

# An Overview of “Application-Specific” Spey Lines and their Design

by Way Yin

## Introduction

I was recently had the pleasure of participating in a series of seminars with Scott MacKenzie, who most experts would consider the world’s greatest spey caster - ever. Scott and I were telling our audiences that we felt this was the best time in history for people to get into Spey casting, as the quality of equipment (especially spey lines) has improved so dramatically over the past five years. Like the “trickle down effect” of technological advancements in Formula 1 racing resulting in improvements to the handling and reliability of your Honda Civic, taper concepts gleaned directly from competition distance casting have had a profound influence on the performance of every day production lines made by the top manufacturers participating in distance competitions. Further, a new Spey line weight standard was instituted in 2004, and all of the lines from leading manufacturers (including 3M/Scientific Anglers) now conform to the standards. Rod manufacturers, such as Scott, have designed around this new standard as well. Never before has the average Spey fisherman had access to such versatile, high-performing lines, in any variety of belly lengths!

We were both therefore shocked to hear – from virtually every audience – that instead of being easier, the choices of lines is actually bewildering, especially for the beginner and intermediate caster. As instructors, we have of course seen this with most students arriving with completely mismatched gear, but we had no idea that this perception was so pervasive. This made Scott and I think a bit. We are lucky, we push the design envelope of equipment to suit our particular fishing needs, and the happy fact that these needs dovetail nicely with what the majority of the fishing public likes is serendipity. Simply put, really well designed equipment is enjoyable to fish in the hands of experts and beginners alike. However, not all companies invest the time and resources into research and development like the top manufacturers – it’s a lot less expensive and easier to “copy-cat” rather than innovate. We realized that walking into any well stocked fly shop can be a truly bewildering experience!

In looking at the vast array of products now on offer for Spey casting, it also seems to me that many line and rod manufacturers have lost focus – so much equipment is developed to fit a marketing or focus group niche – rather than for specific *fishing* applications. In this article, I will review the three basic fishing applications which have resulted in the development of specialized Spey lines, and a fourth application that aims to be the best of all worlds.

A dose of common sense would tell us that your line really must match your fishing application. I don’t believe anyone would expect to catch a lot of trout on a Pennsylvania spring creek with a shooting head. Similarly, using a 10 weight double taper line on a windy day in the Florida Keys for spooky permit would be an exercise in futility. Spey lines are no different, as we shall see...

## “Traditional” – or Long belly Spey Lines

In Scotland, where Spey casting started, fishing has traditionally been restricted to section of the river, or “beats”. These beats are tended by ghillies, and clients would traditionally fish the same beat year after year, often with the same ghillies, who may work their entire lives on one section of one river. Many beats were separated by the side of the river, left or right bank. Aside from the extreme ends of the season, most of the fishing was historically done with lines that either sunk slowly, or floated. As Atlantic salmon may respond to a variety of fly swing speeds, line control through the swing became desirable. On certain larger rivers, like the Tay, Spey, and Ness, the ability to cast further allowed a fisherman to access as much of the holding water as possible on both sides of the river within a beat (remember that beats often may only include one side of the river). Backcast clearance, although limited, was not often severely limited, as one of the ghillies jobs was to maintain the beats and keep stream-side brush under control. From this background, the concept of “fishing fine and far off” emerged. The great fishermen of the last 150 years emphasized fly control through the swing, and the greatest of them all, Alexander Grant, took fishing “fine and far off” to level previously not dreamed of in the late 1800’s to early 1900’s. To meet the *application specific criteria* of casting great distances yet maintaining maximum fly control through the swing, he developed a long belly continuous forward taper line. Grant also believed that stripping and shooting line was fundamentally inefficient, and required – with any amount of line out of the rod tip – that he be able to simply pick up his fly on the dangle, make a cast, and have the fly fishing immediately.

Sadly, much of Grant’s work was lost following his death in 1942. A “dark ages” of sorts fell upon much of Spey fishing until just recently. In the 1960’s through the early 1990’s, people who wanted to fish “fine and far off” had only the choice of double taper (DT) lines. A DT line has a long section of level line, with (usually) a fairly short taper on each end. DT lines have the advantage of not requiring stripping and shooting with each cast, and present the fly relatively delicately, and are also easy to mend while on the water. Thrifty anglers could also reverse their double taper lines when one end got a bit worn. However, the distance potential of DT lines is severely limited.

In the mid 1990’s, a small group of Grant devotees began splicing lines together by hand, in an effort to reap the rewards of fishing with the long belly, continuous taper concept pioneered by Grant. One of the first was Derek Brown, from Peebles on the Tweed River in Scotland. I became obsessed with designing a continuous forward taper line in 1996, as I (and my fishing buddy, Steve Choate) wanted a line which would allow us to fish for steelhead “fine and far off”. These efforts ultimately culminated in the design of the XLT spey line, manufactured by 3M/Scientific Anglers.

The XLT was designed first and foremost to be a fishing line, permitting long casts without stripping and shooting, and allowing maximum fly control through the swing. (The line was also designed to be fished as a sink tip line, when long casts and maximum fly control was desired in colder weather.) As it turned out, the XLT was a line capable of casting prodigious distances as well, and was the first production long belly spey line to be used in International Spey casting competition. Although the XLT revolutionized modern competition Spey casting (and was used by Scott MacKenzie in 2005 to break Alexander Grant’s 110 year old distance record), the fact that *the XLT was originally designed as a line to meet a very specific fishing application is often lost!*

Although ideally suited for fishing efficiently (since no stripping and shooting is required, even for very long casts) and with maximum fly control during the swing, disadvantages of a line like the XLT include:

- more backcast clearance is required for longer casts
- greater casting skill is required to maximize a long belly line's potential
- casting heavy flies or sink tips can be difficult
- casting in very windy conditions can be difficult.

### **“Scandinavian” Shooting Heads**

Fly fishing for Atlantic Salmon in Scandinavia has a long and storied history. Unlike Scottish salmon rivers, however, many of the rivers in Scandinavia are swifter, and have severely limited backcast clearance. To deliver flies to salmon under these conditions with both floating and fully sinking lines, Scandinavian fly fishermen adopted traditional Spey casting techniques to short, shooting head lines. Because a shooting head requires little backcast clearance, and because even a full sinking shooting head is easier to lift and cast than a longer bellied line (it's considerably shorter and lighter), the shooting head was an ideal choice for the particular challenges of fishing for salmon in Scandinavia. Fly control through the swing became a secondary consideration to delivering the fly medium to longer distances with very limited backcast clearance.

Because fishing shooting heads requires the use of shooting line, disadvantages of using a Scandinavian shooting head include:

- time spent stripping and shooting line with each cast
- shooting line tangles
- considerably less ultimate distance potential than with long bellied lines
- some problems turning over very large or heavy flies
- big angle changes, especially with very heavy sinking lines can be difficult.

### **“Skagit” Shooting Heads**

Over the past 20 years or so, fishing with a two handed rod for steelhead has become very popular, as many of the same challenges facing Atlantic salmon fishermen in Scotland and Scandinavia are also present in the Pacific Northwest (PNW). Steelhead fishing differs in a few key respects from most Atlantic Salmon fishing, however, and the unique equipment and casting techniques that evolved for fishing for steelhead, especially in winter and early spring conditions, have had a profound influence in the development of a unique style of Spey casting.

Although most PNW steelhead rivers offer very limited backcast clearance, fishing in the PNW differs from fishing in Scandinavia and the UK in that fishing is typically *not* constrained to beats, or relatively short stretches of river. Free access to large stretches of river is typically provided through drift or jet boats. Because a wide variety of water conditions may be encountered in a day's fishing – from shallow, slow moving runs, to deep pools and hard water “shoulders” – a successful steelhead fisherman needs access to all level of the water column on a given day. With winter and early spring steelhead fishing, very large, heavy flies are typically used. However, the average size of the steelhead in the PNW are typically between 8 and 12 pounds, so large heavy rods (like 15 foot 10 weights) generally detract from the enjoyment of fighting these fish, and smaller rods, 13 to 14 feet long and in 8 or 9 weight designations, are much more popular among aficionados.

These unique challenges of steelhead fishing in the PNW, including the ability to deliver really big flies throughout the water column in often harsh conditions with little backcast clearance using smaller, lighter rods combined with the fact that steelhead tend to be extremely picky with regards to swing speed, resulted in the development of the so-called “Skagit” lines and the Skagit, or PNW style of Spey casting.

Skagit lines are similar to Scandinavian shooting heads in their length (usually between 3 and 3.5 times rod length), but differ in key respects. The belly of the line is always floating. Access to different levels of the water column is achieved through the use of interchangeable tip sections of various density, from fully floating to extremely dense tips which sink like bicycle chain. The floating belly of the line allows considerably better swing speed control than a full sinking shooting head, as the back end of the floating line can be “steered” from the rear.

To turn over very heavy sink tips and huge flies, the diameter of the floating section of a Skagit head is very large. An adaptation of traditional Spey casting was also necessary to consistently turn over big flies in frequently harsh weather. Unlike the Traditional and Scandinavian styles of Spey casting, where changing the momentum of the line going one direction is used to load the rod for the backcast, Skagit casting all starts with the line “dead” on the water. A number of moves are performed to position the fly upstream or downstream of the caster, and the line is allowed to rest on the water. Overcoming the surface tension of the water on the line belly is what is used to load, or bend, the rod during creation of the backcast. Together with my friends Topher Browne and Greg Pearson, we coined the term “Kiss and Go” casts in our instructional DVD (“Spey to Z”) to describe the Traditional and Scandinavian styles of Spey casting, because the end of the line and/or leader transiently touch down on the water immediately prior to the forward cast. We called the Skagit styles of casting “Flop and Stop” casts, because energy for the backcast is always generated starting with line dead on the water. From a casting principles and physics standpoint, “Flop and Stop” casts require lines which end up being about one to 1.5 times heavier to load a given rod than a similar belly length line used for “Kiss and Go” casting.

Historically, a limitation of Skagit lines was that they did not perform well at long distances. With the new 3M/Scientific Anglers Skagit series, designed by Steve Choate and Bruce Richards, advanced continuous taper designs inspired by the XLT have resulted in lines which will turn over heavy tips and big flies at prodigious distances.

Like the Scandinavian shooting heads, Skagit heads have some disadvantages, which include:

- time spent stripping and shooting line with each cast

- shooting line tangles
- less ultimate distance potential compared to long bellied lines
- a correspondingly greater amount of equipment (e.g. a variety of sinking tips for each line weight) to carry around fishing.

### **“Mid Belly” Lines**

From what has been discussed so far, what should appear clear is that unique fishing situations have resulted in the development of specific equipment ideally suited for particular fishing applications, and this equipment has resulted in the development of specific casting styles to suit the equipment. These include long belly lines with continuous forward tapers to fish “fine and far off” (e.g. 3M/Scientific Anglers XLT Spey line), and short shooting head lines to fish in the Scandinavian style or shooting heads with interchangeable tips (Skagit lines) to launch huge flies with heavy sink tips. Greg Pearson has likened fishing a long belly line to driving a Rolls Royce - an elegant and classy ride, Scandinavian shooting heads to driving a sports car, and Skagit heads to a tractor-trailer rig – designed to deliver maximum payloads. Over the past five years, advanced taper designs for these “application specific” lines have made them the best ever, and a few major manufacturers (like Scientific Anglers) have devoted years of painstaking research and development time with prolonged field testing to develop the best of such specialty lines.

Missing from this equation, however, is a line which provides the best of all worlds to the average fisherman – the SUV of Spey lines – a line which can handle a reasonable payload, cast reasonable distances, fish comfortably, and require less backcast clearance than a long-bellied line. For many fishermen, such a line would be all that is required, and mid-belly length lines strive to fill this specific application niche.

The new mid-belly lines from 3M/Scientific Anglers meet these performance criteria and complete the most comprehensive and highest performing, easiest fishing, application specific line-up of Spey lines from any manufacturer. Any of the new Spey lines from Scientific Anglers meet the rigorous performance criteria of some of the pickiest and hardest core Spey fisherman around, out cast, and out last their competition.

### **Summary**

There really has never been a better time to start Spey casting, regardless of whether one is using a single or two-handed rod. Line designs are the best they have ever been, and the performance bar for Spey lines has risen dramatically in the past five years. Although the choices appear vast across many manufacturers, with many guilty of creating lines to fit marketing niches, the Mastery series of Spey lines from 3M/Scientific Anglers have been specifically developed for individual and well defined fishing applications. Hopefully, this article will help dispel some of this confusion in the marketplace. For more information, the interested reader can contact 3M/Scientific Anglers for a current Mastery Series catalogue on the web at

[http://solutions.3m.com/wps/portal/3M/en\\_US/Scientific\\_Anglers/Fly-Fishing/Products/Spey/MasteryLines/](http://solutions.3m.com/wps/portal/3M/en_US/Scientific_Anglers/Fly-Fishing/Products/Spey/MasteryLines/)

or preview “Spey to Z”, a no-nonsense mechanics-based instructional DVD at:

<http://web.mac.com/speycaster/iWeb/SpeytoZ/HOME.html>