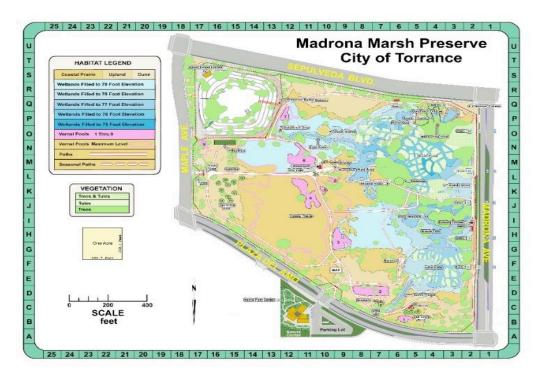
Marsh Mailing is also available in full color at www.friendsofmadronamarsh.com

Our Coastal Prairie

Melissa Loebl, Preserve Manager/Naturalist



Hello readers! I am happy to connect with you through the *Marsh Mailing*. We miss every one of you and hope everyone is staying safe and healthy during these challenging times. I hope this article brings a sense of appreciation and curiosity for the Coastal prairie.

When visiting Madrona Marsh Preserve you may notice the open field in the northeast corner or near the upland habitat, also known as the Coastal Prairie (See map).

It happens to be one of my favorite locations on the Preserve. A place where I consistently observe raptor species such as the Red-tailed Hawk or American Kestrel in flight. I hope the next time you visit the Preserve you will be lucky enough to witness these majestic birds flying above. It is sure to be an experience you will never forget. Other species of prairie birds

include the Mourning Dove, Western Meadowlark, flycatchers, finches and sparrows. So what attracts these birds to the Coastal Prairie?

Many feed on ground-dwelling mammals such as gophers or mice and others feed on macroinvertebrates, which include insects, from beetles to dragonflies, and larger critters like shrimp, snails, worms and crayfish. In fact, did you know macroinvertebrates help the staff

at the Preserve monitor environmental impacts, due to their sensitivity to change or population status? They are an important part of the food chain, providing food for reptiles, mammals and birds. And if macroinvertebrates are so important to the food chain, we know that improving their habitat will increase biodiversity.

So how do we do this? First we must understand and identify the relationship between plants and terrestrial invertebrates. Many require certain host or food plants; therefore native plants are the basis for a healthy ecosystem. Growing or propagating native plants at the Preserve continues to be one of our top priorities and this allows us to restore or enhance existing habitats. Often these goals are accomplished through funding from grants, or from the Friends of Madrona Marsh or the City of Torrance.

"...Coastal Prairie" continued on page 2

"...Coastal Prairie" continued from page 1



We are excited to share with you this news: In late spring, Madrona Marsh Preserve received a \$1000 grant funded by the Palos Verdes/South

Bay Audubon Society. Jonathan Nakai, pictured here, one of our key restoration team members, submitted the proposal with the purpose of enhancing our Coastal Prairie. Needless to say, he was beyond pleased when he heard that the Audubon Society had awarded the grant to Madrona Marsh Preserve. A large portion of the planning for this project focuses on removing the non-native plants, and planting native grasses, and coastal native flowers and bulbs used by our wildlife. The goal is to enhance biodiversity. Jonathan has dedicated many hours to this project and we are proud and thankful for his efforts. We would also like to thank the Palos Verdes/South Bay Audubon Society for their generous support and assistance in funding this habitat enhancement project.-M.L.

Errors in Our Summer Issue— and an Explanation

Several subscribers to the printed version of *Marsh Mailing* noticed a strange irregularity – or two – in the Summer 2020 issue. The first page of Melissa Loebl's article on the positive impact that reduced human activity has had on the Preserve, which ran on Page 3, was repeated verbatim on Page 11. Also, the last paragraph and a half of Jeanne Bellemin's article on Mason Bees, promised as a continuation on Page 11, was missing. We regret the errors, which occurred only in the printed edition; the on-line version was correct.

In fairness to our print version readers, we are including in this issue Dave Jamieson's extremely timely and perhaps prescient article, "*Untold Consequence*s," (see page 9), which should have run on the summer issue Page 11, as well as the last two paragraphs of Jeanne's article, "*My Mason Bees*" (see page 9). How did this happen?

We use a small, family-owned print shop to print, fold, tab and address the newsletter. I sent electronic copy for the summer edition to them on July 2. But when I checked progress on July 9, I found that they had had a positive COVID-19 test the previous week. They had to quarantine some personnel and perform a deep 'COVID clean' according to CDC protocol, and were running behind schedule. They were not

able to print our newsletter until July 15. That's when we found out that person who tested positive was the manager of the shop. He was still extremely ill and unable to keep food down.

Fortunately, the assistant manager was able to assume control of this unprecedented situation, but with a shortened staff and a big backlog. I don't know the details of how they ran our Page 3 copy again on Page 11; they have never done anything like that before. But it is hard to imagine a situation with more extenuating circumstances.

As a postscript: The manager's family was ultimately able to supply nutrition to him by hiring a mobile IV company to come to the house and provide an IV drip with vitamins and medicine. When I inquired about his health in an email as we started putting this issue together on August 30, the manager himself replied, "Thank you – I am back and doing fine. We are open."

We are all experiencing the effects of the current pandemic – some directly like the print shop manager, and some indirectly or even unknowingly, as our readers who noticed two page 3's in the last issue. We are very grateful for the manager's recovery and hope that all our readers are able to maintain their health... or at least regain it, as he did.-*Bill Arrowsmith*

The Circle of Life is Messy

Suzan Hubert, FOMM President

As summer draws to a close and fall begins its life cycles on the Preserve ... continue turning. The circle of life is extraordinarily efficient but it isn't pretty. Nature gives and it also reclaims. Nothing goes to waste in nature: everything is recycled, repurposed and/or reused.

As I was leaving the Preserve a few weeks ago, a visitor notified me that there was a dead animal and asked shouldn't I call someone to have it removed. I responded cautiously because not everyone wants to hear about decomposition on a sunny California morning walk. So I simply explained that we don't remove dead animals, we let nature take its course. However, if the animal is in the middle of a trail, we will move it to a better location. The visitor seemed satisfied with that explanation as the dead critter in question was off the trail.

Every organism, every living thing dies. Whether it's a bacterium that lives a few hours, a turtle that lives 250 years or a bristlecone pine that lives 5600 years, eventually every living thing dies and is recycled. When an organism is no longer capable of producing the energy necessary to maintain its systems—a simplification, also known as death, occurs.

Consider this scenario: A raccoon falls from a tree and dies on impact. Within a few hours bacteria begin to break down cells to mine nutrients; coyotes and crows may rip open and eat muscles, organs and intestines. Flies lay eggs on the body, the eggs hatch into larvae (maggots) which eat most of the remaining muscles, blood vessels and tendons. After a few weeks there will be nothing but a pile of hair, skin and bones left.

Beetles that specialize in eating hair and skin arrive to deposit eggs. The resulting larvae consume the skin and hair until only clean bones remain. Finally, mice seeking calcium will gnaw on the bones. This can take a month or longer for an animal the size of a raccoon. Any or all of these critters may pee, poop or die under the tree. The tree itself and surrounding plants take up the discarded nutrients that were once the

raccoon that became the coyote or the fly and were discarded into the soil.

Decomposition changes depending on weather and animals living in the area. Plants decompose more slowly than animals, but in both cases there is a long line of applicants who will simplify the fallen body for their own gain. (Reference source: California Naturalist Handbook)

We remove as little as possible from the Preserve. We let the leaves, native plants, insects, amphibians and all the "simplified" flora and fauna return to the earth. So if you happen upon a decomposing critter or wonder why we don't rake the leaves, remember the messy circle of life.

See You on the Preserve.

Suzan

Marsh Mailing 4-month Calendar of Events

Readers – As we explained in the summer newsletter, we are suspending the 4-month calendar of events we usually publish as a service to our readers, primarily due to COVID-19 related restrictions and the cancellation of many planned activities.

As Donna Wendel reported in the summer newsletter, the Nature Center is closed to the public until further notice, but the parking lot and the Native Plant and the Water-wise Gardens are still accessible. Access to the Preserve itself is limited to Thursday, Friday and Saturday from 9 a.m – 3 p.m. Reservations are no longer required.

If you have a computer or smart phone, access the calendar on the Friends' website, <u>FriendsofMadronaMarsh.com</u>. It is still being maintained and is the best source of timely information.

Thank you, and stay safe! - Bill Arrowsmith

NATIVE PLANT SALE

- -Fall is the best season to plant natives
- -Plants for birds, bees and butterflies
- -Local species of P.V. and the South Bay

On-Line Sales Only At

www.sccnps.org

September 26th - October 1st

No Contact Pick-up Saturday October 3rd 10 am - 2 pm

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Presented by:
South Coast Chapter
California Native Plant Society
www.sccnps.org.



Donations of \$100.00 or more Summer 2020

-Ellen Peterson

Date	Donor	Donation	Comment
July	Charlene Lee & Eric Hardin	\$250.00	
July	Mayor Pat & Terry Furey	\$100.00	
July	Tom & Christine McGivern	\$100.00	
July	Tracy Drake	\$500.00	
July	The Means Family Trust	\$100.00	In Honor of Duffy and Nancy Means
July	Eva La Vonne Wuertz	\$100.00	
July	Virginia Massey	\$100.00	
July	Mr. & Mr. Theodore Kotzin	\$200.00	
July	David Moody	\$100.00	
July	Bernice & John Ozaki	\$100.00	
July	Elaine Enders	\$220.00	
July	Al & Barbara Sattler	\$100.00	
July	Robert F. Ashley	\$150.00	
July	Juno & Ethel Uyematsu	\$100.00	
July	Cynthia Kondon	\$100.00	
July	Marianne Strehler	\$100.00	
July	Mr. & Mrs Anthony Vinter	\$100.00	
July	Dale Lincoln	\$200.00	
July	Kathleen Waldon & Barbara Weaver	\$100.00	
August	Bobbie and Larry Snyder	\$2,500.00	
August	Lisa Hansen	\$250.00	
August	Doris Kitson	\$100.00	
August	F1 Key Foundation	\$500.00	
August	Christine Nieto	\$100.00	In memory of John E. Nieto

Common Green Darner

Vincent Lloyd

This past July PV Audubon sponsored the first Palos Verdes Dragonfly Count.

Since dragonflies require water for

cycle, Madrona



Male Green Darner at San Joaquin Wildlife Sanctuary, by their reproductive Peter W. Chen via Wikimedia Commons.

Marsh and the adjacent sump were dragonfly hot spots. One of the largest and most abundant dragonflies seen at the Marsh was the Common Green Darner (sometimes simply Green Darner). Tracy Drake found five Green Darners at the sump on count day (July 25).

Darners, which are found world-wide, are large dragonflies named for their resemblance to darning needles. The generic name, Anax, is Homeric Greek for "high king". The Common Green Darner is Anax junius, the June darner. It is common all over North America from southern Canada to Mexico and Central America. It has also found its way to Hawaii, Tahiti, East Asia, and Western Europe. It is one of the largest dragonflies in North America, being just about 3 inches long. If you have ever wondered how much a gram is, a gram is the weight of a Green Darner.

You will not be greatly surprised to learn that the thorax of the Green Darner is green. The abdomen ("tail") is blue in males with a dark stripe running down the topside. Interestingly, the higher the temperature, the more intense the blue color is. The female's abdomen is usually coppery brown to dull green, although some females are blue like the males. The wings are clear, often with an amber tint.

When visiting the Marsh, you will probably see dragonflies flying about, seemingly without purpose. In fact, they are hunting for small flying insects, which they crush with their powerful jaws. They will take

surprisingly large prey, including other

darners and they have even been seen, by horrified observers, to take hummingbirds!

Female darners lay their eggs on aquatic plants in ponds and lakes. The larvae are called nymphs or naiads (terms also taken from Classical Greek literature). The nymphs prey mostly on aquatic insects, but can also take tadpoles or small fish. Insects such as butterflies go through four stages: egg, larva, pupa, and adult. This process is what entomologists call complete metamorphosis. Dragonflies and damselflies go through incomplete metamorphosis, which omits the pupa stage. Instead, dragonflies metamorphose from the last stage of the larva. When the adult is ready to emerge, the nymph comes out of the water and climbs onto a stem or rock. The dragonfly breaks out of the nymphal skin, pumps fluid through its wings and abdomen to expand them, and emerges as a new adult, a teneral.

Because the tenerals are soft and vulnerable, emergence (eclosion) usually occurs at night to avoid predation by birds. Dawn is the critical time; the teneral needs luck to avoid being picked off by a bird until the sun warms it enough that it can fly away.

"Darner..." continued on page 7

Summer 2020 Butterfly Count on Madrona Marsh

The butterfly count at the Madrona Marsh Preserve was fairly good. We started at 8 am and ended at 11 am with temperatures ranging from 72F to 79F. There was a 10mph wind and 100% sun. Our group consisted of four people: Chris Gorgione, R a n d y a n d D e a n n a Harwood, and myself. We split up into two groups to cover the whole marsh.

Cover the whole marsh. Western Py Chris and I covered the berm, willows, and north sections while Randy and Deanna covered the south and west sections. All of us entered the sump and covered the east section.

Here are the numbers of the butterfly survey that was done at Madrona on July 14, 2020:

Giant Swallowtail - 1 Western Tiger Swallowtail - 9

Cabbage White - 23 (a majority of them were on the wild radish plants)



Western Pygmy Blue

Cloudless sulfur - 2

Gray Hairstreak - 17

Western Pygmy Blue - 2

Marine Blue - 7

Acmon Blue - 36

Blue sp. - 3

Mourning Cloak - 2 (very low numbers in the willows)

Lady sp. - 2 (we believe one was an American because it looked darker in flight, but it did not stop for us to confirm)

Common Buckeye - 1

Monarch - 6

Fiery Skipper - 6

Umber Skipper - 1

Eufala Skipper - 2

Sandhill Skipper - 1

TOTAL 121

--Jonathan Nakai

"Darner..." continued from page 6

Like Monarchs and Painted Ladies, Common Green Darners are long-distance migrants. In spring, millions of darners head north from Mexico to the northern U.S. and southern Canada, arriving in March. They mate and lay their eggs there. In fall, the new generation of adults flies south. Millions of darners are seen congregating in places such as the shores of the Great Lakes and the Gulf of Mexico. After reaching their wintering grounds in the southern U.S. and Mexico, the darners mate and lay a new generation of eggs. The eggs hatch and spend the winter in the nymph stage until the adults emerge in the spring, ready to begin the next northward migration.

Dragonfly mating is a striking sight, looking like a strange contortion act. Before mating, the dragonfly male will transfer sperm from the genital opening, located near the end of the abdomen, to

the penis, which is near the front of the abdomen (on segment 3). To commence mating, the male grabs the head of the female with specialized appendages located at the rear end of the abdomen. If she feels in the mood, she will curl her abdomen around so that her genitalia, located near the end of her abdomen, meet the male's penis, at the front of his abdomen.

Since copulation may take a while, the dragonflies often fly around while still linked. During the Dragonfly Count, Kim Moore was surprised by a pair of Green Darners flying in tandem. Often, the darners are still linked together when the female lands and deposits her eggs. This is advantageous to the male, since it prevents other males from mating with her before the eggs are deposited. Other times, the male stands nearby during oviposition, guarding her from predators or rival males.-V.L.

My Tortoise Garage Doors

Jeanne Bellemin



Artist Dawn Whitney-Hall stands in front of Jeanne's two-car garage. Jeanne's single-car garage is shown below.



It has been a crazy year. I am sure we have all felt a little sidelined during this COVID - 19 confinement. Even though I am retired, there were lots of activities to fill my days that are no longer allowed, at least temporarily. Out of this frustration was born the idea of

doing something creative I had often thought about doing; paint my garage door with the image of a large tortoise.

I love desert tortoises. I grew up with tortoises ever since my geologist Dad, while exploring the California desert, had picked one up as it was crossing a desert highway in the 1940s. This is not legal now since desert tortoises are very

endangered owing to human encroachment and modification of their desert habitat. Nevertheless, captive tortoises populated my yard most all of my life. Strays were brought to me and eggs were delivered for incubation.

Since I am not an artist, I could only envision a large desert tortoise, painted in his native habitat, and surrounded by my favorite native plants and animals. I was inspired by the beautiful and accurate mural that Estelle DeRidder is painting on our Madrona Marsh Nature Center classroom. I hired one very talented lady named Dawn Whitney-Hall ([pictured here) who took my rough sketch and suggestions and created what I had imagined.

We started with my relatively small, 90 yearold one-car garage. A baby tortoise is front and center but surrounded by other desert plants and animals. As Dawn worked, I would provide her with images of the horned lizard, cactus, beetles, and native bees so her depictions are accurate as to actual species from our local deserts.

"Tortoise Garage Doors" continued on page 11.

Untold Consequences

Dave Jamieson

When everything was different, I used to be a docent. I used to have the honor of sharing with young children, and even adults, a path to assuaging some of the scary, hurtful and negative things that can happen to all of us – by introducing them to some of the treasures of Madrona Marsh. The sight of their eyes when they filled with a new understanding, or had a new question when told about the natural ways that problems are solved and needs are met, was heartwarming.

When everything was different, I was able to spill out my passion to all who were within my circle of influence. I have always lived by a personal axiom that nothing good ever happens without passion, whether it is a moon landing, the creating of a National Park or the successful raising of a responsible and caring child. Another maxim might be that to stop momentum, the first thing to do is to discount or remove the passion that drives it.

When everything was different, my passion for Madrona Marsh was my most important tool for creating curiosity and excitement with people of all ages. This was one of the biggest successes of my life, and I cherished it. I call it a success because the benefits went not only to myself and my contacts, but to the Marsh and other places that can use motivated volunteers.

Passion is addictive and can only be spread through interaction unless you are an extremely gifted writer.

When everything was different, being a volunteer at Madrona was so invocative of good things that I always thought of it as a good example of an environment that demonstrates an ecosystem where everything (no matter how seemingly insignificant) has both a cause and an effect. This is now so changed from normal, that it will not be back for a long time, and for that reason, we are all diminished.

My hopes are that the hearts and minds that I am not allowed to touch are not exposed solely to the negative items that are so abundant on the news during these very troubling times. If I had a child that I was isolating with, I would spend as much time as I could climbing trees and digging in the ground. I would be planting seeds (maybe gift a small garden to the child) and even creating a diary of observations in my back yard or planter box.

So, here's wishing you all safe adventures wherever you can find them, and asking you to send love and good wishes to every single person that you know, or even think about because that just may be the thing that saves us.

ENDING OF "My Mason Bees" by Jeanne Bellemin, Missing from Summer Issue:

The mason bees taught me several things about how to provide for them. First, the hole size they prefer depends on the size of the bee, which for mason bees is about 1/4". The holes must be cleanly drilled without rough wood shards and splinters that might tear their delicate wings. The depth of the hole is also important since mason bees lay fertilized eggs (females) at the backs of the holes and unfertilized eggs (males) at the front of the holes. In order to maintain a good ratio of females to males, a 4 to 6-inch hole depth is recommended. It is also necessary to clean out old abandoned nests, because over time they may accumulate fungus, viruses, and kleptoparasitic mites. It is more difficult to clean these permanently drilled holes at the end of the

season than it is to clean out tubes or blocks that can be separated. There may be an increase in the presence of parasitic wasps, parasitic flies and parasitic bees as the bee house ages. I witnessed one wasp visiting a bee nest during construction.

During this Spring of 2020 and our Corona Virus confinement, I have enjoyed daily mason bee visits, often spending several hours with my iPhone photographing their activities. Mason bees live only about six weeks and are far less active now. It is early June; I see they have filled and sealed off six nest chambers, and I hope for the best as I wait for my next generation of leaf-cutter bees to emerge.-J.B



What Parents Need to Know. . . About Preventing Nature Deficit Disorder in Children

By Jenny Miller

Jenny Miller is a retired teacher, currently based in Memphis TN, but during her time with students, she saw firsthand just how plugged in they really were. She made it her goal to encourage her students to unplug and get outside, and she continues that pursuit now for people of all ages through her site to end Nature-Deficit Disorder (NDD), stopndd.org.

Is your family spending more time indoors these days? If so, your children could be at risk for developing nature deficit disorder, or NDD. The thing is, people are more like plants and trees than you may think. Just like seedlings, your little ones need an ample amount of fresh air and sunlight to grow into strong and healthy adults. You need that time in nature as well. Here are some resources to learn more about how getting back to nature can be beneficial for your family.

What Is Nature Deficit Disorder?

If you want your little ones to grow and thrive, you really should look into this growing issue.

Richard Louv introduced the idea of Nature Deficit Disorder in his book, *Last Child in the Woods*, which theorizes that less time outdoors can lead to behavioral issues.

But experts have known for decades that <u>humans need time outside</u> in order to stay healthy and happy.

Even <u>spending time with trees</u> can lead to a longer and more fulfilling life.

How Can I Get My Family Outside?

Time in nature is important, but planning that time can be tricky for busy parents, especially when people are being encouraged to stick closer to home.

You can experience nature, and <u>even</u> <u>wildlife</u>, from the convenience and safety of your own backyard.

"Parents..." continued on page 11

"Parents..." continued from page 10

<u>Planting a garden</u> can be a safe and healthy way to get your family outside and is a perfect hobby for keeping your kids active.

Parents can also encourage a love of nature by making a game of <u>identifying trees</u>.

What If I Want to Plan an Even Bigger Adventure?

Planning backyard activities is a good way to get your kids interested in nature, but exploring more of the world will get them really hooked on the great outdoors.

<u>Hiking with kids</u> can be fun, but you will definitely want to plan some games to keep your little ones engaged.

Planning <u>a family camping trip</u> is a perfect way to immerse your kids in nature.

A visit to the <u>Madrona Marsh</u> and its nature center will let kids discover various habitats and the wildlife that inhabits them.

Are There Any Safety Tips I Should Know About?

Spending more time outside can come with some rewards, but there are also a few risks that parents should know about.

Kids need a little sunlight to stay healthy but <u>using sunscreen</u> is always a good idea.

<u>Keeping your kids hydrated</u> is also important, especially when they will be playing or exploring the outdoors on warmer days.

It's also a good idea to keep a first-aid kit in your backpack, car, and home.

As you can see by now, spending time in nature can provide so much more than a fun time for your family. Getting your kids outside

can be crucial for their growth and development, not to mention essential for your own health and happiness. So plan an outdoor adventure for your family, even if it's exploring your very own backyard.

Photo Credit: Rawpixel

"Tortoise Garage Doors" continued from page 8.

This first garage door mural was finished during one week in May. In a month I was really missing that creative rush, so I again retained Dawn to paint a mural on my larger two car garage door.

By this time in late June I was caring for the two desert tortoises that belong to the Madrona Marsh Nature Center, Donatello and Raphael, hatched here about 8 years ago. Additionally, I acquired Worf, hatched here 20 years ago and also retired now from his role at Kathy's Critters maintained by Kathy Burkholder.

All three tortoises willingly served as models for Dawn as she executed the larger mural of an adult tortoise amid Joshua Trees and other desert natives. With this larger palette we also had room for a Merriam's Kangaroo Rat, a Desert Iguana, beetles and native bees and off in the distance some Burrowing Owls and a Roadrunner.

Neighbors, who are strolling more because of COVID -19 constraints, always enjoyed stopping by to praise Dawn and follow her progress. It has been a wonderfully creative and entertaining project to mark this crazy year of 2020.-J.B.

Marsh Mailing is a quarterly newsletter designed to provide information about activities and upcoming events at or relating to the Madrona Marsh Preserve. Contributions are welcome and may be emailed to Editorial Advisor, Bill Arrowsmith, frandbill@att.net or Editor, Diane Gonsalves at gonwild2@yahoo.com or may be dropped off or mailed to the Nature Center, P.O. Box 5078, Torrance, CA 90510.

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