

Dicksonia species of the Americas

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1. Background

At the 11th Meeting of the Conference of the Parties to CITES it was decided to include the "populations of the Americas" of the genus *Dicksonia* in Appendix II. This decision became effective on 19 July 2000. To help implement this decision, a list of those *Dicksonia* species with American populations is necessary. The following list was prepared by Wolfram Lobin (Botanic Garden Bonn) and Uwe Schippmann (CITES Scientific Authority Germany). It was discussed at the 12th Meeting of the Plants Committee (13-17 May 2002, Leiden).

DR B. PÉREZ-GARCIA, Mexico and DR M. KIEHN, Vienna are thanked for their valuable input of information especially regarding literature references.

2. List of American *Dicksonia* species

In the following the *Dicksonia* species are listed, which fulfil the Annotation to include "populations of the Americas".

The wording "Americas" used in the Annotation was understood to include the regions "North America" and "Central and South America and the Caribbean" as defined and used within the Convention.

It has to be noted, however, that two species (*D. berteriana*, *D. externa*) only comply with this annotation if it is understood in the sense of political countries rather than as a natural range: both are endemics of an island which is located 670 km west of the American continent.

Dicksonia berteriana (COLLA) HOOK., Sp. Fil. **1**: 67, 1844

Distribution: Chile (Juan-Fernandez Island)

Dicksonia externa SKOTTSB., Nat. Hist. Juan Fernandez and Easter IIs. **2**: 763, 1953

Distribution: Chile (Juan-Fernandez Island)

Dicksonia sellowiana HOOK., Sp. Fil. **1**: 67, 1844

Synonyms: *Balanitum karstenianum* KLOTZSCH, *D. ghiesbreghtii* MAXON, *D. gigantea* H. KARST., *D. lobularia* H. CHRIST, *D. navarrensis* H. CHRIST, *D. sellowiana* var. *arachneoda* SODIRO, *D. sellowiana* var. *karsteniana* (KLOTZSCH) SODIRO

Distribution: Bolivia, Brazil, Columbia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Peru, Uruguay, Venezuela

Dicksonia stuebelii HIERON., Hedwigia **45**: 228, 1906

Distribution: Peru, possibly in Ecuador.

3. Additional Information

3.1 Status of the genus *Dicksonia*

It has been discussed controversially to which family the genus *Dicksonia* belongs. By now, the opinion got accepted that the tree ferns consist of several families and that the genus *Dicksonia* belongs to the family Dicksoniaceae.

Depending on the author consulted, five or six genera are included in the family Dicksoniaceae. The five genera *Cibotium*, *Culcita*, *Cystodium*, *Dicksonia*, and *Thyrsopteris* are generally accepted. The only position in question is that of *Calochlaena*. KRAMER & GREEN (1990) and others (C. JERMY, IUCN Pteridophyte SG, in litt.) classify *Calochlaena* as separate genus, other authors put it as synonym to *Culcita*.

Calochlaena (MAXON) WHITE & TURNER [Philippines, SE Asia; 5 species; status unclear (see above), possibly belonging to *Culcita*]

Cibotium KAULF. [Central America, Asia, Hawaii; 8-10 species; *C. schiedeii* SCHLECHTENDAHL & CHAMISSO is frequently cultivated in botanical gardens and occasionally (?) imported].

Culcita C. PRESL [Mexico to Brazil, Australasia, Macaronesian Islands, S Spain; 9 species, inclusive the *Calochlaena* species. If these were excluded, only two species remain with *Culcita*: *C. macrocarpa* C. PRESL, the only indigenous European tree fern species, and *C. conifolia* (HOOK.) MAXON].

Cystodium J. SM. [Indonesia (Borneo) to Philippines; 1 species: *C. sorbifolium* (J.E. SM.) J. SM.]

Dicksonia L'HÉR. [Mexico to Uruguay, St. Helena, New Zealand, Tasmania, Indonesia, New Guinea, Philippines. The highest species diversity is found in New Guinea (5 species). Ca. 20 species, three of them in the neotropical region. *D. sellowiana* and *D. antarctica* are in trade and frequently cultivated in botanical gardens. *D. fibrosa* and *D. squarrosa* also occur in trade (J. LUETHY, pers. comm. 17.7.2002).]

Thyrsopteris KUNZE [Juan-Fernandez Island (Chile); 1 species: *T. elegans* KUNZE]

3.2 Complete alphabetical list of *Dicksonia* species

The following is an alphabetical list of all names in current use within the genus *Dicksonia*. Synonyms are referred to their currently accepted names. Accepted names are printed in bold.

Balanitium arborescens L'Hér.	→	<i>Dicksonia arborescens</i>
[Balanitium auricomum Kaulf.	→	<i>Dicksonia arborescens</i>]
Balanitium berteriana (Colla)Kze.	→	<i>Dicksonia berteriana</i>
Balanitium blumei Kunze	→	<i>Dicksonia blumei</i>
Balanitium karstenianum Klotzsch	→	<i>Dicksonia sellowiana</i>
Balanitium squarrosa (G.Forst)Kze.	→	<i>Dicksonia squarrosa</i>
Balanitium thyrsopteroides (Mett.)Fourn.	→	<i>Dicksonia thyrsopteroides</i>
Davallia berteriana Colla	→	<i>Dicksonia berteriana</i>
<i>Dicksonia antarctica</i> Labill.		
<i>Dicksonia arborescens</i> (L'Hér.)Hook.		
<i>Dicksonia archboldii</i> Copel.		
<i>Dicksonia baudouini</i> Fourn.		
<i>Dicksonia berteriana</i> (Colla)Hook.		
<i>Dicksonia berteriana</i> var. <i>virgata</i> C.Chr.& Skotts.	→	<i>Dicksonia externa</i>
<i>Dicksonia blumei</i> (Kunze)Moore		
<i>Dicksonia brackenridgei</i> Mett.		
<i>Dicksonia chrysotricha</i> Moore	→	<i>Dicksonia blumei</i>
<i>Dicksonia deplanchei</i> Viell.	→	<i>Dicksonia baudouini</i>
<i>Dicksonia externa</i> Skotts.		

Dicksonia fibrosa Colenso		
Dicksonia ghiesbreghtii Maxon	→	Dicksonia sellowiana
Dicksonia gigantea H.Karst.	→	Dicksonia sellowiana
Dicksonia gracilis Col.	→	Dicksonia squarrosa
Dicksonia grandis Rosenst.		
Dicksonia hieronymi Brause		
Dicksonia integra SW.	→	Dicksonia arborescens
Dicksonia karsteniana (Klotzsch)Moore	→	Dicksonia sellowiana
Dicksonia lanata Colenso		
Dicksonia lanigera Holttum		
Dicksonia ledermannii Brause	→	Dicksonia grandis
Dicksonia lobulata H. Christ	→	Dicksonia sellowiana
Dicksonia mollis Holttum		
Dicksonia navarrensensis H. Christ	→	Dicksonia sellowiana
Dicksonia schlechteri Brause	→	Dicksonia grandis
Dicksonia sciurus C. Christensen		
Dicksonia sellowiana Hook.		
Dicksonia sellowiana var. arachneosa Sodiro	→	D. sellowiana
Dicksonia sellowiana var. karsteniana (Klotzsch)Sodiro	→	D. sellowiana
Dicksonia squarrosa (G.Forst.)SW.		
Dicksonia stuebelii Hieron.		
Dicksonia thyrsopteroides Mett.		
Dicksonia youngiae C. Moore		
Trichomanes squarrosa G.Forst.	→	Dicksonia squarrosa

3.3 Country list of *Dicksonia* species

The following is a country checklist with all accepted species names of the genus *Dicksonia*. Countries/species of the Americas are marked with "•".

Australia	<i>D. antarctica, D. youngiae</i>
• Bolivia	<i>D. sellowiana</i>
• Brazil	<i>D. sellowiana</i>
• Chile	<i>D. berteriana, D. externa</i>
• Columbia	<i>D. sellowiana</i>
• Costa Rica	<i>D. sellowiana</i>
• Ecuador	<i>D. sellowiana, D. stuebelii</i> (?)
• El Salvador	<i>D. sellowiana</i>
Fiji	<i>D. brackenridgei</i>
• Guatemala	<i>D. sellowiana</i>
• Honduras	<i>D. sellowiana</i>

- Indonesia *D. blumei*, *D. mollis*
- Mexico *D. sellowiana*
- New Caledonia *D. baudouini*, *D. thyrsopteroides*
- New Guinea *D. archboldii*, *D. grandis*, *D. hieronymi*, *D. lanigera*, *D. sciurus*
- New Zealand *D. fibrosa*, *D. lanata*, *D. squarrosa*
- Nicaragua *D. sellowiana*
- Panama *D. sellowiana*
- Peru *D. sellowiana*, *D. stuebelii*
- Philippines *D. mollis*
- St. Helena *D. arborescens*
- Samoa *D. brackenridgei*
- Uruguay *D. sellowiana*
- Venezuela *D. sellowiana*

4 References

- BROWNLIE, G.: Ptéridophytes. – In: A. AUBREVILLE, Flore de la Nouvelle-Calédonie et Dépendances N. 3, pp. 78-81, 1969.
- BROWNLIE, G.: The Pteridophyte Flora of Fiji, pp.: 69-70, 1977.
- BROWNSEY, P.J. & J.C. SMITH-DODSWORTH: New Zealand Ferns and Allied Plants, pp. 83-84, 2000.
- COPELAND, E.B.: Genera Filicum, pp. 48-49, 1947.
- CHRISTENSEN, C.: A revision of the Pteridophyta of Samoa. – Bernice P. Bishop Museum, Bulletin **177**: 31, 1943.
- HOLTUM, R.E.: *Dicksonia*. – In: VAN STEENIS, C.G.G.J. & HOLTUM, R.E., Flora Malesiana (2)**1**: 158-162, 1963.
- JONES, D.L. & S.C.C. CLEMESHA: Australian Ferns and Fern Allies, pp. 61-63.
- KRAMER, K.U. & P.S. GREEN: Pteridophytes and Gymnosperms. – In: K.KUBITZKI, The Families and Genera of Vascular Plants, pp. 94-99, 1990.
- PEREZ-GARCIA, B. & R. RIBA: Familia Dicksoniaceae. – In: Flora de Mexico **6**(3): 1-13, 1994.
- PEREZ-GARCIA, B.: Dicksoniaceae. – In: G. DAVIDSE, M. SOUSA & S. KNAPP, Flora Mesoamericana **1**: 86-88, 1995.
- PICHI-SERMOLLI, R.E.G.: Tentamen Pteridophytorum genera in taxonomicum ordinem redigendi. – Webbia **31**: 313-512, 1977.
- TRYON, R.M.: Dicksoniaceae. – In: G.HARLING & L.ANDERSSON, Flora of Ecuador, 12 A: 1-6, 1986.
- TRYON, R.M. & A.F. TRYON: Ferns and allied plants, with special reference to tropical America pp. 138-152, 1982.
- TRYON, R.M. & R.G. STOLZE: Pteridophyta of Peru, part 1. – Fieldiana, Bot. N.s. **2**: 101-107.