

From: Emma Pelton [mailto:emma.pelton@xerces.org]
Sent: Thursday, May 11, 2023 7:59 AM
To: BCPUD <bcpud@bcpud.org>
Cc: Mia Monroe <muirmia@comcast.net>
Subject: Fwd: [EXTERNAL] Thoughts on Butterfly Habitat in Zone 5 (2915)

To BCPUD staff, perhaps best directed to Jennifer Blackman,

My name is Emma Pelton and I am a conservation biologist with the Xerces Society, leading our western monarch efforts. I was recently alerted by Mia Monroe (cc-ed) to an effort by the Bolinas Eucalyptus Project to remove a eucalyptus grove known to host monarch butterflies: BPUD, site 2915 in our records (westernmonarchcount.org). This site is regularly monitored as part of our Western Monarch Count project and thousands of butterflies have been reported in the past and over 400 were observed this season. This makes BPUD one of the most important overwintering sites in the Bolinas area and a significant site in the state.

A recent report by WRA commissioned by the Bolinas Eucalyptus Project rightly points out the site as falling in the coastal zone and qualifying as ESHA due to the use by overwintering monarchs. However, the BEP group responded with pushback (letter attached) including asserting "This site is not an Environmentally Sensitive Habitat Area (ESHA), at least in terms of Monarch Butterflies." BEP's assertion is at odds with the consultants' and Xerces' understanding of how [Marin LCP classifies monarch overwintering sites](#) (pg. relevant to Marin County include 34-38).

Thus, I wanted to alert you to the assertion by the group and perhaps we can find a way to clarify the status of this site and other monarch overwintering sites within Bolinas which may also be of interest/concern to the BEP group. Another point of clarification I hope we can make is that mitigation is very difficult for monarch overwintering sites as there are almost no examples of successful creation of overwintering habitat and the science behind why monarchs select the trees and groves they do is still evolving; thus, "alternative" sites for monarchs is not a biologically feasible replacement for the loss of existing, long-documented habitat.

Commented [DA1]: The proposal is to remove that portion of the Eucalyptus grove that is a danger to Bolinas residents, as well as their electrical power supply. Two-thirds of the grove would remain, including a portion in which monarchs once used. In fact, your image shows that you circled this other portion of the grove.

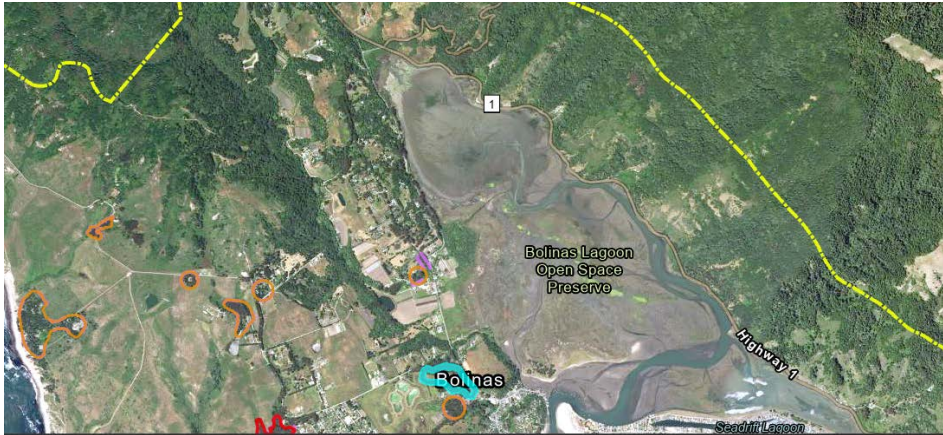
Commented [DA2]: This is not true. According to Xerces spread sheet, showing history of site 2915, beginning in 1997. No data 1997-99; 1500 MB in 2000; zero MB in 2001-02; 5 MB in 2003; 122 MB in 2004; zero or no count 2005-2014; 3 MB in 2015; zero MB in 2016; 410 MB in 2017; zero to <= 10 in 2018-2021; 432 MB in 2022.

Commented [DA3]: Not true. Site 2915 is the least-used of several portions of the Bolinas Peninsula meta-roost (5 currently-used sites, all within <1 km of one another, and not including Terrace Ave, which has had 1 MB in all the years since 1997). Since 2015 to 2022, here is site 2915 contribution to the Bolinas Peninsula roosting population (T-day count), in percent (%): 0.01, 0.0, 2.3, 0.0, 1.5, 7.5, 7.4, 11.1. It's average contribution during this period is 1.3%.

Commented [DA4]: All the BEP project is only in the part of the grove of greatest danger to humans, with MB known to use other portions of this grove.

Commented [DA5]: Yes!!!! And, how about a drone aerial survey of the many km of conifer forest edge that encircles the Bolinas Peninsula? Xerces website has images just of MB in conifers and not Eucalyptus. Why is that? The study by Griffiths & Villabla (2015) shows that MB prefer conifers over Eucalyptus, especially during mid-winter, when they abandon earlier-used Euc. This behavior is hinted in Xerces spreadsheet for Bolinas Peninsula, with NY Day counts always far smaller than the earlier T-Day counts. Where do the MBs go? Would it be to places along the many km of conifer forest edge (shown in the image accompanying this letter), an equal distance from the ocean (heat source) as is the Euc meta-roost. By the way, this image does not show the Euc grove at the Palomarin PRNS trailhead, a grove as equally used by MB back in the 1990s when Terrace was a prime roost.

Screenshot of the coastal zone in relation to known monarch overwintering sites in Bolinas below:



We understand the importance of reducing catastrophic wildfire risk and community safety, but want to ensure the destruction of ever-dwindling monarch overwintering habitat is not an inadvertent casualty. There aren't always perfect solutions, but we have been helping other landowners think about fire risk reduction while also keeping groves standing and incorporating native trees and shrubs (which generally are additive, not a replacement to eucs) to the benefit monarchs and other wildlife and to achieve goals to restore a native plant component to sites. I think that sort of work can certainly be achieved at this site as well.

Also, the monarch butterfly is currently a candidate species under the federal ESA with an anticipated listing in FY 2024 which could impose legal constraints on removing or otherwise negatively impacting the species' overwintering habitat. CDFW already considers the species a Special Status Invertebrate and this site location should already be mapped in CNDDDB. We would be happy to provide more information if needed and we strongly encourage solutions to protect and restore this site which will involve the eucalyptus grove remaining at this location.

Apologies if any of this is "preaching to the choir" as I understand you all have been working with Mia Monroe and others on protecting and monitoring the habitat for some years. I just wanted to lay out a few points in writing which you are welcome to share as relevant with the BEP group or consultants if it's helpful.

I'm also more than happy to have a call or connect by email if we can be of assistance.

Thank you,
Emma

----- Forwarded message -----
From: **Monroe, Mia** <Mia_Monroe@nps.gov>

Commented [DA6]: Why is this? Euc groves becoming to old, no longer providing wind protection? The Xerces spreadsheet has Stern Grove in SF as a site (#3042) --- >100 Eucs fell in this grove during the 2022-23 winter.

Commented [DA7]: It's more than this for Bolinas. It's also repeated loss of power owing to falling Euc trees or just their branches. Moreover, the portion of 2915 being discussed here guards the ONLY route in/out of Bolinas.

The USFWS Monarch Species Status Assessment Report says that a primary concern is: "...senescence and incompatible management of overwintering sites in California.." Is Xerces Society telling Bolinas that they are responsible for maintaining all the Euc groves within the town confines?

The USFWS in its 2021 "**Western Monarch Butterfly Conservation Recommendations**" says: "Avoid the removal of trees or shrubs within 1/2 mile of overwintering groves, except for specific grove management purposes, and/or for human health and safety concerns. The maintenance of trees and shrubs within a 1/2 mile of these sites provides a buffer to preserve the microclimate conditions of the winter habitat."

Date: Wed, Mar 29, 2023 at 11:53 AM
Subject: Re: [EXTERNAL] Thoughts on Butterfly Habitat in Zone 5 (2915)
To: BEP <info@bolinaseucalyptusproject.org>
Cc: muirmia <muirmia@comcast.net>, emma.pelton@xerces.org <emma.pelton@xerces.org>

Thank you for your letter to me as well as your response to others. I appreciate your sense of urgency, the other compelling concerns for the safety of Bolinas human residents.

I will send you a response soon as i have a different interpretation of the data as well as site #2915's value to monarchs i'd like to share.

Which sites to the south do you feel could be suitable for monarchs?

mia