VNPS Piedmont Chapter
WILDFLOWER of the WEEK

WILDFLOWER #101 answer: FIELD HORSETAIL (*Equisetum arvense*)

When you picture field horsetail, think of dinosaurs. These plants provided most of the energy and protein to power huge dinosaurs like Brontosaurus. Field horsetail fossils from the Carboniferous era are 100 feet tall. Now shrunk to a mere 2 feet high, this plant, the most common surviving *Equisetum*, ranges across the northern hemisphere, wherever ground is damp.

Field horsetail leads a double life. In early spring, fertile shoots arise. Devoted to reproduction, these tan to brown succulent stalks have no branches or chlorophyll, just whorls of brown pointy scales. A cone at the tip releases spores, each with an amazing 108 chromosomes. The spores grow into small gametophytes. They parent the next generation, which holds sway till frost. With jointed segments and side shoots in whorls, these green stems resemble horses' tails, or a miniature forest of fir trees.

One secret of this plant's tenacity is the system of rhizomes, which can dig 6 feet down and spread widely. If mowing or plowing cuts a chain of hairy tubers, each segment just starts a new plant.

Another secret is absorbing silicon. This is the second most abundant element in earth's crust, but few plants use it. Loaded with abrasive silicon, the tough hollow stems fend off most modern herbivores. (Caribou and tundra swans are exceptions). The texture makes this "scouring rush" ideal for cleaning pots, polishing pewter and wood, and even smoothing the wheels of an old-fashioned hurdy-gurdy.

Other horsetails are toxic, but this one has traditional medicinal uses from gout to kidney stones. Studies find that it lowers blood sugar and improves bone density in animals. In Europe, a horsetail extract helps control serious fungal pathogens on crops.

WILDFLOWER #102

Clues: Look carefully among the fallen leaves for this diminutive plant.