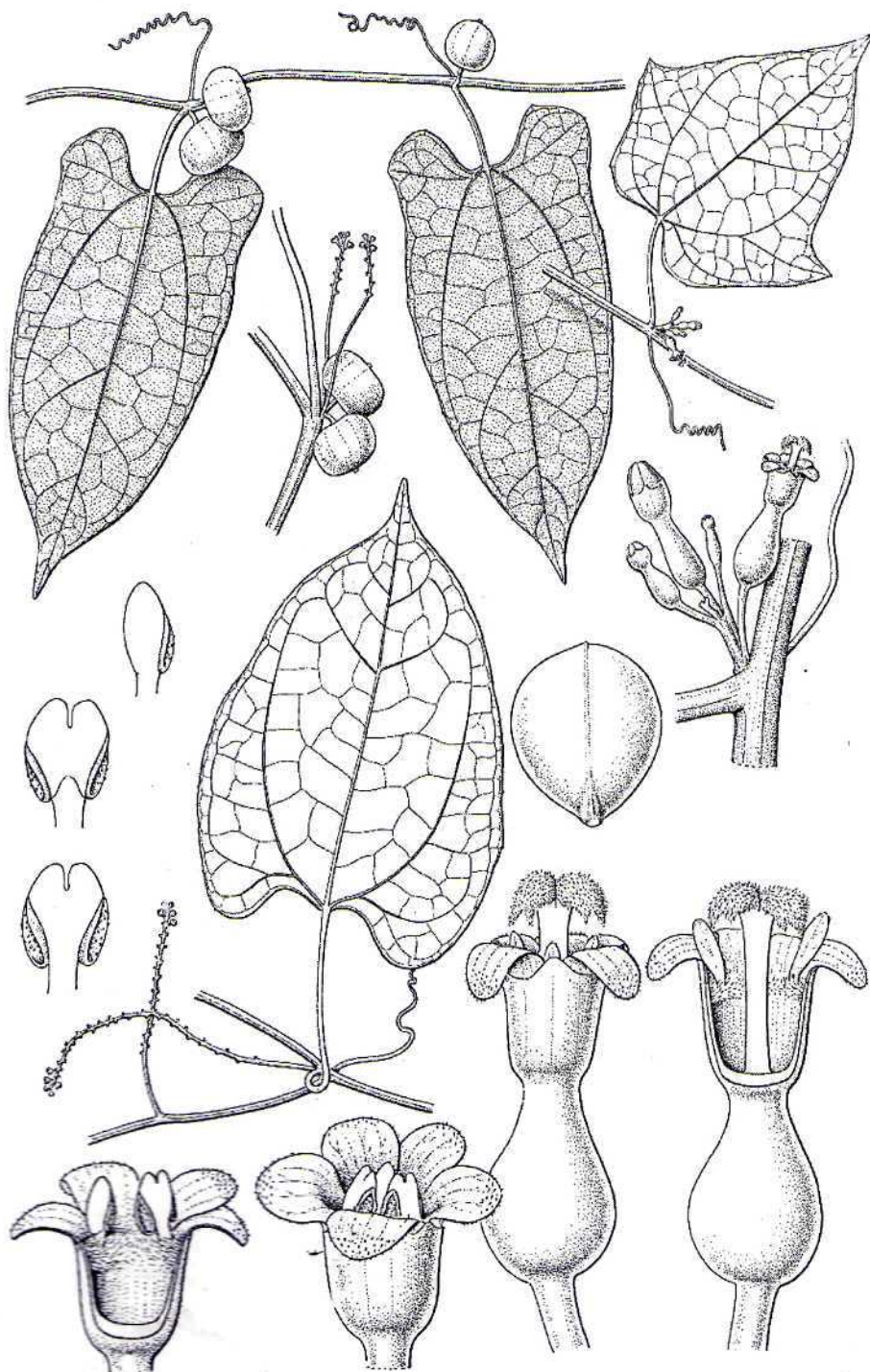




A JOURNAL ON TAXONOMIC BOTANY,  
PLANT SOCIOLOGY AND ECOLOGY



# REINWARDTIA

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## THE CORRECT NAME FOR PYRROSIA HASTATA CHING (POLYPODIACEAE, PTERIDOPHYTA)

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### ABSTRACT

VELDKAMP, J.F. 2004. The correct name for *Pyrrosia hastate* Ching (Polypodiaceae, Pteridophyta). *Reinwardtia* 12 (2): 191 -193. *Pyrrosia hastata* Ching (Polypodiaceae, Pteridophyta) is based on *Acrostichum hastatum* Thunb. (1784) non Houtt. (1783). Its correct name is *P. tricuspis* (Sw.) Tagawa.

Key words: *Acrostichum hastatum*, *Pyrrosia tricuspis*, Polypodiaceae, Houttuyn, Thunberg

### ABSTRAK

VELDKAMP, J.F. 2004. Nama yang benar untuk *Pyrrosia hastate* Ching (Polypodiaceae, Pteridophyta). *Reinwardtia* 12 (2): 191 – 193. *Pyrrosia hastata* Ching (Polypodiaceae, Pteridophyta) didasarkan pada *Acrostichum hastatum* Thunb. (1784) non Houtt. (1783). Nama yang benar adalah *P. tricuspis* (Sw.) Tagawa.

Kata Kunci: *Acrostichum hastatum*, *Pyrrosia tricuspis*, Polypodiaceae, Houttuyn, Thunberg

*Pyrrosia hastata* Ching (Polypodiaceae, Pteridophyta), from China (Anhui), Japan and S Korea is sometimes cultivated as an ornamental (Hoshikazi, 1981) called Felt fern. Its correct name is therefore of some interest to taxonomy, horticulture, and conservation.

The species was first collected in Japan by Carl Pehr Thunberg (1743–1828), who sent it to Martinus Houttuyn (1720–1798) in Amsterdam, along with numerous other duplicates of his collections made in the cape, Ceylon, Java, and Japan. Houttuyn was a Dutch naturalist who published the 'Natuurlijke Historie' (1773–1783), a series of 37 volumes with over 21.500 pages of text in Dutch, distantly related to the 12th and 13th editions of Linnaeus' *Systema vegetabilium* (1767, 1770) (Wijnands, Heniger & Veldkamp, in prep.). Some of the names with which Thunberg had labeled his collections were used in this opus magnum and have priority over those used later by Thunberg in Murray (May–Jun 1784) and the *Flora japonica* (Aug 1784). This fact was noted before, notably by Merrill (1938), but overlooked by others, and the present case is one of these.

*Acrostichum hastatum* Thunb. ex Houtt. was described and depicted by Houttuyn in 1783, and a type specimen is present in G.

The name was used again by Thunberg in Murray and the *Flora japonica*, and in the latter it is provided with plate 34. Some authors have

suggested that Olaf Swartz (1760–1818) might have seen the original specimen in UPS, but presently it could not be found in UPS-Thunb. (Wijnands, Heniger & Veldkamp, in preparation). As the type specimen is missing, plate 34 in the *Flora japonica* (1784) is here designated as the lectotype of Thunberg's combination.

Because these combinations were based on different specimens deposited in different places, *Acrostichum hastatum* Thunb. is a later, heterotypic, synonymous homonym, as was previously noted by Tagawa (1957). (Compare Art.8.Ex.5).

The names are not isonyms, as these are homotypic (Art.6.Ex.2). It must be noted that Art. 33.6 does not apply. Example 10 (see also Art. 6. Ex. 1) at first sight appears to be similar to the present problem, but note the words 'with the same type'. From Art. 8.3 (footnote!) it is clear that the Houttuyn and Thunberg specimens (although quite possibly parts of the same gathering) can at most be regarded as 'duplicates' or 'isotypes' and not as parts of the same type (compare Art. 8. Ex. 2, 4, and especially 5).

Swartz (1801; 1806) was not aware of all this, but as there already was a *Polypodium hastatum* Thunb., he made the new combination *Polypodium tricuspis* Sw. when he transferred Thunberg's species to *Polypodium*. This epithet then is the oldest valid one in the synonymy of *Acrostichum hastatum* Thunb. non Houtt.

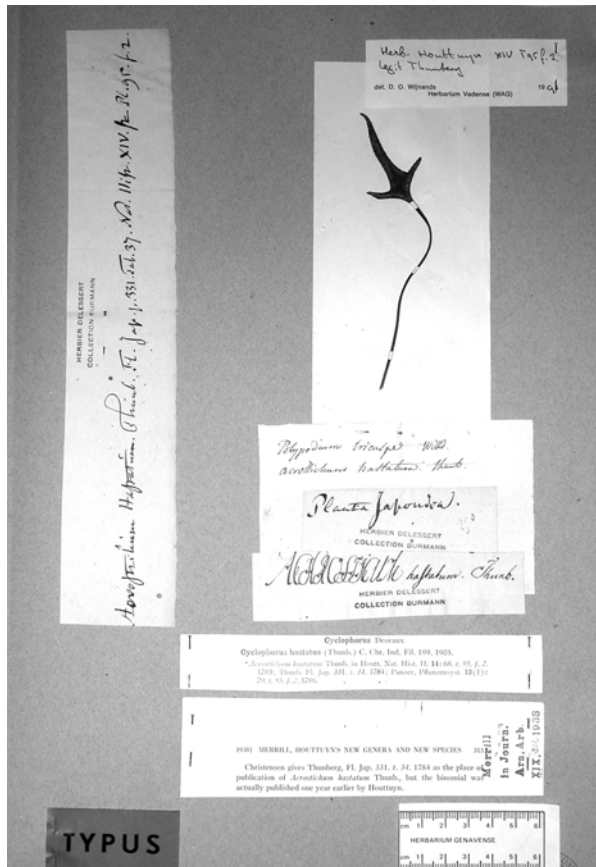


Plate 1 — Holotype of *Acrostichum hastatum* Houtt. Note sample's of Houttuyn's writing. The label with the spidery letters is by Thunberg. By courtesy of the Herbarium Genavense

Other synonyms mentioned by Hovenkamp are listed in chronological order as follows:

- Niphobolus hastatus* Kunze, Bot. Zeit. 6 (1848) 505. — Houttuyn (ed. Panzer, 1786), Thunberg, and Swartz were cited. The combination therefore is legitimate: *Niphobolus hastatus* (Thunb. ex Houtt.) Kunze.
- Polycampium hastatum* C. Presl, Epimel. Bot. (1849) 137. — Same as preceding: *Polycampium hastatum* (Thunb. ex Houtt.) C. Presl.
- Cyclophorus tricuspis* Desv. ex T. Moore, Index Fil. (1861) 276. — Cited as a synonym of *Niphobolus hastatus* and therefore invalid.
- Niphobolus tricuspis* J. Sm., Hist. Fil. (1875) 98. — Smith referred to '(Thunb.)', so presumably was intended for *Polypodium tricuspe* Sw. and so is to be cited as *Niphobolus tricuspis* (Sw.) J. Sm.
- Cyclophorus hastatus* C. Chr., Index Fil. (1906) 199. — Thunberg and Swartz are cited, but

not Houttuyn. This is therefore a validation of the epithet sensu Thunberg, but the combination is superfluous, as '*tricuspis*' is the epithet that should have been used. The citation should be without bracketed authorship as new combinations cannot be based on illegitimate names.

*Pyrrosia hastata* Ching, Bull. Chin. Bot. Soc. 1 (1935) 48. — This was cited as '(Thunb. ex Houtt.)' by Hovenkamp. However, Ching only referred to Thunberg, and the combination is superfluous, similar to the preceding one.

What is *Acrostichum hastatum* Houtt. to be called when regarded as a species of *Pyrrosia*? *Pyrrosia hastata* Ching is heterotypic and it is not allowed to merely change the reference to the basionym, i.e. from *Pyrrosia hastata* Ching to *P. hastata* (Thunb. ex Houtt.) Ching. In fact, *P. hastata* (Thunb. ex Houtt.) Ching ex Hovenkamp is an illegitimate later homonym.

Therefore *P. tricuspis* (Sw.) Tagawa is the correct name.

#### ACKNOWLEDGMENTS

I wish to thank the Herbarium Genavense for providing the plate and allowing me to use it.

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