(2420) Proposal to conserve the name Cathaya Chun & Kuang against Cathaya Karav. (Gymnospermae: Pinales)

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Typus: C. argyrophylla Chun & Kuang

Typus: C. jactica Karav.
When it originally appeared in print (in Bot. Zhurn. (Moscow & Leningrad) 43: 464. 9 May 1958), “Cathaya Chun & Kuang”, proposed for a distinctive Chinese conifer, was not a validly published name since its authors failed to designate the type of the new generic name under which three species were included, two extant: “C. argyrophylla Chun & Kuang” (l.c. 1958: 464) and “C. nanchuanensis Chun & Kuang” (l.c. 1958: 466), and one fossil, but also invalidly recombined “C. loehri” (Engelh. & Kink.) Chun & Kuang” (l.c. 1958: 464, 467) due to the lack of a direct reference to its basionym. Later, Chun & Kuang (l.c. 1962) validated Cathaya, based on extant material, by including only one species, C. argyrophylla Chun & Kuang (l.c. 1962: 245), with “C. nanchuanensis Chun & Kuang” listed as a synonym of C. argyrophylla.

Being impressed by this new discovery by Chinese botanists of another living gymnosperm similar to the fascinating discovery of the living fossil Metasequoia (cf. Miki, Metasequoia: l. 1953), Karavaev (l.c.) attributed some of his newly found fossil cones from the Miocene deposits of the famous plant fossil locality of Mammut Hill (Mamontova Gora) in Central Yakutia (Siberia) to what he regarded as the new genus Cathaya. Consequently he validly described a single fossil species, C. jacutica Karavaev. (l.c.: 127), thereby providing a generico-specifica diagnosis for Cathaya, thus creating the fossil genus Cathaya prior to the validation of extant Cathaya by Chun & Kuang (l.c. 1962).


The overall nomenclatural situation is unexpectedly complicated by the fact that Karavaev’s sole fossil species C. jacutica is not definitely related to Chun & Kuang’s genus Cathaya, either the extant C. argyrophylla or the fossil species described on the basis of cones (C. europaea, C. bergeri, “C. vanderburchii”, “C. loehri”); Karavaev overestimated the resemblance of his material to the Chinese genus. In revising known fossil remnants attributed to Cathaya, Kolakovsky (in Bot. Zhurn. (Moscow & Leningrad) 55: 850. 1970) emphasized that the fossil cones of Karavaev’s materials are quite distinct from the cones of extant C. argyrophylla, the type of Cathaya Chun & Kuang, by their larger sizes (5 cm long and 1.9 cm wide), bearing numerous seed scales arranged in 3 series along one side of cone, having a wide cuneate basis, and rounded-ovoid bract scales, apically attenuate into a short point. These distinct characters of the Siberian fossil cone, except for somewhat similar morphology of bract scales, definitely points to a lack of close relationships with C. argyrophylla. Indeed the fossil taxon probably represents an extinct endemic genus of its own with putative relationship to the modern genus Pseudotsuga Carrière.

In sum, it would be better that fossil Cathaya Karavaev non Chun & Kuang should receive either a new generic designation separate from extant Cathaya, or else placed in Pseudotsuga, but as Cathaya was first validly published for this fossil taxon, this cannot be done without official rejection of Cathaya Karavaev in favour of the later homonym Cathaya Chun & Kuang that has a non-fossil type.

The aim of the proposal is to fix the status quo, i.e., to legitimize the modern wide usage of the illegitimate later homonym Cathaya Chun & Kuang, based on the non-fossil type C. argyrophylla with 23 related fossil species, by conservation against its senior homonym, the fossil Cathaya Karavaev. Otherwise, a new name for the extant Chinese conifers and their associated fossil forms based on foliage, cones or pollen (if the distinct pollen genus Cathayapolli Ziemb.-Twarz. is not accepted, and the pollen species are retained in Cathaya by conservative systematists) would be required which would lead to destabilization of modern conifer nomenclature by the necessary transfer of the names of 1 extent and 23 fossil species into a new genus.

The publication dates for works published in the former U.S.S.R. were extracted from the print archive of the Russian Book Chamber that served as a governmental authority for obligatory (immediately after their publication) bibliographic registration of all newly published print materials in the former Soviet Union: Chun & Kuang (1958): 9 May 1958 [Record of State registration No. 178] (not April, 1958, as stated on title), Karavaev (1961): 28 January 1961 [Record of State registration No. 56] (not 1960, as stated on title).