

## Hypopterygiaceae

kong-que xian ke

by Jia Yu, Li Zhi-hua, and Wu Peng-cheng

*Plants* small to medium-sized, soft, complanate, erect-spreading or appressed, lightly yellowish green to dark green, usually not glossy. *Primary stems* slender, complanately explanate, rhizoids brown; secondary stems simple or rarely branched, dendroid, pinnately branched above, tail-like or peacock-like at the apex; cross section of stems oval or rounded, epidermal cells small, incrassate, colored, cortical cells larger, thin-walled; central strand mostly present, thick-walled. *Leaves* in three rows, including two lateral and one ventral rows, dimorphous; lateral leaves plane, ovate to elongate-ovate, rarely ovate-lanceolate, asymmetric; margins usually bordered; amphigastria smaller and rounded; costa uniform cells, single, sometimes forked above; laminal cells isodiametric, smooth; alar cells not differentiated. *Dioicous* or autoicous; male plants similar to female plants, perichaetia only in secondary stems or branches, paraphyses usually absent; perigonial buds smaller. *Setae* elongate; capsules exserted, mostly suberect or inclined, rarely erect; stomata phenotype, rare at base of capsules; peristomes double; exostome teeth occasionally reduced, usually densely striate, keeled, furrowed, with a median zig-zag line, lamellae well developed inside; endostome segments keeled, basal membrane developed; opercula rostrate. *Calyptrae* cucullate or conic, smooth. *Spores* very small, finely papillose.