

The only raptor to plunge-dive feet first, completely submerging themselves underwater, to catch prey.

OSPREY

Pandion haliaetus

Sentinel species assessing the environmental health of watersheds worldwide

Superb Aerial Fishers
Known as "fish hawks" and "sea eagles"



Plunge feet first into water

Closable Nares (Nostrils)
Keep out water during dives



Eyes
Vision adapted to detect underwater objects from the air
Dark orange eyes in young turn yellow as they mature

Illustrations & Design: Melissa Green
Photograph reference: Chengguang & J Anderson



Piscivorous
Fish make up 99% of diet

Zygodactyl

Outer toe can swivel forward and backward allowing fish to be oriented aerodynamically

Feet

Highly adapted for catching fish
Deeply curved talons resemble fish hooks



Spicules
Sharp tiny spines on the bottom of feet increase friction and grip on slippery surfaces

Powerful Wing
Over 100 wing feathers
Dense, interlocking feathers

Dive in feet first. The oils on your feathers are water resistant.

**RAPTOR CONSERVATION:
EDUCATIONAL OSPREY RESOURCE
MATERIALS AND ACTIVITIES
2023 - 2024**

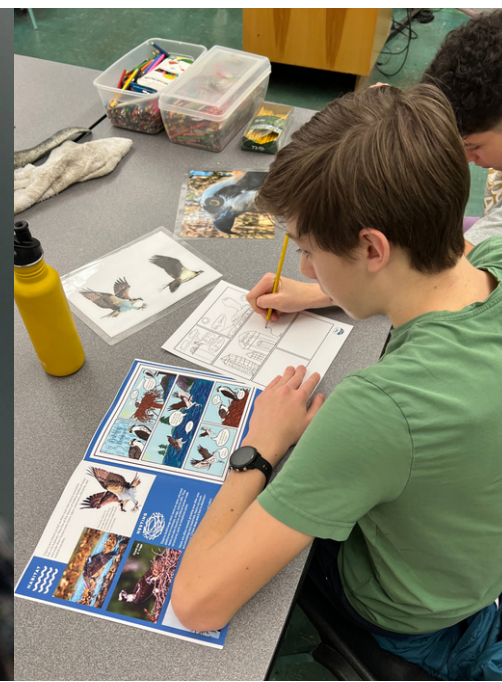




Cascades Raptor Center successfully completed the following educational objectives.

EDUCATION PROJECT OBJECTIVES

- Raised awareness of native Osprey raptor species, the issues impacting them and other native wildlife, and the role we can play in the natural world.
- Provided high-quality, engaging, and creative nature-based learning experiences for schools and communities that would otherwise struggle to attain such resources.
- Developed meaningful activities to promote critical thinking and problem-solving around current ecological issues and the cultural significance of birds-of-prey and other wildlife.
- Provided opportunities to connect communities and schools with a better understanding of how the natural world is being impacted in their area.
- Provided scalable strategies for transforming our relationship to the environment and global community.
- Worked with more than 4,000 participants and engaged community partners across age groups and areas, increasing cross-generational learning.



SUPPORT FROM THE OREGON BIRDING ASSOCIATION

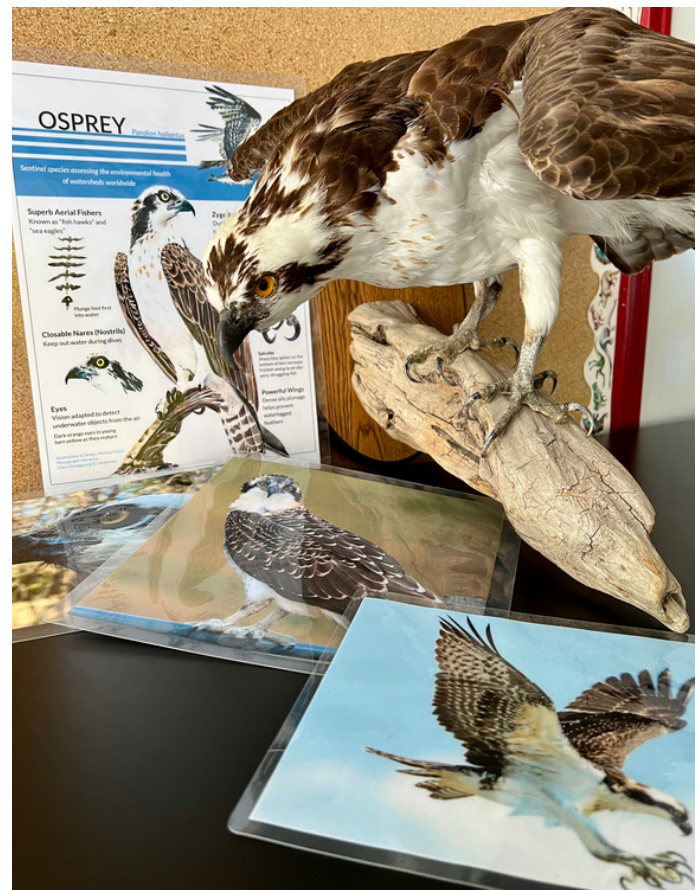
Oregon Birding Association funding allowed Cascades Raptor Center to provide:

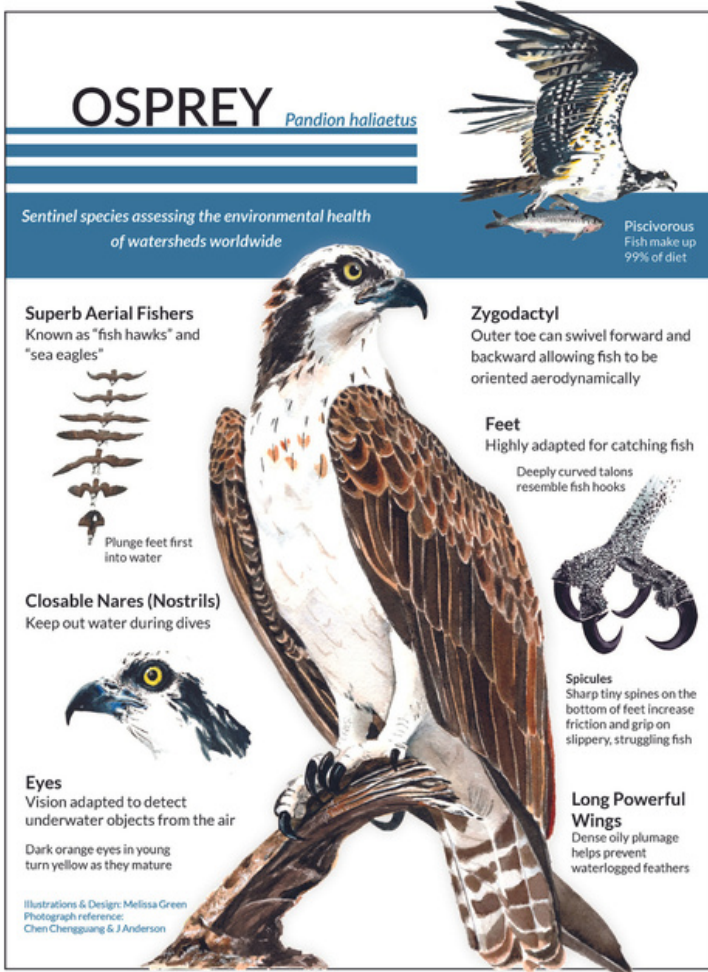
- Printed resource materials and teaching guides - costs included design, scientific illustration, and printing of education and activity guides to help teachers and community groups integrate raptor content with current educational standards, align with Next Generation Science Standards and the Oregon Environmental Literacy plan, and grade-level content goals. All educational materials were provided free of charge for participating schools/communities.
- Programming - classroom visits, educational teaching supplies, raptor artifact objects, presentation posters, and raptor art materials.

Key areas of outreach:

Cascades Raptor Center provided free educational resource materials and programming to over 4,000 participants. With support from the Oregon Birding Association, Cascades Raptor Center extended additional programming with schools along the McKenzie River serving an additional 326 students.

Walterville Elementary School - Grades 2 - 5
McKenzie River Community School - Grades 2 - HS





Lane County schools received Osprey raptor resource materials (illustrated above), teaching guides, and environmental-based activities to help promote awareness of native Oregon wildlife and the ecosystems where they live.

The creative materials and activities fostered a greater understanding of native raptor species, the issues impacting them, and the role our community plays in caring for the natural world.

By providing resources free of charge, the project addressed the need for more nature-based education in Oregon classrooms and communities without increasing the burden on educators.



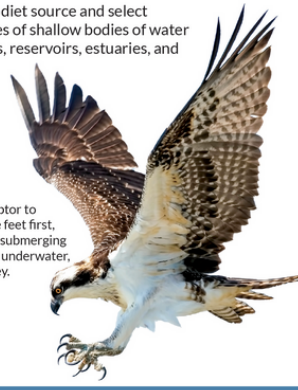
HABITAT



Osprey are reliant on fish as their main diet source and select fish-rich habitats. They live at the shores of shallow bodies of water and make their homes near rivers, lakes, reservoirs, estuaries, and coastal marshes.



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NESTING



Clutch size
2 - 4 eggs

Osprey build large stick nests on open, elevated platforms in treetops, snags, and on cliffs. Their nests are also found on artificial human-made structures, such as telephone poles.

Nests are often reused, growing year after year, accumulating nest materials. Nests can reach sizes up to 13 feet deep and 6 feet in diameter!

Males usually locate nesting sites and collect nest building materials. Females arrange nest materials.



Human made platforms provide alternative nesting areas to prevent nesting on problematic sites such as powerlines.



Fishing Lessons



Comic: Makayla Wilson, Cascades Raptor Center's Animal Rehabilitation Technician



Did you know?

Osprey cover the inside surface of their nest with soft moss, grass and lichen. In human impacted and polluted environments, male osprey will bring back "interesting" found items such as stuffed animals, hats, bailing twine and fishing line. The females will often throw out these collected items but sometimes their babies get dangerously tangled in the line.

RAPTOR RESOURCES

Osprey educational resources included information on habitat, nesting, migration and location, conservation status, ways to help, and unique adaptations and species characteristics.

The four-page resource guide and activity brought awareness of native Oregon wildlife, promoted critical thinking and problem-solving skills, and provided opportunities to deepen relationships with the environment.





WILDLIFE EDUCATION



MIGRATION AND LOCATION



Osprey are found on every continent, with the exception of Antarctica, and are one of the most widely distributed birds of prey.

Most Osprey that breed in North America will migrate to Central and South America for the winter. A few Osprey overwinter in the southernmost states of the United States.

Mated pairs usually return to the same nest year after year. An Osprey nesting in the northern region and overwintering in the south might fly more than 125,000 miles during its 15 - 20 year lifespan.



CONSERVATION STATUS

Osprey are a **keystone species** assessing the environmental health of watersheds.

How can we help?

Osprey are vulnerable to chemical and physical pollution. Major threats include pesticides (DDT) and other toxins, coastal development, illegal shootings, and entanglements in fishing line and netting.

We can prevent Osprey harm by:

- Maintaining healthy water quality
- Disposing discarded fishing line and hooks
- Cleaning up litter and other physical pollution



ACTIVITY

Inspired by Osprey and their adaptations, the Raptor Art Challenge activity offered students the opportunity to select important raptor facts to share. By creating raptor portraits and comic narratives, students depicted unique species characteristics, highlighted ecosystem connections, and/or brought awareness to human-related problems challenging Osprey.





RAPTOR ART EXHIBITION



**CASCADES
RAPTOR
CENTER**



Art Challenge

Submissions Due: March 20, 2024

*Raptor Resources
available!*



Guidelines

Science,
Language Arts,
Visual Arts

Youth Challenge (Grades 2 - 12) **FREE!**

The raptor art challenge is a community project aimed to inspire creativity, curiosity, and conservation stewardship. We hope your students join the challenge to creatively showcase the importance and wonder of birds of prey.

2024 Raptor Art Challenge theme: Turkey Vultures and Osprey
Classroom resources available upon request.

Please read the submission guidelines before submitting.

Questions? Contact Melissa Green - Melissa@cascadesraptorcenter.org

Student exhibitions, featuring elementary, middle, and high schools from Lane County, will be held at Cascades Raptor Center and at a local gallery in April and May 2024.



Thank you!

Support from Oregon Birding Association helped to strengthen the community's connection to our natural world and inspire environmental stewardship.

As an appreciation of support we invite you to visit the Youth Raptor Art Exhibition:

**April 3 - 26 Emerald Art Center
Art Walk - Friday, April 12 5pm - 7:30pm
500 Main St. Springfield, OR**

**April 10 - May 26 Cascades Raptor Center
32275 Fox Hollow Rd. Eugene, OR**



***"I can't thank you enough for coming out to teach our class about osprey.
The students are still talking about it! - 2nd Grade Teacher***