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**SOME COMMENTS AND CORRECTIONS ON THE  
ASCLEPIADACEAE IN THE UPLAND KENYA WILD FLOWERS  
BY A.D.Q. AGNEW AND S. AGNEW**

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## **INTRODUCTION**

The new edition of “Upland Kenya Wild Flowers” (Agnew & Agnew, 1994) will become a standard reference for all East African botanists, both amateur and professional. The work deals with the flora of East Africa which, although not exceptionally diverse, is still insufficiently known in some areas. In recent years drastic changes have occurred to the taxonomy of some families. The Asclepiadaceae sensu UKWF, now more correctly referred to as the three most derived subfamilies of the Apocynaceae, subfamilies Periplocoideae, Secamonoideae and Asclepiadoideae (Endress & Bruyns, in press) is one such group, and we undertake to point out a few corrections concerning this family, and also to update the nomenclature in those groups that have seen major revisions lately.

## **CORRECTIONS AND UPDATES**

### **p. 174: *Curroria***

*Curroria volubilis* has been transferred to the new genus *Buckollia* Venter & Verhoeven to become *B. volubilis* (Schltr.) Venter & Verhoeven (1994).

### **p. 174: *Ectadiopsis***

Venter & Verhoeven (1997) include this genus within *Cryptolepis*. The appropriate combination in this genus is *C. oblongifolia* (Meissn.) Schltr.

### **p. 175: *Mondia***

Agnew & Agnew treated *Mondia ecornuta* (N.E. Br.) Bullock as a synonym of *Mondia*

*whitei* Skeels, but since Venter & Verhoeven (1997) accept the second species of *Mondia*, one has to deal with *M. ecornuta* in Kenya as well.

**p. 175: *Tacazzea***

*T. galactogoga* Bullock has been recognised as a synonym of *Tacazzea conferta* N.E. Br. (Venter *et al.*, 1990).

**p. 175: *Parquetina***

Recently, Venter & Verhoeven (1996) concluded that *P. nigrescens* in its traditional circumscription included two distinct species. The necessary split resulted in a West and Central African taxon, *Periploca nigrescens*, and a predominantly West and East African taxon, *Omphalogonus calophyllus* Baillon, the latter representing the western Kenyan taxon.

**p. 175: *Schlechterella***

*Schlechterella* (and the congeneric *Triodoglossum*) are distinctively characterised by possessing pollinia instead of granular pollen masses (Meve, unpubl.; Venter & Verhoeven,, in press).

**p. 176: *Xysmalobium***

The correct name for *X. reticulatum* N.E. Br. is *X. heudelotianum* Decne. *Saxymolbium* (listed in synonymy) is a manuscript name that has never been validly published.

**p. 176: *Aspidoglossum***

The correct spelling of *A. massaicum* (N.E. BR.) Kupicha is without the double 's', *A. masaicum*.

**p. 178: *Pachycarpus***

Following the revision of the genus by Goyder (1998a) a number of changes are required for the Flora of Upland Kenya: *Pachycarpus fulvus* (N.E. Br.) Bullock has been excluded from *Pachycarpus* by Goyder (1997, 1998a). It is most closely related to a group of southern African species currently placed in *Asclepias*. Until this group has been revised and its generic placement clarified, the species should be referred to as *A. fulva* N.E. Br.

*Pachycarpus grantii* (Oliv.) Bullock and *P. eximius* (N.E. Br.) Bullock are reversed. *P. grantii* represents the taxon possessing paired teeth on the corona lobes.

*P. rhinophyllus* (K. Schum.) N.E. Br. is conspecific with the South African *P. concolor* E. Mey.; the latter name has priority.

*P. lineolatus* (Decne.) Bullock has been confused with *P. schweinfurthii* (N.E. Br.) Bullock. The correct name for *P. lineolatus* sensu Agnew and others is *P. bisacculatus* (Oliv.) Goyder, and *P. schweinfurthii* becomes *P. lineolatus*.

**p. 178: *Stathmostelma***

Goyder's revision of *Stathmostelma* (Goyder, 1998b) brought light to some necessary changes within this genus: *Stathmostelma praetermissum* Bullock is to be included within *S. gigantiflorum* K. Schum. *Stathmostelma propinquum* (N.E. Br.) Schltr. is a totally different plant. The taxon described on p. 179 represents a new species, *S. diversifolium* Goyder, which inhabits a range from southern Ethiopia to the Masai steppes of northern Tanzania.

**p. 179: *Margaretta***

According to Mwanyambo (1996), *Margaretta rosea* Oliv. should be listed as *M. rosea* subsp. *rosea*. Agnew's "sp. A" is *M. rosea* subsp. *bidens*. The critical difference is the absence of a third basal corona tooth in the latter subspecies.

**p. 179: *Pentarrhinum***

*Pentarrhinum* sp. A represents *P. abyssinicum* Decne. subsp. *angolense* Liede & Nicholas (Liede & Nicholas, 1992).

**p. 179: *Cynanchum***

Liede (1991) has shown that the correct name for *Cynanchum tetrapterum* (Turcz.) R.A. Dyer is *C. gerrardii* (Harvey) Liede.

*Cynanchum defoliascens* K. Schum. has been shown to be a synonym of *Blyttia fruticosum* (Decne.) D.V. Field & J.R.I. Wood (Liede, 1996a).

*Cynanchum hastifolium* N.E.Br. has been put into synonymy with *C. clavidens* N.E. Br.

Key:

1. stylar head well exserted beyond the corona ..... subsp. *clavidens*
- 1'. stylar head hardly exserted beyond the corona .. subsp. *hastifolium*

Subsp. *hastifolium* in Kenya is more of an upland taxon, while subsp. *clavidens* prefers low-lying areas (Liede, 1996b).

*Cynanchum* sp. A has been shown to be identical with *C. gonoloboides* Schltr. (Liede, 1996b), and the species has been transferred to *Pentarrhinum* (*P. gonoloboides* (Schltr.) Liede (Liede, 1997).

*Cynanchum validum* N.E. Br. has been transferred to *Schizostephanus*. It is now *Schizostephanus alatus* N.E. Br. (Liede, 1994).

**p. 180: *Sarcostemma***

*S. subterranea* Adams & Holland has been shown to be a synonym of *S. vanlessenii* Lavranos (Meve & Liede, 1996).

Of the many subspecies of *S. viminale*, three are known to occur in the Kenyan Upland area (Meve & Liede, 1996):

1. Plants erect or scrambling, but never twining with a corkscrew .....subsp. *stipitaceum*
- 1'. Plants twining, usually forming a main stem.....2
2. Inflorescences borne on short (1-3 cm long) laterals.....subsp. *odontolepis*
- 2'. Inflorescences sessile on the nodes.....subsp. *suberosum*

Subspecies *odontolepis* is widespread along the Kenyan coast; in the highlands it has been recorded very rarely from the Nairobi area.

Subspecies *suberosum* represents the most frequent *Sarcostemma viminalis* taxon in the area.

Subspecies *stipitaceum* [partly named as "*S. andongense* Hiern" in Agnew & Agnew (1994)] is frequent in the drier areas. However, two other elements are widespread but not really frequent: 1) a tangling and creeping, very thick-stemmed *Sarcostemma* with rather unpleasant smelling, large and densely clustered flowers (incorrectly named as *S. andongense* in Agnew & Agnew, 1994); 2) an erect growing, thick-stemmed but markedly striate and hairy form, which might also be hiding within what is presently called subsp. *stipitaceum*. The character of striation, while easily seen in living specimens, vanishes in dried specimens. This has hampered a satisfactory account of this complex.

**p. 180: *Tylophoropsis***

This genus has been sunk into synonymy with *Tylophora*; the relevant combination for the Kenyan taxon concerned is: *Tylophora heterophylla* A. Rich. (Liede, 1996a).

**p. 181: *Tylophora***

*Tylophora* sp. B corresponds to *T. anomala* N.E. Br.

**pp. 181 & 182: *Gongronema* and *Dregea***

The African species of *Gongronema* have been transferred to *Marsdenia* R. Br., and *Dregea* has been reduced to a section of the genus *Marsdenia* (Omlor 1998). The following names have been reinstated: *Marsdenia angolensis* N.E. Br., *M. steleostigma* K. Schum., *M. schimperi* Decne., *M. abyssinica* (Hochst.) Schltr., *M. rubicunda* (K. Schum.) N.E. Br. and *M. macrantha* (Klotzsch) Schltr. (Omlor, 1998).

The key presented on p. 181 is a little confused with leads 4 and 5 in conflict regarding fruit morphology. If fruits are present, the following sections or species pairs can be identified immediately: In sect. *Obscurae* Omlor (which comprises the former African *Gongronema* species) the follicles are smooth and narrowly cylindrical. These contrast with the follicles of sect. *Dregea* (E. Mey.) Omlor, which are always much broader. They may have a striate appearance at least when dry (*Marsdenia macrantha* and *M. schimperi*), possess eight or more strongly wrinkled wings (*M. abyssinica*) or four straight wings (*M. stelostigma* and *M. rubicunda*).

**p. 183 & 184: *Ceropegia***

*C. devecchii* has been sunk into synonymy with *C. variegata* Decne. (Bruyns, 1988). Corolla morphology is very variable over the entire geographic range of this taxon, whose wide distribution extends as far as Saudi Arabia.

*C. brosimia* is probably better treated as a synonym of the extremely variable and widespread *C. bulbosa* Roxb. (Masinde & Meve, unpubl.).

*Ceropegia* sp. B from Nairobi has been published as *C. intracolor* (Newton, 1995).

*C. succulenta* E.A. Bruce cannot be distinguished from *C. albisepta* var. *bruceana* H. Huber or from *C. robynsiana* Werderm. 1908. Therefore, the latter name should be regarded as the correct name for the African vicariant of the Madagascan *C. albisepta* Jum. & H. Perrier.

**p. 184: *Brachystelma***

The description of *Brachystelma lineare* and the drawing on plate 72 are not in accordance with Richard's original description. This element from the Nairobi area is conspecific with

the recently described new species, *B. pellacibellum* Newton, for plants from the Laikipia District (Newton 1996) or it represents another undescribed species.

**p. 185: *Caralluma***

Plowes (1995) transferred all of the Kenyan *Caralluma* species to a confusingly large number of mostly newly created genera. This revision is obviously based on very personal judgements of morphological characters only, and seems to be too artificial. Plowes' work has been so far not accepted by professional botanists.

Newton (1998) described a new species, *Caralluma flavovirens*, for the Taita Hills area. The new species is similar to *C. arachnoidea* and *C. gracilipes*. However, it differs in its more roundish stems with persistent leaf rudiments of 4 x 2 mm, yellow-green corolla lobes of up to 8 mm length, and bifid, subulate and spreading interstaminal corona lobes. *C. flavovirens* is rare in soil pockets on gneissic rocks; alt. 600 m. KAJ.

**p. 186: *Pachycymbium***

All eight species of Kenyan *Pachycymbium* given by Agnew & Agnew (1994) were transferred to the genus *Angolluma* Munster (cf. Plowes, 1994). However, the delimitation of *Angolluma* against *Pachycymbium* and *Orbea* is vague and still unresolved.

**Literature**

- Agnew, A.D.Q. & S. Agnew (1994). *Upland Kenya Wild Flowers*, 2nd ed. East African Natural History Society, Nairobi.
- Bruyns, P.V. (1988). The genus *Ceropegia* in Arabia. *Notes from the Royal Botanical Garden, Edinburgh* **45**: 287–326.
- Endress, M.E. & P.V. Bruyns (in press). A revised classification of Apocynaceae. *Bot. Rev.*
- Goyder, D.J. (1997). The status and generic position of *Pachycarpus fulvus* (N.E. BR.) Bullock. *Kew Bulletin* **52**: 247–248.
- Goyder, D.J. (1998a). A revision of *Pachycarpus* E. Mey. (Asclepiadaceae: Asclepiadeae) in tropical Africa with notes on the genus in southern Africa. *Kew Bulletin* **53**(2): 335–374.
- Goyder, D.J. (1998b). A revision of the African genus *Stathmostelma* K. Schum. (Apocynaceae: Asclepiadeae). *Kew Bulletin* **53**(3): 577–616.
- Liede, S. (1991). *Cynanchum gerrardii* - a new combination for a well-known African species (Asclepiadaceae). *Taxon* **40**: 113–117.
- Liede, S. (1994). Myth and reality of the subtribe Astephaninae K.Schum. (Asclepiadaceae). *Botanical Journal of the Linnean Society* **114**: 81–98.
- Liede, S. (1996a). *Cynanchum*—*Rhodostegiella*—*Vincetoxicum*—*Tylophora*: new considerations on an old problem. *Taxon* **45**: 193–211
- Liede, S. (1996b). A revision of the genus *Cynanchum* (Asclepiadaceae) on the African mainland. *Annals of the Missouri Botanical Garden* **83**: 283–345
- Liede, S. (1997). Phylogenetic analysis of a large dataset: African *Cynanchum* (Asclepiadaceae). *Systematic Botany* **22**(2): 347–372.
- Liede, S. & A. Nicholas (1992). A revision of the genus *Pentarrhinum* E. MEY. (Asclepiadaceae). *Kew Bulletin* **47**(3): 475–490.
- Meve, U. & S. Liede (1996). *Sarcostemma* R. Br. in East Africa and Arabia. *Botanical Journal of the Linnean Society* **120**: 21–38.

- Mwanyambo, M.L. (1996). Intraspecific variation in the African genus *Margaretta* (Asclepiadaceae-Asclepiadoideae). *Kew Bulletin* **51**(4): 717–728.
- Newton, L.E. (1995). A new species of *Ceropegia* in Kenya. *Bradleya* **13**: 35–37.
- Newton, L.E. (1996). The genus *Brachystelma* (Asclepiadaceae) in East Africa, with a new record and description of a new species. *Bradleya* **14**: 94–98.
- Newton, L.E. (1998). Two new stapeliads in Kenya. *Asklepios* **74**: 23–25.
- Omlor, R. (1998). *Generische Revision der Marsdenieae (Asclepiadaceae)*. Aachen: Shaker Verlag.
- Plowes, D.C.H. (1994). The taxonomy of the genera *Pachycymbium* Leach and *Angolluma* Munster (Stapeliaceae: Asclepiadaceae). *Excelsa* **16**: 103–123.
- Plowes, D.C.H. (1995). A reclassification of *Caralluma* R. Br. (Stapeliaceae: Asclepiadaceae). *Haseltonia* **3**: 49–70.
- Venter, H.J.T. & R.L. Verhoeven (1994). *Buckollia*, a new genus in the Periplocaceae. *South African Journal of Botany* **60**: 93–98.
- Venter, H.J.T. & R.L. Verhoeven (1996). The 'minor confusion' around *Parquetina nigrescens* (Periplocaceae). *South African Journal of Botany* **62**: 23–30.
- Venter, H.J.T. & R.L. Verhoeven (1997). A tribal classification of the Periplocoideae (Apocynaceae). *Taxon* **46**: 705–720.
- Venter, H.J.T. & R.L. Verhoeven (in press). A taxonomic revision of *Schlechterella* (Periplocoideae, Apocynaceae). *South African Journal of Botany*.
- Venter, H.J.T., R.L. Verhoeven & J.D.S. Kotze (1990). A monograph of *Tacazzea* (Periplocaceae). *South African Journal of Botany* **56**: 93–112.