

Zeiss Victory Harpia 23-70x95 Angled Scope: A Review

By Lee Thickett



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It was a long time coming but eventually the loaned Harpia turned up and just in time to get packed and taken to the Isle of Islay for three weeks of what turned out to be the worst weather we have ever experienced in Scotland. Nevertheless with our cottage being situated very close to the sea (see the pic) I was able to take advantage of every opportunity to find out how it performed for birding and nature observation.

As usual, I will first take a moment or two to consider the specifications and prices of the Harpia and its most obvious rival, Swarovski's ATX 95. Talking of prices, the Harpia 23-70x95 weighs in at £3,395 in the UK, approximately €3,695 in the Euro Zone and around \$4,400 in the States. For Swarovski's ATX 30-70x95 the equivalent prices are approximately £3,040, €3,460 and \$4,498.

There are certainly bigger differences when considering specifications. The ATX bottoms out at 30x whereas Harpia goes down to 23x, both of them running up to 70x. Harpia is listed at 2298g / 81.1ozs, with ATX at 2150g / 75.8ozs. So we have the Zeiss with the wider zoom range while the Swarovski claims a 6% weight advantage. Harpia focuses a little closer than ATX at 4.5m versus 4.8m, but the biggest difference between them is field of view.

At its lowest magnification of 23x Harpia's field of view is listed as 58.8m at 1,000m compared with Swarovski's claim of 35m for ATX. If that looks like a huge difference, that's because it is. If you calculate the area of view at 1,000m and compare the two, the Zeiss has an area 282% bigger. Yes, that is 2.82 times as big, and the Harpia even beats Kowa's terrific TSN-883 (whose 42m is not to be lightly dismissed) by 95%, so nearly twice as big based on area.

Now for an aspect that has aroused some controversy: exit pupil. The zooming mechanism of the Harpia is contained within the objective lens optical tube and not in a separate eyepiece and it closes down the size of the objective lens as you reduce the magnification below 40x. From this magnification and higher the full objective diameter is available, below, it reduces as magnification is reduced. Here are the published Harpia and ATX exit pupils

Harpia exit pupil: 2.50 – 1.34 mm

ATX exit pupil: 3.2-1.4 mm

Based on these figures, Harpia is at a disadvantage at dusk and dawn due to the smaller exit pupil at the lowest magnifications. Boosting Harpia's magnification to 40x brings you the full diameter of the objective lens and the extra detail that we know is crucial in twilight. During normal daylight your pupils will be around 2.50mm anyway so there is no loss of brightness under these conditions and it is probably no coincidence that this is the pupil size at which the human eye delivers the highest sharpness. Nevertheless this is something that crepuscular viewers will want to consider.

The scope itself is a handsome instrument with an adjustable eyecup that moves with a well-engineered precision unknown to some of Zeiss's binocular eyecups. There are two wheels of different sizes side-by-side on the body, one for focus and one for magnification. As has been the norm with recent Zeiss scopes, the focus wheel adjusts the focus finely and slowly for a certain rotation and then ups the speed to allow quicker re-focusing over longer distances. I was a bit suspicious of this at first although I had found it agreeable at the Bird Fair. However it worked so well it was easy to forget about it. Both focus and magnification adjuster moved with a smooth and backlash-free precision. Up front there is a retractable lens-hood.

Our cottage on Islay overlooked a small sea bay with the furthest rocky headland being about 500m away, according to my measurements of our Ordnance Survey map, and the centre of the bay

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around 300m. Now, I have tried Harpia several times at the Bird Fair but never before on my 'home ground' of a Scottish sea coast, but the first time I set it up and looked through it at the bay, set at its lowest magnification, my jaw nearly hit the deck. This is a monster field of view, and with 23x magnification too. Wow! Panning to look at the open sea, a flock of Kittiwakes about 750m away floated leisurely across the field of view seemingly giving me all the time in the world to spot the adults from the youngsters. Minutes later a shower of tumbling 'black' birds arriving in the blustery wind on the grassy dunes about 600m away revealed 4 Red-billed Choughs in amongst a gang of Jackdaws. They strutted away behind some dunes so I racked up the magnification to 70x and focused on the rocks on the headland and could clearly make out the individual patches of Barnacles and lichens.

The weather for the next few days was just awful with heavy rain and mist but when it cleared I found two Great Northern Divers in the bay with one sweep at 23x. They had greatly differing facial patterns with one having 'smudged' cheeks and the other cheeks as white as snow. At 70x these birds were just stunning and although these two didn't call, what was probably a family group of 4 seen at another site on the island, did. If your soul and heart aren't pulled when you hear a Great Northern's voice then you ain't got either!

Early in my trialling of Harpia I was on the look-out for the possibility of noticing a dimming as I reduced magnification to 23x, but I never saw this, and soon forgot about it. The view at 23x was plenty bright enough even under cloudy conditions and it seems to me logical that, since you want brightness in order to see details, that you want this brightness at higher magnifications, when finding details is your goal. This is what Harpia gives you from 40x-70x magnification.

Squinting to look hard left and hard right to the field edge, it was sharp all the way, and this combined with the huge field of view at 23x allowed me to hand-hold it and capture a view of 2 Choughs that appeared just as I was taking the scope off the tripod. I just caught them at the edge of the field of view and despite the wavering, it was enough to see that they were Choughs and not Jackdaws. This is not recommended, but it was a fun moment!

At this point I should mention that the apparent field of view of 72° stays the same no matter what magnification is set, and this makes for very comfortable viewing especially for a long session. And talking of viewing comfort, the eye relief is 18mm and although it varies a little with magnification, the change is hardly measurable according to Zeiss. You will search in vain for chromatic aberration over almost the entire field of view because there is only the merest hint of it at the extreme edge of the field.

How sharp is it at 70x? Well, to my eyes it seemed to get sharper at higher magnifications and it was quite sharp enough at 23x, but the acid test was when I took it to visit a friend who is a warden on an Islay nature reserve and who had been having trouble reading leg-rings on Twite (a small finch) to check if they had been ringed on the reserve. We set up the Harpia at what he estimated to be between 25-30 metres away from a flock of between 450 – 500 Twite, perched on overhead cables. By the way you cannot believe the amount of sound, of sweet melodious sound, that can come from nearly 500 tiny voices when they are all 'talking' at once. Eventually he found one with a leg ring and triumphantly read it: YR! This meant it had been ringed on the reserve the previous December. I took a look myself and by golly there was the writing on the tiny ring, a ring barely visible through binos.

Could another scope have delivered such detail? I don't know, quite possibly. Could it deliver the same detail at 70x combined with the same field of view at Harpia's lowest magnification? At this point I will quote Kimmo, one of our most experienced members, who said on Birdforum:

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“I acknowledge that for a lot of the practical birding people use their scopes for, a wide FOV at low magnifications is a real and sizeable benefit. The difference in field between the Harpia and just about any other scope at 20-30x mags is not subtle”.

Scanning a habitat for your target species is something at which Harpia excels. Of course binos have much wider fields but hand-held they don't have 23x magnification. Using this attribute I was able to identify that at least 4 different Otters were using the bay below our cottage. The wide field at 23x found them (2 different groups of 2, at different times) and the 70x meant I could see that each pair was a mother and cub, but of different ages. Of course where there are young ones there is a father, so this told me 5 Otters were making use of that coast. This characteristic low-mag/wide field and high-mag/great detail dynamic, encapsulates what Harpia is all about for me. I have described how it worked for viewing Otters but of course it worked in exactly the same way when scanning the sea and the grassy dunes and coast for birds too. Not only Great Northern Divers, but Shag, Red-throated Divers, and passerines such as Stonechat and Meadow Pipit and Rock Pipit, were all found by scanning at 23x/wide field and then zooming in with high magnification. You can say this is the same with any scope but take a look at the field of view details again and read Kimmo's comment again. Harpia takes this technique to another level.

How did it perform in twilight? We had a lot of 'twilight conditions' due to heavy, heavy cloud and pouring rain, bringing evening on earlier in the day, and using 23x to scan and 40x to view, I could make out the different facial patterns of the two Great Northern Divers 300m away. Twilight specialists may need something more to capture a few minutes longer but for me, viewing mainly in daylight, I was really happy with the wide-field at 23x/great detail at 40x or higher, combination.

I am not a digi-scooper so can't personally speak from experience of doing this, but several reviewers around the world have digi-scoped with Harpia and one of them, Melissa Penta, kindly commented on Harpia's performance under jungle canopy conditions and also sent me a photo to accompany this review. Here is how she described Harpia:

..... “The views that we had throughout the forest and in the dark canopy were pretty amazing with the Harpia. I never felt like a bird was too dark to see detail, even backlit”.

The bird she photographed was a Barred Puffbird and it was taken with an old iPhone 6 at the full 70x magnification. I think it's a great image but bear in mind the quality has to be reduced to post on Birdforum.

Summing up, Harpia seems to me to have been optimised to perform in a very practical way providing a very wide view at its lowest magnification and the sharpest, brightest detail at its highest magnification. Anyone looking for a scope with these talents and capabilities should do themselves a favour and try it out.

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Harpia photo copyright Lee Thickett

Barred Puff Bird photo copyright Melissa Penta, to whom, thanks!

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