INTRODUCTION TO FLY FISHING

BY
MARK SHELTON, PH.D.
Introduction to Fly Fishing

Instructor:
Mark Shelton, Ph.D.
mshelton@calpoly.edu
(805) 756-2161

Goals for class:
• Everyone learns fly fishing basics
• Simplify the science, technology of fly fishing
• Have fun!

Course Content:

Wednesday – 6:00-9:00 p.m.

• Sources of information
  - Books, magazines, web sources, T.V. shows, fly fishing clubs
• Fly rods, reels, lines, leaders, waders, boots, nets, vests, gloves, float tubes, etc.
• Basic fly fishing knots – how and when to use
• Game fish identification, behavior – trout, bass, stripers, steelhead, etc.

Friday – 6:00-9:00 p.m.

• Aquatic entomology - what the fish eat in streams, lakes and ponds
• Flies to imitate natural fish food
  - Dry flies, nymphs, streamers, midges, poppers, terrestrials, scuds, egg patterns
• Fly fishing strategies
  - Reading the water
  - Stealthy presentations
  - Fishing dries, nymphs, etc.
  - Strike indicators, dropper fly rigs, line mending

• Slides/video of fly fishing tactics

Saturday – 8:30-4:30 p.m.

• Fly casting video
• Fly casting – on lawn
• Trip to local farm pond for casting on water
• Trip to local stream to read water, practice nymphing
FLY FISHING INFORMATION SOURCES

Books:


Books con’t.


**Magazines:**
*Fly Fisherman*
*Fly Rod & Reel*
*California Fly Fisherman*
*Trout* (Trout Unlimited)
*Southwest Fly Fishing*
*Northwest Fly Fishing*

**Catalogs:**
*Cabelas*  
*Bass Pro Shops*  
*Sierra Trading Post*  
*L.L. Bean*  
*Orvis*  
*Streamborn*  
*Dan Bailey’s*  
*The Fly Shop*  
*Bob Marriott’s*

**T.V. Shows (OLN):**
*Cabela’s Outfitter*  
*Fly Fishing America*  
*Hunt for Big Fish*  
*The KT Diaries*  
*North to Alaska*  
*One More Cast – Shaw Grigsby*

**Websites:**
*The Fish Sniffer* - [http://www.fishsniffer.com/](http://www.fishsniffer.com/)
*Troutnut* - [http://www.troutnut.com](http://www.troutnut.com)
*Midcurrent Fly Fishing News* - [http://www.midcurrent.com](http://www.midcurrent.com)
*Mark’s Surf Fishing Page* - [http://home.att.net/~surf.perch/Main.html](http://home.att.net/~surf.perch/Main.html)
Fly Fishing Organizations:
Santa Lucia Fly Fishers – Margie’s Diner, SLO, 2nd Thursday of month, 6:00 p.m.
- call 934-2476 or 543-7596 for more information
Trout Unlimited
Federation of Fly Fishers
California Fly Fishers (SACTO area)
Shasta Mayflies (women only!)

California Fly Fishing Trade Shows:
San Mateo, Ontario

Local Fly Shops:
http://www.holeinthewallflyshop.com
Four Season’s Outfitters – 432 Higuera St., San Luis Obispo – 544-5171

FLY FISHING EQUIPMENT

Fly Rods:
Classified by:

Weight (0000-15) of line used

Choice of rod weight depends on type of fishing and size of flies used
  e.g. size 2-5 rods good for small streams, small flies, trout, panfish, surf perch
  5-6 wt. rods good for trout, bass, larger flies
  7-8 wt. rods good for larger bass, steelhead, salmon, larger flies, poppers
  9+ wt. rods good for salmon, pike, tarpon and other aggressive saltwater fish

Action – slow-medium-fast
  -how fast rod straightens out after flexing (“loading”)
Slower action rods provide gentler presentation of flies
Faster action rods have power for larger flies, windy conditions, larger fish

Length – most are 6-10’
  -Spey rods

Shorter rods (7-8’) good for creeks, brushy streams, shorter casts
Medium length rods (8-8.5’) good all around
Longer rods (9’+) give best line control for nymphing, mending line, float tubes, distance
Fly Rods con't.
Blank material – bamboo, fiberglass, graphite, graphite composites
Graphite rods have best combination of sensitivity, power

Quality = cost! ($25-$4,000+)

Lots of cost in cosmetics – cork quality, rod guides, rod appearance, rare wood in reel seat, etc.

Good rods have quality guides...smooth, often coated with metal or ceramics
- stripping guide should be large for funneling line; snake guides for castability

Number of rod sections – travel vs. 2 piece
- Airline 62” linear bag rule

Fly Reels:
Main purpose = to hold fly line!

Cost: $20-$1000+

Right vs. left handed – personal preference

Standard vs. “large arbor”
- line and backing storage
- line retrieve rate

Manual vs. automatic

Drag systems: click vs. disk (usually with cork washer...store with drag loose)

Try to balance reel to rod

Fly Lines:
Provide weight to deliver the fly, rather than lure weight

Size: 0000-15, based on line weight

Usually 90’ long

Tapered vs. level lines:
- level is inexpensive, marginally useful
- Double taper (DT) – good for delicate presentations
- Weight forward (WF) – better for distance; best all around
- Shooting heads – 24-30’ long, connected to running line – distance champs
- “integrated shooting heads”
**Fly Lines cont.**

**Floating lines** – for dry flies, poppers, nymphing with weighted nymphs

**Sinking lines** – types I-VI, slow to fast sink (inches/sec.)
- good for nymphs, streamers... get flies down
- harder to pick up line off water
- uniform sinking lines best – e.g. Teeny® lines
- Sink-tip variation

Slick lines easier to cast
- keep line clean
- check for nicks
- coated lines

**Fly line backing:**
- Why? 1) more line if big fish hooked
  2) fills out spool on reel

Backing types: - Dacron, micron, braided, gel-spun (e.g. Spiderwire®)

Color – best if different than fly line

**Leaders:**
Connect fly line to fly, hopefully invisibly!
- Knotted, knotless, braided

Usually tapered: **butt – tippet**
- straight mono O.K. for aggressive fish (e.g. stripers)

Use **Surgeon's knot** to make your own!

**Tippets:** - classification: 0X-8X
- **breaking strength:** subtract tippet size from 9 = lbs. test
  - e.g. 9-6X = 3 lbs. tippet strength
- size of tippet depends on size of fly used
- **Shock tippet** (bite tippet) – wire or heavy mono for pike, etc.
  - Fluorocarbon vs. monofilament

**Leader length** – 7.5-10’ average
- longer good for delicate presentation
- depends on water clarity, spookiness of fish
- shorter leaders good for sinking line fishing (4-6’)
  - flies can “suspend” underwater on long leaders

**Birds and leaders**
**Waders:**
Keep you dry, unless they leak, you fall in, etc. (option:wet wading)

**Neoprene vs. breathable**
- Breathable wader repair – Aquaseal® for pinholes; seam tears, you’re done!

**Bootfoot vs. stockingfoot**

**Boot soles** – rubber, felt, studded

**Wading Staffs:**
From sticks to folding aircraft aluminum

**Nets:**
Good when wading

**Gloves:**
Sun gloves, Neoprenes, Ragg wool (fingerless only!)

**Float Tubes:**
For lakes, ponds

**Nippers:**
Essential!

**Forceps:**

**BASIC FLY FISHING KNOTS – HOW TO TIE AND WHEN TO USE**

Lots of knots... lots of opinions.... keep it simple

Good knots ~ 80-90% of original line breaking strength

All knots should be lubricated as you tighten

**Mark's 4 essential knots:**
1) **Slip knot** – connects backing to reel
2) **Nail knot** – backing to fly line, fly line to leader
3) **Surgeon's knot** – for making leaders, adding tippet
4) **Clinch knot** – for attaching leader to fly

**Two other very useful knots:**
1) **Perfection loop** – for loop-to-loop connections
2) **Loop knot** – for tying on streamers, etc. for natural movement
GAME FISH IDENTIFICATION AND HABITS

**Bass**
Found nearly everywhere
Aggressive!
Like structure
- rocks, sunken logs/brush, dropoffs, ledges, lily pads, old streambeds, docks

**Smallmouths** like cooler water...67-71°F optimal
**Largemouths** like warmer water...65-78°F optimal

Bass food – anything they can catch (ambush hunters)
- favorites: crawdads, shad, minnows, worms, frogs, insects

Bass generally avoid light – most active early, late
- great topwater fish

**Local bass fishing spots:**
- Lakes – San Antonio, Nacimiento (Spotted, White bass), Santa Margarita, Lopez
- Ponds – Fort Hunter Liggett, private farms
- Rivers – Nacimiento at Camp Roberts, Santa Ynez above Cachuma L.

**Other good bass spots in California:**
- Delta
- Most reservoirs (“trophy bass” lakes – Castaic, Dixon)

**Striped Bass (“stripers”)**
Native to eastern states, now throughout U.S.
Anadromous – move between salt and freshwater
Spawn in major rivers in California – e.g. Sacramento
Some lakes have land-locked populations
Very aggressive! Eat just about anything
Favorite foods: baitfish – minnows, shad, sculpins, anchovies
Watch for bird activity

**Local striped fishing spots:**
- Lake San Antonio

**Other good spots in California:**
- San Luis Reservoir
- California Delta (best fall-winter, on “big” tides)
- Sacramento river
- Pacific ocean – northern California, S.F. Bay
**Trout**

Rainbow, Golden – Native to California  
Brown – from Europe (“German Brown”)  
Brook – from eastern U.S.

Primary target for fly-fishermen  
Can be finicky eaters, especially during a “hatch”  
Easiest to catch in low light  
- evening hatches  
90% of trout’s diet is aquatic insects  
- nymphs important to fly fishermen  
Other trout food:  
- terrestrial insects – ants, hoppers, beetles  
- freshwater crustaceans – shrimp, scuds  
- worms – *Tubifex*, annelids

**Trout fishing spots:**  
• Salmon creek  
• Santa Ynez R.  
• Arroyo de la Cruz R.  
• San Carpofoumo R.  
• Nacimiento R. at Camp Roberts  
• Lakes – Lopez, Santa Margarita

**Best trout fishing spots (in my opinion!):**  
• Sierra lakes and streams, east and west side  
• Northern California streams  
  - Sacramento, McCloud, Pit, etc.

**Panfish** – Bluegills, crappie, perch, redear sunfish  
Easy to catch....great for kids and beginners  
Found everywhere!  
Eat insects, worms, crustaceans  
Tend to have small mouths, sometimes tender (crappie)

**Panfish fishing spots:**  
• Farm ponds  
• Fort Hunter Liggett ponds  
• Lakes – Santa Margarita, Lopez, Nacimiento, San Antonio, Cachuma  
• Streams – Santa Ynez, Nacimiento, Kings (above Pine Flat Dam)
AQUATIC ENTOMOLOGY

The study of insects with aquatic life stages

Life Cycles:
Incomplete - egg-nymph-adult
- Mayflies, Stoneflies, Dragonflies/Damselflies

Mayfly variation: egg-nymph-dun (1st winged adult) – spinner (sexually mature adult)

Complete – egg-larva-pupa-adult
- Caddisflies, Midges, Mosquitoes, other true flies (gnats, deer flies, horse flies)

ARTIFICIAL FLIES

>1 million insect species
>30,000 artificial flies

· Some flies imitate natural food – e.g. insects, worms, crustaceans, etc.
· Some flies are attractors – suggest food, rather than imitate
  - e.g. Royal Wulff, Humpy, Trude

General Fly Types:
· Dry flies – float on surface – flies, poppers, mice, frogs
  - use of floatants
· Wet flies – sink – nymphs, streamers, scuds, shrimp, crabs, worms, eggs
  - fly sink material, weights

Tips:
  - keep hooks sharp
  - go barbless

Flies for Game Fish:
Good bass flies:
· Streamers (closers, deceivers, zonkers, wooly buggers, whistlers)
· Cork poppers
· Deer hair bugs

For streamers, use sink-tip or full-sinking lines; shooting heads good
For poppers/bugs, use floating lines, including shooting heads for larger types

Good striper flies:
· Streamers
Flies for Game Fish con’t:

Good trout flies:
- Nymphs – Hare’s ear, Prince, Pheasant tail, midges
- Dries – Adams, Blue-winged olive, Pale morning dun, Mosquito, Humpy, ants, Elk Hair
- Caddis
- San Juan Worms
- Scuds (freshwater crustaceans)
- Streamers

Good panfish flies:
- Nymphs – just about anything will work; beadheads very effective
- Streamers – keep ‘em small
- Dries – cork poppers, size 4 and smaller, with rubber legs

Selecting Flies:
- Visit a local fly shop
- Look for hatch charts, local fly fishing guidebooks
- Look streamside – spider webs, on brush, under rocks for insects
- Hire a fishing guide for ½-1 day

Fly Tying:
- Fun hobby
- Saves money, but takes time
- Good when the same fly pattern used often
- Great to catch fish on your own creation!
**HATCH CHARTS**

**Hatch Chart for Davis Lake**

<table>
<thead>
<tr>
<th>Hatches</th>
<th>J</th>
<th>F</th>
<th>M</th>
<th>A</th>
<th>M</th>
<th>J</th>
<th>A</th>
<th>S</th>
<th>O</th>
<th>N</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midges</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caddis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Callibaetis Mayflies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scuds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leeches</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dragon Fly Nymphs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Damsel Fly Nymphs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waterboarmin &amp; Backswimmers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chubs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Deschutes River Hatch Chart**

<table>
<thead>
<tr>
<th>June Hatch Chart and Pattern Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insect</td>
</tr>
<tr>
<td>Mayfly, Blue Winged Olive (Baetis)</td>
</tr>
<tr>
<td>Emerger</td>
</tr>
<tr>
<td>Adults</td>
</tr>
<tr>
<td>Pale Evening Dunn (Heptagenia)</td>
</tr>
<tr>
<td>Stage</td>
</tr>
<tr>
<td>Nymph</td>
</tr>
<tr>
<td>Emerger</td>
</tr>
<tr>
<td>Adults</td>
</tr>
<tr>
<td>Nymph</td>
</tr>
<tr>
<td>Pattern</td>
</tr>
<tr>
<td>Crystal Flash Nymph</td>
</tr>
<tr>
<td>Pheasant Tail</td>
</tr>
<tr>
<td>Baetis Soft Floating Nymph</td>
</tr>
<tr>
<td>Compared</td>
</tr>
<tr>
<td>Pheasant Tail</td>
</tr>
<tr>
<td>Soft Hackle</td>
</tr>
<tr>
<td>Hare's Ear</td>
</tr>
<tr>
<td>Size</td>
</tr>
<tr>
<td>16-18</td>
</tr>
<tr>
<td>16-18</td>
</tr>
<tr>
<td>16-18</td>
</tr>
<tr>
<td>16-18</td>
</tr>
<tr>
<td>16-18</td>
</tr>
<tr>
<td>12</td>
</tr>
<tr>
<td>Color</td>
</tr>
<tr>
<td>Dark Olive or Dark Brown</td>
</tr>
<tr>
<td>Dark Olive</td>
</tr>
<tr>
<td>Dark Olive</td>
</tr>
<tr>
<td>Dark Olive</td>
</tr>
<tr>
<td>Dark Olive</td>
</tr>
<tr>
<td>na</td>
</tr>
<tr>
<td>Dark Green</td>
</tr>
<tr>
<td>Olive</td>
</tr>
<tr>
<td>Water Type</td>
</tr>
<tr>
<td>Slack slow water and back eddies</td>
</tr>
<tr>
<td>Slack slow water and back eddies</td>
</tr>
<tr>
<td>Slack slow water and back eddies</td>
</tr>
<tr>
<td>Slack slow water and back eddies</td>
</tr>
<tr>
<td>Riffles and runs close to bank</td>
</tr>
<tr>
<td>Time of Day</td>
</tr>
<tr>
<td>Mid-day (12:00 p.m. to 2:00 p.m.)</td>
</tr>
<tr>
<td>Mid-day (12:00 p.m. to 2:00 p.m.)</td>
</tr>
<tr>
<td>Mid-day (12:00 p.m. to 2:00 p.m.)</td>
</tr>
<tr>
<td>Morning (8:00 am. to 1:00 pm)</td>
</tr>
</tbody>
</table>
FLY FISHING STRATEGIES

Plan trips ahead of time:
• Make list of gear
• Check fishing regulations (seasons, bag limits, gear allowed, e.g. barbless flies only?)

Times to fish:
Most game fish easiest to catch early & late
- Many game fish avoid sunlight (fish lack eyelids)
- Fish are cold-blooded, may reduce activity in heat of day, when water very warm
- Overcast, cloudy days can be good all day
- Tailwaters, spring-fed creeks usually consistently good

Evening hatches – fish often go wild!
• SACTO river stonefly hatch
• Sierra high lakes mosquitoes, midges
• Lakes – largemouth bass, panfish
• Streams – brown trout

Look for feeding birds
• Feeding on insects – indicates hatch is on
• Feeding on baitfish, e.g. minnows, shad – pushed to surface by larger fish (“boils”)

Be stealthy!
• Wear clothes that blend into scenery
• Approach fishing spot quietly, slowly; stay low, in shade if possible
• Don’t wade unless necessary – sound travels 4X faster in water than in air (Kreh)
• Kneel or crawl to cast to very close fish, in clear water
• Speak softly around fish

Fly Setups:
• Single fly
• Double fly (dropper or trailer)
  - dry/wet and double nymph
• Strike indicators

Fly Presentation:
• Critical!
• Must look natural for most game fish to bite
• Trout often in feeding “zones”… won’t move far to feed
  - need accurate casts at these times
• Casts must be drag-free
  - "mending" line concept
• Bass/panfish/pike are opportunists.....a noisy cast may help!

**FLY FISHING STRATEGIES con’t.**

**Reading fish water:**
• Why? Most water has no fish....
• Successful fishermen avoid this water and concentrate where the fish are (art & science)

**Streams:**
• Fish face into current
• Good spots:  *riffles* (if not too shallow)
  *pockets* (before, after rocks)
  *undercut banks*
  *seams* of 2 currents
  *pools* – esp. heads and tails
  *under logs*

• Trout like water that:
  - is cool -52-56°F – Brookies
  - 55-60°F – Rainbows
  - 60-65°F – Browns
  - moves at right speed
  - has good oxygen levels
  - has food
  - is protected (shady, broken surface – e.g. riffles)

**Stillwater:**
• Fish may cruise shoreline, weedlines for food
• Seek depth for optimum temperature
• Fish often associated with structure, especially bass
• Look for creeks entering, leaving lakes
• Old roadbeds
• Springs; e.g. Lake Almanor brown trout story

**Fishing Etiquette:**
• Or, how to avoid fist-fights and gunshot wounds!
FLY CASTING

Casting principles:
• Smooth casts best
• Pretty casts don’t equate to catching fish
• Need tight loops for distance
  - exceptions: heavy flies/poppers, double fly rigs, weight on leader
• Casting stroke varies with distance of cast, wind, obstacles, rod action, etc.
  - ignore “10-1” clock rule
• Must “load” rod to cast line
  - rods load differently, depending on action, line weight
  - “uplining”
• Line control essential

Main types of casts:
• Forward cast
• Side cast
• Roll cast
• Double haul
  - speed of “haul” affects distance
  - essential for windy conditions
  - water haul variation