

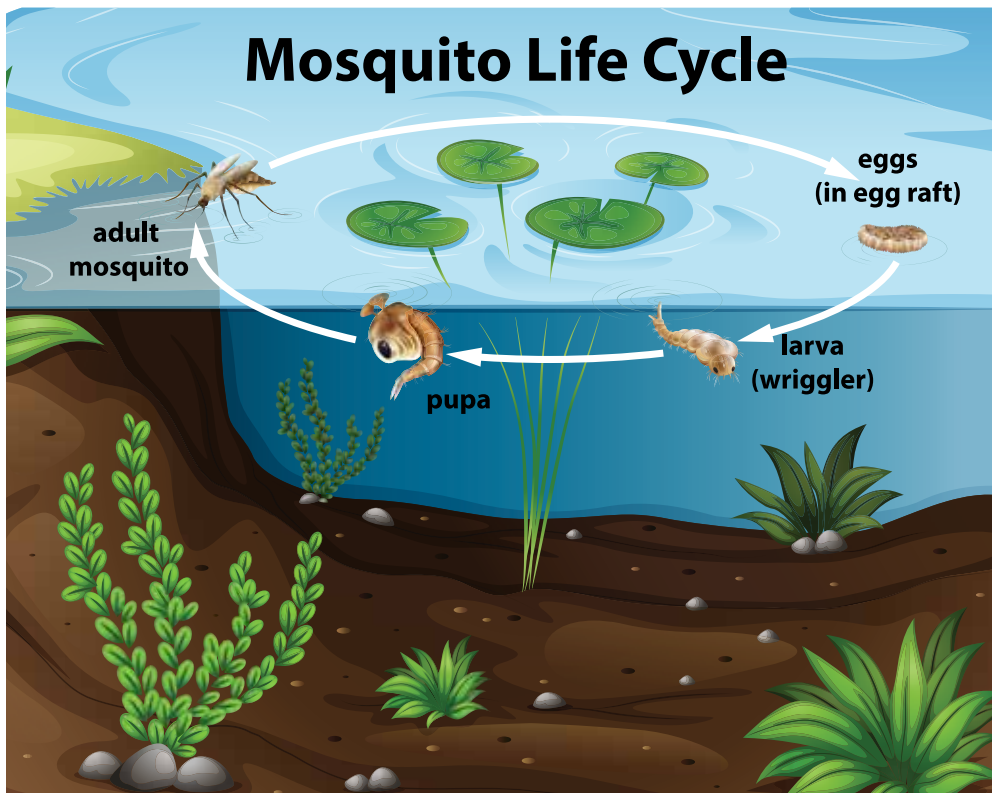


Mosquitos

By Greg Ballmer, Entomologist

The San Jacinto Wildlife Area presents such a lovely pastoral scene, a virtual paradise for waterfowl, upland species and the human visitors who come to enjoy the fruits of nature. Who would suspect that it is also replete with vampires that rule the night? Unseen by day, they begin to search for blood meals as soon as the sun sets and return to dark diurnal shelters at the sun's first morning rays. Some mosquito species also bite during daylight hours, but mostly in relatively cool, moist and shady conditions. Mosquito populations also vary by season; they may be reduced during cold and dry weather, but spike after precipitation events.

Who has not experienced the annoyance of mosquitoes: the high-pitched hum as they come near our ears, the expectation of a sharp prick when they bite (although some bite painlessly), the itchy swellings which may persist for days after they bite. As if that were not enough, they are also infamous vectors of disease-causing viruses, such as dengue, encephalitis, yellow fever, West Nile, zika, and perhaps, most famously, of ma-



laria (a protozoan blood parasite). Those dedicated to the Doctrine of Final Causes (DFC) (i.e., all of Earth's resources are meant to be fully exploited by humans), must ponder the question why the Creator of all things (e.g. Spaghetti Monster) would allow such a nasty pest to exist. Perhaps the Creator has a dark sense of humor, or maybe there is method in the apparent madness.

For those who perceive, as did John Muir, that all things in Nature are hitched to everything else, the question may be

“what ecosystem services do mosquitoes provide”; or, in the parlance of the DFC, “what are mosquitoes good for?” For one thing, mosquito larvae are filter feeders that purify polluted water by straining algae, bacteria and other tiny aquatic organisms. The larvae of midges (Chironomidae) and many other aquatic insects have a similar filter-feeder lifestyle. Mosquito larvae are also an important link in the aquatic food chain as food for fish and predatory aquatic insects. Insects, such as dragonflies and damselflies, as well as birds and bats, eat adult mosquitoes.

The most practical consideration for visitors to the San Jacinto Wildlife Area (SJWA) may be how to co-exist with mosquitoes, which are an integral component of virtually all non-marine aquatic ecosystems. First, let's dispose of

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IF YOU RECEIVED A HARD COPY OF THIS NEWSLETTER IN THE MAIL AND HAVE AN EMAIL ADDRESS, PLEASE EMAIL northfriends@northfriends.org ASAP. If you do not give us an email, we will continue to send you a hard copy.

SJWA Land Management Plan A Disappointment

By Tom Paulek

In December 2017, just in time for the Holidays, the long awaited and costly San Jacinto Wildlife Area (SJWA) Land Management Plan and Draft EIR were presented to the public by CDFW for review and comment. “When given a choose between being right or kind....choose kind.” [Good advice from Dr. Wayne W. Dyer] After being associated with the SJWA my entire 28.5 year CDFW career, as the former manager of wildlife area and as an Associate Wildlife Biologist serving exclusively in western Riverside County, I must say I was disappointed with the Land Management Plan (LMP) and the accompanying CEQA document.

How can we get to the “right” approach for the SJWA Land Management Plan. First and foremost, the backbone of the plan needs to be restoration. Restoration of habitats and restoration of plant and animal species must be the predominate theme of the LMP. Maintaining the current reclaimed water allocation [4500 acre feet/year] and the development of a long-term water management regiment for the Davis Road Unit was an essential component of the restoration efforts. Achieving actual habitat connectivity between the Davis and Potrero Units; maintaining and enhancing the connectivity of the San Jacinto River with adjoining habitat values is essential. Exotic species control and suppression must be a major



habitat focus and integrated into future habitat enhancement strategies. A Geographic Information System (GIS) should be developed on-site to monitor species and habitats and inform future management decisions. A public use plan for both the Davis and Potrero Units needs to be developed to balance public uses with resource conservation objectives. A multi-discipline approach and a diversity of opinions will be needed to serve the varied public interests in the LMP.

The Friends group have long advocated for a comprehensive high quality Land Management Plan (LMP). Our purpose in making comments on the proposed LMP

and draft CEQA document is to move that objective forward; we have no desire to get involved in CEQA litigation to further that objective. It is apparent to us that both the LMP and the Draft EIR are deficient and need revision. In the alternative, we would propose the formation of a local volunteer citizen group composed of local wildlife managers, botanist, ornithologist, entomologist, geologist, engineers, hunters and other recreation users, many of whom already spend much of their free time enjoying the SJWA. This volunteer citizen group would advise and write, if necessary, a revised Land Management Plan for the SJWA.

Mosquitos

Continued from page 1

some likely fears of disease transmission. Only female mosquitoes take blood meals, which they require for the protein needed to produce eggs; males may visit flowers for a nectar meal, or not feed at all. And while there are many species of mosquitoes, most ordinarily take blood meals from a limited range of hosts, such as birds, ungulates or amphibians (hence there are also species of malaria parasites specific to those classes of hosts). Relatively few mosquito species specialize in human hosts, but other species may bite

opportunistically when we enter their habitat and their preferred hosts are less available. The mosquito vectors of malaria (genus *Anopheles*), dengue and zika (genus *Aedes*) are not known to exist at the SJWA, so fears of contracting those diseases are unwarranted. West Nile virus and some other viruses are mainly present in bird populations but occasionally infect humans when a vector mosquito bites an infected bird and subsequently bites a human. The severity of such infections can range from mild (in most people) to severe, depending on the infected individual.

If one visits the SJWA near dawn or dusk, or at night, some protective mea-

sures are in order to prevent or reduce mosquito bites. The use of insect repellents, such as those containing DEET (diethyltoluamide), or natural products such as oil of citronella, catnip oil, and eucalyptus oil (and garlic oil, of course, for vampires) is advised. Insect repellents have varying degrees of effectiveness against biting insects, but for some people they may also produce unwanted side effects, such as skin irritation, allergic reaction, or unpleasant smell. Wearing long-sleeve shirts and trousers is always a good idea for reducing mosquito bites. When mosquito densities are exceptionally high,

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The Arctic Climate Is Shattering Record After Record, Altering Weather Worldwide

By Jennifer A. Frances. Scientific American April 2018 pp. 48-53

[w/subscription <https://www.scientificamerican.com/article/the-arctic-is-breaking-climate-records-altering-weather-worldwide/>]

This is a summary of the issues raised in this article and myriad other scientific papers in recent decades by Sue Nash. Any errors are my own.

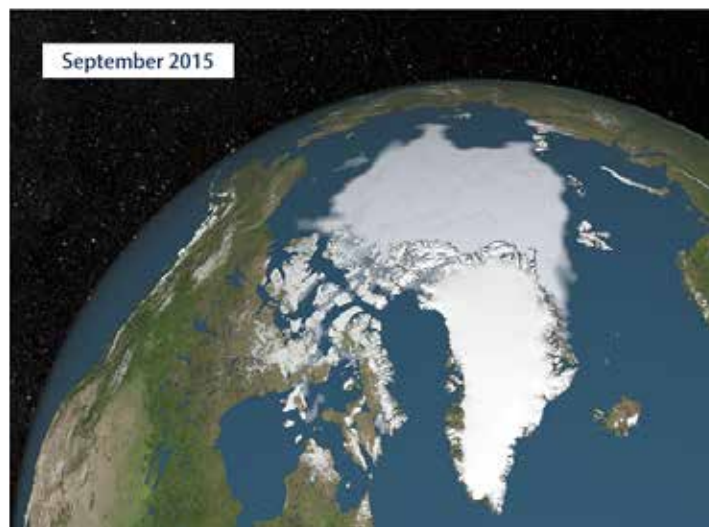
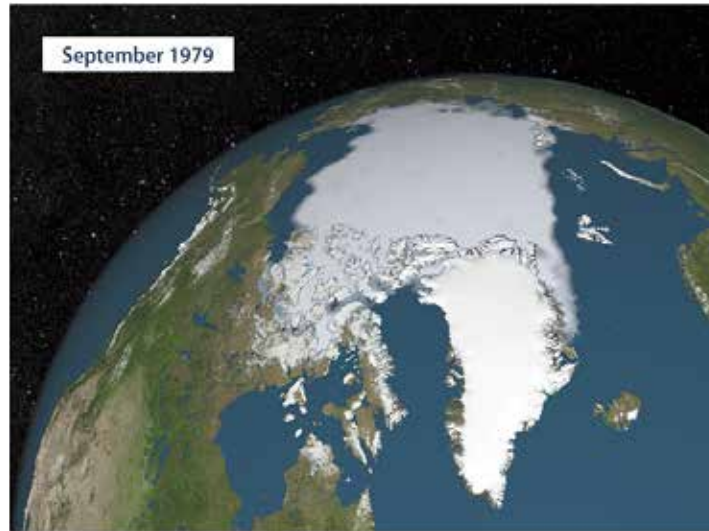
It is the conclusion of all scientists studying Arctic issues that the Arctic system as a whole is careening toward a precarious new state and hope of stopping it already seems unlikely. It now appears the Arctic ocean will likely be free of summer ice by 2040—a full 60 years earlier than predicted a decade ago.

The last time the Arctic was only slightly warmer than today—about 125,000 years ago—oceans were 13 to 20 feet higher. Goodbye Miami, New Orleans, Silicon Valley, Venice, London and Shanghai. *And what about San Francisco Bay, the Ports of Los Angeles and Long Beach and the beaches of Los Angeles, Orange and San Diego Counties?*

There are three kinds of “permanent ice” which are disappearing: sea ice, permafrost and frozen water on land, such as Greenland. Reduced sea ice and rapid Arctic warming may alter upper-level winds so they carry additional heat, moisture and soot from wildfires from southerly latitudes toward the North Pole. This creates unusually strong and persistent tent ridges of high pressure in the atmosphere—the so-called *blocking high patterns*.

During the past two winters, record-breaking heat waves near the North Pole were surpassed by more record-breaking heat waves. It is not clear, but these heat waves may be caused by a combination of waning and thinning sea ice, the jet stream’s wild north-south swings, and extra water vapor at the North Pole.

Dwindling Arctic Sea Ice



Source: NASA (National Aeronautics and Space Administration). 2016. NASA’s Goddard Space Flight Center Scientific Visualization Studio. <http://svs.gsfc.nasa.gov>.

Regardless of the exact mechanisms, it is clear that rapid Arctic change, the most dramatic in human history, is underway. Three changes already seen are: coastal flooding; dramatic bends in the jet stream; and altered human and natural habitats on land and at sea.

According to a 2017 report by the Union of Concerned Scientists, about 170 USA coastal communities (let alone worldwide) will experience chronic inundation within 20 years.

Extreme large bends in the jet stream

are thought by some to cause an uptick in extreme conditions where billions of people live. Think prolonged heat waves, relentless rains and stalled tropical storms—as well as more intense fire seasons and flash floods, like the ones in California.

Plankton blooms have appeared in new areas during new seasons, changing the species of fish in Arctic waters. Earlier hatching of insects mean that Arctic birds may arrive too late for the feast that they need for successful breeding. People of the Arctic are losing their traditional hunting grounds from melting ice and their very towns from coastal erosion.

Polls suggest that most Americans think the loss of Arctic ice and the jet stream are conspiring to create weird weather. Future change is already baked into the system, but the magnitude and pace can be reduced if society moves quickly to slow emissions and if methods can be developed to extract carbon dioxide from the atmosphere in large quantities. Yet, Today (3/30/18) the EPA (Environmental Protection Agency) is poised to abandon America’s pioneering

fuel economy targets for cars and SUV’s, a move that would undermine one of the world’s most aggressive programs to combat climate change.

INACTION IS INEXCUSABLE

(Jennifer A Frances has been a research professor in the Department of Marine and Coastal Sciences at Rutgers University since 1994, specializing in Arctic climate change and its links to weather worldwide.)

The Riverside Superior Court web page where you can get information about the following cases, in which the Friends is currently involved, is <http://public-access.riverside.courts.ca.gov/OpenAccess/CivilMainMenu.asp>. The case number search is free and copies of documents filed with the court can be downloaded for a small fee.

World Logistics Center

Paulek & Friends v. City of Moreno Valley (RIC 1510967).

On February 5, 2013 the City of Moreno Valley and Highland Fairview, the developer of the World Logistics Center (WLC), released the Draft EIR for a 60 day public review. In May of 2015 the City released the Final EIR. The City project approval and certification of the EIR soon followed and a CEQA Notice of Determination was filed on August 26, 2015. In September 2015, community, labor, environmental and governmental entities filed a total of 9 lawsuits challenging the City's failure to comply with CEQA. Subsequently, the City and Highland Fairview settled the three lawsuits filed by the governmental agencies. Earlier the Court consolidated all the lawsuits into a single working file under Paulek & Friends [the first lawsuit filed] and the six remaining Petitioners took the joined lawsuits to trial. On February 8, 2018 the Riverside County Superior Court granted Petitioners petition for a Peremptory Writ of Mandate finding the City's CEQA review deficient with respect to Energy conservation, Biological resources, Noise, Agricultural impacts and Cumulative Impacts. The Court is expected to issue a final judgment soon ordering the City to vacate the project approvals until such time as the City and Highland Fairview complies with CEQA.

Ambrosia Transplantation And Land Swap

Paulek, Friends and CBD v. County of Riverside (RIC 1605515)

This lawsuit, filed in May of 2016, involves the exchange of existing MSHCP Conservation lands to a Lake Elsinore developer [Castle & Cooke Commercial-CA Inc.] In conjunction with the exchange the Board of Supervisors imposed on the MSHCP Region-

al Conservation Authority (RCA) the responsibility for funding the transplantation of a Ambrosia endangered plant population to facilitate the land transfer. In approving the land exchange and the Ambrosia translocation, the County and the RCA have undermined both the integrity and long-term validity of the MSHCP conservation program. The County, in approving the land swap and requisite translocation, did not conduct any CEQA review but instead relied on an addendum to a 1989 EIR prepared by the City of Lake Elsinore. The County claim is the BOS was acting as a CEQA Responsible agency rather than the CEQA Lead agency. After full briefing and on the eve of trial, the County and Castle & Cooke requested and were granted a continuance until July 2018 to "unwind" the project. Friends will be watching for the "unwinding" to appear on the Board of Supervisors public agenda in the months before trial.



Villages Of Lakeview

Paulek, Friends and Keep Nuevo Rural v. County of Riverside (RIC 1800517)

This lawsuit was filed on January 8, 2018. The Center for Biological Diversity also filed a CEQA lawsuit and the two cases have been consolidated. This is an environmentally different version of the 2010 VOL project that the Friends sued on in 2010 and the Court ordered vacated in 2012. (RIC 10007572). Friends and the residents of Nuevo are suing because of the impacts of a new City of Lakeview adjacent to the SJWA, the high density of leapfrog development adjacent to the SJWA and in a primarily agricultural and rural residential zoned area. The fractured and deceptive way in which the project was presented to the public for review requires a new EIR for this new project. We are preparing the administrative record and briefing schedule and hope for a trial by early 2019.

Mosquitos

Continued from page 2

the wearing of a screen facemask, such as worn by bee-keepers, may be advisable.

What about going to the source and eliminating mosquito larvae where they breed? This is common practice for vector control districts, which may employ various chemical and biological control measures to destroy mosquito larvae in and near urban centers. Such measures may not be practical at the SJWA, where the

same water sources that may be breeding sites for mosquitoes also support a variety of wildlife and where the health and welfare of wildlife is of paramount importance. Use of broad-spectrum insecticides (e.g. organophosphates and pyrethroids) could harm the aquatic ecosystems, while introduction of non-native mosquito fish (*Gambusia*) is proscribed by virtue of their aggressive nature in attacking native fish species and capacity to invade other aquatic systems. One possible larval control measure might be use of a mosquito

larva-specific biological control such as *Bacillus sphaericus*, a bacterial pathogen. Commercial formulations of *B. sphaericus* are effective in controlling mosquito populations without affecting other insects, fish, birds, etc. Once the pathogen has been introduced into the aquatic system, it attacks mosquito larvae and reproduces itself so that further applications may not be needed. Due to the sensitive nature of wildlife resources, the use of *B. sphaericus* or other similar pathogens at the SJWA should be carefully monitored.

Flashback To October 2012...

Life Blood of the San Jacinto Wildlife Area

By Tom Paulek

“**W**ater is, without a doubt, the life-blood of the San Jacinto Wildlife Area. Without it, the miles of riparian habitat and the bulk of the wetland areas found on the wildlife area would not exist. Way back in 1987, when the wildlife area was in its early development stages, the Department of Fish and Wildlife (DFW) and Eastern Municipal Water District (EMWD) entered into a 25-year contract to bring up to 4,500 (forty five hundred) acre feet of reclaimed water to the SJWA to facilitate the development of all the valuable wildlife habitats you see on the wildlife area today. Set to expire in 2014, the current DFW contract with EMWD is currently in negotiations. The importance of the future water contract to the public cannot be overstated. The quantity, the timing and the cost of water delivery to the SJWA will determine the future look and value of the wildlife habitats maintained on the wildlife area. It will also determine the capability of the CDFW/EMWD to fulfill their habitat maintenance obligations under the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). Fortunately, the negotiations are in their early stages and we expect both DFW and EMWD will encourage public involvement in the negotiations and the required environmental (CEQA) review of this important project.”

Fast Forward To 2018...

After the original 1987 reclaimed water contract expired in 2014 [see Flashback above] the Department of Fish and Wildlife [CDFW] and Eastern Municipal Water District (EMWD) entered into the first of many one-year contract extensions. The fourth one-year contract extension occurred last year and is set to expire in June 2018. The annual one-year extensions ensued after public protest of EMWD's proposal to reduce the yearly allocation of reclaimed water to



the SJWA from the contracted 4500 AFY (acre feet year) to 2200 AFY and because of CDFW's ill-conceived concurrence with the misadventure.

Back in 1987, the CDFW negotiators sought to benefit the public for which they work, the SJWA and the conservation of wildlife, when they entered into a contract to partially finance the EMWD pipeline to bring reclaimed water to the SJWA. The CDFW contract consideration included \$1.15 million public dollars for pipeline construction and granted

easements to EMWD on SJWA public lands for placement of the pipeline and appurtenant facilities.

In order to fortify the “in perpetuity” direction of the contract, CDFW reserved 20 acre-feet per day capacity rights in the pipeline for the life of the project. Further, CDFW and EMWD agreed that if the original pipeline is no longer capable of delivering the full quantities of reclaimed water (4500 AFY), CDFW and EMWD will seek replacement funds for the pipeline to ensure that reclaimed water remains available to the SJWA.

The fifth one-year contract extension will be up for consideration by CDFW & EMWD in the months ahead. We fully expect EMWD will continue its scheme to reduce the 4500 AFY reclaimed water allocation to SJWA and strip the public of its 20 AF per day capacity water right in the pipeline. We also expect a complicit CDFW will capitulate once again, foregoing its public and wildlife trustee duties. If ever a discretionary project cried out for a CEQA review, this is it! Friends will continue to ask for a full California Environmental Quality Act review of this contract.



April, 2018. Juvenile Bald Eagle scanning reclaimed water wetland on the east side of Davis Road just before the flood channel.

Calendar of Nature Walks at the San Jacinto Wildlife Area

All walks are free and open to everyone. No reservations are needed. Children are welcome. Binoculars and birding books provided. To all walks, wear comfortable shoes, hats and sunscreen and bring water, snacks and binoculars, if you have them.

We hope you can join us and invite your friends and family to learn more about all aspects of nature and how we are connected to and dependent upon the well being of our planet and all its inhabitants for our own well being.

Board Meetings

We do not have regular public meetings at this time, but if you think you might be interested in joining our Board of Directors, please let us know. Call or send Sue Nash an email if you would like to join us and you will be notified of time and date of Board meetings. New email: snashlaw@gmail.com; 909-228-6710.

Nature Walks

Plants and Wildflowers

Saturday, April 14, 9am to 12 noon.

San Jacinto Wildlife Area Office Parking Lot

Sue Nash 909-228-6710; new email snashlaw@gmail.com

David Bramlet and Patrick Temple, botanists and rare plants of the SJWA specialists will introduce you to the main plants of the coastal sage scrub, grasslands, riparian and wetland habitats of the SJWA. We hope to see the San Jacinto Crown-scale, Spreading Navarretia and Threadleaved Brodiaea, all rare plants difficult to find outside of the SJWA. You will learn not only the plants, but also the soil type and moisture regime of each of their unique habitats and their relationships to each other, to their pollinators and to those who feed on them.



Overview Schedule of Spring Walks

Date	Event	Time
April 14	Plants & Wildflowers	8-10am
April 22	Audubon All Day	7am
May 5	Butterflies and Other Bugs	4:30-9pm

Audubon All Day At The SJWA

Sunday, April 22, 2018-7:00 am

San Jacinto Wildlife Area Office Parking Lot

Tony Metcalf (951) 242-7038 and Chet McGaugh (951) 781-3699

Tony Metcalf and Chet McGaugh will lead this all day tour of the San Jacinto Wildlife Area. As both are big fans of the shorebirds, and the date is excellent for a good migration experience, we intend to spend most of the day searching mudflats, marshes, slop ponds, wet fields and sky. It is our hope that we can provide some knowledge about this fascinating bunch of birds, stimulate appreciation and interest in them and mitigate some of the phobias. And have fun. The study of shorebirds is greatly enhanced by the use of spotting scopes, so we hope there will be plenty besides our own.

Butterflies, Dragonflies And Other "Bugs"

Saturday May 5, 2018, 4:30pm to 9pm

San Jacinto Wildlife Area Parking Lot.

Sue Nash 909-228-6710; new email snashlaw@gmail.com

On this evening walk (sunset is 7:30 pm) Gordon Pratt, entomologist and butterfly specialist, will help you identify the butterflies, dragonflies, damselflies, moths, spiders and other fascinating creatures you can see on the SJWA. We will go to the wetlands during the day and at night to capture (with nets, lights & sheets) and observe close up. Gordon will show his drawers of California insects, and then as the sun slowly sets, Gordon will set up a trail of oatmeal. We will search the trail of oatmeal for insects as well as run a mercury vapor light. In addition, we will also walk around looking for things like sun spiders (Solfugids). This walk is excellent for students of all ages who want hands-on experience. Bring hand lens and butterfly net, if you have one.

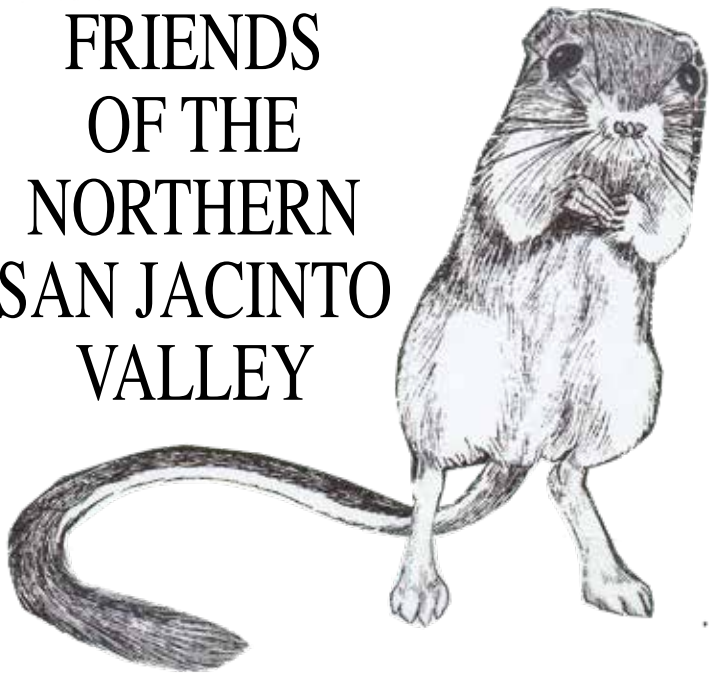
Bird Checklist for Beginning Birders

Rosedith Marx has shortened the exhaustive list of the San Jacinto Wildlife Area for beginning birders which shows 175 of the over 350 birds on the exhaustive list prepared by Doug Morton and others. This is the list we are now distributing on our birding walks. Both list can be downloaded at www.northfriends.org before you come on our walks.

On our website you can also find more about the SJWA and Friends; nature walks, take action, membership, contacts; past newsletters; online donations and signing up for email delivery of newsletters and bulletins.

NEW LOGO FOR FRIENDS?

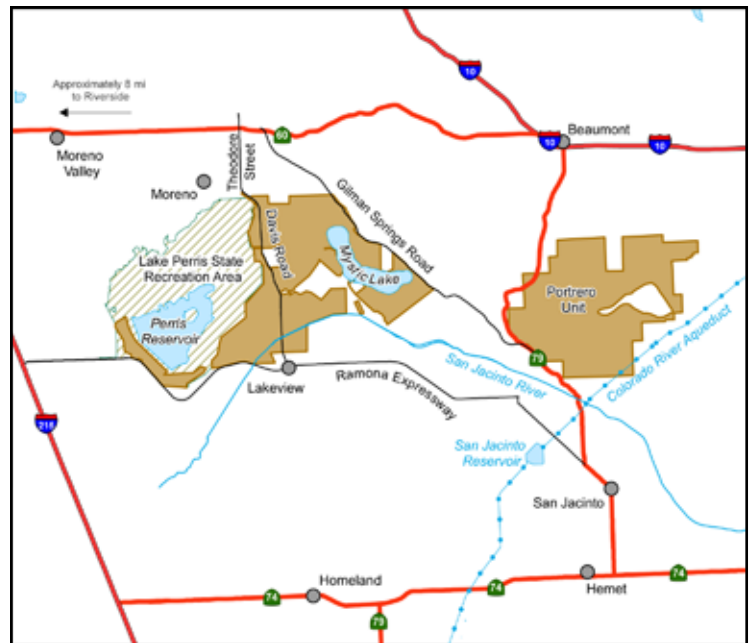
FRIENDS OF THE NORTHERN SAN JACINTO VALLEY



Permission granted by Narca-Moore Craig
www.narcamoorecraig.com

We've been considering the above image and words as a new logo for Friends of the Northern San Jacinto Valley, and we'd like your input.

Please email Sue Nash at snashlaw@gmail.com with your thoughts, or other suggestions for a new logo. Or, if you're an artist, please send in your ideas and art for a logo that embraces the truth and beauty of the San Jacinto Wildlife Area and surrounding valley.



Directions to the SJWA

All walks begin in the San Jacinto Wildlife Area headquarters parking lot, 17050 Davis Road, Nuevo CA. Tel. (951-928-0580) Because Davis (Theodore) Road is closed from Moreno Valley the only access is north off the Ramona Expressway — despite what your GPS may tell you. There is now a traffic light on Davis Rd.

From Moreno Valley: go south on Perris Blvd; east on Ramona Expressway; north 2.3 miles on Davis Rd.

From San Jacinto/Hemet: go west on Ramona Expressway; north 2.3 miles on Davis Rd.

From Interstate 215: go east on Ramona Expressway; 2.3 miles north on Davis Road.

USE EXTREME CAUTION. If raining, call area office for road conditions: (951) 928-0580.

Information About the San Jacinto Wildlife Area

The San Jacinto Wildlife Area is 19,000 acres of wildlife habitat managed by the California Department of Fish and Wildlife. Its lands are partial mitigation for the State Water Project, the project that brings water from northern California to southern California so that we can live and work here.

It is a Stephens' kangaroo rat reserve for the Riverside County Habitat Conservation Agency (RCHCA); it is a cornerstone reserve in the Riverside County Multi-Species Habitat Conservation Agency (MSHCP), the county reserve system which is supposed to protect and preserve the county's endangered ani-

mals and plants.

Tens of thousands of waterfowl and shorebirds winter in the northern San Jacinto Valley. It is a known resting point and/or wintering site for migrating birds traveling the Pacific Flyway. The northern San Jacinto Valley is known for its large number of wintering birds of prey (peregrine falcon, bald eagle, ferruginous hawk, prairie falcon).

The SJWA is considered one of the premier hunting areas in southern California. All state-owned wildlife areas allow hunting. Hunting fees help support the acquisition of wildlife habitat throughout the state of California. The northern San

Jacinto Valley is considered a Significant Natural Area by the California Department of Fish and Wildlife.

The northern San Jacinto Valley and Mystic Lake are considered Important Bird Areas by the National Audubon Society. The San Jacinto Wildlife Area represents an \$80 million investment of the taxpayers' money. The San Jacinto Wildlife Area includes the 10,000 acre Davis Road Unit (includes 2,000 acres of Mystic Lake) plus the 9,000 acre Potrero Creek Conservation Unit. San Jacinto Wildlife Area, 17050 Davis Road, Lakeview; (951) 928-0580; <http://www.dfg.ca.gov/lands/wa/region6/sanjacinto/index.html>

“Return Service Requested”

Membership/Donation Form

I would like to become a member of the Friends of the Northern San Jacinto Valley. I will contribute:

__ \$10 __ \$20 __ \$50 __ \$100 \$_____ Other

Name _____

Address _____

City _____ State _____ ZIP Code _____

Telephone _____ Date _____

YES! I want my next newsletter via email:

Email address: _____

Make checks payable to:

Friends of the Northern San Jacinto Valley

Mail to:

Friends of the Northern San Jacinto Valley

P.O. Box 4266 • Idyllwild, CA 92549

e-mail: northfriends@northfriends.org

The Friends is a 501(c)(3) organization.

___ I would like to volunteer for the Friends

Or donate online!

Just go to

<http://www.northfriends.org>

and click the Donate button.

A yellow button with the word "Donate" in black text.

Make sure we have your email address.

We hope this is the last issue of the newsletter that will be mailed to you. Please help us save money and view pictures in living color.

IMPORTANT!

Email us asking to be included on the email list.

Send the email to:

northfriends@northfriends.org