CLIMATE CHANGE
Audubon Leads the Fight for Our Birds

A composite view of the Salton Sea – a harbinger of our region’s possible future?
Photos by Karen Straus
Back in July, I found myself unexpectedly on a plane headed for Minneapolis to meet up with more than 100 Audubon staff and volunteers from around the country.

We had been summoned by David Yarnold, president of National Audubon, and his science and climate staff, for an intense, two-day workshop. There, we were briefed on the results of Audubon’s seven-year study that used Christmas Bird Count and Breeding Bird Survey data and climate models to predict the effect of climate change on bird populations and species.

If you read the September issue of Audubon magazine, you already know the heartbreaking conclusions of this work. In the coming decades, suitable habitat for many bird species will shrink substantially. For other species, new habitat areas become available due to changing climate conditions and could be available for birds—but only if the birds can adapt quickly enough to find and utilize them and other key phenological events (like the blooming of flowers or migratory arrival of insects) play out in their favor. (The figure on facing page shows a local result from the study, projecting that Black Oystercatchers face significantly diminished wintering habitat in San Diego County in the coming decades.)

In California, climate change threatens the survival of 170 bird species. This includes iconic San Diego birds such as the Brown Pelican, Allen’s Hummingbird, Long-billed Curlew, and Western Snowy Plover. These are birds that many of us know well from our own experiences in San Diego’s beautiful outdoors.

Work to address this threat—both statewide, and here in San Diego—is already underway. San Diego Audubon will work closely with Audubon California in the coming months and years to localize the science already published by National Audubon to inform our conservation activities, implement Audubon’s state climate action plan locally, and support National Audubon’s policy initiatives to move climate legislation forward at the national level.

Audubon California’s five-year climate action plan will begin by assessing the impacts of climate on eight focal bird species—almost all of which are found in San Diego County. See list below:

Western Grebe
Clark’s Grebe
Long-billed Curlew
Black Oystercatcher
Allen’s Hummingbird
Yellow-billed Magpie
Tricolored Blackbird
Western Snowy Plover

Using National Audubon’s climate work, Audubon California will also identify habitat strongholds—that is, habitat areas that are expected to be more resilient to climate change—and focus restoration and protection efforts there. San Diego Audubon will also employ the “habitat stronghold” approach to prioritize our habitat work locally.

On the policy front, National Audubon recently kicked off a five-year grassroots initiative that plans to build out and motivate the Audubon network—from state programs, chapter leaders, members, supporters and their friends and families—to protect our birds.

By doing what Audubon does best—rallying people around threats to birds—using the unique “wingspan” of a local constituency built over 100 years and an additional audience of people who love birds and nature, Audubon can move the needle on climate change solutions in the U.S. through a grassroots movement absent political or partisan debate about the origin or cause. Saving birds people love from extinction by climate change could be a powerful and fast-moving groundswell movement.

At the state level, policy priorities include protecting existing climate change legislation, advancing the passage of additional legislation focused on emissions reduction, and promoting distributed generation and energy efficiency. Locally, San Diego Audubon is also actively participating in shaping the City of San Diego’s Climate Action Plan.

Helping birds cope with and ultimately survive the threats caused by climate change will require the energy and passion of everyone who loves birds to stand up and take action to protect them. San Diego Audubon provides opportunities for San Diegans to join in this effort through our habitat, endangered species, and local policy work. See Conservation article on page 4 to learn more about how you can help.

NOTE: National Audubon has compiled its findings at climate.audubon.org. The site features detailed information on affected species, including species descriptions, maps, video, and more.
The possible fate of four favorite species (from climate.audubon.org)...

**Allen's Hummingbird** By 2080, this hummingbird is expected to lose 90 percent of its current breeding range, according to Audubon's climate models. In order to adapt, this colorful species may have to transition from coastal areas to more inland ones as its climate space shifts—and find the nectar it needs there.

**Brown Pelican** An icon of coastal waters, this species is projected to lose 54 percent of its current winter range by 2080, according to Audubon's climate model. Only 42 percent of its original breeding range will remain. One big uncertainty facing the bird in the coming decades is how climate change will affect its prey fish, even along its required coastal habitats.

**Burrowing Owl** Audubon's climate models predict that by 2080, this diurnal owl species could lose 77 percent of its current breeding range. Climate change will disrupt its winter range as well, leaving only 33 percent intact, shifting the remaining 67 percent elsewhere.

**Hooded Oriole** This colorful species is projected to lose 62 percent of its current summer range by 2080, but has potential to expand, according to Audubon's climate model. Yet, just because an area becomes climatically suitable does not mean it can be successfully colonized. How much of the projected potential gain is realized has yet to be seen.
San Diego Audubon develops vital local strategies to address climate change

San Diego Audubon is involved in conservation work across the county—from vegetation monitoring in Borderfield State Park at the U.S./Mexico border, to protecting native habitats at our Anstine Audubon Nature Preserve and Silverwood Wildlife Sanctuary. However, the majority of our on-the-ground habitat management and conservation planning occurs within Mission Bay Park, vital habitat for many threatened and endangered species. Because of our long-term commitment to this Global Important Bird Area (IBA) and its crucial position along the Pacific Flyway, it makes sense that Mission Bay is one of the first places we think about when discussing climate change and its associated effect of sea level rise.

Before we can think about planning for sea level rise, it is important to understand how these changes will affect Mission Bay. Thanks to funding from the San Diego Foundation, San Diego Coastkeeper has partnered with Dr. Rick Gersberg at San Diego State University to model how projected increases in sea level will affect San Diego’s coastal areas. Their work tells us that we can expect 12-18 inches of sea level rise in Mission Bay by 2050. But what does 12-18 inches really mean? To put that in perspective: these data suggest that today’s 100-year flood height is 2050’s mean high tide.

From a geographic and topographic point of view, it’s clear how important global climate change and sea level rise are in terms of the extent of available habitat in Mission Bay. Our marshes and dunes, key habitat for birds, are already significantly constrained by development on all sides. The Kendall Frost Marsh/Northern Wildlife Preserve has almost no upland or transitional habitat available as refuge during high tide for birds like the endangered Light-footed Ridgeway’s Rail (aka Light-footed Clapper Rail). From a climate point of view, the results from National Audubon’s groundbreaking seven-year study based on nation-wide long-running citizen science efforts, it becomes doubly important to address climate change on a local level (see the feature article by SDAS Executive Director Chris Redfern for a description of the climate work of National Audubon).

San Diego Audubon is working to address climate change on a local level in two main ways. The first is through our Mission Bay Wetlands Initiative (MBWI), which aims to protect and restore salt marsh habitat in the northeast corner of Mission Bay. This effort was recently awarded $460,000 from the California State Coastal Conservancy, with an additional $25,000 from the U.S. Fish and Wildlife Service (see Sketches, October 2014 for a full description of the MBWI, or check out http://missionbaywetlands.org). By restoring upland and transitional habitat at the mouth of Rose Creek, this project will not only provide crucial habitat for the area’s wildlife, but will also help shore-up the coastline in the face of increased storm surges and provide a buffer for the community against rising sea levels.

The second avenue through which San Diego Audubon is addressing climate change locally is through active engagement with the City of San Diego’s development of its Climate Action Plan (CAP). For several years, leadership at the City of San Diego (earlier with Interim Mayor Todd Gloria and continuing under the current Mayor Kevin Faulconer) have been working to finalize an updated CAP, which complements the City of San Diego’s 2008 General Plan through “incremental changes to the urban land use form, providing greater transportation choices, and transforming how we produce and use energy” (Draft CAP, February 2014). San Diego Audubon has provided comments on several versions of the CAP and has participated as a signatory on several additional letters, including a 2013 letter to then-Mayor Bob Filner, which was signed by over a dozen local environmental organizations (including Environmental Health Coalition, Coast Law Group, San Diego Coastkeeper, and more).

There is no doubt that climate change is the biggest threat facing the continued welfare and survival of birds around the world. By engaging with local governments to create meaningful, action-orientated climate plans and working on-the-ground to expand vital coastal habitats, San Diego Audubon is part of a strong and growing grassroots movement to protect birds and other wildlife in the face of global climate change. The time to act is now, and that is precisely what we are doing.

There are many ways to get involved in the work that San Diego Audubon is doing to protect local habitats in the face of climate change: join us at our monthly conservation committee meetings; held on the fourth Tuesday of every month (open to the public) from 6:30-8:30 pm at the San Diego Audubon offices in Bay Ho, at 4010 Morena Blvd., San Diego, attend one of our habitat restoration events in Mission Bay (visit http://sandiegoaudubon.org/events for a calendar of events), and check out http://missionbaywetlands.org for project updates on the Mission Bay Wetlands Initiative.

For more information about any of the above opportunities, or to find out more about the conservation work that San Diego Audubon does, email schwartz@sandiegoaudubon.org. 

Photo by Karen Straus
Silverwood’s Riparian Oak Woodlands are showing the most effects as California’s three-year drought progresses. With only 3.55 inches of rain since last January many oaks have reached their limit of water reserves. Drought stress lowers the trees’ defense mechanisms, making them more susceptible to mortality factors such as decay fungi and wood boring beetles.

Since the summer of 2013 Silverwood has lost seven old growth oak trees along the driveway from the main entrance to the observation area. This year in September we lost five more and many others are showing signs of stress. The first sign of stress is frass, sawdust wood shavings surrounding the hole from beetle borer larvae as they mine under the trees bark. Then the oak’s canopy leaves begin to brown as the tree dies off. Once the underground water table drops below the roots’ capacity to reach water, they are no long able to produce sap as a defense against the borer larvae.

The Coast Live Oak trees have not produced acorns in the fall for three years now. As an annual staple it has impacted the resident Acorn Woodpecker, Scrub Jay, Dusky-footed Woodrat and California Ground Squirrel populations. As more oaks die off these populations will be inevitably reduced, or move on to less impacted oak groves and stands.

Thanks to many generous donations to pay for water delivery to Silverwood we are making efforts to preserving a few select oak trees by manually watering them. By having water trucks delivering the water we are not impacting the underground water table by pumping water from the sanctuary’s well.

Talking with the local water delivery truck drivers, they have been working around the clock making water deliveries to residences in the area whose wells have gone dry. The use of underground water by residences for agriculture, domestic and recreational use also has a big impact on the water table. These wells that are drying up are at depth of 300 feet to over 1000 feet.

Riparian oak woodlands on the sanctuary where the water table is not as affected by the surrounding use of underground water are showing fewer signs of drought stress.

Depending on the source, the predicted El Nino for the winter of 2014 varies. Downgraded from an 85% chance in August to a 65% chance in September, the odds of drier than normal winter are just as high as a wetter than normal winter. For many of Silverwood’s oak trees relief from rain can’t come soon enough.

Silverwood CALENDAR
For November, 2014

Sundays, November 2, 9, 23 and 30 - Open visitation and guided nature walks at 10:00 am and 1:30 pm. (Sanctuary is open from 9:00 am - 4:00 pm)

Wednesday, November 5, 12 and 26 - Open visitation 8:00 am - 12 pm. (Sanctuary is open to members each Wednesday morning.)

Sunday, November 16 - Special Topic guided nature hikes at 10 am and 1:30 pm. Watch for Fall Migrant Birds with Phil Lambert.

Call (619) 443-2998 for further information. Silverwood is located at 13003 Wildcat Canyon Road in Lakeside. Watched carefully on right for entrance sign.

Silverwood Wish List
Silverwood’s request for an “angel” to help support the repairs needed to our Frank Gander Nature Education Center’s solar energy system was fulfilled in September by Lois Day. From all of us here at Silverwood, thank you for your support.

With the fall season upon us, preparations for public visitation and for our education programs are underway. Silverwood can always use volunteers to help out with the trail clearing and many other ongoing projects. We are also becoming shorthanded for Sunday Hosts. Fresh air, sunshine, birds and flowers all come free while greeting visitors and relaxing for a few hours at the sanctuary.

If you would like to help, please call Phillip Lambert at 619-443-2998. Thanks!
2014 Christmas Bird Count

As we are learning through the National Audubon Climate Change initiative, the Christmas Bird Counts, accumulated over the decades, provide an invaluable profile of bird population numbers and movements. Please consider participating this year, even if you see yourself as a beginner. You will be part of what is now known to be critically important field work, carried out by legions of volunteers.

Christmas Bird Count Circle Leaders – 2014

Anza-Borrego Circle – Sunday, December 14, 2014
Compiler: Bob Theriault, roberttheriault@juno.com

San Diego Circle – Saturday, December 20, 2014
Compilers: Steve Ritt, stevenmritt@gmail.com

Chris Smith, stlbirdman64@yahoo.com 858 740 8858

Lake Henshaw Circle – Monday, December 15, 2014
Compiler: Gretchen Cummings, gretchen.bc@sbcglobal.net

Lake Henshaw Circle – and either 760 440 0349 or 619 729 6188.

Salton Sea Circle – Tuesday, December 17, 2014
Compiler: Oscar Johnson, henicorhina@yahoo.com

Oceanside Circle – Saturday, December 27, 2014
Compiler: Andy Mauro, akaMauro@cox.net, 760 753 1266

Escondido Circle – Sunday, December 28, 2014
Compiler: Ken Weaver, gnatcatcher@sbcglobal.net 760 723 2448

Rancho Santa Fe Circle – Saturday, January 3, 2014
Compiler: Robert Patton, rpatton@san.rr.com

Please call the SDAS offices at 858-273-7800 or Peter Thomas at 858-571-5076 if you have questions about what is involved. Thanks for taking part!
NATURALIST GUIDES IN TRANSITION
SDAS is pleased to announce that we have successfully transitioned five of our independently contracted naturalist guides to hourly, on-call employee status: Jill Cooper, Jennifer Douglas, Taylor Good, Judie Lincer and Judy Osman. This transition from independent contractors to hourly on-call employees should prove to be mutually beneficial to both San Diego Audubon and the naturalist guides.

NEW PICKUP TRUCK NOW OFFICIAL
With keys in hand for the brand new pickup, Conservation Program Manager Rebecca Schwartz announced she's ready to "get the tires dirty!" The money for this acquisition came from several sources, including grants and some generous donations (see 6/14 Sketches). This addition to the SDAS fleet (Silverwood has a truck it's been using for over a year) is a major resource for the chapter. Thanks to all those who helped make it possible.

SDAS Education
By Rebekah Angona, Education Program Manager
It was an exciting summer season for the education department at San Diego Audubon Society as we piloted ten summer camp programs with East County YMCA. Every year, YMCA camps provide children with exceptional programs that expose them to nearby nature. This year, we were fortunate to be able to collaborate with the YMCA staff to provide naturalist guided hikes to some of the best regions in East County. Through generous funding provided by SDG&E, more than 275 children learned about local chaparral, riparian, and coastal sage scrub habitats. We visited Mission Trails, San Diego Wildlife Refuge, San Diego River trails, Lake Murray and Santee Lakes. Some highlights on our adventures included climbing trees, discovering fresh snake tracks, catching bugs in bug boxes, and watching ducklings forage for food. Despite the warm conditions, the students were wonderfully enthusiastic as they learned to use their binoculars and field guides to discover the wonders of East County.

Anstine Ambles
By Katie Sweeney
Looking for a fun and family-friendly way to celebrate fall in North County? Come to Autumn at Anstine, the Anstine-Audubon Nature Preserve's popular fall festival and open house. This free event will take place from 2 to 5 pm on Saturday, November 8, and feature:

Two amazing "Animal Ambassadors" from Project Wildlife, including a local bird of prey
Educational tours of our native plant garden
A chance for kids to make their own bird feeders, discover the diversity of pond life and more
A pre-sunset bird walk, for birders of all ages and levels
See facebook.com/AnstineAudubonNaturePreserve

2015 SAN DIEGO BIRD FESTIVAL
Visit www.sandiegoaudubon.org soon to reserve your trips and other events for the fast-approaching Bird Festival. Held March 5-8 at Marina Village in Mission Bay, this hugely popular festival tends to book up quickly. If you do not have a brochure and would like one mailed to you, call 858-273-7800 for info. Don't forget the Belize post-festival trip.
SKETCHES is published monthly, except July and August. For details on submissions and deadlines, contact Chris Tratnyek at cactuswren45@cox.net

SDAS OFFICE 4010 Morena Blvd. Ste. 100, San Diego, CA 92117. Volunteers are available in the office Monday through Friday, 10 am to 3 pm. Call first to ensure that someone is in the office for your visit. Messages can be left at any time on the office answering machine at 858-273-7800 or email sdaudubon@sandiegoaudubon.org.

San Diego Audubon Office: 858-273-7800
National Audubon Society: www.audubon.org
National Audubon Activist Hotline: 800-659-2622
National Audubon Customer Service: 800-274-4201

San Diego Audubon Society is a chapter of the National Audubon Society

For online resources, including our Events Calendar, please see our website: www.sandiegoaudubon.org
Like us on Facebook: facebook.com/sdaudubon
Follow us on Twitter: twitter.com/sdaudubon
Join our Volunteer Meetup Group: http://www.meetup.com/sandiegoaudubon/

NOTE: There will be no Issues & Adventures meetings in November or December. We will meet next in January, 2015.