Generic and infrageneric names in *Acacia* following retypification of the genus

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There are implications for generic and infrageneric nomenclature within *Acacia sens. lat*. following the decision of the Nomenclature Session of the 17th International Botanical Congress (IBC) in Vienna to endorse and ratify the recommendations of the Committee for Spermatophyta and the General Committee of IAPT to accept the Orchard & Maslin (2003) proposal to retypify *Acacia* with a new type. Discussions of events leading up to, and including, the IBC decision are presented on the Worldwidewattle website at http://www.worldwidewattle.com/infogallery/nameissue/index.php.

Following the IBC decision the type of *Acacia* changes from the African/Asian species, *A. scorpioides* (=*A. nilotica*), to the Australian species, *A. penninervis*. The nomenclatural consequences at the infrageneric level that flow from this are: (1) the name subgenus *Acacia* now applies to the 'Australian group' formerly known as *Acacia* subgenus *Phyllodineae* and (2) the former *Acacia* subgenus *Acacia* requires a new name.

There are also nomenclatural consequences at the generic level. Although there is a strong body of evidence to suggest that *Acacia sens. lat*. should be divided into at least five separate genera (see Table 1 below and Maslin *et al*. 2003) the group at present is still generally treated as a single, cosmopolitan genus, namely, *Acacia*. However, new combinations in *Vachellia*, based on species in the former subg. *Acacia*, have already been made for the New World (see Seigler & Ebinger 2005) and Australia (see Kodela & Wilson 2006). It is not known when similar combinations will be made for the African and Asian species, or indeed, whether or not the international community will take up the new generic names.

In the meantime it is necessary to clarify what generic and infrageneric names should be adopted within *Acacia sens. lat*. depending on whether the group is treated as a single genus or as multiple genera. The approach described below suggests alternatives until the taxonomic and nomenclatural matters concerning *Acacia sens. lat*. are finally resolved.

Some nomenclatural problems occur at the infrageneric level **when Acacia is treated as a single genus** (see Table 1, column 2). Firstly, there appears not to be a subgeneric name available for the former *Acacia* subg. *Acacia* (i.e. the group that contains *A. nilotica*). Until this matter has been resolved this group will need to be referred to as something like "*Acacia* subg. x (= the former subgenus *Acacia*)". As to the 'Australian group' the correct subgeneric name for it is subg. *Acacia*, and under Article 22.1 of the International Code of Botanical Nomenclature subg. *Phyllodineae* is a synonym of it. Finally, the name **"***Acacia coulteri* group" is used for the small group of New World taxa that was segregated from subgenus *Aculeiferum* by Jawad *et al*. (2000) but for which no formal infrageneric name was provided; this group will soon receive the generic name *Mariosousa*.

Table 1, column 3 shows what generic names are applicable **when Acacia is treated as comprising multiple genera** (as outlined in Maslin *et al*. 2003). Nomenclaturally, the most significant changes apply to "acacias" that occur in Africa, Asia and the Americas where just less than half will become known as *Vachellia* (corresponding to the former *Acacia* subgenus *Acacia*), about half will become known as *Senegalia* (syn. *Acacia* subgenus *Aculeiferum*) and the remainder will be placed in the two small New World genera, *Acaciella* (syn. *Acacia* sect. *Filicinae*) and "*Mariosousa*" ms (corresponding to the "*Acacia coulteri* group"). The genus *Acacia* (syn. *Acacia* subgenus *Phyllodineae* and *Racosperma*) is the largest group and is predominantly confined to Australia but is extensively cultivated around the world. It is significant for Australia that the name *Racosperma* will now not have to be adopted.

Currently *Acacia* is treated as a single genus but as already noted, the combinations within *Vachellia* have begun to appear (also the New World *Senegalia* combinations have appeared, see Seigler *et al.* 2006). As fragmentation of the genus continues, names will come available under the new genera (Table 1, column 3) in dribs and drabs over a period of time. Worldwidewattle is keeping track of these new names as they are published and presents them on the site as 'Alternative' names to *Acacia*. WWW also provides users with alternative views of the classification of *Acacia*, namely, single- vs multiple-generic views.

Concluding remarks

As things currently stand the situation with respect to both the classification and nomenclature of *Acacia sens. lat.* is rather unsatisfactory. Firstly, it is not known if the international botanical community will accept the split of Acacia based on current evidence so there is uncertainty as to whether *Acacia* should be treated as one or more than one genus. Secondly, there has been disquiet with respect to the IBC decision concerning the retypification of *Acacia* and it is not known if there will be an attempt to have this decision reversed.

Table 1. Generic and infrageneric names for *Acacia sens. lat*. following decision at the Nomenclature Session of the 17th International Botanical Congress (IBC) in Vienna to endorse and ratify the recommendations of the Committee for Spermatophyta and the General Committee of IAPT to accept the Orchard & Maslin (2003) proposal to retypify *Acacia* with an new type.

Pre-IBC names (*A. nilotica* the type of *Acacia*)	Post-IBC names (*A. penninervis* the type of *Acacia*)	
	Acacia treated as a single genus	*Acacia sens. lat.* treated as multiple genera[1]
ACACIA Subgenus **Acacia**	**ACACIA** "subgenus **x**"[2]	**VACHELLIA**
Subgenus **Aculeiferum** Section Spiciflorae Section Filicineae *Acacia coulteri* group	Subgenus **Aculeiferum** Section Spiciflorae Section Filicinae **"***Acacia coulteri* group"[2]	 **SENEGALIA** **ACACIELLA** "**MARIOSOUSA**" ms
Subgenus **Phyllodineae**	Subgenus **Acacia**	**ACACIA**

[1]Number of genera based on information provided in Maslin *et al.* (2003)

[2]See explanatory note in text above.

References

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