

Ask a Biologist vol 028 Topic: Birds Guests: David Pearson & Cathy Wise

Birds of a Feather -

Listen in while Dr. Biology talks with two leading Arizona bird experts. Biologist Dave Pearson and Audubon Environmental Educator Cathy Wise let us in on these amazing animals. After listening to these two birders, as they call them selves, you will want to try out birding yourself. Did we mention the Philippine Monkey-eating Eagle? Let's just say, be glad you're not a monkey living in Philippines.

Transcript

Dr. Biology: This is "Ask-a-Biologist," a program about the living world, and I'm Dr. Biology. Who's not thought about flying like a bird, or at least being able to soar along the cliffs and the winds of the mountains and the desert? We can do this if we happen to be a feathered animal, such as a bird. Well, maybe we could do it if we had some mechanical device, like a plane or, say, a glider, but if we wanted to do it like a bird, we can only dream about that.

It also turns out, besides flying, birds have some really cool things to learn about. In fact, they have quite a tale to tell.

Our guests today are two people that are, I'd have to say, passionate about birding. Dave Pearson is a research professor in the ASU School of Life Sciences. He's also a well-known birding expert and a member of the Audubon Arizona Board of Directors.

Cathy Wise is also with Audubon, and she's an environmental educator. She's also one of the editors of the "Arizona Breeding Bird Atlas," published by the University of New Mexico Press. And if you haven't seen this book, you've got to pick one up; although you'd better do your exercises beforehand. I have one here, and man, it must weigh 10 pounds. And if you open it up, it's got wonderful pictures, great graphs and maps. So if you really want to do anything with birds in the Southwest, pick one up.

Now that we have these two great guests in the studio with me, we're going to have a chance to learn about these birds. I think Cathy has a really cool activity she's going to talk about with us. We'll even talk about an activity, or a resource, on "Ask-a-Biologist," our birding aviary, and I'm hoping you'll try that out after you've listened to what we have to say today. I want to thank both of you for coming.

David Pearson: It's a pleasure to be here.

Cathy Wise: Thanks for having me.

Dr. Biology: All right. I've got both of you here. And this is the best thing you can have. You have someone who's been birding forever, Dave Pearson. And I have this educator: you see Cathy, she's got this beaming face. She's just really enthusiastic about birding. So we've got just really fun things to talk about.

One of the things I'd like to know is why does someone get into birding?

David: Well, when I started many, many decades ago, it was because some neighbors were doing it--not my parents, not family, but neighbors who were very enthusiastic about it. And I, for some reason, just seemed to like what they were doing, and I jumped into it, and it caught very, very easily.

Dr. Biology: Now, Cathy, how long have you been doing something with birds?

Cathy: Gosh, I've been interested in birds since I was a young girl. And one thing that really attracted me to birds was the diversity. Now, if you're interested in lizards, let's say, in the Southwest, maybe we have, how many? Ten, ten species? But as far as birds, we have over 500 species that have been seen in Arizona.

And the neat thing is you can see birds anywhere. You can see them in a parking lot. You can see them at a park or in the mountains or on a hike. Everywhere you go, there's birds. So they're readily available for viewing, and they're so different: different colors and shapes and different activities.

Dr. Biology: That's one of the things. A lot of people think they have to go out into the woods or the mountains. Heck, you can do birding in your backyard; right?

David: Right here in Tempe, Arizona, we have a house that's in the middle of the city, and we've seen, in or on or over our little yard, 112 species in the last 20 years.

Cathy: Wow, that's great.

Dr. Biology: 112. OK. So now you're bringing up something that's interesting: you have the actual number of birds. Let's talk a little about this list that birders like to do. I think the interesting thing about it is it's almost like a competition that goes on.

David: It's not "almost like." It is a competition. And I will have to admit, when I was young, that was part of what got me into it. I didn't realize how competitive I was. I wasn't into sports, wasn't into other areas that might show how competitive I was. But when birdwatching came along, I got into it. And although I often kid by saying, "Who's counting?" I am counting.

Dr. Biology: How many birds do you have on your list? Well, actually, let's talk about the lists themselves before we get too far along. You have a list that's in your backyard, all the birds you've seen from your backyard. But there are other kinds of lists; right?

Cathy: Yes. There's state lists and year lists, even. So you start counting at the beginning of the year, and people take this very seriously. They are ready to bird at exactly 12:01, or maybe actually 12:00. As soon as the clock ticks, they're out there with a tape recorder, trying to pick up some owls or whatever they can. But from that minute, they record every bird that they've found, that they've seen...

David: But the list of all lists is the life list.

Cathy: Oh, yes, the life list.

David: That's what many people rise or fall on. And a life list is how many bird species you've seen in your life.

Dr. Biology: How many birds you've seen in your life. OK. Give us the big count. What's yours?

David: Well, just to give it a frame of reference, right now there are about 9,600 species of birds in the world. And so far, in the last 50 years, I've seen 6,300.

Cathy: Wow.

Dr. Biology: More than two-thirds.

David: Yeah. Time's going fast, but I've still got plans to get to 7,000.

Dr. Biology: OK.

David: But who's counting?

Dr. Biology: Well, I bet you there are people counting. What's the most exotic place you've gone to, probably, for birding?

David: Well, I was just, in March, in the Philippines. That was pretty exotic, if not a little dangerous. But there are so many birds that only occur in the Philippines; every time we turned around, we were seeing a new species, including the second-largest eagle in the world, the Philippine monkey-eating eagle. That was pretty exciting.

Dr. Biology: The Philippine monkey-eating eagle. Sounds like something out of some kind of a sci-fi movie, almost.

David: It's a big bird. And it soars around. There are only about, maybe, 100 pairs left, so it's in trouble. But there are places in the southern part of the Philippines where you can still see it.

Dr. Biology: What does a monkey-eating eagle look like?

David: It looks like one of our eagles here in North America on steroids. It has almost a 10-foot wingspan and a 10-inch-long bill.

Cathy: Wow.

Dr. Biology: 10 inches long? You've got to be kidding me.

David: No. It's very, very big.

Dr. Biology: How much do they weigh?

David: Probably about 15-16 pounds.

Dr. Biology: Wow. That's pretty impressive.

Cathy: What's interesting, though, is for a bird that large, that is fairly light. Birds have hollow bones as an adaptation for flight. So you'll see a giant bird and you'll think, "Oh, my gosh! It must be so, so heavy!" And actually, they're very light.

Dr. Biology: Right. Otherwise, they wouldn't be able to get off the ground. It'd be pretty tough.

Cathy: Exactly.

Dr. Biology: Yeah. So Cathy, do you have a life list?

Cathy: I don't have a list.

Dr. Biology: You don't.

Cathy: So when you say, "Who's counting?" I'm not. I'm not counting. I started one, and then it just sort of fell by the wayside.

Dr. Biology: Right. I'm more like you. I haven't been counting. We know why you guys might have gotten into birdwatching. Why do you think other people get into it? Is there any kind of type of person that really is drawn to birding? Cathy, have you noticed any?

Cathy: No. Actually, I've seen people from all walks of life and all ages get interested in birding. And I think one of the reasons could be that the birds are all around us, all the time, and that they are so colorful and so vocal that they're easy to observe. And once you start looking, you discover that there's more and more to see.

Dr. Biology: And we are in one of the best birding places in, at least, the country, in Arizona.

Cathy: That's true.

David: People come from all over the world to bird here in Arizona.

Dr. Biology: Right. So if you're living here, you're missing out if you're not going out and trying it yourself.

All right. Well, let's branch out just a little bit. We'll go a little bit beyond Arizona. Or maybe we don't have to. Birds, besides flying, besides being monkey-eating eagles, which is pretty cool to me already, what's a rather interesting or unusual characteristic of a bird, Dave? Is there something, any kind of habits or things that you've come across that are kind of interesting?

David: Well, right away, I think of two birds. One is the arctic tern, and it migrates from the Arctic Circle, where it nests, to the Antarctic every year. Round trip: 24,000 miles. It probably is in sunlight more than any other species in the world. And the other bird that's really intriguing is the bar-headed goose. They fly over Mt. Everest.

Dr. Biology: They fly over Mt. Everest.

David: So we're talking close to 30,000 feet they're flying at. And jet airliners have had to move out of the way to avoid flocks of bar-headed geese flying over Asia.

Dr. Biology: Well, from a biology standpoint, most of the humans that go up to that altitude have to have oxygen, so it's pretty impressive that an animal can fly up there. And last time I checked, they're not using oxygen masks.

David: That's right. They're not.

Dr. Biology: So that would be an interesting study in itself. Cathy, have you come across any birds that you just found really peculiar or really fun to think about?

Cathy: Oh, so many, so many species. The examples that I can think of right off the top of my head are right here in Arizona. We have a species of hawk called the Harris's Hawk. And unlike most other birds in their family, they are gregarious, which means they like to be together. They'll hunt together.

They also will do rather odd behavior, where they will stand on top of each other, and this behavior is called stacking. And it's crazy. It's like a totem poll. They'll just stand on each other's backs. And I've seen them do this three birds high. I've heard that they do it up to five birds tall. And nobody's really sure why they do this. It isn't because there's not other places to perch. So it's just rather mysterious and interesting.

The other bird that I find very fascinating, right here in our area, is the burrowing owl. And burrowing owls, unlike other owls, are active during the day, not at night, and they live in underground burrows. So that's a little odd and not what you would expect out of a typical bird.

Dr. Biology: Right. Andrew Smith actually talked about some birds in the Tibetan plateau that depend on the pika burrows, because there are no trees around there. So if they're going to nest, they have to do that. So it's interesting. Not all birds, of course, are up in the nest. And the ones that are stacking--I guess, what are we going to call those? They're going to be like the cheerleader of birds. Maybe they're practicing their calls or something.

Cathy: [laughs]

Dr. Biology: The one bird that really is curious to me, and I see them outside my back door in the summertime, are the hummingbirds, because they don't just fly; they can actually hover. Now, do either of you know how they're hovering? What are they doing?

David: Well, they're beating their wings very, very fast in the form of a figure eight, and how that figure eight is oriented, up or down or back, will determine which way they'll fly. So it's like almost swimming backwards. They can change the angle of their wings and move forward. They also have a really spectacular adaptation in that their arm bone that fits under the shoulder is very short. So that means that they don't have a long movement of the bones. They can move them very, very quickly.

Dr. Biology: Very efficient. Well, I've wondered about that.

And there's another thing. One day, I came in, and I was talking to you, Dave. I'm watching the hummingbirds. They're in my backyard. My backyard fence is a wrought iron fence, and this hummingbird's going along in between each one of these little wrought iron areas. And of course, I'm thinking, "What's a hummingbird doing that for?" Because they should be looking for nectar and a flower; right? That's what they should be doing. So I come in and I ask you, and you said, "Oh! They're looking for cobwebs." And why were they looking for cobwebs?

David: Well, they use the webs to help hold their little nests together.

Dr. Biology: Ultimate sticky glue type of thing. If you've ever gotten a cobweb on you and can't get them off, what a great idea. I love it.

Cathy: That's right. They will also eat spiders, they will eat small insects, when they're nesting, to add some protein to their diets.

Dr. Biology: Oh. OK. So a little nectar drink and a spider snack. [laughs]

I want you to pick either your favorite bird or your favorite bird song.

Cathy: I love a whole family of birds that I find fascinating, and I always have, and those are the flycatchers. "And why do you like flycatchers?" people ask me, because generally, they're not real colorful. We do have the vermilion flycatcher. And Dave's looking at me like, "Flycatchers? Why them?" But we have the vermilion flycatcher: beautiful red bird with a little black line over his eyes. Very, very pretty.

And I've had a hard time articulating what it is about them that I love so much. They do tend to have quite a bit of attitude, and I think that that may be part of it.

And one of my favorites is a forest bird called the olive-sided flycatcher. And he's a dapper little fellow, even though he's not bright.

David: Could you sing his song for us?

Cathy: I could. It's very easy to remember. He says, [singing like a bird] "Quick, three beers!"

Dr. Biology: [laughs]

Cathy: [singing like a bird] "Quick, three beers!"

Dr. Biology: Really?

Cathy: Yes.

Dr. Biology: I think we have one of those on our aviary?

David: Yes, we do. I think so.

Dr. Biology: Oh.

David: There are some people who say it's "Hip, three cheers," too. It depends on how you hear it.

Cathy: Oh, no, definitely "Quick, three beers."

Dr. Biology: I do think we have one of those on our aviary. I'll tell you what: we'll listen to it, and we'll see how well you've done.

Cathy: OK.

[sound of bird singing]

David: That was beautiful; wasn't it?

Dr. Biology: [laughs]

Cathy: See? Not too bad.

Dr. Biology: [laughs]

David: Pretty close. I still think it's "Hip, three cheers."

Cathy: "Quick, three beers."

Dr. Biology: [laughs] All right. Now this is sounding like a commercial. Dave, what about you?

David: Well, if I'm here in Arizona, for me, the haunting sounds of the canyon wren. It's a common one that a lot of people pick, but still, it's really spectacular to hear that bird calling, especially when it echoes off a canyon wall.

Dr. Biology: Hmm. Should we listen to that one?

David: Let's listen to it and see what you think.

[sound of bird singing]

Cathy: That's beautiful.

Dr. Biology: And it's really amazing because you can listen to these yourself, along with a lot of other birds, on our aviary, Birds of the Southwest. Included, we have the data card, so you can see a picture of them. We have descriptions that are by none other than Dave Pearson. We also have range maps that have been set up, also by Dave Pearson. And our aviary has well over 200 birds and almost 500 of their songs. Wow. OK. I'm getting excited about this, but I'm easily excited, I suppose, about birds nowadays.

Cathy, you have put together a really fun activity. What I like in particular is you use some of the songs from the "Ask-a-Biologist" website. This is something that kids could do at home or we could do it in the classroom; right?

Cathy: That's right. What I found in my research is that most bird detections, I would have to say, come first by hearing the bird, rather than by seeing it. Sometimes you'll see it first, but often you'll be walking along and you hear a song or a call, and that clues you in to where you will find the bird. And then you can pick up your binoculars and look in that particular tree or behind that bush, and sure enough, there's the bird.

So I thought it would be a lot of fun to introduce that concept to students and have them be able to experience bird songs and calls in their neighborhoods, or in their school yards. I think what will be most interesting is, when you hear the songs, you'll say to yourself, hey, I've heard that before. And then you'll be able to find out more about that particular bird, the bird that's making that song that you hear probably every day.

Dr. Biology: Right. Let me tell you just a little bit about the activity. It's very easy. You download it. It's a PowerPoint. You're going to learn ten typical birds that you'd find basically in the Phoenix area, in the Southwest. You can go through it, you'll learn them and then there's a little quiz at the end, so that you can figure out if you did learn the birds and then if you didn't you can go back and repeat it very easily.

The nice thing, just as Cathy said, is you get to learn the songs before you go out and so it becomes something very familiar. We're going to have this activity posted on the "Ask-a-Biologist" website. If you go to the bird aviary it's one of the activities that's up there. There's actually more than one activity; right?

Cathy: That's right. This is the second lesson in a series called "Science Takes Wing."

Dr. Biology: Oh, what a great name.

David: I have a lot of people who say to me, I can look and see things but I don't understand how I can learn birdsongs. That's too difficult. What I tell them is, if you can learn to identify somebody's voice on the telephone when they call you, you can learn birdsongs. Anybody should be able to do that.

Dr. Biology: Yeah. It's the same thing as "Name That Tune."

Cathy: Exactly, I was going to say, it's very similar to learning a particular type of music. People have their favorite bands and when a new song comes on by that band, usually you can pick it up because there is a distinctive cadence or style that you become accustomed to and it's very similar with birds.

David: We're trying to overcome visual bigotry here and introducing the idea that songs are every bit as good, if not better in some ways, in identifying birds and getting to know birds.

Cathy: One thing that people I guess sometimes are wondering about is why are birds singing. Why are they singing? Why are they making all that noise? There are actually

two reasons, probably many more, that biologists have come up with, and one, they are trying to attract a mate. That's probably the biggest reason why they would sing.

Another reason would be to advertise that they have a particular territory. So they're basically telling all the other guys in the neighborhood, "Hey this is my turf. Stay out." And that's very important to birds.

The other class of sounds that birds make are called "calls." And calls are different. Typically they're shorter than songs and they can be used to advertise that there's food, or to alert other members of the species to a danger.

Dr. Biology: Right. For example, in the back yard when the cats are roaming by again, the aviary's towhees, I usually hear them start up because they are letting everybody in the neighborhood know that the cat's out.

Besides these activities, what else has Audubon been up to lately?

Cathy: Audubon Arizona has just finished their capital campaign and they have been able to raise almost \$7 million for a nature center in south Phoenix on the banks of the Salt River.

Dr. Biology: Fabulous.

Cathy: We are so excited about it.

Dr. Biology: The Salt River is pretty long. Where is it?

Cathy: It will be right on Central Avenue.

Dr. Biology: Right on Central Avenue?

Cathy: Right on Central Avenue on the south side of the river.

Dr. Biology: Hmm. I'm hoping that we have people that are getting excited about trying this out. How do you get started birdwatching? Do you have to go buy a bunch of equipment? Do you have to have expensive binoculars? Do you have to have special clothing?

David: When I started I could not afford binoculars, I actually found out it may be in some ways a good idea not to start out with binoculars, because you develop a whole different set of abilities to look at, find and identify those birds.

I started out when I was ten years old. And it just grew from there. I had a bird book. I think a bird book's pretty important. Even some of the smaller bird books that they have for beginners might be very important. Having somebody else around to help you, that can help a lot, too. And become very comfortable. It's a very fun effort. It's not something you have to work at, once you become excited about it.

Dr. Biology: Right. You can be out at lunchtime and be seeing a new bird for the first time and you can be adding to your list.

David: But who's counting?

Cathy: Who indeed.

Dr. Biology: All right. Cathy what about you? If you have young students that would like to get into birding or maybe the old students like myself, is there something that you would advise them to do?

Cathy: I would advise them to think about the shapes of birds. I think that that's very important when you are first starting out. Just think to yourself right now. Imagine the shape of an owl or the shape of a duck or a shape of a woodpecker. A lot of people get sidetracked when they are looking at birds and they immediately focus on the colors and different things like that. And really, the basic is the shape.

And once you have the shape you can then look at the colors and then be able to find the bird in your bird guide. Most people realize, "Gosh, I know more about birds than I think I know, because I can identify these different basic shapes."

Dr. Biology: I think basic shapes is a perfect place to start, and I'm actually hoping we are going to add a little key to the "Ask-a-Biologist" website. I don't know how soon we will get it up there. That'll help do that because we've got a really big aviary now and it's becoming more difficult to learn about all the different birds.

Cathy: Well, the issue that I came up with is people will call me up and they'll say, "I saw this bird and it was a particular color." And I'll say, "Was its tail long? What was its shape? Was it bigger than a breadbox?" And they'll be so, kind of, focused on, "Oh, my gosh, it was green." And as we all know, the way light shines on something can really change the color and distort it. So it's really very important to get some shape clues in there as well.

Dr. Biology: Right. And even size becomes difficult because if they're far away, they may look small and then actually they're the giant monkey-eating eagle or something.

Cathy: Right. So I advise people to have a point of reference. That that's very important. If you can see the bird next to something that you know the size of, like a telephone pole, or a birdhouse, or bird feeder.

Dr. Biology: And also their song. That's the other thing we talked about is the song, is like the great key of all keys.

Cathy: Oh, sure, and there's certain species of my favorite family, the flycatchers, that are almost identical in appearance. But their songs are very, very different, and that's the only way that you can reliably identify them in the field.

Dr. Biology: All right. If I'm starting out, the neat thing about it is I don't have to have a lot of equipment.

David: No. I would say, again, a small little field guide, even a beginner's one, and become familiar with it. Look at it and be prepared to use it as a guide ahead of time. And then when you go out into the field you have a better frame of reference to know what to look for, form, shape, and eventually color. Size can be very misleading. You learn very quickly what things work, what don't work.

Dr. Biology: Well, for those that are really beginning birders, we have a guide up on "Ask a Biologist," in the aviary. It's a beginning birder's guide and it's a great way to get started. It does talk about things such as clothing. Some of the fundamentals there. What type of clothing would we want to wear?

David: Well, you have to figure that birds have got eyesight better than ours. They're really good at picking up motion, picking up details. You don't want to wear something chartreuse and yellow and bright orange. It's going to make you too obvious and the birds will know you're there very, very quickly.

You can wear something that blends into the background, grey or greenish that will make it less likely the birds are going to notice you and you're going to be able to see them without scaring them away.

Dr. Biology: OK and how about, I have a pair of pants that I exercise in when it's cold out, some sweatpants. And they're great for that, but boy, can you hear me coming.

David: Noisy pants and Velcro, those are the two things that when I'm out birding and someone pulls open a Velcro strip and everything flies away. Sudden noises and sudden movements, you can move, but move slowly.

Dr. Biology: All right, no one comes on "Ask-a-Biologist" without answering three questions. Cathy's looking at me with great big eyes. You're a biologist, whether you want to say it or not. You're into birding. You're certainly an educator. What was the spark? What got you going? Do you remember when that happened?

Cathy: I do remember when that happened. I was working at a car wash, of all places, and the gimmick of this car wash was that you could go in while your car was being washed and see birds. They were caged birds, they were parrots and macaws and that kind of thing. And I worked in this car wash. I started out washing cars and I ended up in the bird room. So I guess you can see how that progression happened.

But in working with these birds on a daily basis, I was exposed to how intelligent they were, how moody they could be, and just how interesting they were in general. And I decided at that point to learn more about them.

Dr. Biology: And I'd ask you the same question, Dave, but since you were my first guest, we already learned that you started very young. And you migrated into, actually, tiger beetles when the birds weren't around. But what we didn't talk about is you have an interesting link with a very popular radio show personality. Can you tell us just a little bit about that, because that's right around the same period?

David: Well, I'm not sure how many people out there in our listening land will know about Garrison Keillor, but he and I went to high school together in Anoka, Minnesota. And he was the one person that saved me from being the dweebiest person in high school. So I really appreciate Garry's presence there.

Dr. Biology: And he's actually written about you.

David: Well, he talks about Dave the birder, Dave the birdwatcher every once in a while.

Dr. Biology: Well, that's pretty cool. I never knew that until a little bird told me. All right. Cathy, you're passionate about your birds. You've become quite the biologist. I'm going to take it all away from you.

Cathy: No. Oh, no.

Dr. Biology: Yeah, it's going to be all gone. I'm going to take away all the science and all the biology. I want you to tell me what you'd do and what you'd be if you couldn't be a biologist or you couldn't be a scientist.

Cathy: I would be a gardener.

Dr. Biology: That's very interesting, because we've had other people who want to be gardeners. There's two kinds. There are kinds that just go for the flower gardens and there are the ones that actually go for vegetable gardens. Do you have a preference?

Cathy: I would be the organic farmer.

Dr. Biology: The organic farmer, all right. Now is there a particular kind of food that you would like to grow because you love to eat it?

Cathy: Of course. I would love to grow mixed greens. I'm a big salad eater, and I love the mixed greens. And I also love flowers, so I would be a flower gardener as well.

Dr. Biology: Actually, if I got to grow a garden, mine would be tomatoes, because in the Midwest, I have had some of the best tomatoes. Anybody who has never had a homegrown or an organically grown tomato that they didn't buy at the store has never tasted a tomato. It's phenomenal.

Now Dave, you also answered this question, and you were going, if I recall, to be a tour guide. That would be something you would do. So I'm going to stretch you a little bit further. I'm taking away your biology and I'm taking away your tour guide.

David: Well, then I would like to be a linguist or perhaps work for the State Department, to be able to travel around and get a big bird list.

Dr. Biology: A big bird list? Bigger than 6,000? OK, well, that would be quite a story in itself. And we've talked about this, but we should mention, how many languages do you say you can speak? Some of them you get in trouble with but others you might get by.

David: I teach courses in five languages.

Dr. Biology: Five languages. I love that, and I'm jealous of it. What advice, Cathy, do you have for young scientists that want to get into the world of birding? In other words, they really want to get into more of the research side. Have any advice for them?

Cathy: I do have advice for them and that would be to have patience with yourself in learning the birds, because it does take time and it's not going to happen overnight. Just keep close attention to your notes and study hard in school.

Dr. Biology: Study hard in school. Eat your vegetables.

Cathy: Eat your vegetables, yes, please.

Dr. Biology: All right, Dave, words of wisdom?

David: Find your passion. Everybody's got a talent lying inside of them and you never know what's going to draw it out. Someone you talk to, a course you take, a book you read, a television program you see, a movie, you have no idea what's going to pull it out.

So the more things you try, the more likely you are to find out what that passion is. And if you can spend the rest of your life being paid for something you do as a hobby, you're going to really enjoy life.

Dr. Biology: Right, you'll never work. Dave Pearson, Cathy Wise, thank you so much for being on "Ask-a-Biologist."

David: Thank you for inviting me.

Cathy: Thank you.

Dr. Biologist: You've been listening to "Ask-a-Biologist", and my guests have been Professor David Pearson, from the ASU School of Life Sciences, and Cathy Wise, from Audubon Arizona. If you'd like to learn more about Audubon Arizona, you can go to their website and that's really easy to find. It's az.audubon.org. And if you don't know how to spell Audubon, it's A-U-D-U-B-O-N.

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