

BEE ATTITUDE



April 2009

Blue curls (*Trichostema lanceolatum*) are a post-disturbance annual plant that germinates relatively late in the rainy season, around mid-March (this photograph was taken at the beginning of April when these seedlings (2) were about an inch across). When weeds dominate the landscape, tiny seedlings starting in late season don't have a chance, so much so that this species was listed in the botanical record as belonging in our County, but the local herbarium collection didn't have a single specimen. So I sent them one.

WILDERGARTEN 5.4

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This book was originally produced under the name *The Responsible Party* for which there were two revisions, [1.0](#) & [2.0](#). Major revisions are for complete rewrites. Decimal revisions are for revised chapters or navigational changes and are not archived. Back revs are viewable by the numbered links below.

Revision History [1.0](#) [2.0](#) [3.0](#) [3.1](#) [3.2](#) [3.3](#) [3.4](#) [3.5](#) [4.0](#) [4.1](#) [4.7](#) [5.2](#) [5.4](#)

Vande Pol, Mark Edward, 1954 –

Other writings by Mark Edward Vande Pol:

[Natural Process: That Environmental Laws May Serve the Laws of Nature](#), ©Wildergarten Press, 2001, 454pp, ISBN: 0-9711793-0-1, LOC Control #2001092201.

[Shemitta: For the Land is Mine](#): ©Wildergarten Press, 2009. Contains: 217pp text, 980pp overall, 14 picture books, 2 tables, 963 photographs, 9 maps, 2 drawings, 2 charts, 145 footnotes, 358 citations, and 216 other source references, not including external Internet links. ISBN 978-0-9711793-1-8

[Articles at Wildergarten Press](#): collected writings on Constitutional history and regulatory racketeering by tax-exempt “charitable” foundations

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April 2014

Here, blue curls (*Trichostema lanceolatum*) get started among other annual plants that obviously bloom earlier. The latter are red maids (*Calandrinia ciliata*). Interestingly, both red maids and their relative miner's lettuce (*Claytonia* spp.) seem to keep the surface soil unusually moist underneath (I'm wondering if it is a surfactant exudate). The thing that keeps this area under a regimen of regular disturbance is gopher activity. Once the red maids are done, the blue curls and skunkweed (*Navarretia* spp.) take over.



August 2009

By late August red maids are long gone and blue curls are in bloom. These amazing plants can germinate, grow to nearly two feet tall, and stay green until August, despite many days over 100°F on 2" of rain. So, besides drought tolerance, why are they such a big deal?



Insects (and especially bees) go nuts for blue curls, because they are one of the few local native sources of pollen almost all summer.



Ceanothus papillosus, and a friend
April 2010

People need bees to pollinate food crops. California has 1,200 species of native bees. Unlike European honeybees, native bees do not make honey. While this may sound like European honeybees are superior, natives have a survival advantage in that, as diverse solitary insects living in burrows, they are less subject to the hive diseases and parasitic mites now threatening European honeybees. Native bees need pollen all year to survive and breed. Weeds and succession run amok crowd out the plants they need to survive.



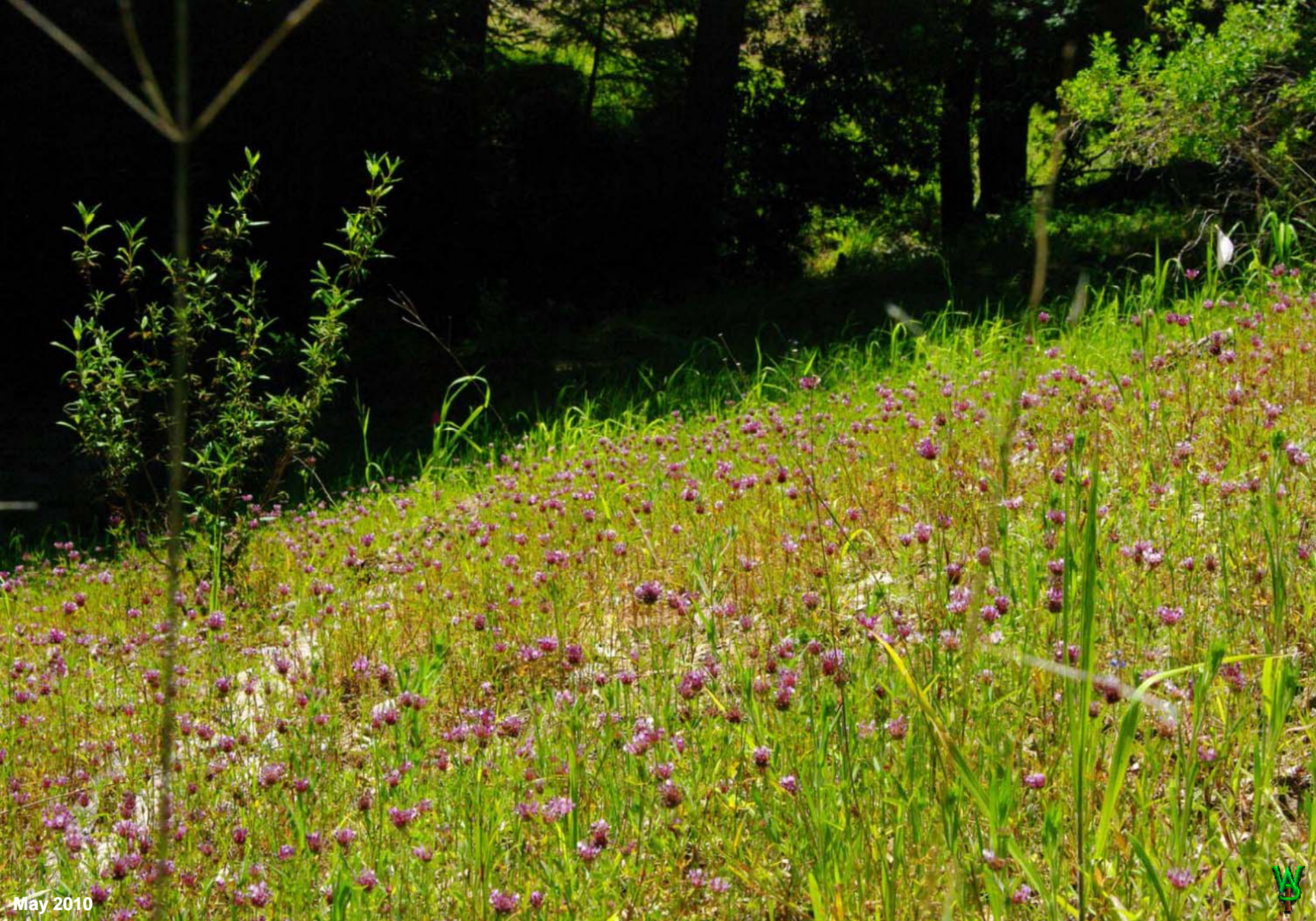
Late February 2016

So to build a pollen cycle then, one needs to identify those species attractive to bees that bloom in turn to maintain blooming plants all summer long. Putting this pollen cycle together and getting adequate numbers of plants out there took about twenty years, of which ten were **forestry** and exotic brush control, and the next ten were restoring our **grasslands**. Above is the first species in our annual cycle, *Ceanothus cuneatus*, a member of the lilac family. They smell like it too.



Ceanothus papillosus, and a friend
April 2010

As if they knew just what to do, as the *C. cuneatis* finishes up, out comes *C. papillosus*. I transplanted this one from the edges of a burn pile. As long as I prune them back about 25% every few years, they stay productive. If not, they go woody and slowly die, as one would expect in a plant adapted to frequent low-temperature fires, fuel harvesting, and intensive browsing (see [site history](#)).



May 2010

When the Ceanothus is done, the bees hit the clover, (especially bumble bees). These are tomcat and few-flower clovers (*T. wildenovii* and *T. ogliganthum*). Among the non-native plants, native bees do seem to like vetch (which we remove anyway).





Skunkweed
(*Navarretia atractyloides*)



Verbena lasiostachys

June 2008

By June, verbena is bee-heaven. It is a wonderfully hardy plant, flowering like this until August. It grows to about ten feet across in spring and then dies back during winter freezes. Root die-back is fantastic for soil and the verbena cover keeps it moist. My guess is that the way the system worked was that forbs grew and set seed around it, then to get covered later in the spring. Unfortunately, weeds love it under there too. Weeding a plant full of bees in 90°F+ heat is a bit touchy for a guy with an allergy to stings.





February 2013

Indians used to raise “farewell to spring” (*Clarkia rubicunda*) for seed as a dietary staple. Reports are that there were once massive fields of *Clarkia* all over California. Today, *Clarkias* are relatively rare because they are not competitive with weeds.



June 2017

By late June to mid-July, not only are Clarkia here still alive and numerous...





June 2011



They get together with old friends.



June 2015

Sometimes, it's quite the get together. This soap lily is seven feet tall and as wide. Carpenter bees go crazy on the pollen...





June 2015

...while other bees go for the nectar.





September 2011

But by September, few plants are so attractive to bees as blue curls. Most plants in domestic gardens make a poor substitute source of pollen as native insects show a marked preference for native plants. Without late-season flowering plants, such as blue curls, the bees upon which we may have to depend for food have a harder time. Interestingly, in spring the bees are out all day, but in late summer when blue curls bloom, only in the evening. Bees are shy and tough to photograph. I have to push the limits of the camera to get one.



September 2011

Blue curls are attractive to me too. But can you guess why?





August 2009

Similar to the first blue curls photo, you can see that there is bare dirt around these plants. Blue curls need bare dirt because they are a post-disturbance annual and germinate late in spring. They do have the unpleasant property of smelling strongly like vinegar when you bruise them (sometimes called "vinegar weed"), which is why these plants are intact at the end of August despite the animals. Another plant here with the same defense is the brown, dead stuff around them: "skunkweed" (*Navarretia spp.*), of which we have three species on this property. Skunkweed is important to bees too, but I confine it to specific areas and keep it away from the house.



May 2010

This is the same “orchard” area as the prior photo, the next spring. We not only have lots of both skunkweed and blue curls, but red maids, native clovers, native grasses, and toad rush are also making their way in. Left alone, I suspect the native grasses will exclude the wildflowers. So, what to do? Do I exclude the grasses and toad rush to keep blue curls, red maids and skunkweed?



April 2014

Well so far, it is turning out that the grasses have been relatively uncompetitive because of all the gopher activity. Unfortunately for me, that means more work because the bank is a fill of an old road up to what was once a house site and said fill is therefore full of weed seed. In this case, regular gopher disturbance means I get to spend at least a week per year weeding it to see what happens.



July 2009

Skunkweed, although native, is truly an unpleasant plant. Like the name suggests, it smells of “L’air du skunk” from quite a distance. The spines break off in your skin and fester painfully, so I **hate** weeding in it. Then why have it? Well, there are scads of tiny “sweat bees” (*Halictus spp.*) that visit it in July. So, skunkweed is a big deal too, although nobody in his right mind would like weeding in it.



July 2003



If we have bare dirt, we get a lot of skunkweed. Skunkweed can be aggressive if you've got bare dirt. So, we use it along with those equally stinky blue curls in places where we do want bees but don't want browsing animals to eat our fruit trees. Unfortunately, what you'll need to grow either skunk weed or blue curls is truly short in supply around here: Bare dirt. Bare dirt is open for weeds.

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These are LARGE files; they do take time to load

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