main differences from the closest relative. This is sufficient only if the author is accurate in his assessment of which species is closest. Demoly decided that the bamboo initially named *Arundinaria ferax* (Keng 1936) is the closest relative, but not everyone would agree with that. The vegetative characteristics of *Arundinaria ferax*, which is now usually referred to as *Fargesia ferax*, are not well known, but it may be quite similar to the cultivated *Fargesia angustissima*, the flowers of which are not known. The original description and illustrations of *Fargesia ferax* would suggest rather different branching to that of *Himalayacalamus*

*intermedius*, and spikelets with lemmas that are very long, and almost rostrate, rather than short and blunt.

Demoly has declared a specimen to be representative of the name (the holotype) in accordance with the rules, but that specimen has unfortunately not been deposited in one of the more than 3,000 registered herbaria around the world with public access, 45 of which are in France. Instead it was cited as ‘in the author’s herbarium’, although Jean-Pierre has now kindly agreed to send isoholotype material to be kept at Kew. A list of further collections in the Kew Herbarium identified as this species will also be given. This will make it easier for others, such as Japanese or Chinese visitors to Kew, to examine reference material for the species in the future.

As far as the third objective of publication goes (classification and the provision of a botanical name) Demoly has placed this species in *Yushania*, while at the same time showing in his table that it differs substantially in many characteristics from all other members of that genus. Not everyone will be happy with this species being placed in *Yushania* at the current time; many authorities (Keng & Wang 1996; Wang 1997; Yi 1997; Ohrnberger 1999) and most horticulturalists, currently interpret *Yushania* in a somewhat narrower sense than Demoly (1996, 2000).

**Bamboos in this group are currently placed in one of three genera:**

- *Fargesia* species have short, tight one-sided inflorescences and grow in dense clumps.
- *Yushania* species have longer, open inflorescences and very variable, often much longer rhizome necks, so that they can spread widely.
- *Borinda* species have similar inflorescences to *Yushania*, though usually shorter, and they have consistent rhizome necks, so they do not have the potential to spread widely.

Demoly (2000) has quite rightly pointed out that there is currently a lack of correlation between all the various characters of the bamboos in these three genera. Studies into the characters of several such species of Chinese bamboos are in progress, including molecular investigations underway in Ireland and China. In addition, a review of *Yushania*, based on molecular research at Iowa State University, is also expected to be published soon. Clearly, further research is required, ideally involving more collaborative fieldwork and collections of more comprehensive material.

At the current time however, it seems prudent for a classification of the bamboos in this group to continue to follow the system outlined above (Ohrnberger 1999; Wang 1997).

*Himalayacalamus* was clearly an inappropriate genus for the bamboo known by the provisional name *Himalayacalamus intermedius*. Early unpublished results from molecular analysis support this (Ni Chonghaile, pers. com.). On the other hand, *Yushania* as currently interpreted is also inappropriate. Moving it into *Yushania* implies radically changing our concepts of both *Fargesia* and *Yushania*, which would require a thorough re-evaluation of the generic characters of up to 100 Chinese bamboos, many of which have only recently been described, often without any knowledge of their flowers. That simply is not practical. Moreover, moving a large number of clump-forming bamboos straight from *Fargesia* into the already large genus *Yushania* might not be well appreciated. Any need for such a drastic step should be thoroughly tested on morphological and molecular grounds.

Therefore, as this species is known to have open, elongated inflorescences and consistent rhizomes, usually 15–35cm long, and does not share the other characteristics of bamboos that are well accepted in the genus *Yushania*, it would appear that *Borinda* is more appropriate at the current time, although further research is clearly necessary. The genus *Borinda*, inspired by the large bamboo in Bhutan identified as *Borinda grossa*, and typified by its better-known close relative from Tibet, *Borinda macclureana*, has now expanded beyond its original

circumscription, and currently includes smaller-stature bamboos with a strongly deciduous habit (Stapleton 1998) as well as species such as this with a larger number of branches and a rather more open clump form.

***Borinda boliana* (Demoly) Stapleton comb. nov.**

[*Himalayacalamus intermedius* Bol, ined., in *Amer. Bamboo Soc. Newsl.* 11(3): 3. 1990.]

*Yushania boliana* Demoly, in *Bambou*, No. 35: 3–7. 2000.

Type: *Demoly* without number, 28 x 2000, Geneva, Lullier School of Horticulture (holotype in the personal herbarium of Demoly).

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