SHASTA-TRINITY NATIONAL FOREST

Burned Area Emergency Response

Hirz/Delta Fires

USFS Burned Area Emergency Response (BAER) Team Botanists Review Fire Impacts on Vegetation

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When a forest fire burns, the most obvious plants to be impacted are the trees. However, many other plants are present in the forests, growing under and around the trees. Some of these are plants that grow in special habitats or limited areas. Forest Service BAER Team botanists Julie Kierstead Nelson, Lusetta Sims, Alex Randolph-Lowe, and Belinda Lo have been traveling around the Delta Fire, looking for these special plants. They want to see how they fared during the fire, and whether they are likely to be further harmed by after-effects of the fire.

Carrying maps showing the reported locations of special plants and a GPS system, the botanists drive roads in the burned area. Where the maps indicate these plants should be, the botanists stop and search, hoping to find them. Armed with detailed knowledge of the plant structure and preferred habitat, some are identified by little more than a tiny stem, a few dried leaves and, if they're lucky, the seed head.

Julie and Alex found specimens of a rare variety of penstemon on a rocky slope along a road, scattered among other dried-out and fire-scorched plants. The fire intensity was low enough here that the roots should be undamaged and seeds in the soil have a good chance of growing. Satisfied that this population will survive, the botanists moved on.

A few new populations of special plants are identified while driving through the burned area. A stream with a small but steady trickle of water provides suitable habitat for several pockets of California pitcher plants. The fire has burned away other vegetation that hid these low-growing plants. All of the plants are fire-damaged, but some are green near the base of the insect-catching leaves. The botanists add this new location to the inventory of special plants.

Where roads cross streams, the botanists look for Port-Orford-cedars. These conifer trees are native to northwestern California and southwestern Oregon, including the areas of the Hirz and Delta Fires. A deadly fungal disease that is transported in water and mud has been spreading through the region, killing Port-Orford-cedars. Botanists are concerned that the equipment and vehicles brought into the area to help with fire control may have brought spores of the fungus from other infested areas. The spores could also be transported on dirty boots or tools.

The botanists also stop to map the locations of noxious weeds such as Dyers woad, star thistle, and Spanish and Scotch brooms. Fire reduces the populations of native plants and can create areas with exposed soils and increased sunlight. Botanists are concerned about noxious plants colonizing into burned areas, rapidly spreading throughout large areas and crowding out the local plants. Some of these invasive plants are poisonous to people or animals, or can change the soil chemistry making it more difficult for native plant communities to grow back.

Combined with flights over the fire areas, these tours will give the botanists an idea of fire-related damage to special plants and ideas of where problems are likely to develop in the future.

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