

Volume XVII // May 2022

# *The 28 Percent*

*Women make up only 28% of the STEM workforce.  
This newsletter aims to change that.*



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Science Night**  
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LAYOUT DESIGNED BY  
JAIDYN, 10TH & GIANNA, 9TH



## 02 // Eliot Science Night



*The 28% attended the annual Science Night on April 25 at Eliot Magnet! At this science night, we were able to speak to members of the community about gender gap in STEM, the work of this newsletter, and listen to shared experiences of other women in the field.*

*At our booth, we held a live painting so that women and girls of all ages could participate in creating the art for this newsletter and express their interest and experience!*

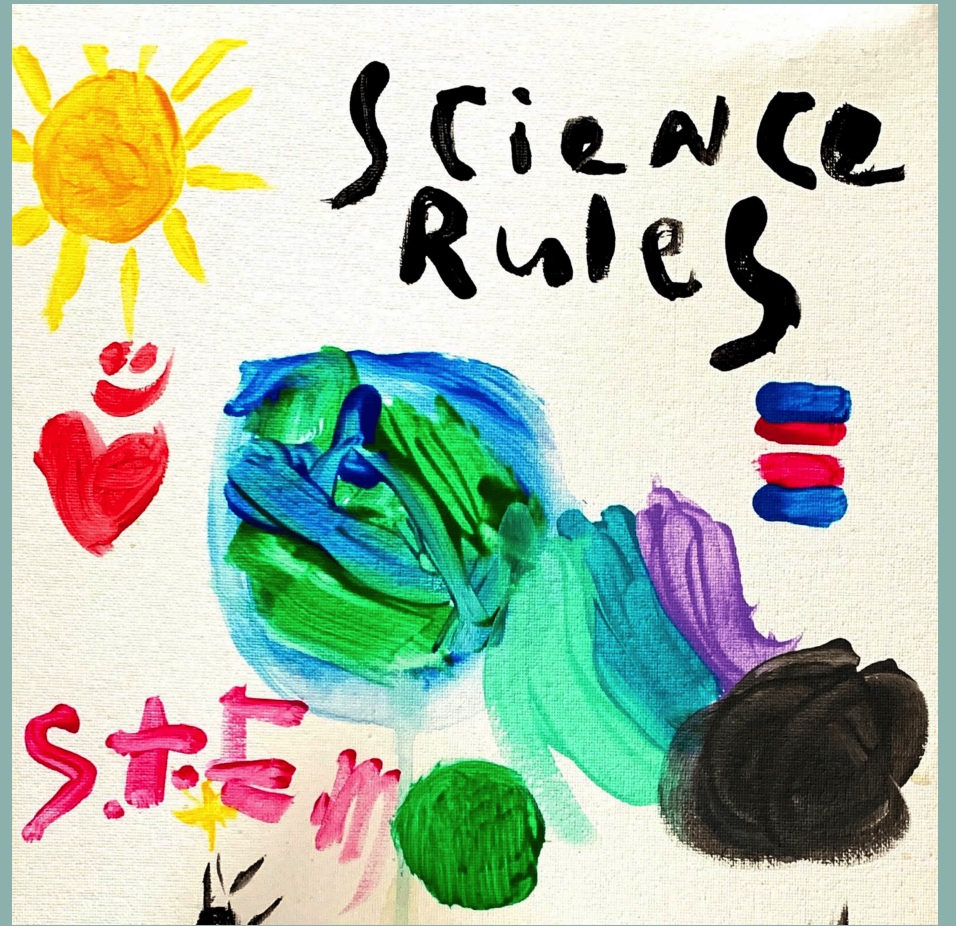
*“Science is so cool to me, it is so fascinating. My mom introduced me and inspired me into science and math. There’s so many things to learn and to study and it’s amazing to me”*

*- Charlotte Natalie White, 1st Grade*

*Thank you to everyone who came by and supported us at this event!*



# Science Night Art Showcase





# *A Bit About California Condors*

## *By Morgan Gaskell*

May 20th is the 17th annual Endangered Species Day. This day is celebrated as a time to explore and take action to protect Earth's endangered species. When it comes to famous endangered species in California, there's no conservation success story quite like that of the California Condor. By the end of the 1980's, only 22 individuals remained. Thanks to the tireless work of wildlife biologists, veterinarians and the public, there are now just over 500 in flight today!

California Condors (*Gymnogyps californianus*) are truly incredible birds! They have a wingspan of 9.5 feet, making them the largest land bird in North America. To help you comprehend that size, consider this: if a California Condor were placed in a school bus, their wings would extend out the windows! Condors have a lifespan of over 60 years and don't reach sexual maturity until they are around 6 years old. Adults have a pink head and gray bills while immatures have a black head and dark colored bill.

This species used to inhabit much of North America, including the Pacific Coast. By the late 1900s though, the condor's range became limited to just the mountains of Southern California. Range was reduced as people shot, poisoned, and captured condors. People also decreased their food supply (elk, antelope, etc.) and collected condor eggs. Today, there are condor populations in both Central and Southern California as well as in Arizona, Nevada, Utah, and Baja California thanks to the tireless work of biologists.

In the 1980's only 22 individuals remained and biologists began an intensive effort to save the bird from extinction. Some reasons for the condor's population decline was the use of DDT, a harmful pesticide that contaminates waterways and soil to this today even after its ban in 1972. Other threats include electrocution by power lines and getting hit by cars. The main threat to California Condors though, is lead poisoning.

Lead ammunition is the only identified way that condors come into contact with lead.

When hunters shoot animals with lead bullets, the lead fractures into thousands of pieces. When California condors come to eat the carrion, they consume the lead in the process. This can make them very sick as the metal accumulates in their bodies and can lead to death if left untreated.

The first law to ban the use of lead ammunition in California was in 2007 with the Ridley-Tree Condor Conservation Act, which created "non-lead zones" within condor range. The second law, Assembly Bill 711, was passed in 2013 making lead ammunition illegal for all wildlife. Today, people are encouraged to use non-lead ammunition, namely copper, which does not shatter into thousands of pieces upon impact with an animal. While most have switched to the condor-friendly alternatives, some despise the doubled cost for copper bullets compared to lead bullets. Others believe non-lead bullets are "not as effective". The laws are difficult to enforce. Even if all hunters switched to non-lead bullets, lead could still be found in the environment, either on the ground, old carcasses, etc. So long as lead is in the environment, condors can still get lead poisoning.



## *A Bit About California Condors* *(continued)*

Another threat is microtrash. Condor parents bring their chicks bits of bone and shell to supply them with calcium. Often times though, condors mistake small pieces of trash for this vital nutrient. Bottle caps (plastic and metal), cigarette butts, pieces of plastic, and more can all be found in the digestive system of condor chicks. This can lead to a variety of problems, though can ultimately end in death if not treated by biologists.

Today, there are a little over 500 California Condors in the world, about a 230% increase from what it was in the 1980's. While this progress is without a doubt commendable, there is still a lot more to be done.

Only up until recently, the lead levels of condors was being extensively monitored by wildlife biologists.

If a condor was found to have a lead level of 25 µg/dL or more, they would be brought into captivity to purge the lead through chelation therapy, an extremely stressful therapy for individuals to undergo. By comparison, humans are only allowed to have a lead level of 0 µg/dL. Lead toxocosis was a prevalent issue at this time, when condors were found to have extremely high levels of lead that was being absorbed into the body. Not all cases of lead toxocosis were able to be treated and many condors ended up dying as a result despite the extreme dedication of biologists and veterinarians. Today, the condor population is healthy enough to where biologists only look for symptoms of lead poisoning instead of taking blood samples and testing the lead level.

But, the fight for condors is far from over. Biologists continue to monitor condor nests carefully. This involves biologists rappelling down sheer cliffs to enter condor nests once every 30 days for 120 days. There, they will check the fertility of eggs, assess the health of the chick, remove any microtrash from the nest, and tag the fledgling with a wing tag at 120 days.

Wing tags are tags with a unique number and a radio transmitter sewn in used to track individual condors and their movements. Every California Condor that has ever hatched, alive or deceased today, has a wing tag number. These tags give a GPS location of the bird every hour. If you find a California Condor (lucky you), you can see if Condor Spotter has the tag included. There, you can find the age of the condor, their parents and siblings, where they hatched, and more.

What can you do to help California Condors for Endangered Species Day? The most important thing is to teach others and spread awareness for the condors. You can also throw trash away correctly to prevent microtrash from collecting in the environment and volunteer at trash cleanups. Encourage hunters to switch to non-lead alternatives if they haven't already. Make sure you drive safely to protect wildlife. Animals that become roadkill attract scavengers who can then get hit by cars themselves. Report any observations of interesting behaviors or rare species to land management agencies. Report any poaching (ie. Illegal shooting or trespassing) to land management agencies too. Work to protect open landscapes that condors use to feed, fly, and nest. You can also volunteer for condor recovery and awareness, such as at the L.A. Zoo!

For more info and resources on California Condors, visit my website's condor blog post [here](#). Thank you, and Happy Endangered Species Day!



# *Nature in My Eyes*

*By Morgan Gaskell*

*Nature is complicated to describe,  
but I will tell it to you through my eyes.*

*A California Towhee scratching at the  
ground, until a tasty grub is found.  
A Mourning Dove and its wobbly fly,  
through the early evening sky.*

*A Northern Mockingbird singing its varied  
song, a nearby watcher humming along.  
An Acorn Woodpecker and a drumming  
beat, looking for something to eat.*

*A Red-tailed Hawk afloat the air,  
the minute songbirds fluttering with care.  
A Fiery Skipper laying its eggs on grass,  
a mountain that shifts but will forever last.*

*An organized colony of ants or bees,  
the warm, caring motion of the breeze.  
A tree that is attaining energy with green,  
a clear and crisp running stream.*

*A weary earthworm recycling soil,  
the parents of a chick who live a life of toil.  
A Western Fence Lizard basking in the sun, a  
caterpillar whose life has only begun.*

*The climate, the environment, the nature of  
Earth, every organism's hearth and home,  
Will certainly impress you if you look deep,  
but we certainly cannot live here alone.*

***the girls that made this newsletter  
possible***

Emma Hungerford, 10th Grade  
Violet Chandler, 10th Grade  
Madeleine Lees, 10th Grade  
Jaidyn Carrol, 10th Grade  
Morgan Gaskell, 10th Grade  
Celeste Acosta, 10th Grade  
Alissa Santana, 10th Grade  
Ruby Chew, 10th Grade  
Cecelia Bichete, 10th Grade  
Mallika Sheshadri, 9th Grade  
Gianna Gullon, 9th Grade  
Maxine Scott, 9th Grade  
Tracey Willard  
Ms. Orret, Advisor

***have a question? want to get  
involved? want to be featured on  
the newsletter?***

***Email Ms. Orret!***

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