

**An Update and Supplement to the CITES *Aloe* & *Pachypodium* Checklist.
Jonas M. Lüthy (2007). CITES Management Authority of Switzerland,
Bern, Switzerland.**

The CITES *Aloe* & *Pachypodium* Checklist was published in 2001 (Eggli, U. et al.) and adopted by the CITES Parties and its updates accepted by the Nomenclature Committee, as a guideline when making reference to the names of species of *Aloe* and *Pachypodium*. Since that time a significant number of new names have been published in *Aloe* and a significant review carried out of *Pachypodium*. An update and supplement to the original list is therefore required.

Aloe

1. A considerable number of new species have been described since the publication of the CITES *Aloe* Checklist (2001). It is important for Management Authorities and inspection services to be able to check, for instance, whether a name of an *Aloe* belongs to a newly discovered species that is unlikely to be available from artificial propagation.
2. A list of *Aloe* names that were published after the CITES checklist was compiled by Dr. Urs Eggli at the Succulent Collection of Zürich under a contract with the Management Authority of Switzerland. It was updated in November 2006. The list contains not less than 41 names of species and subspecies or varieties that are not included in the CITES checklist.
3. The list contained in Annex 1 is proposed by the Nomenclature Committee for adoption by the CoP as an update and supplement to the CITES *Aloe* Checklist.

Pachypodium

4. In the frame of developing a contribution to the CITES Identification Manual, covering *inter alia* the genus *Pachypodium* and published 2006, relevant literature and complete documented live material was studied and it became apparent, that it would be useful to update the taxonomical treatments of Pichon (1949) and Rapanarivo et al. (1999). The CITES checklist is based on the classification of Rowley (2001).
5. The treatment of *Pachypodium* in the CITES Identification Manual therefore differs from the Checklist in various points and contains additional taxa. Differences are shown below.
6. The list of the Identification Manual contained in Annex 2 is proposed by the Nomenclature Committee for adoption by the CoP as an update and supplement to the CITES *Pachypodium* Checklist.

Comparison of accepted names of Madagascan pachypodiums

| Checklist | Identification Manual |
|---|---|
| <i>P. ambongense</i> Poiss. 1924 | <i>P. ambongense</i> Poiss. 1924 |
| <i>P. baronii</i> Costantin & Bois 1907 | <i>P. baronii</i> Costantin & Bois 1907 |
| <i>P. baronii</i> var. <i>baronii</i> | <i>P. brevicaule</i> Baker 1886 |
| <i>P. baronii</i> var. <i>windsorii</i> (Poiss.) Pichon 1949 | <i>P. decaryi</i> Poiss. 1916 |
| <i>P. brevicaule</i> Baker 1887 | <i>P. densiflorum</i> Baker 1886, incl. <i>P. densiflorum</i> var. <i>brevicalyx</i> H. Perrier 1934 |
| <i>P. decaryi</i> Poiss. 1916 | <i>P. eburneum</i> Lavranos & Rapanarivo 1997 |
| <i>P. densiflorum</i> Baker 1886 | <i>P. geayi</i> Costantin & Bois 1907 |
| <i>P. densiflorum</i> var. <i>densiflorum</i> | <i>P. horombense</i> Poiss. 1924 |
| <i>P. densiflorum</i> var. <i>brevicalyx</i> H. Perrier 1934 | <i>P. inopinatum</i> Lavranos 1996 |
| <i>P. geayi</i> Costantin & Bois 1907 | <i>P. lamerei</i> Drake 1899 |
| <i>P. x hojnyi</i> Halda 1998 | <i>P. menabeum</i> Léandri 1934 |
| <i>P. horombense</i> Poiss. 1924 | <i>P. mikea</i> Lüthy 2005 |
| <i>P. lamerei</i> Drake 1899, incl. <i>P. menabeum</i> Léandri 1934 | <i>P. rosulatum</i> Baker 1882 |
| <i>P. x rauhii</i> Halda 1997 | <i>P. rosulatum</i> ssp. <i>rosulatum</i> , incl. <i>P. drakei</i> Cost. & Bois 1907 |
| <i>P. rosulatum</i> Baker 1882 | <i>P. rosulatum</i> ssp. <i>bicolor</i> (Lavranos & Rapanarivo) J. Lüthy |
| <i>P. rosulatum</i> var. <i>rosulatum</i> , incl. <i>P. cactipes</i> K. Schum. 1895 | <i>P. rosulatum</i> ssp. <i>cactipes</i> (K. Schum.) J. Lüthy |
| <i>P. rosulatum</i> forma <i>bicolor</i> (Lavranos & Rapanarivo) G. D. Rowley 1998 | <i>P. rosulatum</i> ssp. <i>gracilius</i> (H. Perrier) J. Lüthy |
| <i>P. rosulatum</i> var. <i>eburneum</i> (Lavranos & Rapanarivo) G. D. Rowley 1998 | <i>P. rosulatum</i> ssp. <i>makayense</i> (Lavranos) J. Lüthy |
| <i>P. rosulatum</i> var. <i>gracilius</i> H. Perrier | <i>P. rutenbergianum</i> Vatke 1885, incl. <i>P. rutenbergianum</i> var. <i>meridionale</i> H. Perrier 1934 |
| <i>P. rosulatum</i> var. <i>inopinatum</i> (Lavranos) G. D. Rowley 1998 | <i>P. sofience</i> (Poiss. 1924) H. Perrier 1934 |
| <i>P. rutenbergianum</i> Vatke 1885 | <i>P. windsorii</i> Poiss 1917 |
| <i>P. rutenbergianum</i> var. <i>rutenbergianum</i> | |
| <i>P. rutenbergianum</i> var. <i>meridionale</i> H. Perrier 1934 | |
| <i>P. rutenbergianum</i> var. <i>sofiense</i> Poiss. 1924 | |

Differences

| Checklist | Identification Manual |
|---|--|
| <i>P. baronii</i> var. <i>windsorii</i> | <i>P. windsorii</i> |
| <i>P. densiflorum</i> var. <i>brevicalyx</i> | <i>P. densiflorum</i> |
| <i>P. x hojnyi</i> | not treated |
| <i>P. lamerei</i> (incl. <i>P. menabeum</i>) unpublished | <i>P. menabeum</i> recognized as a separate species |
| <i>P. x rauhii</i> | <i>P. mikea</i> |
| <i>P. rosulatum</i> var. <i>rosulatum</i> (incl. <i>P. cactipes</i>) | not treated |
| | <i>P. rosulatum</i> ssp. <i>cactipes</i> recognized as a separate subspecies |
| <i>P. rosulatum</i> forma <i>bicolor</i> | <i>P. rosulatum</i> ssp. <i>bicolor</i> |
| <i>P. rosulatum</i> var. <i>eburneum</i> | <i>P. eburneum</i> |
| <i>P. rosulatum</i> var. <i>gracilius</i> | <i>P. rosulatum</i> ssp. <i>gracilius</i> |
| <i>P. rosulatum</i> var. <i>inopinatum</i> | <i>P. inopinatum</i> |

| | |
|--|---|
| unpublished | <i>P. rosulatum</i> ssp. <i>bemarahense</i> |
| unpublished | <i>P. rosulatum</i> ssp. <i>makayense</i> |
| <i>P. rutenbergianum</i> var. <i>meridionale</i> | <i>P. rutenbergianum</i> |
| <i>P. rutenbergianum</i> var. <i>sofiense</i> | <i>P. sofiense</i> |

Annex 1

CITES ALOE CHECKLIST (2001), SUPPLEMENT

- A. irafensis* Lavranos & al. 2004
A. alexandrei Ellert 2006
A. charlotteae Castillon 2006
A. deltoidea var. *fallax* Castillon 2006
A. johannis Castillon 2006
A. miskatana S. Carter (nom. nud., probably pending publication, cited from Fl. Somal. 3: 583, 2006)
A. mitsioana Castillon 2006
A. orlandoi Lavranos 2006
A. rendilliorum L. E. Newton 2006
A. saronarae Lavranos & T. M. McCoy 2006
A. andohahelensis Castillon 2002
A. arborescens ssp. *mzimnyati* Van Jaarsveld & A. E. van Wyk 2005
A. austroarabica McCoy & Lavranos 2003
A. bruynsii P. I. Forster 2003
A. canis S. Lane 2002
A. carolineae L. E. Newton 2002
A. clarkei L. E. Newton 2003
A. craibii G. F. Smith 2003
A. cyriliei Castillon 2004
A. droseroides Lavranos & T. A. McCoy 2003
A. florenceae Lavranos & T. A. McCoy 2004
A. hoffmannii Lavranos 2002
A. imalotensis var. *longiracemosa* Castillon 2005
A. inexpectata Lavranos & T. A. McCoy 2003
A. jawiyon Christie & al. 2004
A. kouebokkeveldensis Van Jaarsveld & A. B. Low 2004
A. lolwensis L. E. Newton 2001
A. mahraensis Lavranos & T. A. McCoy 2002
A. mandotoensis Castillon 2003
A. mccoyi Lavranos & Mies 2001
A. omavandae Van Jaarsveld 2004
A. philippeii Castillon 2005
A. praetermissa T. A. McCoy & Lavranos 2002
A. pronkii Lavranos & al. 2006
A. pseudoparvula Castillon 2004
A. rebmannii Lavranos 2002
A. roeoeslii Lavranos & T. A. McCoy 2005
A. sakarahensis Lavranos & M. Teissier 2004
A. sakoankenke Castillon 2004
A. teissieri Lavranos 2002
A. trachyticola var. *multiflora* Castillon 2004

CITES PACHYPODIUM CHECKLIST (2001), UPDATE & CORRIGENDA
recognized taxa and synonyms

Alphabetical list of recognized continental African species

1. *P. bispinosum* (L. f.) A. DC. 1844
Echites bispinosa L. f. 1781
Belonites bispinosa (L. f.) E. Mey 1837
P. glabrum G. Don 1838
P. tuberosum var. *loddigesii* A. DC. 1844
2. *P. lealii* Welw. 1869
- 2.a *P. lealii* ssp. *lealii*
P. giganteum Engl. 1894
- 2.b *P. lealii* ssp. *saundersii* (N. E. Br.) G. D. Rowley 1973
P. saundersii N. E. Br. 1892
3. *P. namaquanum* (Wiley ex Harv.) Welw. 1869
Adenium namaquanum Wiley ex Harv. 1863
4. *P. succulentum* (L. f.) Sweet 1830
Echites succulenta L. f. 1781
Belonites succulenta (L. f.) E. Mey. 1837
P. tuberosum Lodd. 1830 (non Lindley 1830)
P. tomentosum G. Don 1838
P. griquense L. Bolus 1932
P. jasminiflorum L. Bolus 1932

Alphabetical list of recognized Madagascan species

5. *P. ambongense* Poisson 1924
6. *P. baronii* Costantin & Bois 1907
P. baronii var. *erythreum* Poisson 1924
7. *P. brevicale* Baker 1886
8. *P. decaryi* Poisson 1916
9. *P. densiflorum* Baker 1886
P. densiflorum var. *brevicalyx* H. Perrier 1934
P. brevicalyx (H. Perrier) Pichon 1949
10. *P. eburneum* Lavranos & Rapan. 1997
P. rosulatum var. *eburneum* (Lavranos & Rapan.) G. D. Rowley 1998
11. *P. geayi* Costantin & Bois 1907
12. *P. horombense* Poisson 1924
P. rosulatum var. *horombense* (Poisson) G. D. Rowley 1973
13. *P. inopinatum* Lavranos 1996
P. rosulatum var. *inopinatum* (Lavranos) G. D. Rowley 1998
14. *P. lamerei* Drake 1899
P. rutenbergianum forma *lamerei* (Drake) Poisson 1924
P. champenoisianum Boiteau 1941
P. lamerei var. *ramosum* (Costantin & Bois) Pichon 1949
P. ramosum Costantin & Bois 1907
15. *P. menabeum* Léandri 1934
16. *P. mikea* Lüthy 2005
17. *P. rosulatum* Baker 1882
- 17.a *P. rosulatum* ssp. *rosulatum*
P. rosulatum var. *drakei* (Costantin & Bois) Markgr. 1976
P. drakei Costantin & Bois 1907

- 17.b *P. rosulatum* ssp. *bemarahense* J. Lüthy & Lavranos 2004
 17.c *P. rosulatum* ssp. *bicolor* (Lavranos & Rapan) J. Lüthy 2004
 P. bicolor Lavranos & Rapan. 1997
 P. rosulatum forma *bicolor* (Lavranos & Rapan.) G. D. Rowley 1998
 17.d *P. rosulatum* ssp. *cactipes* (K. Schum.) J. Lüthy 2004
 P. cactipes K. Schum. 1895
 P. rosulatum var. *delphinense* H. Perrier 1934
 P. rosulatum var. *stenanthum* Costantin & Bois 1907
 17.e *P. rosulatum* ssp. *gracilius* (H. Perrier) J. Lüthy 2004
 P. rosulatum var. *gracilius* H. Perrier 1934
 17.f *P. rosulatum* ssp. *makayense* (Lavranos) J. Lüthy 2004
 P. makayense Lavranos 2004
 18. *P. rutenbergianum* Vatke 1885
 P. rutenbergianum var. *meridionale* H. Perrier 1934
 P. meridionale (H. Perrier) Pichon 1949
 19. *P. sofiense* (Poisson) H. Perrier 1934
 P. rutenbergianum var. *sofiense* Poisson 1924
 P. rutenbergianum var. *perrieri* Poisson 1924
 20. *P. windsorii* Poisson 1917
 P. baronii var. *windsorii* (Poisson) Pichon 1949

Alphabetical list of *Pachypodium* names

Recognized taxa in standard, synonyms in italics, taxa of CITES Appendix I in bold letters.

| Name | recognized taxon |
|--|---------------------|
| <i>Adenium namaquanum</i> Wiley ex Harv. 1863 | 3 |
| <i>Belonites bispinosa</i> (L. f.) E. Mey 1837 | 1 |
| <i>Belonites succulenta</i> (L. f.) E. Mey. 1837 | 4 |
| <i>Echites bispinosa</i> L. f. 1781 | 1 |
| <i>Echites succulenta</i> L. f. 1781 | 4 |
| P. ambongense Poisson 1924 – CITES Appendix I | 5 |
| P. baronii Costantin & Bois 1907 – CITES App. I | 6 |
| P. baronii var. <i>erythreum</i> Poisson 1924 – CITES Appendix I | 6 |
| P. baronii var. <i>windsorii</i> (Poisson) Pichon 1949 – CITES Appendix I | 20 |
| <i>P. bicolor</i> Lavranos & Rapan. 1997 | 17c |
| <i>P. bispinosum</i> (L. f.) A. DC. 1844 | 1 |
| <i>P. brevicalyx</i> (H. Perrier) Pichon 1949 | 9 |
| <i>P. brevicaule</i> Baker 1886 | 7 |
| <i>P. cactipes</i> K. Schum. 1895 | 17d |
| <i>P. champenoisianum</i> Boiteau 1941 | 14 |
| P. decaryi Poisson 1916 – CITES Appendix I | 8 |
| <i>P. densiflorum</i> Baker 1886 | 9 |
| <i>P. densiflorum</i> var. <i>brevicalyx</i> H. Perrier 1934 | 9 |
| <i>P. drakei</i> Costantin & Bois 1907 | 17a |
| <i>P. eburneum</i> Lavranos & Rapan. 1997 | 10 |
| <i>P. geayi</i> Costantin & Bois 1907 | 11 |
| <i>P. giganteum</i> Engl. 1894 | 2a |
| <i>P. glabrum</i> G. Don 1838 | 1 |
| <i>P. griquense</i> L. Bolus 1932 | 4 |
| <i>P. horombense</i> Poisson 1924 | 12 |
| <i>P. inopinatum</i> Lavranos 1996 | 13 |
| <i>P. jasminiflorum</i> L. Bolus 1932 | 4 |
| <i>P. lamerei</i> Drake 1899 | 14 |

| | |
|--|-----|
| <i>P. lamerei</i> var. <i>ramosum</i> (Costantin & Bois) Pichon 1949 | 14 |
| <i>P. lealii</i> ssp. <i>saundersii</i> (N. E. Br.) G. D. Rowley 1973 | 2b |
| <i>P. lealii</i> Welw. 1869 | 2 |
| <i>P. makayense</i> Lavranos 2004 | 16f |
| <i>P. menabeum</i> Léandri 1934 | 15 |
| <i>P. meridionale</i> (H. Perrier) Pichon 1949 | 18 |
| <i>P. mikea</i> J. Lüthy 2005 | 16 |
| <i>P. namaquanum</i> (Wiley ex Harv.) Welw. 1869 | 3 |
| <i>P. ramosum</i> Costantin & Bois 1907 | 14 |
| <i>P. rosulatum</i> Baker 1882 | 17 |
| <i>P. rosulatum</i> forma <i>bicolor</i> (Lavranos & Rapan.) G. D. Rowley 1998 | 17c |
| <i>P. rosulatum</i> ssp. <i>bemarahense</i> J. Lüthy & Lavranos 2004 | 17b |
| <i>P. rosulatum</i> ssp. <i>bicolor</i> (Lavranos & Rapan) J. Lüthy 2004 | 17c |
| <i>P. rosulatum</i> ssp. <i>cactipes</i> (K. Schum.) J. Lüthy 2004 | 17d |
| <i>P. rosulatum</i> ssp. <i>gracilius</i> (H. Perrier) J. Lüthy 2004 | 17e |
| <i>P. rosulatum</i> ssp. <i>makayense</i> (Lavranos) J. Lüthy 2004 | 17f |
| <i>P. rosulatum</i> var. <i>delphinense</i> H. Perrier 1934 | 17d |
| <i>P. rosulatum</i> var. <i>drakei</i> (Costantin & Bois) Markgr. 1976 | 17a |
| <i>P. rosulatum</i> var. <i>eburneum</i> (Lavranos & Rapan.) G. D. Rowley 1998 | 10 |
| <i>P. rosulatum</i> var. <i>gracilius</i> H. Perrier 1934 | 17e |
| <i>P. rosulatum</i> var. <i>horombense</i> (Poisson) G. D. Rowley 1973 | 12 |
| <i>P. rosulatum</i> var. <i>inopinatum</i> (Lavranos) G. D. Rowley 1998 | 13 |
| <i>P. rosulatum</i> var. <i>stenanthum</i> Costantin & Bois 1907 | 17d |
| <i>P. rutenbergianum</i> forma <i>lamerei</i> (Drake) Poisson 1924 | 14 |
| <i>P. rutenbergianum</i> var. <i>meridionale</i> H. Perrier 1934 | 18 |
| <i>P. rutenbergianum</i> var. <i>perrieri</i> Poisson 1924 | 19 |
| <i>P. rutenbergianum</i> var. <i>sofiense</i> Poisson 1924 | 19 |
| <i>P. rutenbergianum</i> Vatke 1885 | 18 |
| <i>P. saundersii</i> N. E. Br. 1892 | 2b |
| <i>P. sofiense</i> (Poisson) H. Perrier 1934 | 19 |
| <i>P. succulentum</i> (L. f.) Sweet 1830 | 4 |
| <i>P. tomentosum</i> G. Don 1838 | 4 |
| <i>P. tuberosum</i> Lodd. 1830 (non Lindley 1830) | 4 |
| <i>P. tuberosum</i> var. <i>loddigesii</i> A. DC. 1844 | 1 |
| P. windsorii Poisson 1917 – CITES Appendix I | 20 |