

THE CASTING CLINIC

With Al Kyte

ADDING DISTANCE



“What’s the point of casting so far? Most trout are caught within thirty-five feet.” This may be your response after watching people unleash their longest casts at a fishing show. If you fish only in small, narrow trout streams, who can argue? But many of today’s fly fishers also enjoy fishing in lakes, wide rivers, and saltwater flats, where long casts reach more fish. Bonefishing guides have confirmed my impression that only about half of their fish are caught on casts shorter than 35 feet. Being able to throw 60-foot casts can make your day. And when you back off from attempting 90-foot casts, a 60-foot can feel almost effortless. So pushing your cast to its outer limits can provide unexpected benefits when making shorter casts while fishing.

The basic overhead cast forms the foundation for distance casting. Yet, enough things change when going for distance that a long cast sometimes seems like an altogether different skill. It isn’t always clear what you should change to cast farther and what you should try to keep the same.

Dimensions of a Distance Cast

Several years ago, some of our most prestigious fly casters kindly allowed me to film their 35-foot casts and then, with the same rod and line, some very long casts - typically 90 feet or more. This gave me the opportunity to analyze differences in movement as the purpose changed from short-line accuracy to maximum distance. Regardless of differences in style, every caster made at least five distinct changes

to meet the added demands of distance. When casting long, they all rotated the fly rod through wider angles (sometimes called ‘arc’), bent the rod more, moved the casting hand farther (increased stroke length), raised the trajectory of the fly line, and increased the speed of both the casting and hauling hands.

Sport biomechanics teaches that changing a movement’s purpose can lead you to rely on different, sometimes opposite principles to be effective. Thus, when casting a short line for accurate placement, you are likely to use a short movement, few body parts, and a relatively slow muscular action. When trying to generate line speed for maximum distance, however, you lengthen the casting motion, use additional body movements, and speed up the muscular contraction. Thus, factors that contribute to short-line accuracy may decrease rod-tip velocity, and vice versa. For any cast, you should determine your purpose, including the optimal line speed, and adjust your movements accordingly.

Although the skilled casters I filmed changed their movements to cast farther, they kept at least one thing the same. They continued to move the fly line through as straight a path as possible, including keeping the rod tip moving straight during its acceleration and stop close under that path to form small loops. In essence, they made various changes to add velocity, but not at the expense of straight-line flow - the essential element of an overhead cast.

What are the relationships between the changes made to increase distance? Assuming the use

of a weight-forward fly line, we start our quest for distance by carrying more of that line back and forth in the air. This adds weight beyond the rod tip, which requires more force to straighten. One way to add such force is to move the fly rod toward your casting direction. This distance that your hand moves the rod butt toward your target during the cast is called 'stroke length'.

The additional line weight and the force from a long stroke put a deeper bend in the rod, which further increases distance potential by adding to the spring effect of straightening a bent lever. This additional bending also lowers the rod's tip, which if moved along a straight path, must also be lowered at the start and end of the cast. We accomplish this by widening the rod's angle or arc, which also increases the distance our rod tip travels (Figure 1). We can create even more bend and speed in the rod by moving both the rod hand and hauling hand faster. Our final adjustment is to raise the target line or trajectory for farthest carry of a fast-moving fly line (Figure 2).

These additional movements increase the demands on a person's physical coordination. Years of teaching various sports have taught me that most people have trouble thinking about more than one new thing at a time, so we need a way to introduce these changes sequentially.

Although there may not be one best way for everyone, the following steps have helped many of my students to add distance.

A Practical Sequence

Check the basic cast. If you want to improve your distance casting, first look at the efficiency of your basic cast. I often see wasted movements or muscular force that could be eliminated and reintroduced more effectively later, when needed to cast additional line weight. I would try to limit the movements of your basic cast, including shortening your stroke and concentrating the rod's movement into the tip section - what Mel Krieger has called 'tip casting.' So I start distance casting by having you conserve energy in your basic cast. At this time, I also make sure you are able to shoot line through your rod.

Increase stroke length. As you work out additional fly line, start lengthening your casting stroke systematically. First open up your stance, dropping your rod-side foot back as if preparing to throw a ball. As Lefty Kreh has reminded us, this opens up the body to a longer arm movement. It also allows you to turn back to watch your casting loops as you make adjustments in your back-cast stop. The goal of these adjustments is to see the smallest loops possible form in your back-cast line. I first say

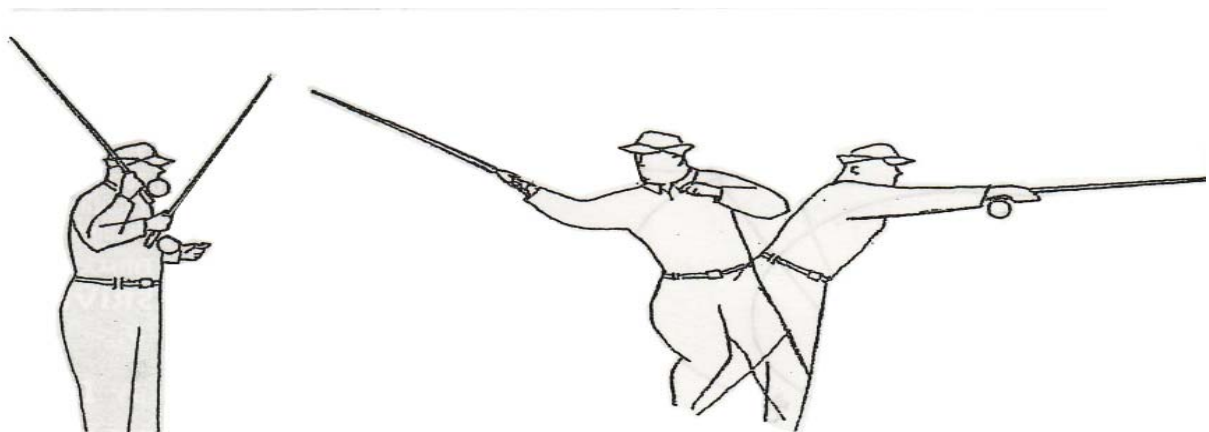


FIGURE 1: BY CONTRASTING LEFTY KREH'S SHORT CAST (LEFT) AND LONG CAST (RIGHT), ONE CAN SEE THE IMPRESSIVE DIFFERENCES IN STROKE LENGTH AND ROD ANGLE.

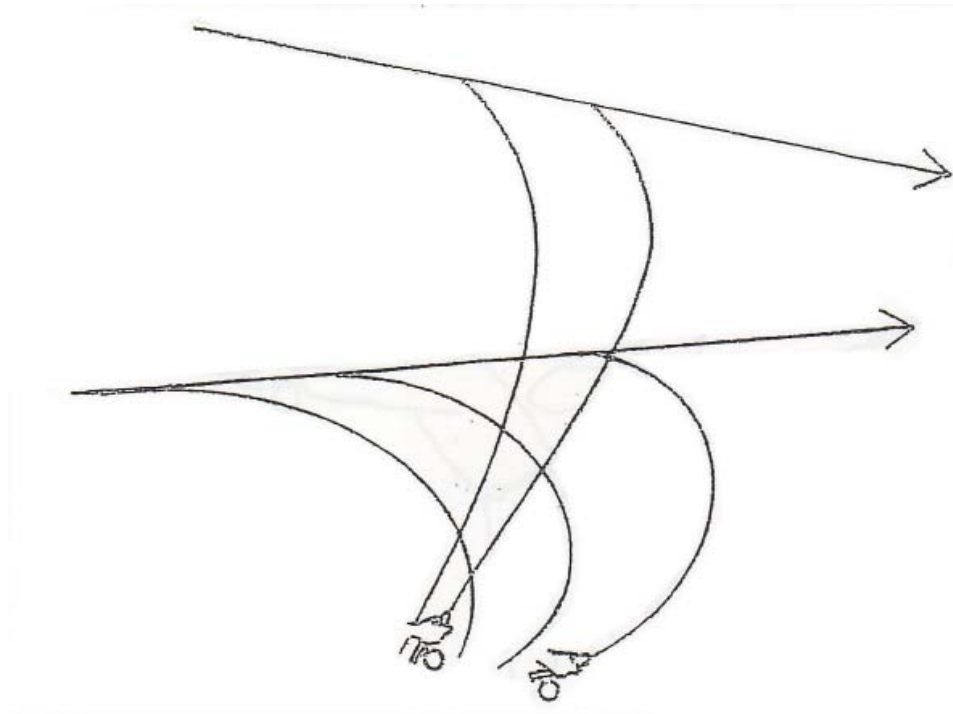


Figure 2. The fly rod on short casts exhibits a relatively shallow bend on longer distance casts, the bend deepens and the fly line is aimed upwards.

this technique taught well by Bruce Richards. As you practice with this stance, exaggerate leaning your body back as well as shifting your weight back on the back cast. Then shift your weight and lean your body forward during the forward cast. This leaning and shifting of weight add force from your body as well as stroke length to your cast.

When this pronounced weight shift feels comfortable, reach your casting hand back even farther on the back cast and farther forward on the forward cast. As you do this, try to retain your essential arm style, though somewhat extended. Sometimes, opening the stance causes a person to rotate the body enough to lose the most effective arm movement. Use both your body and your casting arm to move the fly rod farther back and forth in the direction you are moving the line.

Raise the trajectory. When you are comfortable with this longer movement, raise the trajectory of your forward-moving fly line. You are no longer trying to straighten the line just above

the water on your forward cast, but now are aiming the fly line upward to carry your fly as far as it will go. The exact angle varies with the amount of line, the speed generated, and the direction and strength of any wind. Casters make this adjustment by changing the direction in which their casting hand moves. In a basic forward cast, my expert casters all moved the casting hand more downward than forward. In their longest casts, they all moved it more forward than downward, almost horizontally.

Widen the rod's angle. Having raised your target line, shift your attention to your casting loops. The error I most often see is the appearance of a tailing loop that wasn't in your basic cast. Although several things could contribute to it, typically it occurs when people start overpowering a distance cast without also widening the angle through which the rod rotates. The rod tip dips down and comes back up during the cast, losing its straight path. My first correction would be to have you widen the rod's angle by stopping your rod a little farther back

on your back cast.

I might also see a loop that is well-shaped, but wider than in your basic cast. I would most likely have you tighten up that loop by stopping your cast a little harder or more abruptly than usual, thus speeding up the unloading of your bent rod. In essence, my distance lessons modify a fundamentally sound basic cast by first increasing the stroke length, then raising the forward line flow and finally widening the rod's angle. At this point, we haven't yet worked on building in 'drift' or adding 'hauls'. that means I have something more to teach on the subject next time.