



## Arizona's Raptor Experience, LLC

July 2017

~Newsletter~

*Greetings from Chino Valley!*

*We hope you enjoyed a safe and happy 4<sup>th</sup> of July. In honor of Independence Day, this newsletter highlights the Bald Eagle, a symbol of our country, patriotism and independence. You will have a chance to test your knowledge of eagle / raptor vocabulary...*

*You will also read about the Tarantula Hawk – I'm having fun highlighting critters with "hawk" in their name.*

*In our next issue you will meet the newest addition to ARE, a beautiful Ferruginous Hawk (*Buteo regalis*) pictured below.*



### **Upcoming Event:**

#### **Creatures of the Night – The Benefits of Attracting Owls and Bats**

*Saturday, August 12<sup>th</sup>*

*9:30 a.m.*

at

Watters Garden Center

Prescott, AZ

[www.WattersGardenCenter.com](http://www.WattersGardenCenter.com)

Four species of live owls will  
be on site.

Bring your camera!



## The Bald Eagle

(*Haliaeetus leucocephalus*)

The genus *Haliaeetus* is a Greek word which breaks down to “*Halos*” meaning “the sea” and “*aetos*” which means “an eagle”, referring to the fact that Bald Eagles are part of the Sea and Fish Eagle group.



Photo of Liberty, by Anthony D'Onofrio

The species *leucocephalus*, also Greek, translates to “white” and “head”. Genus and species together translates to “white-headed sea eagle”.

- The Bald Eagle became our national symbol in 1782
- However, they were not protected until 1940 when the Bald Eagle Protection Act was passed
- This legislation did not include Alaska until 1953

Cool facts about Bald Eagles:

- They are the only eagle species unique to North America
- Maturity is reached at 4-5 years old and marked by the change from brown to white head and tail feathers
- They are known to mate for life
- An adult has approximately 7,000 feathers!
- The bones of an adult weigh approximately 8 oz, or 5-6% of their total weight
- Food choices include fish, ducks, snakes, rodents, carrion, etc.
- Their huge nests are used year after year. After 15 years of use, a nest in Pennsylvania reached 9 feet tall and 6 feet in diameter



Photo of Leopold, by Marti Huzarski

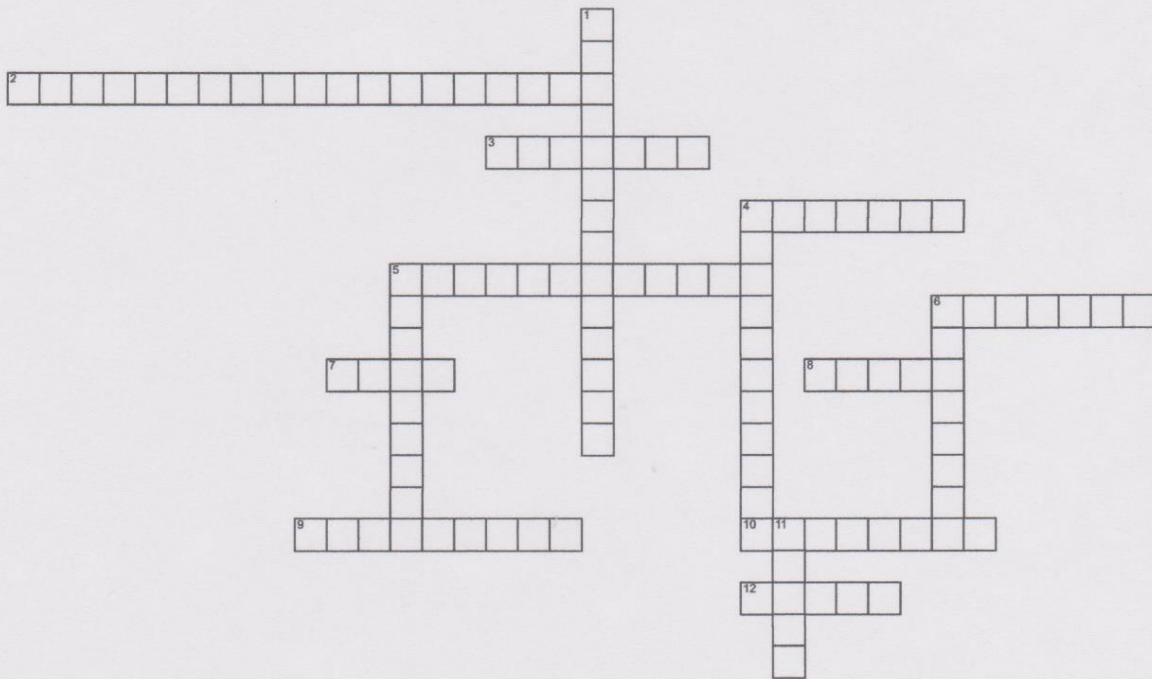
Major threats to Bald Eagles today include the following, most of which can be linked to human overpopulation:

- Habitat destruction
- Wind turbines
- Electrocution on powerlines
- Illegal shootings
- Lead poisoning from lead shot in carrion
- Chemical pollutants

*Test your Eagle/Raptor Vocabulary!*

*Answers will appear in our August issue.*

### Eagle / Raptor Vocabulary



#### ACROSS

- 2 Translucent membrane forming the inner eyelids of birds
- 3 Bill or beak
- 4 All the feathers that cover a bird's body
- 5 Situation where eggs in a clutch do not hatch at essentially the same time; may hatch days apart
- 6 Upper jaw
- 7 Fleshy structure at the base of the bill
- 8 Claw of a bird of prey
- 9 One sibling in a nest kills another; often based on resource availability
- 10 Spiny tipped pads on the feet which aid in holding prey
- 12 Nest of a bird of prey

#### DOWN

- 1 Parasitism by theft; form of feeding when one animal takes prey or other food that another has caught or collected
- 4 Fish eating
- 5 Hatched or born in an undeveloped state
- 6 Lower jaw
- 11 To straighten or clean feathers with the beak

## ***The Tarantula Hawk***



How do we know if a substance is poisonous or toxic? Typically, we mark dangerous materials with a universal sign: the skull and crossbones. In nature, toxic or unpalatable creatures warn potential predators with aposematic or warning coloration. These organisms are often very conspicuously colored. In fact, the more brightly colored, the more toxic they tend to be. Red, orange and yellow combined with black and/or white are common colors found in a variety of patterns designed to advertise danger. Examples of toxic organisms can be found in all groups of animals. Fish, birds, amphibians, reptiles, mammals, etc. all have toxic members with aposematic coloration.



The tarantula hawk represents another group that warns against danger with color – the insects. There are many species of wasps known as tarantula hawks. Their body is large, the length measuring up to two inches, and metallic blue-black. Their wings can be blue-black, orange or mahogany in color. They warn against two things: pain and a toxin that paralyzes (not humans!). Apparently, they are considered to have the most painful sting of any North American insect. The target of their paralyzing toxin is spiders, which are required to serve as a host for their larvae. In the desert southwest and anywhere tarantulas are found, they are the preferred host.



The female wasp is responsible for finding the tarantula host, which she does by smell. She searches the ground until she finds a spider or a burrow. If she locates a burrow, she enters, drives the spider out and then attempts to sting it. If she is successful, the tarantula is paralyzed

within seconds – a condition which lasts until the tarantula dies. If she locates a spider above ground, she will sting it and then dig a burrow to place the

spider. The female wasp may drink some fluids from the tarantula's wounds, but the main goal is to have the spider serve as a nursery for her offspring. The paralyzed spider is dragged into the burrow and the wasp lays a single egg on its abdomen. The wasp then seals the burrow. Upon hatching, the larval wasp attaches its head to the spider and drinks its fluids. The spider eventually dies, and the larvae ultimately consumes it.

Although the larvae feed on their spider host, the adult tarantula hawk is nectivorous, feeding on the nectar from flowers. Scientists theorize that it is because they are so conspicuous in their environment that they have such a painful sting. Their warning coloration is apparently very effective as the Roadrunner is one of the few predators of the tarantula hawk.

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***Guest photos:***



*Black Hawk adult and nestlings*

*By Karen Levitch*

