



P.O. Box 492, Hoquiam, WA 98550
www.coastalraptors.com
Conservation Through Research and Education

COASTAL RAPTORS TIDEINGS

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Coastal Raptors is dedicated to providing research and education programs leading to better understanding and conservation of raptors in coastal environments. Active since 1995 and with non-profit 501(c)(3) status beginning in 2009, the **goals** are to:

- Conduct scientific research
- Provide education programs
- Train wildlife biologists
- Collaborate with experts in wildlife research and management

Contact Dan at 360-591-5959 or
danvarland@coastalraptors.org
or
Coastal Raptors
PO Box 492

Dear Friends of Coastal Raptors,

Welcome to the seventh installment of TIDEings, the annual newsletter of the non-profit research and education organization **Coastal Raptors**. This is our chance to share with you many of the year's highlights.



I want to take this opportunity to thank those of you who have provided volunteer and/or financial support to Coastal Raptors. Our work would not be possible without your help.

Dan Varland
Executive Director
Coastal Raptors
Hoquiam, Washington



Visit us at our website, coastalraptors.com or on Facebook.

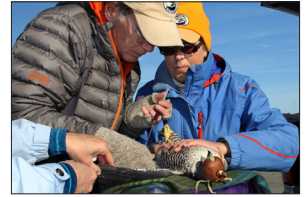
DNA SAMPLES TO BURKE MUSEUM



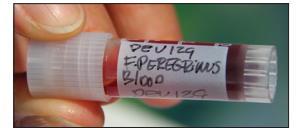
A Peregrine Falcon banded by Coastal Raptors graced the cover of the Burke Museum's annual research newsletter. The newsletter included a story on the blood samples Coastal Raptors has provided to the Burke's Genetic Resources Collection (photo by Rob Palmer).

In February, **Coastal Raptors** shipped 150 blood samples collected from Peregrine Falcons, Bald Eagles, Turkey Vultures, and Common Ravens to the Burke Museum's Genetic Resources Collection at the University of Washington. The shipment followed many hours of sample preparation to Burke specifications by Coastal Raptors volunteer, Nathalie Denis. The samples were collected from birds captured for banding and tissue sampling between 2004 and 2015 on the Washington and Oregon coasts.

The Genetic Resources Collection is essentially a "library" of biodiversity, containing more than 75,000 specimens from birds and mammals from around the world. Stored at -80 degrees Celsius for long-term preservation, the collection is made available to scientists throughout the world for use in molecular research. The Coastal Raptors specimen transfer marks the beginning of collaboration between Coastal Raptors and the Burke that is expected to continue for years to come. At this writing, Coastal Raptors has collected an additional 11 samples in 2016 that will soon be transferred to the Burke.



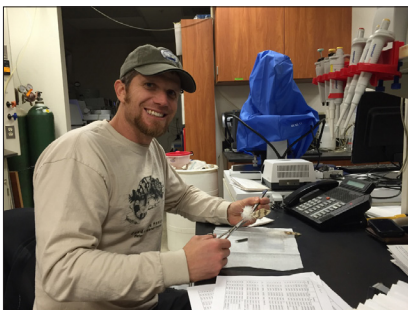
Dan Varland draws a blood sample from a Peregrine Falcon with assistance from Sandra Miller.



FEATHER SAMPLES TO LAS VEGAS

In January, Dan Varland flew to Las Vegas with envelopes containing Peregrine Falcon feathers from more than 150 individual birds. These feathers were collected from peregrines captured and banded between 2004 and 2015 on the Washington coast. In Las Vegas, Dan worked with Joe Barnes, a Nevada wildlife biologist with expertise in mercury contamination in raptor feathers. While mercury occurs naturally in the environment, today's levels are substantially higher than they were before the Industrial Revolution, with the difference largely due fossil fuel combustion. As top-level predators, mercury bioaccumulates in Peregrine Falcons and is deposited in their feathers during feather growth. Young Peregrine Falcons attain a full set of body contour and flight feathers before they leave the nest. Each year thereafter, a new set of feathers replaces the old. The feather samples we have collected provide a unique opportunity to examine mercury exposure over time. Each year, we take feather samples from 15 or so Peregrine Falcons, with 8 to 12 of these captured for the first time and 3 to 6 recaptured for additional sampling. We have multiple feather samples from 23 peregrines, averaging three samples per re-captured bird. The female Peregrine Falcon with visual identification band C/4 holds the record for most feather samples collected from one individual, at 6, initial capture in 2004, and re-captures in 2005, 2007, 2009, 2010 and 2015.

Joe has access to the lab run by Dr. Shawn Gerstenberger at the University of Nevada, Las Vegas. Dr. Gerstenberger generously allows use of this lab for mercury testing at no cost to **Coastal Raptors**. In October, Joe presented findings from the analysis at the annual conference of the Raptor Research Foundation in Cape May, New Jersey. A research paper presenting the results of this important effort is in the works.



Joe Barnes at work on feather sample analysis in the lab.



Joe and Dan with a peregrine captured for feather sampling on the Washington coast.

PHOTO EXHIBIT SHOWCASES THE COAST

From December to mid-May, Hoquiam's Polson Museum hosted a photo exhibit by **Coastal Raptors**. The exhibit featured photos by Tom Rowley exclusively. Tom has participated in Coastal Raptors field work since the start in 1995, always with camera in hand and an eye for capturing the moment. Coastal Raptors and Tom exhibited 31 framed images with informational captions and more than 500 digital images on flat-screen display. A few of Tom's photos from the exhibit are shared below. This fall, a portion of the exhibit was transferred to the Long Beach Peninsula where it was first on display at the Ocean Park Timberland Library (September-October) and is currently at the Ilawco Timberland Library (November-February 2017).



An immature Bald Eagle lands on a sturgeon carcass while two others watch.



A two-year-old eagle feeds as a one-year-old looks on. On average it takes five years for a Bald Eagle to attain its white head and tail, yellow beak and yellow eyes. The most obvious difference between these two is beak color.



Snow Bunting.



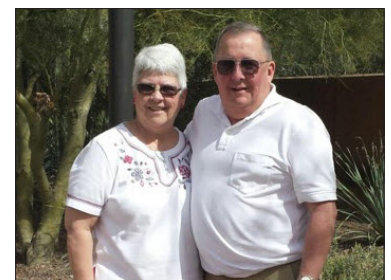
Long-billed Curlew.



Harbor Seal pup.



Tom Rowley and Jenny Fisher.



Ken and Penny Niles.

Tom Rowley's photo of a Bald Eagle in flight inspired Hoquiam artist Jenny Fisher to re-create the scene in a painting. Jenny generously donated the original as a raffle item for Coastal Raptors fundraising. A drawing was held April 16 at the Polson Museum and the lucky winners were Ken and Penny Niles from Oakville, Washington .

VOLUNTEER SPOTLIGHT

Mark Schult has been at the helm of the coastal raptors website – its design and implementation – since the website began in 2006. By day, Mark works for Washington State Parks, where he is tasked with design and implementation of their website. **Coastal Raptors** is extremely fortunate to have Mark's expertise, which he has been providing, behind the scenes, for 10 years! Mark has volunteered countless hours, using his computer programming skills to post text, videos and nearly 2,000 images.

This year, at Mark's recommendation and under his guidance, we've changed website providers, moving from Brinkster to GoDaddy. In addition to a more colorful name, GoDaddy offers more flexibility with the content we provide. GoDaddy also makes it easier for non-programmers like Dan to update and maintain the site.

Mark undertook the huge task of designing the site and transferring 10 years of information, piece by piece, from Brinkster to GoDaddy. The move has gone smoothly and the new site looks great, whether viewed from a PC, tablet, or smart phone. Our new website address is www.coastalraptors.com. Anyone using the old address, www.coastalraptors.org, will be directed to the new site automatically.



Mark and Kim Schult

Mark and his wife Kim are wonderful artists. From time to time, their art has been inspired by our work.



Bald Eagle dries its wings after a heavy rain. Tom Rowley photographer. Mark Schult artist.



Snowy Owl. Dan Varland photographer. Mark Schult artist.



Common Raven preens its mate, a social behavior known as allopreening. Dan Varland photographer. Kim Schult artist.

LEARNING TECHNIQUES FOR RAPTOR TRAPPING, HANDLING, MARKING & BLOOD SAMPLING

KRISTIN JONES

In 2012 Kristin received her bachelor's degree in Natural Resource Science: Wildlife Ecology from Washington State University, and in 2015 her master's degree in Forest Ecosystems & Society: Wildlife Ecology from Oregon State University. Last summer and fall Kristin joined **Coastal Raptors** as a field research assistant—capturing, banding, and taking tissue samples from Peregrine Falcons and Common Ravens to test for contaminants and disease. At November's end, Kristin moved from her hometown of Seattle, WA to Washington, D.C. after her job search was rewarded with a one-year research training position in water quality at the Office of Water, U.S. Environmental Protection Agency Headquarters.



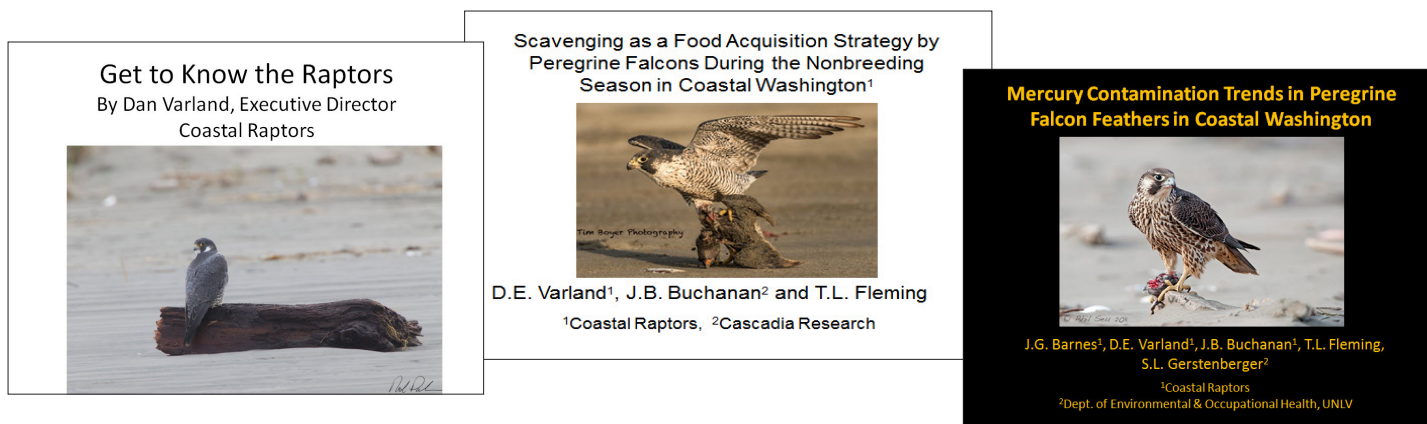
ASHLEY SACCO

Ashley received her bachelor's degree in Environmental Science and Resource Management: Wildlife Conservation from the University of Washington in 2015. Her program required that she write a senior thesis, which she completed with the help of **Coastal Raptors**. Her thesis, titled Contaminants in Avian Scavengers, incorporated data on contaminant levels in blood samples taken by Coastal Raptors from Bald Eagles, Turkey Vultures and Common Ravens. As she seeks full-time employment in the wildlife field, Ashley plans to continue to gain valuable hands-on experience assisting Coastal Raptors with field work.



Date	Topic ^a	Organization, Location
January 30	Get to Know the Raptors	Polson Museum, Hoquiam, WA
February 17	The Turkey Vulture: Love at Second Sight!	Coastal Interpretive Center, Ocean Shores, WA
April 16	Monitoring the Health of Avian Scavengers on the Pacific Coast	Polson Museum
May 8	The Turkey Vulture: Love at Second Sight!	Grays Harbor Shorebird Festival, Hoquiam, WA
September 14	Scavenging as a Food Acquisition Strategy by Peregrine Falcons	Aberdeen Rotary Club, Aberdeen, WA
September 20	Scavenging as a Food Acquisition Strategy by Peregrine Falcons	Hoquiam Lions Club, Hoquiam, WA
September 23	Get to Know the Raptors	Town and Center Village, Happy Valley, OR
September 24	Get to Know the Raptors	Ocean Park Timberland Library, Ocean Park, WA
October 10	Scavenging as a Food Acquisition Strategy by Peregrine Falcons	University of Washington, Seattle, WA
October 19	Scavenging as a Food Acquisition Strategy by Peregrine Falcons During the Nonbreeding Season in Coastal Washington	Raptor Research Foundation Annual Conference, Cape May, NJ
October 19	Mercury Contamination Trends in Peregrine Falcon Feathers in Coastal Washington	Raptor Research Foundation Annual Conference, Cape May, NJ

^aAll presentations by Dan Varland except the October 19 presentation on mercury in Peregrine Falcon feathers, which was by Joe Barnes.



Title slides from 3 PowerPoint presentations in 2016.



With the audience at the Ocean Park Timberland Library in the background, Dan Varland takes a selfie!



Ocean Park Timberland Library.

BALD EAGLE RETURNED TO WILD



On October 5, a **Coastal Raptors** survey at Ocean Shores included Dr. Rocio Crespo and four veterinary students from Washington State University. The group was met afterward by Jen Mannas and others from PAWS in Lynwood, Washington for the release of a rehabilitated Bald Eagle. Last May Quinault Indian tribal members fished the eagle out of the Quinault River. It's injuries included many broken flight feathers and tissue damage to its left wing. Coastal Raptors banded, weighed and measured the bird. Before release, the veterinary students took a blood sample which Coastal Raptors sent in later to test for highly pathogenic avian influenza. Test results were negative.



Please Help Provide Financial Support to Coastal Raptors



Support from individual donors like you is important to **Coastal Raptors**. Please help us move forward by making a tax-deductible contribution toward our operating expenses.

It takes quite a lot to run **Coastal Raptors**. Listed below are some of our annual operating expenses.

Vehicle: \$3,000 - \$3,500

Postage and sample shipments: \$500

Database analyses and maintenance: \$2,000

Statistical consulting: \$1,000 - \$2,000

Office Supplies: \$1,000

Field Supplies: \$1,000

PLEASE CONSIDER A DONATION FOR 2017 OR 2016 IF YOU HAVE NOT ALREADY (SEE PAGE 8 FOR A LIST OF 2016 DONORS). YOUR CONTRIBUTION IS TAX DEDUCTIBLE. YOU MAY DONATE BY CHECK (PAYABLE TO **COASTAL RAPTORS**; SEND TO PO Box 492, HOQUIAM, WA 98550) OR ONLINE AT WWW.COASTALRAPTORS.COM. THANKS!

MANY THANKS TO COASTAL RAPTORS SUPPORTERS

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Donations Were Made in Memory of: Amanda Bahler, Ava Hanke, Mary Torfin, Bob McCausland, and Mark Wilhyde.

COASTAL RAPTORS

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*Peregrine Falcon at Ocean Shores, WA.
Photo by Bill Byers.*