

Introduction: It's hard to think of a more important yet enigmatic figure in bowhunting today than Dr. Ed Ashby. Rare is the **Traditional Bowhunter (TBM)** reader who can't tell you, "Ashby ... oh, he's that African chap who did all the arrow lethality testing on big game animals." Additionally, most of us know at least the outline of Ashby's early findings in those African studies, including: Set up your bow-arrow-broadhead combo to be lethal even with poor hits and especially hits on heavy bone; use heavy arrows for heavy game; long, narrow, two-blade broadheads provide the best penetration with the lowest rate of failure; shafts no larger than the diameter of the broadhead ferrule produce better penetration; and, bottom line, arrow speed counts for little compared to arrow weight.

Longtime readers are hardly strangers to any of this material. Across six issues, back in 1999 and 2000, **TBM** ran a series of articles by Dr. Ashby himself detailing the Natal procedures and conclusions. A few years later, **TBM** featured a refresher summation of the Natal findings as tested via my own experiences hunting elk ("One Perfect Arrow"). And not long ago, Dave Sigurslid touched on some of Ashby's more recent findings ("The Unbearable Lightness of Arrows"). For the seriously interested, there's always the permanent Ashby research site at www.TradGang.com

For all of that, what do we really *know* about Ed Ashby, the man and the hunter? He rarely talks about himself in his research reports, doesn't publish in the American hunting press, eschews the speaker circuit, and is tenaciously camera shy, admitting that he enjoys mingling anonymously at shoots to hear what other hunters have to say about his work.

A few months ago, I tracked Dr. Ashby down to Georgia, where he was hunting whitetails before returning to Africa and Australia to resume his research. He obligingly agreed to what I proposed, and across the next several months we corresponded frequently and talked occasionally by phone. In the next issue, I'll provide a comprehensive review and update of Ashby's research



Dr. Ed Ashby

Analyzing death by broadhead.

By David Petersen

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techniques and findings, with clarifying comments from Ed himself. But first, it's high time that we slice through some of the mystery surrounding Ed Ashby, his personal history, and the motivation for his cutting-edge arrow lethality research. — *Dave Petersen*

* * *

Ed Ashby is an optometric physician, happily retired since 1994. In addition to his professional degree, he holds Bachelor's degrees in mathematics and science. After graduation from optometry school, Ashby was conscripted under the Doctor's Draft during the Vietnam conflict and assigned to the Air Force. After a decade in the service, Ashby moved to the public health sector, serving another decade with the Indian Health Service, followed by four years as chief of the Federal Bureau of Prisons' Eye Care Program.

Born in Texas in 1946, Ashby was mentored in hunting and shooting by his father, an NRA rifle instructor and avid hunter. "I learned to shoot firearms so early," Ed recalls, "that I don't even remember learning. Growing up loving to hunt, I went after everything the law allowed, from fish, fowl, and small game, to whitetail, and even trips 'out West' for pronghorn, mule deer, and elk. I did a lot of predator hunting (calling), and I took my first whitetail at age eight. Firearms and ammo were common topics of conversation in our home. By the time I could write, I could spout reams of rifle reloading data and ballistics from memory; and I still can."

Then one fateful day, young Ed had "the marvelous experience" of seeing Howard Hill perform in an exhibition shoot. "I made my first bow that same day," he recalls, "a bent willow branch with a fishing-line string. My arrows were cane, cut near the lake behind our house. They were fletched with chicken feathers held on by sewing thread and glue. The arrowheads were cut from tin cans. The bow broke after a few shots, but I was hooked."

While still a youngster, Ed got to meet and hunt with some of modern traditional bowhunting's innovators, including Bob Lee, Ben Pearson, and

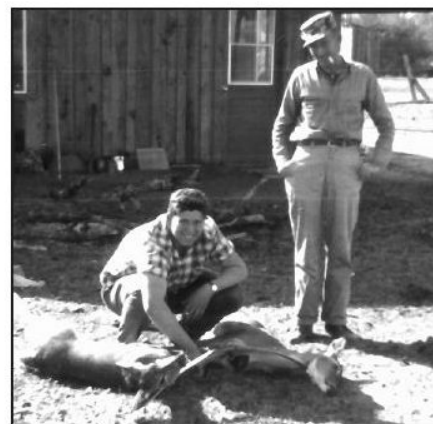


By age thirteen, Dr. Ed was already an accomplished rifleman.

Fred Bear.

"Once out of school," Ashby recalls, "I arranged my work to take me to great hunting country, including Tennessee, Kansas, Arizona, Alaska (twice), Minnesota, North Carolina, and Georgia. By the time I retired, I'd managed to take most North American big game species."

Ashby first hunted Africa in 1975, returned often, then moved there upon retirement, calling it home until the brutal politics of the Robert Mugabe dictatorship forced him to flee for his hide on short notice. Since then, he's spent part of each year in Australia and part in New Zealand, with periodic returns to the States. Recently, Ashby resumed hunting in Africa. His globe-trotting lifestyle has taken him to every continent except Antarctica, bowhunting at every opportunity and killing a wide variety of game.



Dr. Ed's first two-deer morning, circa 1960. Here he is with James Hayes, his first hunting partner and, "the best deer hunter I've ever known."



Ed with his first running deer kill, using a Texas heart shot" that exited the throat. Ed used a 70# Bear Kodiak, #10 Microflite and Herter's broadhead. Circa 1962.

"People always ask how many animals I've taken with a bow," Ed remarks. "I really don't know. I kept no record for the first quarter century. I don't see the number of animals taken, or trophy size, as yardsticks to measure a hunter by. I know some *exceptional* young bowhunters who can still count their kills on their fingers. To me, *how* one hunts is far more important. What

I'm proudest of is that I've failed to recover only four animals out of the last several hundred I've hit. One of those four was purloined by other hunters. The remaining three were lost only because I couldn't follow where they went; one into a deep-water swamp, the final two into mud flats where my wrecked knees precluded me from following. (Already having one 'football

knee,' my good knee was subsequently crushed by a kudu!)."

Additionally, Ed has been an African professional hunter and is an expert in bushcraft, especially game tracking. For the past dozen years, the doctor has shared his outdoor knowledge in a magazine series called "The Old Derelict's Ramblings," in *Archery Action*, the journal of the Australian Bowhunters Association.

Ashby's interest in tracking and his admirable obsession for recovering every animal he shoots prompted his lethality studies.

"Thanks to what I learned in the first round of research," Ashby recalls, "I was able to attain a very low wound-loss rate. It's surely not attributable to my shooting skills! Rather, the best-performing arrow combination from the first Natal Study gets the credit. It's still among the best combinations, and is the arrow setup I used for all serious hunting until recently. It's a very heavy Forgewood shaft with a somewhat modified 190-grain Grizzly broadhead. The exceptional performance of these arrows turned a number of marginal and flat-out bad hits into clean kills."

Since the Forgewood/Grizzly combo worked so well for so long, we're left to wonder why he eventually switched.

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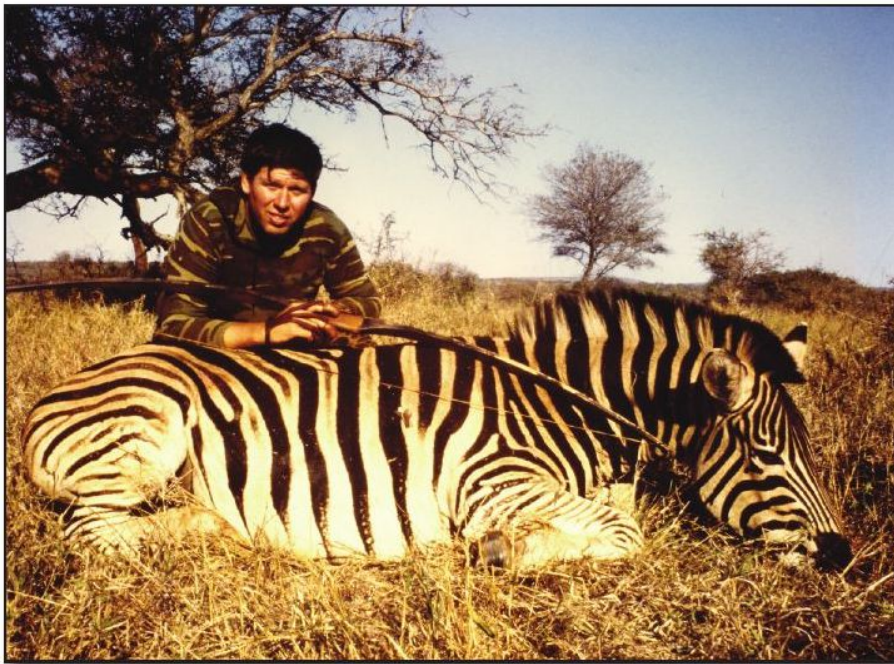
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At 25-yards, this was Lady (his bow) and Dr. Ed's finest running shot. The stallion tumbled in a cloud of dust when the Forgewood and Grizzly hit.

hunting arrow that penetrates *too much*, or a broadhead that performs *too well*. On the other hand, there is a penalty whenever either proves not enough. Even if I never need the extra I gain as my favorite hunting arrow evolves, it's comforting to know that extra is there, just in case."

But let's backtrack for a moment, to the origins of Ashby's concerns with lethality and game recovery. As Ed

recalls:

"I first began questioning the performance of my hunting arrows shortly after falling victim to the compound bow/light-and-fast-arrow craze. In short order I hit and lost several animals. So did a number of those I hunted with. I started looking for information on what was wrong; what needed to be changed. I wanted to know what worked best, and why. There *was* no technically reli-

able information! There were advertisements and anecdotal stories aplenty, but nothing solid. I wanted information for hunting arrows that was like Hatcher's or Chamberlin's work with bullets, or that in Taylor's *African Rifles and Cartridges*. I set out to find some solid answers and solutions for myself."

About this time, fortunate fate stepped in when Ashby received an offer to conduct broadhead testing as part of the original Natal Study. As he recaps it: "Tony Tompkinson deserves full credit for interesting the Natal Parks Board in investigating bowhunting as an ethical and viable utilization of the game population, and a potential source of new revenue. At the time, Tony was Chief Ranger at Mkuzi Park in Natal, and a fledgling bowhunter himself. Not a single affirmative law legalizing bowhunting existed anywhere in Africa. The only places you could bowhunt were countries having no 'ways and means' restrictions. These were few. Most countries required rifles of a specified minimum caliber. The Park Board provided some limited funding for the bowhunting study, consisting mainly of making support staff available, and permitted a one-off experimental hunt. I had to pay all my own expenses and provide all the materials for the testing, but it was a work of love. The Natal Study was directly

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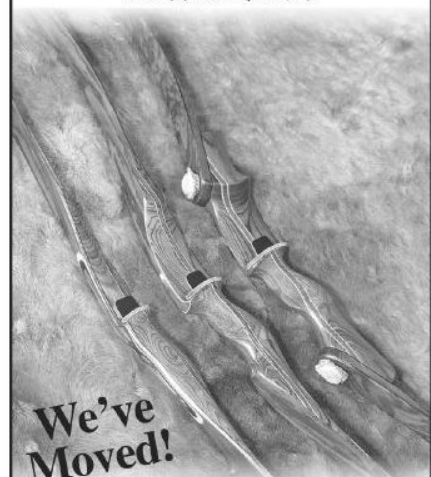
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Ed's longest shot was on this bushbuck, which he killed at 42 yards with a shot to the hip.

responsible for Africa's first affirmative law legalizing bowhunting, and led to the opening of most of the African destinations available to bowhunters today.

"Once I had my initial 'real animal' information from that first hunt, I set out to find a testing medium that could be used to duplicate the results — and I couldn't find one. It's impossible to duplicate all the variables a hunter encounters when shooting at live game, especially as regards bones. Rarely does an arrow impact a bone perpendicularly. Bones are cylinders, domes, radius curves, and arches, often with surfaces simultaneously curving in more than one dimension. Mother Nature designed them to resist damage and protect the body's inner workings; to deflect and redirect impact forces. For arrow penetration testing to be valid, real tissues must be used, and they must be absolutely fresh."

In other words, to acquire the depth of reliable detail he sought, Ed couldn't simply shoot arrows into dead animals. For some specific applications, that would work. But the only way to replicate the endless variables encountered and their effects on penetration and lethality is by actually hunting.

Once the data began to accumulate and prove its worth in the bowhunting world, Ashby came to realize that he

must share what he was learning with fellow bowhunters worldwide. "At least," he says with characteristic humility, "my findings give folks more and better information to work from than existed before the studies, toward making their own best equipment decisions."

In closing, I asked Dr. Ashby what he would most like **Traditional Bowhunter** readers to understand about his research.

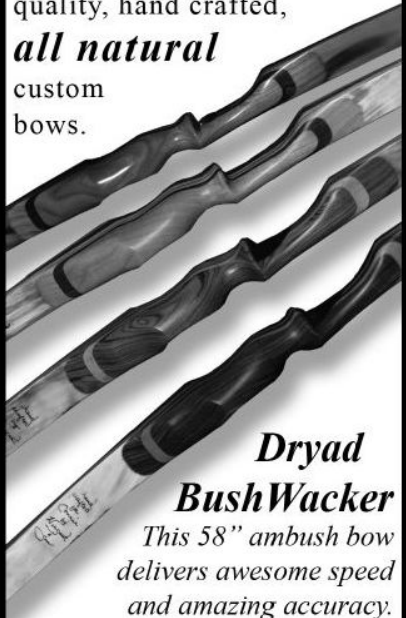
"First and foremost," he responded, "that all of my research has been independent. I don't make or sell archery or hunting equipment, and I have no financial interest in any company that does. I'm not paid to endorse anything. I don't accept money for the publication of my data. I am self-funding. Though some equipment has been donated by individual hunters who wanted a specific this-or-that tested for their own use, at least 98% of the test equipment I've used, I purchased retail. The ongoing studies have turned out to be really expensive, which explains why I don't own a home anywhere, and why my vehicles, which I keep on three continents and an island, all are old enough to have earned college degrees. It also explains why I live in the bush for months at a time, mostly by myself.

"The up-side is that not being spon-

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Buffalo Camp — Dr. Ed's spartan home for months at a time.

sored by anyone, I'm free to say what needs to be said. If something doesn't work, I'll say so, providing the data to prove it. If others want to do their own testing, my information is there for them to compare with. If their results differ, they can put forth their proofs as well. That's what research is all about. We *all* benefit.

"Second, I'd like readers to understand that it's only when a shot fails

that one is presented an opportunity to learn something; to find out what went wrong. In normal hunting, one rarely gets to see the results of a failed shot, so one never learns what went wrong. All they get is the heartbreak and guilt of a wounded and lost animal. Such scenarios typically are attributed to 'bad shots.' I think that's often not the right answer. With a truly sharp broadhead and *any* solid body hit, most losses

result from either (1) an arrow that somehow failed to perform adequately *for the type of hit that was made*, (2) a failure to manage the follow-up adequately, or (3) pure bad luck, such as the animal going where it can't be followed.

"Third, some American bowhunters say they see no value to my studies because I concentrate on heavy-boned animals, not 'American animals.' I respond that heavy bone is heavy bone. Heavy bone hits happen, even on deer. And they stop arrows. If you don't think so, go down to Texas or Georgia and ask any busy game processor how many broadheads he's found stuck in the bones of rifle-killed deer he's processed.

"Similarly, some critics claim that 'No arrow is a bone breaker.' That's simply untrue. The *right* arrow can turn many 'bad' hits into meat on the ground. Gut shots? They're mostly a follow-up issue. I haven't made many gut shots, because I crowd the shoulder on all except massive animals. I can do that because I have confidence that my arrow will do its job even in the unfortunate event of a heavy-bone hit."

With all he's already learned, and all it has cost him, why does Ed Ashby continue his arrow penetration and lethality studies?

"Because there are still questions out there in need of answers. Yes, I get tired at times, and think: 'Why am I

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putting myself through this? I'm getting old. Why not kick back and relax? If you just stopped collecting data, Ed, you'd save yourself lots of work, criticism, and a load of cash ... you could relax and have fun.' But every time I start thinking this way, someone comes along and tells me how the studies have helped him, and how grateful he is that I've done this work.

"That's what keeps me going."

Campfire Philosopher Dave Petersen, a.k.a. Elkheart, is the same age as Ed Ashby and has been hunting with traditional archery equipment since the 1950s. In our next issue, Dave will provide a comprehensive discussion of the "take to the woods" results of Ashby's ongoing research.



Ed Ashby answers... Frequently Asked Questions

Biggest animal you've killed with traditional archery equipment? Two white rhino bulls, around 6,000 pounds each.

Your favorite animal to hunt? Easy! Pigs, wherever found, and in all their glorious flavors. Bears are number two.

Your favorite hunting method? Stalking.

Your average hunting shot distance? Just under 16 yards.

The longest hunting shot you've ever taken? Forty-two yards. It was made from a stand and happened to be right at my point-on gap-shooting range. I knew this from taking a few practice shots while building the stand. Yet I was lucky. The animal was a southern bushbuck. He jumped the string. I hit him in the hip, but my heavy arrow broke the pelvic girdle on both sides and passed completely through. He went only ten yards. Still, that cured me from taking long shots.

Your preferred shooting style? Instinctive, though I do practice other aiming methods and try to stay aware of "point-blank range," where I feel I'm pointing my arrow directly at the center of the kill zone, holding neither high nor low, and know the kill zone is large enough for my arrow to impact *somewhere* within it. The zone changes, of course, not only with the bow/arrow setup, but with the animal hunted. I think knowing your point-blank zone for the animal you're shooting at is perhaps the most important bit of shooting data a bowhunter can know. If you wait until that animal is within your point-blank range before shooting, you'll make a very high percentage of your shots. I practice mostly within this zone. I shoot only one arrow from any given position. Regardless of how the shot is presented, or the position I have to shoot from, within my point-blank range I want to be able to place the *first* arrow somewhere within the kill zone – every shot, every time. That's what I practice for and that's all the accuracy I need.

Your favorite style bow? I've hunted with all types, and still use them all in my testing. But I prefer longbows because they best suit me and my hunting style. I enjoy shooting longbows the most, and, under hunting conditions, I miss fewer shots with them.

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