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NEWS RELEASE

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Poison Oak

Poison oak is common along the Kern River and in the foothill areas. In spring 2008, shrubs of poison oak seem to be exceptionally vigorous in growth.

How is poison oak recognized? It is one of the most common shrubs in the woodland understory in California, below 4,000 feet elevation. The plant has three leaflets, the upper surface darker than the lower. The middle leaflet is most likely to look like an oak leaf, but plants can be found with smooth leaf margins. Beyond these characteristics, the plant form and shape of the leaves is extremely variable. In open fields, the plant grows as a spreading clump up to about five or six feet high. It may appear as a low groundcover a foot tall in arroyos. It sometimes wraps around trees or poles and can grow 20 or more feet high. Flowers, when present, are greenish-white and about a quarter inch across. They are found in cluster originating in the angle (axil) where the leaves are attached to the stem. A white berry cluster matures and may hang into the winter, and fall color of leaves is red to maroon. Without leaves, the stems appear gray-black and are often covered with fine hair.

An estimated 100 million Americans are sensitive to the chemicals in poison oak and related eastern cousins, poison ivy and poison sumac. The toxicant is a compound called urushiol, a group of four closely related oils produced in the resin ducts of the plant. William Epstein, a national leader in poison oak research at University of California Medical Center in San Francisco, has developed a skin test to measure an individual's sensitivity. Epstein states, "between 15 and 25 percent of us are essentially immune, 25 percent are mildly sensitive and don't develop severe reactions, 25 to 30 percent are moderately sensitive and break out significantly with the amount of urushiol found in one leaf, and 10 to 20 percent are so exquisitely sensitive that less than one leaf produces intense dermatitis." Similar to other allergies, we are born without sensitivity to urushiol, but most people acquire sensitivity by contacting plants as children.

Poison oak is not a true oak, but is a member of the cashew family. Poison ivy and poison sumac, not found in California, also are members of the cashew family and contain the same oil. Recent research says that physical contact with the oil is necessary for skin rash to develop. Urushiol has a low vapor pressure and therefore does not evaporate easily. Pollen does not contain the oil, but leaves and stems do. The oil can be transferred through contact to clothing, equipment, or fur of animals and produce the same skin reaction through later contact. The oil is carried on particles of soot when the plant is burned and is a serious health hazard during forest fires.

Within minutes of skin contact urushiol molecules bind themselves to proteins in skin cells. Washing with cold water immediately after contact will wash off any oil that has not already bonded to skin. Once attached to skin, urushiol causes an allergic reaction. Symptoms may take a few hours or up to a week to appear, as the body sends armies of white cells to destroy the skin cells with the invader. The white cells release so many cell destroying toxins that skin blisters and oozes. The plasma released from the skin cannot spread the rash – it is just body fluid – but scratching can lead to infection. Household remedies may help, but so does the familiar calamine lotion. Burow's solution, sold without a prescription under a trade name, may also be helpful.

It is best to avoid contact with any plant part. On small properties poison oak plants can be destroyed by cutting and treating stems with a herbicide, such as glyphosate. A few herbicides will kill the plant outright, but urushiol within the dead stems will take time to degrade. One must be aware of tools, clothes or gloves that have had contact with the plant, and clean them thoroughly before re-use. If plants are burned, one should avoid facial contact or breathing of smoke.

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