

Serpentine Soil and Geocaching

The following comments are reprinted from a forum post by GBA member STPRon. They explain the restrictions involving serpentine soil and geocache placement in our parks:

Serpentine is the California state rock and can contain a naturally occurring form of asbestos.

See:

<http://geology.about.com/library/bl/images/blserpentinite.htm>

Geocachers should be very aware of serpentine soil because it is environmentally and politically sensitive. At the meeting for the new trail at Santa Teresa Park, we were told the trail planners had to put a jog in the trail route in order to avoid a patch of serpentine. The presence of serpentine higher in the hills prevented them from routing the trail higher up or putting a connector to a higher trail. See:

http://www.stpfriends.org/CEQA_Meeting_10-19-05.html

Trail planners are very careful to avoid serpentine because it is the habitat of the endangered bay checker-spot butterfly, which is a federally classified threatened species and is protected by federal law. See:

http://www.fws.gov/sacramento/es/animal_spp_acct/bay_check.htm

Whether there are any butterflies there or not is irrelevant. The habitat is protected so that the butterflies can survive there. There was a proposed trail into Santa Teresa Park from Calero that was stopped because it would have gone through serpentine.

Here's information about the critical habitat designation:

<http://permanent.access.gpo.gov/websites/r1fws/www.r1.fws.gov/news/2001/2001-61.htm>

The reason the checker-spot is endangered is because their preferred food, primarily plantain, has been crowded out by non-native grasses. The plants can only survive where these non-natives have a hard time growing. That usually means serpentine soil. Serpentine soil is high in minerals that non-native plants don't like and low in minerals they need, but native plants are adapted to it. That's why you can see such spectacular native wildflower displays in areas with serpentine soil, like Edgewood County Park. See:

http://www.baynature.com/2004apriljune/ott_edgewood.html

Ironically, removal of cattle grazing from these areas has resulted in a decrease in checker-spots because the cattle eat the non-native grasses. See:

http://www.greenfoothills.org/news/2002/10-2002_CoyoteRidge.html

If you see areas with lots of rocks, not a lot of grass, and springtime wildflowers, it may be serpentine. Areas with lots of topsoil and non-native grasses are probably not serpentine.

Anyway, the point is that park managers get really touchy about people tromping off-trail because they might unknowingly impact these critical habitats, which can get the parks in trouble with the feds or environmental groups.

Submitted by Ron Horii (STPRon)