

The Loop

The Federation of Fly Fishers Journal for Certified Casting Instructors Winter 2002

.....

HOW DOES LINE STRETCH AFFECT THE CAST?

In the last issue of The Loop, Mel Krieger asked us to think about how line stretch affects the cast. The FFF received many thoughtful responses, too numerous to publish. Thanks to all of you who took the time to think and write about line stretch. [Ed.]

Bruce Richards responds:

Line stretch during casting is not our friend. When developing lines for long-distance tournament casting in the late 70's, we discovered that line stretch can cause big problems. The heaviest lines we designed (up to 1850 grains) were made on thin nylon cores to minimize diameter. High tensile strength was not necessary as the lines wouldn't be fished. Steve Rajeff and Chris Korich were the primary test casters and they reported that the lines cast poorly--the loops distorted badly during high speed casting. By the time the rod tip stopped on the final forward cast, the line had stretched to a significant degree. After the rod tip stopped and the loop was formed, the tension was released from the line. It then relaxed and "accordioned", forming a series of S curves in the top leg of the loop. These curves were wind resistant and the lines didn't travel very far. When we built the lines on a core with less inherent stretch, the problem was solved: in their first year these new lines broke all the world distance records. Energy can be stored in a stretched fly line, but that energy cannot be well controlled as the loop travels forward, thereby disrupting the cast.

Most quality lines on the market today are made on the same kind of nylon core that caused the problem with the tournament lines, but the resulting line stretch doesn't cause a problem. How can that be? It is all a matter of force. Steve Rajeff is a powerful caster (obviously) and can apply a lot of force to a heavy line with a 17-foot fly rod. The same core in a trout line is never exposed to more than a fraction of this force, so it does not stretch enough to cause any problems. Lines for heavy fish, like tarpon, are built on nylon cores also, but with much higher tensile strengths. The forces applied are higher but because the tensile strength is so much greater there is still no significant stretch during casting.

Having some stretch in a fly line is important. It can act as a shock absorber when fighting a big fish and it allows an angler to stretch lines to remove memory. Lines with no

stretch retain memory that cannot be removed in the field. We want little or no stretch at the low tensions applied during casting and fish striking but some stretch at higher pressures. Tailoring the stretch of the cores of fly lines to their specific applications allows them to cast and fish properly. Too much stretch, or too little, causes problems.

*Bruce Richards is a founding member of the Board of Governors and the Product Development Engineer for Scientific Anglers (he designs their lines). A pioneer in the field of casting and instructing, he is the author of *Modern Fly Lines* (Odysseus Editions, 1994), part of the Lefty's Little Library series.*

Tim Rajeff responds:

The perfect *casting* line would be as skinny as possible, very flexible (soft, with no memory) and have no stretch. We found that while casting very heavy shooting heads with very stiff rods (lots of acceleration during the casting stroke while casting 65-foot heads that weighed between 1500 and 1800 grains) some of the early prototype tournament distance lines became unstable. They didn't go as far as other lines that were already in use because they stretched so much during the final delivery cast. Without a sophisticated laboratory to test the conditions that exist during extreme distance casting, we could only judge the effect of line stretch by having the best distance casters we could find try different lines until we could agree upon the best line. We always found that the lines that were the most stable in the air during the cast were the ones with the least stretch in the core. For many years the best distance lines were made by a company in Germany that used a non-woven core made from fiberglass that had virtually no stretch. So the less stretch your line has, the more stable the loop is in the air and the farther your cast will go (all other things being equal).

As Bruce mentioned, stretch during the acceleration part of the cast stored energy that was released after the tip stopped at the end of the final delivery cast. The accordion or "rubber band effect" caused ripples in both the top and bottom of the loop and degraded the aerodynamics of the loop. When testing lines with cores of varying elasticity, we found that the very best casters could feel the elasticity differences from one

line to another *even while accuracy casting.*

So if you want a line that is easy to straighten after staying on your reel for a long time and that helps protect light tippets, get a line that has some stretch to it. If you want to cast as far as possible, you would want a line that has no stretch at all but has no coils or kinks in it. Since few of us are interested in tournament casting, we will do just fine with a moderate amount of stretch in our lines.

Tim Rajeff is a member of the Board of Governors and is the US distributor of Airflo fly lines. In 1984, he won the National Championship in overall accuracy and distance fly casting and that same year became the World Distance Champion, beating his more famous brother.



2001 Northwest Fly Casting Exposition

by Don Simonson

The Washington Council of the FFF held a casting exposition/fundraiser for the council last September in Port Orchard, Washington. I would like to describe the event and thank the casting instructors who were involved in its planning and execution. Beginning in the spring we held several clinics around the state to promote and solicit volunteers to help administer the games during the event. For the competition portion we encouraged various fly clubs to enter a team consisting of four members. The response was very encouraging with nine teams entered along with many individual participants.

The event was open to the public for an admission fee. They then bought tickets to play the casting games and take part in the clinics offered by Steve Rajeff and the certified casting instructors. As Jim Green wrote in a recent Loop, it's important to standardize the equipment. Sage, Loomis, Winston, and Orvis donated two rods each. Brian O'Keefe donated eight Scientific Anglers WF-6F distance-taper fly lines, so all rods had the same line. One rod of each manufacturer was used for the distance and accuracy events. The event included standard distance and accuracy competitions along with the casting games.

Selected casting games included:

Tic Tac Toe Cutthroat: Nine squares at 35 feet; two contestants each calling which square they are aiming for prior to cast; one cast per turn.

Straight-Line Cast: Target at 35 feet; a channel 16 inches wide between the caster and the target; fly needs to land in the target with the fly line staying inside the 16-inch channel.

Serpentine Cast: Target at 35 feet; a channel 12 inches wide between the caster and the target; fly needs to land in the target

and the fly line must land outside the channel.

Reach Cast: Target at 35 feet; fly must hit target with the fly line landing outside a pylon located either to the left or right side of caster.

Narrow Loop Cast: Hoop suspended vertical at 30 feet at eye level; caster must cast fly and front part of line through the hoop.

Flats Boat Cast: Target at 40 feet; caster starts with fly in hand, 10 feet of line outside the rod tip, and 40 feet of line at the caster's feet; two false casts are allowed before placing the fly in the target.

Roll Cast: Target at 35 feet; caster starts with fly in hand; caster then overhead casts 35 feet of line onto the water and has three attempts to roll cast the fly into the target.

Obstacle Cast: Target at 35 feet; horizontal bar with branches attached 4 feet off the ground directly in front of target; three attempts to hit the target; skipping it in does not count.

Steve Rajeff donated two casting demonstrations and conducted two casting clinics. Master Instructor Elizabeth Watson donated a clinic on the casting instructor certification process. Master Instructor Don Simonson donated an advanced casting clinic. Certified Instructor John Reid donated an introductory casting clinic.

The Washington Council of the FFF thanks the following instructors, most of whom were intimately involved in the planning and execution stages of the event: Steve Rajeff from the Board of Governors; Master Instructor Elizabeth Watson; Certified Instructors John Reid, Dick Stearns, Peg Van Natter, Bill Van Natter, Gil Nyerges, and Russell Brown.

Don Simonson organized the event described above. He is a Master Instructor and a life member of the FFF. He lives in Seattle.



CASTING SKILLS IMPROVEMENT PROGRAM

by Dusty Sprague

All ardent casting instructors seek opportunities to promote more interest in improving casting skills. At the Pikes Peak Chapter of the FFF, the turnout for our casting sessions was not poor, but there was certainly room for improvement. We needed to provide some incentive for our members to further develop their skills--something that added more challenge and fun without becoming an outright competition. Members needed to strive toward a goal, and in so striving, improve their casting skills. The program we implemented, or a modified version, may work for your club or fly fishing school.

Our Casting Skills Improvement Program is structured around a recognition program with awards for members who demonstrate skill in casting accuracy and distance categories. There are three skill levels in each category. During our casting sessions, members receive instruction and time for practice. They are also encouraged to test for a Bronze, Silver, or Gold pin in accuracy, distance, or both.

For the accuracy segment, we set up three progressively more difficult sets of target rings 20, 30, and 45 feet from our lakeshore. Bronze rings are 48 inches in diameter; silver rings are 36 inches in diameter; and gold rings are 24 inches in diameter.

The caster chooses the skill level to attempt and is given a total of five minutes at each ring for straight-line casts and five minutes at each ring for roll casts. The examiner scores five successive casts, both roll and straight-line, at each of the three rings. The yarn fly must hit inside the target ring a minimum of three out of five casts to be successful. Casters who hit all three targets the minimum number of times for both straight-line and roll casts are awarded the appropriate pin at subsequent club meeting.

Our target rings are a children's water toy called a Funnoodle, manufactured by Kidpower in Brentwood, Tennessee. These are flexible, floating foam cylinders, approximately 4" in diameter, which can be cut and connected to form the desired ring size. The rings are inexpensive, lightweight, durable, very buoyant, and are easily seen by both the caster and examiner.

The distance segment of the program is set up by placing orange soccer cones on the lawn at 60, 75, and 90 feet from a baseline casting point. The caster must make three casts within five minutes. Time is allowed to measure each cast. There is no restriction on false casting. The average distance of the three casts determines the score. To achieve a Bronze award, the average distance must exceed 60 feet; Silver must exceed 75 feet; Gold must exceed 90 feet.

To ensure fairness we set equipment restrictions based on commonly used fly line weights in our region. Restrictions include: a single handed fly rod no longer than nine feet; a minimum leader length of six feet; a rod no heavier than a six weight with a matched, commercially made full length (80 foot minimum) double taper, triangular taper or weight-forward fly line. The fly is a one-inch piece of yarn, provided by the examiner.

The Bronze, Silver, and Gold pins bear our club's logo and are similar in style to those provided by the FFF at its annual conclave. We purchase them from the FFF's supplier. Awards are presented at our club meetings.

The results of our Casting Skills Improvement Program are encouraging. We are indebted to Bruce Richards who provided superb advice during the development of a program that has challenged our members. The rewards are clear. Our members are having more fun casting, are proud to receive recognition, and they are better casters.

Dusty Sprague is the Casting Program Director for the Pikes Peak Flyfishers and the Lead Casting Instructor for the Broadmoor Resort

Hotel. He manages a fly fishing guide service in Colorado Springs and is a Master Fly Casting Instructor.



Thank You, Evelyn

By the time you read this, Evelyn Taylor will have departed the FFF and Bozeman to live in Florida. As many of you know, Evelyn has been at the heart and soul of the Casting Instructor Certification Program almost since its inception. She even edited a couple of issues of *The Tailing Loop*, as it was named then. She has administered the program with patience, tact, humility and, most of all, grace. She has been the gateway to our program: for hundreds of casting instructors, their first contact with the FFF was a call to Evelyn. They were welcomed to the Federation by Evelyn's laughter and warm smile, beaming through the phone. Without Evelyn, our program would not have become what it is. For everyone who has been so privileged, she has been an absolute joy to work with. The FFF will replace the administrator of the program, but they'll never find us another Evelyn.



THE LOOP STAFF

Editor: Macauley Lord, macauley@ime.net; (207) 729-3737

Loop Layout & Program Coordinator: Evelyn Taylor, castingcert@fedflyfishers.org; (406) 585-7592

Chair, Board of Governors: Floyd Franke, ephemera@wpe.com; (607) 498-4508

Fly illustrations by Jason Borger

YOU CAN HAVE A LINK from your FFF Website listing to your own E-mail address. Contact Evelyn (see above).

We welcome your submissions via E-mail or disk. Please attach a short instructor bio (1-3 sentences), including your location and Certification level. Please indicate whether or not you are willing to allow for your submission's possible re-publication on the Program's Website. Any illustrations should be in TIFF format. The Loop reserves the right to accept or decline any submission for any reason, and to edit any submission as it sees fit. All submissions should be sent to the National Office:

FFF Casting Instructor Certification Program

P.O. Box 1595

Bozeman, MT 59771

(406) 585-7596 Fax

E-mail: castingcert@fedflyfishers.org

Web: <http://www.fedflyfishers.org/castingcert.shtml>

The Loop is the quarterly publication of the FFF Board of Governors for Casting Instructor Certification.

COMING EVENTS

Pre-registration is REQUIRED!

Contact Evelyn Taylor at (406) 585-7592

Schedule subject to change

Portland, Ore - Feb 7-8; O'Loughlin Trade Show; Certified Instructor; must preregister by Jan 31.

Charlotte, N Carolina - Feb 15; The Fly Fishing Show; Certified Instructor; must preregister by Feb 7.

Phoenix, Ariz - Mar 2; International Sportsmen's Expo; Certified Instructor; must preregister by Feb 22.

San Rafael, Calif - Mar 2-3; The Fly Fishing Show; Certified Instructor & Masters; must preregister by Feb 22.

Long Beach, Calif - Mar 8-9; Certified Instructor & Masters; must preregister by Mar 1.

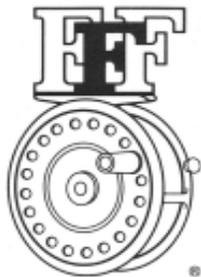
Salt Lake City, Utah - Mar 15-16; Intern'l Sportsmen's Expo; Certified Inst. & Masters; must preregister by Mar 7.

Seattle, Washington - Mar 15-16; O'Loughlin Trade Show; Certified Instructor & Masters; must preregister by Mar 7.

Gulf Shores, Alabama - April 6; Southeast Council Conclave; Certified Instructor; must preregister by Mar 27.

Livingston, Montana - August 7 is the Masters; August 8 is the Certified Instructor; International Fly Fishing Show; must preregister by July 26.

Freeport, Maine - LLBean 2-day workshop & certification with Macauley Lord; contact Craig Uecker to register at (800) 341-4341 x22666; **Dates for 2002:** April 6-7, April 13-14, August 24-25, August 31-Sept 1, Sept 7-8, Sept 21-22.



FEDERATION OF FLY FISHERS
Fly Casting Instructor Certification Program
P.O. Box 1595
Bozeman, MT 59771

Address Service Requested