



EPISODE 13

Birding Scope Basics: What You Need to Know to Select the Right Scope

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www.birdingtools.com/13-birding-scope

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: First, I wanted to let you know that I have a free guide to learning all about bird identification. After going through this workbook, you'll know about the five keys to bird identification: size and shape, color and pattern, behavior, habitat and distribution, and sound. When you understand the main components of identifying a bird, you'll begin to feel more confident with your birding and identification skills. This process will not just help you with identifying birds by sight and sound easier, but it will also help deepen your connection with nature. To get this free guide, just visit the podcast show notes at birdingtools.com.

This week on the Birding Tools podcast, I'm going to dive into birding scope basics, including the differences between a scope and binoculars, what to look for when you purchase a scope, and a shortlist of the most highly

recommended scope brands. For your convenience, I've included a little cheat sheet of the information I'll be detailing today on our podcast show notes at birdingtools.com.

Recently I had someone contact me about how to choose the best scope based on their specifications and I realized that while I have an episode about how to select the best binoculars for you – which is Episode 2 by the way – I haven't put out information about how to select the best scope for you. So here we are!

About half of birders use scopes, and while they're a wonderful addition to any birder's equipment list, they aren't as essential as having a pair of binoculars. If you don't have a scope and aren't sure you need one just yet, that's totally fine. Work on using your binoculars and the technique there. But let me dive a bit into why having a scope is useful, just so you can make an informed decision down the road if you decide one is right for you.

It's important to note that a scope does not replace binoculars and binoculars do not replace having a scope. The benefit of having binoculars is that they are much smaller and easier to carry around, they're much easier to work with your range of motion to get your eyes on a bird, and they'll help you see birds that are right in front of you in a tree or bush to a fair distance away.

A scope comes in handy particularly when you want to see birds that are far away. They're known for being used on birds that don't move or flit around a great deal, so for shorebirds and waterbirds, particularly because they tend to be more skittish, a scope is really useful. Scopes are also great for looking at birds in or on nests, so you can keep your distance while still getting a good look. Of course, you can use a scope for birds that are in a nearby bush or tree, and we'll get into this more in a bit, but you'll come across issues of being able to focus clearly too close to you and being able to keep your scope fixed on a bird for very long if its jumping or flying around often. Individual scope's specifications will tell you what the minimum distance you can see clearly is for that particular model, and ideally this number will be around 20 feet.

Let's break down the magnification of binoculars versus a scope to bring this point home. Most binoculars are around 8-10x magnification, which means when you look through your binoculars, you're seeing a bird or whatever object you're looking at, at a size 8-10 times greater than what your naked eye sees. Scopes, on the other hand, can magnify 20-80x greater than the naked eye, so potentially a whole order of magnitude greater than your binoculars' power. If you can imagine zooming into something that much, you can also imagine that you won't be able to focus fully or clearly on something too close. BUT you could see a waterbird way out in the distance clearly.

Certainly, one thing to keep in mind when using a scope is that you're typically going to use it as you're sitting in one place, such as at a bird blind or platform of some kind. If you're using your scope when moving around, you'll need to walk with the scope and accompanying tripod from place to place, which can average about 8-10 pounds total with everything combined. If you didn't know, too, you can also mount your binoculars to a tripod if you want to be able to look through them while in a more stationary location without having to hold them up to your eyes constantly.

Let's talk about the different specs associated with scopes that will be important for you to know as you decide on which scope to actually get.

First, every scope will come with a number that says 20-60x or 20-80x or something around that, and those are the magnification numbers that scope can adjust to. So as I mentioned earlier those numbers are the magnification that you're actually seeing the bird compared to the naked eye. Remember that the more you zoom in, the more detail you're able to see on a bird, but this also means more shake and really requires a good tripod, which I'll talk about in a little bit.

Following that number (or whatever number is after the x indicating magnification numbers), you'll see another number like 65 or 80 or 100. This number is measured in millimeters and refers to the diameter of the objective lens, which is the large lens or round glass piece at the end of the scope facing away from you and is furthest from your eyes. The larger the diameter of the

objective lens, the more light that is allowed to enter the scope to help you see birds and their colors more clearly, especially in lower light situations.

I like to recommend around an 80 mm diameter because this size lets in a good amount of light without being too heavy or expensive, because and this is important to note, the larger the lens, the heavier and more expensive usually.

I personally have an 80 mm lens on my scope and I think that it works well, especially considering the magnification is 20-60x. Keep in mind that that means the field of view I see through my 80mm lens gets smaller as I zoom from 20 to 60, of course, because as you zoom you'll be seeing a smaller area to get a closer look at your bird. And just to reiterate, the field of view is the total area you see when you look through your scope. There are a number of factors that actually go into your field of view largely having to do with the internal mechanisms of the scope, and those will be individually listed for each scope model.

Ok, now next you'll want to decide whether you want a straight or angled scope. Most scope companies will offer both options for at least one of their models, and a straight scope is exactly that, you look straight through the lens to see your object just as you would with your binoculars. Alternatively, you can get an angled scope, where the lens that you look through is angled upward at a 45 degree angle relative to that body of the scope where the objective lens is located.

There are positives and negatives of using each, so really it's more based on your personal preference and how you plan to use the scope. I have an angled scope and I really like it for how I use it because it reduces the strain on your neck as you're slightly looking down into the scope instead of having to get the tripod height just right to look through it straight on. For that reason it's more forgiving as well if you change terrain or if someone else wants to take a look through your scope, too. It's also much easier to digiscope with an angled lens if that's something you're into, which is connecting your phone and a special

adapter to the scope to take videos and photos through your scope as you're looking at birds.

Straight scopes can be easier to learn how to use for beginner birders largely because, just as with you would with binoculars, when you're looking at a bird you're lifting your binoculars up to your eyes straight on as you're still looking at that bird to get it right within your field of view. I also have a video I did of this on my Instagram and Facebook, but I'll link to that in the show notes if you need a video showing how to get birds in your binoculars easier. So, the same thing goes with a scope – a straight scope facing straight on toward a bird will be easier to learn how to use, whereas an angled scope takes a little more practice. Straight scopes are also much easier to use if you are scoping from your car or sitting down, such as on a chair or in a wheelchair.

Angled scopes take up a little more space in packing, but not by much, and the weight difference is negligible.

If you're able to do this – and I know it's hard to physically go into a store right now to try out scopes – see if you can test out the different kinds of scopes before you buy one – or at least make sure what you're testing out has a good return policy. But having them side by side would be best.

A scope is a big investment and until you try them out you won't really know which one is best for you.

When I first started birding, I practiced a lot on an angled scope that my mentor had, so I was already used to it and found it worked well for me. In that instance, go with what you know and what's going to be comfortable for you.

As I said, scopes are a hefty investment. But there are other things you'll need to get along with your scope, such as a lens cleaning kit, which you might already have if you have binoculars or a camera. And at least a cleaning cloth because when you magnify into something at 20 or 60 times and there are dirty spots on the scope, it'll also magnify those spots and make the image less clear.

One thing people often don't take into consideration when they're thinking of investing in a scope is also getting a good quality tripod. I'm just going to say it again because it does need reiteration - you need a good tripod.

If you're out birding with your scope and nice gust of wind comes along as your expensive scope is on a lightweight tripod, which means it's going to be more top-heavy, even though tripods have three legs, they can still blow over. If it breaks the glass on your scope you're going to be pretty upset about it. And when I say lightweight, I mean unsturdy, because there are lighter materials out there like carbon fiber that scopes can be made of and still have a really solid stance. Carbon fiber products also tend to be pretty expensive because they're super lightweight while still being sturdy. If you get a tripod with subpar materials that is also lightweight with joints that aren't really sturdy, it will be more likely that your scope won't be very protected.

Save yourself the angst and anxiety and enjoy birding by investing in and planning to get a good tripod from the get-go. The actual scope body is usually around 4-6 pounds or so. Given this, getting a sturdy tripod that isn't super heavy but also isn't made of cheap materials if its light should be taken into consideration when you've got to carry the whole setup around.

My favorite tripod is made by Manfrotto, because they're really well done and have good customer service and guarantees, and while they do have some more basic tripods as well as some really pricey ones, there's one that's about 4 pounds and 100 dollars that comes with a panning head on it that I think works beautifully. And I'll be sure to link to these in the show notes if you want to see the models I'm talking about specifically.

But now that I mention it, the head of the tripod will be another consideration to keep in mind for your tripod setup. The tripod head is the connecting piece between the legs and body of your tripod to whatever you're attaching to the tripod - in this case a scope. Some heads are stationary, meaning you can't move whatever you're placing onto the tripod around at all, which isn't what you want with a scope. Instead, you're going to want a tripod head that allows you to adjust the scope's position without having to move the tripod body at all.

Not all tripods necessarily come with a tripod head, so you'll need to check which kind is included or not, and not all tripod heads give you the same range of movement. And when you're attaching your scope to your tripod, just think about the range of movement you're going to want to be able to look at birds.

If you're using your binoculars, you know you can move your head, neck, arms, body, around, whatever range of movement you're able to make, with those binoculars without much limitation. With a big scope you aren't holding it up to your eyes, and it's stabilized on the tripod, so one of the best things you can get to allow a better range of movement on the tripod is using a panning head, to move the scope left and right and up and down.

Birds often are moving around a little bit, so being able to angle the scope where you need it to go easier will make the experience more enjoyable. Even better, consider getting a ball head for your tripod – and it's exactly what it sounds like – the head where the tripod connects to the scope is on a ball so you can rotate the scope any which way you want. Ball heads do, however, take some getting used to, because it can go any way it wants, and if you loosen the ball head too much to move your scope around, the whole scope will flop over on the ball, and it takes getting used to moving the scope around on a more level plane with a ball instead of a flat panning head.

Now for the kinds of scopes out there, I'm not going to specifically recommend a specific model of scope since they update fairly frequently, but I will mention some of the top brand companies.

Celestron is a great option for beginner birders and those looking to try out whether a scope is going to end up working for them. Celestron has a number of good, budget-friendly, and by budget-friendly I'm talking around \$250 so still not inexpensive, options. Why these models still get you bright and sharp images, just note that the higher quality glass you get the more clarity, brightness, and reduced distortion you're going to get. Celestron actually also has a couple of models that come with a smartphone adapter kit for digiscoping, which is a pretty good deal, I think.

Vortex is another one of the scope brands I really recommend just a step up from Celestron, starting around the \$400 range. For the glass quality, clarity, and brightness I really think this is a steal for the price, especially with their High Definition models that allow for extra-low dispersion glass to enhance color quality. If that's not something you've ever thought about before, it's something to keep in mind with a scope, that colors can be distorted as different wavelengths pass through the lenses.

KOWA is another stellar scope brand starting around the same price as Vortex models with great quality and clarity, and I know a lot of birders that swear by KOWA.

I'll also note that All of these brands have scope models that are upwards of \$1,000 depending on the glass, scope size, and more, and most brands will have a pretty wide range of scope varieties.

Swarovski is the tip-top of the line for scopes known for their premium glass, and crisp images, and start around \$1,500.

No matter which scope brand you end up going with, keep in mind the need to get a clear image, good light that comes into the scope, and good quality glass without distortion. If you're planning to go birding with your scope over time, you'll not only love looking through to a clear image AND you'll reduce eye strain using the scope over time.

It's undeniable that the quality and clarity of a more expensive product, like the Swarovski, is there. But would I suggest to a beginner birder or someone wanting to move on to a scope to complement their binoculars to go out and get a \$1000-2,000 product? Absolutely not. Even the lower end models of Vortex and KOWA, while again not cheap, compared to those higher end prices get you a really great image with solid clarity, brightness, and color richness.

So, that's that. And remember you don't have to take your scope out with you every time you go out birding. For sure, if I know I'm going to see waterbirds or shorebirds, I'll definitely bring my scope along, but if I'm just going out on a

walk, I often don't want to carry my scope with me and just bring my binoculars.

So to recap:

- Binoculars do not replace scopes and vice versa. Scopes can be really handy when you're aiming to see birds up close, particularly if they're pretty far away.
- When you're looking at scope specs and trying to decide which one to get, look at the magnification range, the lens diameter, whether they are angled or straight, and the price when balancing these considerations with clarity.
- There are scope brands that start out at reasonable prices to those that skyrocket in price. Consider your budget, and remember that if you're planning to use your scope more often and into the future, it may be worth investing in something a little higher quality to avoid disappointment when you really get on a roll IDing birds through your scope. Don't forget the accessories that must also go into your cost factor for a scope.

So there you have it!

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 content I've mentioned in the show, and the show notes, visit our website at birdingtools.com. You can follow Birding Tools on Instagram and Facebook with the handle @BirdingTools, and in case you didn't already know, I send out weekly emails detailing the content discussed on the podcast along with some helpful, actionable tips and information. To get on my email list simply visit the website or email me at hello@birdingtools.com.



Next week, we'll be outlining your birding goals and resolutions, not just for 2021 but for this stage in your birding journey. This is a fun one, so you won't want to miss it!

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See you next time.