The 2014 Audubon Guide to Binoculars

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When it comes to birdwatching, what you choose to look through makes all the difference.

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Binoculars come in too many configurations to list. Models close to the following sizes are all suitable for birding: 6x32, 8x32, 7x35, 8x40, 7x42, 8x42, or 8.5x44.

Buy binoculars that have a single focusing knob located between the two barrels that turns one to one-and-a-half times. Don't buy a pair with separate focus adjustments on the two barrels--they're too slow to be useful for birding. If you pay more than \$200 for your binoculars, they should be waterproof and nitrogen purged, so they don't get "fogged" in humid conditions.

You will be using your binoculars for many hours at a time, so make sure you buy the right pair. Do they feel good in your hands? Can you comfortably reach the focus knob? Can you see the entire field of view with your eyeglasses? All binoculars have a hinge to allow you to adjust the barrels to match the distance between your eyes. Be sure you can adjust the barrels so you can see a single image. All binoculars can be adjusted to allow you to compensate for differences in your eyes. To adjust yours, close your right eye and focus on an object 50 to 100 feet away using the center focus knob. Then, while keeping the same object in view, close your left eye and use the separate eyepiece adjustment to bring the object into sharp focus for your right eye. Your binoculars are now matched to your vision.

Don't buy zoom or image-stabilized binoculars. They are heavy, give up a lot of brightness, and have a much-reduced field of view. Don't ask for advice from non-birders. Hunters, boaters, and hikers may know a lot about optics, but they have different needs than birders.

Taking Care

Don't touch the lenses with your fingers. Never clean the lenses with tissue, toilet paper, paper napkins or towels, or newspaper--all contain wood fibers that will scratch and eventually destroy the lens coatings essential to your binoculars' optical performance (and can't be repaired or replaced). Never use commercial glass cleaners. They may contain ammonia or other chemicals that will destroy the coatings.

Clean your binoculars only with good-quality lens tissue or a micro-fiber lens cloth from an optics or camera store. Also buy a can of compressed air and lens-cleaning fluid whose label states clearly that it's safe to use with lens coatings. First use compressed air to blow away loose dust. Next spray the lens cleaner on the cloth and gently clean the lenses. Then gently wipe them with a dry part of the cloth. If you eat while you are birding, use the lens covers that came with your binoculars. Coffee, orange juice, goat cheese, and hummus are not good for your binoculars.

Do You Wear Glasses?

It's pretty simple: If you see better with eyeglasses, you should wear them while birding. Remember, however, that your eyes will be farther away from the binocular eyepiece than they are for non-eyeglass wearers. Unless your binoculars are designed to compensate for this, you will see a much-reduced field of view. Optics engineers design binoculars to project the image a few millimeters beyond the eyepiece; this distance is called "eye relief." Eye relief tells you the distance your eye can be from the eyepiece and still see the entire field of view. Binoculars designed for birders offer eye relief of 15 millimeters to 20 millimeters and eyecups that extend and retract so you can adjust the distance between your eyes and the eyepiece. Use the eyecups in the fully retracted position with your eyeglasses and in the fully extended position without glasses. Before you buy a pair of binoculars, make sure you can see the full field of view while wearing your glasses. Some people, because of their face shape and vision, can experience image blackout if their eye is too far from the eyepiece. They should position the eyecup between full up and full down; this will give them a good compromise between field of view and ease of use.

A Few Recommendations

There are other bird-worthy binoculars for sale, but all of these meet our standards for "bird worthiness." With reasonable care, all will give you years of birding enjoyment. I favor seven-power binoculars, because they are very bright and tend to have panoramic fields of view, but I also like eight-power models. The price ranges shown below are based on commonly published prices from Internet retailers.

ALPHA CLASS (\$1,300 - \$2,500)

These are the best that modern technology and engineering can offer. Yes they are expensive, but there can be no great art without suffering.

Leica Ultravid HD: (7x42, 8x42, or 8x32)

Nikon EDG (8x42, or 8x32)

Swarovski EL Swarovision: (8.5x42, or 8x32)

Zeiss Victory T*: (8x42, or 8x32)

ALMOST ALPHA CLASS (Less than \$1,300)

All are better than anything that was available just a few years ago and cost a lot less than today's top models.

Steiner Peregrine XP 8x44

Swarovski CL Companion 8x30

Vortex Razor HD 8x42

Zeiss Conquest HD (8x42, or 8x32)

BEST VALUE CLASS (Less than \$600)

Bright images, accurate color, and very good resolution. Buy one of these and put the cash you save toward a once-in-a-lifetime birding trip.

Kowa BD 8x42

Minox BL 8x44

Nikon Monarch 7 ATB,8x42 or 8x30

Pentax DCF SP 8x43

Vortex Viper HD (8x42 or 8x32)

Zeiss Terra HD 8x42

GET IN THE GAME CLASS (less than \$200)

Bright, satisfying images and wide fields of view at a very modest price.

Nikon Monarch 3 ATB 8x42

Pentax Papillo 6.5 x 21 (Although designed for butterflies, these are acceptably bird worthy, weigh almost nothing, and are fun to use.)

Vortex Raptor 6.5x32

Leupold Yosemite 6x30