1. *Equisetum* L. (horsetail, scouringrush)

(Hauke, 1963, 1979)

Plants perennial, homosporous, with rhizomes. Aerial stems erect or less commonly ascending, branched or unbranched, green except for the fertile stems of some species, hollow and with longitudinal canals in the tissue, jointed at the nodes, with a ring of longitudinal ridges. Leaves whorled, reduced, fused for part of their length to form a collarlike sheath around the stem, the lobes appearing as small, tan to black teeth or scales along the tip of the sheath. Sporangia sac-like, in whorls on the underside of highly modified leaves (sporangiophores), these peltate, hexagonal in surface view, and aggregated in dense whorls into conelike strobili occurring at the stem or branch tips. Spores 35–70 mm in diameter, green, globose, each with 4 spirally curled, white filaments (elaters) that uncurl upon drying. Gametophytes green, growing at or near the soil surface, disk- to cushion-shaped, irregularly lobed. Fifteen species, worldwide.

The strobili of *Equisetum* species are conelike, with dense, hexagonal plates in surface view. At maturity, the internodes between the whorls of sporangiophores elongate, allowing the spores to be shed. The green spores are relatively short-lived and germinate quickly under proper conditions. The four elaters associated with each spore spread when the spores dry and apparently aid in spore dispersal. Vegetative reproduction of the plants is accomplished by water, as portions of rhizomes are washed downstream during floods and later form new roots and aerial stems.