



EPISODE 2

Ten Things You Need to Know When Selecting a Pair of Binoculars

SEE THE SHOW NOTES AT:

www.birdingtools.com/2-ten-tips-for-selecting-binoculars

INTRO: Hey there, I'm Christa, your host for the Birding Tools podcast.

Each week, I'll delve into the wonderful world of birds for birding beginners and those wanting to get the low-down on what goes into birdwatching and identifying birds.

Let's get started.

CHRISTA ROLLS: This week on the Birding Tools Podcast I'll be getting into the ten things you need to know when selecting a pair of binoculars.

Binoculars are without a doubt one of the most important tools you'll need to have with you when you go out birdwatching. They allow you to see the finite details on a bird to better help you identify them, and help you to see them up close and when they're far away.

Just a little terminology tip, in the birding world, you might also hear people call binoculars, "bins." So not the trash bin, but your binoculars "bins."

You probably thought you could pick up whatever pair of binoculars has good reviews online. That's true to an extent, but some of the tips we've got for you are probably ones you didn't think of.

Let's really quickly go over the anatomy of binoculars so you know more about the different terms I'll be using.

So, binoculars have four lenses, two on the side that you look through, and two looking out toward the object you're looking at. The two smaller lenses you put up to your eyes are the magnification lenses. The two larger lenses facing away from you and toward the object you're looking at are the objective lenses. Each rounded cylinder which you hold with both hands when you're birding, is called a barrel, and the focus wheel is found between those two barrels – just at the point where your two pointer fingers touch as you hold the binoculars just as if you were holding a sandwich between your two hands to take a bite – only you're holding the binoculars up against your eyes. The focus wheel helps you to adjust what you're seeing more clearly.

That's pretty much the jist of it anyway.

Also, fun fact, the word binocular means being able to use both eyes, bi meaning two and ocular meaning eyes.

If you have a pair of binoculars you can look at or handle now, you can compare these different points as we go along. Now, if you're driving, obviously be safe and just take note of these different points.

Take one point of interest that is stationary, like a sign of some sort, to use as your testing object as we move through this list. This will make it a lot easier than using a moving object, such as a bird. I'll also be linking a checklist of these different points in the podcast show notes at birdingtools.com.

So first, when you buy a pair of binoculars, you'll see that each has two numbers associated with them. I mentioned this in our episode briefly last week, but this is a good point to reinforce. For example, I have a pair of 8x42 Nikon Monarchs. That first number, the 8, is the magnification power. This means when I look through the binoculars I'm seeing birds 8-times closer than I would see them with the naked eye. This number should ideally be a minimum of 7-power to allow you to see birds well. There are 10- and 12- magnification binoculars, and while they allow you to see birds even closer, they are going to

be more susceptible to shake distortion as you look through the binoculars. I know I personally don't have the steadiest hands, but I'm not being judged for drawing inside the lines anymore. For me, having an 8-power magnification is definitely ideal compared to a 10-power magnification. For beginning birders, this can be a source of frustration, so keep this in mind when you're trying out pairs of binoculars and you want to see which works best for you.

That second number in my 8x42 example is the lens diameter of the larger, objective lenses, or outer lenses. The larger the lens diameter, the more light should come into the binoculars. It might seem counter intuitive to let more light in to your binoculars, but this is actually a good thing. Have you seen a bird flitting around in a dark set of bushes, or flying backlit in the sky? A binocular with more light coming through better illuminates the bird you're seeing and makes the image less dark, thus allowing you to see those little details on a bird you need to ID them. Keep in mind that having a pair of binoculars with a larger lens diameter isn't necessarily going to help in every case where you have poor lighting conditions, but it will make it easier to see the bird overall. Now pay close attention, this second number should be five times as large as that first number I mentioned. So for my 8x42 set, I'm good. There may be other binoculars out there where the ratio is a little off, so test out different kinds of see how they work for you.

Get a pair of binoculars that you'll want to carry around for hours. Pretty obvious right? Well, I'm wondering how many of you listening actually tested out the weight of different binoculars to see which felt more natural to hold or was overall a little lighter to carry. Over the course of hours, you can get some pretty serious neck strain if your bins are too heavy, or at least heavier than what your body is accustomed to. A good way to balance out this weight is to get a binocular harness, which distributes the weight better over both shoulders and your upper back instead of on the back of your neck. I'll link to the products I mention in this episode in the podcast show notes, too, for those wanting to check out these products in more detail. I also personally have a binocular harness and I really recommend them if you find you are getting neck strain when wearing your binoculars.

Our fourth tip. Test the binoculars to make sure the barrels flex easily. Remember, the barrels are the two main parts of the binocular that you hold in each hand. They shouldn't be too difficult to close together or pull apart, and they certainly shouldn't slip at all! Try holding the binoculars with one hand on one barrel with the binoculars fully flat, or flexed outward. If the other barrel slips together toward the one you're holding, you should look at another pair of binoculars or contact the manufacturer directly. Ideally you'll want to hold binoculars with two hands, but I can't tell you how many one-handed IDs I've needed to make while doing point counts or holding my bird field guide in the other hand. It would be super annoying for the barrels to slip during a time like that.

Next tip, get color coated or polarized lenses. Just as polarized lenses work for your sunglasses, they work on your binoculars too. They help to reduce the amount of glare and increase the amount of good light coming through the binoculars to give you a good ID. When the lenses are against your face, you won't see any color distortion, so don't worry. When you hold them away about a foot from your face, you should see them reflect a bluish tinge. This means your lenses are color coated.

Sixth tip, when you're looking through the binoculars, the barrels should come together to form a perfect, single, clear circle. If the image isn't a perfect circle once you've adjusted your binoculars a bit and aligned them with your eyes, they may not fit your face well. And that's OK! Just be aware of looking for this when you're selecting binoculars and try out different pairs for this reason.

Really the reason you want this circle to be more or less perfect is that you'll reduce eye strain in the long run if the binoculars are well fit for you as you're looking through them. Now if the image creates a perfect or near-perfect circle but you can't quite focus clearly on the combined circles, your lenses could be out of alignment, which is called binocular collimation. Now this is a huge issue, as it requires going into the physical binocular hardware and realigning those lenses with each other. Often this requires sending your binoculars into a specialist to go in and do this for you. We actually just had this happen to a

pair of kids' binoculars that we would often take out with us on bird walks, likely from them being dropped, and it makes it really uncomfortable to look through the lenses. Just make sure when you're checking for that clear image that it's not due to the diopter needing to be adjusted. The diopter is the plus/minus wheel found near the right eye cup that helps you adjust the focus if your eyes are two different prescriptions. If you've adjusted this properly and you're still seeing distortion as you look through both lenses, then this might be a matter of collimation.

If you go birding with eyeglasses on, this seventh tip is for you. Make sure the smaller magnification lenses have expandable or foldable eye cups. It's mostly non-birding binoculars that might not have this feature, so just check for it when you're scoping out binoculars. This will make it easier for you to look through the lenses as you're wearing glasses, and give you a wider field of view even though you're holding the binoculars a little away from your face. And keep a lookout for binoculars that have an eye relief value of 15 mm. This is the value you'll look for if you wear eyeglasses as you wear binoculars and measures the distance between your eyes with eyeglasses on and the binocular lens.

Next, test whether you can see objects around 20 feet away clearly, and around 2 blocks away clearly. Seeing clearly both up close and pretty far away will be important if you're on a birding walk and you've got a little bird in a bush just nearby or if you're on a marsh or shoreline and there's a bird in the distance you're trying to get a better look at. No, not every pair of binoculars allows you to focus as close as 20 feet away, so definitely test this out.

And finally, make sure the lenses don't have image distortion. When you're looking through the binoculars, see whether the object you're looking at has the correct dimensions toward the edge of your field of view equally as good as the center of your field of view. If not, it might be low quality or lemon glass that needs to be sorted and it would benefit you in the long run by avoiding that image distortion around the edge of your field of view.

You can test this out by focusing on a stop sign, for example, and seeing whether the letters toward the outer edge of the sign and your binocular field of view is just as clear and undistorted as the center of your field of view.

All of these points, and some extra tips, are located on a checklist cheat sheet that we're putting for you to download in our show notes, so feel free to head over there at birdingtools.com to get more information about selecting binoculars.

And there you have it! All the things you need to consider when purchasing a pair of binoculars. I'd love to know how many people listening took these points into account when they got a pair of binoculars, or if this list was helpful to new birders looking to get their first pair.

I recognize that today it's difficult to go in and get your hands on binoculars to try them out. Just make sure that whatever pair you're looking at allows you to return them if they don't fit these criteria. This is a big investment and it's one of the most important tools you'll have to add to your birding endeavors.

Thanks so much for tuning in to the Birding Tools Podcast and I hope this material was helpful to you.

To access information about the products and freebie I mentioned in the show, and the show notes, visit our website at birdingtools.com.

Next week, I'll be delving into the anatomy of your bird field guide, including what makes a great field guide and how it's organized.

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See you next time.