

## SYMPHYDONTACEAE

(Si He)

The Symphyodontaceae consist of a single genus, *Symphyodon* Mont., placed in the Leucodontales, suborder Neckerineae.

### *Symphyodon* Mont. (Fig XX)

A genus of pleurocarpous, mostly epiphytic mosses, comprised of 15 species chiefly distributed in the tropical and the subtropical regions of the world with the majority of the taxa centered in southern and southeastern Asia. The genus is characterised by having echinate capsules, distally roughened or papillose setae, and prorate leaf cells. One species, *Symphyodon pygmaeus* (Broth.) S.He & Snider, is found in Africa (Ethiopia, Malawi, Mozambique, Madagascar, and Réunion), and is known elsewhere from India, Nepal, Thailand, China and Hawaii.

**Plants** medium-sized, in yellowish green to golden green, glossy mats. **Stems** to 5(--8) cm long, bipinnately to tripinnately branched, subcomplanate, central strand absent. **Leaves** similar in shape; stem leaves smaller than branch leaves, 1.0--1.2 x 0.4--0.5 mm, spreading, complanate, oblong-lanceolate to oblong-ovate to lingulate; branch leaves 1.2--1.8 x 0.4--0.6 mm; all leaves with apices rounded to truncate, margins coarsely serrate in the upper 2/3, serration formed by a row of enlarged cells (occasionally weakly serrulate at the apex), subentire to serrulate at the base; costae unequal, extending up to 1/2 total leaf length; apical leaf cells distinctly shorter than the adjacent cells; median cells linear, 35--55 x 3--4 µm, weakly to moderately prorate; alar cells differentiated, subquadrate to shortly rectangular, of 3-5 rows extending 3-4 cells up the margins. **Dioicous**. **Perichaetial leaves** sheathing at the base, abruptly narrowed to a long acumen, serrate at the apex, cells thick-walled, porose, costae double, indistinct. **Seta** 1.0--1.3 cm long, clearly roughened distally, smooth proximally. **Capsule** erect, oblong-ovoid, symmetric, 1.9--2.2 x 1.0--1.2 mm, moderately to densely echinate, spines to 60 µm long. **Exothecial cells** rectangular, walls moderately thickened, 60--80 x 22--27 µm. **Annulus** differentiated by a row of enlarged cells and 2-3 rows of smaller cells. **Operculum** rostrate, ca. 0.65 mm long. **Peristome** double, exostome teeth 0.28--0.31 mm long, papillose throughout, weakly papillose to cross-striate at the base; endostome segments reduced, 0.18--0.20 mm long, narrowly perforate, papillose, basal membrane very low, ca. 20 µm high. **Calyptra** not observed. **Spores** ca. 17 µm in diameter, finely papillose.

**HABITAT.** Epiphytic, on tree trunks and branches, and on soil.

**DISCUSSION.** *Symphyodon pygmaeus* is characterised by its truncate leaf apices, strap-shaped leaves and abortive branch tips. Collections of *Symphyodon pygmaeus* are commonly sterile; some of the sterile plants of this species have previously been misplaced in *Glossadelphus* and *Homalia*. Sporophytes have not so far been recorded in Africa, but when sporophytes are present, plants are conspicuous by their suberect to erect, echinate capsules and papillose setae. The African plants (ca. 3 cm long) are smaller than those from Asia. A revision of the genus is presented by He and Snider (2000).

**LITERATURE.** He, S. & Snider, J. A. 2000. A taxonomic revision of *Symphyodon* (Musci: Symphyodontaceae). *Bryologist* 103: 52-81.