

Red-breasted Merganser

Dark-eyed Junco

Snowy Owl

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Falco peregrinus (Peregrine Falcon)

**ORDER:** Falconiformes (3 Family) **FAMILY:** Falconidae (65 Species)

Holy windy, chilly, snowy day Batman!!!!! This was a day to experience!! It is days like this that make you appreciate so many things, particularly warmth!! The over 20 mph westerly winds caused subzero temperatures. The sun location was "suggested" behind thick, white cloud cover. I didn't have to worry about socially distancing since there was no one out for a walk today. The only thing that staved off the cold sensation, or lack thereof, was looking for birds in the icy water and the sky above. While walking toward Lakeshore State Park, a solitary American goldfinch landed in front of me and gave out a short "mew". I am always amazed at the survivability of birds in extreme cold and heat! As I continued on, I noticed several clusters of geese, mallards, buffleheads, common goldeneyes, and greater scaups huddled close to the eastern shoreline by the large boulders; likely to be sheltered from the strong westerly wind gusts. Normally, the waterbirds are either perched or floating in the direction of the wind. But, today they were seeking refuge from the wind! Several Canadian geese flocks were attempting to fly in "V" shaped formations with little success. Interestingly, there was a larger proportion of juvenile gulls to mature adults flying buoyantly in the blustery gales. And, unbelievably, I kept hearing the common goldeneye courtship "peents". The survival of the fittest never subsides, even on one of the coldest davs!

Another day this week, I was walking the Hank Aaron Trail at Lakeshore State Park. Two bundledup men were fishing from the shore and loudly talking, probably because their ears were covered by so many layers of hats! I was watching the ducks swim and rest on the ice from the recently renamed Richard A. Grobschmidt Memorial Bridge. All of a sudden, a group of mallards started to take a brief flight in unison. I thought they were startled by the loud fishermen or by my approach. However, it was a little gray missile with a single dark sideburn that flew low toward the ducks then quickly landed on a nearby rooftop. It was a peregrine falcon (*Falco peregrinus*), the fastest bird in the world, Batman! Did you know this bird is used as a model for missile technology? At any rate, this stealthy, awe-inspiring moment made me think of two questions.

One, if peregrine falcons can fly over 200 mph to catch their prey, will they attack a swimming duck and potentially "dive" in the water? I think I answered this question as soon as I thought of it. Peregrines sneak up on prey with missile speed and precision. So, I deduced, this bird was flushing the ducks to fly so the prey would be easier to strike in the air. This stealthy bird will not only use speed, but also acrobatic agility to attack. In order to successfully accomplish this, the peregrine needs higher altitude for maneuverability using aerodynamic forces and speed for diving fast, also known as stooping. The peregrine can strike flying prey from above, behind, or beneath using fully outstretched talons to shred its victim. If the victim is an urban pigeon or dove, this often leads to an explosion of feathers in the process. The prey may either fall to the ground or the falcon will stoop back to re-capture in flight. Can you imagine having to obtain *your* food like this?

So, this led to my second question which is how do peregrines protect themselves from highspeed injury during prey capture? Well, it entails understanding kinematics, aerodynamic forces, vision, and environmental obstacles [see reference 2]. But, simply, the peregrine adjusts speed and forces by changing wing position and by precision vision. It always amazes me that peregrine falcons can see from such long distances and hone their capturing instincts in a blink of an eye!

With these questions investigated, I thought I would share some additional features of this falcon.

First, the word falcon originates from the Latin *falx* meaning sickle, for the shape of the talons and beak. The word peregrine also originates from Latin, meaning "wanderer". In fact, peregrine falcons have the largest distribution of any landbird and are found on all continents, except Antarctica! Many people have taken the word "wanderer" to mean push yourself out of a regular routine in order to see and experience new things. I would like to expand this further by saying learn more, do more, and teach more!

Second, peregrines prefer nesting in tall locations such as mountain cliffs and building ledges. In fact, some Milwaukee buildings *have* peregrine nesting boxes with live web cameras. You can watch these boxes which are located on top of the Milorganite, WE Energies, Wisconsin Public Service, and University of Wisconsin Milwaukee buildings. Be sure to experience rearing of this remarkable falcon from fluff to feather! When watching the cameras, you will notice the female is larger than the male. This increased size makes it easier for her to lay eggs, incubate the clutch, and defend the nest. The male will help provide food for the female and hatchlings. Both parents will care for the brood until they fledge the nest. If you watch the webcams, you will notice the adults vocalize near the nest or if intruders are nearby. This is usually the only time you will hear them sound a *kek-kek-kek* call.

And finally, other bird species find added protection by nesting near a peregrine falcon. This is called *interspecific commensalism*. For example, in order to protect against arctic foxes, red-breasted geese may seek a nesting location near a peregrine falcon nest. So, not only are peregrine falcons stealthy missiles, they are also inadvertent bird protectors! The yin and yang of this powerful bird!



## **References:**

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- 3. <u>The Cornell Lab of Ornithology Handbook of Bird Biology, 3rd Ed</u>. Irby J. Lovette and J. W. Fitzpatrick. 2016. John Wiley and Sons, Ltd., Chichester, West Sussex.
- 4. <u>The Crowley ID Guide Raptors</u>. Richard Crossley, J. Liguori, B. Sullivan. 2013. Princeton University Press, Princeton, NJ.
- 5. <u>The Sibley Guide to Bird Life and Behavior</u>. David Allen Sibley. 2001. Andrew Stewart Publishing, Inc., NY and Toronto.
- 6. Quinn, J. L., J. Prop.,Y. Kokorev, and J. M. Black. 2003. Predator protection or similar habitat selection in red-breasted goose nesting associations: extremes along a continuum. *Animal Behaviour* 65:297-307.