

TIDEINGS

ANNUAL NEWSLETTER OF COASTAL RAPTORS



Peregrine Falcon with visual identification band B/3 grapples with an un-banded peregrine above the beach at Ocean Shores, Washington. On December 29, 2014 B/3 was found dead at Ocean Shores from highly pathogenic avian influenza. Photo by Nick Dunlop on March 3, 2013.



Dave Murnen with peregrine.

Dear Friends of Coastal Raptors,

Welcome to another installment of *TIDEings*, the annual newsletter for Coastal Raptors. The year 2020 marks the 25th year of our raptor survey and monitoring effort and is the 11th year since the establishment of the non-profit organization Coastal Raptors.

The year 2020 also marks the start of the pandemic, which has affected us all in so many ways. As you might suspect, COVID-19 made a significant impact on our efforts to do surveys. We stopped surveying altogether in March when authorities closed the beaches to vehicle access. Coastal Raptors' only activity during the closure period occurred to follow up on a report of a dead Bald Eagle on the beach at Ocean Shores (page 6).

While the beaches re-opened in mid-May, we felt that having 3-4 people in a vehicle for surveys was not a good idea, given the need for social distancing. By fall we concluded that it was possible to put several people in a vehicle with windows down and masks on. With that approach we did complete a few surveys, banding one Peregrine Falcon in October and bringing the total to three banded for the year (facing page).

Fewer surveys have provided the opportunity for more office time. I'm very proud to share that 2020 marks publication of a landmark research paper covering survival rates of Peregrine Falcons on the Washington coast (pages 4-5).

Coincidentally, 2020 marks the 100th anniversary of the US Geological Survey Bird Banding Lab (BBL). This federal agency oversees bird marking activities in the US. As part of their centennial celebrations, the BBL is hosting stories on banding projects on their website. I'm pleased to say that a story on Coastal Raptors banding research is currently featured on the website (page 6).

In a normal year, I do ten or so presentations on coastal raptors to various groups. In 2020 I've done just two, both virtual. In April I made a Zoom presentation on Coastal Raptors research to the Rotary Club in Long Beach, Washington. In December I co-taught a workshop on raptor marking, handling and measuring for a Virtual Event held by the Raptor Research Foundation (page 6).

What's next for Coastal Raptors research? I expect that the first half of 2021 will be short on field time, allowing more time to work toward publishing the results from our field efforts over the years. That said, I'm excited to report that Coastal Raptors will initiate tracking of our coastal peregrines by telemetry in 2021. This research will be done in collaboration with the Hawk Mountain Sanctuary Association (page 7).

Finally, thanks to those who have provided volunteer and/or financial support to Coastal Raptors. It takes your help to keep Coastal Raptors moving forward.

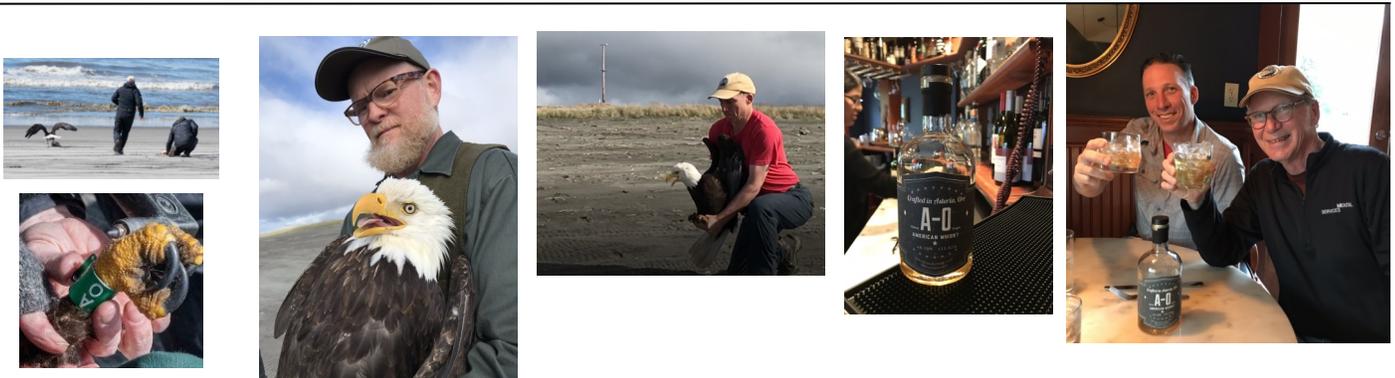
By all means, stay well!

Gyr Falcon, Bald Eagle and Peregrine Falcon Banded in 2020



On **February 9**, we **captured** and banded this Gyr Falcon, a one-year old female, inside the city limits of Westport, Washington. This Gyr was only the 8th we've banded in 25 years of banding research. The Gyr Falcon is a bird of the Far North. The map above, depicting the Gyr Falcon range, shows where the species is "*breeding*" (brown), "*year-round*" (purple) and "*non-breeding*" (blue; map from birdsoftheworld.com, 2020). Photos by Tom Rowley and Dan Varland.

Back at the office I realized that we had used the same color band, a number 8, on a Gyr Falcon in 2006. Yikes! On **February 17**, we **recaptured** the falcon, replacing the red 8 with a blue 8 to avoid the potential confusion from having two Gyr Falcons out and about wearing bands with the same visual identification codes.



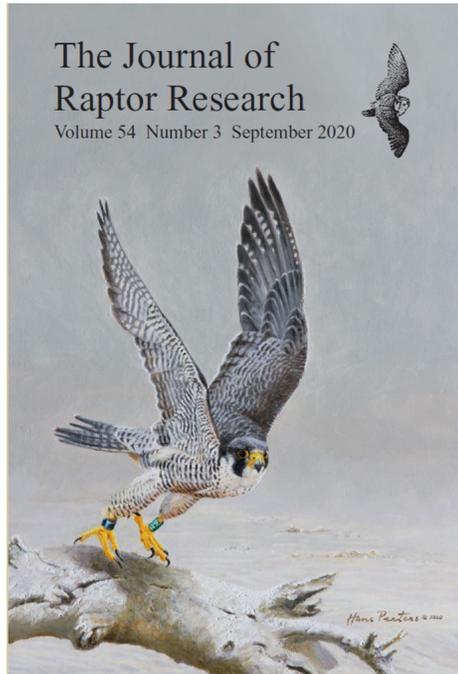
On **March 13**, we captured and banded this adult male Bald Eagle with visual identification band A/O on the Long Beach Peninsula. Alex Lauber (left) applied the bands and Tony Starlight released the bird. Not long afterward we headed to a local pub where Tony noticed a very appropriate whisky on the shelf: A-O. Tony, Alex, Glenn Marquardt and I shared a toast to A/O! Photos by Tony Starlight and Dan Varland.



After banding the Bald Eagle in March, we didn't venture out for another survey until **October 30**. That day, with masks on and windows down in the survey vehicle, we located, then banded this first-year male Peregrine Falcon north of Ocean Shores. It felt great to be back out there! Note, however, that the band is on upside down! Yikes! This was only the second time in 25 years that I had made this mistake...at least the band will appear right-side-up to the falcon...if only he could read! Photos by Dan Varland.

PUB Crawl 2020

Dictionary.com defines *Pub Crawl* as “to have drinks at one bar after another”. Here, *Pub Crawl* aptly describes the slow process of publishing Coastal Raptors’ research findings. The PUB described below was 24 years in the making! That is, twenty-two years for field work and data compilation and two more for data analysis, writing and the actual publication process. Whew... and Yeah! You can email me for a copy (danvarland@coastalraptors.com) or download one from the Coastal Raptors website at: coastalraptors.com/Research/Publications.



6/11/2020

Hi Dan,

We just got the second proofs of your upcoming article (attached). I don't see any more changes that need to be made, but let me know if you find something (within the next couple of days please).

I'm really happy you chose to publish this in JRR. I think it's a very nice study making use of an amazing long-term dataset. This is just the sort of thing we need to promote in JRR—top quality science!

Stay well,

Cheryl

Cheryl Dykstra, Ph.D.

Editor, *Journal of Raptor Research*

PEREGRINE FALCON SURVIVAL RATES DERIVED FROM A LONG-TERM STUDY AT A MIGRATORY AND OVERWINTERING AREA IN COASTAL WASHINGTON, USA

AUTHORS: DANIEL E. VARLAND, LARKIN A. POWELL, JOSEPH B. BUCHANAN, TRACY L. FLEMING AND CHERYL VANIER

Summary. After a well-documented recovery following substantial population declines throughout most of North America, the Peregrine Falcon (*Falco peregrinus*) was delisted under provisions of the U.S. Endangered Species Act in 1999. Post-delisting monitoring for the Peregrine Falcon stipulated surveys of breeding locations and did not specifically emphasize other metrics of population dynamics such as survival. We used banding data from Peregrine Falcons captured on the Washington coast during 1,212 vehicle surveys between 1995 and 2018 to assess apparent survival and resighting frequencies. Our mark-recapture data set included 226 Peregrine Falcons: 148 females and 78 males. Fourteen Peregrine Falcons were recovered dead and another eight were found injured or uninjured and unable to fly due to illness or substantially soiled feathers. The most important known cause of mortality was collision with stationary object ($n = 6$).

We had 744 resightings, 67% ($n = 499$) by our research group during surveys (Group A) and 33% ($n = 245$) by field biologists, wildlife photographers and others (Group B). We found a dramatic increase in Group B contributions beginning in 2008 due to the emergence of digital camera use in wildlife photography and increased public awareness of our project. Because our field effort resulted in observations of most individual falcons observed by Group B, their contribution did not alter the estimate of survival.

Data from 1995 to 2018 supported the estimation of apparent survival for three age classes of Peregrine Falcons: 42% for hatch-year (less than 1 year old); 66% for second-year (1–2 years old) and 74% for after-second-year (more than 2 years old). Our long-term mark-resighting analyses of overwintering and migratory Peregrine Falcons along the Washington coast provide evidence of a reasonably high level of apparent survival that suggests good population performance.

Hans Peeters Creates Journal Cover Art Featuring Peregrine Falcon W/Z

Acclaimed author, artist and ornithologist Hans Peeters painted W/Z for us for use on the cover of the *Journal of Raptor Research*. W/Z was banded as a first-year male on the beach near Ocean Shores in November 2007. He was resighted 22 times afterward in winter and spring until 2015. We never saw a more approachable, easy-going falcon than W/Z. Sadly, he passed away after striking a powerline wire in 2015 not far north of Ocean Shores near the coastal town of Seabrook.



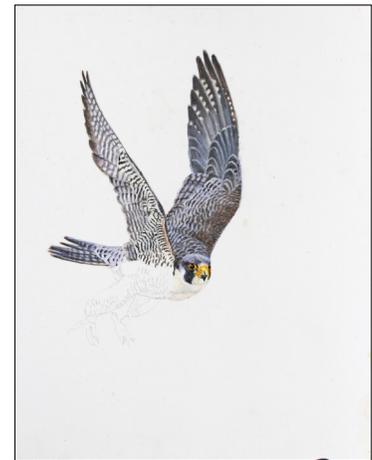
Hans Peeters



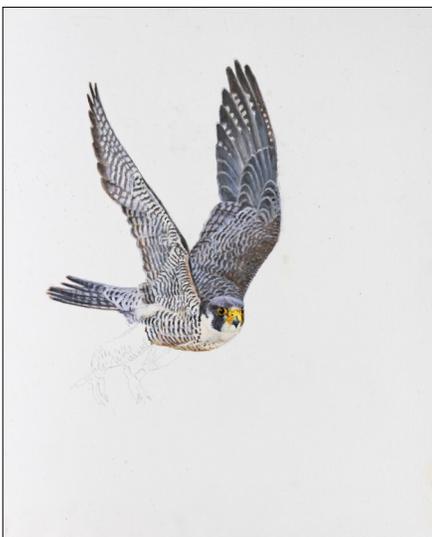
The basis for Hans' painting was the photo above by Kate Davis, Director of Raptors of the Rockies. Kate captured W/Z at liftoff during a visit to the coast in March 2012.



March 14. Hans: "Taking wing."



March 16. Hans: "Steering and braking mechanisms."



March 18. Hans: "Fuselage."



March 25. Hans: "Progress in the time of plague. Landing gear and perch will be addressed today."

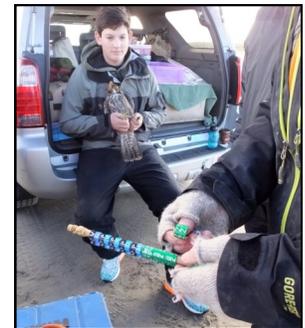


Eight years after Kate's photo, in March of 2020, W/Z again takes wing!



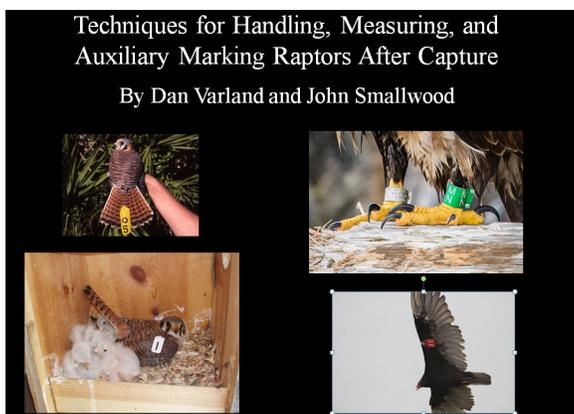
Bald Eagle Dies Due to Fishing Line. On April 4 I received a call indicating that a Bald Eagle was dead on the beach north of Ocean Shores. I drove to the closest access road and found the way blocked to vehicle traffic due to the pandemic. Thinking that my research permit from Washington State Parks had me covered, I drove around the barricade and, not long after, found the eagle tangled in fishing line. At his feet was a dead gull, also tangled in line. Apparently the eagle tried for an easy meal and got caught up in the line with the gull. Had the beach been open to the public, it's likely that the eagle would have been rescued.

The only good to come out of this was an newspaper article by Kat Bryant in *The Daily World* sharing the sad story and what people can do to avoid this all too common problem: dispose of fishing gear properly; do not release fish that still have hooks in them; use the appropriate test line for desired fish to reduce the chances of line breakage; and replacing fishing line yearly. Dan Varland photos.



Bird Banding Lab Features Coastal Raptors. In 2020, the US Geological Survey Bird Banding Lab (BBL) celebrates its 100th anniversary. The BBL oversees bird marking activities in the U.S. As part of their centennial celebration, they are featuring stories on active banding projects that highlight the importance of bird banding to science and conservation. Coastal Raptors is featured in the December installment! To read the story, follow the link below.

<https://www.usgs.gov/center-news/notes-field-coastal-raptors>



181 People Attend Virtual Workshop. On December 9, I led a workshop on raptor handling, measuring and auxiliary marking along with friend and colleague John Smallwood. Our workshop was among three given during a 2-day Virtual Event put on by the Raptor Research Foundation. John and I have taught this workshop in person for years at the RRF annual conference. In 2020 it was canceled due to the pandemic. We usually have 15-20 students. This year 181 listened and asked questions of us from locations throughout the U.S., Canada and beyond!



Tom Rowley photo.

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Coastal Raptors is concerned about the long-term health and viability of raptors found along coastlines. Their risks are many, including exposure to contaminants, disease, wind turbines, oil spills, severe storms, and human disturbance (e.g., being shot, vehicle and powerline collision). Given such vulnerabilities, coastal raptors deserve serious study.

Coastal Raptors provides information to the general public and scientists on raptors in coastal environments.

The goals of Coastal Raptors are to:

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

Please Help Provide Financial Support to Coastal Raptors



It takes quite a lot to run Coastal Raptors, especially in light of the research initiative described below.

Tracking Peregrines by Telemetry. In 2021, Coastal Raptors will begin a collaboration with the Hawk Mountain Sanctuary Association, tracking Peregrine Falcons with GSM transmitters. This state-of-the-art technology uses GPS and cell-phone technology to transmit bird location data. This method will answer research questions that we have been unable to address through banding alone.

- Where do the Peregrines that occur on the study beaches by day roost at night?
- Where do they summer?
- What is the full extent of their migration?

In 2020 Coastal Raptors purchased two GSM transmitters for Peregrine Falcons for this research effort. Two others were also purchased for deployment on Turkey Vultures. Deployment of all four was delayed because of the pandemic. Coastal Raptors plans to purchase an additional five transmitters for Peregrine Falcons in 2021 at a cost of over \$6,000. Other expenses in 2021 will include vehicle mileage, conference attendance, data entry and data analyses, and field supplies.

Please Consider a Donation for this year or next if you have not already (see page 8 for a list of donors, 2019 and 2020. Your contribution is Tax Deductible. You may donation by check (payable to Coastal Raptors; send to 90 Westview Drive, Hoquiam, WA 98550) or online at www.coastalraptors.com. THANKS!

Many Thanks to **Coastal Raptors** Supporters

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Donations Made in Memory of: Betty Duncan, Silar and Donald, and Mark Wilhyde.

Coastal Raptors
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Hoquiam, WA



Peregrine Falcon 35/W at sunrise. Pat Hayes photo.