



## The Nomenclature of *Pleioblastus viridistriatus/auricomus*

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*Summary.* Two specific epithets are currently in use for this bamboo in different countries, a situation that is highly unsatisfactory. Applying the principles of the current Code of Botanical Nomenclature (Greuter et al. 1994), the names based on *Bambusa viridistriata* ought to be the more correct in the genera *Pleioblastus* and *Arundinaria*, in which this species is most commonly placed. Fortunately these names are also the most widely used.

This bamboo was first described (Regel 1867), by Eduard August von Regel (1815-1892), a German botanist working in the Imperial Botanic Gardens in St Petersburg, who gave it the name *Bambusa viridistriata*, saying it was introduced from the gardens of Japan by the renowned Russian botanist & explorer, Carl Johann Ivanovic Maximowicz (1827-1891).

Five years later, the French horticulturalist Edouard Francois André (1840-1911) gave it a second, expanded description (André 1872). He used the same name, *Bambusa viridistriata*, but was at pains to attribute both the name and its introduction not to Regel, who was not mentioned at all, nor to Maximowicz, but instead to Philipp Franz Balthasar von Siebold (1796-1866). Siebold was a German physician, who worked in Japan from 1823-1830 and 1859-1862, bringing back a wealth of garden plants, and greatly expanding knowledge of the Japanese flora.

André indicated clearly that this was the plant brought back by the renowned Maximowicz, but he stated in his description that the bamboo was introduced from Japanese gardens first by the renowned Siebold, and only later by the renowned Maximowicz. He then started the text with the statement that this bamboo had already been known for some years, and reiterated that it was introduced by M. Siebold, and then later by M. Maximowicz. Siebold was attributed with having given the name in a letter. André used the same species name, a similar order of characters in the description (but with all characters expanded), and the same form of wording concerning the introduction by renowned collectors.

The repetition of the epithet is itself difficult to put down to coincidence. It is not an obvious name, as all variegated bamboos have green stripes, and the striking yellow background is the distinctive colour in this particular one. Others who have given it truly different names called it var *aurea* (Bean 1894) and *auricoma* (Mitford 1896). In addition the similar wording and layout suggest very strongly indeed that André was quite familiar with Regel's publication of the name *Bambusa viridistriata* five years earlier. Indeed in his position as editor of *L'illustration Horticole*, it is hard to believe that he would not have known about the earlier name from St Petersburg. It seems most likely that he was trying to correct what he considered to be mistaken attribution of credit for its introduction and its name, to give this credit to Siebold, rather than to Maximowicz. As well as giving an expanded description, André included a fine painting of the plant, and added general details of the flowers of *Bambusa*, as well as commenting on other similar variegated bamboos. Quite why he did not cite Regel openly remains a mystery.

To summarise, André could well be interpreted as saying that the bamboo *Bambusa viridistriata*, described from material supplied by Maximowicz, is the same as the bamboo that has

been known for years, brought back before Maximowicz by Siebold, who gave it that name in his letters, and who should be attributed both with the introduction and the name.

Typification is usually the key to interpretation of names. The type of the earlier name *Bambusa viridistriata* Regel clearly ought to be material from the Maximowicz introduction. As André cited the Maximowicz introduction as well as that of Siebold, the name André gave ought to be nomenclaturally superfluous as it effectively includes the type of the earlier publication of the name. The name and the type ought to remain those of *Bambusa viridistriata* Regel, which André should have used. Therefore all later combinations based on *Bambusa viridistriata* André (at least prior to 1953, when direct citation of Regel's name became necessary under Article 33.2), ought to constitute perfectly valid and legitimate combinations of *Bambusa viridistriata* Regel.

Later authors outside Britain followed André's attribution of authorship, without further reference to Regel's publication, and made new combinations for *Bambusa viridistriata* Siebold ex André in *Arundinaria*, *Pleioblastus*, and *Sasa*, as well as giving it new status as a variety. These names are still used in Japan (Suzuki 1978, Okamura et al. 1991, Shibata 1992), USA (Shor 1997), and many parts of Europe.

In England it was not realised that this bamboo had already been described as *Bambusa viridistriata*. It was described anew as *Arundinaria fortunei* var *aurea* by Bean (1894), and Mitford then changed this to the species *Arundinaria auricoma* (1896), the name that has remained in use here at Kew ever since. Indeed, Index Kewensis still to this day does not include *Bambusa viridistriata* André at all. *Bambusa viridistriata* Regel is given as a synonym of *Bambusa striata*, a variety of *Bambusa vulgaris*. Although *Arundinaria auricoma* had been cited in synonymy of *Pleioblastus viridistriata* elsewhere, the synonymy does not seem to have been appreciated in England until Lawson (1968), when *Arundinaria viridistriata* and *Pleioblastus viridistriatus* were listed as synonyms of *Arundinaria auricoma*.

Chao (1989) again used the name *Arundinaria auricoma* in England, with *Arundinaria viridistriata* and *Pleioblastus viridistriatus* again listed as synonyms. This was briefly justified by a statement that the identical names given by Regel and André were completely independent, and that, as later combinations were based on the second, illegitimate name, this allowed *A. auricoma* to take priority. Renvoize (1990), in an ineffectively published article in which he attributed the nomenclatural treatment to Clayton, expanded at great length on this justification. If I understand it correctly, they implied that *A. auricoma* would take priority (Article 58.1) over any nom. nov. that might be published for the correct (Tokyo Article 11.4), but illegitimate (Tokyo Article 53.1) homonym *Arundinaria viridistriata* based on the correct basionym *Bambusa viridistriata* Regel.

Demoly (1996) also used the name *Arundinaria auricoma*, strangely including *Arundinaria viridistriata* as a legitimate synonym, while listing *Pleioblastus viridistriatus* as illegitimate 'à cause d'un *Bambusa viridistriata* Regel antérieur à celui d'André et différent'.

I cannot accept the line of argument taken when justifying use of the name *A. auricoma* or combinations based on it (Chao 1989; Renvoize 1990; Demoly 1996), as I find it impossible to believe, for the reasons given above, that André's name has no connection with the earlier name given by Regel. It seems to me that application of the principles of the Code of Botanical Nomenclature should lead to André's name being considered superfluous, with both names having the same type. Therefore the later combinations should merely need alteration of the authorship of the basionym from Siebold ex André to Regel, as simply applied by Ohrnberger & Goerrings (1983) in their treatment of *Pleioblastus*.

Unfortunately the precise wording of the Code makes it difficult to apply the principles in this way in this particular case, as typification is totally lacking, and mere references to living material

cannot be considered as typification. Formal typification is required, and it will probably be necessary to propose the rejection or conservation of one of these names to stabilize the nomenclature properly.

In conclusion I would suggest that following the spirit and principles of the International Code of Botanical Nomenclature correct names ought to be *Pleioblastus viridistriatus* (Regel) Makino and *Arundinaria viridistriata* (Regel) Nakai, as used by Ohrnberger & Goerrings (1983).

Unfortunately it may not be possible to use exactly those author citations. The closest we can probably get is *Pleioblastus viridistriatus* (André) Makino in J. Jap. Bot. 3: 11 (1926) and *Arundinaria viridistriata* (André) Nakai in J. Jap. Bot. 10: 568 (1934). All those who still use those names in Japan, USA, and parts of Europe should continue to do so, while this matter is sorted out more formally elsewhere.

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