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SWAROVSKI OPTIK UNDER THE SCOPE

ON THE *QUEST FOR PRECISION*

We are delighted about your interest in SWAROVSKI OPTIK. We want to give you a glimpse of our production facilities by inviting you on a tour. Carina Schiestl-Swarovski, Chairwoman of the Executive Board, will be your guide, as she enlightens you about the company and its history. As the granddaughter of the company's founder Wilhelm Swarovski, she has known the company from an early age, which means that she can show you the most interesting places on this site covering 39,000 m²/420 ft², and offer some quite special insights. While doing so, Carina Schiestl-Swarovski will explain what makes SWAROVSKI OPTIK what it is today. Enjoy your tour of discovery!



1 SEEING AND *PRESERVING BEAUTY*

Welcome to the world of SWAROVSKI OPTIK. We consider ourselves very lucky to manufacture products that bring people closer to the beauty of nature. But we are also very well aware that we can only enjoy unforgettable visual experiences if our environment is intact and the biodiversity of flora and fauna is preserved. Therefore, every action we take is guided by the thought of showing nature the utmost appreciation and saving resources.



2 INSPIRED BY *TYROLEAN TRADITION*

Our staff numbering more than 800 are greeted every day by this spectacular mountain panorama. We strongly believe that customers who opt for a top-class quality product take particular care about where and how it is manufactured. This is why the company and production site is of paramount importance to us, and why there is a definite commitment to this location, set in the midst of the most magnificent Tyrolean mountain range. As a family firm, we act with a large measure of responsibility toward our customers, workforce, the region, as well as future generations. SWAROVSKI OPTIK takes the long view on this because we're not thinking just about the next five or ten years, but about future generations.

3 SUSTAINABILITY WITH *RESPONSIBILITY*

Anyone who is surrounded by such natural beauty, like we are at SWAROVSKI OPTIK, must realize that they also have some responsibility toward it. Sustainability is already a strong feature of our company's business. All our products are intended to encourage people to experience nature, to appreciate its value, to commune with it, and to ensure its continuity. We comply with the most stringent requirements and highest standards in order to care for the environment in our production processes.







4 BUILT ON *COURAGE*

Our ultimate objective is to never stop surprising people with our products, just as we have successfully done very recently with the first modular ATX/STX spotting scope. At SWAROVSKI OPTIK the courage of the team is what counts. To be able to offer innovative products, you need to constantly go to the furthest possible limits, deliberately allow time for developments, and take new paths. It is important for us on the Executive Board to foster this kind of climate. After all, as has shown to be the case in the past, this is what generates the best ideas.







5 QUALITY IS *PRICELESS*

Any product bearing the SWAROVSKI logotype and hawk symbol has undergone countless hours of development, production, and quality control. The concept of quality extends for us far beyond the purely technical aspects, and always encompasses the whole package: outstanding optics, functionality, ergonomics, design, and service – all of which must be perfectly harmonized. On the other hand, the value of an object always becomes apparent only in its everyday use. The crucial factor for us is that customers like to and often use our high-precision products, take sheer delight in using them for many years, and then perhaps even pass them on with pride to the next generation. For most people, these are precisely the reasons why they choose SWAROVSKI OPTIK: because they know that it is an investment for life.





6 TREATING EACH OTHER *WITH CONSIDERATION*

At SWAROVSKI OPTIK we treat each other with consideration and respect. This is evident not only from our daily interactions with each other, but also from the way in which we establish and maintain external partnerships. Our understanding of quality must be supported by our suppliers and business partners alike. We obviously set this benchmark for our products as well, which is why service and maintenance are highly valued within the company. We have only done a good job if you gain even more intense enjoyment from precious moments, thanks to your SWAROVSKI OPTIK product.









NATURE CONSERVATION PROJECTS

THE CANADA WARBLER PROJECT

Part of SWAROVSKI OPTIK's core activities involves exciting people about the beauty of nature and encouraging them, as guests, to treat it with consideration and respect, and to protect the diversity of species. With the situation for wildlife becoming increasingly dire due to altered habitats, environmental pollution, and many other man-made factors, SWAROVSKI OPTIK is demonstrating its commitment to threatened birds and other wildlife by participating in science-based conservation programs. One such project is the Canada Warbler International Conservation Initiative, launched by BirdLife International in 2013 as a new project within their global Preventing Extinctions Programme.

Neotropical migratory species breeding in temperate forests in North America and wintering in tropical forests in Central and South America have shown serious declines in their populations over recent decades. An important part of these losses are due to pressures on the forest ecosystems they inhabit, caused by logging, conversion of forests into pastures and cropland, forest fires, urbanization, and hunting and capturing for the illegal pet trade. One of the most charismatic and beautiful groups of Neotropical forest migrants is the Wood Warbler (family Parulidae). Several species in the family are considered to be of global or regional conservation concern, including the Golden-cheeked Warbler *Setophaga chrysoparia*, Kirtland's Warbler *Setophaga kirtlandii*, Cerulean Warbler *Setophaga cerulea*, and the Golden-winged Warbler *Vermivora chrysoptera*. Concern for these species has triggered global initiatives for their conservation that have benefited both the target species and additional species of conservation concern through a suite of habitat conservation measures. While the breeding ranges of these four species are relatively restricted, the Canada Warbler *Wilsonia canadensis* has a wide breeding range, which stretches over a large part of Canada and southward into the northern United States of America. Given this extensive breeding range, it is particularly worrying that the Canada Warbler is suffering a significant decline in numbers. Although not yet considered Globally Threatened, the decline has led to the species being listed as a Bird of Conservation Concern at a national level in the USA (USFWS 2008: Birds of Conservation Concern 2008) and is considered "Endangered" in Canada (COSEWIC 2012).

THE CANADA WARBLER

The Canada Warbler is a distinctive species of the family Parulidae. The male's plumage is vibrant, while females and younger male birds that are still not sexually mature have a much more discreet coloring. The Canada Warbler predominantly inhabits the boreal forests of North America, mainly the boreal region of south-east Canada and the north-east of the USA (Reitsma et al. 2010). They can be found in an extremely large variety of forest types during the breeding season. Although the Canada Warbler mainly prefers wet mixed forests, offering well-developed undergrowth, it also inhabits moor areas, red maple trees, cedar bushes, as well as swamp and alluvial forests dominated by black spruce trees. The

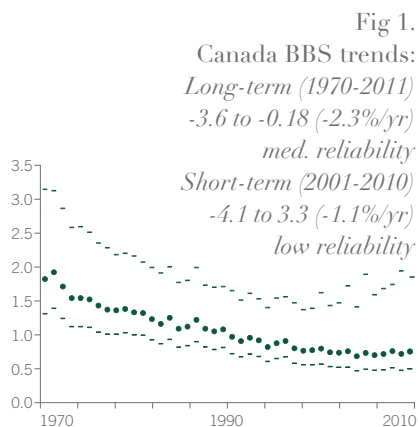
the south of the USA and Central America. During its migration it prefers to seek shelter at forest edges, in areas bordering rivers, and in well-developed undergrowth.

CANADA WARBLER STATUS

Although not yet officially classified as a Globally Threatened species, the Canada Warbler's population trend is decreasing significantly (Fig. 1). Data from the Breeding Bird Survey (BBS) suggest that, between 1968 and 2007, the population decreased by 4.5% per year, which is the equivalent of losing approximately 85% of the population during that time (COSEWIC 2008). In addition, in the last two decades, the population has decreased by 5.4% per year, which is equivalent to a 43% reduction in the population during that time. These falls are even more apparent in the eastern breeding grounds, which is where most of the population choose to breed (COSEWIC 2008). The main reasons for the species' decline are still unclear. However, it is believed to be mainly the result of the high mortality rate caused by the loss and degradation of habitat in its breeding, migration, and wintering grounds.

CANADA WARBLER PROJECT

Knowledge of a species' ecology and demography throughout its lifecycle is the key to understanding the factors leading to population decline or limited population growth. Until now, there has been no wide-scale action to fill these key information gaps and to start to address the decline of the Canada Warbler. The Canada Warbler project was launched in June 2013 during BirdLife International's World Congress in Ottawa, Canada. The aim is to devise a global lifecycle conservation strategy for the species, combining wintering and migration stopover information with



species is a Neotropical migrant that leaves its breeding grounds in the northern hemisphere to spend the non-breeding season in the southern hemisphere, primarily in northwestern South America, in rainforest and cloud forest between about 500-2000 m/1,640-6,562 ft in Venezuela, Colombia, Ecuador, and Peru, with small numbers also reaching Bolivia, and a few birds perhaps wintering in southern Central America (deGraaf & Rappole 1995, Reitsma et al. 2010). It is assumed that the species migrates only over land, crossing



PREVENTING EXTINCTIONS



THE BIRDLIFE PREVENTING EXTINCTIONS PROGRAMME

One in eight of the total number of 10,056 species of birds in the world is threatened with extinction. 213 of them are considered *Critically Endangered* – at an extremely high risk – and could become extinct within 10 years. This is why BirdLife International, the world's leading bird conservation organization, launched its Preventing Extinctions Programme in 2008. This global program comprises two elements. On the one hand, there are BirdLife Species Guardians – BirdLife Partners and other acknowledged experts who take on the management of bird conservation projects in their country while, on the other, there are BirdLife Species Champions – like SWAROVSKI OPTIK, who provide financial support and promotion for the threatened species action they support. BirdLife has already helped save several bird species from extinction, such as the Northern Bald Ibis, the Restinga Antwren, the Puerto Rican Nighthawk, and the Seychelles Magpie-robin, and is now advancing restorative conservation action for many more. More information can be found here:

www.birdlife.org/worldwide/programmes/preventing-extinctions



- Summer (breeding)
- Migration
- Winter (non-breeding)

- High Canadian responsibility
- Threatened (SARA list)
- BCR priority species
- > 80% breeding range is in Canada; 2.2 million km²
- Highest densities in east
- Spend little time in Canada





a national Canadian recovery strategy. This can help launch immediately priority research and urgent conservation actions.

ITS MAIN OBJECTIVES ARE TO:

- 1) Establish a “Canada Warbler Conservation Partnership” that plans, develops, and coordinates the implementation of a full lifecycle conservation strategy.
- 2) Determine winter distribution, identify important wintering and migratory stopover habitats and priority areas for conservation sites, and identify threats and harmful impacts.
- 3) Improve understanding of the characteristics of high-quality wintering habitat and habitat management in the wintering grounds.
- 4) Communicate the importance of Canada Warbler conservation and habitat management to key stakeholders.
- 5) Implement high-priority conservation actions identified in the full lifecycle conservation strategy.

Though focusing on the Canada Warbler as “a flagship” for biodiversity protection in Boreal Forests, the project generally has a multi-species, landscape conservation approach, coordinating with existing and new partnerships, and builds upon existing conservation initiatives and plans.

ACHIEVEMENTS TO DATE

At the beginning of the project, a range-wide planning meeting was held at the fifth Partners in Flight Conference in Utah (USA) in August 2013. 23 participants representing 22 organizations, including three national BirdLife Partners, 10 other NGOs, five government agencies and four universities attended the event. During the meeting it was agreed to form the “Canada Warbler International Conservation Initiative,”



which it subsequently achieved. The results of the range-wide planning meeting and financial support provided by SWAROVSKI OPTIK have been used to leverage additional funds from the Canadian Wildlife Service (CWS) and the US Forest Service-International Programs (USFS-IP).

This has helped compile valuable data on the Canada Warbler's wintering range and ecology. More recently, a very successful regional workshop for the non-breeding range states of the Canada Warbler was organized and ran from September 30 – October 2, 2014 in Bogota, Colombia. Participants at the workshop came from 10 countries in South and Central America, and also included Canadians. The workshop resulted in the identification of valuable information regarding the status and distribution of the species during the non-breeding season. This is now being used to develop a new International Species Conservation Plan. The Canada Warbler project has already received wide attention from the media, with coverage on many websites, and in bulletins and newsletters, reaching a broad public throughout the world.

NEXT STEPS

The next steps in the project include finishing a first draft of the Canada Warbler Conservation Plan and undertaking further ecological research in Colombia and searches for the species during its spring migration in Honduras and Nicaragua (February-March 2015).

A workshop is also being organized for the breeding range states of the Canada Warbler in Canada, which will be held in March 2015. The results of this workshop will also be incorporated into the International Species Conservation Plan that is being developed. ■

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DID YOU KNOW?

TEN FASCINATING FACTS *ABOUT BIRDS*

The bird world never ceases to amaze us. There almost isn't a single one of our feathered friends that doesn't have a small secret for us to marvel at.

47
CM

The bird with the longest bill in the world is the Australian Pelican at 47 centimeters/18.5 inches. However, if you take into account bill length relative to body length, then the Sword-billed Hummingbird is the undisputed winner, with a 14-centimeter/5.5-inch body and a 17-centimeter/6.7-inch bill.



INHERITED

2,740 YEARS OLD

Carbon dating has revealed that some nesting scrapes of Gyrfalcons in Greenland are between 2,360 and 2,740 years old, and are still in use by the species today.



GUIDANCE SYSTEM

*“Research suggests that Bobolinks (*Dolichonyx oryzivorus*) are able to orient themselves by the iron oxide that is in the bristles of their nasal cavities, which allows them to align with the Earth’s magnetic field.”*

BITE-SIZE

NIGHTJARS

look like they have tiny mouths since their bills are so diminutive. But that tiny beak belies a giant mouth that gapes wide open as they fly around in the sky capturing flying insects at night.



ABOUT

SHARON STITELER

1001 Secrets Every Birder
Should Know/296 pages



FEATHER-LIGHT

PLAYING TAG

Have you ever watched a flock of Barn Swallows chase a feather? One swallow flies high and drops the feather, while others chase to catch it first.

This behavior is usually observed in juveniles. Some call this a form of play while others say it is practice for catching aerial insects.



CLOSE TO NATURE



You will find more exciting views on the SWAROVSKI OPTIK blog.

WWW.SWAROVSKIOPTIK.COM/NATURE/BLOG

SKILLFUL WOODPECKER

Woodpecker tongues are hard-tipped, with small spiky bristles pointing to the back of the bird's throat. This allows the woodpecker to extract small insects and larvae from crevices in the wood.



YOUNG AT HEART

"The world's oldest living wild bird is a Laysan Albatross which, at the age of 63, was still looking after offspring in 2014."

COMPLETELY SNUG

30

x10

Common redpolls will tunnel into snow to stay warm in winter. These tiny birds are capable of digging a 10-centimeter (3.9-inch) tunnel that is 30 centimeters (11.8 inches).

HANDY BIRDS

5,000 ITEMS OF PREY

According to the Barn Owl Trust, roughly 5,000 prey items per year are needed to sustain a family of Barn Owls. These prey items include mice, voles, and shrews. These are handy birds to have around.



BARRICADED IN

HORNBILL



Hornbill females will seal themselves into a nesting cavity when they lay their eggs. They leave a slot just big enough for the male to bring food to them and their offspring.

ATS/STS *THE BEST START*

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zoom eyepiece for
greater field of view*



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*Large
zoom range*

DID YOU KNOW?







EXPERT KNOWLEDGE

WHEN *THE SMALLEST DETAILS* CHANGE HOW *WE SEE THINGS*

MARTIN GARNER

*A birding observation in Chicago resulted in a new proposal for classifying the European Sandwich Tern (*Thalasseus sandvicensis*) and the North American Sandwich Tern (*Thalasseus acuflavidus*), also known as Cabot's Tern. Some of the features that differentiate both these species are their breeding behavior and the plumage of their young.*

On September 15, 2010 Greg Neise made an observation about a Sandwich Tern in Chicago, Illinois – a rare bird for the area: “The most exciting aspect of researching and documenting this bird were the outer primaries. When I saw the bird on September 15, there were about a dozen people soaking it in. At one point I remarked about the shape of the tips of the outer primaries: they had ‘hooks,’ quite unlike anything I had noticed in any bird before. This was before there was any discussion of the bird’s possible origin... and I filed it away...” ►



This one observation became the tipping point in the bird's likely identification and origin. Its combined features suggested it was a European Sandwich Tern, previously unrecorded in North America, in a plumage type deemed the most difficult, nigh on impossible to separate from the North American Sandwich Tern (*Thalasseus acuflavidus*, referred to as Cabot's Tern from now on).

SANDWICH AND CABOT'S TERNS

Are they the same or different? Well, it all depends on your starting point. 130 years ago European Sandwich Tern, American Cabot's Tern and Caribbean/ South American Cayenne Tern (*Thalasseus acuflavidus eurygnathus*) were classified as three separate species. Most birders of today have grown up with the idea that they are one species with 3 separate subspecies. This view is changing again, rapidly. When comparing the European and North American birds, most texts reference the similarity of adults, but until very

recently have failed to notice the diagnosable differences between adults and even more so, the marked differences in plumages of young birds. There are also differences in their breeding biology. Observations of all kinds of birds which have led to changes in taxonomic thinking.

Here we cover the emerging story of Sandwich and Cabot's Terns, a story at the frontiers of field identification, taxonomy, and vagrancy. We'll leave the Cayenne Tern, currently best viewed as the southern subspecies of Cabot's, for another day. Vagrant Sandwich Terns have reached North America from Europe. Vagrant Cabot's Terns have reached Europe from North America. Both are likely to be overlooked except by the sharpest, most expectant eyes. Both are increasingly viewed as separate species and not each other's closest relatives. The potential to discover transatlantic vagrants of both species has opened up.

VAGRANCY

The Chicago Tern raised the possibility of European Sandwich Terns reaching North

America, but also raised the eyebrows of the skeptics. However just 3 years later a remarkable event changed perceptions for good. A Sandwich Tern ringed as a chick on Coquet Island off the northeast coast of England in 2002 turned up in late July 2013 in Massachusetts. The ring labelled DB67406 with the words "British Trust, London" was read by biologist Jeff Spendelow, who was studying the use of staging sites by Roseate Terns in the Cape Cod area of southeast Massachusetts. It was first seen by several observers on one of the study sites on July 31, but it wasn't until August 21 that Jeff was able to read the ring.

On the other side of the pond, a "Sandwich Tern" found dead in Herefordshire, England, in November 1984 was only the third county record. Its silver ring told a different story: a Cabot's Tern, the first in the UK! The only two European records are both of birds ringed as chicks in North Carolina, USA, and found dead later in the same year they were rung as first-winters. One was ringed at Cape Lookout on June 23, 1978 and found at Veerse Meer, Noord- Beveland, Zeeland,



the Netherlands, on December 23, 1978. The other was ringed on June 25, 1984 near Beaufort, North Carolina and found dead by a Forestry Commission ranger at Newhouse Wood, Herefordshire, on November 28, 1984.

TAXONOMY

Recent field studies have shown that birds in juvenile, first-winter and adult winter plumages often have a distinctive set of features, making many individuals identifiable. To use

taxonomist speak, they are “diagnosable,” a prerequisite condition for conferring species status in some schools of taxonomy. The exceptional wing-tip feature noted on the Chicago bird of 2010 further added weight to that “diagnosability.” Breeding habitat preferences also differ. Sandwich Terns prefer open, unvegetated sandy/shell-type habitats, Cabot’s (and Cayenne) Terns usually breed on vegetated rocky habitats, such as flat islands and dead coral. Finally and critically, a molecular study published in 2009 (Efe

et al., 2009) found that Sandwich and Cabot’s Terns were as genetically divergent as other different species within the genus and were not each other’s closest relatives. The North American Cabot’s and Cayenne Terns were found to be sister taxa (more closely related) to Elegant Terns (*Thalasseus elegans*) – just like the juvenile plumages will tell you!

Efe et al. come to the following conclusion: “*Our analysis indicates that the Old World (T. s. sandvicensis) and the New World (T. s. aculeatus)* ►



Fig. 1



Cabot's Tern
(*Thalasseus acuflavidus*)



Fig. 2



Sandwich Tern
(*Thalasseus sandvicensis*)

* Efe, M. A., E. S. Tavares, A. J. Baker, and S. L. Bonatto (2009) Multigene phylogeny and DNA barcoding indicate that the Sandwich tern complex (*Thalasseus sandvicensis*, Laridae, Sternini) comprises two species. *Molecular Phylogenetics and Evolution* 52: 263-267.



eurygnathus) tern populations are genetically as divergent as different species in the genus, and do not form a monophyletic group. Instead, the latter are sister to the Elegant Tern (*T. elegans*). These results strongly suggest that the current taxonomic treatment of the *T. s. sandvicensis/acuflavidus/eurygnathus* complex as subspecies within a single species or as a northern hemisphere (*T. s. sandvicensis*) and a southern hemisphere species (*T. s. eurygnathus*) are phylogenetically inappropriate. The new arrangement should be one in which the Old World (Sandwich) Tern *T. s. sandvicensis* and the New World (Cayenne and Cabot's) Terns *T. s. acuflavidus/eurygnathus* are considered two different species.”*

Two years after this genetics paper, the BOURC (taxonomic governing body in Britain) split the two former subspecies as Sandwich and Cabot's Terns and the position is now being adopted by other national authorities. The split has been recommended within the American Ornithologists Union: “I recommend that we follow Efe et al. (2009) and recognize the American birds as a distinct species, *Thalasseus acuflavidus* (Cabot, 1847) and call it Cabot's Tern.” Richard C. Banks, July 2012. Being elevated to full species status, with confirmed records of Cabot's in Europe and Sandwich in North

America, it is surely only a matter of time before there are more well-documented sight records of vagrants of each species. Now we turn to the emerging field characters most useful to birders.

FEATURES COMMON TO ALL AGE CLASSES

Cabot's averages smaller in overall size than Sandwich Tern, and the bill, especially when fully developed in adults is shorter, thicker and straighter (Fig. 1). Conversely Sandwich has thinner, more curved and more “drooping” at times even “needle-like” bill (Fig. 2). From Neise's account of the Chicago Sandwich Tern:

“The first thing (besides the fact that it was a flippin' Sandwich Tern!) that the many observers noted was how long and thin the bird's bill was. On the phone with Dr. F the night after I photographed the bird, he said, ‘Geez! What about the bill on that thing? It's like a hypodermic needle!’ Indeed it was. In fact, it was longer and thinner than any Sandwich Tern I'd ever seen...or ever seen a photo of.”

In winter plumage the black rear crown and nape feathers on Cabot's are normally longer, blacker and more “greasy-looking” with white

fringes/tips either very small or lacking, and forehead and crown unmarked white. In comparison, on winter plumaged Sandwich Tern the black rear crown and nape feathers look shorter and have obvious white tips giving rise to a “white-peppered” effect.

FIRST-WINTER CHARACTERS (OCTOBER-MARCH)

Juveniles undergo progressive molt into first-winter plumage of variable extent. Features to note are structural differences, differences in head pattern and retained juvenile dark patterning especially in tail, coverts and tertials.

JUVENILE CHARACTERS (JULY-OCTOBER)

In Cabot's the mantle and scapulars vary from being plain-looking and almost unmarked to having blackish marks restricted to shaft-streaks or prominent roughly spade-shaped black subterminal marks. In Sandwich Terns the mantle and scapular feathers have a different pattern of conspicuous blackish “U” or “V”-shaped coarse-looking marks.

In Cabot's the wing coverts are notably plain gray on the closed wing apart from blackish ►

marginal and lesser coverts which create a darker leading edge to an otherwise plain upperwing. Some have plain black innermost greater coverts. In Sandwich Terns the wing coverts are usually more obviously covered in “U” and “V”-shaped blackish subterminal marks. Some individuals have a weaker “ghosted” pattern of internal dark marks. When present, internal dark marks in the wing coverts can be best detected through the winter.

Fresh juvenile Cabot's have black-centered outer tertials with a wide white fringe. Juvenile Sandwich have an entirely different pattern of coarse-looking, variegated dark, and pale feathers in the outer tertials, molting in new dark gray-centered and plainer-looking tertials.

ADULT CHARACTERS

Structural differences in size and especially bill can be critical to identification as can differences in the black and white feathering on the crown and nape in non-breeding plumage.

A major difference between Cabot's and Sandwich is the width of the white fringe to the inner web of the outer primaries in fresh plumage. On Cabot's, the white fringe is very narrow (1-1.5 mm/0.04-0.06 in), whereas on Sandwich the fringe is wider (2-4 mm/0.08-0.16 in), each primary also having 3-5 mm/0.12-0.2 in of white at the feather-tip (lacking in Cabot's). The pattern at the tip on Sandwich also has a dark “hook” in the darker part off the web, which remains even when the feather is very worn and the white fringe missing. Cabot's, when fresh or worn, does not show a dark “hook” at the primary tips.

The adult winter Sandwich usually has a full set of new fresh primaries by December-January, whereas Cabot's often does not complete its molt until early spring. The adult Cabot's usually (but not always) has a more obvious darker gray oval on the tertials and a tendency for a dark secondary bar. In comparison, adult-winter Sandwich lacks the dark secondary bar found on many Cabot's but may show a slightly darker gray oval on the tertials. ■

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MARTIN GARNER
132 pages





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Optical performance and handy size encapsulate the ATX/STX 25-60x85, the multitasking model among these spotting scopes. It offers a large field of view and a broad zoom range for rapid, precise observation. Its light transmission, along with its zoom and close-up focus range (3.6 m/11.8 ft) also make it perfect for digiscoping.

ATX/STX 95 *THE HIGH PERFORMER*

If you are looking for top optical performance, then the ATX/STX 30-70x95 is exactly the right choice for you. A spotting scope that displays even minute details razor-sharp, with a crystal clear resolution and 70x magnification. This spotting scope with its 95-mm objective lens weighs just 2.2 kg/77.8 oz, in spite of its powerful performance.





AN INGENIOUS *SYSTEM*

ATX/STX spotting scopes' modular design takes functionality to a new level. By changing the objective module, you can personalize the spotting scope for any viewing situation. There are two types

of eyepiece module to choose from. There is the straight-view (STX) option, which is perfect for spotting moving objects, and the angled-view (ATX), which is particularly suitable for comfortable viewing.





WITH JUST ONE *HAND*

The ideally positioned zoom ring, which is directly behind the focusing ring, makes ATX/STX spotting scopes even more user-friendly. You can adjust the zoom and focus with just one hand,

which is a crucial benefit, especially for digiscopers. While you operate the spotting scope with one hand, you still have the other hand free to adjust the camera and tripod.



GET MORE *OUT OF IT*

ATX/STX spotting scopes come with a host of smart accessories for you to choose from, bringing you more enjoyment from observing nature. For instance, the aiming aid will help you spot flying birds more quickly and catch them on camera. Even small details are extremely useful, such as the eyepiece cover's elastic band that prevents the cover from irritatingly falling down.









SWAROVSKI OPTIK'S DEVELOPMENT

BRILLIANT DOWN TO THE SMALLEST *DETAIL*









LIMITLESS *PERFECTION*

Limits are there to be exceeded. The best way of achieving this is to have the courage to reinvent what is tried and tested. In the early 1990s, SWAROVSKI OPTIK adopted this attitude and designed a new type of binoculars. Our “can-do” philosophy still applies even today, which enables the company to set new standards when it comes to observation. It means that surprising and, in many ways, revolutionary replies are given to questions that arise any time we embark on a new development. So, when the point was raised, “Wouldn’t it be great if binoculars could be designed to make them easier to hold in your hand than they are right now?”, this gave rise in 1999 to the legendary EL wrap-around grip. The specification “How can we achieve the optimum crystal clear image?” gave rise in 2010, after intensive research and development, to the trail-blazing SWAROVISION technology. And just recently, users have challenged SWAROVSKI OPTIK with the specification: “We want even more viewing comfort.” As a result of this, the FieldPro package has been produced in 2015, which is a further enhancement to the overall package in terms of functionality and comfort. It also neatly fits in with the elegant and innovative design of the EL Range. It is the numerous small details that make the difference and pave the way to perfection. This sets EL binoculars in a class of their own, and is why they make their mark on history.



A GRADUAL PATH *TO REVOLUTION*

The initial spark for devising a completely new type of binoculars came in the 1990s from nature lovers who told us what their wildest dreams were when it came to observing nature. They clearly stated what they wanted: a lightweight and optimum ergonomic design so that they could also observe over a lengthy period without getting tired. They also wanted top optical quality to be able to make out the finest details; unique color fidelity so that they could determine exactly what they were observing; a wide field of view so that they could quickly catch sight of moving objects; maximum light transmission for observing during morning and evening time, or under cloudy skies; and total mechanical perfection.

These were precise specifications, which made their implementation challenging. However, while tackling this task, the developers never lost sight of the big picture – ensuring the perfect interaction between ergonomics, optics, and mechanics.

Every department at SWAROVSKI OPTIK gave this project their full attention. Innovative contributions were made across all departments, from the optical design and manufacturing technology used to the quality assurance and marketing department’s involvement. The objective was clearly defined: to produce binoculars that could be held like conventional binoculars using a wrap-around grip but still be fitted with an interior focusing mechanism. In order to do this, the focusing mechanism was moved to the housing arm, thus making the central axis redundant. This is how the legendary EL wrap-around grip was invented. Even today it is regarded as the benchmark for binoculars.

REVOLUTIONARY WRAP-AROUND GRIP *FOLLOWED BY CRYSTAL CLEAR VIEW*

When EL binoculars first appeared in 1999, they caused a real stir, with their groundbreaking design concept winning several awards. These successes brought numerous copycats onto the scene.

However, while they were still struggling to come up with a copy, SWAROVSKI OPTIK was already thinking ahead and working on a revolutionary optical design. And yet again, the source of the key ideas was nature lovers, since they are the ones who regularly use SWAROVSKI OPTIK products.

This is the purpose behind the company attending trade shows and other events, in addition to many opinion-formers providing reports based on their practical experiences. These extremely close customer relations also have a positive impact on further developments, such as the fact that lots of SWAROVSKI OPTIK staff actively use the products themselves. This intense dialog between the company and its customers gave rise to SWAROVISION technology, which again caused a sensation in the optical equipment sector. Field flattener lenses produce an image that is razor-sharp right to the edge. The sophisticated

HD optics, which includes as one of its features fluoride-containing lenses, minimizes interfering color fringing, while optimized lens and prism coatings enhance color fidelity and facilitate cleaning. The larger exit pupil distance also allows eyeglass wearers to enjoy the whole field of view. Thanks to the mechanical precision, the shortest focusing distance of 1.5 m/4.9 ft can be achieved without any loss of quality. Therefore, SWAROVSKI OPTIK has redefined optical and mechanical limits. But EL binoculars symbolize considerably more than the sum of numerous innovative solutions. They are complete perfection. They offer a total package, carefully conceived in every detail, which is what makes these binoculars so special.

These new features offer birders and wildlife observers considerable benefits. The sharpness at the edge of the image makes it much easier to identify birds. The good field of view is helpful for spotting, for instance, Wood Warblers that are settled in treetops. The excellent color quality also allows you to distinguish birds that are difficult to identify. On the other hand, the shortest focusing distance of 1.5 m/4.9 ft is ideal for observing, for example, details on dragonflies.





The numerous details that make the crucial difference are the focus of the new EL generation. The upshot of this is the ideal combination of comfort and functionality.

THE BEST EL BINOCULARS *EVER*

With the current generation of the EL Family, SWAROVSKI OPTIK has focused its attention on what makes that crucial difference. The spotlight is on the total product. Numerous conversations with customers have confirmed the ideas and approaches of the development department, such as the aim to integrate carrying straps and protective covers even more seamlessly into the whole concept. This is how the FieldPro package came about. The interaction of numerous details has revolutionized comfort and functionality. Many ideas were considered, from the rapid fitting of carrying straps to the smart attachment of objective lens covers. Every detail fits seamlessly into the

revamped design that harmonizes the traditional shape with new elements. Proven elements, such as the EL wrap-around grip, have been kept, while the depressions for added grip have been slightly adapted, and softer edges make the binoculars easier to hold.

Anyone who is familiar with SWAROVSKI OPTIK will know that this is still far from being the end to its impressive development activities. The reason is that staff are always curious to know what customers think and are always open to new ideas. Just like the time when the first EL model changed the world of binoculars.

EL *LIMITLESS PERFECTION*

EL binoculars are long-range optical masterpieces. They are groundbreaking in terms of their optical perfection, precision, and elegant design. Equipped with SWAROVISION technology, their optimum color fidelity and edge sharpness make them exciting to use. The legendary EL wrap-around grip is indicative of the striving to achieve the best possible ergonomic design. At the same time, the FieldPro package takes the comfort provided by carrying straps and protective covers to a new level.

EL 32 *EXCEPTIONALLY LIGHT*

Every wish that birders have in terms of optical quality and interaction between compact size and unparalleled comfort is fulfilled by the EL 32. They are the ideal choice for any situation where size and weight are important factors. This is why many consider them to be the perfect birding binoculars, providing crystal clear optics and an excellent field of view.

EL 42 *THE IMPRESSIVE, MULTIPURPOSE BINOCULARS*

Always ready to use when you need them. The EL 42 model is the most versatile among EL binoculars, with absolutely outstanding optics, making them the right choice both during the day and at twilight. They sit perfectly in your hand and are impressive with an excellent close-up focus of 1.5 m/4.9 ft.

EL 50 *THE PERFECT EXPLORER*

EL 50 binoculars demonstrate all their strengths over long distances and in poor light conditions. Their unparalleled detail resolution is impressive, and they sit comfortably in your hand, even with their large magnification. It is as if they were made to see every last detail.





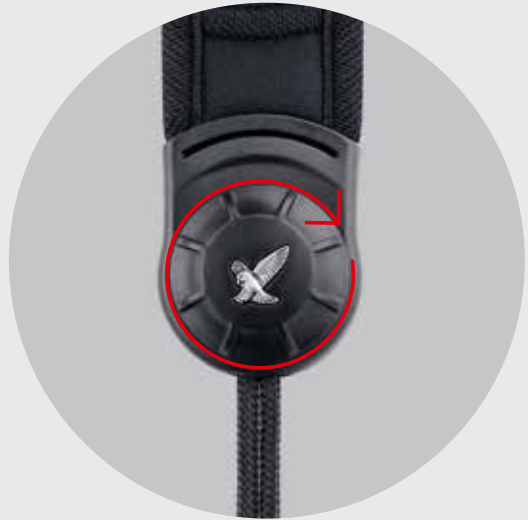
DESIGNED FOR *EVERY EVENTUALITY*

The new FieldPro package has enabled SWAROVSKI OPTIK to enhance the EL Family in terms of comfort, functionality, and the strong design requirement. The refined interaction between numerous brilliant details gives you that all-important edge.





SIMPLE AND FLEXIBLE. The new rotating strap connector adapts perfectly to any movement and can be quickly and silently fitted to your binoculars, thanks to the bayonet catch. The cord fits in seamlessly with the design and does not get twisted.



PRACTICAL AND ADAPTABLE. The new quick catch button is both elegant and functional. With a simple turn, the carrying strap can be secured to your ideal length. This means that you can adjust the strap within seconds to the length that feels most comfortable when you are out in the field.



SAFE AND PROTECTED. The new objective lens and eyepiece covers are manufactured from the best materials and blend esthetically into the overall design. This means no more lost covers. They also provide your binoculars with the best protection against external impacts.



ALWAYS RELIABLE. To prevent you from unintentionally changing the diopter adjustment, the new EL binoculars have a practical, integrated lock function.





BIRDING WORLDWIDE

BEAUTY ON THE DOORSTEP

The Danum Valley Conservation Area on Borneo provides a home for more than 300 bird species and more than 120 different mammals. Interspersed with tropical, verdant vegetation, trees reaching up to the sky, rivers, and waterfalls, this location is paradise for both humans and animals, one which every birder and nature lover will marvel at. ►





*The Rhinoceros Hornbill
(Buceros rhinoceros) lives
in the tropical rainforests
of Borneo, largely
untouched by humans.*

Black-and-yellow Broadbill
(*Eurylaimus ochromalus*)



Great Argus
(*Argusianus argus*)



Yellow-breasted Flowerpecker
(*Prionochilus maculatus*)



Temminck's Sunbird (Aethopyga temminckii)

Chestnut-hooded Laughingthrush (Garrulax treacheri)



Bornean Bristlehead (Pityriasis gymnocephala)

The Borneo Rainforest Lodge, offering top-class accommodation at the edge of the nature reserve, is the ideal departure point for guided expeditions. From there you can follow the Short Danum Trail to viewing platforms and continue to the Hornbill trails, allowing you to see birds such as the *Great Argus* (*Argusianus argus*).

There are numerous walking trails around the Borneo Rainforest Lodge that will bring you up close to different bird species. The View Point Trail provides you with the opportunity to see different species of *Pitta*, such as the *Blue-banded Pitta* (*Erythropitta arquata*) or the *Giant Pitta* (*Hydrornis caeruleus*). The View Point Loop Trail will lead you to the *Blue-banded Kingfisher* (*Alcedo euryzona*), which prefers to keep close to the river.

You can observe the *Wallace's Hawk-Eagle* (*Nisaetus nanus*) and *Bornean Bristlehead* (*Pityriasis gymnocephala*) while walking along the Canopy Walkway, which is 270 meters/885.8 feet long and is at a height of 27 meters/88.6 feet. Birders are especially interested in the *Bornean Bristlehead* as it is only found on Borneo. Its yellow head clearly stands out from its black plumage and its loud call is extremely noticeable.

There are more than 50 species of *Hornbills* (*Bucerotidae*) worldwide, 12 of which have their habitat in Malaysia. The Hornbill or Segama Trail is the best place in the Danum Valley Conservation Area for observing these birds with their large, mainly curved bill.

In addition, a previously unknown species was discovered along the Canopy Walkway in June 2009: the *Spectacled Flowerpecker*. Its distinguishing features include a gray plumage, white arcs above and below its eyes, and a white throat extending as a broad white stripe down to the middle of its breast. One other striking feature is its white pectoral tufts. ■





DIGISCOPING

THE *ART* OF *DIGISCOPING*

TARA TANAKA

When you first start digiscoping just getting the subject in the viewfinder can be a challenge. Once you have mastered the basics of digiscoping – getting the subject's eye in focus most of the time and adjusting your camera settings appropriately without much thought – it's time to begin to really "see" what's in your viewfinder.

*“Great photos are
not just about what’s
in them, but also
what is not.”*





LESS IS MORE

There are many conventional rules for photo composition, but in the case of digiscoping, the main goal is to showcase what is most often a single subject to its best advantage. Great photos are not just about what's in them, but also what is not. "Less is more" applies here, and anything you can do to keep distracting elements out of your photos will put you one step closer to that goal. Distracting backgrounds, tree branches, and parts of other birds are a few of the most common offenders. Countless photos with the potential for greatness are ruined by one small thing, and often the photo could have been saved if only the digiscoper had had the awareness

to notice the issue when he or she took the photo. It's easy to get so focused on your subject that you don't notice what else is in the frame – good or bad. Often with a small movement, you can reframe the subject and eliminate the distracting element.

LIGHT AS A CREATIVE TOOL

Making optimal use of light is one of the most powerful tools in the digiscoper's kit. Being aware of the angle of the sun and how beautifully or harshly it's illuminating your subject are critical to the photo's quality. I rarely digiscope between the hours of 10am and 4pm, and it would have to be an unusual situation for me to take a photo when I couldn't feel the

sun on my back. Low-angle sunlight coming from behind you will almost always result in better photos than those taken in the shade or in full midday sun.

Sometimes special opportunities will present themselves, such as a perfect reflection of your beautiful preening bird on richly colored water. If you're so focused on the bird that you don't see its reflection, you will probably end up with a photo of a bird and some part of his reflection. If your level of awareness has grown to the point that you recognize the potential, you can reframe the shot, possibly rotating the camera ninety degrees on the scope, perhaps capturing the shot of a lifetime. ►



“Don’t wait until you see your photo on your computer to think about the cropping possibilities – learn to evaluate them before you press the shutter release.”



“If you feel a genuine connection with the subject, it will ultimately also show in your photos.”

THE RIGHT SECTION OF THE IMAGE IS VITAL

Another situation that can result in a photo that's just okay or one that ends up in a magazine is when there is more than one bird in the scene. Whether it's two birds or a whole flock, move until you find an angle that will allow you to crop the photo without cutting a bird in half. Don't wait until you see your photo on your computer to think about the cropping possibilities – learn to evaluate them before you press the shutter release.

Digiscoping affords only a very narrow depth of field, which can be a double-edged sword. It's wonderful for highlighting the point you want to draw attention to, but in the case of more than one bird, it can be hard to decide whose eye to focus on. Usually there will be one bird that your eye is drawn to in the viewfinder, and focusing on that bird's eye will generally be a good choice.

Balance is as much about feel and intuition as it is about rules. In most cases you will want to leave more room on the side of the photo that your subject is facing. The “rule of thirds” can be a guide, but sometimes it just doesn't work. If that's the case, break it and experiment with cropping until the balance looks and feels right. Take a little time experimenting with different crops of your photo. Level your horizon if necessary, and then see if your photo can be improved by some creative cropping.

FINDING YOUR ARTISTIC VOICE

I started digiscoping in order to share the beauty of the birds in our backyard cypress swamp with others. Although sharing nature's beauty with others is still very important, my main purpose now is to capture photos that allow people to relate to a bird in a way that they could not have previously. One way to do this is to be close enough to your subject to capture details and expressions that would otherwise go unseen. By taking thousands of photos and finding that one image that is perfect in every way, you can help others make a special, sometimes life-enriching connection. I look for the photos that really make me feel especially connected to the subject, and will hopefully have the same effect on others who see it. If you feel a genuine connection with the subject, it will ultimately also show in your photos.

When you spend a lot of time viewing nature at the magnifications afforded by digiscoping, you will witness incredible behaviors and interactions – and it is likely that your connection to nature will be enriched as a result. One of the most valued compliments I ever received was very early in my digiscoping, when a woman told me “You really capture the personality of the bird.” It put into words what I was subconsciously trying to accomplish, and has become the main part of my digiscoping style. ■

HERE ARE A FEW TIPS I CAN OFFER: Be creative, use your imagination, and know that viewers will use theirs. Show them feather details they've never seen before, and trust them to fill in the missing parts. In the beginning we're just trying to take a focused photograph of a bird or other subject. If we give it enough time, effort, thought, and a big dose of feeling, eventually our artistic voices will emerge and give purpose and meaning to all of our digiscoping.

STX 85/TLS APO *CAPTURE WHAT MOVES YOU*

Fully compatible for taking high-quality shots to capture unique moments. The versatile STX 25-60x85 spotting scope and TLS APO adapter provide you with a 750-1800-mm objective lens. This allows you to successfully take amazing shots of animals far away, as well as breathtaking close-ups from a focusing distance of up to 3.6 m/11.8 ft.





VERSATILE

If you want to shoot videos with a large focal length, you can also attach SWAROVSKI OPTIK digiscoping equipment to a professional video camera, such as the Sony NEX-FS700.



ATX/STX

DRX

TLS APO

ADAPTER

DSLR

DIGISCOPING *ADAPTERS*

Long-range optical equipment can be turned into a fully-fledged photo device. The fully compatible digiscoping adapters can be used to connect different types of camera.



TLS APO *FOR THE DISCERNING PRO*

The TLS APO adapter has been specially developed for ATX/STX spotting scopes and is aimed at the most discerning digiscopers who want to use APS-C, SLR, and system cameras.



DCB II *SIMPLE AND SPONTANEOUS*

The DCB II for compact and system cameras is easy and quick to use thanks to its sophisticated design.





TLS 800 *SUPERB TELEPHOTOGRAPHY*

The TLS 800 turns a full-frame camera and spotting scope into a powerful photo device with an 800-mm/31.5-inch focal length. It is suitable for all SWAROVSKI OPTIK spotting scopes with interchangeable eyepieces.



ADAPTERS FOR iPhone®* *ALWAYS READY TO HAND*

The PA-i5/PA-i6 adapter for iPhone®* 5/5s/6 can be effortlessly connected using an adapter ring to almost all SWAROVSKI OPTIK binoculars or spotting scopes. This enables you to shoot photos and videos of whatever you are observing at any time.

*iPhone is a trademark of Apple Inc.







UNMISSABLE SIGHTS

SEVEN PLACES OUT OF THE ORDINARY

IN THE ICE-COVERED KINGDOM OF THE EMPEROR PENGUINS *Snow Hill Island* is an island located in the Weddell Sea, the largest of around 14 marginal seas in the Southern Ocean of Antarctica. The icy landscape alone would already be a highlight of this island, if this were not surpassed by the large breeding colony of Emperor Penguins (*Aptenodytes forsteri*) located in the southwestern part of the island. With good reason, BirdLife International has designated this place, which is home to around 4,000-4,200 breeding pairs, as an Important Bird Area.





THE PERFECT SYMBIOSIS *Rarely have the unspoiled nature of the North and highly acclaimed Scandinavian design been so charmingly combined as in the Treehotel in Harads. This special accommodation is located in a quiet forest area in northern Sweden. Every treehouse has been designed by a Scandinavian architect and affords a view of the River Lule, one of the largest rivers in Sweden.*



THE BEAUTY OF AUSTRALIA FROM A TRAIN *The Puffing Billy Railway is a heritage railway that runs in the southern foothills of the Dandenong Ranges National Park, not far from Melbourne. Passengers traveling on the steam train can enjoy a wonderful view along the 24-km/78,740-ft track, such as from the Monbulk Creek Bridge near Belgrave.*



AN INACCESSIBLE PARADISE *The McWay Falls, almost 25 meters/82 inches high, located in the Julia Pfeiffer Burns State Park on California's Pacific coast, offers quite a special spectacle of nature. It is one of the few waterfalls that flow directly into the sea, providing that the tide is in. The small bay with its delightful beach can only be observed from above and cannot, unfortunately, be reached by foot.*





THE BEACH OF NEW HOPE *The beach in Arugam Bay is a real gem located in the south-east of Sri Lanka. After it was affected by the tsunamis that struck in 2004 and 2011, reconstruction was carried out fairly quickly: Arugam Bay now attracts numerous travelers, nature lovers, as well as surfers. Not least, the area is also a hot spot for birders and also offers an excellent opportunity to observe elephants.*



SO CLOSE TO HEAVEN *The Blyde River Canyon is one of the biggest canyons in the world. This natural wonder, made of red sandstone and providing wonderful vantage points, is located in northeastern South Africa. One feature worth seeing is the Rondavels, three rock formations that resemble African round huts. God's Window also leaves a lasting impression, a vantage point affording an imposing view of South Africa's plains.*



IN THE LAND OF THE CHERRY BLOSSOM *Arashiyama* is a district on the western outskirts of *Kyoto*, with a mountain of the same name. *Arashiyama* is a very popular place to go, especially in spring, during the cherry blossom season, and also in fall when the foliage is extremely colorful. The *Togetsu-Kyo Bridge*, in particular, which affords a wonderful view of this natural beauty, is one sight worth mentioning. In the *Iwatayama Monkey Park* more than 170 monkeys can also be observed on the mountain slopes. Their frequent contact with people means that they are not very shy.



You will find more impressive travel destinations in the SWAROVSKI OPTIK pocket journal.

CL *BEING THERE IS WHAT COUNTS*

The compact CL binoculars make comfortable viewing easy. Their dimensions may be small, but their optical performance is big, allowing you to experience interesting moments up close, while observing nature in your own backyard or during your travels.

CL COMPANION *ALWAYS AT YOUR FINGERTIPS*

A handy, elegant companion on your travels in distant lands that is perfect for using anywhere that you anticipate impressive sights while observing wildlife. CL Companion binoculars are always quick to grab and are impressive with their excellent optics. These compact binoculars are also rugged, in spite of their lightweight design.

CL POCKET *PUTS THE WORLD IN YOUR POCKET*

CL Pocket binoculars can go anywhere with you, whether you are on your travels, out for a walk, sightseeing, or on an excursion. They are the perfect small binoculars and offer unique optical quality of the highest order. Enjoy high-contrast, sharp, color-true images that will leave lasting impressions that you will not forget in a hurry.







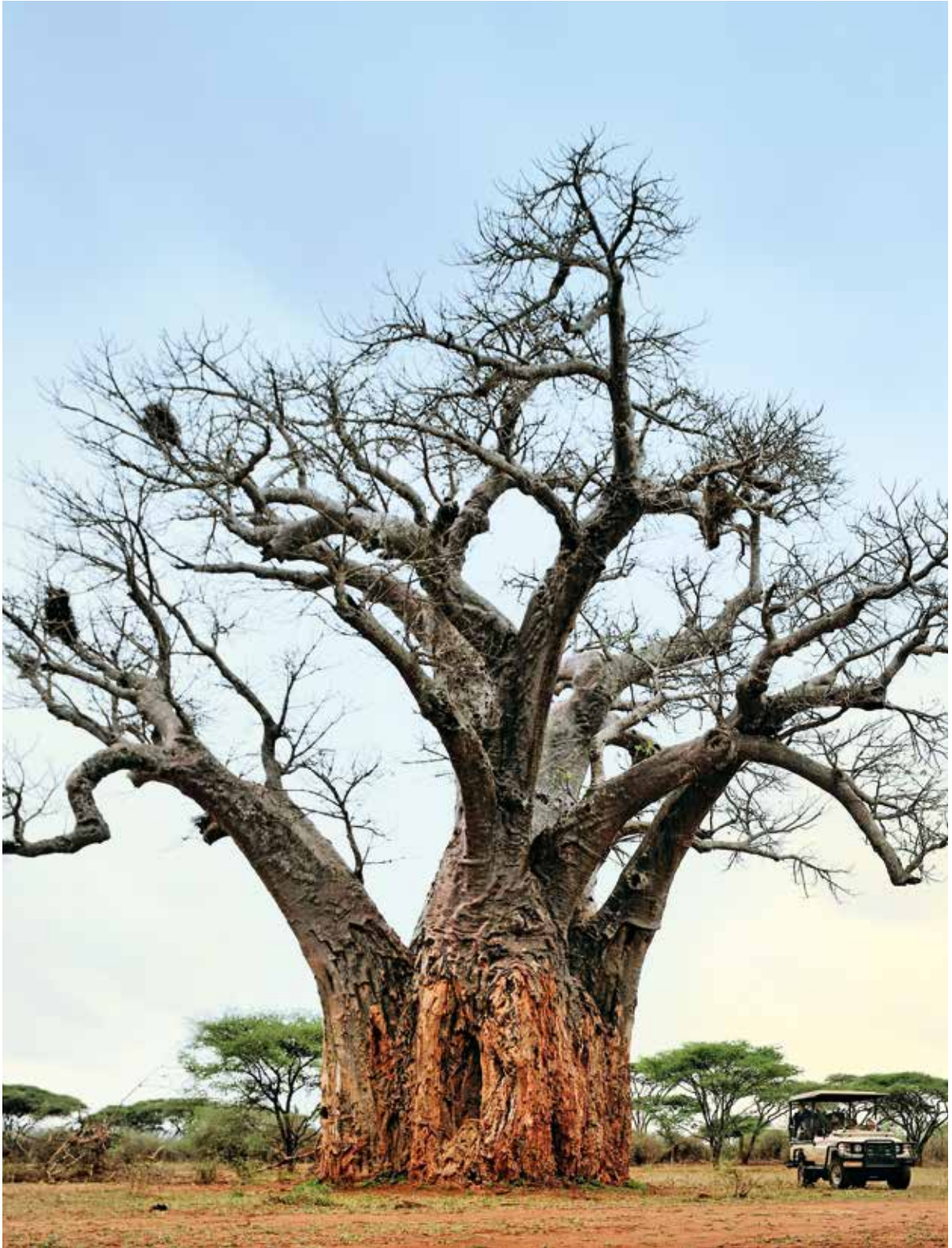


SPECIAL FEATURE: ZIMBABWE

A WARM WELCOME FROM ZIMBABWE

DEBBIE PAPPYN

*A safe road trip through exciting Zimbabwe
offers the best opportunity to discover this diverse
African country.*





You probably know the clichés about certain countries or people. Some of them have a grain of truth in them; others are a bit of a joke. Take the cliché about Zimbabwe: the friendliest people in Africa. When arriving in Harare Airport, I can't help but already believe the statement. Big smiles everywhere, a good vibe, and a genuine "Welcome to Zimbabwe, we're happy to see you and have you here!"

BIG MONEY FOR GOOD CAUSES

It's only a couple of hours' drive to one of the most luxurious lodges in Zimbabwe. It offers the best proof that with big money, big things can be done. Many of these lodges promote animal conservation projects and support the local communities around them with a variety of programs. Take for example the rhinos living near our lodge. We see the white rhino baby on a late afternoon game drive, looking like a puppy. Its mother certainly doesn't. In the wildlife reserve there are also plenty of elephants, lions, leopards, bouncy klipspringers, impalas, kudus, elands, waterbucks, and the unique wild dogs. Rhinos were reintroduced here a while ago, bought from South Africa with a heavy price tag. Now they are heavily guarded to protect them from poachers. One

horn is worth around 350,000 US dollars. This is the case even though scientific research clearly shows that powdered horn has no medical effect.

THE SAVIOR OF ZIMBABWE

This is not Arizona, Utah nor Uluru/Ayers Rock in Australia. These are the red sandstone Chilojo Cliffs in Gonarezhou National Park, on the border with Mozambique. In the dry heat we survey a barren landscape in the "lowveld" part of this region. Along the sandy riverbed below, elephants are marching in a straight line to drink from the skinny river. We meet Clive Stockil, the owner of Chilo Gorge Lodge, well known as a visionary in Zimbabwe and beyond. In the 1980s he was one of the first people to take action to protect the endangered rhinos in Africa, and he was also heavily involved in development projects in the region. He doesn't have much time as he is a very busy man. A few weeks ago Clive received the first Lifetime Achievement Award from the Tusk Trust Conservation out of 50 nominees from all African countries! Prince William, the royal patron of this charitable organization, presented him with the much sought-after prize together with 50,000 euro to further support Clive's work in Africa. Wearing shorts, a straw hat, with a pair of SWAROVSKI OPTIK

binoculars around his neck, and sporting a serious gray beard, he looks like a tough boy scout. His intense gaze is reflected in his very, very firm handshake. Clive Stockil is not a man for idle chitchat. He automatically accelerates into fifth gear when it comes to talking about environmental protection.

"This is the real wild. You almost never see another car, the animals are not used to seeing 4x4s, and so you have to make a real effort to find them." Both in this park and the Savé Valley Conservancy, Clive is working hard to reintroduce rhinos, elephants, and wild dogs. Other national parks in Zimbabwe transport their rhinos to his private concession because here they have a stronger chance of survival. Clive explains how rhinos and elephants are hunted today: with high-tech apparatus, silenced weapons, helicopters, fast cars, and even poison. "Poison is injected by the poachers directly into fruit or poured into waterholes so that the animals die without much effort." Clive calls it "a weapon of mass destruction" because not only do hundreds of elephants die in this way, but also vultures and other scavengers that come to feed off their carcasses.

This week Clive is flying back to England to give a speech at the famous National ►



Geographic Society in London. Nevertheless, he remains modest. And despite his jam-packed schedule, he still makes time at his lodge to take guests around the park and explain his projects. He is a knowledgeable bird expert and knows every nook and cranny of his vast park.

THE FLINTSTONE INN

Ever heard of zonkeys? These are zebras that get too cozy with donkeys.

They can be seen near Matobo National Park. Despite some very tame zebras that come to lounge and sunbathe near the swimming pool, animals are not the only reason for visiting this area. Our accommodation is nestled against impressive granite rocks and almost disappears into them. No room is the same. It all feels very Flintstones, with walls consisting of

massive stones, a showerhead popping out of the rock and small windows that keep the heat out! This is a camp where we can relax and unwind after an exhausting day on safari. This entails enjoying good food, meditating for hours next to an open camp fire at night, and having stimulating discussions with other guests. Early in the morning our guide Paul Hubbard takes us for a drive to the wildlife park with two park rangers. It's not long before we stop and get out of the 4x4.

With our highly skilled rangers, we venture through low grass, over sandy ground, and through bushes to reach them. A breathless silence reigns, and we need to avoid stepping on crackling, dry leaves. Our guides check the wind direction and watch how the animals behave. They make soothing whistling sounds to calm the animals and let them know we are there and that we are no threat. We stand

and observe these impressive, almost extinct creatures. Thankfully, there are rangers committed to protecting them. Paul Hubbard is actually not only a great nature expert but also a guide offering private historical and cultural tours with a difference. He will take you to see amazing wall paintings in hidden caves, drawn by the ancestors of the San Bushmen. You will visit the grave of Cecil John Rhodes where you can enjoy a "world's view" over the Matobo Park. You will visit communities, schools, and churches, and Paul will explain everything about the fence project around one side of the Matobo Park. It's a huge project to keep the animals in and all the intruders on the other side. Paul is behind the fence project and can get really enthusiastic about a "piece of wire." He hopes that the park will soon be fully fenced. A man with such great ambition and a healthy dose of idealism is much needed in this part of Africa.



FROM CITY TO BUSH

After several days in the wild, it's time to return to civilization. In the old days, women were not allowed to enter the main entrance of our hotel in Bulawayo. But emancipation also changed colonial Africa and everywhere is now open to ladies. This small, friendly place is an excellent stopover between Matobo National Park and Hwange National Park. We are given room No. 1, offering access to the terrace on the top floor, which provides the best surroundings for relaxation in this completely renovated colonial hotel. We drive from here further up north to the famous Hwange National Park, a gigantic stretch of wilderness on the border with Botswana. One thing missing from our itinerary was a camp, which was why we were delighted to arrive at Davison's Camp. Of course, we're not talking here about roughing it in mini-tents. This camp is run by Wilderness

Safaris, offering nine comfortable luxury tents where a palatial bed and a private bathroom with a shower await you. If you are lucky, you can hear animals roaming around the tents at night: elephants, buffalo, lions, and leopards.

CHEETAH PARADISE

One day we ask our guide Mike to take us to see cats... preferably a big, old, dignified lion. In fact, we almost beg him: "Bring us to the Lion King." Early next morning, we head off, following the clearly visible footprints in the humid Hwange National Park earth. But our hopes are soon dashed, as the tracks head into dense bush. Gone with the wind! But Mike has promised us cats and we change course for one of his favorite areas close to our camp. He tells us: "This place has fresh water and lots of open space for hunting, which attracts the cats." Within minutes, Mike shows us

a huge cheetah at the water hole. Then the animal leisurely gets up and lies down in the shade of a huge tree. Mike confidently states: "He's resting, digesting, but is still very alert for predators like lions and hyenas." We stay a while watching and photographing the animal, and we witness him getting up and marking his territory, jumping onto a branch to check out the area. We didn't get to see the Lion King but we did see a cheetah. Solid proof that Mike knows his cats!

VICTORIA FALLS SPLENDOR

There's one thing Zimbabweans agree on: Victoria Falls should definitely be visited from their side and not from Zambia. We think the best views are from a helicopter, during an inexpensive, 15-minute scenic flight. Did you know the following facts? David Livingstone, the Africa explorer from Scotland, named the ►

falls after Queen Victoria, and 500 million liters of water thunder down every minute. Enough facts and figures. You must simply visit this awesome wonder of nature. We end our trip at the Victoria Falls Hotel, imbued with colonial nostalgia, next to the falls. Even if you can't afford a room and the superb breakfast offered here, visit the terrace with its stunning view over the Victoria Falls Bridge and the thundering spray from the falls. This is the ideal place to end our exciting adventure through Zimbabwe, which has a bright future ahead of it. ■

TRAVEL INFORMATION

You can buy a visa for EUR 30 when you arrive at the airport. All you require for this is a valid passport with at least three blank pages. There is malaria in Zimbabwe. So take precautions against insects by wearing protective clothing, and use insect repellent on all exposed parts of the body. Consult with your doctor about the medication and vaccinations you may need.





EXTRA 5 HIGHLIGHTS

- Eat chicken piri piri at Coimbra in Harare, and enjoy the colorful vibe of this African city. On a Wednesday evening the place is packed with locals. White and black Zimbabweans indulge here in a plate of tenderly grilled chicken with hand-cut chips and a garlic sauce to die for. The beer is ice-cold and the prices (in US dollars, because this is the currency now) are low, nicely rounding off this unique experience.
- Another must-eat is the popular biltong, a meat delicacy from Zimbabwe that is dried in the open air. In some supermarkets you can buy it fresh and pay by the kilo. Elsewhere, you'll find different types of individually packed meat: kudu, springbok, beef with or without chili, etc. It's a fantastic snack for on the road.
- Have a drink or lunch in the courtyard of the Bulawayo Club and peek inside the old bar

where expats often come to watch sports on TV or get together. If you are a member of the club you receive preferential terms. The restaurant serves excellent and affordable lunches and dinners in its inner courtyard where pleasant jazz melodies fill the air.

- A sunset-cruise with the brand-new Zambezi Explorer is also a must. Book yourself a seat on the VIP upper deck where you will get a particularly good view of the sunset. There will be a free flow of drinks and snacks while floating around the Zambezi River where hippos and elephants are often spotted in or around the river. (Visit zambeziexplorer.com)
- There is no better spot than the terrace of the Victoria Falls Hotel to enjoy a gin & tonic. Order one in Stanley's Bar and enjoy the colonial setting of this "grande dame."



OTHER *RECOMMENDATIONS*

&BEYOND

Sustainable luxury lodges and camps in the most breathtaking regions of Africa.
www.andbeyond.com

GREAT PLAINS CONSERVATION

Eco-friendly and sustainable tourism offerings that protect Africa's diversity of nature and wildlife.
www.greatplainsconservation.com

WILDERNESS SAFARIS

Since 1983, Africa's leading ecotourism operator has been offering awesome journeys in the continent's most pristine areas.
www.wilderness-safaris.com

WILDLIFE WORLDWIDE

Offers tailor-made safari and wildlife holidays in small groups.
www.wildlifeworldwide.com

BUSHCAMP COMPANY

The Bushcamp Company operates in the southern part of South Luangwa National Park in Zambia. It has six exclusive bushcamps, including the award-winning Mfuwe Lodge.
www.bushcampcompany.com

AARDVARK SAFARIS

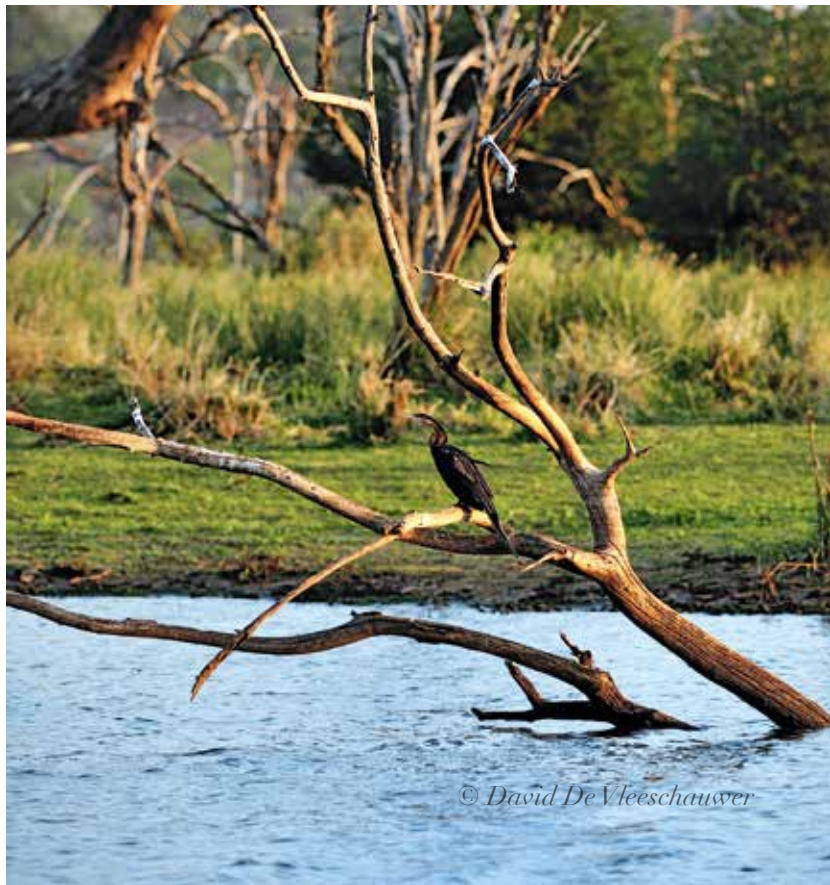
Tailor-made safari tours to the best locations to experience Africa's wildlife, as well as to hidden gems and unusual places.
www.aardvarksafaris.co.uk



You will find more insider tips for particular trips on Debbie Pappyn's blog.

CLASSETOURISTE.COM









ADAPTERS FOR IPHONE®* *SO FLEXIBLE, SO SPONTANEOUS*

The PA-i5/PA-i6 adapter for iPhone® 5/5s/6 combines binoculars or a spotting scope from SWAROVSKI OPTIK with an iPhone to create a top-quality digiscoping device. When you are traveling or on excursions, you can then use your smartphone to capture unique experiences and share them immediately.*

*iPhone is a trademark of Apple Inc.





SWAROVSKI OPTIK
QUALITY
STANDARDS



1 BRILLIANT IN TERMS OF *OPTICAL PERFORMANCE*

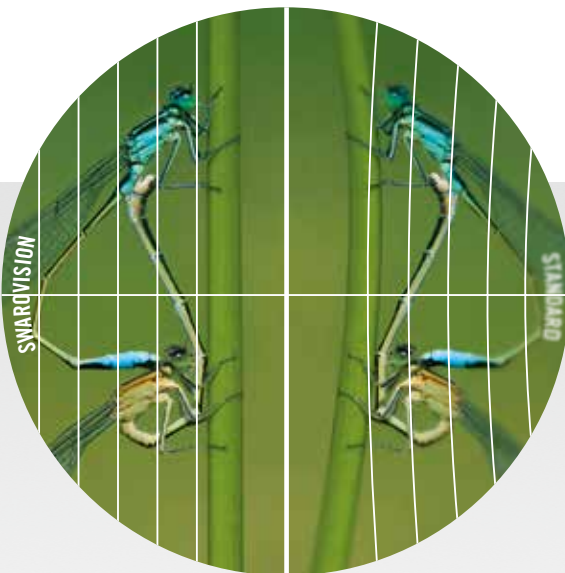
Right from first moment you look through a SWAROVSKI OPTIK product, you notice the difference. Our groundbreaking optical design with optimized coatings guarantees exceptional views and exceptional quality. The results are impressive: crystal clear images in natural colors, high contrast, and at the highest resolution, even in poor light conditions, as well as excellent transmission and object reproduction.

FIELD FLATTENER LENSES. To ensure that you can see even the smallest details and finest structures are razor-sharp right to the image periphery, field flattener lenses flatten the image.

WHAT ARE THE BENEFITS? It means that you will not miss any important details at the periphery either. You can make detailed observations across the whole field of view without any need for refocusing.

HIGH DEFINITION. The highly innovative optical design and fluoride-containing lenses are the key to trailblazing HD optics that is second to none. They combine to reduce color fringing, while enhancing color fidelity, resolution, and contrast.

WHAT ARE THE BENEFITS? You can see more and are given the assurance that you can recognize crucial details better.



SWAROVISION
Perfect image thanks to
SWAROVISION

STANDARD
Image using
comparable product



USING HD OPTICS
A unique optical system combined
with fluoride-containing lenses

STANDARD
Without HD optics, interference
from color fringing can occur



100% FIELD OF VIEW. A large field of view and sharp to the image periphery, even when switching magnification. SWAROVSKI OPTIK produces this masterpiece that eyeglass wearers can also enjoy using.

WHAT ARE THE BENEFITS? Even when you are quickly switching between viewing situations, the large field of view will allow you always to maintain an overview.

PERFECT COATINGS. The high-quality coatings for the lenses and prisms (SWAROBRIGHT, SWAROTOP, and SWARODUR) mean that you can expect impressive color reproduction and a higher transmission. The SWAROCLEAN anti-adhesive coating ensures that the external surfaces of the lenses are clean.

WHAT ARE THE BENEFITS? Excellent observation even during twilight and easier cleaning of the lenses.



SWAROTOP, SWARODUR,
SWAROBRIGHT, SWAROCLEAN
Total color reproduction

STANDARD
Color casts occur without
optimized coatings

BRILLIANT IN TERMS OF *PRECISION*

Precision is what provides the optical quality of SWAROVSKI OPTIK products and makes them the easiest to use. To achieve this, we focus from the outset on the perfect interaction between the individual components. Therefore, we already comply with the minimum tolerances when manufacturing the components. This guarantees the utmost accuracy of our products, which provides the basis for our top optical performance.

CLOSE-UP FOCUS. Having a precise close-up setting also enables you to observe subjects in immediate proximity to you in every detail.

WHAT ARE THE BENEFITS? The close-up focus enables you to identify and determine reliably insects and smaller animal species.

ATX/STX SYSTEM CONCEPT. The modular design of ATX/STX spotting scopes gives you a free rein to adapt your spotting scope to suit exactly your requirements and the relevant situation. The individual modules are perfectly compatible with each other, so that you can rely on the ATX/STX achieving its optimum performance in every situation.

WHAT ARE THE BENEFITS? You also have a variety of zoom ranges to choose from, as well module options with different sizes and weights, optimized to suit your use. You can also stow away objective lens and eyepiece sections separately, thus saving space.





BRILLIANT IN TERMS OF *ERGONOMIC DESIGN*

A SWAROVSKI OPTIK product can always be relied upon, even in the harshest conditions. When developing our products, we take into account simple operating concepts to make them suitable for everyday use. This user-friendliness also includes a high-quality exterior and elegant appearance. A perfect symbiosis of design and function that guarantees you maximum viewing comfort.

EL WRAP-AROUND GRIP. EL Family binoculars sit perfectly in your hand. This is thanks to the legendary EL wrap-around grip. To ensure a low, well-balanced weight, the high-precision bearing components are made of light metal and have been manufactured using state-of-the-art processing and coating technologies.

WHAT ARE THE BENEFITS? Thanks to their ergonomic design, you can also hold your EL binoculars when observing over lengthy periods in just one hand. Their exceptional stability will guarantee you reliable operation over many years.

WITHIN EASY REACH. To allow you to operate the scope more quickly, the zoom ring on an ATX/STX spotting scope is positioned directly behind the focusing ring.

WHAT ARE THE BENEFITS? ATX/STX spotting scopes ensure that you are always prepared for unique moments when every second counts.



BRILLIANT IN TERMS OF *WORKMANSHIP*

Long-range optical products from SWAROVSKI OPTIK must be able to meet the most stringent demands in any situation and over a lengthy period. To achieve this, we invest a great deal of time and effort in state-of-the-art manufacturing technologies, provide proven craftsmanship, and submit ourselves to the strictest quality controls. This is what makes our products what they are. Masterpieces that are crafted and built with a great love of detail to support you throughout your life.

RUGGED MATERIALS. Even in extreme situations involving cold, heat, rain, or mist, SWAROVSKI OPTIK products continue to operate without compromise. The non-slip full rubber armoring also makes them resistant to impact and heavy-duty use. Using selected materials and incorporating them into a sturdy, dustproof, and watertight housing also increase stability and lightness. Particular attention is focused in this area on the environmental compatibility and skin tolerance of all the materials being used.

WHAT ARE THE BENEFITS? Even with heavy-duty use, a SWAROVSKI OPTIK product will impress you with its lovely feel and bring you a lifetime of use.





BRILLIANT IN TERMS OF *ACCESSORIES*

Real value added for everyday use. SWAROVSKI OPTIK understands this to mean accessories. The development of these well-conceived add-on items already starts when our products are being designed, which ensures that they are seamlessly integrated into the design and noticeably enhance the products' everyday use. These are numerous small details that enable SWAROVSKI OPTIK products to further increase your comfort during observation.

NEW ORIGINAL ACCESSORIES. Accessories can make a product more convenient and flexible to use, and offer better protection. Taking the example of the new carrying strap with the bayonet connector for EL binoculars, it is possible to see and feel how a smart accessory can make the product significantly more comfortable to carry and use.

WHAT ARE THE BENEFITS? The new bayonet connector means that you can now quickly and simply change and remove the carrying strap. A cord is used with the carrying strap to prevent it from accidentally getting tangled up. Small details that make a big impact on everyday use.







SERVICE & MAINTENANCE

QUALITY OF CARE ABOVE AND BEYOND

SWAROVSKI OPTIK has been manufacturing products of the very highest quality for more than 60 years, which operate perfectly even in the harshest conditions, whether inside or outside, in the heat or cold. Our aim is to give you many years of enjoyment in using our long-range optical masterpieces.

To ensure this happens, our customer service department is on hand to provide you with help and advice. It is now an institution in its own right.

There is no department that goes about its work with such diligence, promptness, and, most of all, such an obliging attitude. This is why it is trusted by so many customers worldwide.

*IF SWAROVSKI OPTIK IS SYNONYMOUS WITH
ULTIMATE QUALITY AND RUGGEDNESS, WHY DOES IT
NEED A CUSTOMER SERVICE DEPARTMENT AT ALL?*

Although our products are designed to be used in the most extreme conditions, regular maintenance is recommended, for instance, via our customer service department. Many people use this service. Generally, it does not involve parts being replaced, but the equipment being cleaned and checked and, if necessary, being topped up with inert gas inside. Obviously, the customer service department also helps deal with any damage, which fortunately occurs only very seldom. The proportion of repairs is around one tenth of a percent (0.1%) in relation to the number of units we deliver.





WHAT SHOULD I BEAR IN MIND IF SOMETHING ACTUALLY HAPPENS TO MY SWAROVSKI OPTIK PRODUCT?

First and foremost, customer satisfaction is the number one priority for us. We are always prepared to listen and seek direct, informal contact. In other words, we will not only answer your queries quickly, but will endeavor to ensure that you can use your product as soon as possible again, at the usual level of quality. We generally have the product at our premises for up to 10 days, which is the quickest turnaround in the whole sector.



FOR HOW LONG AND IN WHAT CASES CAN I TAKE MY PRODUCT TO CUSTOMER SERVICE?

We basically deal with all queries relating to your product. We attach great importance to feedback, which means that we keep in close contact with our customers on a daily basis. The age of your long-range optical device does not come into this. On the contrary, we service many products that are already 30 or 40 years old. In any case, we make every effort to offer a rapid, diligent, personalized service.

WHAT HAPPENS IF I NEED NEW PROTECTIVE COVERS, ETC.?

If you send the product for repair directly to SWAROVSKI OPTIK in Absam, Austria, we will also replace any worn parts at no extra cost.

HOW DO I LOOK AFTER THE OPTICS IN MY SWAROVSKI OPTIK PRODUCT PROPERLY?

We recommend using the special microfiber cloth for the lenses, which comes with all of our products. If necessary, it can be cleaned in lukewarm soapy water. The best way to remove larger particles is by first using an optical brush, like the one in the SWAROVSKI OPTIK cleaning set. If the eyecups are dirty, you can simply unscrew and clean them.



ARE THERE ANY SPECIFIC CARE INSTRUCTIONS FOR THE HOUSING?

It is very easy to care for the housing's exterior: you only need to wipe it with a soft, damp

cloth. However, the special microfiber cloth is not suitable for this as it is only intended for the optics. No solvents should be used either as they damage the surface.



HOW SHOULD I STORE MY SWAROVSKI OPTIK PRODUCT AND HOW SHOULD I PROTECT IT FROM HUMIDITY?

The best place for your SWAROVSKI OPTIK product is in your pocket or somewhere that is well ventilated. If it is wet, it must be dried first. If you are traveling in tropical regions or areas with a high level of humidity, you should definitely put it in an airtight container with a humidity absorbent such as silica gel.

For more information about our extensive customer service, visit WWW.SWAROVSKIOPTIK.COM/KUNDENSERVICE

SWAROVSKI OPTIK PRODUCTS





BINOCULARS

EL **NEW**

EL 8x32 W B**
 EL 10x32 W B**
 EL 8.5x42 W B*
 EL 10x42 W B*
 EL 10x50 W B*
 EL 12x50 W B*



with FieldPro package



SLC

SLC 8x42 W B
 SLC 10x42 W B
 SLC 8x56 W B (!)
 SLC 10x56 W B (!)
 SLC 15x56 W B



CL COMPANION

CL Companion 8x30 B
 CL Companion 10x30 B



CL POCKET

CL Pocket 8x25 B
 CL Pocket 10x25 B



HABICHT ^(!)

Habicht 7x42*
 Habicht 8x30 W*
 Habicht 10x40 W*
 Habicht 7x42 GA**
 Habicht 10x40 W GA**



BINOCULARS WITH RANGEFINDER

EL RANGE **NEW**

EL Range 8x42 W B
 EL Range 10x42 W B



with FieldPro package



(!) not available in North America



SPOTTING SCOPES

ATX/STX

25-60x65 objective module
25-60x85 objective module
30-70x95 objective module

ATX eyepiece module
STX eyepiece module



ATS/STS

ATS 65/STS 65
ATS 80/STS 80



CTC/CTS ^(!)

CTC 30x75
CTS 85 body



GENERAL ACCESSORIES

CS

cleaning set



(!) not available in North America

SPOTTING SCOPE ACCESSORIES

TLS APO

Apochromatic Telephoto
Lens System



DCB II

digital camera base



PA-i5

adapter for iPhone®* 5/5s



PA-i6 **NEW**

adapter for iPhone®* 6



TLS 800

Telephoto Lens System



ADAPTER RINGS

for TLS APO and TLS 800



EYEPIECES

25-50x W wide angle
20-60x



SOC

stay-on case ATX/STX



SOC

stay-on case ATS/STS



SSR II

spotting scope rail



TRIPODS

AT 101 aluminum tripod
CT 101 carbon fiber tripod
CT Travel carbon fiber tripod



TS

tree fixing screw



DH 101

tripod head



SSC **NEW**

spotting scope cap



WE **NEW**

winged eyecup





BINOCULAR ACCESSORIES

BG/BGP** NEW

bino guard/bino guard pro



WES

winged eyecup set



BSP NEW

bino suspender pro



FSSP NEW

floating shoulder strap pro



LCS/LCSP** NEW

lift carrying strap/lift carrying strap pro



UTA

universal tripod adapter



TA-SLC

tripod adapter for SLC



CCS/CCSP** NEW

comfort carrying strap/comfort carrying strap pro



FBP NEW

field bag pro



PA-i5

adapter for iPhone®* 5/5s



PA-i6 NEW

adapter for iPhone®* 6



** for EL and EL Range binoculars with FieldPro package
* iPhone is a trademark of Apple Inc.



(1)

	EL 8x32 W B	EL 10x32 W B	EL 8.5x42 W B	EL 10x42 W B	EL 10x50 W B	EL 12x50 W B
Magnification	8x	10x	8.5x	10x	10x	12x
Effective objective lens diameter (mm)	32	32	42	42	50	50
Field of view (m/1,000 m/ft/1,000 yds)	141/423	120/360	133/399	112/336	115/345	100/300
Field of view for eyeglass wearers (degrees)	8	6.9	7.6	6.4	6.6	5.7
Eye relief (mm)	20	20	20	20	20	19
Shortest focusing distance (m/ft)	1.9/6.2	1.9/6.2	1.5/4.9	1.5/4.9	2.8/9.2	2.8/9.2
Dimensions L* x W** x H** (mm/in)	138 x 126 x 57 5.3 x 5.0 x 2.2	138 x 126 x 57 5.3 x 5.0 x 2.2	160 x 131 x 61 6.3 x 5.2 x 2.4	160 x 131 x 61 6.3 x 5.2 x 2.4	174 x 131 x 67 6.8 x 5.2 x 2.6	174 x 131 x 67 6.8 x 5.2 x 2.6
Approx. weight (g/oz)	595/21	595/21	800/28	800/28	999/35	999/35



(1)

	SLC 8x42 W B	SLC 10x42 W B	SLC 8x56 W B (!)	SLC 10x56 W B (!)	SLC 15x56 W B
Magnification	8x	10x	8x	10x	15x
Effective objective lens diameter (mm)	42	42	56	56	56
Field of view (m/1,000 m/ft/1,000 yds)	136/408	110/330	133/400	110/330	78/234
Field of view for eyeglass wearers (degrees)	7.8	6.3	7.6	6.3	4.5
Eye relief (mm)	18.5	16	23	19.5	16
Shortest focusing distance (m/ft)	3.2/10.5	3.2/10.5	3.9/12.8	3.9/12.8	3.9/12.8
Dimensions L* x W** x H** (mm/in)	149 x 120 x 63 5.9 x 4.7 x 2.5	144 x 120 x 63 5.7 x 4.7 x 2.5	194 x 141 x 73 7.64 x 5.55 x 2.87	192 x 141 x 73 7.56 x 5.55 x 2.87	192 x 141 x 73 7.56 x 5.55 x 2.87
Approx. weight (g/oz)	795/28	765/27	1,225/43.2	1,195/42.2	1,200/42.3



(1)



(1)

	CL Companion 8x30 B	CL Companion 10x30 B	CL Pocket 8x25 B	CL Pocket 10x25 B
Magnification	8x	10x	8x	10x
Effective objective lens diameter (mm)	30	30	25	25
Field of view (m/1,000 m/ft/1,000 yds)	124/372	100/300	119/357	98/294
Field of view for eyeglass wearers (degrees)	7.1	5.6	6.8	5.6
Eye relief (mm)	15	14	17	17
Shortest focusing distance (m/ft)	3/9.8	3/9.8	2.5/8.2	2.5/8.2
Dimensions L* x W** x H** (mm/in)	119 x 114 x 58 4.7 x 4.5 x 2.3	119 x 114 x 58 4.7 x 4.5 x 2.3	110 x 98 x 46 4.3 x 3.9 x 1.8	110 x 98 x 46 4.3 x 3.9 x 1.8
Approx. weight (g/oz)	500/17.6	515/18.2	345/12.2	350/12.3

Functional temperature: -25°C/+55°C (-13°F to +131°F) · Storage temperature: -30°C/+70°C (-22°F to +158°F) · Water tight: submersible to 4 m (13 ft) water depth (inert gas filling)

(!) not available in North America



(1)



(!)

	EL Range 8x42 W B	EL Range 10x42 W B	HABICHT 8x30 W	HABICHT 10x40 W	HABICHT 7x42
Magnification	8x	10x	8x	10x	7x
Effective objective lens diameter (mm)	42	42	30	40	42
Field of view (m/1,000 m/ft/1,000 yds)	137/411	110/330	136/408	108/324	114/342
Field of view for eyeglass wearers (degrees)	7.8	6.3	6.6	5.2	6.3
Eye relief (mm)	19.2	17.3	12	13	14
Shortest focusing distance (m/ft)	5/16.4	5/16.4	3/9.8	4/13.1	3.5/11.5
Dimensions L* x W** x H** (mm/in)	166 x 137 x 81 6.5 x 5.4 x 3.2	160 x 137 x 81 6.3 x 5.4 x 3.2	114 x 160 x 53 4.49 x 6.3 x 2.09	151 x 172 x 55 5.94 x 6.77 x 2.17 GA: 154 x 175 x 59 6.06 x 6.89 x 2.32	150 x 175 x 54 5.91 x 6.89 x 2.13 GA: 154 x 177 x 58 6.06 x 6.97 x 2.28
Approx. weight without battery (g/oz)	895/31.6	880/31	540/19	690/24.3 GA: 790/27.9	680/24 GA: 760/26.8
Measurement range (m/yds)	30-1,375/33-1,500		–	–	–
Measurement precision (m/yds)	± 1/± 1		–	–	–
Add-on program	SWAROAIM		–	–	–
Operating time	1,000 measurements		–	–	–
Laser	Class 1 EN/FDA		–	–	–
Conversion	Yard/meter		–	–	–

EL Range functional temperature: -10°C/+55°C (+14°F to +131°F) · HABICHT functional temperature: -25°C/+55°C (-13°F to +131°F)
Storage temperature: -30°C/+70°C (-22°F to +158°F) · Water tight: submersible to 4 m (13 ft) water depth (inert gas filling)



		ATX/STX 25-60x65	ATX/STX 25-60x85	ATX/STX 30-70x95
Magnification		25-60x	25-60x	30-70x
Effective objective lens diameter (mm)		65	85	95
Field of view (m/1,000 m/ft/1,000 yds)		41-23/124-68	41-23/124-68	35-19/104-57
Field of view for eyeglass wearers (degrees) (with special eyecup***)		2.37-1.1 (2.37-1.30)	2.37-1.3 (2.37-1.30)	1.98-1.0 (1.98-1.09)
Eye relief (mm)		20	20	20
Shortest focusing distance (m/ft)		2.1/6.9	3.6/11.8	4.8/15.7
Length (mm/in)*	Angled view (ATX)	339/13.3	372/14.6	426/16.8
	Straight view (STX)	367/14.4	400/15.7	454/17.9
Weight (g/oz)	Angled view (ATX)	1,585/55.9	1,910/67.4	2,150/75.8
	Straight view (STX)	1,640/57.8	1,965/69.3	2,205/77.8
Focal length with TLS APO (mm)		750-1,800	750-1,800	900-2,100

Functional temperature: -25°C/+55°C (-13°F to +131°F) · Storage temperature: -30°C/+70°C (-22°F to +158°F) · Water tight: submersible to 4 m (13 ft) water depth (inert gas filling)

W = wide angle · B = eyepiece for eyeglass wearers · GA = rubber armoring · (!) individually adjustable twist-in eyecup · *Value with eyecups twisted in
Dimensions at interpupillary distance of 64 mm (2.5 in) · *available from specialist retailers · Further technical specifications at: www.swarovskioptik.com



WITH EYEPIECE		ATS/STS 65		ATS/STS 80	
		25-50x	20-60x	25-50x	20-60x
Magnification		25-50x	20-60x	25-50x	20-60x
Effective objective lens diameter (mm)		65	65	80	80
Field of view (m/1,000 m/ft/1,000 yds)		42-27/126-81	36-20/108-60	42-27/126-81	36-20/108-60
Field of view for eyeglass wearers (degrees)		2.4-1.55	2.1-1.1	2.4-1.55	2.1-1.1
Eye relief (mm)		17	17	17	17
Shortest focusing distance (m/ft)		3/10	3/10	5/16	5/16
Length (mm/in)	Angled view (ATS)	411/16.2	411/16.2	441/17.4	441/17.4
	Straight view (STS)	391/15.4	391/15.4	421/16.6	421/16.6
Weight (g/oz)	Angled view (ATS)	1,405/49.6	1,370/48.4	1,675/59.1	1,640/57.9
	Straight view (STS)	1,375/48.5	1,340/47.3	1,645/58	1,610/56.8

Functional temperature: -25°C/+55°C (-13°F to +131°F) · Storage temperature: -30°C/+70°C (-22°F to +158°F) · Water tight: submersible to 4 m (13 ft) water depth (inert gas filling)










	CTC 30x75	CTS 85	Eye piece 25-50x W	Eye piece 20-60x
Magnification	30x	–	25-50x	20-60x
Effective objective lens diameter (mm)	75	85	–	–
Field of view (m/1,000 m/ft/1,000 yds)	41/123	–	42-27/126-81	36-20/108-60
Field of view for eyeglass wearers (degrees)	2.1	–	60-70	40-65
Eye relief (mm)	16	–	17	17
Shortest focusing distance (m/ft)	10/33	8/26	–	–
Approx. length (mm/in)	490/19.3	246/436 9.7/17.2	86/3.4	86/3.4
Approx. weight (g/oz)	1,200/42.3	1,400/47.7	295/10.4	260/9.2

Functional temperature: -25°C/+55°C (-13°F to +131°F) · Storage temperature: -30°C/+70°C (-22°F to +158°F)



	TLS APO	DCB II	TLS 800	PA-i5	PA-i6	SSR II
Dimensions L x W x H (mm/in)	102 x 93 x 82.5 4 x 3.7 x 3.2	220 x 92 x 180 8.7 x 3.6 x 7.1	142 x 60 x 55 5.6 x 2.4 x 2.3	129 x 64 x 12 5 x 2.5 x 0.5	144 x 72 x 7.5 5.7 x 2.8 x 0.3	185 x 60 x 60 7.3 x 2.4 x 2.4
Approx. weight (g/oz)	198/7	330/12	240/8.6	39/1.4	30/1.1	350/12

Tripod legs	CT 101	CT Travel	AT 101	CT 101 + DH 101	CT Travel + DH 101	AT 101 + DH 101	Tripod head	DH 101
 /  (cm/in)	170/58 66.9/22.8	170/50 66.9/19.7	190/69 74.8/27.2	182/- 71.7/-	182/- 71.7/-	202/- 79.5/-	 (cm/in)	12/4.7
 /  (kg/oz)	1.5/5 52.9/176.4	1.4/5 49.4/176.4	1.9/5 67/176.4	2.1/5 72.3/176.4	2/5 68.8/176.4	2.5/5 86.4/176.4	 /  (g/kg/oz/oz)	550/5 19.4/176.4

Connection thread 3/8" UNC for all tripods · Connection thread 1/4" UNC for tripod head

W = wide angle · (!) not available in North America



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Winner of the DOY 2014 competition: Jürgen Bergmann (GER)

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