



# Fly Casting Instruction Program

**Casting Skill Level Guide and Reference Materials for Instructional Use**

The following information is based on guidelines set forth by the Golden Gate  
Angling and Casting Club and Fly Fishers International

## Casting Skill Levels

### **Level 1 - Beginning Fly Casting**

You Will Learn To:

- Set-up a fly rod & reel
- Roll cast
- Perform the pick up & lay down cast
- False cast
- Cast over the opposite shoulder

### **Level 2 - Novice Fly Casting**

You Will Learn To:

- Roll cast with both wide & narrow loops
- Control the loop size & trajectory on the overhead cast
- False cast at various distances
- Hit accuracy targets
- Use the line hand
- Shoot line

### **Level 3 - Intermediate Fly Casting**

You Will Learn To:

- Cast narrow loops on both front & back overhead casts & the roll cast
- Slip line while changing distance
- Single haul and return the line
- Consistently hit accuracy targets
- Make basic slack line presentation casts & aerial mends

### **Level 4 - Advanced Fly Casting**

You Will Learn To:

- Double haul
- Consistently hit accuracy targets at distance
- Use presentation casts (curve, tuck, bounce) & slack line aerial mends (reach, pile, wiggle)
- Cast in all types of wind
- Use basic single-handed Spey casts
- Make specialty casts like the Belgian Cast & the Salt Water Quick Cast

# FLY CASTING: TEACHER'S GUIDE

This simple guide will help you run a fly fishing class or course that is safe, fun and meaningful. You might be teaching fly casting, fly tying, or general fly fishing, even fish conservation. You might be a school teacher, a fly fishing club member, or just a curious volunteer who wants to help. Your participants might be Girl Scouts or Boy Scouts, fly fishing club members, or veterans with a group like Project Healing Waters, or personnel at a naval base.

## BEFORE THE CLASS

**If you haven't taught at the site recently, visit it beforehand.** Maybe the water is frozen, maybe a crucial light bulb is burned out, maybe the digital projector lacks the right adaptor to connect to your computer, etc.

**Insure that the instructor team agrees on what to teach and how to teach it.** General consistency of instruction makes learning easier and more fun for your students.

**Use leaders that are about 7 ½-feet and around 0x.** Longer and finer leaders are difficult for beginners to cast well. Rods should be from 8 ½- to 9-feet and either 5- or 6-weight.

**Tie a piece of synthetic yarn on the end of the leader and trim it to ½-inch.** For safety reasons, there should be no metal in the yarn fly.

## CLASS INTRODUCTIONS AND GOALS

- 1. Introduce yourself in five sentences or less.** Why do you want to teach this class?
- 2. Ask your students to introduce themselves.** "What's your name, where are you from and, in three sentences, why did you come to this class?" By introducing themselves to the group, whatever anxiety they have will diminish. Some of your students will be funny, and laughter will lift the whole group.
- 3. Tell them what will happen in class and what your goals are for them.** "We'll tie some flies that you will catch fish with." or "You'll learn how to cast your fly to some hungry fish."

## COMFORT AND SAFETY

- 1. "The bathrooms are over there.** Please go and use them whenever you want."
- 2. "The drinking water is over there.** Please stay hydrated, like a fish."
- 3. "We suggest that you wear a wide-brimmed and use sunscreen.** The sunscreen is right here."
- 4. "Please keep your glasses on whenever you are casting or fishing.** If you need to borrow our glasses, they are here."
- 5. "If you need to walk behind someone when they are casting,** tell them you are coming so they don't hit you with their backcast."



6. **“We will sometimes ask if you are comfortable putting your hand on top of ours** to get the feel of the cast. If you’re not, just let us know and we’ll help you get the feel of a good cast another way.”
7. **“If you have a medical condition that we should know about,** please take us aside privately and let us know. For example, when we are casting, it would help if we knew about an injury to some part of your arm or shoulder. And if you feel cold, hot, tired or uncomfortable in any way, please let me know immediately.”
8. **“Please silence your cell phone now** out of courtesy for the others in the class unless you just can’t.”
9. **Know where your First Aid kit and AED are.** Know your physical address in case you have to call 911.

## TEACHING FLY CASTING

1. **You should be looking into the sun,** so they are looking away from it.
2. **Cast against a background that highlights the line and rod.** Use a line that stands out against the background. Ask your students if they can see the line in the air.
3. **Demonstrate the first casts they see from about 100 feet away,** so they will see the whole cast easily.
4. **Have your teaching partner narrate the cast, if possible,** by simply naming the parts.
5. **The fewer words they use, the better the narration.**
6. **Bring the students 20 feet away** and walk them through the cast, step-by-step in less than 5 minutes
7. **Demonstrate in bullet points.** Make as few points as possible in your demonstrations. The less you talk, the more they learn.
8. **Your words must match your casts.**
9. **Always make good casts for the group.** Showing them the bad casts to avoid will not help them avoid bad casts.
10. **Position them so they cast with the rod on their downwind side,** perpendicular to the wind.
11. **Now, let them cast.** A good teacher/student ratio is about 1:3. More than six students per instructor requires pairing up your students.
12. **Celebrate accomplishments,** leave time to reflect.
13. **Praise their casting often,** even when they make a just tiny step forward.
14. **You may need to use a combination of words, visuals, and hands-on cures with each student.** There is no way to predict beforehand what kind of cure will work with any one student.
15. **Your “Toolbox”** is your array of cures for casting faults. One instructor’s toolbox is here: <https://www.dropbox.com/s/qoz25pmeOf1hplg/A%20Fly-Casting%20Instructor%E2%80%99s%20Toolbox.docx?dl=0>

No one cure works for all students. You may need to suggest three ways, or even more, to fix a single fault before your students makes progress.



## FLY CASTING: TEACHER'S GUIDE

Use visuals and hands-on (kinesthetic) learning. Visuals could include drawing on a white board or note pad, or utilizing handouts.

Hands-on learning helps the student understand what the cast feels like and most students benefit greatly from it. There are two ways to teach it: **with the student beside you or behind you**. Ask first if the student is comfortable casting together.

**Student beside you:** Keep your body half an arm's length away from the student (elbow to hand). Instructor places hand above on the rod blank, above the grip, and casts. If the student seems tense, this method will not be effective and should not be used. Students can't learn if they are not comfortable.

**Student behind you:** Have the student stand right behind you. Have student place their thumb directly in front of yours on the grip, making sure the thumb is in line with the grip. Most of the student's hand will be on top of yours.

**Try both methods** and see which one works best for you and your students.

16. **When working individually, try to correct only one fault at a time** to keep from overwhelming your student with directions.
17. **Make each instruction very specific.** Tell them exactly what to do with their rod, hand, arm or body.
18. **Move on to your next student** sooner rather than later. This allows them needed time for self-reflection and improvement.
19. **When in doubt, talk less.**
20. **If you struggle to fix something in the student's cast,** trust that your next teammate who comes along will fix it.
21. **For people with small muscles like children and elders,** use rods less than nine feet and line weights lighter than 6-wt.
22. **When teaching children, hand them the rod and observe how they hold it.** Encourage them to use two hands, with their dominant hand on the cork and the other one on the bottom of the rod, below the reel seat.
23. **Break up their casting with a pause at least every 7 minutes** to avoid fatiguing them.
24. **Have everyone practice casting with their other hand.** They will be pleased by how well they do.
25. **At the end, ask them what surprised them about the casting.**
26. **Give your students a brief, bulleted handout** with the heart of your lesson plan that they can take home. Here's a lesson plan for the roll cast:
  - Start with the rod tip low to the water
  - Tilt rod slightly away from body
  - Slowly drag the line back to form a "D Loop" behind the shoulder
  - Check hand, rod angle position, and insure rod is tilted away from body
  - Forward cast, stopping just above horizontal
  - Lower the rod tip to the water
27. **If you hear thunder,** take cover and only resume casting when you hear no thunder for 30 minutes. This is the U.S. National Weather Service protocol.

# The Six-Step Teaching Method

by Bruce Richards

Since the inception of the FFF Casting Instructor Certification program I have had the pleasure of working with, and certifying, quite a few instructors. About half the instructors I've tested have failed. Some have not been able to make the necessary casts, but more have failed because they did not exhibit the ability to adequately analyze and correct casting flaws. Some of them fully understood casting, but lacked a method to clearly and concisely communicate that knowledge to a student. If followed, this 6 step procedure provides a logical way for an instructor to analyze any casting problem, and communicate the cure in a way that most students will understand.

The heart of good instruction is communication. Too many instructors try to cure a casting problem before the student even knows what the problem is or why it is a problem. Also, some instructors try to cure every problem they see at once, and don't use clear, concise language that the student will understand. All of these things lead to a confused and often frustrated student, and instructor.

I have been using a six-step method that helps instructors more effectively convey their knowledge to a student.

The six steps analyze the cause of the problem from "top to bottom", then the cure of the problem from "bottom to top". The first step of the CAUSE is describing to the student what is wrong with the (1) LINE. The next step is to explain what the (2) ROD is doing to cause the line problem. The last step of the cause analysis is to explain what the (3) BODY (usually hand/wrist/arm) is doing to make the rod and line misbehave.

The CURE part of the process tackles the same steps, but in reverse, "bottom to top" order. First, explain what to do differently with the (4) BODY. Next describe what this makes the (5) ROD do differently, and then how that affects the (6) LINE to get the desired results.

Each step should be as concisely stated as possible, extra words can confuse, especially beginners. Only work on one flaw at a time, start with the one that is most detrimental to progress. Speak slowly and clearly and demonstrate

what you mean with the rod if appropriate. If you demonstrate, make sure you cast as slowly as possible and exaggerate what is right and wrong so the difference is clear to the student.

This can be an interesting exercise for an instructor. It is imperative that the instructor has a very thorough understanding of the dynamics of both good casting and bad. If you try this and find you struggle with any of the steps it may indicate that your understanding is not as complete as you thought. I often suggest posing a particular casting problem then writing down the 6 steps of cause and cure. Better yet, have someone else pose the scenario and analyze your 6 steps.

Here is an example of the process, analyzing a typical beginners big loops. Assume loops and loop terminology have been explained to the student.

**CAUSE (top to bottom, line to body)**

LINE – “See the big, wide loop we talked about?”

ROD – “Remember that the big, wide loops are caused when the rod tip travels in a big, wide arc?”

BODY – “See how your wrist is bending a lot and how that makes the rod tip travel in the big arc?”

**CURE (bottom to top, body to line)**

BODY – “Don’t bend your wrist so much”

ROD – “See how that makes the rod tip travel in a much straighter line?”

Line – “Look, your loop got much smaller”

I know this seems simplistic, but it really works for both the student and the instructor in most cases. The student will probably not be throwing perfect loops after the exercise, but the loops should be improved and the student should know why. At this point the instructor should re-analyze the students cast, decide what is now the biggest problem, and proceed to the next series of 6 steps. It may be that the loops are still too big in which case the same steps would be repeated. The caster might be throwing tight loops now, but they are tailing. Applying the 6 step process to tailing loops works exactly the same.

I will grant that this tool works best for students with a more analytical mind set and may not be effective with everyone, but then no instructional technique is. I have found that it works with a large majority of students, and

offers a good, clear, easy to remember guideline for an instructor to follow. Every casting flaw can be addressed with this process, but it does demand a complete understanding of all casts. Pose a scenario for yourself and see how you do!

# FLY CASTING: FUNDAMENTALS OF A CAST

## WHAT ARE THE FUNDAMENTALS OF A “FOUNDATION” CAST?

For our purposes, a “foundation” fly cast is an efficient, functional cast we would all use during a typical fly fishing outing. There are many variations of this cast used for a variety of fishing purposes, but this is the cast we all use more than any other. Trademark features of a good foundation cast are front and back loops with relatively straight top (fly) legs and enough speed to deliver the fly to the intended target.

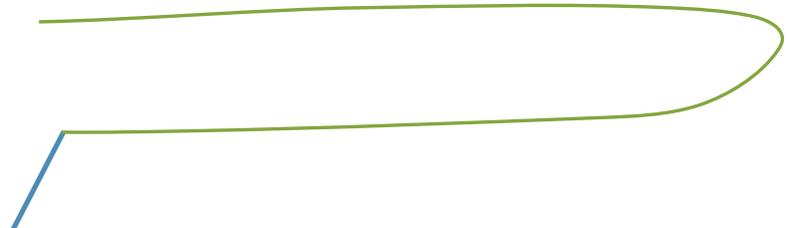
## WHAT IS A “LOOP”?

In fly casting we call the shape of the line in the air while casting the “loop”. The shape of the loop is very important. Here are drawings of the 3 most common loop shapes.

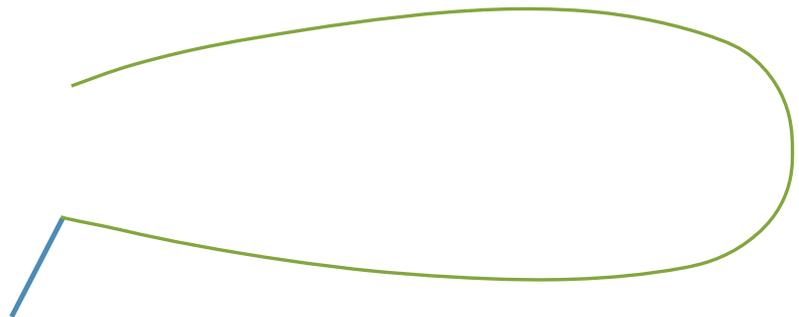
— Fly Rod

— Fly Line

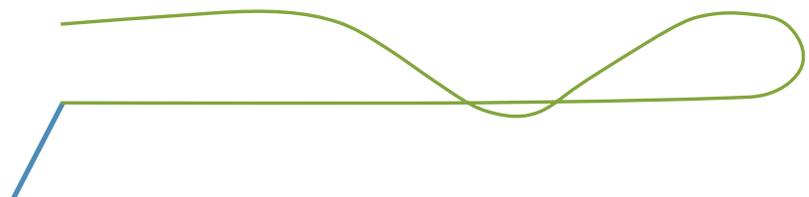
### GOOD BASIC LOOP



### BIG INEFFICIENT LOOP



### INEFFICIENT TAILING LOOP

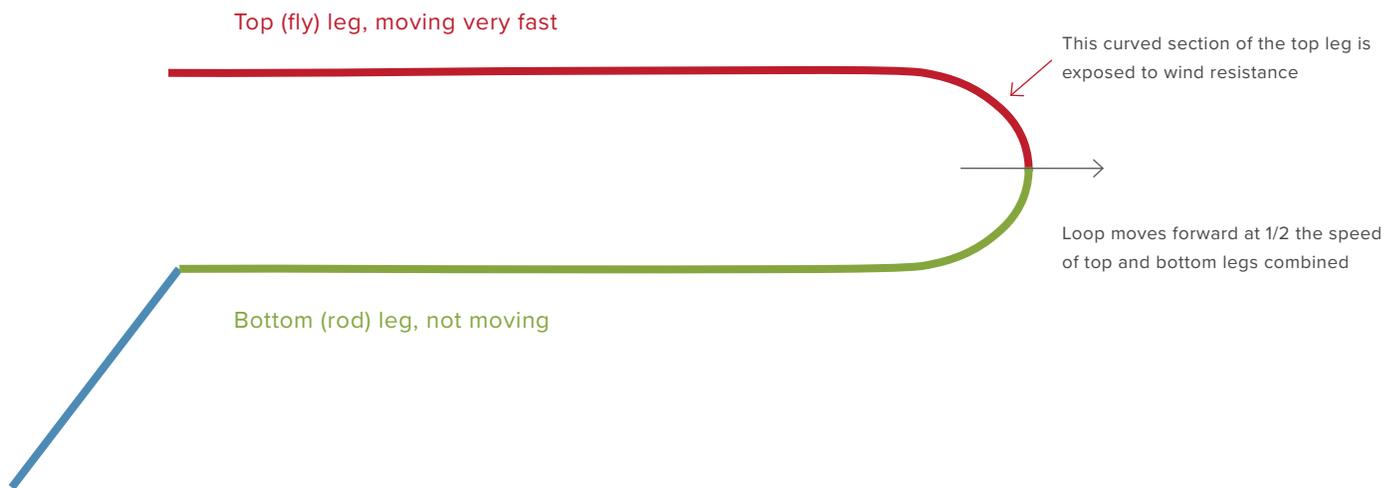




## WHY IS THE SHAPE OF THE LOOP SO IMPORTANT?

In spin or bait casting, the weight we are casting is the weight of the lure, bait or sinker, not the line. When fly casting, we are normally casting flies that are too light to cast with spin or bait casting gear. Fly casting utilizes a special line, a fly line, that is the casting weight. Rather than having the weight of the lure pull the line off the reel, in fly casting the weight of the fly line itself pulls the fly through the air and delivers it to the target.

If we don't control the shape of the line in the air, wind resistance makes casting even short distances difficult. Consider each loop to have just two parts, a top leg and a bottom leg. The dividing line between the two is the apex of the loop, where the red and green sections meet in the drawing below. Our goal is to cast as efficiently as possible and that requires that the top leg be as straight as possible.



The top (fly) leg of the loop is travelling very fast, the rest of the loop much slower. For that reason, it is most important that we control the top leg of the loop, the rest is much less important.

## IMPORTANT LOOP TRIVIA

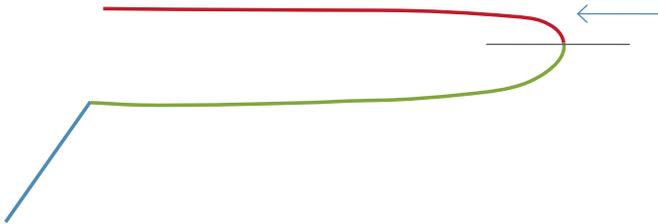
- » Loops progress forward at half the speed of the top and bottom legs combined. If the top leg is going 50 mph and the bottom leg isn't moving, the loop progresses forward at 25 mph.  $50+0=50$   $50/2=25$  mph
- » Wind resistance increases exponentially as speed increases. Double top leg speed, wind resistance increases 4X. Triple top leg speed, wind resistance increases 9X!



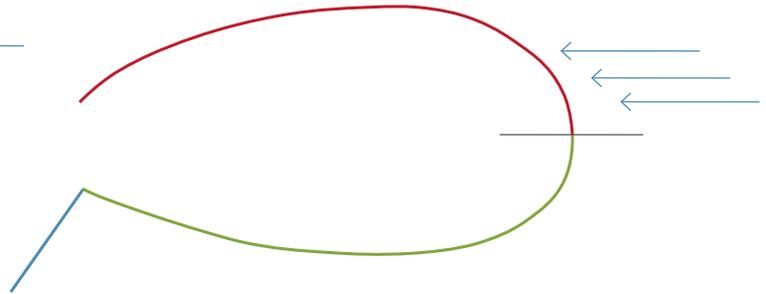
# FLY CASTING: FUNDAMENTALS OF A CAST

Below are simple drawings showing the difference in wind resistance between two loops.

Pretty straight top leg, very little wind resistance



Curved top leg, very wind resistant, inefficient



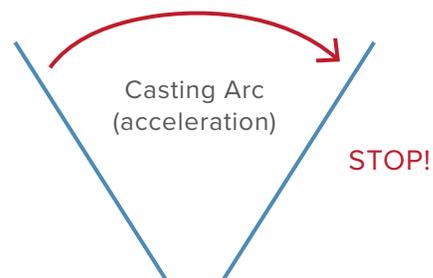
So, when we fly cast we want to make loops with top (fly) legs that are as straight as possible, unless we have a specific reason to want it to curve one way or another. If any part of the top(fly) leg is curved that part will be wind resistant and reduce the efficiency, accuracy and distance of the cast. All this applies to both loops, front and back.

## HOW DO WE MAKE A GOOD FOUNDATION LOOP WITH A STRAIGHT TOP LEG?

The basic motions of fly casting are very simple, accelerate the fly rod through an arc then stop it. When the rod tip decelerates, the fly line overtakes the rod tip and a loop forms. ***The path in which the fly rod tip travels while casting determines whether the top leg will be straight or curved.*** If the rod tip path is straight, the top leg will be straight and efficient. If the tip path is curved, the top leg will be curved and less efficient.

## HOW DO WE CAST SO THE ROD TIP PATH IS STRAIGHT?

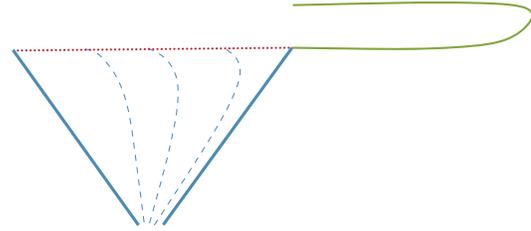
Simply, the rod tip path is determined by the “casting arc” and how the fly rod bends. The casting arc is just the angle change of the fly rod during the casting stroke, and it looks like this:



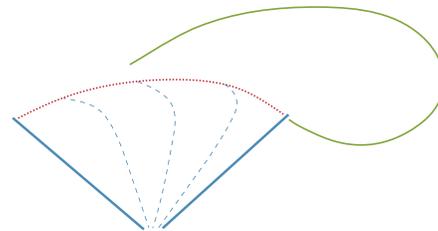


# FLY CASTING: FUNDAMENTALS OF A CAST

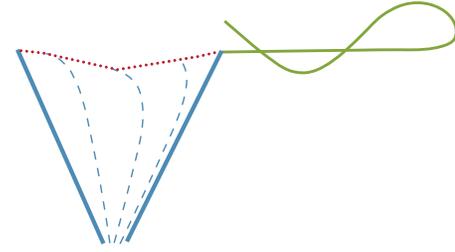
Because the fly rod bends while casting, it is possible for the rod tip path to be very straight. That would look like the drawing to the right:



In this next drawing the maximum rod bend is exactly the same as above, but the casting arc is too wide and that makes the rod tip path a big upward curve. That makes the top leg of the loop a big, inefficient curve too:

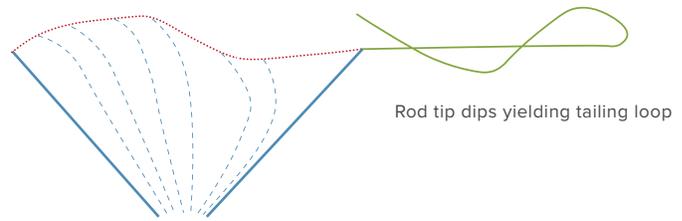


If the casting arc is too narrow, the tip path will dip down, and so will the top leg, creating an inefficient “tailing” loop:



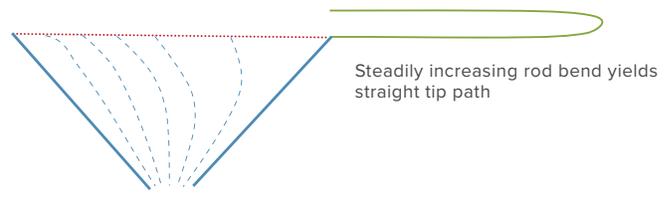
Simple enough, but there’s a bit more to making a great basic cast. How we accelerate and stop (decelerate) the rod has a big impact on the straightness of the top leg and the efficiency of the loop.

For the rod tip path to be straight, the fly rod must bend just right. The more you accelerate the rod, the more the rod bends. If you accelerate slowly, the rod bends very little. To the right are two drawings that show how differing rates of acceleration affect rod bend, and tip path. Assume in each case that the casting arc and force applied are appropriate for the cast being made.



Rod tip dips yielding tailing loop

Fly rod accelerated too slowly early in the casting stroke, too fast later



Steadily increasing rod bend yields straight tip path

Fly rod accelerated at a constant rate throughout the casting stroke

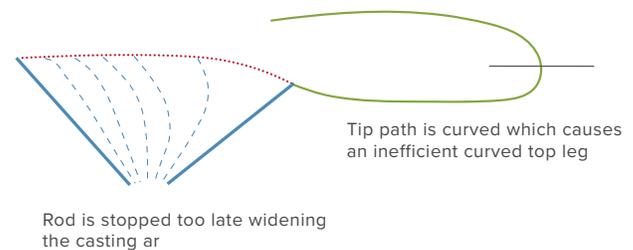
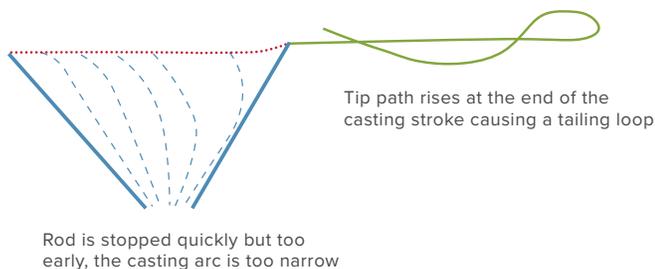
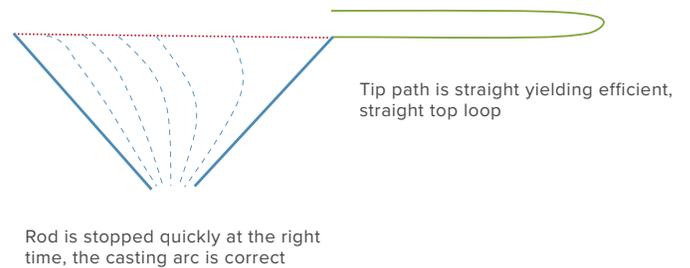
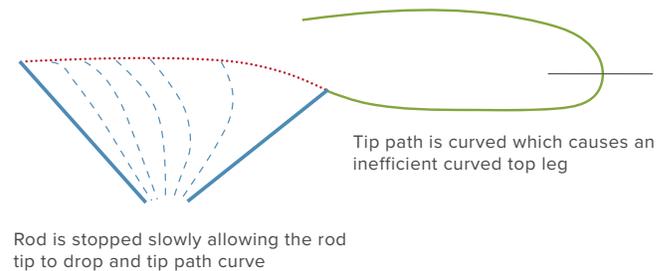
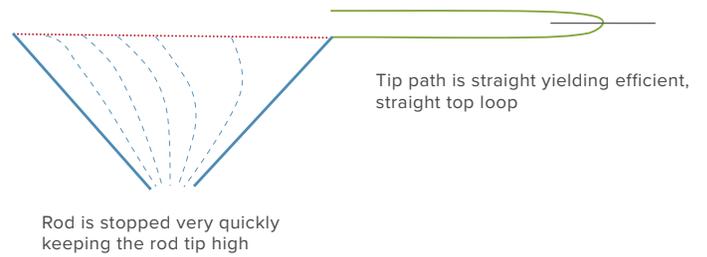


# FLY CASTING: FUNDAMENTALS OF A CAST

While it is physically possible to accelerate the fly rod too quickly early in the casting stroke and then too slowly later, it is very difficult to do and very rarely happens. It is very common to accelerate the rod too slowly at first, then too fast later. Be sure not to confuse acceleration with speed. ALL casts start with the rod moving slowly and end with the rod moving very fast. How the caster moves the rod from slow to fast, the quality of the acceleration, is what's most important.

**How the fly rod is accelerated** is very important, how it is decelerated, or "stopped" is almost as important. How and when the rod is stopped also impacts the rod tip path and top leg of the loop. To the right are two drawings showing what happens when the rod is stopped very quickly, and more slowly.

**When the rod is stopped** impacts the loop much as how it is stopped. The drawings below show how.



..... Rod Tip Path      \_\_\_\_\_ Loop

## KEYS TO THE FOUNDATION CAST

1. Top (fly) leg of the loop is relatively straight.
2. The loop has enough speed to get to the target, not much more or less.
3. Front and back loops are very similar
4. Adjust casting arc to match rod bend to maintain straight tip path.
5. Stop the rod quickly.

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# FLY CASTING: ROLL CAST

## WHAT IS A ROLL CAST AND WHY DO YOU NEED IT?

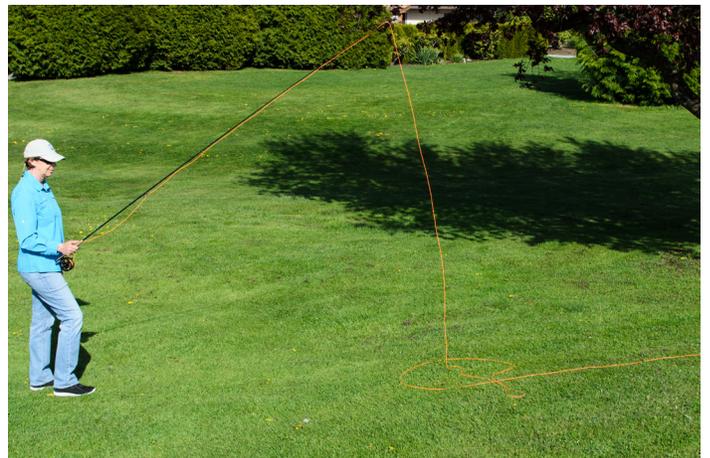
A roll cast is a forward cast without a backcast. If you knew only one cast, it should be the roll cast. You'll use it when you can't make a backcast because of trees or other obstructions behind you or because you have unwanted slack in the fly line. It's fun to learn and easy to do.

### WHY LEARN THE ROLL CAST

- » Removes slack in the fly line
- » When obstacles are behind you
- » When casting under an obstacle
- » Casting a fly off a rock or log
- » Bringing a sinking line to the surface
- » A safe cast when windy
- » Can be used for a small change of direction, 10-15 degrees
- » Instills good casting technique both single-hand and two-hand

## HOW TO ROLL CAST ON WATER

Start with the fly, leader, and a few feet of fly line on the water. Pull approximately two rod-lengths of fly line off the reel. Hold the rod horizontal in front of you, then wiggle it quickly side to side. This will pull the extra line out of the rod tip. The fly line is now in a pile in front of you. With one or two fingers of your rod hand, pin the line against the cork handle, to keep the line from slipping. Now, because the fly line is directly in front of your body, take a step or two to the left if you are right-handed (step to the right if you are left handed), so the line ends up in front of your rod hand, rather than your body.



A ROLL CAST CAN BE USED TO REMOVE SLACK



## FLY CASTING: ROLL CAST

With the rod canted outward at about 15 degrees, slowly draw the line back to form a half circle (D-loop) behind the shoulder. This D-loop should be aligned 180 degrees opposite the target (the 180 degree principle). When drawing the fly line backward, it shouldn't leave the water. Now look at your hand, which should be near your ear. The rod angle should be such that the rod tip is pointing to about 1:00 on a clock face with the thumb pointed nearly straight up. Keep the rod canted outward at about 15 degrees so the fly line stays away from your body and out of your way.

Look at your target and make sure the reel is also facing the target. Cast forward and stop the hand just above the horizontal position with the rod angled at about 10:00 o'clock. The loop will travel forward on or above the water's surface with the line and leader straightening completely. As the line begins to fall to the water, lower the rod tip and follow the line downward.

The roll cast requires the caster to throw harder than a comparable overhead cast. When performing this cast, the fly reel should face the target and the fly rod should track in a straight line. Once the fly line loop is on its way to the target, the fly rod tip can be lowered to the water. The next cast will be easier. With the line straight in front, again slowly draw the line back to form a D-loop and forward cast as described above.

### STEPS TO THE ROLL CAST:

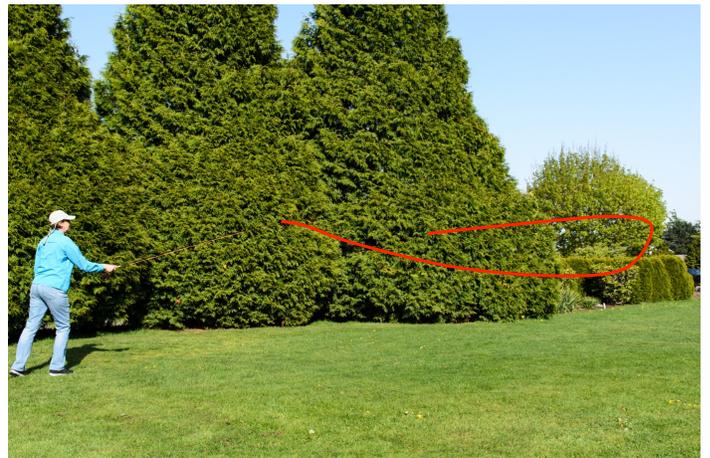
1. Rod tip low to the water
2. Tilt rod slightly away from body
3. Slowly drag the line back to form a D-loop behind the shoulder
4. Check hand, rod angle position, insure rod is tilted away from body
5. Forward cast stopping just above horizontal
6. Lower the rod tip to the water



D-LOOP



CHECKING HAND POSITION



ROLL CAST LOOP UNROLLING



## CONSIDERATIONS WHEN ROLL CASTING ON THE GRASS

Lack of water resistance makes casting on grass more difficult. A Roll Cast tool can be used to create tension for the D-loop to pull against. There are several ways to do this using a homemade Roll Cast tool, such as using an old screw driver with a cut sawn in the handle, a stake, or having a person stand on the yarn fly. When using a yarn fly, keep the size to that of about a kidney bean. Anything larger, will be too wind resistant and hinder the cast. To set up the line when using a tool or standing on the line, have the caster begin with the line straight out in front and fully extended to the desired length of the cast. The caster then slowly draws the fly line back to form the D-loop. At this point the line can be placed on the tool or a helper can stand on the yarn fly outside of the direction of the cast. The caster performs a roll cast. As the loop is formed and the cast is on its way, the leader is then released from the tool or the helper steps off the fly. Another alternative, is to use a push broom. With the bristles facing upward and the handle facing the caster, cast across the bristles and pull the fly line back until the yarn fly is held in place by the bristles. Once proficient with the roll cast, try it without a tool.

- » **How to make a roll cast tool:** If using a screwdriver with a wooden handle or a plastic tent stake, a cut will need to be placed into the top allowing for the leader to slip into and the yarn fly will be held against the tool with tension. A Coping saw has the correct width for the leader and yarn fly.

## TIPS

- » Learn to use your eyes and watch the line as you form the D-loop.
- » Look at your hand and rod position before the forward cast
- » Move the line into the D-loop position slowly
- » The fly line never leaves the water
- » The casting speed increases throughout the cast, from 1:00 to the “stop” at 10:00
- » The amount of fly line extended in front prior to the cast should be around 20 feet; if more it will be hard to turn all the fly line over



## OFF SHOULDER OR NON-DOMINANT SIDE

When roll casting, if the target is left of the center of your body, the D-loop should be placed on your right side. If the target is right of the center of your body, the D-loop should be placed on your left side. This angle keeps the line from colliding with itself. Once a caster can form D-loops on the dominant and non-dominant sides of the body, target direction, wind or obstacles will no longer be a deterrent.

The cast is the same as done on the dominant side. Lifting the elbow slightly the hand position will move toward the center of the forehead, the rod butt will be tilted 15 degrees outward away from the body, thus positioning the fly line off the non-dominant shoulder. The D-loop is now located on the non-dominant side. Now make the same 1:00 to 10:00 casting stroke you made on the other side.



## HORIZONTAL ROLL CAST

Turn the hand so the palm faces up and the fly line will now track in a horizontal plane. All steps to the cast remain the same the fly line is now traveling in a horizontal plane rather than vertical. Great for getting under brush with a terrestrial!

## DYNAMIC ROLL CAST

This cast is the next step to refining a roll cast and will be of great use when fishing longer distances. When first learning the roll cast, it is best to do it with the line coming to a complete stop after the D-loop is formed (a “static” line). A “dynamic” roll cast requires that a large “dynamic” D-loop be formed. The tension and therefore energy in a “dynamic” roll cast remains constant allowing for greater distance.

## ADVANCED ROLL CAST

When first learning the roll cast, a beginner will often hinge at the elbow; causing, the forearm to move back and forth. This style can work, but does have limitations. As the caster advances, the shoulder will come more into play. When hinging at the shoulder, the elbow will lift and lower allowing for a deeper bend in the rod and a more efficient cast. The elbow should be close to the casters side. During the forward cast, the elbow lowers followed by the reel and ending with the stop of the hand. The arm maintains a 90 degree bend throughout the cast. The motion is similar to throwing a javelin or pulling down on a rope in order to ring a bell.

Another technique for distance is to increase the size of the D-loop. If a caster utilizes shoulder motion, a large D-loop and dynamic line action occur and then greater distances can be achieved. Lastly, a haul on the pick-up, forward cast or both can add distance to the cast as well.



## COMMON FAULTS

- » Loop piles on the water
- » Forward start position at 12:00 rather than 1:00 and forward stop position too low, 12:00 or lower.
- » Not enough energy in the cast: loop will not unroll completely.
- » A roll cast requires more force than that of an overhead cast of the same distance.
- » Caster forgets to use it while fishing!

## REFERENCES

- » Joan Wulff's New Fly-Casting Techniques by Joan Salvato Wulff, Lyons Press, 2012
- » L.L. Bean Fly-Casting Handbook by Macauley Lord, Lyons Press, 2000

# FLY CASTING: PICK-UP AND LAY-DOWN CAST (PULD)

## PURPOSE

We use the Pick-up and Lay-down cast (PULD) to learn and practice an important fly casting building block—how to quietly pick up a fly from the water and then efficiently deliver it to its target.

To maximize our repetitions and enable us to focus on key fundamentals, our target for now will be roughly where the fly originally was when we picked it up. When fishing, we would typically change direction, distance or both after picking the fly up, and we can soon build these changes into our practice routine. See the False Casting and Changing Directions modules.

## PREPARATION

- » Always use a yarn fly and wear eye protection.
- » Start with the fly line laid out straight in front of you with no slack, just on the casting side of your body, with your fly 30 feet away from your feet.
- » See the Roll Cast module to remove slack from the line on water or grass, or just back up if you can on grass.
- » Thumb on top (or “handshake”) grip.
- » Line pinched against rod handle with forefinger of rod hand.

## STEPS TO THE CAST

---

### 1. SETUP

Rod pointed along the fly line, tip **just touching** the grass or water.

**FIGURE 1 /**  
SETUP POSITION:  
LIFT STARTS  
HERE





# FLY CASTING: PICK-UP AND LAY-DOWN CAST (PULD)

## 2. LIFT

**Slowly** bend your forearm upwards at your elbow and peel most of the fly line off the grass/water and drag the fly through the grass/water towards you until the rod reaches around the 10:30 position (45° above horizontal). This movement to 10:30 should take around one second (say “one-one-thousand” to yourself and you will be close). Your arm should now be bent around 90° at the elbow. Only the fly, the leader, and perhaps a bit of colored fly line should be left on the grass/water. Because grass provides much less resistance to the line than water does, a caster learning on grass can seemingly get away with a high-speed lift. If you lift fast on water, the cast will not work and will scare fish, so take care to make a slow, steady lift part of your start routine on grass too.

**FIGURE 2 /**  
LIFT MERGES  
INTO BACKCAST  
HERE



## 3. BACKCAST

**Without stopping**, keeping your arm bent at around the same 90° angle and now moving almost only from the shoulder, smoothly accelerate the rod to the vertical or 12 o'clock position and **stop crisply**. Your elbow should rise when you cast and the line should go **up** and behind you.

**FIGURE 3 /**  
BACKCAST  
STOPS HERE,  
LOOP IN FLY  
LINE FORMS,  
PAUSE FOR LINE  
TO STRAIGHTEN





## 4. PAUSE

Wait briefly for the line to straighten.

**FIGURE 4 /**  
WHEN LINE  
ALMOST  
STRAIGHTENS,  
BEGIN FORWARD  
CAST



## 5. FORWARD CAST

Keeping the bend in your arm and hinging at the shoulder, pull forward and down, smoothly accelerate, and **stop the rod crisply** in the 10:30 position. Your elbow should fall, and you are aiming to cast downwards, roughly opposite your upward backcast, with the leader unrolling just a couple of feet above the water. Remember the backcast was made uphill, against some water tension, and with weak muscles, whereas the forward cast is coming downhill unhindered while propelled by stronger muscles. Very little force is required in the forward cast.

**FIGURE 5 /**  
STOP FORWARD  
CAST HERE AND  
LOWER ROD TIP





## 6. LOWER

After stopping at around the 10:30 position, slowly lower the rod tip down to the water to follow the falling line at the same pace.

**FIGURE 6 /**  
FINAL  
POSITION—  
SAME AS SETUP  
POSITION



» ALL THESE STEPS SHOULD BE DONE WITH VERY LITTLE IF ANY WRIST BEND.

### STEPS TO THE PICK-UP AND LAY-DOWN CAST:

1. Rod tip low to the grass/water with no slack
2. Slowly peel the line off the grass/water to the 10:30 rod position, and without stopping
3. Cast up and back, stopping crisply with the rod vertical at the 12 o'clock position
4. Wait briefly for the line to straighten
5. Cast forward, stopping crisply around the 10:30 position
6. Lower rod tip to grass/water

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# FLY CASTING: FALSE CASTING

## OVERVIEW

### WHAT IS FALSE CASTING?

False casting is the classic back and forth fly casting motion everyone has seen. It is necessary to false cast when fly fishing because we're casting a long, weighted line instead of a simple weight, bait or lure as used in spin or bait casting. False casting allows us to change cast distance, change direction, and dry a wet fly.

Learning how to false cast is an important step in the process of learning to cast so you can go fishing. The skills needed for false casting depend on a good understanding of the Fundamentals of a Cast and knowing the Pick Up and Lay Down (PULD) cast. Make sure you have mastered those two segments before you start false casting.

### HOW TO FALSE CAST

Any false cast starts by picking the line up from the water or grass. You learned how to do that in the Pick Up/Lay Down segment. Start with about 30 ft. of line laying out straight in front of you and the rod tip low, no more than 1 ft. from the ground, and pointing at the line. Now at medium speed, raise the rod tip to about 10:30. At medium speed, this "lift" will take about 1 second. Done properly, the lift will drag the line across the ground or water, but not lift it from the ground or water. When the rod reaches the 10:30 position, quickly accelerate the rod to 1:30 and stop it there.



A: ROD TIP DOWN



B: ROD TIP 10:30



C: ROD TIP 1:30

When you "stop" the rod at 1:30, the rod tip will decelerate and the fly line will overtake it forming a loop. As you learned in the Pick Up/Lay Down segment, wait for the loop to nearly straighten (fly line straight, leader still in a loop, see diagram below,) then smoothly accelerate the rod forward, back to 10:30, and stop. At this point in a PULD cast, you would lower the rod to the ground/water and "lay down", or deliver the line and fly. When false casting, you don't deliver the fly at this point, instead you make another backcast. This process is repeated until the desired goal (change of direction or distance or fly drying) is accomplished and the line is delivered as in the PULD cast.

### WHEN TO START THE NEXT CAST





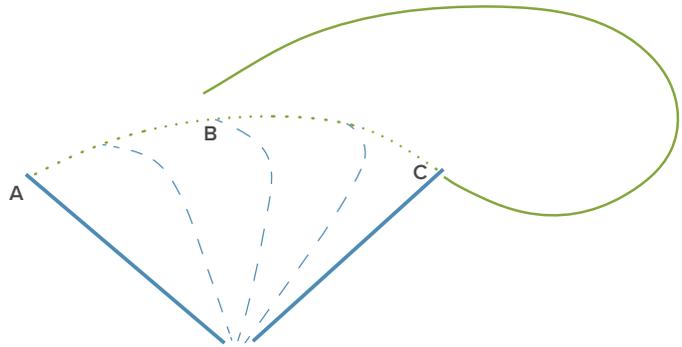
# FLY CASTING: FALSE CASTING

## ADJUSTMENTS

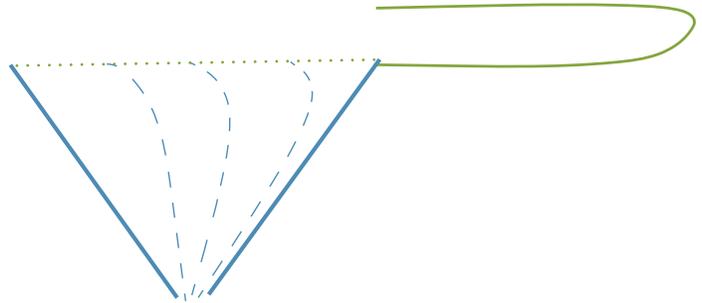
The suggested casting arc of 10:30 to 1:30 is a good place to start, but won't always result in the loop you want, depending on how much line you are casting, and how hard you are casting. As you learned in the foundation cast segment, how much you bend the rod determines the casting arc. Here's how to adjust:

..... Rod Tip Path  
———— Loop

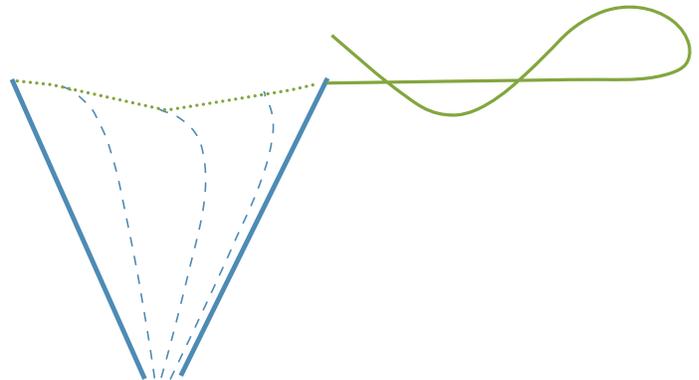
Look at the top leg of your loop. If it is not relatively straight, you need to adjust your casting arc. If the top leg is a big upward curve, your casting arc is too wide, as shown at the right. Note that the rod tip at positions A and C is much lower than at position B and that the rod tip path is an upward curve.



By narrowing your casting arc, you raise the rod tip at either end of the casting stroke, which allows the rod tip path, and loop top leg, to be much straighter, as shown here.



If the top leg of your loop dips down toward the bottom leg, that indicates that your casting arc is probably too narrow, as seen below. You can see that the rod tip is higher at each end of the casting stroke than in the middle, resulting in a dipping tip path. Widening the casting arc slightly will cure this problem.



This information should help you to effectively false cast a set distance, direction, and trajectory. Now we need to learn how to change **DISTANCE**, **DIRECTION**, and **TRAJECTORY**.



# FLY CASTING: FALSE CASTING

Typically when fishing, we cast and then retrieve line. To make another cast, you'll need to work out more line. To do this you'll "shoot" line. Shooting line is simply letting some line slip through your fingers while casting, lengthening the line you cast. When and how you shoot line is important.

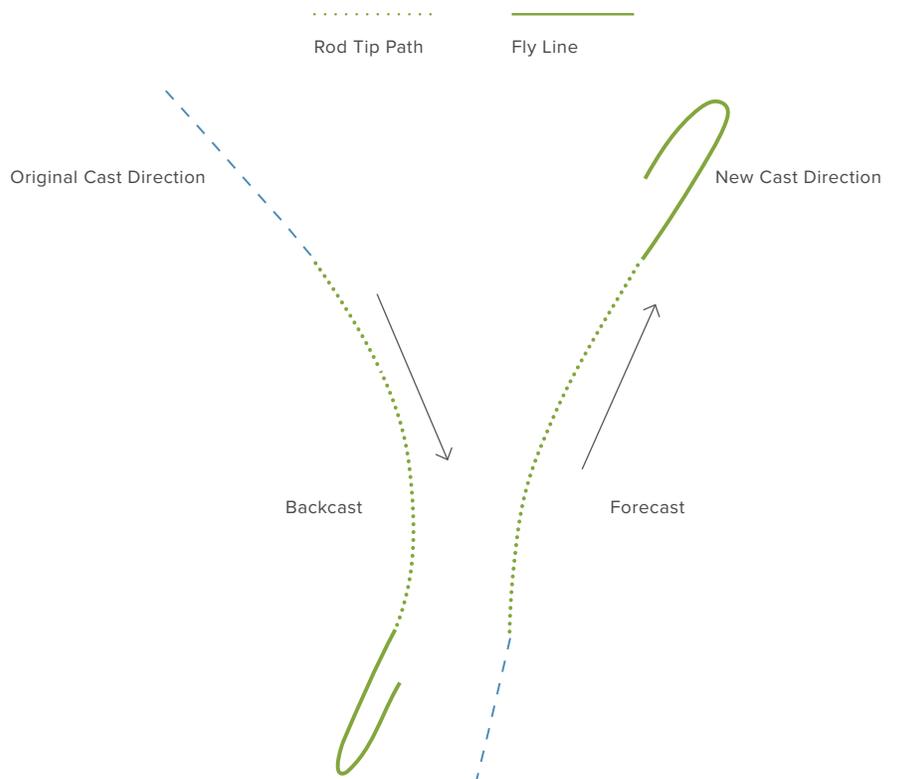
**WHEN:** The momentum of the line in the top leg of the loop pulls on the bottom leg. If the caster releases the line from his/her line hand once the loop is on its way, it will slip through the rod guides, and it will "shoot". The key here is that there must be a top leg and the top leg forms at the end of the casting stroke. If the caster releases the line before the top leg forms, before the "stop", momentum will be stolen from the top leg and the cast will collapse.

**HOW:** If the caster simply lets go of the line when shooting, he/she will lose control of the line and it will be difficult to regain control in time for the next cast. Rather than release the line completely, the caster should let the line slip through a ring formed by thumb and forefinger, retaining control, as seen in the photo. Just before the next casting stroke starts, the caster should firmly grip the line again.

Changing cast direction during false casting requires just a simple change to your casting stroke. We know that the fly line follows the rod tip, the top leg of the loop mirrors the tip path. If the rod tip follows an upward curving path, the top leg will curve upward. The same is true in the horizontal plane; if the rod tip curves to the right, or left, so will the loop top leg.

There is a limit to how much you can change cast direction in one false cast. The longer the cast, the less the direction can be changed with each cast. The best way to know what the limits are is to experiment. If you try to change direction too much all at once, you won't be able to complete the cast.

## CAST VIEWED FROM ABOVE



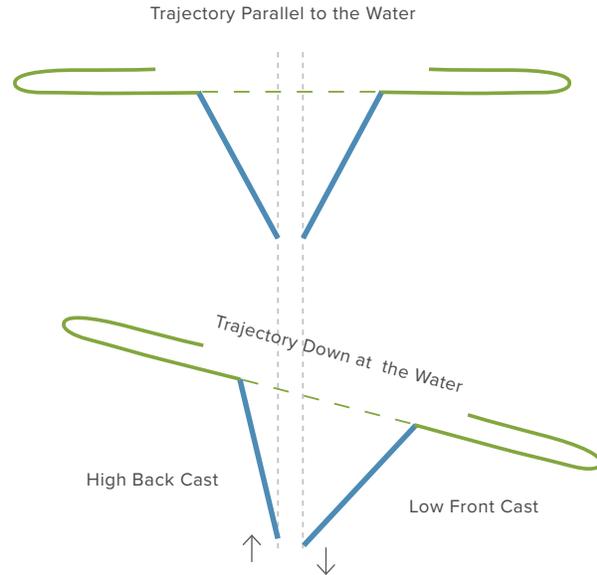


# FLY CASTING: FALSE CASTING

**NOW, TRAJECTORY:** Most of the time when we fish, we want the line and leader to deliver straight. Certainly, there are times when we want a slack or curved line delivery, that will be discussed in another segment. To get a straight line delivery, the line/leader must be aimed fairly close to the water surface. Most of the time, we are casting with a rod that is 8-9 ft. long, so if we cast with loops parallel to the ground, they will be too high for a good delivery, as seen in these drawings.

In the drawing at the right, the trajectory has been changed; tilted down toward the water. Note that the casting arc is exactly the same, but it is angled so the rod tip is lower in the front than in the back. You can see that the rod tip path is still straight, but it is aimed low in front, high in back. Remember that the top leg of the loop will mirror the rod tip path. If the rod tip path is high in back, low in front, so will the loop top leg.

For most people, changing cast trajectory is easiest accomplished by doing two things. First, move the rod hand in the same plane as you want the loop to be in. In this case, the hand should rise a bit during the backcast and drop a bit on the forward cast. Also, the rod angle at the back stop is more vertical than in the parallel trajectory cast, and the rod angle at the fore stop is less vertical. The casting arc is exactly the same but it is angled low in the front, high in the back.



At this point, you should have a good understanding of what a good foundation cast is, how to do a simple Pick Up/Lay Down cast, and how to false cast and deliver the line. That knowledge and skill is really all you need to go fishing!

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# FLY CASTING: CHANGE OF DIRECTION

## WHAT IS A CHANGE OF DIRECTION CAST?

Change of direction casts are exactly as the name implies. They are modifications of other casts that allow the presentation of the fly from a starting position to a finishing position that is generally several degrees to 180 degrees from the starting position. This is measured from the caster with lines to the start and finish targets. For example, a Pick-up and Lay-down cast to the same target would have 0 degrees change of direction. Picking up, false casting multiple times, and moving the target 20 feet to the left, we would measure the angle as a line from the caster to the starting position and from the caster to the finishing position.

## PRINCIPLES

There are some guiding principles to casting: Longer stroke – easier cast; fly line follows the path of the rod; and pertinent to this conversation, the 180 degree principle. The first key to changing direction is placing the backcast 180 degrees away from your target. This is probably the simplest and easiest way to change direction. Assuming we have already covered the basic cast, the change of direction is just changing the setup and direction. Let's use the clock to explain. First, assume you are casting to a fish at 12 o'clock. Suddenly a fish rises at 2 o'clock. You want to cast to this fish because, of course he is hungrier and bigger! To make this cast, your backcast needs to be 180 degrees away from where you want the front cast to go. If the fish is at 2 o'clock, the backcast would need to head to 8 o'clock. When you pick up the line into the backcast, this needs to be toward 8 o'clock. This will set up the forward cast and prevent the line from crossing in the air.

The setup for the backcast on a change of direction can be quite simple. If a small change of direction, it might just be a change of the arm or wrist. If the change of direction is greater or uncomfortable, then it might be necessary to rotate at the hips or change the placement of the feet. As with most casts, it is important to square up to the target with the shoulders as much as possible. This will help drive the cast in the right direction.

## CHANGE OF DIRECTION CASTS

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### 1. SMALL CHANGE, PICK-UP AND LAY-DOWN:

The steps of this cast are the same as the Pick-up and Lay-down (see Pick-up and Lay-down Cast module). It requires that the line lies in a straight line in front of you on the water with the rod tip held low. Decide where you want your cast to go and make sure you face the target. Point the rod at the target. Smoothly accelerate 180 degrees away from your target and stop in the backcast letting the loop unroll. Then accelerate to a stop in the front toward the target and lower the rod tip to the water as the fly line falls.



## 2. ROLL CAST:

Roll casting can be used for small changes of direction (up to 15 degrees) when backcast space is limited (see Roll Cast module). During the set up, form the D-loop 180 degrees opposite your target.

## 3. FALSE CAST:

False casting can also be used to change direction. False casting is making back and front casts continuously without presenting the fly (see False Casting module). The 180-degree principle applies here as well. When false casting, small degrees of change can be made. The shorter the line being cast, the more degrees of change. With roughly 30 feet of line in the air, cast a degree change of not more than 15 degrees for each false cast. After a forward false cast, the next backcast should be made pointing a few more degrees toward your ultimate backcast target which would, of course, be 180 degrees away opposite your final forward cast target. This should be done until the final target is aligned, and a presentation cast made. This is a great method when fishing to rising fish and can also dry the fly while changing direction, without, of course, casting over the fish.

## 4. LOB CAST:

Not really a cast at all, but a repositioning of the line to an upstream position. The lob is wonderful when fishing an upstream to downstream position while facing across the river. This is the typical position for fishing nymphs and dry flies with droppers. The lob cast allows the fishing rig to float unimpeded from the upstream delivery position to the downstream recast position.

- a. The setup for this cast starts at this point where the downstream position creates tension against the rod.
- b. From this point, the 180 degree principle comes back into play. With the line and rig downstream on tension, reposition the hand toward the target.
- c. The lob is exactly that. Rather than a regular cast with loop formation the lob is a smooth acceleration, but with a round rod tip. Often this is done with multiple flies and weighted flies and the weight of the flies help facilitate the tension of the line to maintain during the lob.

## KEYS TO CHANGE OF DIRECTION

- » Back cast 180 degrees from intended target
- » Smaller changes are generally easier to control
- » Use the appropriate cast to achieve the necessary change

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# DOUBLE HAUL

## What is hauling?

Hauling is “pulling on the fly line with the line hand while fly casting.”

Demonstrate double haul fly casting and tell students to watch the motion of the line hand.

The down motion or the **pull** is the actual haul and the up motion is the **return** which repositions the line hand for the next haul.

## What hauling does and why you need to learn it.

Hauling increases line speed which adds energy to the cast. This allows you to:

1. Cast further by carrying more line in the air and shooting more line.
2. Cast heavier and/or bulkier flies.
3. Cast more controlled loops in all types of wind.
4. Share the workload between your rod hand and your line hand.

## What two items you need to learn the double haul.

1. A good clean fly line that will slide easily through the rod guides. Always clean your fly line before practicing the double haul.
2. Good controlled narrow loops on both the forward and back cast. Good loops that fully unroll and straighten will have the needed energy to **pull** the fly line through the rod guides.

## What to look for when hauling.

**Match the haul to your casting stroke.** The haul length, timing and application of force should vary appropriately with the length of line carried. The haul should end when the rod stroke ends.

**The later the haul, the better.** The fastest part of the cast should occur just before the rod stops so by hauling later in the casting stroke, we add even more line speed when it can do us the most good.

**Maintain tension on the fly line between the hauling hand and the first rod guide throughout the entire cast.**

If you notice slack developing between the line hand and first rod guide during the “return” motion, make sure that:

- (a) Your fly line is clean so it will slide through the guides easily.
- (b) Your loops are narrow and have the energy needed to pull the fly line hand back up towards your rod hand.
- (c) Your “return” or up motion is not too fast. This will result in trying to push the fly line, which will result in slack. Remember that the haul is fast and the return is slow.

**The direction of the haul and return should be in line or parallel with the rod to reduce line friction with the first rod guide.**

## Single and Double Haul drills for practice

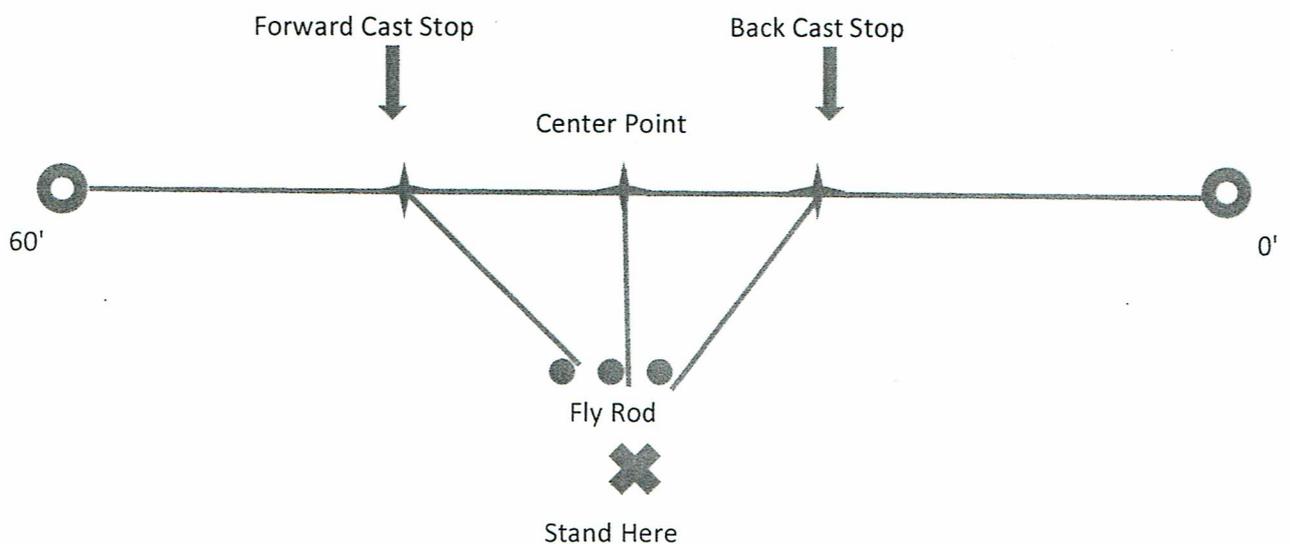
Learning the double haul all at once can be a real challenge. I find that breaking it down into 4 separate drills helps the student progress faster. The 4 drills described below show how to perform each drill in detail. Make sure that you maintain good loop control as you progress from drill 1 through 4. The first 3 drills are done in a horizontal casting plane to make it easier for the caster to observe both the forward and back cast.

Also, the use of a tape measure as a straight line reference helps the caster move and then stop the rod tip along a straight line path to maintain narrow loops.

**Set up:** Extend a tape measure to 60 feet. Set a target (soccer cone or 30" hoop) at zero and sixty feet.

Place a marker (soccer cone) at 30 feet. Stand at a position so you can place your rod tip on the 30 foot mark. Extend enough line to reach the center of each target on both the forward and back cast. This will equate to about a 34 to 35 foot cast. Maintain this casting distance for all 4 drills.

Stand facing the tape, fly near the forward cast target, rod tip over the tape and about waist high and rod hand palm up. You will be casting sidearm with the rod tip tracking over the tape.



**Drill #1- Straight line Path (SLP) of the Rod Tip to create Narrow Loops.** Using rod hand only and line pinched against the cork, smoothly accelerate the rod tip to an abrupt stop. Do one single cast and lay it down.

Rod tip should travel directly over the tape and stop very close to the oncoming line. You can try to hit the rod tip with the fly line. This will help form very narrow or “tight” loops.

Rod tip should also travel parallel to the ground, about waist high and in one plane. This teaches proper tracking of the rod tip and reinforces the 180 degree principle. The goal is to cast narrow loops with parallel legs (3 feet or less) and to have the line land parallel to the tape. The fly should land close to the target.

Next do two casts, one back cast, one forward cast and lay it down.

Next do false casting (6 to 8 casts). When you can see consistent narrow loops (3 feet or less) on both forward and back casts, line landing parallel to the tape and the fly close to the target, proceed to Drill #2.

**Drill #2- Single Haul and Return the Line.** Same set-up as above, but now add a 3 to 4 foot loop of working line by stripping 6 to 8 feet of line off the reel. Hold the line in the line hand with hands side-by-side and about 6 to 12” apart. We call this “thumbnail to thumbnail.” Start with the fly on or even with the forward cast target.

Do one cast at a time, single haul and return the line. Hands should start and end thumbnail to thumbnail. Do one forward cast with a laydown followed by one back cast with a laydown.

The haul (pull) starts when the rod is perpendicular to the target line.

The haul (pull) ends at the same time as the rod stroke ends. Same time, same motion.

Both rod hand and line hand have a smooth acceleration to a controlled stop. The return (recover) brings the line hand back close to the rod hand in preparation for the next haul.

When doing the haul and the return, there should be no slack line between your line hand and the first stripper guide. Proceed to Drill #3 when you can single haul and return the line with no slack and maintain narrow loops. While casting, the rod tip should track over the tape about waist high and the line should land parallel to the tape.

**Drill #3- Double Hauling.** Still casting sidearm, with the rod tip tracking over the tape, perform two consecutive single hauls, one back cast and one forward cast without a laydown in between. You are now performing a double haul.

Now do 6 to 8 double hauls while false casting and then land the fly in the forward cast hoop. Watch for good controlled narrow loops on forward and back casts and no slack between the line hand and first stripper guide. Also watch for the loop legs to remain parallel to each other.

**Drill #4- Raising the Casting Plane.** Raise the rod from the horizontal plane to 45 degrees. Step towards the tape as required to allow the rod tip to track over the tape while casting at this 45 degree angle.

Now do 6 to 8 double hauls in the 45 degree plane. Maintain tight loops with parallel legs. Be sure that there is no slack between your line hand and the first stripping guide while doing the haul and return.

Now step closer to the tape so the rod is near vertical and the rod tip can still track over the tape.

Written by Gary Turri

Approved by Willy George 11/1/17

## PAT – Lesson Plan

PAT – the three things you must change every time you change distance when fly casting

Pause, Arc, Tilt – these all depend on the distance you are casting

Demonstrate Pause at 30' (2 second pause), then 20' (1 second pause), then 40' (3 second pause)

- Ask students why we need to pause
- Introduce False Casting at this point as a follow-up to the PULD
- Short Cast = Short Pause & Long Cast = Long Pause
- You know that you have the correct pause if your fly doesn't snap off or doesn't hit the water or ground in back or in front of you

Demonstrate Arc at 30' (medium arc; narrower than you think; when reducing your arc cut most of it off the back), then 20' (very narrow; like casting only the tip section of the rod), then 40' (still narrower than you think, thanks to the pause)

- Short Cast = Narrow Arc & Long Cast = Wide Arc
- You know that you have the correct arc if your loop is tight

Demonstrate Tilt at 30' (introduce hover and the caster's height above the water), then 20' & 40'

- Short Cast = Steep Tilt & Long Cast = Flatter Tilt
- High above the water = Steep Tilt & Close to the water = Flatter Tilt
- You know that you have the correct tilt if your leader neither lands in a pile nor crashes into the water

PAT is not only a useful acronym to remember what needs to change, but also a checklist i.e., start with pause, then arc, then tilt; in that order

Have students practice applying the principles of PAT working in pairs, casting first at 30' with the correct Pause, then adjust the Arc, and finally adjust the Tilt all with input from their paired partner who is equipped with a pair of pool noodles to show the arc and the rod stops front and back. Instructors should coach both the caster and the paired partner using the pool noodles as appropriate. The same caster should then cast at 20' and then 40' using the same process steps. Switch partner roles and cast at all 3 distances.

Wrap-up by first answering any questions and then have a different student review each of three elements Pause, Arc, Tilt in front of the entire student group. Be sure that all three presenters mention, "You know that you have the correct (blank) if your (blank)."

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