

# Quaking Aspen

*Populus tremuloides*

By Tom Dickson

While driving west from Helena to hunt ducks in the Blackfoot Valley, I stared at the surrounding mountains. A newcomer to the state, I'd been disappointed at the lack of fall color. Montana was certainly grand, but the coniferous forests seemed monotonously green. I missed the brilliant palette of elms, maples, oaks, and other hardwoods common that time of year in the Midwest and Northeast.

Topping MacDonald Pass, I nearly swerved off the road at the sight ahead. Running up ravines of the green mountainside were three brilliant swaths of bright gold. As I slowed down to take in the view, the leaves shimmering in the breeze made the orange-yellow groves appear to vibrate.

That was my first experience with quaking aspens in fall. Since then, the changing colors of this remarkable tree are just one more reason I spend so much of the summer looking impatiently toward October.

## IDENTIFICATION

Quaking aspen can be easily recognized by their smooth, white bark, marked by dark scars where branches naturally self-prune. Adult aspen reach 40 to 70 feet high but occasionally grow much taller. The largest in the United States, a giant of 144 feet, is in the Kootenai National Forest near Troy.

## WILDLIFE VALUE

Steve Cooper, vegetation ecologist with the Montana Natural Heritage Program, says aspen stands are important grizzly habitat. "The groves hold lots of forbs that bears eat in spring and fall," he says. Deer, elk, moose, snowshoe hares, porcupines, beavers, and other wildlife eat aspen leaves, twigs, and bark, especially in winter. Birds love quaking aspen groves and the rich understory of shrubs, grasses, and wildflowers. When walking through a grove, look for rows of small black holes made by red-naped sapsuckers searching for insects. Other bird species using aspen are mountain bluebirds, house wrens, warbling vireos, hermit thrushes, and ruffed grouse.

*Tom Dickson is editor of Montana Outdoors.*

## HABITAT AND RANGE

Within ponderosa pine, Douglas-fir, and lodgepole pine forests, aspen grow in dense groves ranging from 1 to 20 acres. Aspen need more moisture than conifers do, so they grow best along streams and in sheltered areas such as swales.

The quaking aspen is the most widely distributed tree species in North America. It ranges from Alaska to Appalachia and along the Rocky Mountains as far south as New Mexico. In Montana, quaking aspen are found throughout the western and central parts of the state at elevations between 5,000 and 10,000 feet.

## LEAVES

The heart-shaped leaves have finely saw-toothed edges. They are attached to branches by a stem that is flat rather than round, which causes the leaves to tremble (or quake) in the slightest breeze. Dark green above and light below, the leaves seem to shimmer as they flutter in the wind. Botanists believe that quaking aspen leaves twist and turn to dissipate the force of strong winds that could snap the tree trunk. Quaking aspen are also known as quakies and trembling aspen.

## ROOTS

Aspen propagate through their root systems, a process rare among trees. Each lateral root contains thousands of budding sites. Live aspen produce a plant hormone called auxin that keeps the buds in a state of dormancy. When trees above ground are injured or killed by fire, logging, or other disturbances, the buds are stimulated into sprouting. All trees in an aspen grove come from the same root system and are technically a single organism. The root systems, called "clones," can be ancient. The oldest, located in central Utah, is thought to be 80,000 years old. Estimated at 13.2 million pounds, the 106-acre grove is also considered the heaviest and largest organism in the world.

## STATUS

Aspen thrive in disturbed landscapes, especially those that burn. Recent wildfires in Montana have benefited aspen regeneration. When the U.S. Forest Service measured aspen acreage in New Mexico and Arizona between 1962 and 1984, it found the amount had declined by 40 percent, due mainly to fire suppression. Though logging can regenerate aspen, and the market for aspen as a source of pulpwood is growing, most western groves are either inaccessible or too small to make harvest worthwhile. 🐾



CHUCK HANEY