

Hazards of the Plant Variety on the Fireline

Firefighters battling the Whittier Fire on the Los Padres National Forest have more to contend with than just heat, flames, smoke and hazardous terrain. There is another enemy lurking in their midst: the all too familiar poison oak. Poison oak is prevalent in most areas on the forest and some firefighters are saying it is the worst they have even seen. Four hundred firefighters have reported to the fire's medical units for poison oak related ailments with 175 cases in the past three days, 55 of which had to receive prednisone shots.

Toxicodendron diversilobum (syn. *Rhus diversiloba*), commonly named Pacific poison oak or western poison oak, is a woody vine or shrub in the Anacardiaceae (sumac) family. Poison oak can grow shrub-like 1.5 to 13 feet tall in sunny areas, or similar to a tree-like vine up to 100 feet long, with trunks close to 8 inches in dense, shady thickets. The leaves are almost always divided into three (very rarely five, seven, or nine) leaflets approximately 1.4 to 3.9 inches long, with scalloped, toothed, or lobed edges. They generally resemble the lobed leaves of a true oak, though they tend to be glossy. In the western US, keep in mind the old saying: "Leaves of three, let it be!"

Poison oak's leaves and twigs have a surface oil called Urushiol, which causes an allergic reaction in most people if they come in to contact with it. As leaves begin to unfold in early spring, their color is typically bronze, turning to bright green in the spring, then yellow-green to reddish in the summer, and finally bright red or pink from mid-summer to fall. Even in the winter, the leaf-less stems can cause allergic reactions. This allergic reaction generally takes the course of an itchy rash, to inflammation and severe itching, to eventual blistering. The rash can take weeks to heal. In severe cases, medical intervention of oral or intravenous steroidal treatment may be required.

All firefighters in the field are encouraged to prevent exposure by properly wearing their personal protective equipment (PPE): long-sleeved Nomex® shirt over a tee-shirt and Nomex® pants, as well as leather gloves and appropriate eye protection. Also, situational awareness is emphasized. For example, if a sawyer is sawing a log to clear fire line or brush a trail, swamper (those who clear away the debris) need to ensure they are away from the saw dust and chip spray. In the fire camp-provided laundry services, Nomex® is washed separately from the rest of each firefighter's clothing. Over-the-counter oil removing liquid soap is provided in the fire camp shower areas. Yet, with all precautions taken, poison oak can still take its toll while combatting wildland fire.