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CLOSER

SWAROVSKI OPTIK

NATURE WATCHING SPECIAL

FOCUS
ON WHAT
MATTERS

THE WONDERS OF
NATURE WATCHING

ALL
ABOUT
OPTIK

AN OVERVIEW
OF KEY TERMS

SEE THE UNSEEN



SWAROVSKI
OPTIK



CLOSER
NATURE WATCHING SPECIAL

FOCUS ON WHAT MATTERS

WHAT MAKES NATURE WATCHING SO FASCINATING? IS IT THE FACT THAT WE HAVE TO CONCENTRATE TOTALLY ON ONE THING? OR IS IT BECAUSE ONE SPECIAL SIGHTING CAN TURN ANY MOMENT INTO AN UNFORGETTABLE EXPERIENCE? OR SIMPLY THAT WE ARE CONSTANTLY IMMERSSED IN THE BEAUTY OF NATURE? WHATEVER OUR MOTIVATION, THE INTENSITY OF EVERY SIGHTING DEPENDS ON THE QUALITY OF OUR VISUAL PERCEPTION.

THE JOY OF
OBSERVING
ENRICHES
OUR LIFE.



**THE BEAUTY OF NATURE
DOESN'T ALWAYS LEAP OUT
AT US – WE HAVE TO
CONSCIOUSLY SEEK IT OUT.**

Take the time to venture out with all your senses on full alert. Let your curiosity guide you and you will be rewarded with something new every day. Look more closely and see so much more.

The miracle that is the human eye comes into its own when you are out nature watching. About 80% of the information that we take in from the world around us comes through our vision, and it accounts for a quarter of our brain's capacity. Understandably, we rely mainly on our vision when observing and experiencing nature. And when we use top-quality optics, we can quite simply see and identify so much more than with the naked eye.

SWAROVSKI OPTIK's brilliant products are the ideal companions on your expeditions in nature, allowing you to immerse yourself in the moment. We have the perfect companion for every situation. The NL Pure allows you to become one with nature, and the spotting scopes and various eyepiece and objective modules help you to make out the tiniest of details. The dG brings a whole new dimension of seeing, experiencing, and learning. Whichever companion you choose, make the most of your time in nature.





NL PURE 8/10/12x42 ONE WITH *NATURE*

With its pioneering design and revolutionary field of view, the NL Pure has been designed for the most intense moments of observation. It makes you feel you are right in the thick of things.



ONE WITH THE MOMENT

The largest-ever field of view with almost indiscernible edges allows you to experience nature as never before – and immerse yourself in the moment.

ONE WITH YOU

The NL Pure has been designed to fit perfectly into your hand. Its revolutionary ergonomic shape guarantees relaxed viewing, even for prolonged periods.

ONE WITH PERFECTION

SWAROVISION technology guarantees stunning images with incredible color fidelity, making it easy to identify every single detail.



NL PURE

THE PURE *FASCINATION* FOR THE NEW



ACHIEVING THE EXTRAORDINARY MEANS FORGING NEW PATHS. AT SWAROVSKI OPTIK, THIS CAN ALSO MEAN REINVENTING THE LAWS OF PHYSICS.

For our diverse team of experts, the desire to design a revolutionary binocular with a 70° field of view without compromising on ergonomics and handling became an irresistible challenge.

The two key questions they had to answer were: How do we combine the best optics in the perfect package? And which binocular shape is the most ergonomic, including in terms of weight? These questions fueled the process of innovation, and the initial answers immediately brought some extraordinary ideas. However, they were accompanied by concerns that the desire for maximum optical performance would make the binoculars too big and clunky.

But SWAROVSKI OPTIK is nothing if not bold. The whole team was excited about the project and believed in the product, and of course everyone wanted to play their part in achieving the impossible. The housing was designed around the incredibly compact optics, and it is this housing that gives the NL Pure its unique ergonomic shape, which mimics the position of the human hand. When gripping, the hand is never totally round, which is why the NL Pure has been designed with an oval recess between the thumb and index finger. When you pick up the NL Pure you never want to put it down because it fits so perfectly in your hand. In addition, the new forehead rest provides unbeatable comfort, particularly during prolonged use.

As soon as you look through the binoculars you realize they are a technical masterpiece. The largest-ever field of view with almost indiscernible edges allows you to totally immerse yourself in your surroundings. The NL Pure allows you to experience nature as never before.





115-MM OBJECTIVE MODULE GREATNESS *IN THE SMALLEST DETAIL*

With the largest lenses on the market, it sets new standards in nature watching and provides some crucial benefits.



IT'S ALL IN THE DETAIL

See more, identify birds more easily, immerse yourself in the moment. The 115-mm objective module allows you to see things that others don't. Differentiate all those tiny but crucial details.

MAXIMIZE YOUR DAY

The results are particularly spectacular at dawn and dusk. Discover nature's many amazing facets in their true colors, even in low light.

TOTAL FLEXIBILITY

The 115-mm objective module is compatible with the unique, modular ATX/STX/BTX spotting scope system. Simply change the eyepiece module at any time to suit the situation you are in.



115-MM
OBJECTIVE MODULE

THE START OF SOMETHING BIG

SINCE ITS LAUNCH IN 2012, THE ATX/STX SPOTTING SCOPE SYSTEM HAS BEEN IMPRESSING BIRDERS AND HUNTERS ALL OVER THE WORLD WITH ITS MODULAR DESIGN.

In 2017 it was taken a step further with the BTX eyepiece module. Different objective and eyepiece modules can be flexibly combined with a unique degree of precision. For detailed nature watching, three lens sizes were previously available: 65 mm, 85 mm, and 95 mm.

But this wasn't enough for SWAROVSKI OPTIK. The bigger the objective lens diameter, the more light the system can capture, enabling you to make out and identify more details. So it seemed obvious to press

ahead with developing an even bigger objective module. The main challenge with this was how to maintain the usual outstanding SWAROVSKI OPTIK quality during series production.

The project succeeded – meaning that birders and nature watchers can now enjoy the largest lenses on the market with the 115-mm objective module.

One look through this superlative objective lens immediately reveals its uniqueness: no detail, however tiny, remains hidden. Its superior quality comes into its own during prolonged observation of small, fast-moving birds such as shorebirds, or when the light is poor.





dG DIGITAL GUIDE STAY CURIOUS

The dG is the first long-range optical device to allow you to identify and document your sightings and share them with other people.



Apps provide information about the wildlife and help you to identify your sightings. SWAROVSKI OPTIK recommends **Merlin Bird ID and dG Mammals**.



DISCOVER NATURE
At the touch of a button, your sightings are transferred to your smartphone for automatic identification.

TREASURE MOMENTS
Seamlessly observe, photograph, and track your wildlife encounters. Capture your experiences as photos or videos.

SHARE THE JOY
An integrated Wi-Fi hotspot allows several of your companions to follow your sightings by live stream.





dG THE FUTURE OF *ANIMAL IDENTIFICATION*

ISN'T IT WONDERFUL TO HAVE AN EXPERT BY YOUR SIDE DURING YOUR ADVENTURES IN THE GREAT OUTDOORS? BUT THIS ISN'T ALWAYS POSSIBLE. AND SOMETIMES YOU WANT TO DISCOVER HIDDEN THINGS ON YOUR OWN OR WITH FAMILY AND FRIENDS.

Imagine you're out walking when you spot a bird you've never seen before. This is where the SWAROVSKI OPTIK's dG helps you to identify what you see. It means you always have a personal mentor by your side.

The dG combined with a smartphone means you are perfectly equipped for an eye-opening expedition. Be guided by your curiosity and get to know more

about your local wildlife. Have fun getting lightning-fast answers to the question: What amazing creature am I looking at?

Because one thing is for sure – as soon as you identify an animal or bird you see it with new eyes. You want to know more about how it lives, its distribution, feeding habits, and behavior. It gives you a broader understanding of your local wildlife and the ecosystem that is right on your doorstep.

Once you have been gripped by the joy of discovery, you will want to explore nature in all its facets. With the dG as your mentor, there is no end to the exciting discoveries you can make! What are you waiting for?





TIPS FROM THE EXPERTS USING A *SPOTTING SCOPE*

DALE FORBES,
HEAD OF STRATEGIC BUSINESS DEVELOPMENT
AT SWAROVSKI OPTIK, IS A PASSIONATE BIRDER
AND NATURE WATCHER. HE TELLS US HOW TO GET
GREAT RESULTS FROM THE GET-GO.

1 START SMALL

When you're trying to pick out a bird or animal, set the spotting scope to a small magnification. This makes the field of view – and hence the image that you see – much bigger. Once you have homed in on your target, you can zoom in and check out all the small details. Adjust the focus for maximum sharpness.

2 IDENTIFY LANDMARKS

It is useful to identify landmarks in the terrain when trying to pick out an animal. Look for distinctive features through the spotting scope, then shift your gaze toward your target. Some spotting scopes have sighting aids to help you find your target more easily.

3 STABLE SUPPORT

If the spotting scope moves, it is harder to find your target. That's why a tripod is ideal, but even a soft backpack or car roof can provide extra stability.

4 STRAIGHT OR ANGLED?

At first, it might seem easier to find your target by looking straight on, but in fact it is more relaxing to observe from an angle. It is easier on your neck if you look slightly downward.

5 ONE OR TWO EYES?

The most natural way to observe is using both eyes. In recent years, the latest spotting scopes have offered the option of a binocular attachment that allows you to use two eyes. Try it out for yourself and see the difference.

6 KEEP AT IT!

Like anything, using a spotting scope is a skill that can be learned. So don't be put off if you find it difficult at first.

GOOD TO KNOW

More and more people are taking up birding and nature watching. Perhaps you're a newbie and not sure what to look out for when buying binoculars and spotting scopes. To get you started, here is an overview of key terms and optical parameters. Each technical component is important in itself, but you are only guaranteed an extraordinary viewing experience when they work perfectly together in a top-quality long-range optical instrument.



MAGNIFICATION

Magnification is the factor by which an animal appears closer than it actually is. The higher the magnification, the closer the animal appears, but the smaller the field of view is.

EXAMPLE: Binoculars with a 10x magnification will optically magnify a bird that is 100 meters (109 yds) away, making it appear as if it is just 10 meters (41 ft) away if viewed with the naked eye.



FIELD OF VIEW

The field of view is the section of the image that can be seen through the optics. As a rule of thumb, the higher the magnification, the smaller the field of view. Binoculars have a large field of view, which means you can see a wide area. Spotting scopes have a higher magnification, which makes the field of view much smaller, but you can see more detail.

OBJECTIVE LENS DIAMETER

The objective lens diameter determines how much light can enter the optics, so it is a key factor in the instrument's performance. The bigger the objective lens diameter, the more light the objective lens can capture. The darker the surroundings, the larger the lens diameter needs to be.



EXIT PUPIL

The size of the exit pupil depends on the objective lens diameter and magnification. If you look at the eyepiece from a distance of around 30 cm (11.8 in), the exit pupil appears as a bright disc. If you measure this exit pupil, you can very easily check the basic dimensions (magnification and objective lens diameter).

FORMULA: Exit pupil = Objective lens diameter/magnification

EXAMPLE: The larger the exit pupil, the more light that reaches the eye. Therefore, a pair of 8x56 binoculars has an exit pupil of 7 mm (0.28 in). This is compared to 8.5x42 binoculars, where the value is 4.9 mm (0.19 in).

IMAGE QUALITY

The general image quality is also understood as the overall optical display performance. This is characterized by an optimal relationship between image sharpness, resolution, and distortion (optical distortion of objects during image reproduction), and by a bright, color-neutral image.



BRIGHTNESS

The twilight factor and light intensity are the yardsticks for the brightness of a pair of binoculars. The binoculars need to be particularly bright in order to make out details at dusk and dawn.

TWILIGHT FACTOR: Performance in this respect is indicated by the twilight factor. The higher the factor, the more details are visible. The twilight factor is calculated from the root of magnification x objective lens diameter.

FORMULA: Twilight factor = $\sqrt{\text{magnification} \times \text{objective lens diameter}}$

LIGHT INTENSITY is calculated using the following **FORMULA:** $(\text{Objective lens diameter}/\text{magnification})^2$



EDGE SHARPNESS

This is a good indication of high-quality optics and can also be easily verified. The complete field of view should be sharp from the center of the image to the edge. Good or even perfect edge sharpness permanently reduces the need for readjustment.

CONTRAST

Contrast is used to mean the sharp separation of light-dark transitions on an object. Low-contrast images appear dull and flat, but are often only differentiated when compared to high-contrast images. Low-contrast images are the result of strong aberrations, such as color fringing, inadequate coating quality, or strong scattered light.



DETAIL RECOGNITION

Being able to recognize fine details on an object is highly dependent on environmental conditions, such as the light conditions and the object's contrast, as well as the size of binoculars chosen.



LIMITING RESOLUTION

Resolution is the ability of an optical system to separately reproduce the tiniest of details. In principle, the larger the objective lens diameter, the smaller the objects that can be resolved.



TRANSMISSION

This describes the light transmission of an optical system and is expressed as a percentage. For instance, 90% transmission means that 10% of the light is lost while passing through the optical system. This can be caused by absorption in the glass, as well as by reflections at the glass-air boundaries. A higher amount of transmission means a brighter picture, which is important in twilight. Transmission can be influenced positively by various coatings.



THE LEGEND

EL BINOCULARS ARE CONSIDERED TO BE MILESTONES IN THE FIELD OF LONG-RANGE OPTICS - AND WITH GOOD REASON. THE COMBINATION OF SWAROVISION TECHNOLOGY AND THE RENOWNED EL WRAP-AROUND GRIP GUARANTEES FIRST-CLASS VIEWING COMFORT AND EXTRAORDINARY DETAIL ACCURACY.



BRILLIANT OPTICS

SWAROVISION technology brings you crystal-clear images with remarkable color fidelity that stay razor-sharp right to the edges.



EASY GRIP

The EL's legendary wrap-around grip promises exceptional comfort.



OUTSTANDING ACCESSORIES

With its flexible strap connector and integrated objective lens covers, the FieldPro package makes your EL even easier to use.



THE FREEDOM TO EXPERIENCE MORE

ELEGANT, COMPACT, LIGHT, AND RUGGED - THE **CL COMPANION** FITS PERFECTLY INTO YOUR HAND AND IS ALWAYS BY YOUR SIDE, TURNING A TRIP OUTDOORS INTO AN INCREDIBLE NATURE-WATCHING EXPERIENCE.



PERFECT OVERVIEW

With its 132-meter (144-yd) field of view, the CL Companion ensures you have a clear view in every situation.



CUSTOMIZED

The world of the CL Companion is as individual as you are: choose from three accessory packages created to express your personal style.



INTUITIVE TO USE

It is easy to use and provides maximum comfort, leaving you free to experience nature even more intensely.



COMPACT AND LIGHTWEIGHT

Always to hand: Despite their powerful performance, these slim binoculars weigh less than 500 g (17.6 oz).



DETAIL RECOGNITION WITH A SYSTEM

ATX/STX/BTX THE SPOTTING SCOPE SYSTEM COMBINES EXCEPTIONALLY FLEXIBLE MODULARITY WITH OPTICAL PERFECTION.

The objective module can be changed to complement individual preferences and different situations. The device is operable with only one hand and, if necessary, it can be disassembled and easily transported. Its optical brilliance is based on SWAROVISION technology and enables you to see perfect images at long range. Up to 70x magnification is available, depending on the model.



OBJECTIVE LENS
115-MM OBJECTIVE MODULE
95-MM OBJECTIVE MODULE
85-MM OBJECTIVE MODULE
65-MM OBJECTIVE MODULE

EYEPIECES
ATX EYEPIECE MODULE
STX EYEPIECE MODULE
BTX EYEPIECE MODULE

EXPLORING ON FOOT:
If you normally use binoculars for birdwatching, but perhaps want to use a spotting scope when traveling to spot a rare bird of prey or shorebird, then you'll love the compact, lightweight combination of the ATX 65.

ON THE COAST:
If you enjoy spending hours watching seabirds from a headland, the combination of the comfortable BTX eyepiece module and the unparalleled 115-mm objective module is ideal for you.

TOP PERFORMANCE AND VERSATILITY:
The phenomenal ATX 95 is one of the most popular spotting scopes for most viewing situations thanks to its excellent image quality, large zoom range, and surprisingly light weight.



DIGISCOPING CAPTURE THE WONDER OF NATURE

THE BEAUTY OF NATURE NEVER CEASES TO FASCINATE US.
SHARE YOUR DISCOVERIES WITH YOUR FRIENDS.

A spotting scope combined with a digital camera or smartphone and the right adapter enables you to take photos through your scope. Now your sightings will not only be preserved in your memory, but also on the memory chip of your camera or phone. Here are four tips for taking photos that will leave a lasting impression:

GET READY FOR SOME AMAZING EXPERIENCES!
Enhance your viewing experience with tripods and tripod heads from SWAROVSKI OPTIK. They are all made of top-quality carbon and offer outstanding stability.

- 65-MM OBJECTIVE MODULE
- ATX EYEPIECE MODULE
- CTH COMPACT TRIPOD HEAD
- CCT COMPACT CARBON TRIPOD
- 95-MM OBJECTIVE MODULE
- BTX EYEPIECE MODULE
- BR BALANCE RAIL
- PTH PROFESSIONAL TRIPOD HEAD
- PCT PROFESSIONAL CARBON TRIPOD



1 EXPLORE YOUR CAMERA'S FEATURES
Play around with optimal performance parameters like ISO numbers and shutter speeds. A tripod – ideally in combination with a spotting scope rail – is a basic requirement for producing beautiful images.

2 START SLOWLY
Choose subjects that are within close range for your first photos. It's best not to use too much zoom to begin with because it can be tricky to use digiscoping lenses at long focal lengths. Even the slightest camera shake can make your photo look blurred.



3 PRE-FOCUSING
It can be difficult to focus on animals because they are usually in motion. It's easier if it is pre-focused on a stationary object – like a tree for instance – using live-view mode. It's often also useful to know where the subject will appear. If the animal is standing still, focus on one of its eyes.

4 TRY OUT DIFFERENT ANGLES
When they start out, birders often like to take photos of birds side-on to get the classic profile shot. But one of the challenges of digiscoping is taking shots from more unusual angles, and this can really add interest to your photos.

5 PRACTICE MAKES PERFECT
Once you get a feel for your equipment, your photos will improve in leaps and bounds. For more practical tips, visit [swarovskioptik.com](https://www.swarovskioptik.com)

YOU CAN FIND OUR PRODUCTS AT EXCLUSIVE SPECIALIST
RETAILERS AND ONLINE AT **SWAROVSKIOPTIK.COM**

For further information please contact:

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SEE *THE* UNSEEN

