2017 Fidalgo Shoreline Academy

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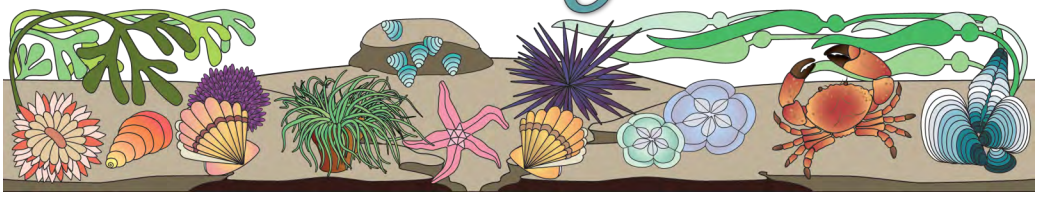
FIDALGO SHORELINE ACADEMY

Friends of Skagit Beaches



Dr. Phoebe Barnard

Keynote Speaker

Executive Director, Pacific Biodiversity Institute

When Rome is Burning

Building Coalitions for a Cascadia Biodiversity Early Warning System

Synopsis

At the worst possible time, too many leaders across the planet are stepping away from their urgent responsibility to lead humanity into a wiser, happier, more sustainable future. Rome is burning! Environmental and civil society organizations can choose either to contribute to its collapse, by trying to act competitively and in isolation, or to build a strong and productive alternative, by acting cooperatively together on focused environmental science/policy programs. The Cascadia bioregion is an empowering place to be, and we have wonderful opportunities to build stronger and more focused bridges between government agencies, academic institutions, nonprofits, civil society organizations, and the public policy and communications communities.

The Pacific Biodiversity Institute (PBI) is building a coalition of organizations across these communities around the concept of biodiversity early warning systems. Although we are used to early warning systems for tsunamis, earthquakes, economic shocks and disease outbreaks, we strangely don't have one for the most irreversible disaster of all – extinction. Across the world, species are responding to climate change and land use change in striking, complex and hard-to-predict ways. Some are showing fragmenting distributions and population declines, while others are moving in unexpected directions, increasing in number, or migrating later than expected. How can we respond proactively in a way that gives as many species as possible a chance to survive the gauntlet of the next 300 years of dizzying environmental change? I argue that collaborative action, supported by broad civil society engagement and well-supported public policy choices, will make the difference not only for hundreds of species, but also for the empowerment, health, and effectiveness of civil society in these pivotal times.

Biography

Phoebe is a US-born and raised, internationally known climate change ecologist, conservation biologist, sustainability strategist, and environmental planner. She assumed responsibility for directing PBI in January 2017. Prior to coming to Anacortes, Phoebe was the Lead Scientist for climate change and biodiversity futures at the South African National Biodiversity Institute (SANBI) in Cape Town, South Africa. She founded, developed and led Namibia's national biodiversity (1994-2003) and climate change programs (1999). She speaks and writes widely on conservation biology, climate change, citizen science, sustainability tipping points in society, the global economy, women's leadership, and African development. She is an affiliate professor at University of Washington, Bothell, and research associate at the African Climate and Development Initiative (ACDI) and the Center of Excellence at the Percy FitzPatrick Institute of African Ornithology, both at University of Cape Town. Phoebe has written three books, numerous book chapters and over 100 scientific and semi-popular papers. She is a loving parent, wife, climber of mountains and erupting volcanoes, and community volunteer.

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Dan Worra

Executive Director, Port of Anacortes

Port of Anacortes

A Success Story for 90 Years

Synopsis

Around 1910 the State of Washington passed legislation authorizing creation of ports to defend municipalities from domination by then all-powerful railroads and development that profited at local expense. The Port of Anacortes was created by a vote of the people in 1926 and has been a vital part of our local identity, industry, and economy for 90 years.

Dan Worra, Executive Director, will share stories of the port's founding, growth, and mission – past, present, and looking forward to concluding their first century of operations. Despite the modest size of Anacortes, we have the 8th largest port out of a field of 75 public ports in Washington State. In recent years, the Port has made major investments to enhance the waterfront, completing environmental cleanups at a number of sites, restoring shoreline habitat, and building world-class, environmentally friendly facilities that draw locals and tourists to the waterfront, while fostering the development of a major shipbuilding industry here.

Biography

Dan Worra is a native of Rantoul, Illinois. He graduated from the University of Illinois in 1989, with a Bachelor of Arts degree in Economics before joining the U. S. Navy. During his 24 years in the Navy, he deployed five times and has accumulated over 2,100 EA-6B Prowler flight hours including 55 combat missions, and 640 carrier landings on 11 different aircraft carriers. Dan has worked on two Admiral's staffs, including a tour at the Pentagon. He earned a Master of Science degree in Financial Management and was named a Conrad Scholar for academic excellence at the Naval Postgraduate School. He also served one year in Afghanistan as the Senior Advisor to the Minister of the Interior, Government of the Islamic Republic of Afghanistan.

After retiring from the Navy, Dan joined the Port of Anacortes as the Executive Director in April of 2015. The Port is a municipal corporation with four operating areas: Cap Sante Marina, the Anacortes Airport, the Marine Terminal, and properties.

An active volunteer in the community, Dan remains engaged in civic affairs. He is on the Board of Directors for both the Economic Development Association of Skagit County (EDASC), and the Anacortes Chamber of Commerce. He also serves as Chairman on his church's Stewardship Committee. He is married to the former Carrie Grant of San Mateo, California. They reside in Anacortes and have two children, William and Carmen.

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Evan A. Sugden, PhD
Entomo-Logic &
School of Environmental and Forest Sciences
College of the Environment
University of Washington

Native Bees of Puget Sound
A Time for Conservation

Synopsis

Native bees are of vital importance not only to the reproduction of wild plants but to many of our farm food plants as well. Their services often complement those of domestic honey bees and in some crops, production depends on them entirely. A picture is beginning to form of our native bee diversity and results of several bee surveys show that it may be more interesting than once surmised. Despite this, some species are endangered, perhaps critically, and the need for conservation is as great as ever. Both organizations and individuals can make a difference for healthy bee populations.

Biography

Evan is a biologist by both Nature and Nuture. Influenced as a child by his uncle, a University biologist, and indirectly by his biologist/physician grandfather and naturalist great-grandfather and always encouraged in life-questioning pursuits and enjoyments by his mother and father. With this momentum and unbridled curiosity, Evan followed a fairly straight path into college biology, then graduate school, specializing professionally in entomology and bees. He completed a Ph.D. in Bee Biology and Biocontrol at U.C. Davis and then began a wide-ranging career, always with bees at the center. He has been a traditional beekeeper and solitary bee scientist and producer most of his life. In his private business, he raises and studies native bees and lectures about them. Evan has been an instructor in the University of Washington system for 20 years, teaching entomology, ecology, and beekeeping.

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Jenny Atkinson

Executive Director, The Whale Museum
Friday Harbor, WA

Baleen Whales of the Salish Sea

The "Other" Whales

Synopsis

Although the Orca are the undisputed "stars" of the Salish Sea, Jenny's talk will focus on the lesser known baleen (filter feeders) whales that frequent the Salish Sea. Included in this class of whales are the Humpback, Grey, and Minke. Unlike the iconic resident Orca, these whales are transients, visiting our waters only occasionally as part of their migration patterns. Jenny will describe what we know about these whales, what we don't know, and what changes we have observed in the past several years. For example, Humpback Whale sightings off Victoria have increased significantly over the past several years, especially in later summer and the fall. A remarkable comeback story for a species that was declared endangered in the late 1960's.

Biography

Jenny L. Atkinson has served as the Executive Director of The Whale Museum since January 2007. She has been a non-profit manager for over 30 years, holding a Master of Arts in Liberal Studies degree from Vanderbilt University, a Bachelor of Arts degree from the University of Central Florida, and certificates from the Institute of Organization Management in DC and the European Folk High School in Denmark. Her passions include nature photography, cooking & baking, all things Danish (she is nearly fluent in that language), birding/observing wildlife, and exploring/hiking.

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Robert Pacunski

Research Scientist
ROV Operations Manager
Marine Fish Science Group
Wash. Dept. of Fish and Wildlife

Rockfish of Puget Sound

Use, abuse, and hope for the future

Synopsis

Bob's talk will explore the general biology and life history of rockfish – why they are important, what makes them unique and why we should care about them. He will tell us about the exploitation of rockfish and what has and is being done to stabilize and restore their populations. He will also take us on some of his dives describing the special techniques used to survey the health of these fishes, techniques which he pioneered!

Biography

Inspired by Jacques Cousteau, Mr. Pacunski became interested in all things marine and started diving in the Seattle area at age 14. He earned a B.S. degree in Biology from Seattle Pacific University in 1984. After college, he worked for the Washington Department of Fisheries (WDFW) and NOAA before attending graduate school at the University of Washington earning a M.Sc degree in Fisheries Science in 1990. After a short stint with NOAA studying the food habits of groundfish in the Bering Sea, he returned to WDFW as a marine biologist in the Marine Fish Science Unit where he conducted scuba and drop-camera surveys of rockfish and other rocky habitat fishes. He was responsible for designing, building, and maintaining the underwater camera systems, and spearheaded the WDFWs transition to remotely-operated vehicles (ROVs) as the primary rockfish survey tool, becoming the agency's first ROV pilot and Operations Manager, leading a small team of motivated biologists and technicians tasked with conducting groundfish surveys in Puget Sound.

In his nearly 26 years with WDFW, he has spent over 20,000 hours working on and piloting research vessels, logged over 2,300 scuba dives, and has over 500 hours of experience piloting small ROVs. He continues to be an active diver and loves spending time in the water where he can interact directly with the resource. He is a recognized expert on the use of ROVs for conducting fish and habitat surveys, and regularly consults with ROV users across the country to troubleshoot systems and develop new survey techniques and equipment. In conjunction with his ROV surveys, his group collects information on seafloor habitats which he uses to model how rockfish utilize their habitats and predict where to find them. The information gathered is critical for managing depleted rockfish populations. Bob works with scientists from the US and Canada, academic institutions, non-profit groups, private organizations, and local fishing groups to better understand the distribution and abundance of rockfish in Puget Sound. He has served on a number of local and regional committees and is currently a member of the federal Rockfish Recovery Team that developed the recovery plan for ESA-listed rockfish in Puget Sound. Bob has presented his work at numerous local, national, and international conferences and workshops, and continues to work to develop new methods for improving rockfish science and management.

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Sarah Schmidt

Bats Northwest
Sound Water Stewards (Whidbey Island)
Whidbey Audubon Society

Bats
Essential allies, safe neighbors

Synopsis

Washington's 15 bat species hunt moths, beetles, mosquitoes and other insects in our night skies. Bats are vital players in their native habitats worldwide, fulfilling critical roles in plant pollination, seed dispersal and insect control. Using photos and videos, bat researcher Sarah Schmidt will share adaptations and contributions of bats and discuss how to support conservation of bats of the Salish Sea watershed. For more information on Sarah and bats, see Dan Pedersen's excellent article from December 2011, "Living with bats on Whidbey Island" .

Biography

In the 1990s, Sarah earned an M.Sc. in Wildlife Ecology from the University of Arizona. During eight years of research on bats in the mines, mountains and deserts of southern Arizona, she handled over 3,000 bats of 19 different species. An 18-year resident of Whidbey Island, Sarah is a Sound Water Steward and an educator with the Whidbey Audubon Society. These days she primarily studies birds, participating in citizen science surveys of shorebirds, seabirds and other species.

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Andy Stewart

Owner, Emerald Marine
Anacortes, WA

Anacortes Wooden Boat Builders

Traditional Skills in Modern Times

Synopsis

After a brief overview covering the history of wooden boat building in Anacortes, Andy Stewart, owner of Emerald Marine, will describe each of the fundamental skill sets and associated tools to construct and repair wooden boats. You will learn about techniques such as carvel planking, steam bending, sister framing, lap strake planking, stitch and glue, copper rivets and roves, and several more skills unique to the wooden boat building trades. Andy will be able to actually demonstrate some of these techniques.

Biography

Growing up, Andy's dad was in the Foreign Service so the family lived overseas and moved frequently. As a youth, Andy enjoyed woodworking and a limited amount of boating with family and friends but he does remember visiting his great-great uncle's boat shop in Ilwaco WA. In his teen years, Andy landed at Bellevue (WA) high school before attending the University of WA and graduating from Evergreen State College in Olympia WA.

During Andy's 18 years in Olympia, he and his wife owned a 36' sailboat and spent a lot of time sailing between south Puget Sound and Canada. He also worked for the Rights of Man Boat Shop in Shelton, WA building large wooden craft under the mentorship of Carl Brownstein. Andy has been building and repairing boats professionally since 1984.

In the late 1990's Andy and his family moved to Anacortes, WA to get to some "bigger water". And in 1999 Andy started Emerald Marine Carpentry to focus on his passion for wooden boats. Andy currently has a crew of 6 journeyman and 3 apprentices that specialize in restorations.

Andy is active in the community serving as President of the Friends of the Anacortes Community Forestlands and Anacortes Small Boat Center.

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Betty Carteret

Past President, Friends of Skagit Beaches

Changing Shorelines

How Early Settlers and Industry Reshaped the Anacortes Waterfront

Synopsis

In the mid-1800s settlers began arriving in Skagit County from the eastern United States and beyond. They quickly got to work diking and draining to create farmland and cutting trees for homesteads and to build new communities like Anacortes. More significant shoreline changes happened with the arrival of the first railroad in 1890. In those days, the importance of natural coastal processes, beach sediments, riparian zones, and nearshore habitat for fish and other marine wildlife was not well understood. Today, we better understand the importance of natural shoreline habitats and the connection between our bays and the upland watersheds. We'll explore the history of changes that have impacted the shores of Fidalgo Bay, as well as what's happening today to re-establish natural processes and habitats that are vital to sustaining local fish, shellfish, birds and mammals that depend on them.

Biography

Betty is a retired mechanical engineer that moved to Anacortes in 2004 after working on environmental cleanups at the Hanford Site in eastern Washington for over 20 years. Since arriving here, she has been actively involved as a volunteer with several groups including Skagit Beach Watchers, Coastal Volunteer Partnership at Padilla Bay, and Transition Fidalgo and Friends. Betty was a founding member and served as President of Friends of Skagit Beaches for 9 years and still continues as board member. Under Betty's direction, Friends received a 4-year grant from the WA Dept. of Ecology for the Trail Tales Shoreline Interpretive Program between 2011 – 2015 that offered interpretive walks and installed 33 interpretive signs along the Tommy Thompson Trail from March Point to Guemes Channel. Betty worked closely with the Anacortes Museum on this program and has developed interpretive programs on a number of topics about the history of the Anacortes waterfront and the natural environment of local marine bays and beaches.

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Teri L. King
Marine Water Quality Specialist
Washington Sea Grant
University of Washington

Harmful Algae Blooms
When Algae Go Bad

Synopsis

In the Salish Sea there are several genera of algae that can cause harm when populations reach high enough numbers. During harmful algal blooms (HABs), the algal species and their toxins can accumulate in shellfish and can also be transferred up the food chain to humans. High concentrations of some algal species can cause fish mortalities. Alexandrium, Dinophysis, Heterosigma, Psuedo-nitschia, Azadinium and other emerging marine phytoplankton species and their associated biotoxins will be featured in the discussion of SoundToxins.

Biography

Teri is a Marine Water Quality Specialist with Washington Sea Grant. For the past 19 years she has been working with communities in the Pacific Northwest on pollution abatement, seafood safety and shellfish culture. She manages a multitude of citizen monitoring efforts and outreach networks within Hood Canal and Puget Sound including SoundToxins. Recognized for her leadership in the Hood Canal region, she served on the Ecosystem Coordination Board by the Puget Sound Partnership for ten years. Her most recent program, 'Bivalves for Clean Water' provides a unique opportunity for tideland owners to better understand their role as ecosystem managers.

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Emily Grason, PhD
Crab Team - Project Coordinator
Washington Sea Grant
University of Washington

European Green Crab
How Our Invasion Is Different

Synopsis

In 2016, the first invasive European green crabs captured in Washington's Salish Sea were found in Padilla Bay and on San Juan Island. This year, a much larger population was found at Dungeness Spit near Sequim. Yet this globally invasive species has been found in Washington's coastal estuaries (Willapa Bay and Grays Harbor) for three decades, and without large fanfare. So, why is their expansion into inland waters different? What are the forces driving the movement of these crabs, and what sort of future could this augur for our shorelines? Is it too late to do anything about them? Washington Sea Grant's Crab Team coordinates the early detection monitoring network for this globally damaging invasive species, and will provide an update on the status of green crab in Washington's inland waters as well as regional efforts to address the invasion.

Biography

A native of Maryland, Emily has been interested in biological invasions and European green crab since her days as an undergraduate at Bowdoin College in Maine where she received her Bachelor of Arts degree in 2004. She received her Master of Science degree from Western Washington University in 2010 and her Doctor of Philosophy degree from the University of Washington in 2016. Both her Master's and Ph.D. research involved invasion biology, studying how invasive marine snails withstand unfamiliar predators. At present, Emily is the Project Coordinator for Crab Team, Washington Sea Grant's early detection program for European green crab. The program gives her the opportunity to share these interests with the community of passionate shoreline stewards in Puget Sound, and hang out on some of the most beautiful shorelines in the world.

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Todd Woodard

Director, Department of Natural Resources (DNR)
Samish Indian Nation

Samish Dept of Natural Resources

Planning 7 Generations into the Future

Synopsis

Todd will provide an overview of the work performed by the Samish Natural Resources Department, its projects, and how Traditional Ecological Knowledge and Samish Culture influence that work. Through specific project examples and accomplishments, this presentation seeks to provide a broader understanding of how one Tribal Natural Resources Department works in partnership with Federal, State, and local agencies, industry, private citizens and NGOs to ensure culturally relevant natural resources are available for all in the future. Ample time for discussion will be reserved for the latter part of the session.

Biography

Todd holds an Associate of Arts degree in Environmental Conservation Technology from Skagit Valley Collage and a Bachelor of Arts degree in Anthropology with a minor in Biology from Rutgers University. Todd has over 16 years of experience in field sample collection, environmental monitoring and data analysis, management and grant administration mostly with Tribes in Western Washington. In addition, Todd has been involved in numerous stream and beach restoration projects involving riparian planting and large woody debris placement as well as grants management and reporting activities. Todd has been with Samish DNR for nearly 10 years serving as a Field Technician, Field Supervisor and now Director within the Department. In his spare time, Todd is an avid sea kayaker exploring the waters of Samish Traditional Territory and beyond.

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