

OVERVIEW

While I don't want to be disrespectful of the marketing claims of "new" or "revolutionary" that are sometimes attached to backcountry skis, the fact of the matter is that the manufacturers have been making backcountry skis for a long time. And while it is true that there continue to be evolutionary changes and improvements, **most backcountry skis made today are variations of older designs.**

This page is not intended to be a ski review of individual skis. Rather, my goal here is to describe the basic categories of backcountry skis that have been made over the years. Hopefully this information will be helpful for people as they try to understand the trade-offs between the opposing goals of touring and turning when choosing between the different skis that are available. For each type of ski, I'll attempt to describe a) the basic characteristics of the ski, b) what kind of skier might like them most (in terms of tastes), c) what kind of terrain I think they perform best on and d) what kind of boots are best matched with them.

This page has grown to be quite lengthy; arguably too large to be useful for many people. If you are looking for a shorter and more direct summary of skis with concrete suggestions, you might do better to start with my page on [Quick Suggestions for Ski](#)

MENU

- [DAVE'S NORDIC BACKCOUNTRY SKIING PAGE](#)
 - [TRADITIONAL TOURING](#)
Typical profile: **60/50/55** or **65/55/60**
 - Double camber for faster touring
 - Will work in tracks
 - [OLD SCHOOL TELES](#) Typical profile: **68/55/60** or **73/56/63**
 - Camber varies from double camber for touring to flat for turning
 - Still narrow enough to fit in prepared tracks.
 - [COMPACTS](#) Typical profile: **70/60/65**
 - Shorter, "compact" length for greater maneuverability
 - More width for stability, but narrow enough to fit in prepared tracks
 - [CIRQUE CLASS TELES](#)
Typical profile: **80/60/70**
 - Touring performance varies depending on weight and camber
 - Too wide to fit into tracks
 - [CLASSIC SLALOM](#) Typical profile: **85/65/75**
 - Cheapest way to get into the backcountry
 - Touring performance varies depending on weight and camber
 - [CATAMOUNT CLASS SKIS](#)
Typical profile: **85/70/80**
 - Double camber for some touring performance
 - Generally waxless bases for easy touring without skins

Equipment. If that fails to answer your questions, if it just raises more questions in your mind or if you just want to dig deeper, you can then refer to this page.

In this page, I've also attempted to provide a listing of some examples of each type of ski that have appeared over the years. While I've attempted to make the information in these tables accurate, I can not vouch for their correctness. Nor have I gone to any great lengths to ensure that the lists are comprehensive. The ski profiles listed have been pulled out of what catalogs and magazines I have laying about, from ad hoc web searches and from information submitted to me by friends and acquaintances. By all means, if you have any additions or corrections, please contact me. In particular, I would be thrilled to get photocopies of old ski review or catalogs containing relevant skis. I categorize the backcountry touring skis into 9 (yes, count them, 9) different categories. All have metal edges unless noted otherwise. While most folks categorize telemark skis by waist width, I think it makes more sense to categorize backcountry skis first by tip width, and second, by their shape.

A WORD OF GRATITUDE: Many thanks to Adam Howard, the editor of Backcountry Magazine and the rest of the crew for supplying me with copies of some of their old ski reviews from their archives. It's great to see such a quality magazine coming from Jeffersonville, Vermont. Backcountry is one of the few magazines that provides coverage of backcountry touring. By all

- **NARROW SHAPED SKIS**

Typical profile: **90/60/75**

- New backcountry design
- Mix of turning and touring

- **CLASSIC AT** Typical profile:

90/70/80

- Turning oriented
- Less touring capability

- **WIDE SHAPED** Tip Width:

Over 90

- Similar or identical to downhill skis for telemark or alpine touring
- Typically have waxless bases

TRADITIONAL TOURING

Summary:

- Tip Width: Upper 50s to Low 60s
- Typical profile: 60/50/55 or 65/55/60
- Double camber for faster touring
- Narrow profile for good tracking
- Some turning if you are willing to work for it
- Will work in tracks

The Ski: These skis are traditional double-cambered cross-country skis with the addition of metal edges. I just LOVE this type of ski for one reason -- they fly on the flats. These skis are made for kick and glide and given the right combination of snow and trail conditions, you can do things on this type of ski that you can't do on any other kind of ski. Things like double-poling down an old rail bed while miles fly by with little effort.

While these skis are great for striding, they are comparatively unruly when pointed down the hill. In my opinion, every aspiring backcountry skier should find and read a copy of Steve Barnett's classic instruction book, "Cross-Country Downhill". In fact, the prototypical ski for this class took its name from this book -- the Karhu XCD-GT. In it, you will see proof that this class of ski can be skied down steep mountain terrain. But as others have noted, not everybody can ski like Steve Barnett.

As a rule I expect very little from these skis in terms of downhill control. As with any cross-country ski, step turns, snowplows and stem turns work best. I can pull off telemark and parallel turns only in the best of situations.

Some skis in this class have partial metal edges in the middle 1/3 of the ski. In general, these skis track noticeably better than full metal edged skis, especially in rough, poorly formed backcountry tracks. Edgeless tips are more flexible and

lacking edges they don't bite. So as a result, the tips can kind of noodle around and find their way along in crude tracks while still running straight and stable. In contrast, stiffer skis with full edges can feel more nervous since their tips will bite into the snow more. This means they are more likely to be diverted this way and that as you ski along through rough tracks.

The Terrain: The type of terrain this type of ski is best on is flat, where you can take advantage of the double camber and narrow profile for fast striding and where their relative lack of turning ability aren't a big negative. Logging roads, Forest Service and fire roads, former railroad beds and dedicated xc trails that follow mellow rivers and ponds are good places for this type of ski. Owing to their narrow profile, these are great skis for backcountry trips for which you must navigate through the set tracks of an established nordic touring center at the beginning or end of the trip.

However, it should be noted that these skis require good reflexes and solid technique when skied on hiking trails. To get the most out of these skis, they should be skied in their traditional and long nordic lengths. This long length means that it's easy to get ski tips hooked around trees and such. If your classic nordic length is over 200 cm (common for men), expect extra work when side stepping and doing the herring bone on narrow hiking trails. I've found that 200 cm skis and shorter generally fit sideways on hiking trails better.

The Skier: I think the type of skiers that this type of ski is best suited for is endorphin junkies who equate fun with the number of miles covered. If we can compare other backcountry skis to mountain bikes, then these skis are more like road racing bikes. They also make sense for frugal skiers who want to own one pair of skis that can be used at both nordic touring centers and on gentle backcountry trips. And it should be noted that they are well suited for Quixotic skiers who aspire to push the envelope of what can be accomplished on light gear when skiing downhill.

The Boots and Bindings: In terms of boots, most folks will pair them with either system boots or Snowfield class boots. The gentler the expected terrain is and the greater the emphasis on kick and glide performance, the more it makes sense to match them with the lighter system boots.

In an old article in Cross-Country Skier Magazine, Stowe native Jan Reynolds argues for using this type of ski with even heavier boots for what she calls, Norpine skiing. I regularly ski mine with an Excursion class boot when I expect to be taking them on narrow hiking trails. While the heavier boots won't turn the skis into telemark skis, they give a lot more control.

Examples:

Manufacturer	Model	Profile	Year	Comments
Alpina	Escape	62/52/57	1995 - 1996	
Asnes	Sondre Telemark	63/54/58	1991	

Asnes	Trysil Knut	56/49/53	1991	
Asnes	Tracker	53/49/51	2005	edgeless
Asnes	Marka	58/48/52	2005	3/4 length edge
Asnes	Taiga	60/51/55	2005	3/4 length edge
Atomic	Mountain Walking	59/50/54	1994 - 1995	3/4 length edge; can be skied short; TR version was no-wax
Atomic	Mountain BC/ APG(TR)	59/50/55	1996 - 2004	APG(TR) is waxless
Atomic	Telemark Country	65/54/60	1996	
Fischer	E89 Mountain Tour	59/49/55	2004	crown is waxless
Fischer	Country	60/52/57	1998 - 2005	edgeless, crown is waxless
Fischer	109GT	65/55/60	?	
Fischer	Telemark	65/55/60	?	
Fischer	E99	65/55/60	1991 - 1996	crown is waxless
Karhu	XCD-GT	62/54/59	1991 - 1992	
Karhu	Criterion	59/50/55	??	
Karhu	Kodiak	60/52/57	1991	partial edge
Kazama	Mountain High	62/54/57	1991	
Madshus	Vidda	54/48/52	2004 - 2005	partial edge, waxable and waxless
Madshus	North Cape Multigrip	60/50/55	1997	partial edge?
Madshus	Voss	60/50/55	2002? - 2005	partial edge, waxable and waxless
Madshus	Pellestova	62/52/57	2002 - 2005	waxable and waxless

Rossignol	LTS Backcountry	59/54/57	1996	
Rossignol	TMS AR	65/55/60	1996	manufactured by Fischer according to Backcountry review; similar to E99 with softer flex
Rossignol	Randonnee 2002	65/55/60	1997	
Rossignol	BC 55	55/49/52	2005	waxable and waxless
Trak	Rendezvous	65/55/60	1995	
Tua	Grand Tour	65/55/58	1991	
Tua	Escape S	65/54/60	1992 - 1996	

[Return to Top](#)

OLD SCHOOL TELES

Summary:

- Tip Width: High 60s to Mid 70s
- Typical profile: 68/55/60 or 73/56/63
- Attempts to combine turning and touring
- Camber varies from double camber for touring to flat for turning
- Wider profile for better flotation and soft snow touring
- Still narrow enough to fit in prepared tracks.
- Long length - Almost as long as traditional touring skis

The Ski: Once upon a long, long time ago, telemark skis were all long and skinny. Back in the late '80s and early '90s when this profile of ski was common for tele skis, there was a very wide range of skis produced in terms of their downhill performance. Some, like old Chouinard Valmonte were built for touring. Others were built for racing and will be totally unturnable at anything less than warp speed. And still others were soft and noodly and perfect for powder. The point here is that skis in this category can vary from each other wildly. While I've tossed them all together in a single group, one could arguably break this category into 2 different groups: double cambered touring skis and flatter cambered telemark skis.

These skis are similar to traditional turning skis only a tick wider, with a bit more sidecut and, generally speaking, with a tad less camber. Whereas compact skis give up length while keeping relatively high camber, these skis keep traditional length (for the most part) and give up a bit of camber in order to make them slightly better turners.

Given that these skis typically have less camber, I think there is less penalty to skiing them a bit shorter than the traditional nordic lengths that you would choose in order to maximize the benefit of the wax pocket for traditional touring skis. Being able to ski these skis a bit shorter is a big advantage on narrow hiking trails where herring bones or frequent side steps may be required. A 200 cm ski simply fits better sideways on a narrow hiking trail than a 220 cm ski does! However, the telemark oriented skis in this class will be more stable when skiing downhill when skied in the longer lengths they were designed for. So, intended use has a large impact on how you should size them.

Based on my experience, it is unclear to me which type of ski will do better on the flats: compacts or these old-school tele skis. Both give up speed compared to traditional touring skis. But I do think these old-school tele skis perform much better when turning on the downhills. In fact, I still take my Black Diamond Synchronos out for cruising around downhill ski areas from time to time, something I wouldn't want to do with a compact ski. I should emphasize though that the big benefit of the better turning ability of these skis is that they are more responsive and steerable when kick and gliding along narrow hiking trails, not their downhill turning performance.

The Terrain: In terms of terrain and intended use, the extra width of these skis makes them ideal camping skis when you covering flat terrain. Of course, this can be said for any of the even wider skis as well (see below). The place where these skis outshine their fatter cousins is on trips where you're touring over easy terrain with a pack. The narrow profile and touring ski roots make them noticeably faster touring skis, even when burdened with an overnight pack. They work well kick and gliding on narrow hiking trails thanks to their increased turnability.

The Skier: I think these skis are ideally suited for experienced backcountry travelers who are interested in pushing deep into the winter woods with a reasonably equipped day pack or overnight pack. In my opinion, these skis are camping skis first and foremost so I think they're best matched with skiers who have a camping or long distance hiking mindset. These skis are well suited for people who want more stability for carrying an overnight pack on rolling terrain but who still want reasonable striding performance. They cover more ground more quickly compared to wider turnier skis but offer more stability and maneuverability than skinnier (albeit faster) skis.

If you can name your winter version of the "10 Essentials" from memory and if spend hours finding spots on topo maps and asking yourself, "I wonder if I can get to there?", then this might be the ski for you. As a personal note, this is far and away my favorite choice for a camping ski whenever there is the possibility or need to cover ground quickly.

The Boots and Bindings: These skis really change their feeling when paired with different kinds of boots. Some people will pair these skis up with system boots or Snowfield type of boot and doing this really draws out the striding performance of the ski that you get by virtue of the relatively narrow dimensions. I don't have the

strongest ankles though and find I can't really get the best control out of these skis with my Snowfield type boots.

On the other extreme, it's good to remember that skis with this dimension used to be considered to be normal downhill tele dimensions and if your ski has an alpine camber, you can make nice turns with light plastic Excursion type boots. I encourage any tele skier to do this just to get a feel for turning on narrower skis. But I think the best boots for these skis are the Extreme class boots they were designed for. When carrying a heavy overnight pack, my preference by far is to use a leather Extreme type of boot. The solid ankle support allows me to get plenty of braking power out of a survival wedge (snowplow) and provides for much more confident striding with a heavier pack. But the more flexible toe of the leather Extreme type boot makes for faster striding than is possible with a plastic Excursion type boot.

A pair of leather Extreme type boots and an Old School Tele type of skis is one of my all time favorite combinations and is right at the very core of all that I love about nordic backcountry skiing. This is a combination that is all about going deep into the winter woods and I suppose that is why I love this gear so dearly. If I'm about to use them, it generally means that I have a great place to be going.

Examples:

Manufacturer	Model	Profile	Year	Comments
Alpina	Vengeance	73/56/63	1996	
Alpina	Tracker	68/52/60	2004	partial edge, waxless
Asnes	Rago	67/57/62	1996- 2005	soft tip and tail, strong wax pocket
Asnes	Sondre	67/57/62	2005	softer flex than the Rago, moderate wax pocket
Asnes	Skarven	67/57/62	2005	edgeless, strong wax pocket
Asnes	Nansen	73/56/63	1992-2004	
Asnes	Mountain Extreme	73/56/66	1992-1996	
Asnes	Telemark Predator	73/57/67	1996	asymmetrical racing ski
Asnes	Telemark	67/57/62	1997	touring ski

Atomic	ARC Telemark Racing	73/54/64	1996	stiff racing ski
Black Diamond	Aurora	74/60/64	1993	all around cruiser
Black Diamond	Grand Vitesse	72/58/65	1991 - 1992	stiff, hardpack
Black Diamond	Valmonte X	68/54/58	1991 - 1992	waxless, touring
Black Diamond	Toute Neige	74/60/64	1992	all around cruiser
Black Diamond	Aurora	68/54/58	1993	waxless, touring
Black Diamond	Synchro X/ Polar Star	72/54/63	1995	
Evolution	Mountain Quest	70/54/63	1992	
Fischer	E99	68/55/62	2003 - 2005	crown is waxless
Fischer	GTS	76/62/69	1992	
Garmont	Cascade	68/60/65	1997	partial edge, touring
Karhu	Serpens	66/54/60	2002	updated version of the XCD-GT
Karhu	Pegasus	67/56/58	2004	waxless
Karhu	10th Mountain Tour	68/55/60	1995 - 1996?	updated version of the supreme
Karhu	Supreme	68/55/60	?	
Kazama	Outback	72/58/65	circa 1990? - 1992	
Kneissl	Telestars	67/57/62	?	
Madshus	Glittertind	68/55/62	2003? - 2005	waxable and waxless

Madshus	BC Edge	68/50/65	1996	waist width strongly suspected to be 60mm, not 50mm; likely typo in ski review
Madshus	Narvik Multigrip	68/60/65	1997	partial edge, touring
Rossignol	TRS	67/56/61	1991	stiff, racing ski
Tua	Wilderness	74/60/64	1992	
Tua	Viper	73/55/65	1991 - 1992	high performance hardpack
Tua	Grande Neige	73/55/65	1995 - 1996	

[Return to Top](#)

COMPACTS

Summary:

- Tip Width: Low 70s
- Typical profile: 70/60/65
- Attempts to combine turning and touring
- Shorter, "compact" length for greater maneuverability
- More width for stability, but narrow enough to fit in prepared tracks
- Double camber for kick and glide, but slower than traditional touring skis

The Ski: Compact skis provide better maneuverability over their longer skinnier cousins by being shorter and wider - hence the name "compact". At the same time, they retain a full double camber in order to keep decent touring performance. These skis were introduced to make life easier for skiers who do not have strong turning skills. They've been really popular and for good reason.

The Terrain: In the Pemigewasset Wilderness region of New Hampshire, there are many maintained cross-country trail and former railroad beds that cover flat and rolling terrain. There are also narrower hiking trails that cover the same type of flat and rolling terrain. But the hiking trails are not graded like the wide, flat rail beds nor are they designed for skiing like the maintained ski trails. It is here that the difference between compact skis and narrow, long traditional skis becomes the most apparent to me.

Hiking trails in New England are rarely straight enough to allow for all out striding. Instead, you typically have to readjust your direction of travel with every other step. It is noticeably easier to kick and glide along hiking trails with compact skis. With every stride, course directions can be made easily with the knee and ankle

that would otherwise require quick footed step turns with longer, narrower skis. Compact skis can certainly be used on wider cross-country trails and roads to great success, but they will give up a bit of speed on those trails compared to narrow skis. In the other direction, while good skiers with burly boots can make great turns on compact skis, it takes a lot of work to make them behave in my opinion. Their full double camber makes them a bit resistant to telemark and parallel turns compared to more turn oriented skis.

The Skier: I think the kind of skier that compact skis are best suited for are for skiers who don't have strong turning skills and who sometimes find themselves a bit intimidated by the steeper, narrower trails that their backcountry explorations lead them to. Compact designs make it much easier to throw the skis into a power snowplow. Compact skis also appeal to skiers with strong turning skills who are intentionally looking for more touring speed but who want to ski on steeper hiking trails.

They are also well suited to any skier who is willing to trade away some kick and glide speed to gain more stability and control. Cross-country speed freaks might prefer the longer traditional length skis. Skiers wanting good downhill performance should consider wider skis with less camber.

The Boots and Bindings: I think the best boots for this type of ski is a Extreme type of boot with at least 1 buckle. Lighter Snowfield type boots will draw out the cross-country heart of these skis more, while beefier Excursion type boots will help push the turning envelope.

Examples:

Manufacturer	Model	Profile	Year	Comments
Alpina	Renegade	68/60/65	1995	no-wax
Alpina	Tundra/ Explorer	68/60/65	1996	partial edge, Explorer is waxless
Alpina	Discovery	68/52/60	2004	partial edge, waxless
Atomic	ATC Pursuit	59/51/51	1995	narrow compact (category buster); 184cm and 191cm lengths
Atomic	Cascade APG	59/50/54	2004	waxless
Atomic AGG	Sierra	70/60/65	2003 - 2004	waxless

Fischer	Revolution Adventure	58/50/54	1994	narrow compact (category buster); 157cm length only; Crown version was no-wax
Fischer	Revolution Touring Crown	59/50/54	1994	narrow compact (category buster); 177cm length only; no-wax
Fischer	Inbound Crown	68/58/64	2004 - 2005	waxless
Fischer	Outbound Crown	70/60/65	2004 - 2005	waxless
Garmont	Cascade	68/60/65	1996	partial edge, waxless
JXC	Hyper	68/59/65	1995	3/4 length edge; waxable and no-wax
JXC	Lumana	70/58/64	1995	edgeless?; no-wax
Karhu	Pathfinder	70/60/65	1994	cousin to the Trak Escape with different no-wax base
Karhu	Pinnacle	70/60/65	1995	
Karhu	Lookout	73/60/67	1997	
Karhu	Ursa	65/55/60	2003 - 2005	partial edge
Karhu	Escape	60/55/56	2005	edgeless, no-wax
Karhu	Rendezvous	65/55/60	2005	edgeless, no-wax
Karhu	Pinnacle	67/56/58	2005	camber and a half
Karhu	Pavo	73/60/67	2003 - 2004	formerly Lookout

Madshus	Morgedal Multigrip	64/52/60	2003? - 2005	waxless
Madshus	Kongsberg	68/55/62	2004 - 2005	partial edge, waxless
Rossignol	Tempo BC	59/50/53	1994	narrow compact (category buster); 180cm and 200cm lengths only; no-wax
Rossignol	BC 65	65/53/60	2005	waxable and no-wax
Rossignol	BC 70	70/60/65	2005	no-wax
Trak	Escape	70/60/65	1994	cousin to the Karhu Pathfinder with different no-wax base

[Return to Top](#)

CIRQUE CLASS TELES

Summary:

- Tip Width: 80ish
- Typical profile: 80/60/70
- Usually flat camber for downhill performance (but not always)
- Traditional alpine length (does anybody remember this?)
- Still narrow and straight enough for ok tracking
- Touring performance varies depending on weight and camber

The Ski: In the early 90s, skis like the Black Diamond Tele Sauvage were among the first "wide-ride" skis for telemark. They borrowed the same basic profile of traditional, non-shaped slalom skis (typically 85/65/75) only a bit narrower (80/60/70). From the perspective of today's range of touring skis these are, in my opinion, odd ball skis. On one hand, they can be viewed as falling in the middle of the spectrum between touring and turning - the perfect compromise ski. On the other hand, they can be seen as combining the worst traits of skis on either side. They are too wide for fast kick and glide and too narrow for powerful turning. I would have written this style of ski off as another historical footnote, but this basic design has continued to resurface in recent years, being recast as a light touring design, instead of a telemark design. I should re-emphasise a point I made elsewhere. The profile and width does **NOT** fully describe the performance

characteristics of these skis. Weight, camber and flex will dramatically change the way different skis behave despite having identical profiles.

For example, the old Black Diamond Tele Sauvage and the Kazama Cornice were relatively heavy, stiff and flat cambered. In their day, they were designed for power skiing. Consider this quote from the '92/'93 Black Diamond catalog regarding the Tele Sauvage.

Put a pair of Terminators on these for all-out excitement!

In contrast, the old Asnes Utah and more recent Fischer E109 and Karhu Pyxis are lighter and more highly cambered, favoring touring instead of turning.

The Terrain: These skis can be used for both touring and for making turns at a ski area. In terms of touring, they can handle rolling terrain nicely and with skill can be taken into steeper terrain. These skis make great camping skis that can handle a lot more survival turning with a heavy pack while skiing on tougher terrain than old school tele skis. These skis tour noticeably better than wider skis. However, it should be noted that they are noticeably more clunky in touring mode than narrower designs like old school tele or traditional touring skis. I think one place that this type of ski can shine is on trips that require dramatic ranges of both touring needs and turning, with the caveat that you may be frustrated on both accounts.

I should also point out that they are definitely too wide to fit into prepared tracks. So, if skiing in tracks is something you need to be able to do, you should look for a narrower design. However, they generally fit into common use backcountry tracks. In areas where trails get predominantly used by folks on narrow xc skis it's a crapshoot whether or not they'll fit. Skis that are any wider than this won't have a chance.

In terms of turning, the kind of terrain that these skis do best on are on moderate slopes. While skis of this design have been skied down the steepest of slopes, they have done so while being skied on by the best of skiers. This type of ski can generally do fine while making lazy cruising turns on blue, intermediate runs at most New England ski areas and can be pushed onto steeper terrain if you know or remember how to ski non-shaped skis. I find this type of ski to be frustrating in the soft snow and tight trees of New England woods, however. They are far too skinny to float well as a result they turn too slowly to be fun, especially when the next maple tree demands that you turn now. How well they do on hard snow, ice and in crud will vary tremendously from ski to ski in this class depending on other characteristics such as flex.

The Skier: I think the kind of skier that this type of ski might appeal to are those who want a single ski rig to cover the broadest possible range of both touring and turning capabilities and who is willing to live with compromises on both accounts. They also might appeal to skiers wanting a capable touring ski with a tad more stability and turning power than can be had from narrower old-school tele or compact designs.

The Boots and Bindings: An Extreme type of boot can be a bit too light to handle

this type of ski in anything other than good snow conditions. Of course, skill can make up for a lot. My preference is to use an Excursion class of boot on this type of ski, even when touring. Although, I should mention that I generally only choose this type of ski for touring when I expect the kind of rougher terrain that would make a heavier boot more appropriate anyway.

Examples:

Manufacturer	Model	Profile	Year	Comments
Asnes	Utah	81/60/71	1995 - 1997	
Asnes	Norpine	81/60/71	1996 - 1997	softer version of the Utah
Asnes	Nansen	76/56/66	2005	
Atomic	ATC	80/60/70	1996 - 1997	
Atomic	Selkirk BC	78/60/70	2005	waxless
Black Diamond	Tele Sauvage	80/60/70	1992	
Black Diamond	Eclipse	80/60/70	1993	
Evolution	Ruby Mountain	81/60/71	1997	
Fischer	Europa 109	78/60/70	2002	
Fischer	E109 Tour	78/60/70	2004	crown is waxless
Fischer	Snowbound Crown	78/60/70	2004 - 2005	waxless
Karhu	Pyxis	80/62/70	2003 - 2004	
Karhu	XCD GT	80/62/70	2005	waxless
Kazama	Couloir	78/59/69	1996	
Tua	Cirque	80/60/70	1991 - 1997	

[Return to Top](#)

CLASSIC SLALOM

Summary:

- Tip Width: 85ish
- Typical profile: 85/65/75
- Cheapest way to get into the backcountry
- More turning performance than narrower skis
- Too wide to fit into tracks
- Touring performance varies depending on weight and camber

The Ski: Ok, slalom skis are not really backcountry skis. But, they are arguably the

cheapest way to get going, so they bear mentioning.

In the 1980s and into the early '90s, the vast majority of alpine and telemark skis were made with something close to an 85/65/75 profile. This included soft flexing beginners' skis to impossibly stiff racing skis. The sheer volume of the skis that were made combined with today's huge popularity of newer, shaped skis means that yard sales, ski swaps and want adds are littered with these skis, making it possible to find these still serviceable skis for pennies. While alpine and telemark skis have been correctly abandoning this type of ski in favor of easier turning shaped skis, the classic slalom ski profile becomes relevant and applicable once again when you place it in the continuum of backcountry skis, some of which are narrower and some of which are wider.

The trick to finding a bargain here is to know what you are looking for. While I've made this point already, I must emphasize it again: 2 skis with the same profile can ski entirely different if they have different flex patterns. For backcountry skiing with lighter boots and 3-pin bindings, you really want to limit your search to skis with a soft, round flex pattern. By this I mean you want a ski that flexes easily and whose tail flexes as easily as its tip. Specifically, you want to avoid alpine skis that were designed for intermediate or advanced skiers, or even worse yet, for racers. Back in the day, skis of this type were built with stiff, snappy tails. This design worked fine for cranking short radius parallel turns on hardpack with stiff alpine boot and locked heels. But in free heel mode, a stiff tailed ski will want to go straight down the hill like a rocket. Instead, you want to look for alpine skis that were sold as beginners' skis or tele skis that were designed back in the era of leather ski boots.

Don't rely on flexing a ski by hand when trying to determine if the ski has a round flex pattern. Instead, try this trick shown to me by ski rep years ago. Place the ski tail on the floor out in front of you base down while holding the ski tip in your left hand on your left shoulder. Now, while balancing on your left foot, place the heel of your right foot on the top sheet of the ski at the center and press down with your right foot to bend the ski into an arch. By looking down along the ski edge while flexed, you should be able to "see" the flex pattern. A stiff tail will reveal itself by a tip that is bowed more than the tail. A softer tailed ski should produce a nice round and even arch.

The Terrain: In terms of touring performance, I think these are much closer to the slightly wider AT type of ski than they are to the slightly narrower Cirque class ski. Which is to say, don't expect much touring performance out of these skis. Also, the heavier the ski, the less well it will tour. Lastly, these skis will almost universally be available in waxable versions only. So, if you want to use them for backcountry touring, you will need to use kick wax and climbing skins.

If you are willing to wax, these skis work fine for hacking around in puckerbush and thus can be seen as a low cost alternative to more expensive wide backcountry skis. Especially if skied short, these skis will provide enough flotation to make hiking around in tight New England woods possible, with the acknowledgement

that wider skis will do even better.

In terms of turning performance, the limit here is only on the skiing ability of the skier. Skis with this basic shape have been skied on the toughest of mountains with success. In general, these skis will do well on hard snow and will be quick edge to edge thanks to their relatively narrow waist. On the flip side, these skis are not quick turners compared to skis with more side cut and their relatively narrow waist will cause them to ski low in deep snow, instead of floating. Newer shaped designs are better in all aspects of downhill performance.

The Skier: I think this type of ski is ideal for bargain hunters. In my opinion, there is really nothing to recommend this type of ski for other than the fact that you can find them for practically nothing these days. Rescue a pair of these skis from a yard sale, slap a pair of \$30 Voile pins on them and you are skiing for short money. But for downhill performance, today's modern shaped skis are simply more fun and for touring, there are better choices to be made. You just need to be willing to pay for them.

The Boots and Bindings: In terms of boots, I think you really need to ski this type of ski with a plastic Excursion class boot. Leather boots can be used, but in my opinion, their 65mm waist represents the widest one can ski on hardpack snow with any amount of control. In soft snow, leather Extreme class boots will do fine, especially if the ski has a nice soft flexing tail.

Examples:

Manufacturer	Model	Profile	Year	Comments
Alpina	Altitude	85/68/78	1996	
Asnes	Combi Combat Cap	84/62/74	2005	
Atomic	Telemark OT	85/65/77	1996 - 1997	
Atomic	Outback TR	85/65/77	1996 - 1997	waxless
Atomic	MX:20	88/65/74	2004	ultralight design
Black Diamond	Boundary	85/66/76	1993	
Black Diamond	Badlands	86/65/79	1995	
Black Diamond	Rubicon	85/65/77	1997 - 1998	
Evolution	Wasatch Soft	84/65/76	1998	
Fischer	Phantom	85/66/76	1995 - 1997	
Fischer	Voodoo	85/66/76	1996	lightweight version of the Phantom

Garmont	Pemi	84/62/74	1996 -1997	
K2	Piste Off	85/65/75	1997 - 1998	
Kazama	Cornice	87/62/76	1995 - 1996	
Kazama	Headwall	85/64/74	1996	
Madshus	Arctic Multigrip	85/65/75	1997	waxless touring
Rossignol	Olympic 41	85/64/75	1996	powder ski
Rossignol	Tele Montagne (a.k.a. Nepal)	85/65/75	1996 - 1998	
Rossignol	Telebird	85/65/75	1997	
Rossignol	83AR	83/63/73	2003	waxless
Tua	Transalp	84/64/74	1995 - 1996	
Tua	Montet	86/64/76	1995 - 1998	
Tua	Mega	86/64/76	1998	
Tua	Sauvage	84/64/74	1998	

[Return to Top](#)

CATAMOUNT CLASS SKIS

Summary:

- Tip Width: Mid 80s
- Typical profile: 85/70/80
- Double camber for some touring performance
- Wide profile underfoot for good flotation
- Generally waxless bases for easy touring without skins

The Ski: These skis were made for off trail exploration on soft snow. Their minimal amount of sidecut and their double camber reveal them as touring skis, first and foremost. They were made for forward travel. But, their relatively wide 70mm width under the foot gives these skis decent flotation in soft snow. Typically these skis have long waxless patterns that allow them to climb well without the need for applying kick wax or climbing skins. Their double camber and aggressive waxless pattern make them less of a turning ski than a real telemark ski is.

This basic design has been around for quite a while now and still available.

However, in recent years, more shapely skis have been introduced for roughly the same kind of skiing.

The Terrain: These skis have been very popular for a long time for we call "puckerbush skiing", by which we mean hacking around in the soft snow in the sometimes dense understory of our woods. They have the reputation of being fun and easy to turn skis provided you are skiing in soft snow. I've seen good skiers ski remarkable lines with this type of ski.

I've heard mixed reports about other aspects of their downhill capabilities. Many have reported that their significant double camber can interfere with turning performance on firmer snow. Reports on the internet indicate they some have used these skis for mountaineering expeditions in places like the Cascades where the good grip of the waxless base combined with their light weight and durability have been (apparently) prized. Noted author Andy Dappen recently reported in Backcountry Magazine that this is his ski of choice combined with light Alpine Touring boots and bindings.

In terms of their touring performance, these skis are made to move forward with confidence but not speed. I've been on tours where these skis have climbed as well as skis with skins on, with the added benefit of not having to futz with skins. But, you're not going to stride along for effortless kick and glide with this type ski. We should also add that with a wide tip of 85mm, these skis typically won't fit into backcountry tracks created by narrow cross country skis. On several occasions, I've seen people on these skis forced to trudge along outside of decent backcountry tracks with their Catamounts.

The Skier: Two years ago, I would have recommended this type of ski for people looking to play around in low angled and tight trees. However, the rave reviews I've heard from folks about the newer shaped skis make me think skis who want fun turning skis that tour well should look to these newer designs in stead. On the other hand, this type of ski is great for skiers who are looking to go from point A to point B away from tracks of any kind but who want stability, flotation and maneuverability. They would be a good match for somebody who essentially wants a sliding snowshoe.

The Boots and Bindings: I have a friend who is really good tele skiers. He skis his Catamounts with low-cut Snowfield boots. I once watched make great turns in the wood of Bolton Valley. Did I mention that he's a good skier?

Extreme class type boots with at least one buckle and some internal plastic will help us more mortal types without giving up too much in terms of touring ability. My preference though is for an Excursion type of boot.

Examples:

Manufacturer	Model	Profile	Year	Comments
Karhu	Catamount	85/70/80	1994 - 1998	
Karhu	Orion	85/70/80	2003 - 2004	
Trak	Bushwacker	85/70/80	1994 - 1996	edgeless
Trak	Bushwacker XT	85/70/80	1995 - 1996	partial edge

[Return to Top](#)

NARROW SHAPED SKIS

Summary:

- Tip Width: 90ish
- Typical profile: 90/60/75
- New backcountry design
- Mix of turning and touring

The Ski: I've not skied on these relative newcomers yet so I cannot offer any informed opinion about them. I would have chosen to not include them here except for the rave reviews that I have heard from trusted friends who have skied on more skis than I have.

Several years ago, Fischer introduced a new line of backcountry skis with the S-Bound moniker. Most, if not all, of the models had the word "Bound" incorporated in them. And most of these skis were and are older, already established ski profiles made more touring friendly with the addition of lighter constructions, more camber and waxless patterns.

Arguably, the one exception of this was the Fischer Rebound with the 88/60/78 profile. Few, if any, skis were previously made in the early life of shaped skis with such a narrow waist. So, this type of ski appears to honestly be a new development.

The common wisdom on shaped tele skis is that skis with a 65mm waist and more than 25 mm of sidecut are nervous or "hooky" in soft snow. The problem is that the narrow waist will sink in the snow while the wide tip rides much higher. A friend of mine whose opinion I trust on skis has told me that these skis seem to avoid this problem. Perhaps this is due to their relatively stiffer flex that is associated with their noticeable double camber. If this is the case, then perhaps this type of ski really delivers on a unique blend of turning and touring capabilities.

The Terrain: I keep hearing raves about these skis in terms of puckerbush type skiing in tight woods. The word on the street that they turn very easily but are very mobile.

Based on several report that I've heard and read (but not based on my experience) I would expect that these skis do better at the sort of tight radius but slow speed turns that you want in the woods. But, I would also have to expect that they would get pretty chattery if pressed into duty on hard snow. Again, I've not skied them so this is really conjecture on my part.

In terms of touring performance, I've heard multiple reports that they tour surprisingly well. My hunch is that this is due to the relatively high camber and low weight. However, several have also reported just what one would expect due to the huge amount of sidecut; they are a bit nervous in terms straight line touring. If racking up miles is a goal, a ski with less sidecut like a Catamount or Cirque type ski may be more appropriate.

I don't have a good handle on how well the waxless patterns on these skis typically are.

The Skier: When I think of these skis, I think of exploring local parks and woodlots and poking around and exploring. For that I want a light, easy touring ski that turns very easily. But I'm not expecting to tackle hairball terrain. So, if the a Catamount

type of ski is a better pick for skiers interested in point A to point B, then these narrow shaped skis appear to be better matches for skiers who want to ramble around looking for turns.

The Boots and Bindings: For touring and turning, my choice of boots and bindings for this type of ski would be something like the Garmont Excursion, or perhaps an Extreme class boot like the Karhu Sirius, paired with plain 3-pins or the 3-pin cable.

Given their mix of turning shape and touring camber and weight, the selection of boots and bindings will dramatically change how the ski behaves and feels. So, skier preference has a big role to play in the selection of boots and bindings with skis like this. Lighter boots and bindings will really draw out and highlight the touring aspects of the ski, owing to their light weight and high camber. Burlier gear will highlight the turning aspects, owing to their wide tips and dramatic shape. As much as I like light, fast and skinny skis for touring in the backcountry, I have a preference for boots with some heft, even for kick and glide. I find I can keep a ski plowing straight ahead better and can commit to the glide phase of the diagonal stride with more confidence when I have more, not less, ankle support. The exception for this is when I'm on wide open dedicated xc trails or logging roads where I know I'm more likely to find easier conditions. Generally speaking, I wouldn't want to take a ski as wide as these on those types of trips, so I can't really recommend system boots or the light 75mm counterparts for a ski like this. The problem of not having enough boot for confident kick and glide in cut up snow is made worse by the shape of these skis. In general, the more sidecut a ski has, the less it will want to obediently go straight during the glide phase. In my opinion, this even furthers the argument to stick with a boot on par with the current Karhu Sirius as a minimum of this ski. Of course, opinions will differ on this judgment. But I have seen skier submitted reviews of this type of ski that confirmed that too light of a boot can make them squirrely when touring.

On the other end of the spectrum, the width and shape of the skis invite the possibility of skiing them with telemark style cable bindings and light plastic telemark boots. This is certainly possible and arguably not crazy if you already own both the boots and bindings and you are just looking to put a lighter, more touring friendly ski under your current gear. Hack, people like Andy Dappen put AT bindings on even lighter nordic backcountry skis so putting T2s and Superloops on this type of ski is not out of the question.

That said, this seems like a mismatch to me. First and foremost, I **hate** touring with cable binding as they limit striding so dramatically. One of the primary appeals of this type of ski is its promise of touring ability, which to my taste, would be totally negated by the addition of a cable binding.

Second, if one already had heavier boots and cable bindings was looking for a lightweight ski for making turns, I'm not sure this would be the first choice of ski, even if the goal were to maximize touring ability. I would think a slightly wider ski like an AT or Wide Shaped ski would make more sense as they would offer more

touring power with out loosing any more in the touring category than have already been lost with the heavy boots and bindings.

Examples:

Manufacturer	Model	Profile	Year	Comments
Alpina	Lite Terrain	90/64/80	2003 - 2005	waxless
Atomic	Rainier	88/60/78	2003 - 2004	waxable and waxless
Fischer	Rebound Crown	88/60/78	2002 - 2005	waxless
Madshus	Numedal Multigrip	90/64/80	2004	waxless
Salomon	Backcountry X-ADV 88	88/60/78	2005	waxless

[Return to Top](#)

CLASSIC AT

Summary:

- Tip Width: 90ish
- Typical profile: 90/70/80
- Turning oriented
- Less touring capability

The Ski: A decade or more ago, the 90/70/80 profile was the established norm for Alpine Touring skis. It's funny how perspectives change. Back then, these skis were wider than typical alpine skis and seen as fat soft snow specialty skis. Today, this profile is seen as being too narrow to be useful for serious downhill performance. In fact, modern newer, more modern AST designs are wider and have noticeably more sidecut.

So, why are we discussing old AT ski designs? Well, even back in the early and mid 90s, people figured out that AT skis made fun backcountry touring skis. Their wide platform gives good flotation in deep snow. They are much better turners than sliding snowshoe skis like the Catamounts. Add kick wax or climbing skins and they become great skis to explore the woods of New England.

Recently, this basic design has been revived and recast as a light touring ski. Manufacturers like Fischer and Karhu have lightened up the construction, added a tad more camber and the option of good waxless bases.

The Terrain: In terms of turning ability, these skis will handle steep terrain when skied by skilled skiers (and bigger boots), especially the older, flat cambered skis. After all, they were designed for alpine touring. When paired with lighter gear, they do great and making short radius and slow speed turn in the deep snow, although they won't float like modern wide skis will. Their turning ability makes them competent at ski areas, provided you don't expect to ski hard and fast.

In terms of touring performance, these skis are generally pretty slow and sluggish. The lighter, higher cambered skis will be faster but these are not going to be speedy skis no matter what. On the plus side, with their relatively straight profile, these skis will track better than more shapely designs of similar width. And due to their width, they float well in underact snow, even when skied in relatively short lengths.

I think these skis work well for playing around in the New England woods looking for turns. They tour well enough to cover some distance without being horrible to control when striding.

The Skier: These are good skis for skiers who want a touring ski that can be pushed into lift served skiing or skiing down steep slopes in the backcountry. However, it should be noted that at this point we are discussing the border between the "backcountry" market niche and the burlier "telemark" category. There are plenty of wider telemark skis that can be pressed into the same type of backcountry touring service with the addition of a little kisses or skin. These are also fine skis for skiers who want to carry an overnight pack and who are willing to sacrifice touring speed in order to get a good stable hiking performance while touring.

The Boots and Bindings: In my opinion, these skis need to be skied with Excursion class boots. The newer, lighter versions may beg for lighter boots but expect to give up turning ability. Heavier boots and cable bindings will make for a dramatic increase in their turning performance, so much so that you could use the skis for touring with light boots and for turns at the ski area with heavier boots and they'll feel like totally different skis.

Examples:

Manufacturer	Model	Profile	Year	Comments
Alpina	Solution	90/70/80	1997 - 1998	
Asnes	Vulture	90/70/80	1997 - 2002	
Atomic	Tourcap Light	91/69/80	1995 - 1998	
Atomic	Tourcap Guide	91/69/80	1996 - 1998	super light
Atomic	MX:11	92/67/82	2004	super light
Black Diamond	Vertige	88/68/78	1992 - 1993	
Black Diamond	Desolation	91/69/80	1997	
Black Diamond	Serac	91/69/80	1998	
Dynafit	Tourlite Rally	90/70/80	1998	
Dynastar	Super Yeti	90/67/77	1997	

Evolution	Powder	89/69/79	1997	
Fischer	Wayback	90/75/80	1996	edgeless; no-wax
Fischer	Tour Extreme	90/70/80	1997 - 1998	
Fischer	Outtabound	88/68/78	2003 - 2005	high camber for touring; crown is waxless
Garmont	Monashee	90/70/80	1997 - 1998	same as Kneissl Tourstar
Garmont	Uinta	90/72/80	1995 - 1996	
Garmont	Venture	90/70/80	1997	partial edge
Karhu	Dorado	88/68/78	2003 - 2004	waxless and waxable
Karhu	XCD Mountain	88/68/78	2005	waxless
Karhu	Outbound	90/70/80	1995	"chocolate" version, same as Kneissl Tourstar
Karhu	Outbound	90/71/80	1997 - 1998	capped version, made by Atomic
Kneissl	Tourstar	90/70/80	1997	
Kneissl	Tourstar	90/70/80	1997	
Rossignol	BC 90	90/70/80	2004	waxless
Rossignol	BC 90	90/70/80	2004 - 2005	waxable and waxless
Tua	Excalibur Classic	90/70/80	1998	
Tua	Cima MX	90/70/80	1997	

[Return to Top](#)

WIDE SHAPED

Summary:

- Tip Width: Above 90
- Similar or identical to downhill skis for telemark or alpine touring
- Typically have waxless bases

The Ski: If you've been on another planet for the past 10 years (in terms of skiing) then you may not have heard the news. Shaped skis are here. Shaped skis

typically have at least 25mm of side cut and waists wider than 65mm and it's not an overstatement to say that they've revolutionized how people ski downhill. This revolution in alpine and telemark skiing has trickled down to the world of backcountry touring designs, at least in terms of marketing.

With this class of skis, we are clearly in an area of overlap with the general classification of telemark skis. In fact, nearly all of the skis in this class **are** telemark skis. I believe that they get marketed as "backcountry" skis only by virtue of the fact that the models discussed here have waxless patterns. As telemark skis have been steadily getting wider and shaplier (and heavier) in the past years, the small class of light alpine touring (AT) oriented skis have also grown both in terms of width and shape. However, by virtue of the fact that they are designed specifically for alpine touring, they remain comparatively light. Many of the skis in this category are, essentially, these light AT skis that have benn given waxless patterns and repositioned as "backcountry" skis.

The Terrain: These skis aren't made for racking up endless miles of kick and glide. They are downhill skis that are light enough to be used in the backcountry, with a primary emphasis on downhill performance. The increased amount of sidecut of these skis compared to straighter classic AT designs means that these skis can be noticeably more twitchy when striding.

In terms of turning performance, they are are the best turning skis in my categorization of what can be called backcountry touring skis. In general, their shape and width simple make them better than narrower, straighter skis. However, these skis are typically lighter than most full bore telemark skis and are certainly not as wide as the widest skis available today. So if you want even more turning performance, you should look at telemark skis.

The Skier: The big benefit of this type of ski is for skiers who want a ski that can be used without skins or kickwax. In my opinion, this is not a huge differentiator in New England since I believe that wax is better than waxless. In my opinion, if you want the touring performance afforded by these skis, it makes more sense to just get the waxable versions. Others strongly disagree and in other parts of the world, waxless is clearly the better choice. (I discuss the pros and cons of waxable and waxless skis in more detail in my essay on [Simple Kick Waxing for Touring.](#))

The Boots and Bindings: These skis are best suited for turn oriented skiing at times when applying kick wax is not a good option. In terms of boots, plastic Excursion type boots are a minimum for most skiers.

Examples:

Manufacturer	Model	Profile	Year	Comments
Alpina	Cross Terrain	102/64/87	2003 - 2005	waxless
Atomic	Chugach	98/69/88	2005	waxless

Fischer	Vision Mountain Crown	93/63/94	1996	waxless version of Telepathic
Fischer	Boundless	98/69/88	2003 - 2005	crown is waxless
Garmont	Beluga	<u>107/87/107</u>	1997	edgeless, single length 160 cm

[Return to Top](#)

[Dave's Backcountry Skiing Page](#)

Copyright 2003 - 2005 by David Mann

=====

MY ESSENTIALS BAG

Dave Mann

Last Updated: 11/06/2013

=====

Like many people who travel in the woods, I carry a small set of things that I consider to be essential. In talking with people on the Internet, I'm fascinated that there appear to be many different outdoors sub-cultures with very different approaches to the problem. Hunters, hikers, survivalists/bushcrafters and the military/tactical crowd seem to emphasize a different set of "essentials". Given this, a few comments about how I pack this might help.

IN MY PACK / IN MY POCKETS - One difference I've seen in these different approaches has to do with where the "essential" stuff gets carried. Some traditions put an emphasis on a set of things that is with you at all times, either in your pockets, attached to your belt or otherwise on your person.

I come at the problem primarily as a backpacker and ski tourer. My approach is very heavily informed by the "10 Essentials" as defined by the Seattle Mountaineers. In this traditional backpacking/climbing approach, safety gear is carried in the pack.

The assumption is that one will never allow oneself to become separated from their pack.

This said, I do tend to keep a few things in my pockets most of the time, especially when traveling off trail including: a pocket knife, map, eye glasses (I'm getting older) and compass.

SAME KIT, EVERY TIME - As with most people, I tailor what I carry in my pack depending on the trip I'm on. But, I carry essentially the same essentials kit on every trip. I've settled on this set of things after several decades of hiking and hunting and camping and feel more comfortable if each and every of these items is with me. It's a bit overkill on a Sunday afternoon day hike in a local park and people from an ultra light backpacking background will correctly note that the list could be pared down and minimized. But this slightly heavier approach means that I never have to worry if I have the essentials covered. This freedom and simplicity is worth the weight for me. It's also less error prone. So long as my essential bag is with me, I know I have what I need.

GRAB AND GO - I keep all my essentials in a small organizing bag that I leave in the back of my car. If I'm going out on a quick cross-country ski, I can just toss it into my fanny pack. Or, if I'm going to be carrying a day pack or full backpack, I just transfer it into the larger pack. I know my essentials are covered.

Without further ado, here is the inventory of the kit:

ESSENTIAL KIT
Basic tools

- + Map (typically moved to pants pocket)
- + Compass (in my pocket when off trail)
- + Altimeter watch (moved to wrist)
- + Lighter
- + Pocket knife (Opinel)
- + Leatherman Squirt PS4 (for small pliers and scissors, mainly)
- + Keychain flashlight on a lanyard (I wear this as a necklace at night)

Chemicals- Carried in a separate ziplock

- + Sun screen
- + Dermatone (in winter)
- + Bug dope
- + Ibuprofen
- + Iodine water purification tablets (water filter is carried separately on some trips)

Toiletries

- + Toothbrush and toothpaste (these are kept in a ziplock bag)
- + Toilette paper, hand sanitizer, disposable lighter (these are kept in a ziplock bag)

Repair kit - Carried in a separate ziplock

- + Spare Fastex 2" buckle (for backpack hip belts)
- + Section of adhesive nylon repair tape (for down jackets, bags and tents)
- + Heavy polyester thread, standard needle and curved upholstery needle
- + Spare stove filler cap (I typically carry a Svea 123 and this is the only part to fail)
- + Spare batteries (for headlamp)
- + Small roll of duct tape (wrapped around a cut-off disposable pen body)

Emergency Gear

- + Headnet
- + Whistle
- + Folding saw (Carried October through April)
- + Mylar aluminum bivy sack/shelter
- + 2 Powerbars (emergency food)
- + Coil of parachute chord

Minimal 1st aid kit - Mostly focused on stopping bleeding and attending to feet

- + Antihistamines
- + Selection of gauze pads and band aids
- + Butterfly tape and small roll of bandage tape
- + Gauze wrap
- + Alcohol wipes, iodine wipes, small tube of triple-biotic ointment
- + Disposable razor (shaving shins)
- + Pre-cut moleskin and bottle of Skin Shield (for blisters)

- + Nail clippers, fine tweezers (splinters), Leatherman PS4 (scissors, pliers)
- + Spare disposable lighter