# **How to Buy Binoculars & Spotting Scopes?**

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#### **Binoculars**

#1 There are two types of binoculars - porro prism & roof prism. Optics in both can be very good. Porro prism are much bulkier, heavier and slightly cheaper. Roof prism are 2 simple tubes, sleeker, lighter and slightly more expensive. I always prefer roof prism.

#2 If you wear glasses like me, NEVER take your glasses off to use your binoculars. You need your glasses to see the bird. Then you lift your binoculars up and look directly at the bird. Don't move your binoculars around to look for the bird. Trust that your bird is there in your view, just the bird is not moving. Wait a couple minutes. If you do not see the bird moving, lower your binoculars and start the process all over again.

#3 The binoculars come with rubber cups. Since I am a glasses wearer, the cups should be turned down so that they are unused. With the rubber cups turned down, my eyes are closer to the exit pupil. If you do not wear glasses, turn the cups up and use them. They will shield some of the sun at the edges.

#4 Binoculars come with 2 dimensions. Here are mine:

Nikon 10 x 36

Alpha Ed 8 x 42

The 1st number is the magnification. For birding you want at least 8x and nothing stronger than 10x. If you get something weaker than 8x, that may be fine for opera glasses but not birding. If you get something stronger than 10x, you may have a challenge finding your bird!!!

The 2nd # is the field of view. For birding the best is 36 to 42.

#5 OK this is very important for glasses wearers and even perhaps for non glasses wearers. Most binoculars DO NOT have that large an exit pupil. So when you look through your binoculars the exit pupil is very tiny. Well glasses makes this even worse since the glasses push your eye away from the exit pupil. So it is IMPERATIVE that you purchase a pair of binoculars that have what is called "long eye relief". "Long eye relief" of at least 14mm and maybe as high as 18mm is highly recommended!!!

Unfortunately binocular stores do not have a clue what "long eye relief" means nor do binocular companies advertise "long eye relief". Long eye relief means that the exit pupil is HUGE, just HUGE!!!

So you have 2 choices. You can not buy binoculars through the mail. You must go to a binoculars store like Biggs Camera on Kings Drive, test a lot of pairs and hope you can find one that has long eye relief OR just buy one of my two pair of binoculars. I have a Nikon 10 x 36 and Alpha Ed 10 x 42. Both of my pair of binoculars have long eye relief and both are great birding binoculars!!!

If I did not wear glasses, I think I still would buy a pair of binoculars with "long eye relief" because the exit pupil is like 2x as large as the exit pupils in binoculars without "long eye relief".

Best Long Eye Relief Binoculars for Bird Watching

https://www.bestbinocularsreviews.com/blog/long-eye-relief-binoculars-for-bird-watching-06/

#6 Binocular Straps

Most binoculars come with a pretty thin strap that goes around your neck. Well wearing binoculars for 8 hours can be a challenge to your neck. For this reason, I always remove the narrow strap and replace it with a "harness". A "harness" has your two arms slip into the contraption and absolutely no weight is put on your neck. It is infinitely more comfortable!!!

Vortex Binocular Harnass Strap

https://www.bhphotovideo.com/c/product/436591-USA/Vortex\_VTHARNESS\_Binocular\_Harness.html

#7 Good friend Carol Buie Jackson sells my Alpha Ed 8 x 42 at her nature store Bird House on the Greenway 6416 Rea Road South Charlotte. Mention my name. Call to make sure in stock. It is also a fun and great birding store!!! 704-541-1180

Binoculars for Kids

For your child or grandchild!!!

Do you have a pair of binoculars yet? Binoculars are very useful to help them look at birds!!! You look through them and they make your bird look much larger so you can study your bird up close. The adult term for this is binoculars "magnify" or "enlarge" your bird as much as 8 to 10 times!!! So binoculars make your bird appear much larger!!!

There are lots of different binoculars just for kids. I have put below some of the best sites on the Internet so you and your teacher or mother can help you decide what would be the best pair of binoculars for you!!!

When you look at different pairs of binoculars, the things most important to think about BEFORE you buy a pair are:

Cost: Do they cost \$25 or \$200?

Durability: This means how easy is it for you to break them?

Size/Weight: You have to carry your binoculars around with you or put them around your neck if they come with a neck strap and you have to use them. How easy is it for your small hands to use your binoculars?

"Optics": This is a fancy word to describe how good a picture of your bird do you get when you look through your pair of binoculars? In general, binoculars that cost more usually have better "optics"!!! But with that said, the "optics" today with many pair of binoculars is quite good!!!

Why don't you and your parents read the articles below about binoculars. They are quite good!!!

"The Best Binoculars for Kids"

Great Article - Quite Comprehensive!!! Very useful!!! Easy to compare the different brands!!!

https://birdwatchinghq.com/best-kids-binoculars/

"Binoculars for Kids"

Not as easy to compare the different brands

https://www.womenshealthmag.com/life/g33605544/best-binoculars-for-kids/

One more thing about binoculars for kids. Do you wear eye glasses? If you do, then it is very important that you get a pair of binoculars that have what is called "long eye relief". To learn more about this, your parents need to read this entire article!!!

**Night Vision Binoculars** 

I recently saw an ad on TV for a pair of night vision binoculars that cost only around \$45. The ad implied that they actually worked. I know that really, really good night vision binoculars cost upwards of \$2,000 a pair and it is questionable how good they really are. But on a lark I bought a pair of "Night Owl Pro Nexgen Night Vision Binoculars" and believe it or not they actually worked!!! I can actually see things in the dark!!! Absolutely incredible!!! And only \$45!!!

https://www.opticsden.com/best-night-vision-binoculars/

## **Spotting Scopes**

#1 Spotting Scopes are not meant for warblers and vireos. Warblers & vireos flit around too much to stay in your spotting scope. Spotting scopes are meant for stationary birds like ducks, shorebirds and nesting eagles!!! They give you the ability to easily identify birds in the distance plus they give you the opportunity to see the details on the bird!!!

- #2. What ever you do, do not try to use an astronomy telescope. Their magnification is much too large for birding, they are hard to sight through and they are often not weather proofed.
- #3. Spotting scopes are medium range telescopes usually with an eyepiece that has a magnification of between 15x and 60x. I love my Kowa scope and just use an eyepiece with a magnification of 25x. Anything a lot higher and I find it a challenge to find the bird. In addition, higher powers magnify the distortions from haze and shimmering heat. Higher magnifications are in my opinion simply not worth it!!!

#### #4. Zoom Lens

Some eyepieces and spotting scopes offer you the advantage of zoom lens. I don't use one but I bought my spotting scope a long time ago when the quality of zoom lens was very suspect. Today I know the quality of zoom lens has improved but I still remain a bit skeptical and am very comfortable with my Kowa scope and 25x eyepiece!!! This compares with my binoculars that only have a magnification of 10x.

#### #5. Eyepiece Placement

Kowa and most scope manufacturers offer 2 different types of eyepiece placement. My Kowa has the eyepiece positioned for "straight through viewing" which makes it easier to find your bird in your scope. Other models have a "45 degree angled eyepiece" where you look down at a 45 degree angle into the scope. The 45 degree angle model admittedly has some advantages when you have a group of people of different heights, but I still prefer my "straight through viewing scope" as it makes it much easier to find my bird in the scope!!!

### #6. Enhancing Finding Your Bird

Remember my Kowa has the eyepiece positioned for "straight through viewing". There is a spot on my Kowa where I am supposed to look through that spot to see my bird and if I do this, the bird then appears in my scope. But it does not work perfectly. So I have taken this one step further. I have with duct tape attached a bent paper clip near the front of the scope. I then line up the circular end of the paper clip so that when I look through the spot on my Kowa AND look through the bent paper clip AND see my bird in the middle of the paper clip, then the bird REALLY IS IN MY SCOPE!!! I find this to be immensely useful!!! It saves me a lot of time trying to get my bird in the scope!!!

I could obviously not do this if I had a "45 degree angled eyepiece"!!!

## #7. Long Eye Relief

I already spoke at length about the importance of "long eye relief" with binoculars for glasses wearers and maybe even for non glasses wearers. Well certainly eyeglass wearers should pay attention to the amount of eye relief offered by the scope. With longer eye relief, the optics direct the focal point farther back behind the eyepiece so the eyeglass wearer can see a complete field of view. Eye relief is given in millimeters in the model's technical specifications. Generally, 12–15 mm of eye relief is adequate for most eyeglass wearers.

#### #8. Rubber Cups

As with binoculars, some scope designs have folding or moveable rubber eyecups to accommodate noneyeglass wearers. Eyeglass wearers should NOT use the rubber cups. Non eyeglass wearers should use the rubber cups as they will shield the edges from sun.

### #9. Tripods

Definitely buy a good tripod. Even the brightest, crispest, most powerful scope won't provide a good image if it's mounted on a flimsy tripod. Look for a rigid, sturdy tripod with as few leg adjustments as possible. Flip locks on the legs are a good, quick way to extend and retract the tripod and to adjust for uneven ground.

Good birding!!!