

ZEISS Nature Catalogue 2019/2020



Seeing beyond

REGENERATION FOR PEOPLE AND NATURE.

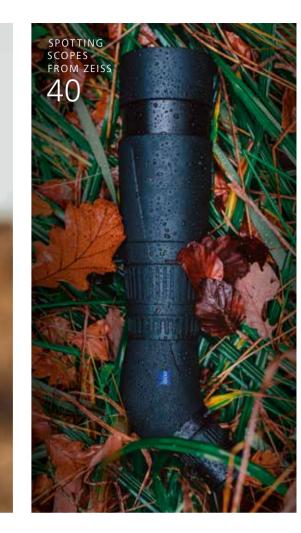
Around the world, birdwatchers search for their own personal moments of joy. With experience, optimum equipment and a little luck, they can observe rare birds like the Northern Bald Ibis and enjoy a welcome break from the stresses of everyday life. To ensure that 'regeneration' applies not only to people but to endangered species of birds as well, ZEISS is sponsoring projects for the protection of the last remaining Northern Bald Ibises in Morocco.

The years of effort are now showing the first signs of success: on the IUCN Red List of Threatened Species, the Northern Bald Ibis has climbed up from the category of 'critically endangered' to 'endangered' – a first important step on the way to establishing a stable and viable population.

Find out more about the project on pages 8 and 9.







5

Precisely tailored to your needs –

whether the Victory®,
Conquest® or Terra® line,
ZEISS always offers the ideal
product to fulfil the
most stringent personal
expectations and meet the
challenges of the different
situations encountered
when observing in the wild.
Uncompromising design,
ergonomics, looks,
simultaneously robust and
easy to use – the binoculars
and spotting scopes
from ZEISS.

| Carl Zeiss AG – the company | 5 |
|--|---|
| Protecting the Northern Bald Ibis in Morocco | 8 |
| Laboratory tested – | |
| proven outdoor performers 10 | С |
| Champions of the Flyway 12 | 2 |
| Augmented Reality 14 | 4 |
| An overview of all ZEISS binoculars 16 | 5 |
| Technology from ZEISS | 3 |
| Interview with Dr Gerold Dobler 36 | 5 |
| ZEISS Nature Community | 3 |
| Digiscoping | 8 |

| BINOCULARS | 18 |
|----------------|----|
| Victory SF | 22 |
| Victory HT | 24 |
| Victory Pocket | 26 |
| Conquest HD | 30 |
| Terra ED | 32 |
| | |
| | |

| SPOTTING SCOPES | 40 | TECHNICAL SPECS | . 52 |
|-----------------|----|---------------------------------|------|
| Victory Harpia | 44 | Binoculars | . 52 |
| Conquest Gavia | 50 | Spotting scopes | . 56 |
| | | | |
| CDECIALC | | ACCESSORIES | |
| Jrecials | 35 | ACCESSORIES | . 59 |
| Monos | 35 | Accessories for spotting scopes | . 59 |
| 20×60 | 35 | Accessories for binoculars | . 59 |

BINOCULARS FROM ZEISS

... a large proportion of all microchips produced around the globe is manufactured with technologies from ZEISS?

ZEISS supplies equipment for semiconductor manufacturing to the Dutch company ASML, the world's largest producer of wafer steppers and wafer scanners – extremely complex machines for manufacturing microchips. Contact between the two companies was established around 30 years ago.

VISION CARE / CONSUMER PRODUCTS

... the pictures of the moon landing were captured with ZEISS lenses?

On the 20th of July 1969, humankind set foot on the moon for the first time – an event that demanded a redefinition of the limits of the technically possible. ZEISS played an important role in this ambitious undertaking – with camera lenses designed and constructed specifically for use in space that enabled astronauts to capture images of this monumental achievement.

... ZEISS makes driving safer? (DriveSafe)

Developed together with research institutes, ZEISS
DriveSafe spectacle lenses are optimised to meet the visual needs of drivers. The special lens coating reduces glare by attenuating the proportion of short wavelength light. In addition to this, ZEISS DriveSafe lenses offer optimised fields of vision for dynamic vision and, in return, a more relaxed view for wearers of varifocal spectacles. Former Formula One racing driver Christian Danner also relies on this technology.

... numerous Oscar-winning films were shot with ZEISS lenses?

Cinematography lenses from ZEISS helped to create the unmistakeable, atmospheric mood of numerous Oscar-winning films like The Lord of the Rings, King Kong and Perfume: The Story of a Murderer – the jury of the Academy of Motion Picture Arts and Sciences awarded three technical Oscars to these cinematographic innovations. In 2012 two engineers from ZEISS were presented with the prestigious Scientific and Engineering Award for the mechanical and optical design





of the ZEISS Master Prime cinematography lenses jointly developed by ZEISS and the camera manufacturer ARRI. In 1999 the company received the award for the concept and optical design of zoom lenses with the optical performance of prime lenses (Variable Prime) and, in 1987, for the design and development of extremely fast lenses (Super Speeds).

... that the dwarf planet Pluto was discovered with optical technology from ZEISS?

On 18 February 1930, Clyde Tombaugh, a research assistant at the Lowell Observatory in Arizona (United States) discovered Planet X, today better known as Pluto. His discovery was made with the aid of a so-called blink comparator from ZEISS, as the German planetologist Ulrich Köhler from Schwäbisch Gmünd found out, 85 years after the discovery of Pluto. A blink comparator has an eyepiece similar to that of a microscope and is used to flick quickly, or 'blink', between two photographs of particular segments of the night sky taken at different times to identify changes.

SPORTS OPTICS

... ZEISS was the first to bring binoculars with mechanical image stabilisation to the market?

With the 20×60 S, ZEISS became the world's first manufacturer to launch a pair of binoculars with mechanical image stabilisation that allowed shake-free handheld viewing with $20 \times$ magnification.

ZEISS TODAY AND TOMORROW

... ZEISS constantly sets new standards?

Characterised by a spirit of innovation and progress, the 170-year history of the company is reflected in every idea, every product and in every service offered by ZEISS. Because, just as the world of nature constantly changes and never stands still, ZEISS works with untiring scientific curiosity and unconditional passion — always questioning the status quo and setting new standards with technical innovations.



PROTECTING THE NORTHERN BALD IBIS IN MOROCCO

SAVED FROM EXTINCTION.

The Northern Bald Ibis (Geronticus eremita), one of the world's rarest, most distinctive and gregarious avian species, was extinct in central Europe for over 400 years. Intensive measures on the part of BirdLife International and other conservationists are now showing the first signs of success in the colonies of birds living in the wild in Morocco. Together with the Prince Albert II of Monaco Foundation, ZEISS also sponsored the scientific activities of BirdLife International.

Some people call it the punk of the avian world: the Northern Bald Ibis is known for its rather bizarre black neck feathers. These mantle feathers are erected in the intensive greeting ceremony when they meet other birds, a behaviour that also appears illustrious outside courtship rituals. The particularly gregarious birds always gather in dozens and seem to bow to each other in greeting. Colonies are often made up of more than a hundred birds. The Northern Bald Ibis only breeds in colonies, which explains the lack of breeding success with individual pairs held in zoos. The males and females are similar in plumage, although females tend to be a little smaller and lighter. Correspondingly, individual males do not mate with several females – as can be assumed from the minimal sexual dimorphism. Both, males and females, participate in nest building and the rearing of their young.

The extinction of a good-luck charm

As big as a goose, but a member of the pelican family, the distinctive yet not necessarily attractive bird has always been rather conspicuous. Its Latin name, Geronticus eremita, describes it as an old man. Unfortunately, its distinctive appearance was also its downfall. Up to the 17th century, there were large numbers of the Northern Bald Ibis in

southern Germany, Austria, Switzerland, Italy and Hungary. However, intensive hunting led to its complete extinction in central Europe.

In ancient Egypt, the Northern Bald Ibis was worshipped as a bringer of light and, according to Islamic legend, showed Noah the way to the fertile Euphrates valley. In the Orient, the bird was a protected species in the Middle Ages, as it was believed that it carried away the souls of the dead. During this same period, central Europeans simply considered it to be a delicacy to grace their tables. Others hunted it as a trophy to stuff and display in their homes or trapped young birds to be shown in zoos. This explains why colonies in the wild today are found only in Morocco and Syria. One semi-wild colony also exists in Turkey.

First conservation successes

While the colonies in Syria continued to decline over the last 20 years, larger numbers of birds survived in the Souss-Massa region of Morocco. In the 1990s, after mysterious deaths, the wild colonies of the Northern Bald Ibis in Morocco were reduced to only 59 breeding pairs. Thanks to intensive conservation measures, the habitats in Morocco have made a recovery and are now home to around 700 birds. The first conservationists from the United Kingdom monitored the habitats, educated local ranchers and raised public awareness of the particular importance of protecting the birds. In the early 1990s, the Souss-Massa National Park was established to guarantee maximum protection of the species and, with the aid of intensive research on the part of the Moroccan government and the local branch of BirdLife, to determine the best ways of preserving the habitats of the Northern Bald Ibis.

With measurable success of the conservation measures: in November 2018, BirdLife International reported that the status of the Northern Bald Ibis had improved from the category of 'critically endangered' to 'endangered'. The first recolonisation projects in the South of Germany, Austria and Italy are also showing successes in central Europe. Biologists train juvenile birds bred in zoos and show them how to migrate south by leading the way in ultralight aircraft to habitats where they could survive in the wild.

Nevertheless, the survival of the species is by no means cut and dried. In Syria, the conservation measures can only be resumed when the country finds true peace again. Clear proof of how comprehensive protection can work is shown by the success of the project in Morocco. However, extensive educational effort and intensive dialogue with local ranchers and conservationists remain essential, not only in the breeding grounds, but also in the wintering grounds in Ethiopia, Saudi Arabia and Yemen. This requires not only the work of dedicated bird conservationists, but also extensive funding that, in the case of the Northern Bald Ibis, is contributed by the Prince Albert II of Monaco Foundation and ZEISS. ZEISS has been concentrating on the protection of wildlife threatened by extinction for many years, such as the Black Rhino and the Northern Bald Ibis. At the same time, ZEISS has sponsored the scientific activities of BirdLife International in the categorisation of threatened species of birds. The passion for observing the glories of nature with premium optics lives from biodiversity. Here it is essential to protect every single species whose habitats are threatened by humans. After all, the world of birds would be much less fascinating without its gregarious punk, the Northern Bald Ibis.



The Northern Bald Ibis builds its relatively large nests on rocky ledges – some of which are very close to neighbouring nests.

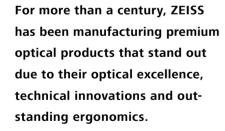
ZEISS ZEISS ZEISS

LABORATORY TESTED -

PROVEN OUTDOOR PERFORMERS.



From light showers to torrential rain: Laboratory tests show that the optics stand up to even the most torrential downpours.



Nevertheless, it is not only the pursuit of perfection that makes ZEISS optics what they are. Binoculars and spotting scopes are not scientific instruments; they are tools that must deliver the best at all times, also in the toughest outdoor conditions.

A jacket with a tear or leaking boots are annoying, but defective optics can rob nature lovers of what really matters when observing wildlife outdoors: the intensive experience of fascinating moments and impressive scenes. This is why our watchword is absolute reliability – even in the most adverse conditions.

Defy the elements.

Thanks to the best materials and uncompromising manufacturing quality, ZEISS can guarantee a level

of reliability and ruggedness that is appreciated by nature lovers around the world.

Those who wish to observe the fascination of nature, everywhere and in all its glory, must be prepared to face and overcome harsh climatic conditions and difficult terrain over and over again. If a torrential downpour begins on a trip, there's usually only one piece of advice: grin and bear it! Hoping that your optics are waterproof should be the least of your problems.







Take no chances: ZEISS quality is proven not only in the laboratory, but also in harsh conditions in the wild

Exposure to vigorous salt spray on trips in coastal regions is just as impossible to avoid as extreme temperature variations when leaving the warmth of your vehicle or home and stepping out into the cold winter air.

Environmental factors are, however, only one part of the equation. A fall in rugged terrain with your binoculars or a bumpy ride in the back of a vehicle – these are typical situations that put the resilience of your optics to the test.

Your ZEISS optics are ready to face it all.

This is why all ZEISS optics are extensively tested in the company's own laboratory to assure their endurance and suitability for everyday use. Proven testing procedures push the optics to the absolute limit. ZEISS conducts special testing procedures for this. Whether transport simulation (constant shock testing) or checking the effectiveness of waterproof seals by immersion – all these tests simulate stresses that are many times higher

than those encountered in nature. These stringent testing procedures guarantee trouble-free performance in all conditions, wherever your trips may take you, and enable you to observe what's essential at the decisive moment – and that for years and decades to come.









ZEISS SUPPORTSVULTURE CONSERVATION.

The Champions of the Flyway event has become something of a tradition. Launched in 2014 to promote birdwatching while also raising money for conversation efforts, bird watchers from around the world now meet in southern Israel every year to take part in a 24-hour birdwatching marathon. The goal: to register as many bird species as possible while fostering birding as a group.

This period in the spring many bird species are already heading to their breeding grounds up north, passing over the Sinai and stopping for the occasional rest in the verdant patches and watering holes along the desert. In Israel, these birds are safe from hunters. Unfortunately, house cats in Eilat's city parks lie in wait for the birds and kill many of them. Even worse, the migratory birds pass over several neighboring countries along the Mediterranean, where large numbers are caught in nets and tortured to death or shot out of the sky for sport. The international event is focused on preventing this slaughter. Over the past

five years, the event has raised a total of USD 350,000 in funding which goes directly to instructing the local populations in Serbia, Cyprus, Greece and Turkey. While the focus has been on the slaughter of migratory birds in the Mediterranean region, this year particular attention was paid to the vultures in Africa. They have been given the conservation status "critically endangered" because the same fate awaits them as that suffered by the entire population of vultures in India: mass poisoning due to drug-contaminated livestock. Diclofenac, used as a pain killer drug in people and cows, is highly toxic for birds and kills off raptors that eat the flesh of contaminated cadavers. However, these same vultures play an important role in these countries as animal health police. With the vultures in India decimated, the entire Steppe Eagle population is now at risk. Experts assume that all Steppe Eagles that migrate to Asia in the winter will die off soon if no suitable countermeasures are put in place immediately. The situation isn't looking much better for vultures in the Rift Valley in Africa. That's why a team from BirdLife Kenya sponsored by Nabu and ZEISS were there at the start





Another unique sight was a rare melanistic "black" Flamingo, lingering in the salt ponds north of Eilat. This distinctive bird was first spotted in Eilat back in 2014. In the years that followed, it was seen in Turkey and on Cyprus before returning to Eilat. The participants also had the

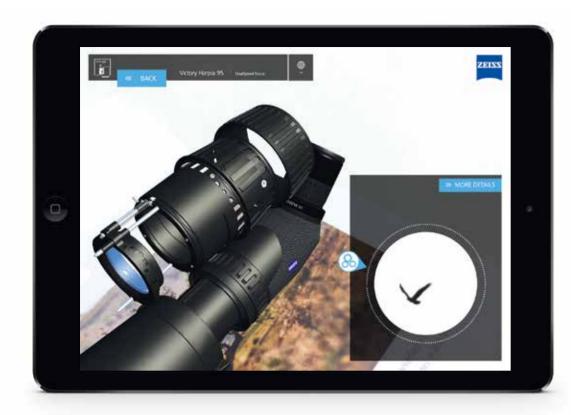




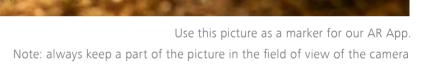
chance to observe thousands of Steppe Buzzards and Black Kites flew across the sky, presenting quite the spectacle. And every now and again, a Booted Eagle, Osprey or a Steppe Eagle returning to the Asiatic steppe from Africa made an appearance.

For weeks, a Little Crake could be spotted up close in front of one of the observation areas. From time to time a Pied Kingfisher passed across the surface of the water, while Little Bitterns made their way through the reeds. Up to 80 Collared Pratincoles congregated on the adjoining dam, in front of which 13 Red-necked Phalaropes searched for food at the usual great speed they're known for. The Spur-winged Lapwing found all around Eilat was one of the species you don't get to see every day in Germany.





The Victory Harpia is just one of the numerous products you can discover and explore with the app.



AUGMENTED REALITY

SEE FURTHER:

ZEISS AR SPORTS OPTICS APP.

Technical innovation is as deeply rooted in the DNA of ZEISS as the commitment to uncompromising quality in even the smallest details. Our app links these two topics – and raises the ZEISS optics product experience to an entirely new level.

Thanks to the innovative ZEISS AR Sports Optics App, you can now take a look around inside our extremely complex optics products from your mobile device. Features of the individual product are made visible and appear as if at your fingertips.

Numerous pages of this catalogue – including the following page – serve as so-called markers for the app. All you need to do is hold your device above the marker pages to discover perfectly detailed 3D models of our products. You can take a walk around each of the products, get up-close to them or

take direct control of the animation.

Discover what makes ZEISS a legendary name while you're there: the undying passion for precision and quality – down to even the tiniest screw.

1. Download and install the ZEISS AR Sports Optics App





3. Select a product and **activate animation by touch**



2. Activate the App and **hold your device above a catalogue page** that contains a ZEISS AR logo



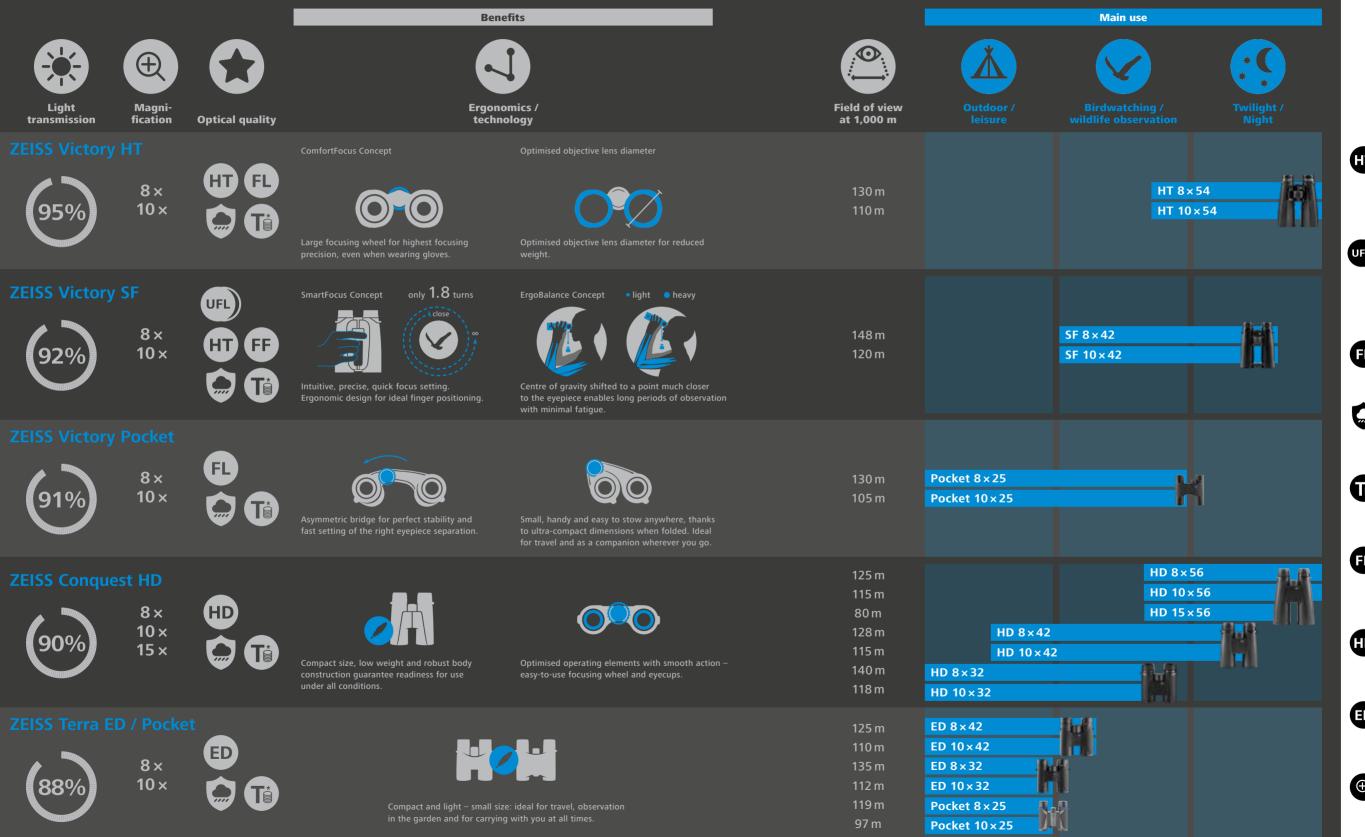


4. Move your device to discover **new angles** and perspectives



FOCUSING ON THE ESSENTIALS.

AN OVERVIEW OF ALL ZEISS BINOCULARS.



Ultra-HT Concept SCHOTT high-transmission glasses in combination with FL glasses for optimum vision in low light.

UFL) (

Ultra-FL Concept
Optical system containing several SCHOTT fluoride glasses for absolute colour fidelity, brightness, clarity and the finest resolution of details.

16

...

17

Flu SC

Fluoride glass SCHOTT fluoride glass for bright images.



LotuTec®
For fast and easy
cleaning of exposed
lens surfaces.

T* Multi-layer coating for a bright, crystal-clear and high-contrast viewing image.

ZEISS FieldFlattener Technology Extreme edge sharpness, even with wide fields of view.

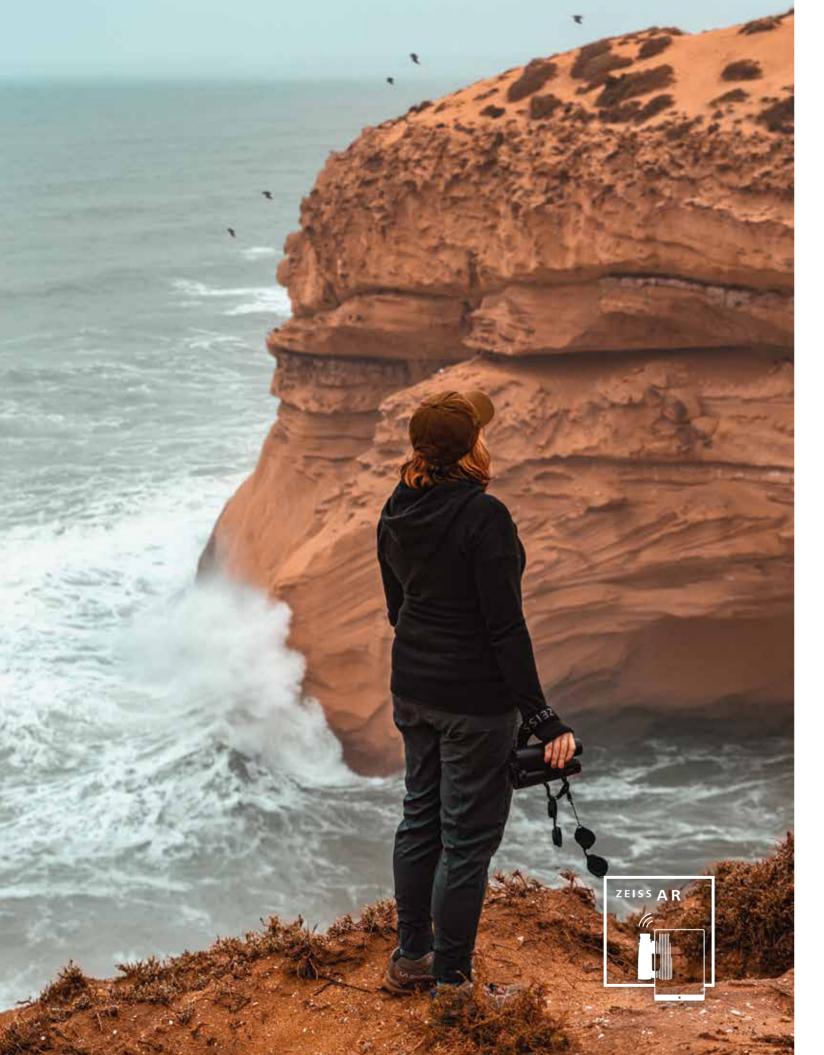
High-definition glasses With high-definition glasses for razor-sharp details and natural colour fidelity.

Extra-low-dispersion glass For bright and richly detailed viewing images.

Magnification 8-fold:

8-told: broader field of view and larger exit pupil for better twilight vision; 10-/15-fold: more precise identification of details.





BINOCULARS FROM ZEISS

VIEWED OVER TIME: THE BEST.

Binoculars from ZEISS have a legendary reputation. A reputation founded over the years on exceptional optical performance, outstanding ergonomics, robust construction and a whole world of innovations that have constantly expanded the limits of the technically possible.

No wonder that generations of nature lovers swear by 'their' ZEISS binoculars. These dependable companions that captured unique moments on countless trips are often bequeathed to the next generation, along with the stories experienced with them. Many of them are still in constant use today. Nevertheless, time never stands still.

Today, ZEISS offers highest-quality equipment for a wide range of different needs – from special binoculars for observation in the twilight hours and at night to compact binoculars for everyday use. But however much the various binoculars may differ in their specialisation and performance, they must all work hard to earn the name founded on more than 170 years of research, the finest arts of engineering and an undying passion for excellence: ZEISS.

Our online product guide will lead you step by step to the perfect ZEISS binoculars for your specific needs: http://www.zeiss.com/productadvisor-nature



YOU CAN NOW TAKE A CLOSER LOOK AT THEIR QUALITIES

WHAT MAKES OUR BINOCULARS UNIQUE, AND HOW ARE THEY CONSTRUCTED? THE ZEISS AR SPORTS OPTICS APP PROVIDES THE ANSWERS.



Unique carrying comfort Very lightweight, excellent grip characteristics Top of the class Extremely wide-angle fields of view Precise and intuitive handling Rapid focusing Best image quality ht, high-contrast image, natural colour fidelity

FACTS:

Intelligent innovations for exceptional results:

Triple-link bridge:

Constructional stability and robustness that stands up to even the harshest conditions.

Ultra-FL lens system:

Ensures natural colour fidelity, high contrast and finest detail rendition.

Magnesium materials:

The combination of extremely lightweight and high strength materials guarantees quality that lasts for generations.

LotuTec® coating:

The dust, dirt and waterrepellent coating guarantees a permanently clear view.

ErgoBalance Concept:

Perfectly balanced weight distribution guarantees fatigue-free observation.

ZEISS FieldFlattener technology:

Extreme edge sharpness, even with wide fields of view.

SmartFocus Concept:

Optimum location of the focusing wheel ensures intuitive, fast and precise focusing.

ZEISS VICTORY BINOCULARS

PRECISION IN PERFECTION.

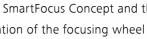
Do you discover new opportunities where others see only limits? Do you want to encounter the wonders of nature with the same perfection they reveal? If all this applies to you, you simply can't ignore the Victory line of binoculars from ZEISS.

Anyone who has ever held a ZEISS Victory model in their hands will never want to hand it back. For almost countless good reasons. Even the tiniest details are thought through to perfection. Innovative optical and mechanical systems interact with ergonomics with the ultimate perfection of a winning team to deliver the viewing image you need at the decisive moment. Sharp, precise, clear,

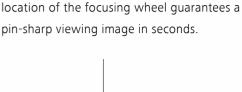
uncompromising. ZEISS Victory binoculars are amazingly robust, even in the most unfavourable conditions

With them, you have everything

in sight and remain in perfect control of the situation, however unexpected or unusual it may be. Whether at night or at the most extreme distances. In the desert or in the mountains. Your ZEISS Victory binoculars will soon become your most invaluable companion. Regardless of whether you choose an all-rounder like the Victory SF, a specialist like the Victory HT or the particularly compact Victory Pocket. They all offer you the chance to collect unique insights and personal experiences that will become treasured memories.









PRODUCT PORTRAIT

THE MOST VERSATILE PREMIUM BINOCULARS IN THE HISTORY OF ZEISS: ZEISS VICTORY SF.

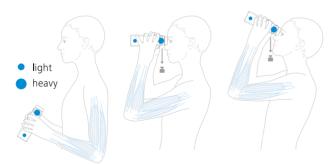
With the Victory SF from ZEISS, you experience nature at your fingertips and observe the most impressive moments more naturally than ever before.

The ZEISS Victory SF is the most versatile premium binocular model in the 170-year history of ZEISS. Its optical perfection, unrivalled field of view, revolutionary ergonomics and featherweight construction make the Victory SF the perfect all-rounder. In this, it expresses everything ZEISS stands for – an unequalled example of leading-edge optics.

Victory SF binoculars are extremely light. The pin-sharp viewing image makes it possible to study even the finest details in the plumage of a bird.

William Velmala, Finnish ornithologist

ErgoBalance Concept



Thanks to the ErgoBalance Concept, the binoculars are ideally balanced in the hands and enable prolonged and steady observation with minimum fatigue by reducing stresses on the muscles of the upper and lower arms.



An exceptional viewing experience

The Ultra-FL lens system guarantees natural, true-to-life colour rendition, a bright viewing image and finest resolution of details. The use of SCHOTT HT glass in the optical system guarantees the high transmission value of 92 per cent.

Ultimate ergonomics and handling

The perfect ergonomics and ruggedness provided by its

TripleLink Bridge and lightweight construction with

modern magnesium alloys are the basis for effortless observation and a previously unseen viewing experience.

Incomparably broad fields of view provide a perfect overview in difficult terrain and a close focus distance of

1.5 metres allows detailed exploration

of the immediate vicinity.





PRODUCT PORTRAIT

MADE FOR THE TWILIGHT HOURS: ZEISS VICTORY HT.

Even during sunset, nature loses nothing of its fascination. With the coming of the twilight hours, the right equipment makes it possible to discover impressive details. ZEISS developed the Victory HT models for precisely this situation.

Victory HT premium binoculars let you experience an entirely new dimension of nature observation. Thanks to a revolutionary optical concept, they bring spectacular transmission values of 95 per cent and more. An exceptional value – that is achieved by the perfect combination of SCHOTT HT glasses, ZEISS T* multi-layer coating and an Abbe-König prism system and that ensures maximum brightness. On trips, this means that you are able to observe your surroundings for much longer – even in the latest hours of twilight. Equally innovative: the ergonomics. The new ComfortFocus Concept impresses with a large focusing wheel that is embedded in the double-link bridge. This makes it extremely robust, ensures easy handling and also guarantees a long service life. Experience the absolute pinnacle of leading-edge optics – with the brightest ever binoculars from ZEISS.

INNOVATIONS FROM ZEISS





Standard glass

SCHOTT HT GLASS

Successful observation, even in low light: **Ultra-HT Concept**

SCHOTT high-transmission glasses for optimum vision in the twilight and at night.





Tradition revisited

The elegant design is the continuation of the design concept of the ZEISS Dialyt -



Form follows intuition

The large focusing wheel of the Comfort Focus Concept ensures superior handling ergonomics, even when wearing gloves.



SCHOTT HT GLASS

ZEISS

THE COMPACT COMPANION:

ZEISS VICTORY POCKET.



No matter whether on a woodland walk close to home or on a long trekking tour – nature always has something worth seeing. This is why it is always a good idea to have a pair of binoculars in your pocket at all times. ZEISS Victory Pocket binoculars are the ideal companion for this.

With the pocketable featherweight all-rounder, the Victory Pocket, you have a high-performance pair of binoculars from ZEISS for almost every wildlife-watching situation. Thanks to compact and lightweight construction, the binoculars fit easily into smaller pockets and their low weight is hardly noticeable.

Combining surprisingly low weight with high magnification factors and FL lenses with ZEISS T* multi-layer coating, the Victory Pocket models deliver a crisp and bright viewing image in outstanding quality. Asymmetric folding makes them especially compact and LotuTec® lens coating ensures that water droplets simply roll off and dirt can be effortlessly removed without a trace.





Pocket 8/10 × 25

Proven high-performance binoculars for virtually all observation situations. The compact size and light weight allow them to be conveniently carried in smaller jacket pockets when not in use.

Light

Lightweight qualities and asymmetric folding make this model particularly handy to carry anywhere.



The design, the mechanical system and the robustness of these binoculars fulfil the highest expectations.



Brilliant

Broad field of view and FL glass for a particularly sharp and richly detailed viewing image.

Everyone who can hear the call of the wild should also grasp the opportunity to see it, pin-sharp, and in all its glorious details.

Stefan Glowacz, extreme climber and adventurer









SUPERIOR OPTICAL PERFORMANCE FOR BIRDERS AND WILDLIFE WATCHERS.

THE ZEISS PRODUCT BENEFITS AT A GLANCE.

Successful observation, even in low light: Ultra-HT Concept SCHOTT high-transmission glasses for optimum vision in the twilight and at night.





Standard glass





ZEISS FieldFlattener Technology

Extreme edge sharpness, even with wide fields of view.



Fluoride glass and the Ultra-FL Concept

SCHOTT fluoride glass for crisp and bright images. In the Ultra-FL Concept, several elements made of SCHOTT fluoride glass are combined in a system that delivers absolute colour fidelity, brightness, high contrast and the finest resolution of details.





Without FL glass

With FL glass



T* multi-layer coatingFor a bright, crystal-clear and high-contrast viewing image.





LotuTec®

Makes lenses dirt-repellent and easy to clean.



SmartFocus Concept

Intuitive, precise and fast focusing. Ergonomic design for ideal finger positioning.



Example of a competitor's model



ZEISS Victory SF

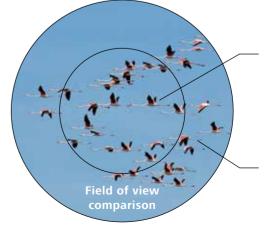


29

1.8 turns

ComfortVision Concept

Extremely broad field of view in comparison with many of its competitors for an even better overview in the field.



Spotting scope

with 30 × minimum magnification

Victory Harpia at 23× minimum magnification

E

UFL

PERFECT ALL-ROUNDERS:

ZEISS CONQUEST HD.

Nature in HD

The highest resolution of details and natural colour rendition of the HD lens system lets you experience new standards of optical excellence.



Compact dimensions, low weight and modern design come together to create exemplary ergonomics and result in an intuitive and simple handling concept.

Light in the darkness

High transmission values are an essential prerequisite for impressive observation in the twilight hours.





HD 8/10×32

Thanks to the extra-wide field of view of the HD lens systems, compact dimensions, low weight and carrying comfort, the Conquest HD $8/10\times32$ is the ideal, high-performance companion for every situation.



HD 8/10/15×56

This version is the specialist for situations in unfavourable light and impresses with a bright, high-contrast viewing image. The 15×56 is supplied complete with a tripod adapter.



HD 8/10×42

Exceptional quality and performance – Made in Germany. Ideal for users who are looking for sharpness, high resolution of details, natural colour rendition and outstanding quality in the close focusing range.

ZEISS IN PRACTICE



Care and cleaning tips from ZEISS

LotuTec® is a resilient and abrasion-resistant lens coating with a special surface and strong lotus effect that reduces the adhesion of water droplets and dirt on lenses. The use of a ZEISS lens cleaning cloth is recommended for cleaning lens surfaces. Coarse dirt on lenses – for example sand, mud or soil – must not be wiped off: it should only be removed by rinsing with clear water or with a clean lens brush with soft, fine bristles.

ZEISS

31

PERFECT FOR EVERY TRIP:

ZEISS TERRA ED.

Ergonomic

Focusing with a ZEISS Terra ED is made particularly quick and easy by the smooth action of its large, intuitively placed focusing wheel.













In its class, the extremely light and compact Terra ED Pocket delivers an outstanding viewing experience and impresses with intuitive handling.



ED 8/10×32

Impressive images, precise focusing and compact size are the characteristic features of the 32-millimetre version of the Terra ED.



ED 8/10×42





Always ready for action also means use under the most extreme conditions. This is why ZEISS pays particular attention to the use of premium materials in the construction of its latest optical products. The binoculars and spotting scopes are of course fully sealed against moisture and nitrogen-filled to ensure that no internal fogging can occur, even in rapidly changing temperatures. The rubber armouring makes the glasses robust and impact-resistant, and provides a first line of protection for the highperformance optical systems inside. This all contributes to optical products you can always trust and rely on.



A bright image, outstanding resolution of details and comfortable viewing characteristics. In combination with optimum ease of handling, these perfectly describe the outstanding properties of the Terra ED 42.

SCHOTT ED GLASS

ZEISS





ZEISS Mono

The 3×12 is a powerful mini-telescope with $3 \times$ magnification. It transforms Victory* and Conquest binoculars with objective lens diameters of 30 mm and more into powerful spotting scopes at the flick of a wrist. Easy to attach to the eyepiece by means of an adapter ring. Can also be used separately as a magnifier in the close focus range.

* Cannot be used with Victory SF binoculars.









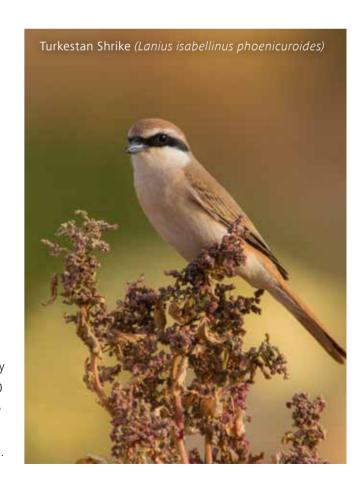
ZEISS Mono

For a precisely detailed view at sporting events, in the theatre or at longer distances outdoors: the Monos with ZEISS T* multicoating impress with a bright and clear viewing image and, depending on the model, can also be used as magnifiers.



20×60 S

Superlative binoculars in every respect: developed for the longest distances, and even used on missions to the International Space Station (ISS). The exceptional light transmission of the Porro prism system guarantees the brightest viewing images with outstanding resolution of the finest details even at 20 × magnification. The technically unique mechanical image stabilisation system of the 20×60 T* S ensures a perfect viewing experience: the unavoidable shake always encountered when observing with handheld binoculars can be easily eliminated at the press of a button.









'FROM EXPERIENCE, I ALWAYS EXPECT THE BEST FROM A PAIR OF BINOCULARS.'

For many nature lovers and birdwatchers, the Victory SF is an essential and constant companion. The development process that led to these legendary binoculars is almost as exciting as the observations that can be made with them. To explain why, ZEISS product specialist Dr Gerold Dobler invites us to take a look behind the scenes of the ZEISS Victory SF project.

Where did the idea of developing binoculars like the ZEISS Victory SF originate?

I'm a birdwatcher myself, and I spend as much time as possible on my hobby. Fortunately, my job allows me to travel around the world and observe countless species in their natural habitats. So I know from experience exactly what birdwatchers expect from their binoculars. So, when ZEISS Sports Optics asked me to develop a pair of binoculars especially for birdwatchers, I was able to start almost right away. The concept for the SF binoculars was therefore driven by the needs of wildlife observation.

What do birdwatchers expect from ideal binoculars?

During my travels, I discovered that there are not only numerous different species of birds, but also many different kinds of birdwatchers. Some take trips to the mountains, while others travel to coastal areas or deserts. Birdwatchers are found in practically all areas of the great outdoors. Some use spotting scopes as well as binoculars, and some don't. Many of them observe other aspects of nature, and not just birds. So the ideal birdwatching binoculars would have to take all these different observation criteria into account. The more birdwatchers I met on my travels around the world, the more convinced I became that ZEISS would have to create an 'all-round package' for birdwatching.

Could you explain the functions of the SF binoculars in more detail?

The SF in the name stands for the SmartFocus Concept developed by ZEISS. This relates to the fact that focusing speed is a key issue when watching birds. From my own experience and also from conversations with other



birdwatchers, I know that this would have to be somewhat faster than is the case with most other binoculars, but not so fast that it would be easy to overrun the desired point of focus. The SmartFocus Concept enables intuitive setting of the focusing action of SF binoculars.

At the same time, I wanted to achieve a situation in which observation with the binoculars could be made as long as possible without the arms getting tired. This issue was solved by the extremely low weight and the ErgoBalance Concept, which shifts the centre of gravity of the glasses towards the eyepieces. In addition to this, the focusing wheel is integrated in the construction in a way that lets it be turned without having to stretch the fingers too much. Another feature of the SF binoculars appreciated by all birdwatchers is the extremely wide field of view. This means that these binoculars show their owner as much as possible of the unbelievably fascinating glories of nature. And all this makes me justifiably proud.

Last question: what is the most impressive thing you ever discovered with your SF binoculars?

That's a difficult question. As a birdwatcher and nature lover, almost every trip out brings something new, surprising, fascinating or exciting. You never stop learning. But my favourite bird is definitely the bittern. It's always something special when I get to see one again with my SF.



DR GEROLD DOBLER

AS A PRODUCT SPECIALIST, DR GEROLD DOBLER
COMBINES HIS TECHNICAL EXPERTISE WITH MANY
YEARS OF PRACTICAL EXPERIENCE IN WILDLIFE
OBSERVATION AROUND THE WORLD.



Please scan the QR code to view the complete interview with Dr Gerold Dobler.





#zeissnature and #ZEISSBirding

STAY AT HOME AND TRAVEL TO THE FARTHEST CORNERS OF THE WORLD.

Pack your virtual rucksack and travel with us and the ZEISS Nature Community to the most interesting hotspots for nature lovers and birdwatchers. Whether you are looking for information about our products or interesting facts about bird species in faraway places or seen from your window at home, or if you are interested in taking an artistic view of nature or the multifaceted and important issues of wildlife conservation: in our social media channels, you will always find a broad spectrum of news and articles from the colourful world of wildlife watching and birdwatching.



Become a member of our big Facebook community

@ZEISSBirding, visit our Instagram site

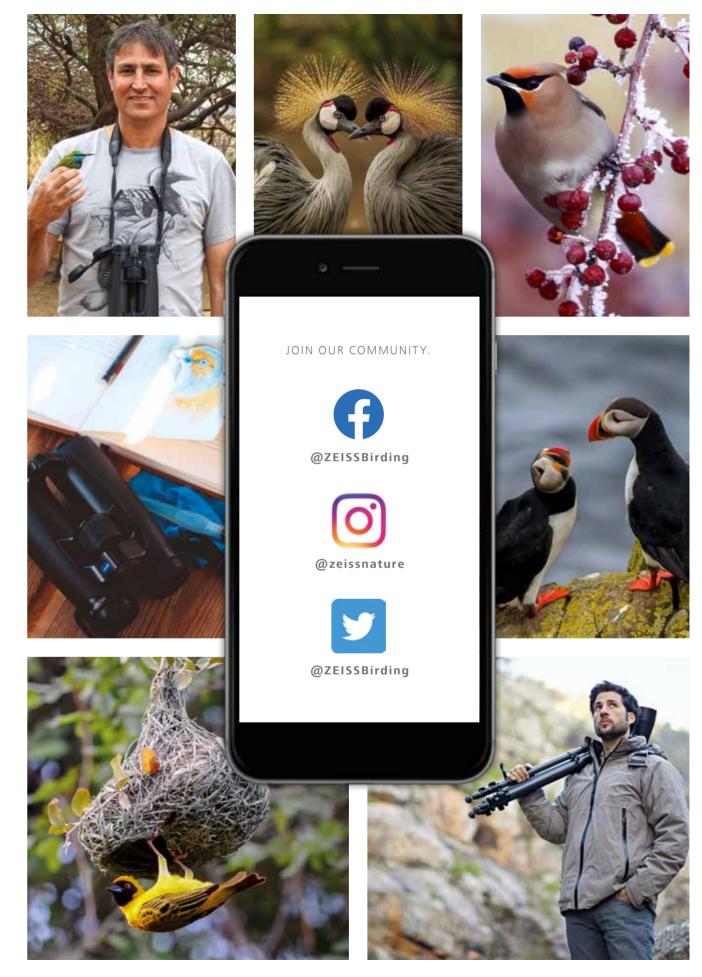
@zeissnature, chat with us on Twitter

@ZEISSBirding and share your knowledge and experiences in the Bird Forum (www.birdforum.net).

Whichever communication channel you prefer, we are looking forward to your contributions.

FOLLOW @zeissnature ON INSTAGRAM

IT'S EASY: JUST OPEN THE INSTAGRAM APP AND GO TO THE SEARCH FUNCTION Q. HERE'S WHERE YOU WILL FIND THE INSTAGRAM NAME TAG SYMBOL AT THE TOP RIGHT OF THE SCREEN. USE IT TO SCAN THE SYMBOL DISPLAYED HERE AND FOLLOW OUR ACCOUNT, @zeissnature.





SPOTTING SCOPES FROM ZEISS

THE SOUL OF NATURE **REVEALED.**

On the one side, curiosity and open-mindedness, on the other, high-tech spotting scopes from ZEISS. When these come together, every encounter with nature becomes a unique experience.

Nature is always fascinating, wherever you happen to be – in extreme environments like the Antarctic and the Amazon basin, as well as close to your home. This is why so many people have discovered their passion for birdwatching and wildlife observation. It also explains why there are so many different demands on the optical equipment used.

Spotting scopes from ZEISS fulfil these demands in a variety of ways – from natural reproduction of colours, the finest rendition of details, outstanding brightness as

well as contrast to wide fields of view and breathtaking powerful magnification.

These are the qualities that make ZEISS spotting scopes firm favourites around the globe and ensure every day that people enjoy a better and closer view of nature than ever before. No matter whether watching the migration of enormous flocks or the flight of a single bird – you can always rely on ZEISS.

Our online product guide will lead you step by step to the perfect ZEISS observation optics for your specific needs: http://www.zeiss.com/productadvisor-nature



YOU CAN NOW TAKE A CLOSER LOOK AT THEIR QUALITIES

WHAT MAKES OUR SPOTTING SCOPES UNIQUE, AND HOW ARE THEY CONSTRUCTED? THE ZEISS AR SPORTS OPTICS APP PROVIDES THE ANSWERS.



High magnification factors

A sharp viewing image for observation at extreme distances

Optimum performance

Objective lens diameters of up to 95 millimetres for clear and bright images with razor-ship details

Outstanding ergonomics

Large operating elements with smooth action for fast and precise focusing

ZEISS VICTORY SPOTTING SCOPES

A NEW VISUAL DIMENSION.

The Victory Harpia is a true ZEISS model in every respect – absolutely premium optics, proven ruggedness and ergonomics meet state-of-the-art technology.

This spotting scope features the DualSpeed Focus system with fast switching from close to long ranges and options for fine focusing and sharpness correction.

One of the many innovations of this high-performance spotting scope from ZEISS is that magnification and focusing are controlled with collars on the body of the scope and not, as usual, with the

eyepiece. This enables very fast adaptation to the current situation and brings dedicated birdwatchers and wildlife enthusiasts even more fascinating encounters with the world of nature.

Further unquestionable benefits are the 72° field of view and the respective, model-specific close-focus distances of 3.5 and 4.5 metres. These values make the Victory Harpia ideal for observation on a larger scale, for example, by lakes or in woodland – as well as at closer ranges.

FACTS:

Intelligent innovations for exceptional results:

FL glass:

Natural colour fidelity, high contrast, brilliance and the finest detail rendition.

LotuTec® coating:

The dust, dirt and waterrepellent coating guarantees a permanently clear view.

DualSpeed Focus:

Precise focusing with automatic switch between fast and fine-focusing drive.

Magnesium materials:

The combination of extremely lightweight and high strength materials that last for generations.

ZEIS



PRODUCT PORTRAIT

THE MOST POWERFUL SPOTTING SCOPE FROM ZEISS: ZEISS VICTORY HARPIA.

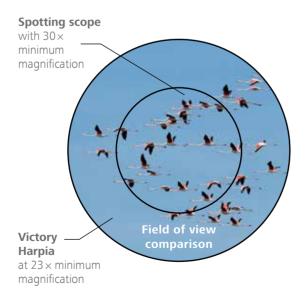
The world of nature is already truly fascinating when observed with the naked eye. But viewing it through a Victory Harpia transforms it into an entirely new experience.

This spotting scope offers a new and unusual optical system with a $3 \times$ wide-angle zoom, up to $70 \times$ magnification and choice of 85 and 95 mm objective lens diameters. The extremely wide fields of view bring impressive results in every situation. DualSpeed Focus enables fast focusing and easy, precise, fine focus adjustment, even at high magnification factors.

Thanks to its unique, 72° wide-angle field of view throughout the entire $3 \times zoom$ range, the unrivalled dynamic of the Victory Harpia guarantees superior performance at long or short distances in every unexpected viewing situation.

ComfortVision Concept

A subjective viewing angle of 72° throughout the entire zoom range for a noticeably broader overview of the terrain.



Comparison of the field of view of a spotting scope with 30 x min. magnification (small circle) with the field of view of the Harpia at 23 × min. magnification (large circle).

Compact, high-performance eyepiece

Slim construction for a comfortable viewing experience. Securely lockable bayonet mount.

DualSpeed Focus

Automatic switch between fast- and finefocusing drive for fast and precise focusing.



LotuTec® coating

A clear view in all weather conditions. Raindrops and dirt simply roll off the lens.





For me, the Harpia is an absolute game changer in the field. As a passionate birdwatcher, I always dreamed of the additional edge sharpness it delivers. Whether watching seabirds, in the twilight hours or in any other birding scenario: I have one now, and the difference is truly groundbreaking.

Mark James Pearson - birdwatcher and ornithologist from Yorkshire

ZEISS ZEISS

Harpia 95

The unusual optical system features a $3 \times$ wide-angle zoom, up to $70 \times$ magnification and an objective lens diameter of 95 millimetres. The extremely wide fields of view prove their worth in every situation. The Harpia 95 also features precise focusing with convenient automatic transition from rapid to fine adjustment, even at high magnification factors.



Harpia 85

With the exception of its objective lens diameter of 85 millimetres, this version offers the same overall advantages as the Harpia 95. Thanks to the use of FL glasses and other specially formulated glass types, the Harpia 85 also delivers an absolutely sharp viewing image with natural colour fidelity, even at maximum magnification. A subjective angle of view of 72° throughout the entire zoom range provides a noticeably greater overview of the terrain.



ACCESSORIES



Tripod Professional

The ZEISS Tripod Professional fulfils the most demanding requirements with regard to compatibility and loading weight and enables particularly smooth panning and tilting. It is specifically suitable for use with our Victory products and for digiscoping.



Long Balance Plate

Our Long Balance Plate is the ideal solution to perfectly balance your spotting scope, especially when digiscoping (only for Tripod Professional).



Ever-ready carrying case for the Victory Harpia

The case offers reliable protection against all kinds of weather and wet conditions, is comfortable to carry and enables fast readiness of the spotting scope for use.

The caps for the eyepiece and the objective lens can be securely attached to the case to prevent loss.



ZEISS photo adapter

Whether for still pictures or film, the photo adapter (for M49, M52 or M58 filter threads) enables direct attachment of a digital camera to the Victory Harpia and transforms the spotting scope into a powerful tele lens.



DIGISCOPING

HOW TO CAPTURE THE PERFECT MOMENT.

Some wonders of nature are so incredibly perfect that they simply must be captured for ever – to refresh the memory of such a wonderful moment and share its beauty with others. This is possible – with digiscoping technology for compact and system cameras.

The spotting scope is set up and the light is perfect. Suddenly, as if painted into the scene, the Northern Bald Ibis appears in its natural habitat. It stops for a moment and looks towards the watcher – as if looking straight at the spotting scope. A moment of sheer perfection that one hopes may never end.

Such moments can be captured with compact and system cameras and digiscoping products from ZEISS.

Digiscoping technology enables richly detailed and vibrant pictures to be captured by a camera safely and securely mounted on a ZEISS spotting scope. This combination enables full exploitation of the extreme focal length and high magnification. With their fluoride glasses, the high-resolution optical systems of both Gavia and Harpia spotting scopes are ideal for the task.

http://www.zeiss.com/sports-optics/digiscoping

TIPS FOR PERFECT PICTURES:

Mount the spotting scope securely on the camera with the ZEISS Photo Adapter. This is screwed into the filter thread of the camera lens and then slipped over the eyepiece of

the spotting scope. The combination is then secured with a locking screw. To minimise shake, steady the spotting scope and camera combination, preferably on a tripod.

Note: You will achieve the best results when you use a prime lens with a short barrel and focal length.







A harpy eagle (${\it Harpia\ harpyja}$) in the wild.

Discovered in Panama with a ZEISS spotting scope and photographed with a system camera and digiscoping technology.

THE EXPLORER'S COMPANION:

ZEISS CONQUEST GAVIA 85.







Bright, clear and richly detailed

Exceptionally precise roof prisms and an HD lens system guarantee a bright and clear viewing image.



Gavia 85

This spotting scope with an 85-millimetre objective lens is particularly lightweight and compact. This makes it the ideal instrument for close- and long-range observation, especially in regions that are difficult to access. Unique in this class is the short close-focus that enables problem-free acquisition of small targets.





Simple stepping rings allow the ZEISS photo adapter to be mounted on lenses with other filter thread sizes. Due to their lightweight properties, MFT (Micro-Four Thirds) cameras with prime lenses between 17 and 25 millimetres are particularly suitable for digiscoping.

APS-C cameras with suitable lenses, for example the Sony ZEISS 2.8/35 mm, also allow photography with all magnification ranges of the spotting scope.

ACCESSORIES



Ever-ready carrying case for the Conquest Gavia

Developed especially for the Conquest Gavia, the case protects the spotting scope against environmental influences such as moisture and dirt. In addition to this, optimum carrying comfort, fast readiness of the spotting scope for use and an option for attaching the eyepiece and objective lens cap to the case make it an invaluable part of the equipment.



For mounting standard astro eyepieces.



ZEISS photo adapter

Whether for still pictures or film, the photo adapter (for M49, M52 or M58 filter threads) enables direct attachmen of a digital camera to the Conquest Gavia 85 and transforms the spotting scope into a powerful telephoto lens.





PATHFINDING SOLUTIONS:

ZEISS BINOCULARS.

| Victory binoculars | S | F | Н | IT | F | L |
|--|-----------|----------|-------------|----------|----------------|----------|
| Model | 8×42 | 10×42 | 8×54 | 10×54 | 8×32 | 10×32 |
| Magnification | 8× | 10× | 8× | 10× | 8× | 10× |
| Effective lens diameter | 42 | mm | 54 | mm | 32 | mm |
| Exit pupil diameter | 5.3 mm | 4.2 mm | 6.7 mm | 5.4 mm | 4 mm | 3.2 mm |
| Twilight factor | 18.3 | 20.5 | 20.7 | 23.2 | 16 | 17.9 |
| Field of view at 1,000 m | 148 m | 120 m | 130 m | 110 m | 140 m | 120 m |
| Subjective viewing angle | 64° | Ww | 60° Ww | 63°Ww | 64° Ww | 69° Ww |
| Close focusing distance | 1.5 | 5 m | 3.5 m | | 2 m | |
| Diopter adjustment range | +/-4 dpt. | | +/-3 dpt. | | +/-4 dpt. | |
| Exit pupil distance | 18 | mm | 16 mm | | 15.5 mm | 15.2 mm |
| Interpupillary distance (PD) | 55-7 | 76 mm | 58-76 mm | | 52 – 74 mm | |
| Objective type | Ultra-FL | | FL/HT-Type | | FL | |
| Prism system | Schmidt | t-Pechan | Abbe-König | | Schmidt-Pechan | |
| Coating | LotuTe | ec®/T* | LotuTec®/T* | | LotuTec®/T* | |
| Nitrogen filled | y | es | yes | | yes | |
| Water resistance | 400 | mbar | 500 mbar | | 400 mbar | |
| Operating temperature | -30/- | +63°C | -30/+63°C | | -30/+63°C | |
| Length | 173 mm | | 193 mm | | 117 mm | |
| Width at an interpupillary distance of 65 mm | 125 mm | | 142 | mm | 116 | mm |
| Weight | 780 g | | 1,035 g | 1,050 g | 550 g | 560 g |
| Order number | 52 42 23 | 52 42 24 | 52 56 28 | 52 56 29 | 52 32 30 | 52 32 31 |

| Victory binoculars | Poo | ket | |
|--|----------------|----------|--|
| Model | 8×25 | 10×25 | |
| Magnification | 8× | 10× | |
| Effective lens diameter | 25 mm | 25 mm | |
| Exit pupil diameter | 3.1 mm | 2.5 mm | |
| Twilight factor | 14.1 | 15.8 | |
| Field of view at 1,000 m | 130 m | 105 m | |
| Subjective viewing angle | 6 | 0° | |
| Close focus | 1.9 m | | |
| Diopter adjustment range | +/-3 dpt | | |
| Exit pupil distance | 16.5 mm | | |
| Pupil distance | 34-74 mm | | |
| Lens type | FL | | |
| Prism system | Schmidt-Pechan | | |
| LotuTec® / Nitrogen filled | yes/yes | | |
| Water resistance | 100 mbar | | |
| Operating temperature | -25/+63°C | | |
| Length | 112 mm | | |
| Width at an interpupillary distance of 65 mm | 100 mm | | |
| Weight | 290 g | | |
| Order number 52 20 38 52 | | 52 20 39 | |

Subject to changes in design and scope of delivery as a result of ongoing technical

development.
For more information, please visit www.zeiss.com/sports-optics

| Conquest binoculars | | | | HD | | | |
|---|----------|-------------|----------|----------|-------------|----------|----------|
| Model | 8×32 | 10×32 | 8×42 | 10×42 | 8×56 | 10×56 | 15×56 |
| Magnification | 8× | 10× | 8× | 10× | 8× | 10× | 15× |
| Effective lens diameter | 32 mm | 32 mm | 42 mm | 42 mm | 56 mm | 56 mm | 56 mm |
| Exit pupil diameter | 4 mm | 3.2 mm | 5.25 mm | 4.2 mm | 7 mm | 5.6 mm | 3.7 mm |
| Twilight factor | 16 | 17.9 | 18.3 | 20.5 | 21.2 | 23.7 | 29.0 |
| Field of view at 1,000 m | 140 m | 118 m | 128 m | 115 m | 125 m | 115 m | 80 m |
| Subjective viewing angle | 64° Ww | 68°Ww | 59° Ww | 66° Ww | 57° Ww | 66° Ww | 69° Ww |
| Close focus | 1. | 5 m | 2 | m | | 3.5 m | |
| Diopter adjustment range | +/-4 dpt | | +/ | 4 dpt | +/-4 dpt | | |
| Exit pupil distance | 16 mm | | 18 | mm | 18 mm | | |
| Pupil distance | 54-74 mm | | 54-7 | 74 mm | 54 – 74 mm | | |
| Lens type | HD | | Н | ID | HD | | |
| Prism system | Schmid | t-Pechan | Schmidt | t-Pechan | Abbe-König | | |
| Coating | LotuTe | LotuTec®/T* | | ec®/T* | LotuTec®/T* | | |
| Nitrogen filled | у | es | y | es | yes | | |
| Water resistance | 400 | mbar | 400 | mbar | 400 mbar | | |
| Functional temperature | -20/ | +63 °C | -20/- | +63 °C | -20/+63°C | | |
| Length | 132 mm | | 150 | mm | 210 mm | | |
| Width at an interpupillary distance of 65 mm | 118 | mm | 120 | mm | | 145 mm | |
| Weight | 630 g | 630 g | 795 g | 795 g | 1,265 g | 1,275 g | 1,295 g |
| Order number | 52 32 11 | 52 32 12 | 52 42 11 | 52 42 12 | 52 56 31 | 52 56 32 | 52 56 33 |

 $\label{thm:condition} \textbf{Subject to changes in design and scope of delivery as a result of ongoing technical development.}$

ZEISS ZEISS ZEISS Nature Catalogue 2019/2020

54 55

ZEISS

| Terra binoculars | | | E | D | | | |
|------------------------------------|----------------|----------------|----------------------|----------------|----------------------|----------------|--|
| Model | 8×25 | 10×25 | 8×32 | 10×32 | 8×42 | 10×42 | |
| Magnification | 8× | 10× | 8× | 10× | 8× | 10× | |
| Effective lens diameter | 25 | mm | 32 | mm | 42 | mm | |
| Exit pupil diameter | 3.1 mm | 2.5 mm | 4.0 mm | 3.2 mm | 5.3 mm | 4.2 mm | |
| Twilight factor | 14.1 | 15.8 | 16.0 | 17.9 | 18.3 | 20.5 | |
| Field of view at 1,000 m | 119 m | 97 m | 135 m | 112 m | 125 m | 110 m | |
| Subjective angle of view | 52° | 54° | 61° | 61° | 56° | 60° | |
| Close-up setting limit | 1.9 | 9 m | 1.0 | 5 m | 1.0 | 5 m | |
| Diopter adjustment range | +/- | 3 dpt | +/-3 dpt | | +/-3 dpt | | |
| Exit pupil distance | 16 | 16 mm | | 16.5 mm | | 14 mm | |
| Pupil distance | 35-7 | 35 – 72 mm | | 56-74 mm | | 58-75.5 mm | |
| Lens type | E | ED | | ED | | ED | |
| Prism system | Schmidt | Schmidt-Pechan | | Schmidt-Pechan | | -Pechan | |
| Coating | Hydrophob | ic ZEISS mC | Hydrophobic ZEISS mC | | Hydrophobic ZEISS mC | | |
| Nitrogen filled | y | es | yes | | yes | | |
| Water resistance | 100 | mbar | 100 mbar | | 100 mbar | | |
| Operating temperature | -20/- | +63 °C | -15/+60°C | | -15/+60°C | | |
| Length | 111 | mm | 125 mm | | 142 mm | | |
| Width with an eye spacing of 65 mm | 115 | mm | 117 mm | | 120 mm | | |
| Weight | 31 | 310 g | | 0 g | 72 | 5 g | |
| Order number black / green | | | 52 32 03-99 08 | 52 32 04-99 08 | 52 42 03-99 08 | 52 42 04-99 08 | |
| black / black | | | 52 32 03-99 01 | 52 32 04-99 01 | 52 42 03-99 01 | 52 42 04-99 01 | |
| grey / grey | 52 25 02-99 07 | 52 25 03-99 07 | 523203-9907 | 52 32 04-99 07 | 52 42 03-99 07 | 52 42 04-99 07 | |

Subject to changes in design and scope of delivery as a result of ongoing technical development.

ZEISS

| Victory | | | Мо | nos | | |
|------------------------------|------------|---------------------|----------|----------|----------|-------------------|
| Model | 3×12 | 4×12 | 6×18 | 8×20 | 10×25 | MiniQuick® 5 × 10 |
| Magnification | 3× | 4× | 6× | 8× | 10× | 5× |
| Lens diameter | 12 | mm | 18 mm | 20 mm | 25 mm | 10 mm |
| Exit pupil diameter | 4 mm | 31 | nm | 2.5 | mm | 2 mm |
| Twilight factor | 6 | 6.9 | 10.4 | 12.6 | 15.8 | 7 |
| Field of view at 1,000 m | 220 m | 180 m | 120 m | 110 m | 88 m | 100 m |
| Subjective viewing angle | 38° | 4 | 41° 51° | | | 29° |
| Close focus | 0.2 m | 0.25 m | 0.3 m | 3 m | 4.5 m | 4 m |
| Diopter adjustment range | | +/-4 dpt | | | | |
| Eye relief | 12 mm | 12 mm 15 mm 16.5 mm | | | | |
| Lens type | | | Achr | omat | | |
| Prism system | | | Schmid | t-Pechan | | _ |
| Water resistance | | splash proof | | | | |
| Functional temperature range | -20/+40 °C | | | | | |
| Height × width | 58 mm | 70 mm | 94 mm | 101 mm | 119 mm | 113 mm |
| Weight | 54 g | 45 g | 58 g | 67 g | 77 g | 23 g |
| Order number | 52 20 12 | 52 20 50 | 52 20 51 | 52 20 52 | 52 20 53 | 52 20 10 |

All with ZEISS T*-multi-layer coating.
Subject to changes in design and scope of delivery as a result of ongoing technical development.

| | Binoculars with image stabilisation |
|------------------------------|-------------------------------------|
| Model | 20×60 S |
| Magnification | 20× |
| Lens diameter | 60 mm |
| Exit pupil diameter | 3 mm |
| Twilight factor | 34.6 |
| Field of view at 1,000 m | 52 m |
| Subjective viewing angle | 60° Ww |
| Close focus | 14 m |
| Diopter adjustment range | +/-7 dpt |
| Eye relief | 13 mm |
| Pupil distance | 57 – 73 mm |
| Lens type | Achromat |
| Prism system | Porro |
| Water resistance | splash proof |
| Functional temperature range | -20/+40°C |
| Height × width | 275×161 mm |
| Weight | 1,660 g |
| Order number | 52 60 00 |

Delivery including neoprene carrying strap, eyepiece cover, aluminium case. Subject to changes in design and scope of delivery as a result of ongoing technical development.

QUALITY DEMANDED AROUND THE GLOBE:

ZEISS SPOTTING SCOPES.

| Victory Spotting Scope | Harpia | | |
|---------------------------------------|-----------------|-----------------|--|
| Model | 85 | 95 | |
| Focal length of lens | 162 mm - 486 mm | 174 mm – 523 mm | |
| Filter thread objective lens side | M86×1 | M95×1 | |
| Lens diameter | 85 mm | 95 mm | |
| Close focus | 3.5 m | 4.5 m | |
| Height \times width \times length | 121×103×384 mm | 124×109×408 mm | |
| Weight without eyepiece | 1,934 g | 2,078 g | |
| Waterproof | 400 mbar | | |
| Nitrogen filling | yes | | |
| Order number 52 80 47 | | 52 80 57 | |

| | Eyep | piece | | |
|---------------------------|-------------------------|---------|--|--|
| Magnification | 22-65× | 23-70× | | |
| Focal length | 7.48 | 7.48 mm | | |
| Field of view m / 1,000 m | 63.2-21.0 m 58.8-19. | | | |
| Zoom factor | 3 | 3× | | |
| Exit pupil | 2.50 – 1.31 mm 2.50 – 1 | | | |
| Diameter | Ø 53 | 3 mm | | |
| Length | 71 | 71 mm | | |
| Weight | 220 g | | | |
| Order number | 528 | 0 70 | | |

Including eyepiece and lens cover. All with ZEISS T*-multi-layer-coating.

| Adapter Harpia | Order number |
|------------------------|---------------|
| Photo lens adapter M49 | 52 83 57-9901 |
| Photo lens adapter M52 | 52 83 57-9902 |
| Photo lens adapter M58 | 52 83 57-9903 |

| Model | Gavia 85 |
|--|-------------------|
| Magnification | 30-60× |
| Lens diameter | 85 mm |
| Exit pupil diameter | 2.8 mm – 1.4 mm |
| Focal length | 494 mm |
| Field of view at 1,000 m | 33 m – 23 m |
| Close focus | 3.3 m |
| Lens type | HD |
| LotuTec® / Nitrogen filling | yes/yes |
| Water resistance | 400 mbar |
| Lens thread | M 86×1 |
| Length | 396 mm |
| Weight (incl. eyepiece) | ca. 1,700 g |
| Order number (incl. eyepiece 30 – 60 × 85) | 52 80 48-0000-000 |

Including eyepiece and lens cover.

| Adapter | Order number |
|------------------------|---------------|
| Astro adapter | 52 83 45 |
| Photo lens adapter M49 | 52 83 48-9901 |
| Photo lens adapter M52 | 52 83 48-9902 |
| Photo lens adapter M58 | 52 83 48-9903 |

NUMEROUS OPTIONS:

ZEISS ACCESSORIES.

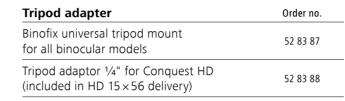
| | Tripods | Long balance |
|---------------|--------------|---------------------------|
| Model | Professional | plate |
| Material | Carbon | |
| Length closed | ca. 700 mm | for model Professional |
| Length open | ca. 1,820 mm | only |
| Weight | ca. 2,460 g | |
| Order number | 21 69-972 | 21 69-974 |

| Model | Carrying case for |
|------------------------------|-------------------|
| DiaScope 65 FL straight view | 1778-946 |
| DiaScope 65 FL angled view | 1778-968 |
| DiaScope 85 FL straight view | 1778-973 |
| DiaScope 85 FL angled view | 1778-974 |
| Conquest Gavia 85 | 2169-979 |
| Victory Harpia 85 | 2169-977 |
| Victory Harpia 95 | 2169-976 |

| Model | Astro adapter |
|--------------------------------|---------------|
| for standard astro eyepieces | 52 83 85 |
| for 11/4" astronomy telescopes | 52 83 86 |
| Astro adapter for DiaScope | 52 83 82 |

56

IMPROVED PERFORMANCE: ZEISS ACCESSORIES.









Tripod adaptor 1/4"

| Magnification attachment Mono 3 × 12 | Order no. |
|--|-----------|
| Including carrying strap and leather pouch; triples normal binocular magnification | 52 20 12 |

Adaptor for magnification attachment Order no. for Victory FL/RF/HT (not for SF) and Conquest HD 32 and 42 52 83 77 for Conquest HD 56 52 83 79





Magnification attachment Mono 3×12





Pouch for Victory SF



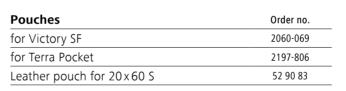








Binocular comfort straps



| Cordura bags | Order no. |
|------------------------------------|-----------|
| for Victory HT 42 | 1980-766 |
| for Victory HT 54 | 2074-447 |
| for Conquest HD 32 and Terra ED 32 | 52 90 35 |
| for Conquest HD 42 and Terra ED 42 | 1976-008 |
| for Conquest HD 56 | 1379-711 |

| Carrying straps | Order no. |
|--------------------------|-----------|
| Air Cell comfort straps | 52 91 13 |
| Binocular comfort straps | 52 91 15 |

Bearded Vulture (Gypaetus barbatus



Air Cell comfort straps

Join the ZEISS Birding Community.

Follow us online:

facebook.com/ZEISSBirding

youtube.com/zeissnature

#passionforbirding

zeissnature

Customer service

Carl Zeiss Sports Optics GmbH – customer service
Gloelstrasse 3–5, 35576 Wetzlar
Germany
Phone +49 (0)6441 404500 | Fax +49 (0)6441 48369
service.sportsoptics@zeiss.com

Carl Zeiss AG

Consumer Products division Carl-Zeiss-Strasse 22 73447 Oberkochen Germany

