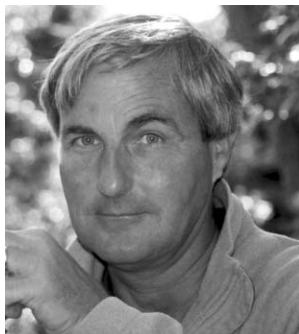


Scopes & Tripods

Pete Dunne's PICK OF THE PACK



Pete Dunne, Director of New Jersey Audubon Society's Cape May Bird Observatory is an authority on the optical needs of birders. Known for his many articles in a host of birding magazines, he is the author of *Pete Dunne on Birding*, *Pete Dunne's Essential Field Guide Companion* (as well as many other books), and founding equipment editor for *Birding* magazine's "Tools of the Trade." In addition to serving on the committees that designed the venerable Bausch and Lomb Elite and celebrated Swarovski EL, he has been a consultant to Bushnell, Kowa, Leica, Leupold, Nikon, Pentax, Steiner, Swarovski, Swift, and Zeiss. In 2001 he received the American Birding Association's Roger Tory Peterson Award for "promoting the cause of birding."

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Speak to one of our sales associates at:

CMBO Center for Research and Education, Goshen
609.861.0700

CMBO Northwood Center, Cape May Point
609.884.2736

Email our sales associates at: sales@featheredgeoptics.org

www.FeatherEdgeOptics.org
www.BirdCapeMay.org

Dear Birder,

If this is the day you are buying a spotting scope then you are about to cross an important threshold in birding. Binoculars are the primary tool of birding. Spotting scopes vault the horizon. They make it possible to see and identify very distant birds (like high flying raptors; like horizon hugging seabirds) and confer supernatural intimacy, allowing birders to see the subtle details that distinguish similar species (like those pesky peep).

Some words of caution. Do not mistake a spotting scope for a tool that will compensate for the shortcomings of poorly performing binoculars. Many people come into our stores with binoculars that aren't suited for birding and the mistaken assumption that buying something offering higher magnification (like a spotting scope) will fix this problem.

It won't and almost half the people who come in to buy a scope leave with the birder-worthy binoculars that they should have purchased in the first place.

But if you already have good binoculars and have reached the point in your development as a birder when the lack of a scope is holding you back, then we are delighted to help you find the instrument that is right for you. Together we'll sort through the pros and cons relating to angled vs. straight eyepiece design; fixed vs. zoom magnification; basic vs. High Density (HD) glass – and of course what kind of tripod to buy. We'll even go a step further; tell you what attributes make a particular instrument excel and where an instrument falls short.

We test all optics but sell only the best birding optics. We examine every instrument we ship and we will not sell any product we would not use ourselves.

We do all this because we take our reputation and our obligation to you, a fellow birder, very seriously and because putting tools in people's hands that make the natural world come alive is not just our job, it is part of the New Jersey Audubon Society's mission. And in order for you to buy from FeatherEdge Optics, you **must** be or become a Cape May Bird Observatory or New Jersey Audubon Member. Membership gives you the assurance that your purchase here supports our research, conservation and education mission and the confidence that you are buying the best instrument for the money.

After reviewing these pages if you still have questions, e-mail or call us. Buying a spotting scope is an important decision and fitting you with the right scope is important to us. It's what members expect and deserve.

Sincerely,



Pete Dunne, CMBO Director

SPOTTING SCOPES

THE PICK

KOWA OPTIMED

Japanese Optics. U.S. Headquarters Torrance, California. Manufacturer of quality spotting scopes and popular in the U.S. beginning in 1987, longer in Europe, particularly Sweden.

This is the company that started the revolution in large objective spotting scopes. In 1987, I met two British Birders, Jeff Delve and Chris Abrams who came to Cape May with Kowa spotting scopes. The optical performance of their instruments bested my Bushnell Spacemaster handily so I called the Japanese Consulate. Asked whether Kowa had a U.S. Headquarters. They said, "Oh, yes. They've just opened an office in Torrance, California." I called. Got a hold of one of their new TSN-4 scopes with the fluorite lens (something even very few British birders had seen yet)....

WOW. It smoked the earlier Kowa models and simply humbled a Spacemaster.

I wrote about the performance of the scope in my "Tools of the Trade" column in *Birding* and in less than two years half of the birding community had traded in their old Spacemasters for the optical advantages inherent in this hot, new entry into the birding market. For the next ten years Kowa reigned over a spotting scope dynasty and small objective spotting scopes were relegated to the dust bin of history.

In 1997, Kowa's TSN 1-4 Series were replaced by the TSN 821 and Kowa's popularity faltered. It wasn't that the 821 didn't offer great optical performance. It did. In fact, the image surpassed the earlier models. It's just that the instrument was housed in a polycarb body with a nasty tendency to break when it fell. The current model is reinforced but the instrument never recovered from the early design flaw and resulting black eye.

That was then. This is NOW. We are delighted to announce Kowa Optimed is back in the game. The new TSN 883 consistently out-resolves other top performers and its precision optics are housed in a light and rugged magnesium body.

So is this a new Kowa Dynasty? Why not? It has happened before.

NEW! KOWA TSN-880 Series

Length 13.5 in.; Weight 54 oz.;
Objective Lens: 88mm.



OK. So maybe it's not a new scope anymore – not mine, anyway. Introduced in the Fall of 2006 (not that anyone could get a hold of one); in the summer of 2007 I field tested Kowa's hot new 883 in the Arctic – taking it from the Canadian Barren Lands to St. Lawrence Island to the Pribis.

In fact this little darling is one of the very few spotting scopes in the world to have ferried the image of North America's first and only Brown Hawk-Owl to our eager eyes.

It was thrown into bush planes. It got sandblasted and rain lashed by a storm coming in off the Beaufort Sea. I had to spoon the muck off the objective lens with my fingers. It went nose first into Gambell pea gravel about once a day. It....

...took all this abuse and came back offering images of Spectacled Eider, Snowy Owl, and Bullock's Oriole (Alaska's first documented record) that were nothing short of stunning. In direct comparison, using a 30x eyepiece the Kowa out-resolved the Nikon 82 and Swarovski 80 hands down. And did it again with the 20-60x zoom. WOW. You show me someone who doesn't recognize the performance qualities of the 883's Fluorite crystal objective lens and I'll show you someone who hasn't looked through one.

The lightweight, magnesium alloy body is nitrogen purged and waterproof. The dual focus wheel (coarse and fine) is smooth and responsive. Locking eyepieces are available in 20x (110 ft./1000 yds.) 30x WA (126 ft./1000 yds.), and 20-60x (115-55 ft./1000 yds.). Close focus down to 16 feet. Body color, beneath the layer of mud, is a reflection-reducing matte green with black trim. Very handsome.

Other considerations: Image colors are not as rich as several other top performing scopes, tones are warm. The focus wheel on the test model has loosened up and has a little more play than it did when new. The adjusting screw-up/down eyecup has gotten a bit gritty and truculent. Optical performance after three months remains flawless and the image may well represent today's benchmark standard.

KOWA TSN-821M Series

Length 15 in.; Weight 52 oz.;

Objective Lens: 82mm.



A high performance spotting scope wrapped in a polycarb body which makes it marginally lighter than the TSN-883, considerably less expensive, and a candidate for a birder buying his or her first spotting scope. The offset, slightly recessed focus wheel is responsive and smooth. Non-locking, bayonet mounting eyepiece options include a 21x WA offering a whopping 177 ft. field of view at 1000 yards (easier to get on target). Also a 32 WA offering 115 ft./1000 yds. and a 20-60x zoom offering 105-52 ft./1000 yds. Waterproof and nitrogen purged. Color: gray on gray. This instrument has a proven track record and with normal use serves owners very well.

Other considerations: The polycarb body is just plain not as rugged as other premium scopes. If it takes a hard fall, the body has a history of snapping or the prism system jars loose. But if you are someone who really takes care of equipment (and stays off of rock jetties when it's blowing gale) this might be less of a concern.

LEICA SPORTS OPTICS

German Optics. U.S. Company Headquarters in Bergen County, New Jersey. Manufacturer of premium optics since the Days of the Kaiser.

In the 1970s, North American birders became familiar with a sleek, new roof prism binocular called the Leitz Trinovid. It made its reputation on fine optics, rugged performance, and an Old World attention to quality and detail. In the late 80s, Leitz became Leica and in the mid-90s it introduced the Televid 77. A big, rugged, high performance spotting scope with a revolutionary dual focus system – coarse and fine. Others have copied it. Leica had it first.

I got a 77 immediately and spent the next five years trying to prove that it wasn't as tough as I was indifferent to its survival. It was sent to me with a protective case which I promptly threw away along with the packaging and lens covers. The scope lived in the trunk of my car where it learned to slam dance with the jack and tire iron. It survived the 24 hour deluge known as the 2001 World Series of Birding (an event one participant described as "birding in a car wash"). And I'd probably still be using that scope today.

Except Terry Moore, head of Leica Sport Optics, made me trade it in for a new one because I'd scoured the silver enamel down to bare metal and he thought it looked like hell.

"Hell? Terry, it was just getting broken in."

I still own that first 77mm Televid's successor. But since I got a hold of the new 62mm Televid I confess I don't use it much.

Of course everyone is holding their breath, waiting for the arrival of Leica's new Televid 82mm and 65mm scope line (due, now, to be released in April 2008). It purports to be very good but also very expensive.

In the meantime, spotting scope buyers can treat themselves to a great scope with a great track record that has not only stood the test of time but all the abuse I could heap on it. **THEY ARE ALSO NOT MAKING ANY MORE! LEICA'S INVENTORIES ARE DEPLETED. BUY NOW OR GO WANTING AND BE PREPARED TO PAY MORE FOR THIS SCOPE'S SUCCESSOR.**

LEICA TELEVID 77 APO and Basic



Length: 16 in.; Weight: 60oz. (APO model); Objective Lens: 77mm.

When Leica introduced the 77 Televid it sent shock waves through the optics community. This sleek, rugged, silver-toned top performer pretty nearly set the standard for high end spotting scopes – rivaled only by the Swarovski AT-80. In fact, for over a decade, frantic buyers have been calling and saying:

"I want to buy the best scope on the market."

"OK."

"And I've narrowed it down to Leica and Swarovski."

"OK."

"Well...which should I buy?"

“Sorry,” we tell them. “Can’t help you. It’s a dead heat.”

Even now, with the introduction of Swarovski’s new (green) AT-80 and the more recent entry of Zeiss and now Kowa into the mix, many people still boil their scope choice down to Swarovski vs. Leica and our answer remains the same.

“Sorry. Win, win.” Put ‘em up side by side. Check the resolution. One time the Leica wins; next time Swarovski. There appears to be as much variation in optical performance within the lines as between.

In addition to great optical performance and arguably the most accurate colors, the Televid is supremely rugged, and able to shrug off a fall that would cripple most scopes. The dual focus mechanism (coarse and fine) is nice in the clinches. Comes in straight or angled, APO (equates to High Definition) or Standard Optical package; and a choice of lenses – a 20WW offering a panoramic 179 ft./1000 yds., a 32xWW with 121 ft./1000 yds., and a 20-60x going from 105-63 ft./1000 yds.

Other considerations: It’s heavy (tied with Nikon in the weight category). Weight is a nice feature in the wind and daunting when you’re climbing up to the North Lookout at Hawk Mountain. The enamel on the body scratches easily – if you care and you want to keep the body in mint condition, consider buying one of the company’s “ever ready cases”. In some factory runs, the focus mechanism has proven to be stiff and after prolonged use, the focus mechanism has also been known to get mushy, skip or even strip (of course this is covered by warranty). Prolonged exposure to salt spray (combined with frequent cleaning in the field) has been known to abrade the anti-reflective coating on the objective lens, diminishing image quality (also covered by warranty).

LEICA TELEVID 62mm



Length: 12 in.; Weight 32 oz.; Objective Lens: 62mm.

In the summer of 2003, while doing field work on my book *Pete Dunne’s Essential Field Guide Companion*, I was sent one of the new 62mm scopes to field test. It was about half the size and weight of the 77mm. But a 62mm? Heck, hadn’t we stopped using these baby spotting scopes back in the 80s? It just couldn’t be as good as the 77mm. So, for the first month I left the 62mm in the RV and carried the 77mm. Then, one day, I tried it.

Huh.

For the next two months I left the 77mm in the RV and carried the 62mm in the field. The performance was stellar, hardly less than the 77mm and not enough to make me want to carry the bigger scope any distance. Mounted on a light, graphite Gitzo tripod I could (and sometimes did) carry this combination all day.

It is ideal for the birder who travels frequently and for birders who are slight of frame. Uses the same eyepieces as the 77mm, so if you have one of those you can save yourself a few hundred dollars when you diversify your optic arsenal, and do your back a favor by buying one of these.

Other considerations: Possibly not as rugged as the 77mm (the body is reinforced fiberglass) but the lighter weight diminishes the impact of a fall. The anti-reflective coatings have been known to abrade under prolonged exposure to salt spray and frequent wiping in the field. All in all, a very, very nice scope.

NIKON SPORTS OPTICS

Japanese Company. U.S. Headquarters in Melville, New York. Long history and excellent reputation in the optics and camera industry.

If you don't recognize the name Nikon and you don't equate it with high optical quality then, Welcome! I hope you enjoy your visit to Planet Earth.

Nikon has been making birding optics of extraordinary value and quality going back at least to the 1980s when CMBO conducted the first, comprehensive binocular test. The results were published in the Cornell Lab of Ornithology's *Living Bird* and the Cornell Lab staff continues this testing tradition today.

The Nikon 8x30 E binocular placed a close second in that first test – just behind the venerable old Zeiss 10x40, a binocular that cost three times as much as the E. We called Nikon and said: "Congratulations." They said, "Uh...we've stopped manufacturing that model."

It took four years of lobbying to get the glass back into the country where it then enjoyed widespread appeal, a decade-long dynasty, and was championed by birding leaders like Kim Eckert of Minnesota and Judy Toups of Mississippi. But this story is both poignant and revealing because it goes a long way toward understanding why it is that Nikon is not more commanding in the birding market.

They are a big company. They've got a huge product line. Their R and D people go one way and the marketing people go another. The people up on top say: "We're going to focus on the birding market". The next day they're after the hunting market. The poor sales force is always trying to catch up.

What all this means is that a lot of great product gets lost in the muddle including two (and a half) fantastic spotting scopes – the 60mm and 82mm Field Scope IIIs.

And a half? Read on.

FIELDSCOPE ED 50mm

Length 8 in.; Weight 20 oz.;
Objective Lens: 50mm.



This is *not* to be mistaken for a primary birding scope – not in function or performance. What it is is a super light, super small, super portable scope that offers incredible performance in one package. It is, in a word, a travel scope! The kind of scope that helps birders meet 40 lb. air-travel weight limits to Gambell. The kind of scope you won't mind putting in a back pack and carting into the Ruby Mountains in search of Himalayan Snowcock.

The optics are great! The image expectation is shattering (you simply won't believe how good it is). Best of all is the price. The \$700 member's price includes the 13-30x eyepiece and it accepts any of the eyepieces in the Fieldscope III lineup.

Other Considerations: The very short barrel, offset prism system and high-sitting eyepiece make the scope aim very high and slightly left. It takes a bit of getting used to. The focus is critical – you are on, you are off – as well as being a

bit stiff. The polycarb body is surprisingly rugged, able to take a fall – or two. If you are taking a trip and you've decided that a scope is just too much weight and trouble, this scope will solve your problems and keep you from dwelling upon a bad decision when your life Harpy Eagle is sitting on a branch a quarter-mile away and you have binoculars to cut the distance.



FIELDSCOPE III 60mm (ED and non-ED)

Length 11 in.; Weight 38 oz.; Objective Lens: 60mm.

This scope is the best kept secret in the birding world. The fact that you don't own it probably attests to this. Here it is, a light, portable, rugged, handsome, easy to use, optically precise and eminently birder worthy spotting scope for less than half the price of the Leica, Swarovski, Zeiss and you think....

"Must be inferior."

No. It's not. It is a fantastic scope.

"Well then, there must be a catch."

No. Unless you consider the company's warranty (send it – or most of the pieces – back with \$20 bucks, they fix it) a catch.

"Then how come you don't see everyone using these things?"

Now *there's a good question.*

The body is metal. I've slammed this thing onto rock jetties and the decks of ships off Antarctica. Pried open the crunched sunshield with vise grips, set it up, kept scanning. It focuses down to 16 feet, allowing supernatural intimacy with birds, bees pollinating flowers....

I once tied up a whole tour group on the Galapagos for forty-five minutes while everyone vied to watch a Sally Lightfoot Crab peel scum off rocks and cram it into its bubbling mouthparts.

Sixteen feet, divided by 30x equal 6 inch intimacy! It was mesmerizing! Better than a National Geographic special.

The generous, rubber helical ring (around the middle) focus system is quick and responsive (even in cold weather; even with a mittened hand). It's waterproof! It offers a great eyepiece array – from 24xWA to 30xWA to 40xWA and 20-60x and next to other scope lines the eyepieces are modestly priced. Old spotting scope seller trick: Sell 'em scope body on the cheap, skin 'em plenty on eyepieces sold separately.

Comes in straight and angled, ED and non-ED glass.

YOU CAN BUY THE BASIC MODEL OF THIS SCOPE, WHICH INCLUDES A 20-60x EYEPIECE, ADD A BOGEN 190XBD TRIPOD WITH A 3130 HEAD, AND PAY LESS THAN \$1050.

You can't buy a Leica, Swarovski, or Zeiss scope body (much less the eyepieces) for this.

Other considerations: The focus is a little critical, particularly at higher magnifications. The scopes all come with the standard 20-60x eyepiece included (there go those marketing people again!). If you want another eyepiece, you'll have to buy it

separately. Fortunately, we sell them separately on FeatherEdgeOptics.org. Also, Nikon's turn-around for repairs is notoriously slow, measured in weeks not days.

FIELDSCOPE III 82mm

Length: 13 in.; Weight: 55 oz.;
Objective Lens: 82mm.



I was co-leading a CMBO field trip on winter raptors and waterfowl. Serious birding. I was armed with a Fieldscope III, 82mm. Among the crowd of 25 participants were a lot of Leicas and Swarovski owners. Serious birders.

There was this Great Horned Owl nesting on an Osprey Platform about....

I don't know how far. Far enough so that through the Leicas and Swarovskis all you could see was a lump on the platform. Through the Fieldscope, you could see a lump on the platform *with ear tufts*.

It was the only scope that managed this feat. So everyone lined up behind the Fieldscope 82mm, because without horns, an incubating Great Horned Owl is just an uncountable lump.

Like the 60mm, this scope is a market sleeper. Rugged, handsome, easy to use, optically precise (Nikon is really, really serious about it's glass), the 82mm has reigned supreme in terms of its ability to resolve detail (so far only the new Kowa seems able to best it). Also like the 60mm, the 82mm is very attractively priced. The body, for members, is \$1100. About half the price of an 80mm Swarovski.

Other considerations: This scope has a very critical focus and (correspondingly) a shallow depth of field. It makes working flocks of birds difficult... blurrrrrrSHARPblurrrrrr.... It often requires dickering with the focus ring to get a sharp focus. This scope could really benefit from a coarse and fine focus system.

It comes in a package with the 20-60x zoom eyepiece. Other eyepieces are sold separately and available at FeatherEdgeOptics.org. And it is heavy! At 55 to 59 oz. it is as heavy as the Leica.

SWAROVSKI OPTIK

Austrian based. U.S. office in Cranford, Rhode Island. Celebrated its 50th Anniversary in 2000. A leader in the birding and hunting optic's industry.

Swarovski had everything going against them. They didn't know a blessed thing about the birding market. They faced a market that was deadlocked at the high end between Leica, Bausch and Lomb, and particularly Carl Zeiss Optics. To make matters worse, nobody could even pronounce their name.

Twenty years later, people still can't pronounce the name but everybody recognizes Swarovski as a leader in birding and hunting optics. They managed to capture the market by taking pains to understand the needs of birders, develop products that met those needs, and then take care of the people who bought their

products with a no questions asked warranty. They went to festivals. They put together focus groups. They went back to Austria, turned the needs of birders in a lathe driven by quality and precision, and came back with products like the SLC binoculars that offered near parity with the best stuff on the market. And the ST and AT 80 spotting scope – a big, gray battleship of a spotting scope that won many converts through sheer optical performance.

Then, in 2000, they introduced the EL binoculars and people waited in line to buy them. Then came the sleek, sexy 65mm spotting scope, followed by the 80mm version, and year by year, buyer by buyer, the birding world began to go green – Swarovski Green. The color of a dynasty.

If you are in the market for a spotting scope then you *must* consider Swarovski. It and Leica are the benchmarks, and while you might choose another scope, you'll still want to know how it stacks up against Swarovski.

You'll also want to know that Swarovski's customer and repair service rank among the best in the industry. The company's no fault warranty is iron-clad. You buy it in the U.S. You break it. They fix it.

But you are really going to have to be very creative, very stupid, or very unlucky to break a Swarovski.

SWAROVSKI STS and ATS 65mm

Length: 13 in.; Weight: 39 oz.;

Objective Lens: 65mm.



It arrived the day we left for California for Christmas with the in-laws. Had to make room in the carry-on but since it was such a little, bitsy scope that wasn't hard. A 65mm! What was Swarovski thinking?

Actually I knew precisely what they were thinking. The sport hunting market was clamoring for a high performance 65mm because nobody wanted to lug an 80 up 5000 feet just to shoot a sheep. So the scope was designed principally for hunters. They hoped it would find a home among birders. They had no idea....

We went down the coast to pick up Dungeness crabs for Christmas Eve dinner. We took the scope. We nearly didn't get to Morro Bay in time to pick up our order. This scope was so good, so user-friendly, so...so...fun that we just got carried away looking at surfbirds, and Sea Otters, and Marbled Godwits and....

The scopes biggest problem is its big brother! The 80mm. At only 6 to 7 oz. more weight and about 15% more money many people say, "Oh what the heck, might as well go for the whole enchilada."

There's probably some Austrian marketing expert that would cringe at the thought of this finely crafted old world instrument being likened to an enchilada but, hey, welcome to America.

Other Considerations: It's expensive! So are the eyepieces. But don't blame Swarovski. Blame the strength of the Euro and the weakness of the dollar.

SWAROVSKI ATS and STS 80mm HD

Length: 14 in.; Weight: 46 oz.;
Objective Lens: 80mm.



What's big and green and coveted all over? These scopes. Since their introduction, the AT (angled eyepiece) and ST (straight through) 80mm Swarovski have been the gold standard in looks and performance. Serious birders love them for their optical performance, mechanical dependability, ease of focus, kick-around maintenance-free housing....

If you are looking to design a perfect scope, you'll have to start here and then see what else can be done. Good luck.

The helical focus is silky smooth, responsive and forgiving. The 20xSW, 30xSW, 45xSW and 20-60x eyepieces lock firmly in place and the 20x, offering 180 ft./1000 yds. and the zoom with 108-60 ft./1000 yds. are at the top of their class. Pssst. You'll probably want the zoom eyepiece (despite the cost). When you say Swarovski, you say zoom in the same breath.

Other Considerations: It's expensive! Usually at or near the top in terms of price. The mounting base of early models had a tendency to snap if the scope took a hard tumble but this congenital defect has been improved upon. The mount fits the Bogen 3130 head – eliminating the need for the quick release plate – a nice touch.

CARL ZEISS OPTICS

German optics company. U.S. headquarters in Chester, Virginia. Manufacturer of fine optics since 1846.

The name Zeiss is almost synonymous with birding. In the 30s and 40s, the Zeiss porro prism binocular was the glass in the hands of top naturalists, like Maurice Broun (founder of Hawk Mountain), and ornithologists like Witmer Stone (author of *Bird Studies at Old Cape May*). In the 70s and 80s all the young turks in birding (the Jon Dunns, the David Sibleys) had Zeiss instruments in their hands.

Heck, I carried a Zeiss binocular from 1982 to 2002 – first a 10x40, then a 7x42. Still have them; still work great!

Then Zeiss stumbled. Product design went awry; optical quality suffered. Through the 90s and into the new Century, Zeiss' reputation diminished.

Well I am delighted to say that Zeiss is back on track. Not only that, but they have finally entered the scope market with two instruments that beg the question: "So...tell me why I would want to pay more money for another scope?"

It happens all the time. Spotting scope buyers come in. Look at the Leica. Look at the Swarovski. Look at the Leica. Look at the Swarovski. Look...perplexed.

"Look at the Zeiss," I encourage. They do.

"Is this thing brighter?" they ask.

"Uh, huh."

"And...it seems sharper."

"Maybe."

"Well...then...."

"Why would you want to spend more money?"

"Yes."

The only answer I have is that Leica and Swarovski warranties covers mechanical deficiencies resulting from airline crashes, gun shots, teething Rottweiler, and the hands of incautious children, and Zeiss' Lifetime Warranty only covers mechanical problems resulting from normal use.

Actually it's a better than a lifetime warranty. It's transferable. But you can't run a Zeiss scope over with a HumVee and expect not be charged for repairs.

Then again, if it's a small HumVee, it might not need repairs.

ZEISS 65mm DIASCOPE (Angled only; HD only)

**Length 12 in.; Weight 39 oz.;
Objective Lens: 65mm.**



This is one really nice scope. It's 39 oz. *light!* There are binoculars heavier than this! It is very bright, very sharp, very easy to focus, very forgiving and just one really, really, really nice piece of birding optics and....

It is also rugged! I field tested one for three months in the spring of 2007. Drove it over 15,000 miles of washboard roads in the prairies. Used it during dust storms, rain storms, snow storms then threw it in an airplane overhead compartment (at 12 inches it's shorter than my shoe size). Flew back to New Jersey. Used it for the World Series of Birding. Went back to the prairies to abuse it some more.

It performed flawlessly. Still does.

People are forever coming in to CMBO's store to compare the merits of Leica and Swarovski. Great scopes – tough decision. It often happens that buyers are stymied. Can't choose. Can't decide.

We say: "Try the Zeiss." Of two given alternatives, why not pick the third? Comes with a 23x, 30x or 15x-45x variable. Lifetime, transferable warranty.

Other Considerations: Comes in silver with black trim or, in a really, really (you'll be sorry if you don't buy it) handsome no-glare matte green with black trim. Offers a generous 158 ft. field of view at 1000 yds. with the 23x eyepiece; 120 ft. at 1000 yds. with 30x; and 168-78 ft. at 1000 yds. with the 15-45x zoom.

ZEISS 85mm DIASCOPE (Angled only; HD Glass only)



Length: 13.5 in.; Weight: 51 oz.; Objective Lens: 85mm.

We wouldn't sell this scope when it first came out. We wouldn't sell it because in the initial production runs we found untoward levels of field distortion.

In plain English this means that the image was blurry, in patches, throughout the field of view.

You have to understand that engineers really pushed the envelope on this scope. Asked it to reach levels of sharpness and brightness that existed only on paper, the Socratic Ideal. Scopeness! The Aristotelian realities of production fell short. Just because you can design (or imagine) the perfect image doesn't mean you can produce it. There're all those pesky laws of physics that get in the way. There're the realities of life on Earth.

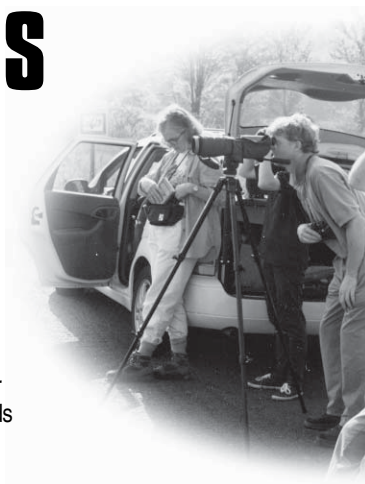
It took a couple of years but micron by micron they finally got it right and now, the Zeiss 85mm is....

Oh, hell, just look through this scope. Scopeness! At hundreds of dollars less than the price of a Swarovski.

The dual (coarse and fine) focus is well positioned and responsive. The matte (no glare) green with black trim finish is as handsome as it is functional. You have your choice of 30x and Vario 20-60x eyepieces. At 120 ft./1000 yds. and 129-60 ft./1000 yds. both rank in the upper percentile of their graduating class in terms of field of view.

Other considerations: For so much glass (85mm objective!) this instrument is surprisingly light. The warranty covers normal wear and tear, not damage caused by accident, but it is also transferable. A boon to surviving relatives since the scope will probably outlive you.

TRIPODS



We are currently updating this section. Please call a CMBO sales associate for more information on Tripods
609.861.0700 or
609.884.2736



THINGS TO CONSIDER BEFORE BUYING A SCOPE

1. NOT EVERY SPOTTING SCOPE WORKS

There are *lots* of spotting scopes on the market and not all are suited for birding. If you see a spotting scope included in our inventory, you have, at the very least, the assurance that it not only performs in the birding arena, it excels.

2. ESTABLISH YOUR NEEDS AND SET YOUR PRIORITIES

There is no scope that works best for all people. Everyone has certain objectives, priorities, concerns, and constraints that help to define their particular needs and the instrument that meets those needs.

For example, for many people, weight is a consideration. If you use your scope primarily for sea watching or hawk watching (mostly sedentary pursuits) or are interested in digiscoping (taking digital photos through your spotting scope) a larger, heavier 77-88mm scope will excel. If you plan to carry it over long distances or if you have a slight frame, then a smaller 60-65mm scope may be more appealing. Ditto if you travel frequently. A smaller scope fits into carry-on luggage more conveniently than a larger one.

If you bird cold climates then a scope with a helical ring focus system – one that can be operated with a mittened hand – may be easier to use than scopes offering a smaller, or split (coarse and fine) focus system.

It's your scope. You set the priorities.

3. BIG OBJECTIVE LENS VS. SMALL OBJECTIVE

Spotting scopes come in two basic sizes; large and small, and the determination largely relates to the size of the objective lens (the big lens in the front). Big means an objective lens between 77-88mm. Small means 50-65mm. Big (objective lens) scopes offer, for the most part, modestly better resolution and a slightly brighter image than small models. They also offer a larger exit pupil making it easier to line a camera up for digiscoping purposes.

The smaller scopes are about 20 to 60% lighter than the larger ones. This, and their carry-on luggage sizing, is their principal advantage.

I own both. I find myself more and more going out the door with the smaller scopes. My shoulder doesn't miss the weight and rarely, under normal field conditions, do my eyes (or imagination) discern any difference in image quality.

4. ANGLED VS. STRAIGHT EYEPICES

Most scopes offer two basic design options. Those with angled eyepieces (so users peer down) and those with eyepieces in line with the barrel (so users peer straight ahead). Both have advantages and disadvantages, with the advantages of the angled eyepiece outweighing straight for most users.

Advantages of Scopes with Angled Eyepieces:

1. More restful long-term viewing because your free or subordinate eye is not trying to intrude by bringing the horizon into focus.
2. Two individuals of differing height can use it without adjusting the height.
3. It is easier to study subjects overhead. Most people, with a standard sized tripod, can stand upright and peer comfortably into the eyepiece, where with a straight scope you will have to crouch and peer up.

Disadvantages of Angled Eyepieces:

1. The spotting scope is set several inches lower than your eyes so that tall obstructions (like fence rails or tall reeds) may block the view.
2. Rain drops collect on the exposed lens.
3. It's harder to use on a car window mount or shoulder mounted stock.

Some people find straight through scopes easier to aim, at least initially. Hunters might favor the straight through models because it does not obligate them to raise their heads higher above a horizon, alerting game. But more and more, North American birders are favoring the angled design (as European birders have for many years).

5. THE BASIC OPTICAL PACKAGE VS. HIGH DENSITY (HD OR ED), FLUORITE, OR APO GLASS

Many high performance optical lines offer two grades of glass: Basic and High Performance. For the most part, the only material or design difference is in the optical quality or the design of the objective lens. The more expensive models (usually \$200 to \$600 more than the cost of the basic model) do offer a modestly brighter, sharper, and color-accurate image (approximately a 5% boost in overall image quality). The difference varies instrument to instrument and we have seen the difference reversed between basic and HD models by simply changing eyepieces. One eyepiece was simply better than the other, and that, more than the quality of the objective lens, resulted in a superior image.

The majority of people nevertheless buy the more expensive models first, because in a lifetime of birding there are bound to be times when that 5% difference makes all the difference between seeing or not seeing the field marks you need. Secondly, if you are already spending a lot of money for a key piece of equipment, who wants to spend the rest of their lives wondering whether they should have just bitten the bullet and bought the more expensive model?

What you are paying for is the privilege of never having to say: "I'm sorry."

And when you are lined up alongside a bunch of birders looking at a distant Spotted Redshank, and they have scopes with the basic optical package – they are all going to ask to have a look through your scope and then tell you they don't see much of a difference.

But they are still going to want to look through yours.

6. FIXED POWER EYEPIECES VS. ZOOM OR VARIABLE EYEPIECES

Most makes and models offer eyepieces with a fixed magnification (20x, 30x or 32x, 40x...) as well as, an eyepiece whose magnification is adjusted between low power and high – a "zoom" eyepiece. With fixed eyepieces the size of the image, depth of field, and field of view never change. With zoom eyepieces, the magnification can be increased with the result that the image appears larger, but depth of field and field of view diminish.

Today, the optical quality of zoom and fixed lenses are comparable – in fact some zoom lenses actually offer superior resolution to fixed lenses in the same scope body! In general, fixed lenses (very commonly offered as "wide angle") are more user friendly because they offer a larger field of view than zoom eyepieces set at the same magnification, making it easier to get on target and work through flocks of birds.

Zoom eyepieces offering a smaller field of view (even at the lowest magnification setting) are versatile and really show their merit when subjects are backlit by harsh sunlight. With less peripheral light surrounding the target, the pupils of your eye expand, allowing you to perceive more color and detail.

Zoom eyepieces are more expensive than fixed, ranging about \$100 to \$300 more. If money is no object, buy both. Use the wide angle lens for scanning; switch to a zoom if you find a bird that requires concerted study under very distant or poor conditions. If money is a concern, buy the fixed eyepiece (a 30x is a good all around choice) and use the savings for a good....

7. TRIPODS

One of the most important considerations involving the purchase of a scope is also one people dismiss or leave for last. This is the tripod. Whatever you do, **DO NOT CUT CORNERS ON THE TRIPOD.** It is the whole foundation upon which higher magnification functions.

FACT: You are better off buying an \$800 spotting scope/eyepiece combination and putting it on a \$250 tripod than buying a \$2000 spotting scope and putting it on a \$100 tripod.

Where optical quality has generally increased, tripod quality, across the board, has mostly lagged. Most of the tripod makes and models on the market today perform poorly in the birding arena; where light weight, stability, a wind resistant/vibration-reduced platform, a smooth panning head, quick set up and take down, and fold up portability (for travel) are paramount.

We sell **only** Gitzo and Manfrotto tripods. Care to guess why?

That's right. They really, really work and they continue to work even after years of hard use.

8. DURABILITY, DEPENDABILITY, WARRANTY

The importance of these qualities are paramount although only one, warranty, is manifest (it comes in writing). Instruments designed to be taken and used outdoors must be designed to take whatever Ma Nature is dishing out and this includes the occasional fall. There has never been a spotting scope that is impervious to gravity. Every scope will fall and as such it should be rugged enough to shrug off a tumble to the ground, whether the cause is wind, a malfunctioning tripod head, or a stumbling friend.

Mechanical dependability is a quality that only becomes evident over time. We at CMBO take careful note of performance shortfalls and inherent foibles because they are just as important as the qualities that commend a scope (and sometimes even more determining).

Bridging the gap between durability and mechanical performance is the company's warranty. Some are better than others. Instruments that come with a no fault clause (it breaks, they fix it for nothing, no questions asked) certainly build that into the price but in the long run such a promise is something to prize.

9. THE LITTLE THINGS

In a world of equals and near equals (because all of the scopes in our lineup are high quality and high performance) it is often the little, sometimes subjective things, that commend one scope over the other to a buyer. Some scopes focus closer than others. Some scopes offer richer, truer colors. Some scopes focus quicker. Some change eyepieces with greater ease. Some just plain have more curbside appeal.

It's ok to favor one scope over another just because you like the look. And for meeting people, looking through a spotting scope is better than walking a dog.

10. NOT ALL SCOPES ARE CREATED EQUAL

Even among quality instruments of the same make and model expect variation in overall performance, including optical performance. More troubling still, a small percentage of brand new instruments that find their way into inventories have obvious defects – stiff focus wheels, eyepieces that won't lock into place, loose screws rolling around in the barrel, dust or fingerprints on the internal elements....

We test and examine every instrument we sell. We back this up with a simple, honest and iron-clad return policy. Send it back in the condition it was sent to you along with all packaging and materials and we'll replace it or refund your money.

TRADE-INS

The Cape May Bird Observatory will accept trade-ins and deduct the assessed trade-in allowance from the cost of your pre-tax purchase. Instruments eligible for trade-ins include: Bausch and Lomb Elite, Nikon LX and LXL, Leica (or Leitz), Swarovski and Carl Zeiss. You are invited to inquire about the eligibility of other instruments. Trade-in evaluations should be arranged in advance and value will be assessed on the basis of performance, wear, length of ownership and retail price at the time of purchase.

Optics may also be donated to CMBO for use in our classes or resale, and the value can be deducted from your income tax.

At this time trade-ins cannot be accepted by mail. Please call 609.861.0700 or 609.884.2736 for more information.

Quality Used Optics

The price of superior optics has almost doubled in the past three years, forcing many buyers to settle for something less than the Leica, Zeiss, or Swarovski instrument that they aspire to.

Rather than settle for less, why not be both demanding and frugal and buy a superlative used instrument? The savings are considerable, and the quality and performance remains the same.

We are pleased to offer this service. First, to support the birding community and second, to give instruments built to last a lifetime, the lifetime of use they deserve. Many of the instruments in our selection are taken in-trade at our own stores. Some are factory reconditioned.

We examine and test every used or reconditioned instrument upon receipt and subject them to a "10 Point Binocular Check" evaluation before shipping to you (a copy of the evaluation certificate is enclosed with the instrument).

Some refurbished instruments come with a limited factory warranty; any such warranty will be included with qualifying purchases. All used instruments hold a 30-day warranty against defect. There is no restocking charge for un-abused, used, or refurbished instruments returned within 10 days of the date of sale; a \$50 restocking charge applies to un-abused, used, or refurbished instruments returned within 10 to 30 days of purchase.

Buyers interested in quality used optics are advised to examine our selection in person or to call Brian Moscatello at 609.861.0700 or Jason Guerard at 609.884.2736 to discuss availability and prices. Savings off the price of new instruments range from 20 to 75% – which is pretty darn good for optics built to last a lifetime.

A LEADER IN THE FIELD OF OPTICS

The Cape May Bird Observatory has an outstanding reputation as a leader in the industry of optics sales. At our stores or online at FeatherEdge Optics you will find a premiere selection of optics for birding in an array of price ranges to suit your needs and fit your budget. What you won't find is endless lists of every brand, make, and model of optics out there. Our group of optics experts has done the dirty work for you by testing each optic in the field, in varying weather conditions, and extreme light conditions. All because we want you to be happy with your purchase so you can enjoy birds and nature surrounding you.

While we have always touted it is indeed best to come into one of our stores where you can hold the glass in your hand and feel the fit against your face, we recognize that busy schedules do not always allow this. Or, perhaps you are here for a weekend and have tested optics at one of our stores but simply cannot decide. Thanks to FeatherEdge Optics online store, there is no need to rush your decision. FeatherEdge Optics online store is open 24 hours a day with full Customer Service at 609.861.0700; 7 days a week from 9:30A.M. to 4:30P.M. or via email at sales@featheredgeoptics.org.

OUR PLEDGE TO YOU; YOUR PLEDGE TO US

Outfitting you with the right optics is part of our mission and while our prices reflect a very low profit margin, all profits serve our conservation, research and education efforts. If you take advantage of our assistance to compare makes and models but purchase your binoculars elsewhere you are doing a disservice to us and to the environment...

FIRST, by not supporting our work with your purchase here,

SECOND, by taking the time we might have directed toward that mission and more forthright buyers.

If you choose to buy optics from another online vendor you choose to accept the limitations and the risks.

AUTHORIZED DEALER

CMBO is an authorized dealer of all the companies' products that we carry and sell to you, our customer. We receive the products directly from the manufacturer. Additionally, we inspect the contents of each box to ensure that all the materials are accounted for and are of the highest quality.

We enclose a copy of our "10 Point Binocular Check" Evaluation Certificate with every optics purchase. Not all glass is created equal; even new out of the box, we have found that optics can be out of alignment or just not as clear as they should be. That is why we test each pair before we send it off to you. Our evaluation process ensures that you are purchasing the highest quality optics we can offer. ■