

The Courtship of Birds

By Diane Tilton

Will You Be My Valentine?

You can't walk into a retail store this time of year without being reminded that Valentine's Day is near. While wildlife don't participate in the holiday, they do have some interesting mating strategies. While I was studying wildlife management at the University of Arizona, evolutionary biology was one of my favorite courses, especially when it came to mating behaviors and physical adaptations or sexual selection.

Males' and females' reproductive behavior is often very different. Courtship is usually instigated by males and they will often fight for the chance to mate with a female. Females, on the other hand, will seldom fight over males and will often reject the advances of a male. Why the drastic difference? It comes down to the cost of producing sperm vs. the egg. Sperm are inexpensive to make, one male produces enough to sire a lot of offspring. Females will produce fewer eggs because they also have to nourish the young so a lot more energy goes into producing each one. Basically, males can afford to increase their mating success by mating with as many females as possible but females must choose who they believe will provide their offspring with the best genes.

There are some pretty extravagant traits that have evolved as a result of males signaling to females their qualities as a potential mate. Sexual selection is the selection of traits that offer advantages during courtship or the competition for mates or resources. Sometimes by having better, more competitive resources, a male will gain exclusive access to mates that are attracted to the resources those males are in control of.

An obvious example would be in peafowl. The male, the peacock, has a large iridescent tail. Why would the female (or peahen) favor the long, showy tail? Likely because the peacock's ability to grow and maintain this dramatic tail, which obviously carries a significant energetic cost, is an indication that the male is vigorous and healthy.

Some males will attract females using other tactics, such as defending territories that contain food, nesting sites or other specific resources. Some might even have more of an all-purpose territory that contains mating sites, nesting sites and all the food necessary to rear offspring. A male might not have any resources so he will use courtship behavior to indicate to the female that he is in good health, a good provider and has good genes.

It's up to the females to assess the genetic quality and health of potential mates, the quality of the resources they control and the quality of parental care they might provide. How can they make

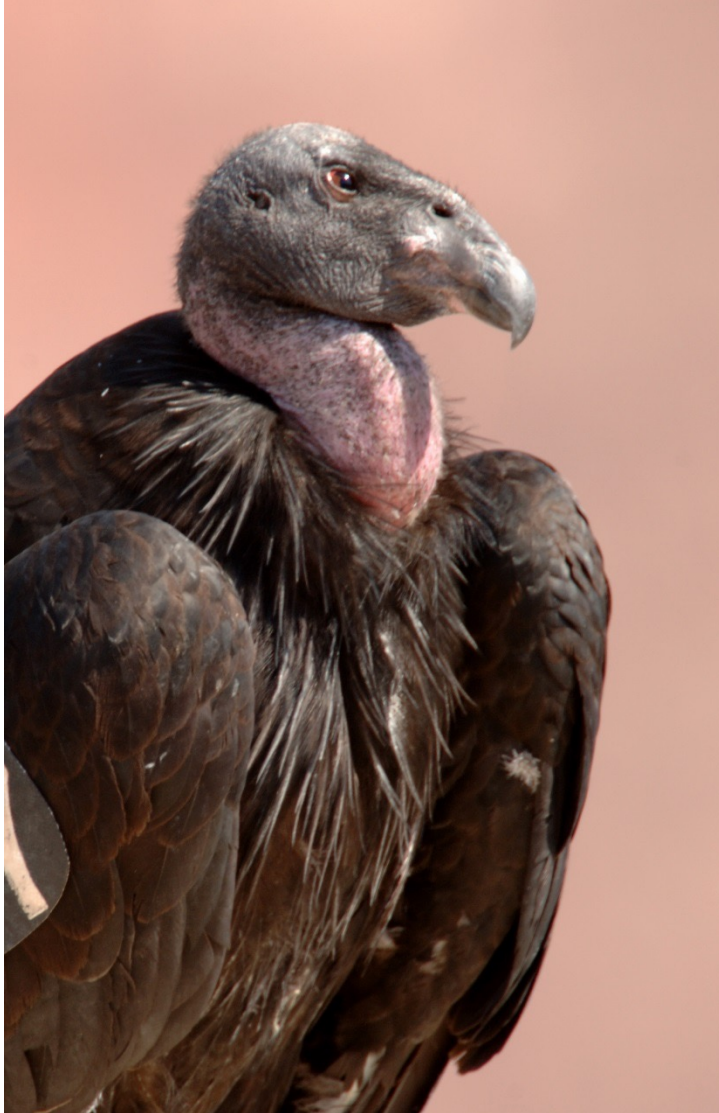
an assessment of the males on all of these traits? Let's look at the northern cardinal as an example. Brighter red males have a higher reproductive success rate, have better territories and offer a higher level of parental care. Cardinals get their red color from their diet so a female can deduce that a male with a more intense red color is healthy and holds a good territory. As females react to redness as a sign of a favorable male, the female is actually encouraging the evolution of being bright red in males. Male cardinals are also prolific singers which also is biologically expensive because, while they are singing, they're not out foraging but you are also alerting predators to your location. But the tradeoff of finding a mate is worth the risk.

I could go on all day about the extreme lengths that birds go to in an attempt to find a mate. Mammals, amphibians, reptiles and fish all have adaptations that have evolved to give individuals an advantage in mating. If you are interested in learning more about some of these, David Attenborough's shows -- "Life" or, my favorite, "Life of Birds"-- are great places to start.

Upcoming Events in Pinetop

Californian Condor Workshop

On Saturday, March 4 at 11 a.m., a presentation on California condors will be held at the White Mountain Nature Center in Lakeside. Alan Zufelt, the California condor project coordinator for the Arizona Game and Fish Department will give an inspiring and informational talk about the history and conservation methods of the condor program and will give an update on the current population status. The Nature Center is located at 425 S. Woodland Road, Lakeside, Arizona.



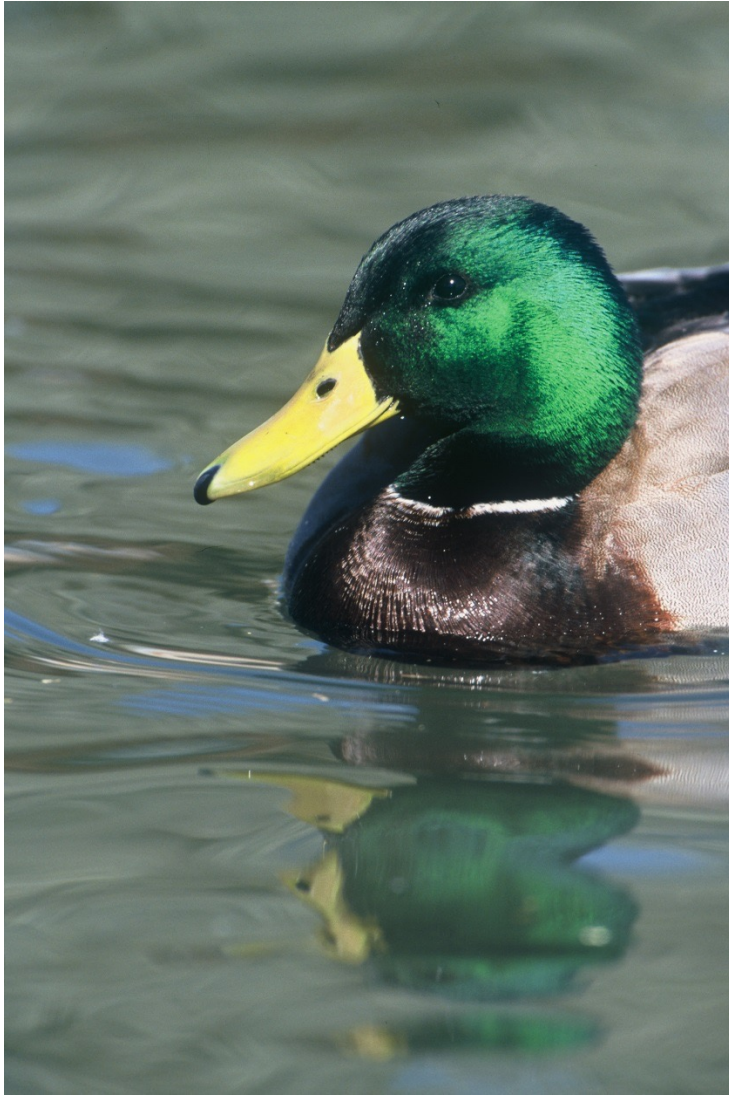
California Condor Photo by George Andrejko AZGFD

Ducks and Other Water Birds Viewing Workshop

Waterfowl viewing workshop for the public will be held at the Pinetop regional office at 10 a.m. on Saturday, April 1. The program is free to the public and will consist of a classroom presentation and discussion of waterfowl identification, life history, behavior patterns and their importance to wildlife conservation in Arizona and North America. The presentation will be followed by an optional trip to a local lake to observe waterfowl first-hand.

Participants are advised to dress appropriately for weather conditions for that day and to bring a set of binoculars or spotting scope, if they have them, for improved observation.

To attend any of these workshops, please call the Pinetop Game and Fish Regional office at (928) 532-3680 to register. Registration is not required but is appreciated to ensure proper staffing. The Pinetop Regional office is located at 2878 W. White Mountain Blvd, Pinetop, Arizona.



Male Mallard Photo by George Andrejko AZGFD