



Arizona's Raptor Experience, LLC

December 2017

~Newsletter~



*Season's
Greetings!*

*Wishing you and
yours all the
best this
holiday season.*



Photo by Eric Gofreed, DVM

Still looking for a gift for that special someone?

Consider a *Gift Certificate* for a unique encounter with live birds of prey at Arizona's Raptor Experience, LLC.

We have something for everyone – photographers, owl lovers, folks interested in falconry and more...

Call Anne at 928-460-2634 to choose the perfect gift!



Eat dessert first!

Eating out is a nice way to take a break from cooking and cleaning, but also from our typical menu. When Paul and I go to a restaurant, he can choose any meat dish and I can find a vegetarian option that he does not have to share. 😊 However, for Paul the real joy of eating out is the freedom to *eat dessert first!*

Most of us have a strategy when we eat out, especially if we choose the buffet. Some, like Paul, make a beeline for dessert. Some go straight for the salad, while others dive into the mashed potatoes and many focus on the chicken or beef! As humans we have many choices and opportunities to obtain food. For wildlife, choices are limited and strategies to obtain food vary by species.

Foraging strategies for birds of prey can range from feeding on carrion, to stealing from others and of course killing for oneself. Ultimately the idea is to obtain the greatest amount of energy for the time spent foraging (searching for, capturing, killing and eating prey). This is the concept or theory of *optimal foraging strategy*. Although hunting strategies are rarely perfect and often do not conform entirely to optimal foraging strategy, elements of this concept can be seen in the many ways that raptors hunt for their food.

Cool fact: Our national symbol, the Bald Eagle, will regularly harass Osprey carrying fish to the point where the Osprey drops the fish allowing the eagle to then steal it! The eagle is referred to as a kleptoparasite.

Cooperative Hunting

Wolves, African lions, killer whales, spotted hyenas and chimpanzees are a few examples of wild animals that hunt as a group or pack. Rare in birds of prey, this strategy is also employed by Harris's Hawks that hunt in family groups of up to six birds. Other species of birds of prey may hunt in pairs during the mating season and the Galapagos Hawk has been documented hunting in groups of three birds, but no others hunt in such large groups as Harris's Hawks.

In theory, group hunting results in greater success and more food per individual. In practice this may not be the case. For example, in African lions a solitary hunter often obtains more food than when hunting in a group. So why continue this strategy? Prides of lions are made up of related females. If hunting success is increased in a group, related individuals help ensure that their genetic material is passed along if at least some survive. Also, a group of lions is much more successful at defending their kill from competitors like hyena.

Harris's Hawks also hunt in family groups and these groups enjoy a much greater hunting success than do individuals. Also, prey taken are frequently large enough to provide food for several individuals. Group hunting makes it possible for the hawks to kill prey that are normally safe from capture, like those that are in dense vegetation. Some individuals work to flush out the prey while others wait to capture it once it is in the open. Interestingly, in parts of their range, Harris's Hawks also nest/breed cooperatively (for example, one female mating with multiple males that all assist in feeding the young) increasing the chances of survival of the nestlings.



Paul with Coda and Odin
on a "T" perch.

Cool fact: Harris's Hawks are one of the most popular falconry birds because they hunt cooperatively and include the falconer in this strategy. The falconer has the responsibility of helping to flush the prey.



Information Transfer in Osprey Colonies

The Osprey is a bird of prey that specializes in catching fish. When they live along coastlines they often hunt fish that are found in large groups or shoals. Because the ocean is so large, it can be difficult to locate these moving groups of fish. Once a bird finds a shoal, captures a fish and returns to the colony, evidence documented in a study by Greene (1987) suggests that neighboring Osprey will actually leave to hunt in the direction from which a successful hunter returned. This suggests that information about the location of a shoal of fish is actually passively (not intentionally) transferred from one bird to another. In fact, birds that took a cue from a successful hunter were indeed more successful than those that did not. Amazingly, the Osprey also were able to discriminate between species of prey! A bird returning with a fish species that is solitary, that does not form shoals, was treated like an unsuccessful hunter. Birds only took cues about the direction to hunt from successful birds returning with shoaling species of fish that they were more likely to find themselves.

Greene E. 1987. Individuals in an osprey colony discriminate between high and low quality information. *Nature*. 329: 239-41.

Other Hunting Strategies Employed by Birds of Prey Include...

Sit and Wait – Red-tailed Hawks spend up to 95% of their time perched and watching for prey, typically mice in the fields below their perch.

Ambush – Adult Cooper's Hawks are practiced at sneaking up on prey and only attacking when their chances of surprising the prey are greatest.

Direct Pursuit – Peregrine Falcons are one of the fastest birds of prey in a dive or stoop, easily exceeding 200 mph, and regularly chase down their avian quarry. Only the much larger Gyrfalcon is faster.

Hover Hunting – American Kestrels can be seen hovering or kiting over open fields searching for unsuspecting prey below.

Cool fact: The Secretary Bird, found in sub-Saharan Africa, is the only bird of prey known to stomp its prey to death!



Happy Holidays!



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