

Arizona Wildlife Podcast

Transcript: Episode 17 – Bald Eagle Biology

(Please note: this podcast was recorded live from a public presentation. It was not a rehearsed speech. This transcript attempts to capture the dialogue as it was spoken. At times when the speech was difficult to hear or understand, a good effort was made. These rare cases are noted in the text.)

The content for this episode came from the bald eagle banding overview presentation that took place at the Arizona Game and Fish Headquarters in Phoenix on March 12, 2009. It was part of the Arizona Game and Fish Department's Homeschool outreach program.

Listen as Kenneth "Tuk" Jacobson, the Department's bald eagle management coordinator describes some basic natural history of bald eagles. Following the live recording, the audio was edited and Eric Proctor, a Department educator, interjected appropriate questions to link the content.

ERIC:

Tuk, can you tell us a little bit about bald eagle biology, maybe describe some unique adaptations?

KENNETH:

A little bit of their morphology. They're similar to the other sea eagles. These are other fish-eating eagles. Large size. Primarily eat on fish. Like other raptors, they do follow Bergmann's Rule. Ah, I don't know if...if you're familiar with Bergmann's Rule, but, in general, what it says is animals that span large geographic areas and animals at higher latitudes are larger in size, and animals at lower altitudes are smaller in size. A lot of this is thought because of the cold. At higher latitudes are the bigger body size; it allows them to survive those harsher temperatures. Basically what this means is the eagles here in Arizona are similar in size to the eagles in Texas and Florida, and much smaller than the eagles that you'd see in Washington, Alaska and Canada.

They also exhibit reverse sexual dimorphism, another big term there. Basically all that says is the females are bigger than the males. The theory behind that is that the males are...are smaller. It makes them a little agile...more agile, a little faster, perhaps a little better at hunting and getting food. Whereas the females, they've got to still produce that big egg and...and be able to pack enough nutrients into that egg to, um, produce a nestling in the end. And so the females aren't...were kind of biologically kept from getting too small for the hunting aspect because they still needed to produce those eggs.

ERIC:

Do bald eagles only eat fish?

KENNETH:

The diet of bald eagles, uh, in Arizona as well as...as well as throughout their...their range is 80% fish – almost entirely they eat fish. However, the other 20% of their diet is basically whatever they can find, whatever they can get a hold of. They're very opportunistic. If they...if they have a duck or some waterfowl that they can get easily, they'll go after that. They will eat reptiles here, mammals, as well as carrion, road kill. A lot of the carrion and road kill, uh, is...is eaten during the wintertime when your waters, at least in higher elevations, are all frozen over. They can't get to the fish so they go for some of these other diet options. Uh. We have found here in Arizona that a balanced diet is very important to these

birds. We...we pay, uh, real close attention to the, uh, fish populations in the waters around our breeding areas, and it's important that they have this variety of fish to eat. There's a section on the Salt River where the diversity of...of fish species on that river has...has really plummeted, whereas another fish species, the flathead in this case, really took off in that area. It's almost entirely flatheads in there. Have any of you seen a flathead catfish? They get huge. You know, six foot in size. You know, thirty to a hundred pounds. They're really big fish. And being that large, they're too big for the eagle to eat. Um, as a result, our productivity in those areas has dropped off immensely. So maintaining that...that, uh, real diverse diet is quite important for these birds.

PARTICIPANT:

How long do bald eagles usually live?

KENNETH:

Well, it's, uh, varied as with anything. But, here in Arizona we do have the oldest, uh, record of a wild bald eagle living. It's out at Alamo Lake. It's had a broken leg for years. She is, I think, thirty-two this year, and she's producing young still. Most of them live to about seventeen, eighteen years.

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Thank you.