## A WET, WET, WETLAND

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The long wished for rains of this winter have wrought amazing changes in habitats statewide. Record snowpack, overflowing reservoirs, mudslides and swollen rivers and streams are all astonishing visual and statistical reminders that as of February 13, California has received double the average amount of rainfall at this point in the season.

Our region is often referred to as "the L.A. Basin", due to its topographical features. The Santa Monica and San Gabriel Mountains curve around the coastal plain, forming the high sides of the "basin". The plain can be thought of as a bowl of sediment, washed down from these mountains over millenniums, up to 8,000 feet deep in some spots. For this "basin", the Ballona Wetlands acts as the drain. The rain has had significant impact on the landscape at Ballona, including the appearance of vernal ponds and temporary flooding of low spots that have not seen this kind of inundation in years.



The Salt Pan, which is dry during the summer months, has been completely covered by water since mid-January. Hundreds of Black-Bellied Plovers, a handful of Black Neck Stilts and even a few White Pelicans have been present ever since the water began accumulating.



The riding ring, which is a remnant of the wetland's former life as a stable, looks more like a lake at the moment. A variety of ducks are often here in the mornings, paddling about.

The rain has had some impact on our school tours. On the positive note, students are treated to a variety of wildflowers already in bloom, lush vegetation and lots of birds. We have had to do some adjustments of our regular routes, due to flooding of certain trails.

It is interesting to note that many of our young visitors have never experienced a true rainy season, or are at least able to remember such a thing. They are truly drought babies, and were not even toddlers the last time Southern California saw significant rain. All of this water is exciting stuff for them!

Biological Soil Crust (BSC) is present at Ballona. This is a crust of soil particles that is bound together by organic material, which includes cyanobacteria, green algae, microfungi, mosses, liverworts and lichen. This fascinating stuff goes dormant during dry periods, and revitalizes when exposed to moisture. It

then begins to photosynthesize almost immediately.

The appearance of all of these organisms, which one volunteer dubbed "tiny miracles", inspired our docent naturalists to do a bonus training session on February 21st. The components of BSC are collectively known as Bryophytes. Their presence has inspired a new learning station for visiting students — the Magnification Station. Each child is issued a magnifying glass, and sent out to hunt for mosses, lichen, fungi, flower blossoms, and animal tracks in the mud. After their search they spend a few minutes making illustrations of their finds.

The vascular plants at Ballona are exploding with new growth as well. We are seeing a very early bloom of Bush Sunflowers, Bladderpod, Lemonade Berry and Willow Catkins, which is instigating lots of insect activity.





This is the path that we normally take to our Migration Station. It looks as though this will not be passable till late spring.

Beautiful Green Moss is forming a virtual carpet in many sections of the wetlands.



Lichen is found near the patches of moss, ofter growing on the branches of bushes. There are four different types of lichen visible in this photo!



Different types of fungus are showing up all over as well. These mushrooms were peeking out from the base of a dead Dune Lupine plant, and helping out with the decomposition process.



The Earth Star is another type of fungus. We have found several examples along the dune trail. The spores are contained in the round, disc-like center.



In the right light, the Willow Catkins cast a golden glow over the grove of trees.



The Bladderpod is blooming like crazy!



The Bladderpod is the host plant for the stunning Harlequin Beetle. The Harlequin Beetle pierces the stem of the plant to imbibe its (currently Abbundant) moisture contained inside.

The above photos are mere pieces of a beautiful wetland puzzle. You can come and see all of this and more for yourself on Saturday, March 4th. That is the date of our next Open Wetlands at Ballona. The wetlands will be open from 9 a.m. to noon on that morning. You can stop by for a few minutes, or stay for the entire morning. Our volunteer naturalists will be on hand to show you around, and binoculars and magnifying glass will be available on loan to help you see the latest developments. Come celebrate the rain and its aftereffects with us. We hope to see you on the 4th, and the first Saturday of every month!