Bird of the Month
by Ryan Crouse

Osprey

Picture a bird of prey. Likely, the image of a red-tailed hawk gazing over a grassy plain or a stoic bald eagle may come to mind. Imagine, though, a large raptor with highly contrasting dark and light plumage, a bold black strip through its eye, aloft on gull-like wings and hunting almost exclusively fish.

You're picturing one of the oddballs of the world's raptor community, the genetically unique osprey. As the only member of the genus Pandion, the osprey ranges much of the globe, with significant presence on all six habitable continents. Fortunately for them, their diet of both freshwater and saltwater fish can be widely found around the globe, making them able to adapt to many habitats. As another testament to their widespread range, they can coexist among urban human populations as long as enough habitat is maintained for them to hunt and bear young.

Because of their specialized aquatic diet, they have some unique features that help them catch their quarry at a very high success rate. Studies have shown that they are able to close out a hunt as high as 70% of the time. This is pretty amazing when compared to the peregrine falcon, which catch prey in only about 20% of their hunts.

Among the features that aid them is incredible eyesight. In the context of birds of prey this is not unique to the osprey, but it should be noted that their eyesight is about 19 times better than ours. This allows them to spot fish from over 200 hundred feet away in several feet of water. They are also able to judge the depth of their target prey by knowing and being able to calculate the refractive index of water. Adding to all of this, they can see in the ultraviolet light spectrum, which makes their prey fluoresce against their aquatic background. Once they have spotted their prey, they have a transparent third eyelid called a nictating membrane, a special adaptation to protect the eyes during the violent plunge into water as they finish the chase.

Speaking of that plunge, they do it face-first with legs stretched out under the chin, a technique that helps them make precise strikes in water. Precision is wasted though if they do not possess the tools to snare their slippery food of choice. To help finish the job, the outer toe of each foot can face forward or reverse, depending on the situation, and the pads of their feet are covered in small barbs, which make them highly efficient anglers.

In the Prescott area we generally only see osprey during migration, though they are known to breed along lakes in the Williams and Flagstaff area. Because of their widespread abundance, their migrations can be erratic and lengthy. Through GPS tracking it's believed that an osprey can log more than 160,000 total miles in a lifetime, equal to over six trips around the globe.

Their unique shape and plumage in flight make them relatively easy to identify. They are a little bit smaller and more slender than a red-tail, and the wings are long and plank-like. These give them the proper lift to make long trips, which may largely be over open water. While their long wings are like an eagle or perhaps a zone-tailed hawk, they often hold them in a unique shape by bending steeply at the wrists and kinking the outer half back. This behavior gives them a distinct 'M' shape, comparable to the shape of a gull in flight. In addition to their unique shape, they have paper-white belly, breast and throat, which contrast heavily with their large, dark wrist patches and primary feathers. The top of their body though is completely dark except for a white patch on the crown of the head. All those clues, coupled with their almost exclusive association with still bodies of water, make for an easy ID.

During the fall migration look for them at some of our deeper lakes in the area. I have seen individuals at Watson, Lynx and Goldwater Lakes in the past. They tend to perch atop a large pine, waiting for the opportunity to go fishing. Watch them for long enough and you'll very likely see them put their fellow hominid anglers to shame.

Image by Don Danko