

## SnoYak Slides Into Sit-Ski Market

by John Groth

**A**daptive skiers, especially those with lower-level spinal-cord injuries (SCI), can now try a new way to sit-ski. The SnoYak, created by Rob Thompson, with its patented seat design, offers the ability to ride a sit-ski similarly to an adaptive kayak.

Instead of being in a sitting position with their legs and weight spread out over the skis like a traditional sit-ski, the SnoYak places riders' legs in a stable, more upright kneeling position, which concentrates their weight over the center of the skis. Thompson developed the position after the ergonomic stool, one where a user's feet are underneath the buttocks.



The SnoYak puts a rider's legs in a stable, more upright kneeling position, which concentrates the weight over the center of a user's skis.

COURTESY OF ROB THOMPSON



Rob Thompson

"So, with the traditional sit-ski, the angle between the hips and the core is an acute angle, so basically it's less than 90 degrees, and that's in large part to keep the rider with a spinal-cord injury from falling forward. So, they're kind of crunched up ... it also inhibits their movement backwards and forwards," says Thompson, a snowboarder and ski racer himself. "The other required movement when skiing

is hip angulation. That's when you're turning, you want your hips to be able to move. But when you're crunched like this [in a sit-ski], it inhibits the hip movement. So, what SnoYak does is it opens it up to an obtuse angle, so it frees the hips to one, you can move your body forward and backwards more easily, and when you're turning, your hips are more free to angle between your torso and your legs."

That means a SnoYak rider has more power, strength and speed in all directions, along with better control and balance, which allows for quicker turns and better carving in the powdery snow. And just as important, a SnoYak rider doesn't need outriggers, or handheld skis used by para skiers to assist with balance, turns, speed and stopping.

"With the traditional sit-ski, when you're at a slow speed, to initiate a turn, you need the outriggers," Thompson says. "So, you turn the outrigger to create friction against the snow, and that will start to move the ski either left or right depending on which outrig-

ger you're putting down. With SnoYak, you can certainly initiate a turn with the outriggers, but you don't have to. If you have the right level of injury, you don't need to do that at all."

### UNEXPECTED INVENTION

Thompson recently showcased the SnoYak ([snoyak.com](http://snoyak.com)) to interested users at last year's Dec. 4–10 Hartford Ski Spectacular in Breckenridge, Colo. Not only is the device targeted to people with lower-level, or more thoracic-level SCI and spina bifida, but Thompson says able-bodied people can use it, too. Thompson says typically, sit-skis run between \$5,000 and \$10,000, with the SnoYak costing \$6,000. Interested users can email him at [rob@snoyak.com](mailto:rob@snoyak.com) for more information or to purchase one. He hopes to lower prices as demand increases over the years.

Oddly enough, the 53-year-old central Maine resident never intended to invent a new kind of sit-ski when he first started the process in 2017. After watching a YouTube video of people kayaking on snow, and thinking how

wild it was having only a limited ability to turn, control their speed or stop, Thompson wondered what it'd be like to get on a snowboard and ride it like a kayak.

So, he strapped himself up to a snowboard and tried it.

That thrilling experience propelled and motivated him to start making the SnoYak.

For five years, Thompson built and tried hundreds of different models, testing them throughout Maine and the U.S., along with riding it on steeper trails and making it go faster speeds. He even had his now-23-year-old daughter Ellie test it out with him during trial runs.

"We were iterating to get that higher level of performance, and I had to go



The SnoYak is targeted to people with lower-level, or more thoracic-level, spinal-cord injuries, people with spina bifida and able-bodied people, as well.

NIKKI LUSCINSKI



A SnoYak gives a rider more power, strength and speed in all directions, along with better control and balance, which allows for quicker turns and better carving.

up to get the leverage to turn and then, of course, the final thing I added was a shock absorber, which brought it to full-blown sit-ski status," Thompson says.

#### BRAMBLE GOES ALL IN

What he needed, though, were users, especially those with SCI, to try it and help him adapt it, too.

After reaching out to a handful of Paralympic skiers, one — Kevin Bramble — finally responded. Bramble, 50, is a two-time Paralympic gold medalist (2002 Salt Lake City men's downhill LW12 and 2006 Torino men's downhill sitting). He sustained a level T12-L1 SCI in a snowboarding accident Feb. 18, 1994, in Lake Tahoe, Nev., when his snowboard snagged the rocks over a cliff, his body scorpioned and his board came over his head when he fell. He was paralyzed below the waist and put in a body cast for 19 months.

A monoski designer and builder, who runs KBGoodz, the SnoYak intrigued him.

When Bramble first saw it, he thought it was too rudimentary and that he could help with modifications. But it showed promise. And once he tested it out, he was hooked.

Despite being 6-foot-2 and weighing 190 pounds, it didn't make Bramble feel awkward or uncomfortable — or even slow him down.

"Once I get the mass of my legs going toward the ground, basically I'm fighting to get that back. So, in the SnoYak, I don't have any of that, since it's all center over the mass. I'm not fighting, I'm not struggling to get the weight back up off the ground," says Bramble, a Cape May Court House, N.J., resident. "So, the initiation of turn is a lot quicker. Things happen a lot smoother and a lot faster in a SnoYak than they do in a regular sit-ski because I don't have that inertial mass moving around that I'm fighting gravity towards the ground — 'cause it's all in a straight line under me just like a regular skier."

Bramble says in some sit-skis, he can go 50, 60 or 70 mph and it's not effortless. But in his first day in the SnoYak,



## SnoYak

Next Generation Sitski



*SnoYak is an innovative patented sitski that puts the skier in an upright kneeling position concentrating the weight over the center of the ski, similar to a stand-up skier. This unique body position maximizes strength, power & speed, resulting in unprecedented performance.*

# FEATURES



**BETTER CONTROL**

*A wider knee stance increases leverage, requiring less effort to put the ski on edge, resulting in better control and more powerful turns. The upright kneeling position allows for easier forward/aft and side-to-side body movement, further improving control.*



**COMFORTABLE SEATING POSITION**

*The ergonomic kneeling position defaults the rider to the athletic 'ready position' allowing for quick movements in any direction. This position keeps the hips relatively open, allowing for greater articulation and angulation.*



**INDEPENDENT LIFT LOADING & UNLOADING**

*SnoYak intentionally sits higher than most sit skis allowing independent loading.*



**REDUCED SWING WEIGHT & EASY TURN INITIATION**

*The kneeling position reduces swing weight, allowing for quicker turns and application of pressure to the front of the ski at turn initiation, reducing the need for outriggers to initiate turns.*



**IMPROVED BALANCE**

*The leg position under the torso, acts as a counterweight, reducing the inverted pendulum effect which improves balance and stability.*



**EASY TO LEARN**

*The teaching progression is the same as traditional sit skis — making this an easy transition for program teachers as well as experienced sit skiers to transition to this new body position.*

<https://snoyak.com/>

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he was doing 63 mph on a slalom ski run with no outriggers, and he had no trouble skiing with it. His only troubles were getting it on the chair lift because of his size, but he figured that out after a couple of tries.

Now, Bramble and his company are helping Thompson produce and make

them. And he likes how it adapts to the rider's function and eliminates swing weight.

"Your body of mass, your center of gravity is all over the boot center. It's insanely stable," Bramble says. "You're way up high so you can get big angles."

And all of it came about because Thompson just was looking to try a new, fun idea.

"I just pictured being on a sled that you can really carve," Thompson says. "It is. I mean, I ended up with something that's fun and high-performing."