

# Best buy *binoculars*

ONE OF THE QUESTIONS a birder most commonly gets asked by novices and members of the public is, 'What binoculars should I buy?'. And the answer usually starts with 'How much are you prepared to spend?'

If budget is not an issue, there are some really great products on the market. But what if you're not keen to spend R16 000 on a pair of binoculars? There are plenty of options, but which is the best buy?

**Peter Ryan** invited a few friends to help him decide, without fear or favour...



NIKON MONARCH DCF 10x42

**B**inoculars are the single most important piece of birding equipment. Every birder has a pair, and they are crucial to one's ability to enjoy watching birds. Yet it's amazing how many people are still birding with sub-standard optics. With the growing popularity of birding, making binoculars for

birders has become big business, and competition between manufacturers has improved the quality of the optics and their packaging. However, it has also spawned a plethora of new names in the market, and it's hard to keep up with all the offerings.

I thought it would be fun to compare a range of binoculars, and foolishly suggested to *Africa – Birds & Birding* that it would be doing its readership a useful service if they arranged a field test. After some organisation, dealers and suppliers kindly arranged demo models and, with some trepidation, I headed down to the magazine's offices to pick up the binoculars for a weekend outing. The original plan was to meet a few birding friends for a pleasant couple of hours at a local reserve. However, as I began to unpack 36 pairs of binoculars, it soon became clear that this wasn't feasible. We obviously had to return them intact, and keeping track of all the lens caps and other paraphernalia was not going to be trivial. Also, it wasn't sensible to lug 36 pairs of binoculars around in a public area, so we ended up reviewing them from my balcony, where we spent

most of our time checking optical quality on the lichen-encrusted chimneys of the house opposite, or the odd frolicking southern right whale.

The initial plan had been to simulate field conditions by showering the binoculars with water and giving them a few lusty blows. But we were under orders to return them in a pristine state, so we limited our assessment to two main categories: optical performance and 'feel', which combined handling, robustness and appearance. Each was broken down into a number of specific attributes and scored from 1 to 5. Optical quality was rated on brightness, colour rendition, chromatic aberration, flare when looking into the light, width of the field of view, depth of field, the speed of focus action, whether the focus was crisp, and whether the image was flat and sharp across the entire field of view. We also measured the close-focus distance to test the manufacturers' claims. The feel of each pair was scored on whether they were well balanced and comfortable to hold, weight, size, whether the focus mechanism was easy to reach and use, whether the strap system and eye-cups were comfortable, ▷



LEICA ULTRAVID 10x42

whether they were suitable for use with glasses, aesthetically pleasing and on their apparent robustness. We also noted whether the manufacturer claimed they were waterproof, but didn't put this to the test. Finally, we checked for useful accessories, such as a rain-guard.

Before the rest of the panel arrived, I prepared a batch of assessment forms and set out all the binoculars. (It's easy to see why binoculars arrive with their straps neatly folded away – it's too labour intensive to fit them! Why do many manufacturers make it almost impossible to fit the straps through the lugs on the body of the bins?) After more

than an hour of fiddling, the binoculars were ready for testing. Once the panel got down to work, there ensued eight hours of concentrated assessment, as we tried each pair to get an idea of the range of products on offer, then did it all over again to do the actual scoring. At the time, we didn't know the prices of the various products (other than having a rough notion for the top end of the range). All the scores were then combined and each pair of binoculars was given a 1- to 5-star rating for optics and feel. The sum of these ratings was then divided by the cost (using an arcane transformation) to come up with an index of value for money. The results are summarised in the table on page 62.



CANON IS 12x36

### THE CHEAPIES

Of the 36 pairs reviewed, 26 cost more than R1500. The remaining 10 were either porro-prism (big, clunky binoculars) or small, compact bins designed for slipping into your pocket or taking on a hike when weight is a serious issue. The porro-prisms didn't rate too badly for optics, but for the most part fared poorly in terms of feel and robustness. Almost all have external focusing (the eyepieces move in and out to focus), which pretty much precludes them being waterproof, and from experience we have found that they are easily knocked out of alignment. The one exception is the Leupold Yosemite 6x30, which has internal focusing and is claimed to be fully waterproof. It is small, compact and as cute as one can imagine



LEUPOLD YOSEMITE 6x30

a pair of porro-prism bins getting, but its relatively low magnification is probably insufficient for most birders.

Some of the compact binoculars were quite reasonable, but their field of view tends to be limited. If you are shopping in this price range, we'd consider the Canon 8x23 compacts, which are claimed to be waterproof and look more robust than most. Unfortunately, we didn't get to test the Canon 8x32 WP which looks like an even better entry-level option. If you are considering a pair of porro-prism binoculars, the Nikon Action 8x40 is reasonably priced and has a tolerable close-focus distance. All the others are pretty hopeless, not even focusing on birds five metres away.

### ROOF-PRISMS RULE

Only one pair of binoculars costing more than R1500 weren't the vastly superior

roof-prism design. In addition to their more compact and comfortable shape, roof-prisms allow for greater robustness, fully internal focusing and true waterproofing (but beware – not all roof-prisms are truly waterproof!). If you can afford it, we strongly recommend investing the extra money and buying a pair with roof-prisms. The only pair of porro-prism bins in this price range was the Pentax XCF 10x50, which is claimed to be waterproof, but is very large, heavy and awkward to use, and has the bizarre feature of a focus lock. No one could imagine why this would be useful to a birder.

Hopefully we've convinced you that roof-prism is the way to go. But now the field gets more crowded. We were faced with 25 pairs of binoculars, ranging in price from just over R1 600 to R19 000. The field here can be divided into three price brackets: the top end (R15 000 and up), mid-range (R7 000–R13 000), and bargain basement (less than R5 000).



ZEISS VICTORY FL 10x42

### The top end: R15 000–R19 000

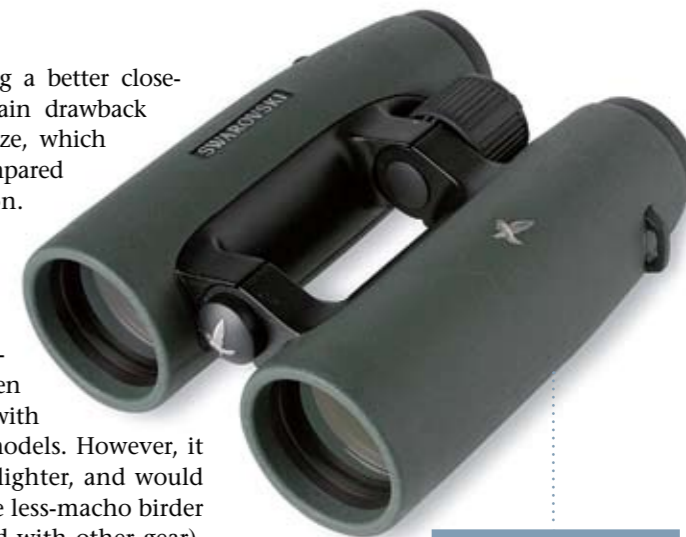
If money is no object, then you're probably going to opt for one of the three big names: Leica's Ultravid, Swarovski's EL or Zeiss's Victory FL range. All three lived up to their big-ticket reputations, with their flagship 10x42 models scoring maximum marks for optical quality. We were hard pressed to separate them, with Zeiss shading the others slightly in twilight

conditions and having a better close-focus distance. Its main drawback was its rather large size, which felt a little clumsy compared to the competition. Only Zeiss submitted a smaller model for evaluation, the 10x32. This was equally good optically, except in twilight conditions, when it couldn't compete with the larger objective models. However, it is much smaller and lighter, and would certainly appeal to the less-macho birder (or one over-burdened with other gear). The most expensive model assessed was Leica's Duovid, a novel design that offers 8x or 12x magnification by twisting each eyepiece in turn. It was optically impressive, apart from a rather mediocre close-focus distance, but we all felt the marked increase in weight wasn't worth the extra magnification. Rather have a pair of 10x bins and a 'scope.

### Mid-range: R7 000–R13 000

This sector covers a wide range in price, and comprises such a mixed bag that it is hard to generalise. Most are conventional roof-prism binoculars, which fall between two stools to some extent, being not quite up with the quality of the top end and not offering much more than some of the cheaper roof-prism models. Zeiss's Conquest range is pretty similar to the top-end Victory models, but uses a lower quality glass. The difference is not great until viewing conditions become challenging (at dusk or when looking towards the sun). The 10x40 model is pretty good, but we all felt the 10x50 was just too large and heavy to have to carry around all day. An annoying feature was the lack of a rain-guard; although you can order one as an accessory, it seems a pity not to provide one with what is, after all, still a pretty expensive pair of binoculars.

The other binoculars in this price bracket are the flagship offerings by a number of other manufacturers. Leupold's Gold Ring 10x32 is remarkable for focusing down to just more than a metre, although you may start to feel a little queasy at this range. We all commented on the uncomfortably large eye-cups, which might be required when focusing so close, but they really detract from the bins' appeal for everyday use.



SWAROVSKI EL 10x42

Nikon's HG 10x42 and Bushnell's Elite 8x43 are more conventional models that use the best-quality glass in an attempt to challenge the top-end marques. Both are nice binoculars, but are not quite up to the standards of the big three. Of the two, the Bushnell offers better value for money, and comes with objective covers, as well as a nifty semi-rigid case.

Perhaps the most distinctive pair of bins we tested was the Canon Image Stabilised (IS) 12x36. Canon has had great success with its IS camera lenses, and apparently sees IS as the wave of the future for binoculars too, but these will need further development if they are going to have a large impact on the birding market. Available in 12x, 15x and 18x models, the floating lens system cuts out minor shakes as soon as you press the centrally-mounted IS button. But the design takes some getting used to, with the IS button displacing the focus wheel from the most accessible position. The field of view is a little narrow, the close focus distance is more than seven metres, and we had concerns about its ability to withstand arduous field conditions. And it is rather unusual to have to carry spare batteries for your binoculars!

### Bargain basement: less than R5 000

Rather like the car market, the field gets crowded at the lower end, with lots of competitively priced products. It is this sector that has seen the greatest growth, thanks to the increase in the global demand for birding binoculars, and there are some real bargains to be had. If you're still birding with a pair of porro-prism binoculars that you

## try before you buy

If you are considering buying a pair of binoculars, check the following points.

- ✓ How do they feel when you hold them? Are they nicely balanced and not too heavy?
- ✓ Is the focus wheel accessible and easy to use?
- ✓ Can the adjustable eyepiece be locked to suit your eyes?
- ✓ How do the eye-cups feel? Can they be locked at a level that suits your eyes?
- ✓ Is the close-focus distance three metres or less?
- ✓ How fast is the focus? (It shouldn't take more than 0.7 rotations of the focus wheel to go from five metres to infinity.)
- ✓ Is the field of view adequate? (As a general rule of thumb, avoid anything where the objective diameter divided by the magnification is three or less.)
- ✓ Is the image nice and bright? Are the colours true to life?
- ✓ Is there excessive chromatic aberration? (Look for ghostly blue or yellow edges to objects when viewed towards the edge of the field of view.)
- ✓ Is the focus sharp across the field of view, or does it get soft towards the edges?
- ✓ Is the image flat? (Try panning quickly and look for bulging in the central portion of the image.)
- ✓ Is there a problem with flare? Ask to take the binoculars outside and look towards the sun (but not at it, as that can seriously damage your eyes!). Does the image get washed out by ghostly internal reflections?
- ✓ Are they robust?
- ✓ Are they waterproof? Is there any guarantee if they leak? Having nitrogen-filled binoculars ensures they are sealed, and prevents internal fogging or problems with fungal growth on the lenses.
- ✓ Is there a rain-guard that you can leave attached to one of your neck straps?
- ✓ Are there objective covers, should you want them?
- ✓ Is the strap comfortable? (Bear in mind that this can be replaced.)

MODEL	OPTICS	FEEL	VALUE	COST (R)*	MASS (g)	TYPE	CLOSEST FOCUS (m)	WATER-PROOF	RAIN-GUARD	OBJ COVER
Leica Duovid 8-12x42	★★★★☆	★★★★☆	★★	19 000	1 110	R	3.0/3.2	Y	Y	Y
Swarovski EL 10x42	★★★★★	★★★★☆	★★☆	17 700	910	R	2.6	Y	Y	Y
Leica Ultravid 10x42	★★★★★	★★★★☆	★★☆	16 500	850	R	3.0	Y	Y	Y
Zeiss Victory FL 10x42	★★★★★	★★★★	★★☆	16 035	860	R	2.2	Y	Y	Y
Leica Ultravid 8x42	★★★★★	★★★★☆	★★☆	16 000	860	R	2.8	Y	Y	Y
Zeiss Victory FL 10x32	★★★★☆	★★★★★	★★☆	14 995	630	R	2.0	Y	Y	Y
Nikon L – HG Series 10x42	★★★★	★★★★	★★	13 000	860	R	3.0	Y	Y	N
Leupold Golden Ring 10x32	★★★★	★★★★☆	★★	10 995	850	R	1.1	Y?	Y	N
Zeiss Conquest B 10x50	★★★★☆	★★★★☆	★★	10 600	980	R	3.6	Y	Y	N
Zeiss Conquest B 10x40	★★★★☆	★★★★	★★☆	9 280	860	R	2.8	Y	Y	N
Bushnell Elite 8x43	★★★★☆	★★★★	★★★	7 182	740	R	2.5	Y?	Y	Y
Canon Image Stabilised 12x36	★★★★☆	★★	★★☆	7 000	750	IS	7.2	N?	N	N
Leupold Pinnacles 8x42	★★★★	★★★★☆	★★★	5 100	740	R	1.9	Y?	Y	N
Leupold Cascades 10x42	★★★★	★★★★☆	★★★★	3 995	710	R	2.8	Y?	Y	N
Leupold Olympic 8x42	★★★★	★★★★★	★★★★	3 950	675	R	2.3	Y?	Y	N
Leupold Katmai 6x32	★★★☆☆	★★★★☆	★★★☆☆	3 895	590	R	1.4	Y?	Y	N
Pentax DCF HR11 8x42	★★★★	★★★★	★★★★	3 200	860	R	3.8	Y?	N	N
Nikon Monarch DCF 10x42	★★★★	★★★★☆	★★★★★	3 000	695	R	2.2	Y	Y	N
Bushnell Legend 8x42	★★★★	★★★★	★★★★☆	2 736	895	R	2.2	Y?	Y	N
Bushnell Legend 8x32	★★★★☆	★★★★	★★★★★	2 394	730	R	2.3	Y?	N	N
Vixen Atrak 10x42	★★★☆☆	★★★★	★★★★☆	2 195	800	R	1.3	Y?	Y	N
Pentax DCF HS 8x36	★★★★☆	★★★★	★★★★	2 000	715	R	2.8	splash	Y	N
UltraOptec Game-Pro 8x42	★★★★	★★★☆☆	★★★★★	1 993	815	R	1.2	Y	Y	N
Pentax PCF WP11 10x50	★★★	★★	★	1 850	1 080	PR	5.3	Y?	N	N
Bushnell Nature View 10x42	★★★★	★★★★	★★★★★	1 710	795	R	3.4	Y?	Y	N
CPC Moonraker 10x42	★★★★☆	★★★★	★★★★★	1 595	720	R	2.6	Y?	Y	Y
Canon AWP 8x23	★★★	★★★★	★★★★	1 300	420	COM	2.6	Y?	N	N
Leupold Yosemite 6x30	★★★★☆	★★★	★★★☆☆	1 200	555	PR	3.7	Y?	Y	N
Bushnell Excursion 10x28	★★★	★★★★	★★★★★	1 140	540	R	3.1	Y?	Y	Y
Pentax XCF 10x50	★★★	★★	★★★	1 000	920	PR	8.2	N?	N	N
Nikon Travelite 9x25	★★	★★★★	★★★	1 000	280	COM	2.5	N?	N	N
Nikon Action CF 8x40	★★★	★★	★★★★	849	815	PR	3.5	N?	Y	N
Nikon Sport Lite 10x25	★★	★★★★	★★★	700	290	COM	2.8	N?	N	N
Bushnell Nature View Birder 8x40	★★★	★★	★★★	570	590	PR	6.3	N?	N	N
UltraOptec Series 2 8x40	★★	★★	★★★	455	740	PR	5.3	N?	N	N
UltraOptec Bak 4 Prism 8x21	★	★★★	★★★	227	195	COM	3.5	N	N	N

PR – Porro-prism  
R – Roof-prism  
COM – Compact

\*The prices shown in this table were correct as at the end of September 2006 – they are intended as a guide only and we cannot take into account import currency fluctuations and retail price increases.



BUSHNELL ELITE 8x43



ULTRAOPTEC GAME-PRO 8x42



PENTAX DCF HS 8x36

bought 10 or 15 years ago because you think you can't afford to upgrade, do yourself a favour and try out some of these bins. The difference in quality will revolutionise your birding experiences.

Leupold has a suite of nice, compact and light roof-prism models towards the upper end of this price range (R4 000–R5 000) that are well worth a look. Our favourite was the 8x42 Olympic; we were put off the 10x42 Cascades model because it came in a camouflage finish, probably aimed at the US deer-hunting brigade but potentially dangerous in many parts of Africa, where you could be mistaken for a mercenary or spy! If you can get a pair with a more traditional finish, they will be worth considering.

Pentax supplied us with two DCF models, the HR11 8x42 and the HS 8x36. Both were quite acceptable, although the latter is specifically rated as splash-proof rather than waterproof. Bushnell has plenty to offer, with the Legend series offering robust if rather heavy binoculars in the R2000–R3000 range, and the Nature View 10x42 offering exceptional value for money at less than R2 000. Nikon's Monarch 10x42 and 8x42 models also offer great value in the R2000–R3000 range, and are lighter, with more modern styling than Bushnell's Legend series. The Vixen Atrak 10x42 and CPC Moonraker 10x42 were both rated a little lower than their opposition in terms of their optics, largely as a result of more noticeable chromatic aberration. However, they too offer the buyer good value for money.

Finally, the surprise package was the UltraOptec Game-Pro 8x42, which was optically quite acceptable for a brand that is not that well known. It has exceptionally close focus (1.3 metres) and would be ideal for butterfly or dragonfly enthusiasts. It was let down a bit by its finishing touches, but this may be a brand to watch in future.

Rating binoculars, like beauty, is a less than exact science. Before buying, be sure to check the product yourself (see the checklist). Each person has their own preferences, particularly when it comes to feel. Also, please note that we did not get to test the full range of binoculars that are on the market, and there are other contenders, especially in the reasonably priced bracket, which may well be worth considering. Happy shopping! □



PETER RYAN

### The panel

Despite asking a range of birders to assist, most had more sense and manufactured an excuse to be elsewhere. However, we finally ended up with a nicely balanced team of four assessors from across the user spectrum. At the end of the exercise, each was asked to pick the bins they would choose to keep from the range on offer.

CLIFF DORSE (left) – birder and nature conservation officer  
Current binoculars: Swarovski 10x42 (old model). His choice: Swarovski EL 10x42.

LILLY POULSOM – wildlife artist and birder  
Current binoculars: Nikon EB 9x25.  
Her choice: Leupold Olympic 8x42.

PETER RYAN – birder and ornithologist  
Current binoculars: Swarovski EL 8.5x42 (but often borrows his wife's old Leica 8x32). His choice: Zeiss Victory FL 10x32 (somewhat influenced by guilt at always stealing his wife's bins).

SURETHA VAN ROOYEN – beginner birder  
Current binoculars: Bushnell H20 10x42.  
Her choice: Swarovski EL 10x42.