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DOL:10.1080/03115518.2010.481829 Tropicos.org 2014. Taxaceae. Missouri Botanical Garden. Published online. Accessed: 2 Feb. 2014. Vernacular names[edit] беларуская: НіасавіяDeutsch: EibengewächseEnglish: Yewsuomi: Marjakuksikasvit日本語: イチイ科МАКЕЛОНСКИ: Тисиportuguês: TaxáceaTürkçe: Porsukgiller中文: 三尖子科 For more multimedia, look at Taxaceae on Wikimediacommons. Family of conifers TaxaceaeTemporal range: Early Jurassic-Recent Pre O S D C P T J K Pg N Foliage and mature arils of a yew plant Scientific classification Kingdom: Plantae Clade: Tracheophytes Clade: Gymnosperms Division: Pinophyta Class: Pinopsida Order: Cupressales Family: TaxaceaeS.F.Gray Genera Amentotaxus Austrotaxus Cephalotaxus †Diploporus Pseudotaxus Taxus Torreya Taxaceoxygen (fossil wood) Synonyms Austrotaxaceae Neger 1907 Cephalotaxaceae Kudo & Yamamoto 1931 Taxaceae (†*taxeōgenē*), commonly called the yew family, is a coniferous family which includes six extant and two extinct genera, and about 30 species of plants, or in older interpretations three genera and 7 to 12 species. Description They are many-branched, small trees and shrubs. The leaves are evergreen, spirally arranged, often twisted at the base to appear 2-ranked. They are sometimes externally only slightly differentiated from the branches. The fertile bracts have 2-8 pollen sacs.[1][2] The female 'cones' are highly reduced.[1] Only the upper or uppermost bracts are fertile and bear one or rarely two seeds.[2] The ovule usually exceeds the scale, although ovules are sometimes rarely enclosed by it. They may be found on the ends of branches or on the branches. They may grow singly or in tufts or clumps.[2] As the seed matures, a fleshy aril partly encloses it. The developmental origin of the aril is unclear, but it may represent a fused pair of swollen leaves.[1] The mature aril is brightly coloured, soft, juicy and sweet, and is eaten by birds which then disperse the hard seed undamaged in their droppings. However, the seeds are highly poisonous to humans, containing the poisons taxine and taxol.[3] Distribution Species are mostly found in the tropics and temperate zones in the northern hemisphere.[2] Classification Taxaceae is now generally included with all other conifers in the order Pinales, as DNA analysis has shown that the yews are phylogenetically nested in the Pinales.[4] A conclusion supported by micromorphology studies.[5] Formerly they were often treated as distinct from other conifers by placing them in a separate order Taxales. Ernest Henry Wilson referred to Taxaceae as "taxads" in his 1916 book.[6] Taxaceae is thought to be the sister group to Cupressaceae, from which it diverged during the early-mid Triassic.

The clade comprising both is sister to Sciadopityaceae, which diverged from them during the early-mid Permian.[7] The oldest confirmed member of Taxaceae is *Palaeotaxus rediviva* from the earliest Jurassic (Hettangian) of Sweden. Fossils belonging to the living genus *Amentotaxus* from the Middle Jurassic of China indicate that Taxaceae had already substantially diversified during the Jurassic.[8] The broadly defined Taxaceae (including Cephalotaxus) comprises six extant genera and about 30 species overall. Cephalotaxus is now included in Taxaceae, rather than being recognized as the core of its own family, Cephalotaxaceae. Phylogenetic evidence strongly supports a very close relationship between Cephalotaxus and other members of Taxaceae.[9][10][11] and morphological differences between them are not substantial. Previous recognition of two distinct families, Taxaceae and Cephalotaxaceae (e.g.,[12]), was based on relatively minor morphological details: Taxaceae (excluding Cephalotaxus) has smaller mature seeds growing to 5-8 millimetres (0.20-0.31 in) in 6-8 months, and larger mature seeds (12-40 millimetres (0.47-1.57 in)) fully enclosed by the aril. However, there are also very clear morphological connections between Cephalotaxus and other members of Taxaceae,[13][14] and considered in tandem with the phylogenetic evidence, there is no compelling need to recognize Cephalotaxus (or other genera in Taxaceae) as a distinct family.[9][10] Phylogeny Phylogeny of Taxaceae.[15][16] Cephalotaxaceae Cephalotaxus Taxoideae Amentotaxus Torreya Austrotaxus Pseudotaxus Taxus Cephalotaxus sinensis Taxus brevifolia Amentotaxus Pilg. - Catkin-yew Amentotaxus argotaenia - Catkin yew Amentotaxus assamica - Assam catkin yew Amentotaxus formosana - Taiwan catkin yew Amentotaxus pollanei - Pollane's catkin yew Amentotaxus yunnanensis - Yunnan catkin yew Austrotaxus Compton - New Caledonia yew Austrotaxus spicata - New Caledonia yew or southern yew Cephalotaxus Siebold & Zucc. ex Endl. - Plum yew Cephalotaxus fortunei - Chinese plum-yew Cephalotaxus griffithii - Griffith's plum yew Cephalotaxus hainanensis - Hainan plum-yew Cephalotaxus harriettiae - Korean plum-yew Japanese plum-yew Cephalotaxus koreana - Korean plum yew Cephalotaxus lanceolata - Gongshan plum-yew Cephalotaxus latifolia - Broad-leaved plum yew Cephalotaxus manni - Mann's plum yew Cephalotaxus oliveri - Oliver's plum yew Cephalotaxus sinensis - Chinese plum yew Cephalotaxus wilsoniana - Taiwan plum yew, Taiwan cow's-tail pine, or Wilson plum yew Pseudotaxus W.C.Cheng - White-berry yew Pseudotaxus chienii - the whiteberry yew Taxus L. - Common yew Taxus baccata European yew Taxus bitemata Delicate branch yew Taxus brevifolia Pacific yew, western yew Taxus caespitosa Caespitosa yew Taxus calicola Asian limestone yew Taxus canadensis Canada yew Taxus celebica Celebes yew Taxus chinensis China yew Taxus conferta West Himalayan yew Taxus cuspidata Rigid branch yew, Japanese yew Taxus fastigiata Irish yew Taxus floridana Florida yew Taxus florini Florin yew Taxus globosa Mesoamerican yew Taxus kingstonii Kingston yew Taxus mairei Maire yew Taxus obscurca Obscurca yew Taxus oreocrea Scaly yew Taxus phytoloma Yew Taxus recurvata English yew Taxus rehderiana Rehder yew Taxus scutata Scutaceous yew Taxus suffruticosa Suffructuous yew Taxus sumatrana Sumatra yew Taxus umbraculifera Umbrelliform yew Taxus wallichiana Wallich yew, East Himalayan yew Torreya Arn. - Nutmeg yew Torreya californica - California torreya Torreya fargesii - Farges nutmeg tree Torreya grandis - Chinese nutmeg yew Torreya jackii - Jack's nutmeg tree, longleaf torreya etc. Torreya nucifera - kaya, Japanese torreya, or Japanese nutmeg-yew Torreya taxifolia - Gopher wood (Torreya clarenensis)[17] Footnotes Wikimedia Commons has media related to Taxaceae. Wikispecies has information related to Taxaceae. ^ a b c d Dörken, Veit Martin; Niemisch, Hubertus; Rudall, Paula J (2018-08-22). "Origin of the Taxaceae aril: evolutionary implications of seed-cone teratologies in Pseudotaxus chienii". Annals of Botany. Oxford University Press (OUP). 123 (1): 133-143. doi:10.1093/aob/mcy150. ISSN 0305-7364. PMC 6344100. PMID 30137225. ^ a b c d Phillips, Edwin Percy (1951). The genera of South African flowering plants. South Africa: Government Printer. ^ Yew Poisoning: Medline Plus Medical Encyclopedia ^ Chase, M. W.; Soltis, D. E.; et al. (1993). "Phylogenetics of Seed Plants: An Analysis of Nucleotide Sequences from the Plastid Gene rbcL" (PDF). Annals of the Missouri Botanical Garden. JSTOR. 80 (3): 528. doi:10.2307/2399846. hdl:1969.1/197875. ISSN 0026-6493. JSTOR 2399846.

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