**Table S1**. Comparison of wood anatomical characters of *Keteleerioxylon changchunense* sp. nov. and closely related fossil species (?, no data)

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Anatomical characters | Pits on radial walls of tracheids | Diameter of pits (μm) | Pits on tangential walls of tracheids | Crassula | Height of rays (in cells) | Number of biseriate layer | Marginal ray cells of the ray tracheid type | Transverse walls of axial parenchyma | Number of epithelial cells in vertical resin canals | Number of pits in the cross-field | Diameter of cross-field pits (μm) | Type of pitting |
| ***Keteleerioxylon changchunense* sp. nov.** | **Uniseriate to triseriate** | **(11)12–17(20)** | **absent** | **Present** | **(1)6–11(37)** | **1–8** | **Present** | **Smooth** | **6-11** | **1–3(6)** | **5-10** | **Taxodioid and cupressoid** |
| *Keteleerioxylon arcticum* Shilk. [6] | Uniseriate and biseriate | ? | uncommon | Present | 1–24 | Uncommon (rarely triaseriate) | Absent | Smooth | ? | 1–3(4) | ? | Taxodioid |
| *Keteleerioxylon fokinii* Shilk. [25] | Uniseriate and biseriate | ? | Absent | Absent | 1–30 | Uncommon | ？ | Smooth | ？ | 1–2(3) | ? | Cupressoid |
| *Keteleerioxylon primoryense* Blokh. [26] | Uniseriate and biseriate | 12-18 | uncommon | Present | 1-40 | 1–4 (10) | Present | Smooth | (5)6–8(10) | 1–3(5) | 6-7.5 | Taxodioid |
| *Keteleerioxylon kamtschatkiense* Blokh. et Afonin [19] | Uniseriate and biseriate | (12)18-24(27) | Present | Absent | 1-30 (46) | 1–3 | Present | Smooth | 6–10 | 1–3(5) | 5 | Taxodioid and cupressoid |
| *Keteleeria mabetiensis* Watari [27,28] | Uniseriate to triseriate | ? | Present | Present | 1-36 | 1–4 | Present | Knotty | ? | 1–4(5) | ? | Taxodioid and piceoid |
| *Keteleeria zhilinii* Blokh. et Bondarenko [8] | Uniseriate and biseriate | (10)12-18(24) | Present | Uncommon | 1-25 | 1–3(4) | Present | 2-3 knots | (5)6–7(8) | 1–4(5) | 6-9 | Taxodioid |
| *“Keteleeria fortunei”* (Andr. Murray) Carr. [29] | Uniseriate and biseriate | 15-19 | ? | ? | (2)10-30(40) | Uncommon | ? | Axial parenchyma absent | 4-6 | 1-4 | ? | Taxodioid |
| *Keteleeria* sp. 1 [30] | Uniseriate and biseriate | 17-22 | ? | Present | (1)7-12(24) | Uncommon | ? | Knotty | 5-8 | 1-4(commonly 2) | ? | Taxodioid |
| *Keteleeria* sp. 2 [31] | Uniseriate and biseriate | 12-22 | ? | Present | 1-18 | ? | ? | Knotty | 3-14 | 1-2(4) | 5-9 | Taxodioid and cupressoid |
| *Protopiceoxylon amurense* Du [32-34] | Uniseriate and biseriate | 16-21 | ? | Present | 1-50 | Uncommon | ? | Knotty | 10 | 1-3(4) | 3.5 | Taxodioid, cupressoid, piceoid and pinoid-simple |
| *Protopiceoxylon yizhouensis* Duan et Cui [35] | Uniseriate | ? | ? | Absent | 2-10(16) | Common | ? | ? | ? | 2-3(5) | ? | Abietoid(Taxodioid) |
| *Protopiceoxylon chaoyangensis* Duan [36] | Uniseriate and biseriate | ? | ? | Absent | (2)8-12(17) | Absent | ? | ? | ? | 1-2(6) | ? | Abietoid(Taxodioid) |