A COMPREHENSIVE INTRODUCTION TO FLY FISHING
The FFI Learning Center is a primary source of educational and instructional materials, to meet the needs and interests of the fly fishing community in the areas of FLY FISHING SKILLS, FLY CASTING, FLY TYING, and CONSERVATION. The Learning Center is a combination of annual in-person workshop instruction and downloadable instructional materials found on the FFI website.
THANK YOU

Thank you for your interest in the sport of fly fishing, and for recognizing the Fly Fishers International Learning Center as a source for your educational material. We encourage you to supplement this Comprehensive Introduction with additional educational material, as your journey in this great sport continues.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLY FISHERS INTERNATIONAL (FFI)</td>
<td>8</td>
</tr>
<tr>
<td>PURPOSE OF THIS CLASS</td>
<td>9</td>
</tr>
<tr>
<td>HISTORY OF FLY FISHING</td>
<td>10</td>
</tr>
<tr>
<td>WHAT IS FLY FISHING?</td>
<td>11</td>
</tr>
<tr>
<td>FLY FISHING VS. CONVENTIONAL FISHING</td>
<td>12</td>
</tr>
<tr>
<td>EQUIPMENT</td>
<td>13</td>
</tr>
<tr>
<td>Where to put your stuff</td>
<td>13</td>
</tr>
<tr>
<td>Where to put your flies</td>
<td>14</td>
</tr>
<tr>
<td>Equipment for Wading</td>
<td>15</td>
</tr>
<tr>
<td>Streamside Accessories</td>
<td>16</td>
</tr>
<tr>
<td>The Fly Rod</td>
<td>18</td>
</tr>
<tr>
<td>Basic Purpose of a Fly Rod</td>
<td>19</td>
</tr>
<tr>
<td>Fly Rod Anatomy</td>
<td>20</td>
</tr>
<tr>
<td>Assembling a Fly Rod</td>
<td>23</td>
</tr>
<tr>
<td>Carrying Your Rod to the Water</td>
<td>24</td>
</tr>
<tr>
<td>Rod Care</td>
<td>25</td>
</tr>
<tr>
<td>The Reel</td>
<td>26</td>
</tr>
<tr>
<td>Fly Line, Leader, and Tippet</td>
<td>27</td>
</tr>
<tr>
<td>Understanding Monofilament</td>
<td>28</td>
</tr>
<tr>
<td>Understanding Leader</td>
<td>30</td>
</tr>
<tr>
<td>Understanding Tippet</td>
<td>35</td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CASTING</th>
<th>39</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose of Casting</td>
<td>40</td>
</tr>
<tr>
<td>Importance of Casting Presentation</td>
<td>47</td>
</tr>
<tr>
<td>Casting Basics</td>
<td>41</td>
</tr>
<tr>
<td>Reading Loops</td>
<td>48</td>
</tr>
<tr>
<td>Essential Guidelines</td>
<td>44</td>
</tr>
<tr>
<td>Timing</td>
<td>49</td>
</tr>
<tr>
<td>Types of Casts</td>
<td>46</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>KNOTS</th>
<th>50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glossary</td>
<td>51</td>
</tr>
<tr>
<td>Adding Tippet to Leader</td>
<td>58</td>
</tr>
<tr>
<td>Techniques for Better Knots</td>
<td>51</td>
</tr>
<tr>
<td>Leader to Fly Line</td>
<td>60</td>
</tr>
<tr>
<td>Tippet Size and Fly Size</td>
<td>52</td>
</tr>
<tr>
<td>Fly Line to Backing</td>
<td>62</td>
</tr>
<tr>
<td>Knot Tying Practice</td>
<td>53</td>
</tr>
<tr>
<td>Backing to Reel</td>
<td>62</td>
</tr>
<tr>
<td>Knot Considerations</td>
<td>54</td>
</tr>
<tr>
<td>Additional Knots</td>
<td>63</td>
</tr>
<tr>
<td>Terminal Knots</td>
<td>56</td>
</tr>
<tr>
<td>Animated Knots</td>
<td>63</td>
</tr>
</tbody>
</table>

| RIGGING                                      | 64         |
# TABLE OF CONTENTS

## THE FISHING PART OF FISHING

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Where are the Fish?</td>
<td>68</td>
</tr>
<tr>
<td>“Reading the Water”</td>
<td>69</td>
</tr>
<tr>
<td>Fish Habitat</td>
<td>70</td>
</tr>
<tr>
<td>Anatomy of a Stream</td>
<td>71</td>
</tr>
</tbody>
</table>

## THE CATCHING PART OF FISHING

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting the Hook</td>
<td>92</td>
</tr>
<tr>
<td>Playing/Landing the Fish</td>
<td>93</td>
</tr>
</tbody>
</table>

## CHARACTERISTICS OF FISHING

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Types of Rivers</td>
<td>96</td>
</tr>
</tbody>
</table>

## FISH BEHAVIOR

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protection, Food, Rest</td>
<td>99</td>
</tr>
<tr>
<td>Feeding Lie</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handling the Fish</td>
<td>94</td>
</tr>
<tr>
<td>Releasing the Fish</td>
<td>95</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Types of Fisheries</td>
<td>97</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holding Lie</td>
<td>101</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Considerations</td>
<td>102</td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>STRATEGY AND TACTICS</td>
<td>108</td>
</tr>
<tr>
<td>ETIQUETTE</td>
<td>109</td>
</tr>
<tr>
<td>SAFETY</td>
<td>110</td>
</tr>
<tr>
<td>FLY TYING</td>
<td>111</td>
</tr>
<tr>
<td>THE FLY FISHING TRIP</td>
<td>121</td>
</tr>
<tr>
<td>THE GHILLIE (GUIDE)</td>
<td>122</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>123</td>
</tr>
</tbody>
</table>
www.flyfishersinternational.org

Nonprofit, national governing body

Only organization to focus on the fly angler:
“All Fish, All Water”

Founded 1965 in Eugene, Oregon

Fly Fishing Skills, Casting, Fly Tying, Conservation

“Educating, Conserving & Restoring through Fly Fishing”

CONSERVATION / EDUCATION / COMMUNITY
PURPOSE OF THIS CLASS

This purpose of this class is to provide a student with a comprehensive understanding of fly fishing skills, to begin their lifelong learning of fly fishing.

“The charm of fly fishing is the pursuit of what is elusive but attainable, a constant series of occasions for hope.”
HISTORY OF FLY FISHING

» A Treatise On Fishing With An Angle, 1492, Dame Juliana Berner
» The Compleat Angler, Izaak Walton, 1653
» British Throne controlled printing
» Exclusive for aristocracy
» Limited innovation
WHAT IS FLY FISHING?

» WHAT IS A FLY?
  • A hand-tied imitation of the food source the fish eats in the water
  • It looks and acts like an aquatic insect

» PRESENT THE FLY TO A SPOT WHERE YOU THINK A FEEDING FISH WILL BE

» UNDERSTAND FISH BEHAVIOR AND HABITAT
FLY FISHING VS CONVENTIONAL FISHING

» You can fly fish for all fish species, in all types of water

» Fly fishing: weight of line pulls fly; conventional fishing: weight of lure pulls line

» Fly fishing focuses on the river anatomy, such as habitat, current, and obstructions, to determine fish location (food, protection, rest)

» Casting skill allows the angler to present the fly at a precise location
WHERE TO PUT YOUR STUFF

» Vest
» Sling pack
» Waist pack
» Chest pack
» Guide jacket
» Lanyard
EQUIPMENT

WHERE TO PUT YOUR FLIES?

FLY BOXES

» “Fly Anxiety”
» Minimalize
» Organize
» Label
EQUIPMENT

WADING GEAR

» Waders
  » Wool Socks
» Wader Pants
» Wet Wading
  » Gravel Guard
» Wader Pants
» Wader Boots
» Wading Staff
EQUIPMENT

STREAMSIDE ACCESSORIES

» Hemostat/Forceps
» Polarized Sunglasses
» Nippers
» Hook File
» Strike Indicators
» Landing Net
» Leaders and Tippet
» Split shot
» Gadgets

» Water (dry bag)
» Snacks (dry bag)
» Wide-brimmed hat
» Dry “day” bag
» Extra clothes
» Wide-brimmed hat
» Folding chair
» Gloves (warm, wet, fingerless)

» Insect Repellent
» Sun Screen
» Flashlight
» Gator or Buff
» Thermometer
» Rain Gear
EQUIPMENT

DRESS SMART!

» No cotton products next to your skin
» Dress in layers
» Base: warm, moisture wicking (Merino Wool, “ski-skins”)
» Second layer: warm
» Third layer: warm; protection from moisture and wind
» Have some extra clothes, and a towel, in your “day bag”
» Gloves: warm, wet, fingerless
» Buff
EQUIPMENT - FLY ROD

IN THIS SECTION

» Basic purpose of rod
» Fly rod anatomy
» Selecting and buying a fly rod
» Rod weight (strength) in proportion to fish species
» Assembling a rod

» Carrying your rod to the water
» Rod care
» Reel
» Fly line, leader, and tippet
» Leader—anatomy
» To “line” a fly rod
EQUIPMENT - FLY ROD

BASIC PURPOSE OF A FLY ROD

1. A tool for casting, repositioning line, and “playing” fish;
2. Cast the weighted fly line, not the fly;
3. Attach reel; manage line
EQUIPMENT - FLY ROD

FLY ROD ANATOMY

» Reel seat
» Cork
» Blank, fiberglass, graphite
» Guides
» 2-piece, 3-piece, 4-piece, 7-piece
EQUIPMENT - FLY ROD

SELECTING AND BUYING A FLY ROD

» Rod weight (strength), 1-16 rod weight

» Rod length, 7’6”-11’; most common: 9’

» “Action”, tip recovery
  » tip flex
  » mid flex
  » full flex

» Rod weight (strength) in proportion to fish species
EQUIPMENT - FLY ROD

FLY ROD WEIGHT (STRENGTH) IN PROPORTION TO FISH SPECIES

» Fly Rod/Line Weight 1-4: Good for small fish and small flies
» Fly Rod/Line Weight 5: Good for small fish, average sized bass and trout
» Fly Rod/Line Weight 6: Good for trout and bass
» Fly Rod/Line Weight 7: Good for bass fishing and trout (16” +)
» Fly Rod/Line Weight 8 and above: Good for larger and stronger fish, particularly saltwater species
ASSEMBLING A FLY ROD

» Using a 4-piece rod:
  » 1: Butt section to second section;
  » 2: Third section to fourth section;
  » 3: Connect 1 & 2

» Align guides

» Use of “dots”
EQUIPMENT - FLY ROD

CARRYING YOUR ROD TO THE WATER:

» Hold the rod on the cork near the reel, so the length of the rod is extended behind you; the reel is extended forward

» If you disassemble your rod before walking to the water, or after fishing while walking back to your vehicle, be sure to use a rubber band to keep your rod sections together
Due to body oil and perspiration from your hands, fish slime, floatant, sunscreen, and more, the cork normally requires the most attention to keep clean.

To clean the cork, products that work well are soaps and dish detergents, toothpaste, spray cleaners, and mostly liquid household cleaner, such as “Soft Scrub Cleanser with Bleach.”

Clean the rod blank with warm water and soap, or Pledge Furniture Polish, in the aerosol can (spray on a cloth then wipe rod).

The rod guides typically do not need to be cleaned; however, since guides can wear out, they should be inspected for worn places.
EQUIPMENT - THE REEL

- In proportion to the rod
- Relative to fish species targeted
- Purpose of drag
- Holds line
- Essential to manage line (control line)
- Maintenance
- Left/right hand retrieve
- The “myth” of the reel
EQUIPMENT - FLY LINE, LEADER, TIPPET

LINE CONSTRUCTION

» Line weight designation (relative to rod weight designation); 7wt line for a 7wt rod
» Floating line (WFF)
» Sinking line (intermediate)
» Leader
» Use of tippet
» Backing
EQUIPMENT - UNDERSTANDING MONOFILIMENT

- Monofilament is not a material, it simply means “single filament”
- The single filament can be made of nylon, fluorocarbon, PVC, or anything
- The comparison of monofilament for fly fishing is between nylon and fluorocarbon
EQUIPMENT - UNDERSTANDING MONOFILAMENT

NYLON MONOFILAMENT
- Illuminates sunlight rays
- Effected by abrasion
- Weakens over time, especially when exposed to UV rays
- $$

FLUOROCARBON MONOFILAMENT
- Eliminates fiber optic qualities
- More abrasion resistant
- Does not weaken over time
- Not degradable
- Sinks slightly faster
- Some concern for knot strength
- $$$
EQUIPMENT - UNDERSTANDING LEADER
EQUIPMENT - UNDERSTANDING LEADER

» A new leader, right out of the packet: unwrap carefully
» Tapered, Knotless
» Last two feet of Leader is “tippet”
» Nearly invisible
» Transition from fly line to the fly
EQUIPMENT - UNDERSTANDING LEADER

» Wide variety of sizes
» Purpose: (1) ability to tie on a fly; (2) transfer of energy
» Leader and Tippet are monofilament (single filament)
» Could be nylon, fluorocarbon, PVC, anything
NOTE: THE IMPORTANCE OF A TAPERED LEADER

During the basic cast, the fly line follows the path of the rod tip. As the rod accelerates to an abrupt stop, the rod bends then straightens, creating stored energy. The stored energy transfers through the fly line. When the rod abruptly stops, the taper in the leader allows the energy to transfer from the fly line, through the leader, to the fly. If the leader was level (the same diameter), the energy would dissipate and dissolve, making it very difficult for the loop to roll out and present the fly accurately.
WHAT DOES THE “X” MEAN ON LEADER/TIPPET?

For many years, manufacturers have used a simple rating system that describes both the diameter and breaking strength of tippet material. The basic scale has run from the largest diameter 0X to the smallest diameter 8x.
EQUIPMENT - UNDERSTANDING TIPPET

» Nearly invisible
» Wide variety of sizes
» Selection based on target species
» "Level" diameter
» Light weight
Choose 5X or 7X?

- 5X  .006” (.15mm) diameter,  4.5 lb breaking strength
- 7X  .004” (.10mm) diameter,  2.5 lb breaking strength

Adding tippet: double surgeon knot or double uni knot

Using a Tippet Tool: measure diameter, tapered or level?

Adding tippet to a new leader: optimize leader strength

Breaking strength: sustained tension, quick tension
EQUIPMENT - LEADER/TIPPET SIZE & FLY SIZE

» 0X: 2, 1/0
» 1X: 4, 6, 8
» 2X: 6, 8, 10
» 3X: 10, 12, 14
» 4X: 12, 14, 16
» 5X: 14, 16, 18
» 6X: 16, 18, 20, 22
» 7X: 18, 20, 22, 24
## Equipment - Tippet Size Based on Species

<table>
<thead>
<tr>
<th>Tippet Size</th>
<th>Breaking Strength</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>0X</td>
<td>15.5</td>
<td>Large Bass</td>
</tr>
<tr>
<td>1X</td>
<td>13.5</td>
<td>Bonefish, Redfish, Permit</td>
</tr>
<tr>
<td>2X</td>
<td>11.5</td>
<td>Large and Smallmouth Bass</td>
</tr>
<tr>
<td>3X</td>
<td>8.5</td>
<td>Bass and Large Trout</td>
</tr>
<tr>
<td>4X</td>
<td>6</td>
<td>Trout and Panfish</td>
</tr>
<tr>
<td>5X</td>
<td>4.75</td>
<td>Trout and Panfish</td>
</tr>
<tr>
<td>6X</td>
<td>3.5</td>
<td>Trout and Panfish</td>
</tr>
<tr>
<td>7X</td>
<td>2.5</td>
<td>Trout and Panfish</td>
</tr>
</tbody>
</table>
IN THIS SECTION

» Purpose of casting
» Casting basics
» Types of casts
» Keep the fly in the water

» Importance of presentation
» Read your loops
» Timing
CASTING

PURPOSE OF CASTING

» Present the fly
» Dry off the fly (false cast)
» Change direction
CASTING BASICS

» How to hold the rod
» How to hold the fly line
» “Fishing” position
» Initial cast/line on the water (no slack)
CASTING

CASTING BASICS

» Start the cast with the fly rod tip close to the water (basic fishing position)

» Lift the fly rod straight up; when the fly rod tip is about level with your shoulders, move the fly rod so the fly rod tip goes over your shoulder to an abrupt stop when your rod tip is behind your shoulder (wrist straight), and your casting hand is near your ear

» Pause, and allow the fly line loop to roll out

» Just before the loop has rolled out, begin the forward cast;

» Drill: answer the phone, say hello; fly swatter in the doorway; flip water off a paint brush
» Begin the forward cast:
  » Stroke: move elbow and forearm forward (wrist straight)
  » Rotate: stop your elbow, extend your forearm/hand toward target

» Pause, and allow the fly line loop to unroll going forward, then lower your fly rod tip to the surface of the water (a return to the starting position)

» Drill: answer the phone, say hello; get water off the paint brush or swat the fly standing in the doorway
CASTING

SOME ESSENTIAL GUIDELINES

» As the fly rod/line is cast back or forward, the fly rod moves with a smooth acceleration to an abrupt stop

» The pause is very important on the back cast and the forward cast (allows the loop to “roll out”)

» As the back cast accelerates to the abrupt stop, then accelerates forward to an abrupt stop, the fly rod tip should travel in a level plane/straight line path
CASTING

ADDITIONAL CASTING GUIDELINES

» The fly line will follow the path of the rod tip
» Begin the cast with no slack in the fly line; avoid slack in the line at all times during the cast
» Keep the fly in the water
» Many anglers do too much false casting
» The false cast is a necessary tool for fly anglers to learn, but don’t overdo it
CASTING

TYPES OF CASTS

» Roll cast
» Pick-up and Lay-down
» Pick-up and Lay-down, Change of Direction
  » False Cast, Basic Cast ("aerialized")
  » Change direction
» Dry off the fly
CASTING

IMPORTANCE OF PRESENTATION

» Poor presentation can scare fish
» Accuracy
» Place the fly in a place that creates optimal interest from the fish
» In relation to habitat and structure
» Presentation vs. Fly Selection
» Tangle leader/tippet
CASTING

WATCH ("READ") YOUR LOOPS

» Width of loop
» Ideally, 2-3 feet wide
» Belgium Cast, large flies, streamers
» Aerodynamics
» "Fly leg" dip (tailing loop)
CASTING

TIMING

» Forward cast and back cast
» Slow down!
» Allow the pause on the back cast
IN THIS SECTION

» Glossary
» Techniques for Better Knots
» Tippet Size & Fly Size
» Knot Practice
» Knot Applications

» Animated Knots
» Knot Considerations
» Knot Tying Practice
» Terminal Knots
» Adding Tippet

» Leader to Fly Line
» Fly Line to Backing
» Backing to Reel
» Dropper Riggs
» Specialty Knots
KNOTS

GLOSSARY

» **Butt**: leader section connecting to the line
» **Tag End**: the short end of the line in which the knot is being tied
» **Tippet**: leader section connecting to the fly
» **Standing End or Standing Line**: the long end of the line in which the knot is being tied
» **Loop**: line doubled back on itself so that the tag end is parallel to or across the standing end, forming a loop
KNOTS

LEADER/TIPPET SIZE & FLY SIZE:

- 0X: 2, 1/0
- 1X: 4, 6, 8
- 2X: 6, 8, 10
- 3X: 10, 12, 14
- 4X: 12, 14, 16
- 5X: 14, 16, 18
- 6X: 16, 18, 20, 22
- 7X: 18, 20, 22, 24

Smaller “X” number = larger fly
KNOTS

KNOT-TYING PRACTICE

» Use discarded material: old pieces of line, leader, and backing will work fine as practice materials
» Practice with the same size of material you will likely use on the river
» Your finished knot should look like an illustration of the finished knot
» Go slow
» Moisten the knot
» Failed knots
» Anticipate weather conditions
» Various products and diameters
KNOTS

KNOT CONSIDERATIONS

» Knot strength, wet knot strength
» Relationship of hook size to knot
» Relationship of hook size to fly pattern
KNOTS

BASIC FLY ROD KNOTS/RIGGING

1. TERMINAL KNOT
2. Tippet to leader
3. Leader to fly line
KNOTS

TERMINAL KNOTS: (TIE THE FLY TO THE TIPPET)

» Clinch
» Improved clinch
» Uni
» Non-slip
After you feel good with the Improved Clinch Knot, and the Non-slip Knot, learn additional terminal knots such as:

» Duncan
» Davey, and Double Davey
» Orvis/Becker
» Nail
» Perfection Loop
KNOTS

BASIC FLY ROD KNOTS/RIGGING

1. Terminal knot
2. TIPPET TO LEADER
3. Leader to fly line
KNOTS

ADDING TIPPET TO LEADER:

» Double surgeon’s knot
» Double “uni” knot (slip)
» Blood knot
KNOTS

BASIC FLY ROD KNOTS/RIGGING

1. Terminal knot
2. Tippet to leader
3. LEADER TO FLY LINE
KNOTS

LEADER TO FLY LINE:

» Loop to loop
» Nail knot
» Knotless connection
KNOTS

FLY LINE TO BACKING

» Bimini Twist
» Nail
» Albright

BACKING TO REEL

» Arbor
» Duncan Loop
KNOTS

ADDITIONAL EXCELLENT KNOTS

» Turle
» Snell
» Palomar
» Dropper rig/knots

Animated knots by Grog: www.animatedknots.com
NetKnots: www.netknots.com
Orvis Fly Fishing app
IN THIS SECTION

- Floating line and fly
- Tippet ring
- Swivel
- Adding a dropper fly
- Nymph fishing
- Placing the strike indicator
- Intermediate line
- Sink tip
RIGGING

» Fundamental Rigging: WFF line; 9’ tapered leader; dry fly (no strike indicator needed)

» Nymph Rig: WFF line; 9’ tapered leader; tie on a wet fly/nymph fly; set strike indicator

» Dropper Rig: WFF line; 9’ tapered leader; tie on a dry fly; add 18” of tippet, then tie on a nymph fly (no strike indicator needed)

» Double Dropper Rig: WFF line; 9’ tapered leader tie on a nymph fly; add 18” of tippet and tie on a second nymph fly; set strike indicator
RIGGING - A DRY-DROPPER
THE “FISHING” PART OF FLY FISHING

IN THIS SECTION

» Where are the fish?
» “Reading” the water
» Fish habitat
» Anatomy of a stream
» Entomology
» Selecting a fly
THE “FISHING” PART

WHERE ARE THE FISH?

» Polarized sunglasses really help
» Fish look for: protection, feeding, rest
» Watch for the “flash”
» Watch for their silhouettes
» Watch for the “white” edge of their mouth
» Watch for movement
THE “FISHING” PART

“READING” THE WATER:

» Stay back from the water to begin reading the water
» Changes in current, depth, water color, structure “pockets” or depressions in the river bottom
» Rocks, in front of and behind, and hydraulics
» Pay attention to the banks, and the cut bank
» Look for “foam” in the current
THE “FISHING” PART

FISH HABITAT

» Where the fish lives

» “Those waters and substrate necessary for fish to spawn, feed or grow to maturity.”

» Fly fishers understand and respect fish habitat
THE “FISHING” PART

STREAM ANATOMY

» **Pool:** a relatively deep area in a stream, generally with fast water at the upstream end (head), a broad flat expanse of slow water (middle), and a narrower, gradually faster area of current (tail); can be 3 feet long or a half-mile long

» **Riffle:** usually separate pools from one another, areas of more rapidly descending topography than pools, the water is shallower and faster, and the surface of the water is broken

» **Run:** midway in depth between pools and riffles, narrower than pools or riffles, and the water on the surface is faster than the pool

» **Pocket water:** a run or deep riffle with big rocks on the bottom causing the surface of the water to be heavily broken; often deeper

» **Undercut bank:** formed in a pool, riffle, or run when the current erodes the bank under the surface of the water
HEAD OF A POOL
FOOD SOURCE AND COVER
TAIL OUT, OR GLIDE OF A POOL
BECOMES SHALLOW, GOOD VIEW, ESCAPE, FOOD SOURCE, AND NEAR COVER
FOAM LINE
FOOD CONVEYER BELT
UNDERCUT BANK

PRIME LIE: FOOD, COVER, REST
RIFFLE
LOTS OF AQUATIC INSECTS; BEGIN FOAM LINE
THE “FISHING” PART

AQUATIC INSECTS

The study of aquatic insects: entomology

» Mayfly
» Nymph
» Caddis Fly
» Stone Fly
» Terrestrials and Moths
» 80% + of the fish food source is underwater
THE “FISHING” PART

AQUATIC INSECTS, continued

» Turn over a rock where you will be fishing
» Size, shape, and color
» Don’t need to know the Latin name for each bug
» The “foam” is “home”
» Effect of “hydraulics”
» Fish hold in the seams of current
» Look at lights near where you will fish
» Look at hatch charts before you go to the water;
» Ask the local fly shop what to expect regarding the bug hatch for that time of the year/day
THE “FISHING” PART

FLIES

» As a fly fisher, you will tie your tippet to a fly
» “Match the Hatch”; imitate an insect; or
» “Attractor” patterns
» 80% of a fish diet is from food source below the water
THE “FISHING” PART

FLIES, continued

» Flies are sold by hook size
  » The larger hook number = a smaller hook; a smaller hook number = a larger hook
  » A size 2 hook is larger than a size 20 hook
» Dry Flies: a fly that floats
» Wet Flies: (imitate the insect larval stage); will be below the surface of the water; nymph flies and streamer flies
» Streamers: imitate baitfish
THE “FISHING” PART

SELECTING A FLY

» Size
» Shape
» Color
THE “FISHING” PART

MAYFLIES

» 2 or 3 tails, usually 3
» Wings are upright on adults
» No antennae
» Nymphs have gills on the body (abdomen)
THE “FISHING” PART

MAYFLY DRY FLIES
THE “FISHING” PART

CADDIS FLY

» No tail
» "Tent" shape wings (lay down)
» Usually have antennae
THE “FISHING” PART

CADDIS DRY FLIES
THE “FISHING” PART

NYMPHS
THE “FISHING” PART

TERRESTRIALS - INSECTS THAT LIVE ON THE LAND
THE “FISHING” PART

STREAMERS
THE “FISHING” PART

STREAMERS IMITATE BAITFISH
### THE “FISHING” PART

#### TOP 12 FLIES

<table>
<thead>
<tr>
<th>Fly Name</th>
<th>Type</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pheasant Tail Nymph</td>
<td>Nymph</td>
<td>16-20</td>
</tr>
<tr>
<td>Hare’s Ear Nymph</td>
<td>Nymph</td>
<td>8-18</td>
</tr>
<tr>
<td>Copper John Nymph</td>
<td>Nymph</td>
<td>10-16</td>
</tr>
<tr>
<td>Adams</td>
<td>Dry Fly</td>
<td>10-16</td>
</tr>
<tr>
<td>Parachute Adams</td>
<td>Dry Fly</td>
<td>12-22</td>
</tr>
<tr>
<td>Elk Hair Caddis</td>
<td>Dry Fly</td>
<td>14-20</td>
</tr>
<tr>
<td>Stimulator</td>
<td>Dry Fly</td>
<td>8-16</td>
</tr>
<tr>
<td>Comparadun</td>
<td>Dry Fly</td>
<td>16-24</td>
</tr>
<tr>
<td>Griffith’s Gnat</td>
<td>Dry Fly, Emerger</td>
<td>16-24</td>
</tr>
<tr>
<td>Emerger (wet fly)</td>
<td>Emerger</td>
<td>14-18</td>
</tr>
<tr>
<td>Woolly Bugger</td>
<td>Streamer</td>
<td>4-10</td>
</tr>
<tr>
<td>Zebra Midge</td>
<td>Midge</td>
<td>18-22</td>
</tr>
</tbody>
</table>
THE “CATCHING” PART OF FLY FISHING

IN THIS SECTION

» Catching, Set the Hook
» Playing (not “fighting” a fish)
» Landing
» Handling
» Releasing a Fish (after reviving the fish)
THE “CATCHING” PART

SET THE HOOK

» Raise the “cork”, not just the tip of the rod—the tip is the most flexible part of the rod

» If you are fishing with a very long leader, the hook set must be a little quicker
THE “CATCHING” PART

PLAYING/LANDING A FISH

» Control the butt section of your fly rod; don’t allow the rod tip to dip
» Use the current to your advantage
» Be aware of obstruction in the water
» Move to shallow water, if possible
» From the boat
» With a landing net
» Without a landing net
THE “CATCHING” PART

HANDLING A FISH

» Keep the fish in the water (at least the head)
» Be sure your hands are wet before touching the fish
» External film on fish; lateral line (immune system)
» Never allow a fish to brush against your clothing, and never use a towel to hold a fish, when handling a fish
THE “CATCHING” PART

RELEASING A FISH

» Remove the hook
» Proper position of fish during recovery
» Head facing upstream, into the current
» Proper handling of fish during recovery
» Hold in the water, stationary
» The fish must revive before releasing
TYPES OF RIVERS

» **Freestone:** When rainwater and snow melt gravity forces these droplets to seep through the crevices of rocks, soil and organic matter, they combine into small trickles of water. Eventually thousands of water trickles add up to a small creek which combines with other creeks to form small streams which combine with other streams to form small rivers and eventually dump into a large rivers.

» **Tailwater:** the water below a dam or other hydroelectric facility that is subject to changes in flow cause by varying water release rates. The constant temperatures found in tailwater allow aquatic insects to flourish and provide trout with a constant source of food year round

» **Spring Fed:** the water source is from underground
CHARACTERISTICS OF FISHERIES

TYPES OF FISHERIES

» Warm Water = lakes
» Fresh Water = rivers
» Salt Water = oceans
FISH BEHAVIOR

IN THIS SECTION

» Primary Needs of Fish: Protection, food, rest
» Feeding and Holding lies
» Environmental considerations:
  » Effects of water temperature
  » Effects of ambient temperature
  » Effects of the moon and barometer
  » Effects of stained water
  » Time of day, and seasons
» Effects of current (and hydraulics)
» Effects of the order of nature
Fish occupy locations within a river based on three priorities:

» Protection
» Food
» Rest

Sometimes combinations of the three

» Fish are cold-blooded; their metabolism is tied to water temperature; they need to eat more at higher water temperatures
Close proximity to food source; fish must be able to actively defend location

The dominant trout will occupy the best feeding lie

An ideal feeding lie offers three things:
  » Proximity to food
  » Relief from current
  » Protection and security from predators
FISH BEHAVIOR

HOLDING LIE

» Provide protection from predators
» Most important features of a holding lie are comfort and safety
» Availability of food is not necessarily a factor
FISH BEHAVIOR

ENVIRONMENTAL CONSIDERATIONS

Effects of Water Temperature:

» Primary importance: water temperature
» Relative to geographic location (hoot owl)
» Below 32 degrees: fish do not do well encased in ice; as temperature increase above 32, so does activity, feeding, and metabolism of fish
» Between 59 and 64 degrees: maximum growth and activity
» Upper 60's, amount of dissolved oxygen decreases
» Over 70 degrees, fish can survive for a while, but don’t feed
» Also determines aquatic insect hatches
» Below 45 degrees, fish seek slower water, deep pockets, and slots behind large objects
» Fish are also likely to be deeper
FISH BEHAVIOR

ENVIRONMENTAL CONSIDERATIONS

Effects of Ambient Temperature:

» On fish: Desiccation (taking a fish out of the water and the drying effect)

» Warming temperatures, sunlight,

» On angler:

» Fatigue, mental alertness
FISH BEHAVIOR

ENVIRONMENTAL CONSIDERATIONS

Effects of the Moon and Barometer

Moon phase:
» Astrological pull on the earth;
» More effect on saltwater species
» Inshore depths, currents, flushing rate of estuaries
» High tide pushes Steelhead and Salmon upriver
» Amount of light in the sky after dark
» Clear night, unblocked moon: strong effect on trout feeding behavior, except Brown Trout

Barometric Pressure:
» Barometer falls, fish slow down, go deep, are less active, and are reluctant feeders
» Barometer rises, fish become active and feed
» Lateral line pressure coupled with effect on metabolism
FISH BEHAVIOR

ENVIRONMENTAL CONSIDERATIONS

Effects of Stained Water

» Vision is effected, so moving fish will go toward the bank and shallower water

Effects of Time of Day:

» Sunlight

» Water temperature

» Bug hatches
FISH BEHAVIOR
ENVIRONMENTAL CONSIDERATIONS

Effects of Season: Winter

» Winter: it takes more energy to increase water temperature than any other liquid
» Shorter days, less sunlight,
» Deeper, slower water

Effects of Season: Early Spring

» Longer days, warmer daytime temperatures
» Spawning: brown trout and brook trout are fall spawners, so in spring they stay deep in the winter pools
FISH BEHAVIOR

ENVIRONMENTAL CONSIDERATIONS

Effects of Season: Late Spring

» Effects of runoff
» Water temperature climbs into optimum range and stay there all day
» Heaviest time for aquatic insect hatch

Effects of Season: Summer

» Eastern US: higher water temperature, clear water, difficult fish
» Western US: relief from run-off, “Hoot Owl”
» High water temperature and low flow may warrant fish migration
STRATEGIES AND TACTICS

IN THIS SECTION

» Approaching the water; stalking fish
» Fish sensory ability
» Vision
» Dry fly fishing tactics
» Nymphing fly fishing tactics
» Strategy to find fish - https://youtu.be/o9hg0DoSdt0
IN THIS SECTION

» Off the river
» Float fishermen (from the boat)
» Fishing from a flats boat
» On the river

» Toward other anglers
» Toward land owners
» Tipping guidelines (gratuity)
Review FFI Safety Policy, and Workbook
FLY TYING

WHAT IS A FLY?

» A hand tied imitation of the food source the fish eats in the water
» It looks like, and acts like an aquatic insect
» Understand the concept of “matching the hatch”
» Basic tools and equipment

» Options for a vise
» Importance of a rotary vise
» Most common materials
FLY TYING

Special Thanks to Jerry Coviello and the FFI Fly Tying Group for the Following 9 Slides
FLY TYING - HOOKS

- Shank
- Bend
- Byte
- Gape
- Eye
- Barb
- Point
FLY TYING - HOOKS

» Hooks use a number to indicate size, and we buy hooks/flies based on hook size

» Lower the hook number, the larger the hook size; A hook size 2 is larger than a hook size 20

» The “x” refers to the length of the hook shank
Both hooks shown here are size 4; top hook is for a streamer fly, the bottom hook is for a dry fly standard length.
» All of these hooks are size 4
FLY TYING - VICE
FLY TYING - BOBBIN HOLDER
FLY TYING - SCISSORS
FLY TYING

TYING OUR FIRST FLY: A WOOLLY BUGGER
THE FLY FISHING TRIP

PREPARE FOR A FLY FISHING TRIP:

» Check the weather at your destination
  » Temperature, barometer, rain
» Research local fly shops in the area of your destination
» Have a check list for items to pack

» Know how to obtain a fishing license
» Check the USGS charts for flow
» Obtain and study maps
  » Access points, relative location to other access
YOUR GHILLIE (GUIDE)

PREPARE FOR A FLY FISHING TRIP:

» Arrange for a guide through an outfitter or fly shop; occasionally directly with a guide

» Tell the fly shop if you have preference on where you want to fish

» Tell the fly shop how long you want to fish

» Tell the fly shop what your experience level is — don’t exaggerate!

» The guide will pick you up where you are staying or at the fly shop

» Have all your gear well organized and neatly packed

» Don’t take too much gear

» Tell your guide, during your time on the water, you just want to learn

» The guide will quickly assess your skill level

» The guide will select your fly

» Don’t try to impress the guide with stories about how much experience you have

» Refer to the Etiquette section for guidance on tipping the guide.
<table>
<thead>
<tr>
<th>Internet</th>
<th>Podcasts</th>
<th>Magazines</th>
</tr>
</thead>
<tbody>
<tr>
<td>» MidCurrent</td>
<td>» Tom Rosenbauer</td>
<td>» Fly Fisherman</td>
</tr>
<tr>
<td>» Orvis News</td>
<td>» April Vokey</td>
<td>» American Angler</td>
</tr>
<tr>
<td>» Catch Magazine</td>
<td>» Itinerant Angler</td>
<td>» Southwest Fly Fisher,</td>
</tr>
<tr>
<td>» Facebook</td>
<td></td>
<td>Northwest Fly Fisher</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Fly Fusion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Fly Fishing and Fly Tying</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Fly Tyer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Drake</td>
</tr>
</tbody>
</table>
REFERENCES

Books

» Bug Water by Arlen Thomason
» Feeding Time: What, Where, & When Trout Eat by Jason Randall
» Moving Water: A Fly Fisher’s Guide To Currents by Jason Randall
» Trout Sense: A Fly Fishers Guide to What Trout See, Hear, & Smell by Jason Randall
» The Orvis Fly Fishing Guide by Tom Rosenbauer

Television

» The New Fly Fisher
» The Orvis Guide to Fly Fishing
» Fly Fusion
Dutch Baughman
817-915-0362
dutchbaughman1@mac.com
Since 1964, Fly Fishers International, formally known as International Federation of Fly Fishers, has been an organized voice for fly fishers. We represent all aspects of fly fishing—from the art of fly tying and casting instruction, to the protection of and access to fisheries around the world.

A 501c3 non-profit organization, FFI is driven by three fundamental pillars: Conservation, Education, and Community. Together, these pillars provide the foundation for our vision of the future of fly fishing—a future in which anglers have access to prime waters and fish can thrive in healthy, protected habitats; in which learning never stops and artistry is not forgotten; and that recognizes the true value of camaraderie. If we want this legacy to be experienced by future generations, we have to work to make that happen.

Join Fly Fishers International today to help ensure that fly fishing can continue to instill the kind of passion it does today in so many of us.