

# The Buzz

## Advocates *for* Snake Preservation



Changing how people view & treat snakes

Summer 2021 • #07

### Removing the Blinders

*“Science is only as good as the question, and we cannot learn the answers to questions we don’t ask.”*  
Jesús Rivas (2020)

Many scientists, in their efforts to be unbiased and avoid anthropomorphism, engage in *anthropodenial*: the refusal to acknowledge humanlike characteristics of non-human animals (de Waal 1997). This seemed to be especially prevalent among many herpetologists, who assumed reptiles weren’t capable of certain things, *didn’t ask the questions*, and missed some interesting observations because of this bias (Burghardt 2020).

For example, numerous observations of rattlesnake families dating back more than a hundred years were dismissed by the godfather of rattlesnake biology, Laurence Klauber (1956):

*“Their propinquity, such as it is, does not result from any maternal solicitude; rather it is only because the refuge sought by the mother is also used as a hiding place by the young.”*

In 1992, Harry Greene and colleagues published an article on viper parental care, presenting evidence that not only do families aggregate, but mother snakes actively defend their newborns.

Was there some technological advance at that time that finally revealed this behavior to scientists? No. But, it’s

difficult to see what you don’t look for and these authors took the time to look. They also reviewed others’ observations of parental care in vipers, demonstrating that this behavior is widespread and *more than mere attendance*.

When we began our study of social snake behavior in 2010, we were armed with cameras, binoculars, and field notebooks. With these simple tools we managed to document behavior that was once readily dismissed. How? We were looking for it. *We asked the questions*. And maybe more importantly, we largely left the snakes alone and let them tell their own stories.

### This is Woody’s Story.

We first encountered Woody (Arizona Black Rattlesnake, *Crotalus cerberus*) in a pile of rocks and a jumble of downed pines in May 2010, about 150 yards from any known winter dens. We visited this area a number of times through the summer, and found her almost every time, relaxing near some rocks or coiled among woody debris (for which she is named). Because of

her camouflage, we would have to search around for her, which sometimes brought us in close proximity, but Woody was even-tempered, never rattling or attempting escape.

Then one day in late August, everything changed.



Woody and Adam, photographed in 2010 by Jeff Smith.

*Continued inside...*

## Removing the Blinders: Woody's Story *(continued)*

We discovered several newborn rattlesnakes basking near Woody's favored spot. As we approached to get a closer look, but no closer than we had approached Woody so many other times, we heard muffled rattling from under the rocks. As we started snapping photos of the little ones, Woody poked her head out of her shelter and then proceeded to crawl from her refuge toward us, still rattling, and glaring directly at us. Our once-placid Woody was now fearless and wanted us to know she would not tolerate our advance. Impressed with her maternal instincts and not wanting to distress her or her babies, we quickly backed off.

We were more careful in future visits to Woody's nest, but she remained a vigilant mother: rattling from within her shelter if we got too close, or assuming a defensive posture between us and her kids (as shown in the photo on the back cover). The young caught on too, retreating into shelter if mom was upset.

Eventually the babies shed and the family split up, each trying to get a meal before it was time to enter their den for the winter. Since Woody's nest wasn't located close to a known den, we weren't sure when we would see her again. Was Woody's den located at or near her nest site? Would she show up at one of the dens we already monitored?

On the very first day we visited the dens in April 2011, we spotted Woody, basking in a popular spot with several other snakes, including some little ones that were born the previous summer. One of these juveniles turned out to be Woody's baby, Adam, and our new timelapse cameras caught them basking together.

Although it is not unusual to see adult and juvenile rattlesnakes basking together, Woody seemed to be particularly interested in Adam. Does her maternal regard for her offspring's well-being extend beyond the nest? If her mothering is genetic and beneficial to Adam, then such care could evolve. We observed similar behavior in other mothers too.

Many underestimate the wonders and complexity of the natural world, especially when it comes to snakes. The more we remain open to the possibilities of nature, the more we will be able to see. Early rattlesnake admirers dismissed maternal care for mere coincidence, but these moms make big sacrifices for their young both before and after birth. With this window of understanding now open, what more will we discover about the social lives of snakes?

- Jeff Smith & Melissa Amarello, Co-founders, ASP

References and videos available at [www.snakes.ngo/blinders](http://www.snakes.ngo/blinders)



Woody and Adam, photographed in 2011.

### Be a Snake Hero!

Snakes deserve a voice and together we give them one. **Your gift brings us closer to a world where snakes are respected and appreciated instead of feared and hated.**

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# Thank You!

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**We raised \$4,041.53!**

**World Snake Day is July 16!** This is an opportunity to celebrate snakes and raise awareness about their conservation. We encourage everyone to use this day to share positive stories about snakes with their friends and families, and an easy way to do that is to pass along your copy of *The Buzz* once you're done reading it. The cover story is super-shareable, one that tends to open eyes and help people see snakes differently – more positively!

As I write this, it is not quite July, but it has rained the past three days in a row. Hopefully this weather continues; after last year's nonsoon-monsoon, followed by a dry winter, we really need the moisture. Things looked pretty bad last week, but the plants are already greening up and I expect to see an uptick in animal activity soon. If this isn't the season for you to get outside and see snakes, be sure to check out **Project RattleCam** below.

*THANK YOU so much, for all you do for snakes, every day!*

*Melissa Annarello*

Executive Director, ASP



Melissa photographing Alice and her family of Arizona Black Rattlesnakes.

## Be a Rattlesnake Researcher!

In June's episode of *Snakes Are Everything*, ASP Board Member Dr. Emily Taylor introduced **Project RattleCam**, a community science effort to study secretive rattlesnake behavior. If you have a few minutes and internet access, you can view timelapse photos taken at a Prairie Rattlesnake den and rookery and record information on social behavior, parental care, and predation.

Watch the replay of **Snakes Are Charismatic** for the project background, goals, and a demonstration of the platform, Zooniverse. Or you can get started right now at [www.bit.ly/RattleCams](http://www.bit.ly/RattleCams).

## Snakes Are Everything!

Check out our NEW ongoing presentation series:

- **Snakes Are Awesome!** Dr. Jesús Rivas told us all about Anacondas, the awesomest of snakes.
- **Snakes Are Artsy!** Emma Hsiao discussed her work at the intersection of science, conservation, and art.
- **Snakes Are Charismatic!** Dr. Emily Taylor unveiled Project RattleCam (see "Be a Rattlesnake Researcher!")

**And coming up on World Snake Day (July 16): Snakes Are Dangerous!** with Dr. Harry Greene.

Sign up for our email newsletter where we announce upcoming episodes, so you can join us live for the presentation and Q&A.

If you missed any of the live events, you can watch them at [www.snakes.ngo/everything](http://www.snakes.ngo/everything).

# The Buzz

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Woody guarding her newborns (Arizona Black Rattlesnakes (*Crotalus cerberus*)).

## Advocates *for* Snake Preservation

*uses science, education, and advocacy to promote compassionate conservation and coexistence with snakes.*

### Who We Are

- Melissa Amarello, Executive Director
- Jeff Smith, Co-founder, Treasurer
- Steve Marlatt, Chair
- Jesús A. Rivas, PhD, Vice-Chair
- Emily Taylor, PhD, Secretary
- Gordon M. Burghardt, PhD, Director

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## Please Share!

When you're done reading The Buzz, please leave it where someone else can read it and learn to love snakes too.

*Coffee shops • Libraries • Cafes • Bookshops*



Eve and her family of Arizona Black Rattlesnakes, photographed by Jeff Smith.