

# CONVERGENT evolution

Binocular review 2013



OF ALL THE TOOLS BIRDERS USE, binoculars are the most important. Birding became a popular pastime only once compact, portable binoculars were widely available. Today's birders are fortunate to have a wide range of fine binoculars from which to choose, and the main problem is selecting which model to buy. Our review panel found plenty of good options, irrespective of your budget.

TEXT & PHOTOGRAPHS **PETER RYAN**

The *African Birdlife* team asked binocular suppliers in South Africa to provide a selection of binoculars that they considered most appropriate for birding. The result was 40 models to review from 11 brands, including most of the leading manufacturers that retail in the region.

Binoculars come in three main designs: roof prism, porro prism and compact. Most birders use either roof-prism or porro-prism models, because compact

binoculars with objective lenses smaller than 28 or 30 millimetres tend to have too small a field of view for effective birding. Until recently, porro-prism models dominated the market, with roof prisms largely confined to the top-end brands. However, recent years have seen a plethora of new roof-prism models entering the market at ever more affordable prices. It was thus perhaps no surprise that we received only roof-prism models to review.

One of the big advantages of the roof-prism design is that focus is internal, making it relatively easy to seal the binoculars. All the review models were claimed by their manufacturers to be waterproof, and most were stated to be nitrogen filled, which reduces the risk of internal fogging and fungal growth. Where specified, the degree of waterproofing ranged from 0.1 to 0.5 bar (equivalent to surviving a plunge into one- to five-metre-deep water), which should be more than enough to survive even a torrential downpour.

The roof-prism design has two further advantages. Firstly, the binoculars tend to be more robust than porro prisms, in which even a relatively minor knock often results in misaligned images in each eyepiece. And secondly, most people find that the compact design of roof prisms makes them easier to hold. Roof prisms come in two main designs: the traditional or closed-hinge model, and the open-hinge design made famous by Swarovski and now copied by several other brands. There's little to choose between them in terms of performance, so it comes down to personal preference.

## TESTING, TESTING

Given the large number of binoculars to review, members of the panel were asked to score each pair from 1 to 5 on the basis of optical excellence, build quality and comfort. Within these broad categories, they used a range of criteria to assess quality. For example, optical excellence was based on image sharpness, brightness, colour rendition, flatness of field of view, extent of chromatic aberration, apparent depth of field, etc. By comparing models side by side we were able to gain a good idea of their relative performance. However, optical quality inevitably deteriorates

to some extent with the age of the binoculars, and we couldn't assess how durable the optics will be.

Build quality was more difficult to determine as we weren't able to expose the review models to tough field conditions, and comfort was entirely subjective, based on how easy a pair was to use (appropriate size, comfortable eyecups, well balanced, not too heavy, accessible focus wheel that is not too loose or too stiff, speed of focusing, etc.). This varies with hand size and individual experience, but hopefully we overcame this subjectivity by averaging the scores of eight reviewers.

Scoring was done without knowledge of the prices of the various models, although most reviewers had some notion of the cost of the better-known brands. Ideally, we should conduct a blind test of the optics at least, but this was not practical given the large number of binoculars to review and the limited time available. After scoring was complete, the reviewers were asked to select their favourite binoculars in each of three price brackets: the top end (above R10 000), mid-range (R5 000 to R10 000) and entry level (below R5 000).



Swarovski EL 10x42, with rain guard, objective covers and padded neck strap. These accessories are now standard with most binoculars.

## ALL THE RESULTS

The results are summarised listing binoculars in descending price order, which ranged from more than R20 000 to less than R2 000. The quality of binoculars has improved steadily in recent years, driven by competition between the leading manufacturers. This healthy situation has led to convergence among binoculars and the panel struggled to discriminate critically between many of the models. Despite this, price explained more than half the variation in average score, but the relationship was logarithmic, not linear. This means that you have to pay a lot more to gain a relatively small >





**TRIED AND TESTED** (The ratings given here are the averaged scores out of 5)

Model	RR Price* (Rands)	Optics	Build	Feel	Value	Mass (grams)	Close focus (metres)	Lockable diopter adj.	Lockable eyecups	Objective cover
Zeiss Victory HT 8x42	23 840	4,9	4,7	4,0	2,8	840	2,3	yes	4	yes
Swarovski EL 10x42	23 683	4,7	4,5	4,2	2,7	860	1,9	yes	4	yes
Minox APO HG 10x43 BR	21 654	4,0	4,0	4,1	1,5	730	2,5	yes	4	yes
Leica Ultravid HD 10x42	19 999	4,8	4,6	4,5	3,6	760	3,2	yes	no	yes
Canon 10x42 L IS	14 999	4,7	3,7	2,6	1,5	1150	2,8	yes	4	yes
Minox HG 10x43 BR	14 814	3,9	3,5	3,8	1,6	710	2,6	yes	4	yes
Kowa Prominar XD 33 10x33 ED	13 338	4,4	4,3	4,4	3,2	600	1,9	yes	4	yes
Kowa Prominar XD 33 8x33 ED	12 746	4,6	4,3	4,4	3,4	600	1,9	yes	4	yes
Zeiss Conquest HD 10x42	10 350	4,7	4,7	4,5	4,8	820	2,5	no	4	yes
Vortex Razor HD-APO 8x42	10 087	3,9	3,6	3,6	1,8	685	2,1	yes	4	yes
Swarovski CL Companion 8x30	9 386	4,1	3,7	3,8	2,0	515	2,8	no	2	yes
Kowa BD42-10 10x42	8 294	4,3	4,2	4,2	3,5	720	2,3	no	4	clips
Minox BL 10x44	8 265	3,8	3,6	3,9	2,0	745	2,7	no	4	yes
Kowa BD42-8 8x42	8 037	4,3	4,2	4,3	3,6	700	2,4	no	4	clips
Bushnell Elite 10x42 ED	7 029	4,0	4,1	3,8	2,8	750	2,3	yes	no	yes
Minox BL 8x33	6 834	3,7	3,6	3,8	1,9	580	2,3	no	4	yes
Kowa BD32-10 10x32	6 755	4,1	4,1	4,3	3,7	570	1,8	no	4	clips
Vortex Viper HD 8x42	6 666	4,0	3,7	3,7	2,2	665	2,0	yes	4	yes
Kowa BD32-8 8x32	6 413	4,3	4,2	4,3	4,0	560	2,0	no	4	clips
Nikon Monarch 7 10x42	5 599	3,8	4,0	3,9	2,8	655	2,4	no	4	yes
Vortex Talon HD 8x42	5 525	4,1	3,9	3,6	3,1	815	2,0	no	3	yes
Lynx 46-1042 10x42	5 472	3,4	3,7	3,8	1,9	645	2,0	no	no	yes
Lynx 46-842 8x42	5 301	3,7	3,8	3,8	2,2	650	2,0	no	no	yes
Nikon Monarch 7 8x42	5 299	4,1	4,1	3,9	3,2	640	2,5	no	4	yes
Minox BL 10x42 BR	5 073	4,0	3,9	4,2	3,4	590	2,3	no	no	yes
Lynx 46-1032 10x32	4 999	3,4	3,7	3,8	2,0	535	1,5	no	no	yes
Lynx 44-1042 10x42	4 959	3,7	3,8	3,7	2,4	640	2,1	no	no	yes
Lynx 46-832 8x32	4 850	3,6	3,7	3,8	2,3	520	1,5	no	no	yes
Lynx 44-842 8x42	4 617	3,8	3,7	3,7	2,4	630	2,1	no	no	yes
Bushnell Legend 10x42 ED Ultra HD	4 439	4,0	3,7	3,5	2,4	690	2,4	yes	3	yes
Lynx 44-1032 10x32	4 233	3,5	3,7	3,6	2,2	565	1,8	no	no	yes
Minox BV 10x42	3 870	3,4	3,7	3,9	2,6	755	1,8	no	3	yes
Lynx 44-832 8x32	3 848	3,6	3,7	3,6	2,4	550	1,8	no	no	yes
Bushnell Excursion 10x42 EX	3 206	3,2	3,5	3,5	1,9	670	2,4	no	3	yes
Vortex Diamondback 8x42	3 026	3,5	3,5	3,5	2,4	700	2,1	no	3	yes
Nikon Prostaff 7 10x42	2 759	3,9	3,8	3,7	3,9	655	4,0	no	4	no
Nikon Prostaff 7 8x42	2 449	4,0	3,8	3,8	4,0	660	4,2	no	4	no
Ranger 10x42	1 967	3,2	3,5	3,4	2,5	680	2,3	no	3	yes
Ranger 8x42	1 881	3,5	3,5	3,4	2,8	690	2,0	no	3	yes
Bushnell H2O Waterproof 8x42	1 592	3,3	3,1	3,0	2,2	675	2,8	no	12	yes

\*All prices shown here reflect the recommended retail price, including VAT, and were provided by the suppliers as being correct at the time of going to print. Prices may vary because of fluctuations in the exchange rate.

**DISTRIBUTORS**

Bushnell – [www.ultimo.co.za](http://www.ultimo.co.za); tel. (011) 785 4700  
 Canon – [www.canon.co.za](http://www.canon.co.za); tel. (012) 675 4900  
 Kowa – [www.lynx.co.za](http://www.lynx.co.za); tel. (011) 792 6644

Leica – [www.cameraland.co.za](http://www.cameraland.co.za); tel. (021) 423 4150  
 Lynx – [www.lynx.co.za](http://www.lynx.co.za); tel. (011) 792 6644  
 Minox – [www.fotacs.co.za](http://www.fotacs.co.za); tel. (012) 653 0775  
 Nikon – [www.nikon.co.za](http://www.nikon.co.za); tel. 0861 164 566

Ranger – [www.lynx.co.za](http://www.lynx.co.za); tel. (011) 792 6644  
 Swarovski – [www.whylo.co.za](http://www.whylo.co.za); tel. (031) 584 8088  
 Vortex – [www.whylo.co.za](http://www.whylo.co.za); tel. (031) 584 8088  
 Zeiss – [www.zeiss.co.za](http://www.zeiss.co.za); tel. (011) 886 9510

increase in quality above about R10 000. To assess value for money, we combined a subjective assessment of value with the extent to which each pair rated relative to the score expected for its price, and again scaled this from 1 to 5.

In addition to giving the average scores for optics, build quality, ease of use and value, the results table also reports minimum focus distance and weight. In terms of accessories, all binoculars reviewed came with acceptable neck straps, splash covers for the eyepieces, and most had practical carrying cases. However, not all had objective covers (although many birders don't bother with them), and the diopter adjusting mechanism wasn't lockable in many pairs, which can lead to it being altered inadvertently. There also were some differences in the adjustable eyepieces – ideally these should be able to lock at several positions so that you can set them to your preferred height. These issues also are highlighted in the results table.

**THE TOP END**

Ten pairs retailed for more than R10 000, and included the binoculars with the highest scores in each of the four categories, including value for money. The Zeiss Victory HT 8x42 scored best in terms of optical quality, closely followed by the Leica

**THE QUALITY OF BINOCULARS HAS IMPROVED STEADILY IN RECENT YEARS, DRIVEN BY COMPETITION BETWEEN THE LEADING MANUFACTURERS**

Ultravid HD 10x42, Swarovski EL 10x42 and Zeiss Conquest HD 10x42. Canon's image-stabilised 10x42 also should be in this group, because technical tests clearly show they are among the best binoculars currently available in terms of optical performance, but reviewers were probably put off by the cumbersome design and excessive weight. Build quality went to the two Zeiss models, although the Conquest lacked a lockable diopter adjustment wheel (but had the best eyecups on offer). The Zeiss Conquest won value for money hands down; at just over R10 000 it almost qualifies in the mid-range category, costing barely half the price of its big brother, the Zeiss Victory, or the other well-known top-end brands.

In terms of reviewer choices, this segment saw a tie between the Zeiss Conquest and Leica Ultravid, despite the Leica's rather

poor close focus distance. Swarovski's EL 10x42 and the compact Kowa Prominar XD 33 10x33 ED each obtained one vote. Despite its optical excellence, the Zeiss Victory was deemed too large and heavy to be a top choice, and it is unfortunate that Zeiss appear to have discontinued the smaller, 32-millimetre objective Victory models. We would also have relished the opportunity to review the smaller models produced by Leica and Swarovski.

**THE MID-RANGE**

Fifteen pairs cost between R5 000 and R10 000, and this is usually where the best value for money can be found. Kowa dominated this group in terms of scores and the reviewers' choices, with four votes for the Kowa BD42-10 10x42, two for the BD32-10 10x32 and one for the BD32-8 8x32; the only other vote was for the Vortex Viper HD 8x42. However, several other models are worth a close look in this category. The Bushnell Elite 10x42 ED offers good value for money, as does the Minox BL 10x42 BR and the ever-popular Nikon Monarch series (although the panel scored the 8x42 model >



Canon 10x42 L IS



Kowa BD42-10 10x42



Lynx 46-1032 10x32



Nikon Monarch 7 10x42



Bushnell H2O Waterproof 8x42



## THE PANEL

Shown above, from left to right (excluding Peter Ryan):

**NICK TYE** Environmental consultant and former provincial ornithologist. **Important criteria in binoculars:** value for money. **Current binoculars:** Bushnell 10x42.

**CHEVONNE REYNOLDS** PhD student with a broad interest in natural history. **Important criteria in binoculars:** quick focus, light and durable. **Current binoculars:** Bushnell Powerview 10x42.

**JOHN GRAHAM** Veteran birder and pelagic birding guide. **Important criteria in binoculars:** exceptional optics, rugged and waterproof. **Current binoculars:** Leica Ultravid 10x42 BA.

**GRETA GRAHAM** Keen birder with numerous other interests that she maintains during birding trips. **Important criteria in binoculars:** compact, light and rugged. **Current binoculars:** Leica Trinovid 10x42 BA.

**BARRIE ROSE** All-round naturalist, best known for his birding at sea. **Important criteria in binoculars:** close focus and ability to survive being dropped into water. **Current binoculars:** Swarovski EL 10x42.

**SURETHA DORSE** Conservation biologist who enjoys viewing biodiversity. **Important criteria in binoculars:** light weight and close focus. **Current binoculars:** Nikon Monarch 10x42.

**CLIFF DORSE** Nature conservator with a passion for all biodiversity. **Important criteria in binoculars:** quick focus and rugged build. **Current binoculars:** Lynx 46 10x42.

**PETER RYAN** Lecturer and birder. **Important criteria in binoculars:** great optics, light and compact. **Current binoculars:** Zeiss Victory 10x32.

higher than the 10x42 in terms of optical quality).

## ENTRY-LEVEL BINS

Fifteen pairs cost less than R5 000, and this was perhaps the hardest segment to differentiate among the various models on offer. All were more or less adequate, with none standing out. In terms of reviewer choices, the Nikon Prostaff 10x42 garnered most reviewers' votes, despite its poor close-focus ability, with other votes for the Bushnell Legend 10x42 ED Ultra HD, Lynx 44-832 8x32, Lynx 46-1032 10x32 and Minox BV 10x42. If you are on a really tight budget, you could do worse than try out the Ranger 10x42, which is certainly a lot better than the first pair of binoculars I owned. And although not everyone's cup of tea thanks to its rather heavily textured armour coating, the Bushnell H<sub>2</sub>O Waterproof 8x42 was my 10-year-old daughter's favourite pair. At just over R1 500 they would make an excellent present for a budding birder – and who knows, it just might change their lives.

## MAKING A CHOICE

Our review shows that birders today are spoiled for choice when it comes to buying binoculars. Ultimately, price is bound to be a significant factor for most people, hence our structuring the review into three price brackets. You can also narrow the options by deciding on your ideal configuration in terms of magnification and objective size. The binoculars on review were all either 8x or 10x magnification. Most birders prefer the greater reach of 10x binoculars, but older birders may struggle to hold these steady, and so prefer 8x (which are also less demanding optically, and generally perform better in low light for a given objective size).

In the past, the rule of thumb was that the objective diameter should be at least four times the

magnification (hence the predominance of 8x32 and 10x40 models). However, over the past few decades, the steady improvements in optical performance thanks to the use of high-density glass and enhanced coatings have made the performance of 10x32 binoculars quite acceptable, even under challenging conditions (e.g. low light levels, harsh back-lighting). If, like me, you find you're carrying too much other equipment, it is well worth considering saving a bit of weight by having smaller binoculars (32- or 33-millimetre objectives).

Ultimately, to make an informed decision, you need to try out binoculars before buying them. Years ago without taking this precaution I bought a pair of new binoculars that had received rave reviews but I had to sell them because they didn't work for me. Perhaps the main message from our review is that there are lots of choices out there. Don't just buy the first pair that you come across – take your time, and find a pair that will serve you well for years to come. Hopefully our review has given you some pointers as to where to start the search. ♦



Zeiss Conquest HD 10x42