SEA’s Spring & Summer 2018

By Mary Garrett, President, SEA

What a fun and exciting Spring and Summer we’ve had at SEA! We kicked our nesting shorebird festivities off with the Annual Puffin Party on April 28th and celebrated the day with early puffin sightings at Face Rock Wayside. The rainy cool weather did not deter our guests of honor or a healthy turnout of spectators. Face Rock offered a consistent viewing of puffin activity throughout the summer, even into the month of August. Eight puffins were noted on Face Rock plus one lively burrow on Table Rock. Simpson Reef volunteers also reported a record number of visitors this summer. Many guests were able to witness seal pups being born, active stellar sea lions, elephant seals, California sea lions, bald eagles, and whales.

SEA also hosted the Bandon Elementary School 2nd graders at Coquille Point on May 18. It was fortunate that this event also coincided with the installation of Cosmos, the tufted puffin sculpture created by Angela Haseltine Pozzi, founder of Washed Ashore. The class not only learned about nesting seabirds and tide pools, they were taught about plastics and other debris found in our oceans which have a devastating impact on marine wildlife.

June was a busy month for us. In addition to weekly viewing at the points, our first collaborative beach clean-up with Washed Ashore, SOLVE, Oregon State Parks and CoastWatch took place on June 14th under the direction of team leaders Bruce Williams and Nancy Bailey. Volunteer support was robust and we were able to scour three beaches along our coastline. SEA will make this activity a quarterly event with the next one on September 15.

Throughout the summer, SEA members have been present at the Bandon Farmer’s Market with an information booth. Board member, Arlene Esqueda developed wonderful educational craft bags for children and the ever-popular SEA buttons. SEA strives to be more visible in our community and the Farmers Market is the ideal place for us to be.

Participation with Redfish Rock Marine Reserve and the Port Orford street festival availed us the opportunity to engage with other like-minded organizations who focus on citizen science, ocean conservation and ways to educate the public. Dr. Dawn Goley, Director of Marine Mammals Ashore and California Marine Mammal Stranding at Humboldt State, and Fawn Custer with COAAST offered excellent presentations on Bioblitz, which is a biological survey meant to record animals that have washed ashore within a designated area. SEA hopes to offer seminars this winter focusing more on this type of citizen science effort.

The SEA board would like to offer a big THANK YOU to all of our volunteers for the many hours you have dedicated to help SEA educate the public and support our marine wildlife. Likewise, our membership base allows SEA the financial support needed to provide educational seminars and equipment.

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USFWS Volunteer Luncheon
A good time was had by all on August 2 when the USFWS expressed their sincere appreciation to the many volunteers who assist them each year. Thanks, Dawn!

By Bill Binnewies, SEA Volunteer Coordinator
Our 2018 interpretive season can be summed up by coastal visitors: “thank you so much for being here.” “I come here often and had no idea.” “Wow! You guys need to see this.” “This is the first time I got to see a Tufted Puffin, and there are four of them.” “That elephant seal is HUGE.” Daily, visitors expressed their appreciation for having an opportunity to look through spotting scopes at a variety of coastal wildlife and have their questions answered. Kids would glue themselves to the scopes experiencing the close up antics of murre, oyster catchers, seals and sea lions. Lots of photos were taken with cell phones in what is known as digiscoping.

In all, SEA volunteers donated 589 hours and contacted 8,973+ visitors. Coastal wildlife cooperated as puffins were visible at Face Rock all summer, and elephant seals and grey whales were seen almost daily at Simpson Reef. Harbor seals had pups just below the Simpson Reef Overlook, followed by bald eagles and one plucky raven scrapping over the afterbirth (we have it on video tape). There was something new to see every day.

Our new Vortex scopes gave viewers that extra edge. SEA volunteers also gave campfire programs at Bullard’s Beach and assisted with school field trips. SEA continues to expand its horizons and involvement with coastline interpretation including promoting...
environmental awareness. This summer passed so quickly, but we are already making plans for the coming year.

During these chaotic times in our country and across the planet, it seems that occasions to celebrate the successes of humankind are few and far between. Some of those occasions, I’m excited to say, come from the amazing successes that have emerged from the expanding “citizen science” work in all parts of the globe! It is fantastic that each one of us now have many opportunities to make real contributions to advancement in nearly all fields of science in our spare time! What better way to spend our time than working toward improving our world in a meaningful way?

“Citizen Science” is defined by the Oxford Dictionary as “scientific work undertaken by members of the general public, often in collaboration with or under the direction of professional scientists and scientific institutions”. In other words, in this day of limited resources “ordinary” people are supporting the work of scientists and researchers by being their eyes and ears “on the ground” for data gathering and submission, and contributing their insights in nearly all areas of natural science.

Engaging the public in scientific research is not a new concept. Amateur naturalists played an important role in cataloging local flora and fauna in England as early as the eighteenth century. Fast forward to this century, and the introduction of the internet, smart phones, and social media became the drivers for the explosion in the inclusion of citizens in the scientific process, also referred to as crowd sourcing.

Numerous successes have been realized from the collaboration of scientists and ordinary people like us. One of the widely publicized citizen science success stories comes out of the University of Washington, Seattle. In the early 2000’s, scientists were using supercomputers to study the complex three-dimensional structures of proteins. Understanding protein structures and how their chains of amino acids “fold” is vital to clarifying their role in disease. When the scientists outsourced the protein structures as a puzzle/game, called “Fold-it” (fold.it) to the computers and smart phones of non-scientist citizens, the results were stunning. The input of the Fold-it players was key to the solutions for multiple problems in understanding the protein structures that had eluded professionals for decades. Citizen Fold-it players are credited with many significant achievements and have been included as authors on corresponding scientific papers.

According to a September, 2017 National Institutes of Health paper, “Engaging the public directly in the scientific research process can yield better data and new insights…we get data we wouldn’t have otherwise and we get insights and context that come along with that data”. Because of the demonstrated successes from including the public in all areas of scientific research, the Federal Government established the website citizenscience.gov “to accelerate the use of crowd sourcing and citizen science across the U.S. government”. The website includes a catalog of hundreds of federally supported citizen science projects with titles such as “Garden Watch”, “Smoke Sense”, “What’s Your Water Level”, “Pulsar Search Collaborative”, and “Lost Ladybug Project”. You really MUST check this website out to see what a broad reach the citizen science movement has attained in this country!
Googling “citizen science projects” also gives an idea of how vast and varied the hundreds of opportunities are for each one of us to join scientists and researchers in advancing scientific knowledge about our world. A few examples of large-scale internationally successful citizen science projects are: **eBird** [https://ebird.org/home](https://ebird.org/home): **eBird** was one of the first portals for citizens to submit their birding observations, and has expanded to become a comprehensive resource for birding information globally. Their website states “eBird is the world’s largest biodiversity-related citizen science project, with more than 100 million bird sightings contributed each year by eBirders around the world. A collaborative enterprise with hundreds of partner organizations, thousands of regional experts, and hundreds of thousands of users, eBird is managed by the Cornell Lab of Ornithology. “ People of all levels of birding expertise submit observations of bird species sightings and sounds, obtain assistance for species identification, maintain personal birding checklists, and watch for bird sightings around the globe. eBird has become a massive open-access data source for research of bird distribution, abundance, and habitat use, contributing to “hundreds of conservation decisions and peer-reviewed papers, thousands of student projects, and informing research worldwide”.

**Zooniverse [https://www.zooniverse.org/projects](https://www.zooniverse.org/projects)**: Zooniverse is a major portal for access to numerous citizen science projects in areas from astronomy to wildlife, plant life, climate and even reviewing historic documents. The project “Galaxy Zoo” is one of the Zooniverse projects, which, in 2007 invited citizen astronomers to study images from various telescopes to assist professional astronomers in categorizing galaxies. Galaxy Zoo celebrated it’s 10 year anniversary in 2017, touting that, with the contributions of hundreds of thousands of citizen astronomers, there had been 125 million galaxy classifications resulting in 60 peer reviewed academic papers from at least 15 different projects since inception. Zooniverse has expanded to include over one hundred open [to new citizen participants] projects in many areas of science. Anyone could find a citizen science project in their interest area on the Zooniverse website!

**iNaturalist [https://www.inaturalist.org/](https://www.inaturalist.org/)**: iNaturalist is an on-line community of over 750,000 scientists and naturalists who collaborate with citizens for learning about nature, and identifying patterns and trends in animal and plant species internationally. It is a joint initiative with the California Academy of Science and the National Geographic Society. At this writing the iNaturalist site shows observation contributions from 347,028 observers; 12,846,932 observations; and 176,491 separate species of plant and animal life identified. Citizen observers submit photos of species individually or as part of a group project. Once submitted the photos may be reviewed by the iNaturalist community, and the species identified. The data on iNaturalist is open-access and used by many scientific entities in their research of the natural world. It is important to note that observational data and photos from citizen scientists may be submitted to each of these three websites by a computer, tablet or a smart phone app.

Closer to home, and pertinent to the goals of the SEA organization, are several opportunities for all of us to become involved with local citizen science activities here along the southern Oregon coast. SEA members are actively involved in several organizations’ citizen science activities, some of which are linked on the [SEA-edu.org](https://se-aedu.org) home page. Although there are others, three of the most active are: **COASST** (Coastal Observation and Seabird Survey Team) was established 17 years ago, and is based at the University of Washington. COASST trains coastal residents to conduct observations of wildlife and conditions on the Oregon beaches, to collect “high-quality data of direct relevance to scientific understanding of system processes and function, and natural resource management and decision-making”. Volunteers commit to conducting monthly surveys of a specific part of the local beaches. The data elements COASST is currently collecting include beachcast birds, beach debris, and evidence of human use of the beach environment. COASST volunteers survey 450 beaches from Northern California to Alaska. The COASST website at [https://depts.washington.edu/coasst/](https://depts.washington.edu/coasst/) contains a large amount of open-access data submitted by the citizen volunteers which has contributed to “a myriad of natural history, ecology, conservation and resource management issues from harmful algal blooms to fishery bycatch to climate forcing to historic use of beached bird resources by native peoples”.

**Oregon Shores Conservation Coalition** was established in 1971 to “protect the public’s interest in Oregon’s beaches”. In the 40+ years since, the organization has expanded to include several programs for coastal conservation, land use, and climate action. In 1993, the **CoastWatch** citizen science program was added to the organization. CoastWatch is a stewardship program
where citizen volunteers adopt one mile of shore along the Oregon coast to monitor. At least once per quarter, mile volunteers are expected to traverse their mile of shoreline, making observations and filing a report of wildlife, tideline contents, marine debris, human (and pet) presence, as well as changes in shoreline and bluff conditions. According to the Oregon Shores Conservation Coalition website at https://oregonshores.org/about/mission CoastWatch is the only program in the nation where citizens have adopted the entire shoreline of their state. CoastWatch currently has several additional active citizen science projects such as a beached bird survey (in collaboration with COASST), marine debris monitoring, sea star wasting syndrome survey, marine mammal stranding reporting (in collaboration with Marine Mammal Stranding Network), invasive species monitoring, and King Tide photography. They offer frequent classes for training citizen volunteers in these processes.

In 2018 Oregon Shores Conservation Coalition conducted a citizen-based “BioBlitz” at each of the five Oregon State Marine Reserves. A BioBlitz is described by National Geographic as “an event that focuses on finding and identifying as many species as possible in a specific area over a short period of time. A BioBlitz brings together volunteer scientists, as well as families, students, teachers, and other members of the community.” This writer participated in the BioBlitz at the Red Fish Rocks Reserve in Port Orford in August, and it was hugely educational and a LOT of fun! As citizen scientists, we submitted observations (photos) of 54 different identifiable species of marine life to the iNaturalist website! The link to the Red Rocks Reserve BioBlitz results may be viewed at https://www.inaturalist.org/observations?nelat=42.715958&nelng=-124.45298700000001&on=2018-08-12&place_id=any&swlat=42.686005&swlng=-124.49401410000002&view=species

Cape Arago Audubon is the local chapter of the National Audubon Society. Following the national Audubon model, our chapter conducts several local bird counts each year, including the Christmas Bird Count, backyard and feeder counts on specific days, and counts of certain bird species of interest, such as the Brown Pelican counts in recent months. The data from the counts is compiled, submitted to and may be accessed on the National Audubon website at https://www.audubon.org/. The Audubon counts have been conducted since the early 1900s, and as with eBird, the data is widely used to detect trends in bird populations and migration patterns.

This truly IS the Age of Citizen Science, and there are far too many projects available to all of us than can be covered here. I urge everyone reading this to spend a little time browsing the websites mentioned, and more. Find your niche as a citizen scientist, have fun, and make your contribution to the advancement of science education and conservation of our natural world!

**The Story Behind the Name**

This edition’s SEA Board of Directors introduction is Board Member, Steve Garrett.

Steve is a native Oregonian born and raised in Eugene. He graduated with a degree in pharmacy from the College of Pharmacy at OSU. Steve says, “My job working for the V.A. offered great opportunities to travel over my 31-year career. My VA experience included jobs at Boise ID, Salt Lake City UT, Kansas City MO and Dallas TX. My wife Mary and I moved to Eagle Point OR in 2001 where I completed my career at the White City VA. After Mary retired in 2013, I finally realized my dream of living on the Oregon coast by moving to Bandon.” Growing up, Steve wanted to become a marine biologist or oceanographer but he chose pharmacy because it was a more marketable profession. “Now being retired, I have time to pursue my interests in the ocean and it’s "critters". I became involved with SEA soon after I moved to Bandon because I wanted to learn more about our coastal environment,” Steve remarks. Mary and Steve also completed OSU’s Master Naturalist program specializing in the coastal ecoregion. Besides volunteering for SEA,
they both volunteer at the Charleston Marine Life Center and the Oregon State Parks Whale Watching Spoken Here program. They are signed up to travel with Dr. Bruce Mate in February 2019 for a gray whale expedition in Baja California, San Ignacio Lagoon. Steve says this is a real dream come true for him! When he’s not volunteering Steve enjoys fishing, gardening and beekeeping.

### The Miracle of Life

*by Bill Stenberg, Vice President*

2018 was a fabulous breeding season for coastal wildlife in Bandon once again. Beginning in April and continuing through July, we witnessed with wonder the procreation of many different species. We saw harbor seals give birth and nurse their young. We watched nervously as momma seals deposited pups on the sand at Coquille Point so that they could go out to feed themselves before returning to gather up their pups and take them to a safe spot to nurse.

We watched birds of many kind court for a while and then decide on a spot for their eggs to be laid and for their chicks to be raised. Common murres, cormorants, black oystercatchers, pigeon guillemots, and breathtakingly beautiful tufted puffins spent the summer nesting and nurturing their young right in front of us.

Western and California gulls added copious quantities of chicks to the mix, fuzzballs on the rocks!

With brand new spotting scopes through which to get even crisper views than we had been getting, we enabled all of the visitors to Face Rock to get a close view of the birds in their birthing grounds.

What fun it was every weekend to entice skeptical tourists to use our scopes. Because of the distance from Face Rock’s walkway along the parking lot to the rock itself, it looked to the naked eye like all there is to Face Rock is – well – rock. So, the skeptics who stepped up to our scopes almost always shouted, “WOW!” after they had taken a peek. What looked to them as barren rock exploded with the activity of a few thousand birds. Early in the summer we were told by Eric Mrz, Bandon Marsh Refuge Manager, that there were around 40,000 common murres on the various rocks making up the Bandon Stacks. That’s in addition to the thousands of cormorants, gulls, pigeon guillemots, black oystercatchers, surf scoters, and tufted puffins.

We saw chicks taking first flights. We watched proud parents protect their young from intruders. Sadly, we found some dead chicks on the beaches, a reminder that life is fragile and that not all will survive.

All in all, it was a privilege to witness this annual event of the renewal of life of sea birds and harbor seals that takes place in Bandon every summer. Hope you will join us next summer to share in this miracle of life!

Please join us for your SEA Annual Meeting on October 27, 2018. 1 p.m. at The Barn. Guest Speaker will be Lisa Hildebrand, MS Student, Department of Fisheries and Wildlife, Marine Mammal Institute, Oregon State University, Hatfield Marine Science Center. (and if you’re feeling the Halloween Spirit by all means dress in your favorite costume for the event!)
Thanks to the SEA members who were a part of this awesome public relations opportunity! An especially HUGE thanks to Arlene Esqueda for designing the float, creating it and pulling volunteers together to make it all happen!
(PS She also made the puffin costumes 😊)

Simpson Reef SEA Camp, August 21
Bill Binnewies, Volunteer Coordinator, for the fifth year has provided education to middle schoolers about the marvels of pinnipeds at Simpson Reef. Our VP, Bill Stenberg, was also on hand.

SEA Members learning to identify Marine Mammals

Port Orford Street Fair: A New Opportunity for SEA
Community Connection continued…

Bandon Farmers Market

Many new doors opened this summer affording SEA the chance to reach up and out expanding our message and mission. We could not have had so many successful experiences without the many volunteers and Board Members who repeatedly stepped up to the plate to make events happen. Keep up the fantastic work!!!

The Wildlife is Calling, and I Must Go

By Anna Diehl, Newsletter Editor

Though a play on John Muir’s famed quote, “The mountains are calling and I must go”, the words hold very true for me. This edition of SEAscope is my last as your Newsletter Editor. I want to thank my fellow SEA Board of Directors for allowing me the opportunity to be a part of something so important, so enjoyable. But, it is long past time for me to fulfill a retirement promise made to myself, and that is to be afield doing hands-on volunteering supporting the myriad of efforts to conserve and preserve our wildlife and natural resources. I especially wanted to say thanks to you, the membership, and hope the newsletters were informative and easy to read and understand. More so, I hope the articles prompted you to become more involved in your natural surroundings and with SEA. I encourage you to help SEA further by recruiting more members and active volunteers, and to increase your SEA involvement in any way possible. I certainly will. All the support that can be mustered is crucial if we are to turn the environmental ship around. I would be remiss if I didn’t thank all those who have in the past contributed photos and articles. Thank you for all your energy, creativity and efforts!

See you out there!

Anna
CONTRIBUTE TO THE WORK OF SHORELINE EDUCATION FOR AWARENESS

Your tax-deductible contribution to Shoreline Education for Awareness directly supports SEA’s coastal wildlife interpretation program as it continues its crucial role in the education of local residents and the growing number of visitors to our coast from around the world. You can also contribute by becoming a volunteer. Please use the form below to become a member, make an additional contribution to the program, or to indicate your interest in volunteering.

__ Enclosed is my contribution to help support SEA

__ I would like to volunteer for the wildlife interpretation program

Please call me at: __________________________________________
Or send me an e-mail at: ______________________________________

Suggested Donations (Check One):

__ $20 Individual Membership  __ $25 additional contribution
__ $35 Family Membership (2 or more in same household) __ $50 additional contribution
__ $250 Lifetime Membership  __ $100 additional contribution
__ I would like to volunteer for the wildlife interpretation program.

Name:
Address
City, State, Zip:
E-mail:

Use the PayPal link on our website or make your tax-deductible check payable to:
Shoreline Education for Awareness
P.O. Box 957
Bandon, Oregon 97411