

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES
OF WILD FAUNA AND FLORA



Twenty-fifth meeting of the Plants Committee
Geneva (Switzerland), 17 and 20–23 July 2020

Species specific matters

Maintenance of the Appendices

PRODUCTION OF A CITES CHECKLIST FOR *DALBERGIA* SPP.

1. This document has been prepared by the Secretariat, in cooperation with the nomenclature specialist of the Plants Committee (Ms. Ronell R. Klopper).
2. At its 18th meeting (CoP18, 2019), the Conference of the Parties adopted Decisions 18.307 and 18.308 on *Production of a CITES Checklist for Dalbergia spp.*, as follows:

18.307 Directed to the Secretariat

The Secretariat shall, in close cooperation with the nomenclature specialist of the Plants Committee:

- a) *subject to availability of external resources, undertake the development of an annotated CITES Checklist of Dalbergia spp., taking into consideration:*
 - i) *relevant elements of paragraph 7 of document CoP18 Doc. 99, as well as the pertinence of including a distinction between timber and non-timber species of Dalbergia spp.;*
 - ii) *the required research and other work needed for the production of such a Checklist; and*
 - iii) *aspects related to its publication; and*
- b) *report on progress or results of this process to the Plants Committee at its regular meetings and seek its advice and input.*

18.308 Directed to the Plants Committee

The Plants Committee shall:

- a) *consider progress and results reported by the Secretariat as per Decision 18.307; and*
- b) *make recommendations to the Secretariat and the Conference of the Parties, as appropriate.*

These recommendations could include timelines for completion of the Checklist, or the adoption of a standard nomenclature reference for Dalbergia spp., amongst others.

Progress in the implementation of Decision 18.307

3. The Secretariat considers that the development of a checklist of a pantropical genus such as *Dalbergia*, covering *circa* 250 species, may entail a global collaborative effort. This could be done in two steps: step i) will entail undertaking initial desk studies to develop a basic (minimalistic) checklist of species in the genus *Dalbergia*; and, step ii) will entail conducting research (molecular data, review of voucher samples, wood anatomy, etc.) and associated field and laboratory work to produce an annotated, illustrated and georeferenced checklist. At the time of writing, the European Commission had pledged USD 80,000 towards the production of the checklist. The Secretariat will allocate this funding to commissioning and developing the minimalistic Checklist (step i). Should complementary funding of an estimated USD 420,000 become available for the full implementation of Decision 18.307 (see [Notification No. 2020/032](#)), the Secretariat will allocate it for an annotated (step ii) Checklist.
4. In parallel, and as a basis for the development of an annotated CITES Checklist of *Dalbergia*, the Secretariat and the Nomenclature Specialist made a literature review of available checklists, resources and databases that could serve as a starting point. This analysis is presented in the Annex to the present document.
5. Based on the references shown in the Annex, the Nomenclature Specialist is developing a first draft of a *Dalbergia* checklist to ascertain which information is already available, and where possible gaps in knowledge might exist. Further updates on this could be made available at the present meeting through an information document.

Recommendations

6. The Plants Committee is invited to establish an intersessional working group on Production of a CITES Checklist for *Dalbergia* spp. to:
 - a) regarding the minimalistic Checklist (step i, paragraph 3), develop recommendations to improve or expand the references in the Annex to the document PC25 Doc. 34 and provide comments to the Secretariat and the Nomenclature specialist of the Plants Committee. This advice is to be taken into account by the Secretariat in the process of commissioning and developing the minimalistic Checklist;
 - b) regarding the annotated Checklist (step ii, paragraph 3), on the basis of progress achieved in the development of the minimalistic Checklist (step i), advise the Secretariat and the Nomenclature specialist on the additional work that is expected to be carried out under this step. This advice is to be taken into account by the Secretariat in the process of commissioning and developing the annotated Checklist, should complementary external resources for its development become available;
 - c) advise the Secretariat on an *ad hoc* basis in the process of undertaking an annotated *Dalbergia* checklist, as per paragraph a) of Decision 18.307; and
 - d) report on the outcomes of its work to the Plants Committee at its 26th meeting.

Overview of *Dalbergia* checklists that could contribute to the production of a CITES checklist as per Decision 18.307

<i>Dalbergia</i> checklist, resource or database* <i>*References ahead</i>	Geographic scope	Comments
APD (2020)	Africa (including Madagascar)	<p>This covers all species of <i>Dalbergia</i> in Africa and Madagascar. Provides taxonomy, life form, distributional data. The APD database is regularly updated.</p> <p>http://www.ville-ge.ch/musinfo/bd/cjb/africa</p> <ul style="list-style-type: none"> • Madagascan data incorporated from the <i>Catalogue of Vascular Plants of Madagascar</i> project. • Southern African data obtained from BODATSA. • Tropical African data obtained from the series: Lebrun, J-P. & Stork, A.L. 1991–2015. <i>Énumération des plantes à fleurs d'Afrique tropicale et Tropical African Flowering Plants: Ecology and Distribution</i>, vol. 1–7. Conservatoire et Jardin botaniques de la Ville de Genève, Genève. • North African data obtained from: Dobignard, A. & Chatelain, C. 2010–2013. <i>Synonymic and bibliographic index of North Africa plants</i>, vol. 1–5. Conservatoire et Jardin botaniques de la Ville de Genève, Genève.
BODATSA (2020)	Flora of Southern Africa (South Africa, Botswana, Lesotho, Namibia, Eswatini)	<p>Provides information on nomenclature, taxonomy, distribution, and life form, as well as specimen links. Selected information for taxa in South Africa available at: http://sanbi.posa.org</p> <p>Full set of information for the taxa in the southern African region is in the BODATSA database of SANBI. The Nomenclature Specialist of the PC (Dr Ronell Klopper) has access to this database in her capacity as South African National Plant Checklist Coordinator.</p>
Carvalho (1997)	Brazil	<p>Provides information on taxonomy, nomenclature, type information, vernacular names, distribution, life form, and ecology. 39 species</p>
Cervantes <i>et al.</i> (2019)	Mexico	<p>The checklist covers all species of <i>Dalbergia</i> known to occur in Mexico. Provides taxonomy, distribution, life form, habitat, common names, and uses information (i.t.o. timber), as well as specimen citations, and conservation status. 20 species.</p> <p>The format could be a useful model for an annotated CITES Checklist for <i>Dalbergia</i> spp., since it distinguishes trees, from shrubs and lianas; and contains distribution maps for each species.</p>

<i>Dalbergia</i> checklist, resource or database* <i>*References ahead</i>	Geographic scope	Comments
Chen <i>et al.</i> (2010)	China	Flora of China Provides information on nomenclature, taxonomy, distribution, life form, ecology, and vernacular names. 29 species.
CVPM (2014)	Madagascar	This is the only nomenclatural reference for the genus <i>Dalbergia</i> in Resolution Conf. 12.11 (Rev. CoP18). 48 species Updates on names for Malagasy species are made available at: http://legacy.tropicos.org/Project/Madagascar The online resource contains information on taxonomy, life form, habitat, distribution, and conservation status, as well as specimen links and images.
Gillett <i>et al.</i> (1971)	United Republic of Tanzania, Uganda, Kenya	Flora of Tropical East Africa Provides information on nomenclature, taxonomy, distribution, life form, habitat. 22 species
GTS (2019)	Global – but only covers tree species (i.e. shrubs and lianas are not included)	The current dataset available online recognizes 161 tree species of <i>Dalbergia</i> . Provides distribution data. However, this is not reflective of non-timber species of the genus. The CSV file of these species can be downloaded through: https://tools.bgci.org/global_tree_search.php The GTS was launched in the framework of the Global tree assessment, which is an initiative coordinated by Botanic Gardens Conservation International and IUCN Species Survival Commission Global Tree Specialist Group.
Hepper (1958)	West Tropical Africa	Flora of West Tropical Africa Provides information on nomenclature, taxonomy, distribution, life form, specimen citations. 19 species
Hoch (2020)	Pakistan	Flora of Pakistan Provides information on nomenclature, taxonomy, distribution, use, images. 3 species http://www.tropicos.org/Project/Pakistan
ILDIS (2020)	Global	Provides information on taxonomy, distribution, habitat, life form, uses. Not recently updated http://www.ildis.org/
IPNI (2020)	Global	Standard nomenclature (including author citations, protologue citations etc.) for most names published in <i>Dalbergia</i> is available at: https://www.ipni.org
Niyomdham (2002)	Thailand	Provides information on nomenclature, taxonomy, distribution, habitat. 26 species
POWO (2020)	Global	Provides information on taxonomy, distribution, life form, use, images. http://powo.science.kew.org/

<i>Dalbergia</i> checklist, resource or database* *References ahead	Geographic scope	Comments
Press <i>et al.</i> (2000)	Nepal	Annotated checklist of the flowering plants of Nepal Provides information on nomenclature, taxonomy, distribution. 8 species Updates available at http://www.efloras.org/flora_page.aspx?flora_id=110
PROTA4U (2020)	Global	Provides information on uses, wood properties, production and international trade, which is usually lacking in other references. 15 species https://www.prota4u.org/database/
Sunarno & Ohashi (1996)	Sulawesi, Indonesia	Provides information on nomenclature, taxonomy, type information, distribution, life form, ecology, and specimen citations. 7 species
Sunarno & Ohashi (1997)	Borneo	Provides information on nomenclature, taxonomy, type information, distribution, life form, ecology, and specimen citations. 21 species
Timberlake (2007)	Mozambique, Malawi, Zambia, Zimbabwe, Botswana	Flora Zambesiaca Provides information on nomenclature, taxonomy, distribution, habitat, cited specimens. 13 species https://apps.kew.org/efloras/search.do
TROPICOS (2020)	Global – but focusing on tropical regions	Can be used as a complimentary resource to IPNI as it sometimes includes names not yet included in IPNI. Also provides some distributional data and taxonomy, as well as specimen links and images. https://www.tropicos.org/home
Vatanparast <i>et al.</i> (2013)	Global	Phylogenetic framework for infrageneric classification of genus <i>Dalbergia</i> . Does not include a checklist.
WCSP (2020)	Global	Rafael Govaerts, RGB Kew, is busy compiling global checklists of all taxa. He has apparently finalised the drafts, but those for the legumes still need to be checked/reviewed. He could be approached to find out how far he is with the <i>Dalbergia</i> part and if he would make this available to CITES. This would contain nomenclature, taxonomy, and distribution data.

References

- APD (African Plant Database). 2020. Available at <http://www.ville-ge.ch/musinfo/bd/cjb/africa>. Consulted on 11 May 2020
- BODATSA (Botanical Database of Southern Africa). 2020. Data on South African taxa available at <http://sanbi.posa.org>. Consulted on 11 May 2020
- Carvalho, A.M. de. 1997. A synopsis of the genus *Dalbergia* (Fabaceae: Dalbergieae) in Brazil. *Brittonia* 49: 87–109.
- Cervantes, A., Linares, J. & Quintero, E. 2019. An updated checklist of the Mexican species of *Dalbergia* (Leguminosae) to aid in its conservation efforts. *Revista Mexicana de Biodiversidad* 90: e902528. <https://doi.org/10.22201/ib.20078706a.2019.90.2528>.
- Chen, D., Zhang, D. & Larsen, K. 2010. Tribe Dalbergieae. In: Zhengyi, W., Raven, P.H. & Hong, D. (Eds), *Flora of China*, Volume 10, Fabaceae. Science Press and MBG Press, pp. 121–131.

- CVPM (Catalogue of the Vascular Plants of Madagascar). 2014. A Preliminary *Dalbergia* checklist for Madagascar for CITES. SC65 Inf. 21, available at: <https://cites.org/sites/default/files/eng/com/sc/65/Inf/E-SC65-Inf-21.pdf>
- Gillett, J.B., Polhill, R.M. & Verdcourt, B. 1971. *Dalbergia*. In: Milne-Redhead, E.W.B.H. & Polhill, R.M. (eds), Flora of Tropical East Africa: Leguminosae subfamily Papilionoideae. Crown Agents for Overseas Governments & Administrations, London.
- GTS (Global Tree Search). 2019. *Dalbergia* spp. Current dataset available at: https://tools.bgci.org/global_tree_search_trees_1_3.csv. Consulted on 11 May 2020.
- Hepper, F.N. 1958. Leguminosae-Papilionoideae. In: Keay, R.W.J. (ed.), Flora of West Tropical Africa, Vol. 1 part 2. Crown Agents for Overseas Governments & Administrations, London.
- Hoch, P. 2020. *Flora of Pakistan*. Available at <http://www.tropicos.org/Project/Pakistan>
- ILDIS (International Legume Database & Information Service). 2020. Available at <http://www.ildis.org/>. Consulted on 11 May 2020.
- IPNI (International Plant Names Index). 2020. Available at <https://www.ipni.org>. Consulted on 11 May 2020.
- Niyomdham, C. 2002. An account of *Dalbergia* (Leguminosae-Papilionoideae) in Thailand. *Thai Forest Bulletin, Botany*: 30 124–166.
- POWO (Plants of the World Online). 2020. Available at <http://powo.science.kew.org/>. Consulted on 11 May 2020.
- Press, J.R., Shrestha, K.K. & Sutton, D.A. 2000. Annotated checklist of the flowering plants of Nepal. The Natural History Museum, London.
- PROTA4U. 2020. Available at <https://www.prota4u.org/database/>. Consulted on 11 May 2020.
- Sunarno B., Ohashi H. 1996. *Dalbergia* (Leguminosae) of Sulawesi, Indonesia. *Journal of Japanese Botany* 71(5): 214–248.
- Sunarno, B., Ohashi, H. 1997. *Dalbergia* (Leguminosae) of Borneo. *Journal of Japanese Botany* 72(4): 198–220.
- Timberlake, J.R. 2007. Fabaceae: *Dalbergia*. In: Brummitt, R.K., Harder, D.K., Lewis, G.P., Lock, J.M., Polhill, R.M. & Verdcourt, B. (eds), *Flora Zambesiaca*, Vol. 3 part 3. Managing Committee for the Flora Zambesiaca, London.
- TROPICOS. 2020. Available at <https://www.tropicos.org/home>. Consulted on 11 May 2020.
- Vatanparast M., Klitgård B., Adema F., Pennington T., Yahara T., Kajita T. 2013. First molecular phylogeny of the pantropical genus *Dalbergia*: implications for infrageneric circumscription and biogeography. *South African Journal of Botany* 89: 143–149. [http:// dx.doi.org/10.1016/j.sajb.2013.07.001](http://dx.doi.org/10.1016/j.sajb.2013.07.001)
- WCSP (World Checklist of Selected Plant Families). 2020. [Fabaceae not currently publicly available]