Fly Tying Group of Fly Fishers International is dedicated to the preservation, enhancement and support of the art of fly tying as a historic element of the fly fishing experience. Archiving of historic documents, development of educational and instructional materials, teaching, and demonstrations are fundamental to perpetuating the art of fly tying for anglers who fish with the artificial fly. If this sounds like something you would be interested in, please join us today. Please Note: You must be a member of Fly Fishers International to join the Fly Tying Group.

Click here to join the Fly Tying Group

Fly Tying Group Facebook Page
https://www.facebook.com/iiff.ftg
The New Year is just beginning, and so is the planning of the 2020 Fly Fishing Expo, in Bozeman Montana. July 22-25, 2020 at the Montana State University Strand Union Building. Requests have gone out to anyone that expressed an interested in being a Fly Tying Workshop Instructor and/or Demonstration Fly Tier.

The Fly Tying Group’s Annual Meeting will be held on Wednesday July 22 and the Fly Tying Group Rendezvous will follow our Annual Meeting. Exact times will be posted on the FFI Website.

The Rendezvous is in need of raffle and silent auction items. Any items (Books, fly tying materials, flies or even fly fishing items) would be greatly appreciated. Contact us through email, ftg@flyfishersinternational.org for more information.

Also I would like to add that the 2021 Fly Fishing Expo is also in planning stages. A subcommittee is looking at ways to increase participation and how to develop quality workshops in the future. More information to follow.

After the holidays the Saltwater Committee has started to resume its meetings. They are hoping to produce a Saltwater Fly Tying Manual by the end of 2020 (maybe by the Expo they will have something to show at our Annual Meeting.

As of this writing, our partner, Fly Tyer Magazine has finalized the Grand Prize for the Second Annual Fly Tying Challenge. Inside the “Tying Times” is an article about the FFI Fly Tying Challenge. We had fun running the first one, and hope you have fun trying out your skills to see if you can win.

The Fly Tying Group Facebook Page has posts of videos and flies, almost on a daily basis. This is a way for us to communicate to everyone the Art of Fly Tying.

The Fly of the Month on the Fly Fishers International Website has been posting flies for Warm, Salt, and Cold water fish. I would like to thank Lee Barbee for his submission that was posted for January 2020. If you would like to have your fly on the Fly of the Month, just email ftg@flyfishersinternational.org. All you need to do is photograph a step by step directions on how to tie your favorite fly.

The Fly Tying Group Fly Tying Award program is working on photographing the Silver Award Flies at this time. Honestly it is behind because my real job has gotten in the way of my fun. I’ll be back on board with getting this back on track soon.

Here is where I get in trouble…… A year ago I got involved in a local affiliate club that really needed direction, especially with fly tying instructions. I started to put together an Intermediate Fly Tying Class for them this year. The club didn't have a direction for instructors, and any class created was not fully planned. I felt there should be some kind of class for fly tying instructors. I feel there is a need to put together a “Fly Tying Instructors Program” I would like to have this program ready for the 2021 Expo so we can teach Fly Tying Instructors how to teach fly tying on various levels.

Hope to see everyone is stocking up their fly boxes for future trips.
The Goddard Caddis was developed by John Goddard and Clive Henry in England as a Stillwater pattern. AKA the G&H Sedge. This is a high floating fly made out of spun deer hair and shaped into a caddis fly. An excellent fly for pocket water.

Great technique to learn how to spin deer hair on smaller hooks.

**Materials:**

- **Hook:** Dry Fly Hook Sizes 8 – 14
- **Thread:** Brown 6/0
- **Wing and Body:** Natural Deer Hair spun and trimmed to shape
- **Hackle:** Brown
- **Antennas:** Striped Brown Hackle Stem

**Step 1**

Place your hook in the vise, secure the tying thread at the middle of the hook and wrap to the bend of the hook.

**Step 2**

Cut a bunch of deer hair from the hide. Clean out the underfur with a comb. Bring the bunch around the hook bend and wrap 3 loose wraps around the deer hair bunch.

**Step 3**

HOLD the bunch of deer hair that is at the bend of the hook. DO NOT LET THAT SPIN. Pull your tying thread to flair the deer hair around the hook shank. Once it flairs around the shank, bring your thread forward to lock in the deer hair.
Step 4

Bring your thread in front of the deer hair. We are going to add more...

Step 5

Add another bunch of deer hair and wrap 3 loose wraps of thread around the bunch.

Step 6

Now pull the thread and follow the thread around the hook shank until the deer hair stops spinning.

Step 7

Add another bunch of deer hair to spin. Half the shank of the hook will be spun deer hair.
Step 8

I put a few half hitches in and cut the thread. First we need to trim the bottom of the fly flush.

Step 9

Trim the deer hair, triangle shape to look like a caddis fly.

Step 11

Tie in the brown hackle.

Step 10

Take a stripped hackle stem. Loop it and tie it in for the antennae.

Step 12

Wrap the hackle and whip finish. Cut the loop to form the antennae.
THE PINK LADY
A BILL FISH FLY BY MIKE GEORGE
Photography by Doug Oatman

MATERIAL LISTING

Base hook: Partridge Sea Beast 6/0
Trailer hook: Owner 5311-151 5/0
Connecting wire: Terminator Titanium 70 lb.
Threads: GSP200 White and Danville’s 210 Fly Master Plus color of choice.
Schlappen feathers: 12 pink, approximately 6 inches in length
Saltwater Flashabou: 12 strips, pink to match the color of the fly
Deer Hair: As long a possible and full bodied. Pink with a White face. Additional colors are the tyers choice.
Adhesive: Wapsi Fly Tyers Zment and Bug Bond UV cure resin
Masking tape: Standard size or tape that you would use for rod building.
Specialty tools: (1) Dyna-King Voyager vise mounted parallel to the tying surface for packing purposes. (2) Half hitch tool big enough for the 6/0 Sea Beast hook. I make my own tools out of deer antler.

START THE TRAILER HOOK:

13 inches of Titanium salt water leader wire. The wire is springy and hardened which makes it strong and stiff. It will not take a sharp bend as it can break.

Make a loop: “Fold or bend” the wire in half to form an open loop. I hold the trailer hook in my right hand by the bend. The hook shaft is up and the eye is to my right. With the leader wire formed in a loop use your left hand to guide the open ends of the loop thru the eye of the trailer hook.

This will form a loop on top of the trailer hook. With the loop behind and over the bend of the hook pull the hook bend up thru the loop. Pull on the open ends of the wire to make the loop a little smaller slip the sharp point of the hook around or through the loop so the wire loop is now on the bottom of the hook shaft. Pull on the open ends of the loop so it will settle on the bottom of the hook shank with the open ends coming out of the up turned eye. Engage the hook with the vise shaft and give the wire a tug to set it all in place.
ATTACH THE TRAILER HOOK TO THE SEA BEAST HOOK:

Place the 6/0 Sea Beast hook in your tying vise.

Using the Gel spun thread at the bend of the hook wrap a 1/4 to 3/8 of an inch thread base going towards the eye. Apply Fly Tyers Z-Ment to hold this wrap sequence in place. Half hitch the GSP thread to the hook point to keep Z-Ment from leeching down to the bobbin. This is the thread base for the trailer hook and the tail of the fly. Right behind the eye of the Sea Beast hook with the Fly Master Plus make 10 wraps on top of each other or in a bunch. These wraps will be used to hold the trailer hook wire on the bottom and top of the hook shaft when we tie it down. Just let the bobbin hang. Feed the open tag ends of the trailer hook wire loop DOWN thru the eye of the Sea Beast hook 1 and ½ inch. This is tied on the bottom of the big hook. The trailer hook should now be in front of the sea beast hook with the point down. Feed the trailer hook wire back under the hook shaft. Tie it down at the tie in point with the gel spun thread using a single layer of thread. Do not exceed the 1/4 to 3/8 inch wrap. At the hook eye, wrap 10 to 15 wraps of the Fly Master Plus to hold the wire under the hook.

Complete the trailer hook: Bend the trailer hook wire back over the top of the Sea Beast hook and use the Fly Master Plus to make ten wraps to hold the trailer hook wire on top of the sea Beast hook shaft and whip finish. Complete the trailer hook by using the Gel Spun thread to tie it down at the Sea Beast hook bend, use minimal wraps touching each other and do not exceed the original thread base measurement. Half hitch the thread to the hook point and apply Z-Ment to the wraps and let it dry.

TAIL OF THE FLY:

With trailer hook completed next we tie on the SCHLAPPPEN feathers and the pink SALT WATER FLASHABOU. Reminder: be sure the piece of cork is engaged with the trailer hook point. The feathers are chosen for shape and length. For a display fly the feathers must be
uniform and pretty. For a fishing fly they should be the same length but pretty is not a must. You will find the feathers have different quill thickness. My experience is they will all work. I tie 6 feathers and 6 lengths of Flashabou then repeat. It is a must to keep the tie in wraps to a minimum. The feathers are prepped by length (6 Inches) and removing 3/8 to 1/4 inch of the barbules from the base of the feather.

I start on the bottom of the hook on my side and work my way around the hook shaft. For the first feather the wraps are from the front of the tie in point to the back. For the next feather do not reposition the thread by wrapping it forward. Instead wrap the thread forward by tying in the next feather with 4 to 5 wraps. Use this alternate method to complete all the Schlappen feathers. This technique keeps your thread wraps to a minimum. Apply Fly Tyer’s Zment. Half hitch the thread to the hook point to keep the Zment from leeching down the thread to the bobbin.

The above image shows the first layer of 6 feathers and 6 strips of Flashabou. Each strip of Flashabou is tied in separately by folding it around the thread and pulling it into place towards the very front of the tie in point established when we tied in the feathers. Tie it in with 3 evenly spaced wraps and 2 or 3 wraps forward to reset the thread at front of the bunch. Once again keep wraps to a minimum. When all 6 strips are tied in apply Z-ment. Half hitch the thread to the hook point to keep the Z-ment from leeching down the thread to the bobbin.

Repeat the above to add 6 more schlappen feathers and 6 more strips of flashabou. Do not whip finish instead complete by applying Z-ment. Do the half hitch around the point of the hook. Let it dry completely before cutting the tying thread. The final step is to “dress up” the rough edges of the feather stems with an emery board so when we apply the hair they are not as pointy or rough.

BUILDING THE BODY OF THE FLY WITH THREE LAYERS OF DEER HAIR:

The hair for the body. I use body and belly hair. Chosen

BUILDING THE BODY OF THE FLY WITH THREE LAYERS OF DEER HAIR:
mainly for color but all of it is “full bodied” and as long as possible.

The above image shows the typical size of the bunch of hair we will use for the PINK LADY and how to hold or control the bunch of hair. To tie the bottom layer of hair we will use a loop control technique. This is commonly used to apply the wing to a Caddis fly, to keep it from spinning around to the side of the hook. We will then stack the top layer or layers on the top of the hook. This technique was developed specifically to handle larger bunches of hair for the Billfish fly.

TURN THE HOOK SO THE HOOK POINT IS UP. YOUR FIRST BUNCH WILL BE TIED ON THE BOTTOM OF THE HOOK WHICH IS TURNED UP. Using your left hand hold the bunch of hair by the tip ends and loosely wrap the thread AROUND the bunch of hair one complete wrap. The thread will fully encircle the bunch of hair.

Position the bunch right down on the hook shaft pulling it tight. Then wrap the thread around the hook shaft and back around or over the hair.

If you have a stacker big enough to handle the bunch of hair stack or even the tips. Not mandatory.
Pull the bunch down to the hook shaft, controlling it by pinching it with the index finger and thumb of your left hand. Do not let it spin or roll around the hook shaft. Pull down tightly on the thread to flare the hair. Using minimal thread wraps. Finish this with one complete wrap around the bunch of hair and pull tight. This has the bunch of hair tied tightly to the bottom of the hook shaft. Your thread is now hanging down on the far side of the hook.

Turn the hook over or upright. Using a standard stacking technique, dress and stack a like sized bunch of pink hair with tips oriented to the back of the hook, tie it on the top of the hook. Being careful individually layer the other colors on top. For each layer start by evening the tips of and assuring the thread is tight before adding additional layers of hair. Keep thread wraps to a minimum and keep each additional thread wrap exactly on top of the previous wrap.
When you have all chosen colors stacked and tight, wrap the thread to the far side of the entire bunch of hair. Pinch it or hold it tight to keep it from spinning and pull down on the thread to tighten the whole bunch. Now pull the thread forward thru the hair, on the far side of the bunch, towards the eye parallel to the hook shaft.

Pack the hair back and pull the thread tight in front of the bunch and wrap it around the hook shaft 2 times. Make a double half hitch to hold it all in place. Pack it back as hard as you can. I do not use a hair packer but because of the size of the bunch of hair I would suggest using a heavy duty packer. Apply Z-Ment to the half hitch knot. Pack the hair back one more time. This completes the first layer of hair.

Add two or three more layers or complete bunches of hair
using the techniques already mastered. The previous image shows how much hook shaft you will have left to add the eyes. Pack it back as hard as you can, double half hitch, and add Z-Ment.

BIG EYES:

Make two thread guides by using the deer hair. Form two BUNDLES of hair about the size of a lead pencil to match the color of the body of the fly. Using small strips of masking tape 1/4 inch wide by 1 inch long, TIGHTLY tape both ends of the bundles.

Turn the hook upside down so you can tie first bundle on the bottom of the hook.

STEP 1. Use the same “loop control technique” we used to tie the very first bunch of hair to the start the body.
Step 2: Now turn the hook over to the upright position and use the same Loop control technique to tie the second bunch to the top of the hook. Keep the thread in the grooves formed in the hair bundle tie in points. They become the thread guides to finish the Big Eyes.

Step 3 shows both bundles tied on the hook and turned a quarter turn.

Step 4 (below) and Step 5 (top-right) show the hook is in the normal upright position. The bunches will be used as thread guides to tie in the “BIG EYES”.

Step 4: Tie in one 1/2 pencil sized bundles of Orange hair on the top and bottom the hook eye using the pink thread guides. This can be tricky, do not pull pink hair in with the orange hair, keeping the thread in the grooves formed by the hair bundles. Use your finger tip and thumb to mash down the both of the orange layers of each eye.

“Prepare” two smaller BUNDLES of black hair half the size of the orange and yellow hair using masking tape to form the bunches. Tie the black bunch down in the middle of each of the yellow bunches. Do one final wrap of thread being very careful not to pull in any “excess” hair. Be sure all is tied in tightly.

Step 5: Now apply layers of yellow hair on top of the two orange bunches using the same techniques.
Turn the fly to the upright position. The thread should be on the side of the hook away from you. Pull it down to be sure it is tight and pull it straight forward, parallel to the hook shaft, to engage the hook eye. Use your bodkin to separate the pink guides from the yellow of the eyes and tie off the thread with two double half hitches.

When you view the fly from the front (shown above) you should be able to see the two pink bunches in the center of the fly, one on top, and one on the bottom. The orange and yellow hair of the two eyes on each side. Pack this back as hard and as far as you can to make room on the hook for the white face. Apply Z-Ment.

**WHITE FACE OF THE FLY:**

The final task is to tie on the white face. Turn the hook upside down AS THE FIRST LAYER GOES ON THE BOTTOM. You will probably have to use extreme packing techniques to pack the hair back to make room. You may also have to try this several times to make it work. Do not be discouraged! We are going to use the eye of the hook and the white hair to control the thread.

Step 1. Twist the thread clock wise to make the thread tight. Be sure the thread is fully wrapped behind the hook eye. Take a bunch of white hair and hold it by the tips with butts over the hook eye. The butts should be long enough to form the face of the fly.

Step 2. For the next step you will have make a “set” in the hair to control the thread. To do this: Pull the tips the hair
up gently or back at the same time you are pulling the thread down. This puts a set in the hair and engages the hook eye on the far side. You are using the hair to control the thread. Pull the thread down tight and finish this step by wrapping the thread up and over the bunch of hair and engage the hook eye on the far side.

Turn the hook over so it is upright. The white hair is on the bottom (see above). Place the second bunch of white hair over the hook eye holding the tips in your left hand. The butts are long enough to form the face. We have the thread set in place to wrap it over the top of the hook eye. You have to lift the thread and put a set in the hair with the thread and pull the hair back as well as pull down with the thread at the same time to make the thread engage the hook eye on the far side. You are effectively using the hair to pull the thread up so it can engage the hook eye.

You now have to pull the thread thru the hair and around the hook eye. Wrap it around the hook eye several times avoiding any hair.

Use the half hitch tool to finish the fly. I use several double half hitches. A whip finish is impossible.
TRIMMING THE PINK LADY. I make popper templates to match the size of my flies. The PINK LADY has a face the size of a nickel.

Using the PLASTIC template I start rough trimming with scissors.
Finish trimming with a double edged razor. I typically broke them in half-length wise. Trimming can be very time consuming. Leave the template in place to help set the face.
Introduction

Fishing with a fly is primarily a visual game. While a fish can be attracted by chemicals in the water, fly fishing techniques usually want to avoid having the fly smell like anything special. It’s true that the fish’s lateral lines are important to the design of some streamer patterns (e.g., the Wooly Bugger). These flies develop pressure waves when they’re stripped through the water. However, this series will ignore that part of fly design and concentrate only on the fish’s use of its visual system.

One of the most important things to keep in mind is this:

Q: Who or what is looking at the fly and deciding whether it might be something good to eat?

A: The fish! The fish. THE FISH!

The fish’s view of the fly is what’s important, not yours! We’ll talk about the fly as a possible target. Everything else from the fish’s perspective is background. The fly must be visible to the fish before anything else can happen, that is, the fly must be detected by the fish.

The fly’s difference from the background makes it visible to the fish, assuming it is large and close enough to be seen and that there is enough light around for its visual system to be operational. This difference between two parts of the scene is called visual contrast. There are many types of visual contrast: brightness, color, polarization, movement, and texture are some. Once the contrast gets to a particular level, the fish can detect the target. (Some details involved in figuring out visual contrast in a certain situation depend upon the visual system of the fish. There are small differences between species that we can ignored for now.)

Once the fly becomes visible, the fish turns its attention to it and tries to figure out what it is. This process involves mentally constructing a boundary between the target and background that reveals the target’s shape and is called segmentation. At that point, the fish’s memory of shape,
movement, etc. guides the decision to strike, flee, or ignore in the process called identification.

Contrast -> Detection -> Attention -> Segmentation -> Identification

Figure 1: The sequence followed by the visual systems of virtually all vertebrates (animals with backbones) in identifying something in the visual environment. This part of the series will concentrate on contrast.

Light on Its Way to the Fish

Any light that comes to the fish’s eyes from the fly and the background comes via the water. (Even if you design a fly with an LED or self-luminous spot in it, the light it gives off must travel through water before it gets to the fish.) In the simplest example, light from the sun travels through the water’s surface, then through some bulk of water to the fly. Some of that light is absorbed by the fly while some of it is reflected. Of that light, some of it is reflected in the direction of the fish and arrives at the fish’s eyes after traveling through some additional water.

Sun -> Water surface -> Water bulk -> Fly -> Water bulk -> Fish’s eyes

Figure 2: One of the simplest paths for light coming to a fish from a fly. Our selection of flytying materials affects only one of these steps, the absorption/reflection of light falling on the fly.

So, it seems that there are two important things for us to understand:

- How is light affected by travelling through water? This determines what light actually gets to the fly from the sun. (It also can affect what light gets from the fly to the fish although that effect is usually small because the distance between the fish and the fly is typically short.)

- What determines what light is reflected by the fly and what is absorbed? Of the light that illuminates the fly, only some of it is reflected while some of it is absorbed. We’ll take a look at this process and how it relates to the idea of color.

Light in Bulk Water: Suspended Particles and Scattering

As light travels through water, it can illuminate “stuff”, called particulate matter that is suspended in the water. Soil and algae are the two most typical culprits. Stream water will become “off color” after a rain event because soil has washed into the stream from its surroundings and has become suspended in the water column. Algae is small enough to stay suspended in water as it thrives. Those materials absorb light from the sun, reducing the light that illuminates the fly, sometimes shifting its spectrum. (More about that later.) When you snorkel in fresh water lakes, the water will often appear green because of the algae. They reflect green and absorb everything else to fuel the process of photosynthesis.

Even in very clear water, the spectrum of light shifts due to scattering. SCUBA divers in tropical reefs can sometimes enjoy visibilities of 90 feet or more in very, very clear water. As the diver looks out across the water above the reef, though, the water glows with a “sky blue” color: cyan. Where does this come from? Rayleigh Scattering is the effect here. As light moves through water, even clear water, some colors are more likely to be thrown off course in a process called scattering. As this happens everywhere in clear bulk water, this scattered light appears as a glowing background. Because of this scattering, the spectral colors from the sun actually illuminating your shift with depth. (Scattering usually involves very little absorption, just a shift in direction.)

Figure 3: Rayleigh scattering by the atmosphere causes the sky to have a “blue” (cyan) color

Light and Its Spectrum

Light from the Sun is our predominant source of illumination on Earth. “Light” is really only a small part of the energy hitting the Earth from the Sun. We call energy from the sun that our visual systems respond to as “light”. While some animals can sense slightly different parts of the energy than humans, we’re all sensitive to roughly the same ballpark energies.

Vision is important to the survival of many animals. Humans, other vertebrates, insects, underwater organisms, and even single-celled animals use vision of to find food, find mates, avoid predators, and navigate their environment.

What is vision? It is the use of light differences coming from different parts of the environment to guide behavior.

The light coming from the Sun contains different amounts of energy of different wavelengths. This collection of energy or power vs. wavelength is call the spectrum of the sunlight.

![Figure 4: Solar spectrum under a number of conditions. (CC BY-SA 4.0)](image)

For simplicity, let’s consider the light coming from the sun as containing equal amounts of “red”, “green”, and “blue” light. Red is light in a band of longer wavelengths, Blue is light in a shortest visible wavelength band, and Green is between the two. (Ultraviolet or UV is a band shorter than Blue and Infrared or IR is a band longer than Red.)

Color and Absorption

Color naming and color mixing principles as taught by merchandising departments, teachers, and parents are often different from the terminology and understanding of vision science. Widespread availability of ink jet printers has brought three important pigment colors and their technical names to light: CYAN, MAGENTA, and YELLOW. These absorb RED, GREEN, and BLUE respectively. By mixing these in different proportions, many of the possible absorption spectra can be crafted by the printer. These appear as the wide variety of colors that a color ink jet or laser printer can produce.

PlayDoh™ and paints are often labeled with fanciful names that can easily confuse what is going on when two or more colors are mixed together. How often have you heard “Yellow plus Blue makes Green”? First, what is often called “Blue” is really “Cyan”. It absorbs Red from incident illuminating light. The Yellow pigment in the material absorbs Blue. When you subtract Red and Blue from RGB (white light), what’s left? Green! This is called subtractive color mixing and is the way that many of the colors are designed in printing, paint, and materials technologies. Table 1 shows the results of illuminating various materials with “white” light.

Molecules called pigments occur in both natural and synthetic materials. These produce color by absorbing certain bands of light from the spectrum falling on them while reflecting other bands. Our eyes are designed to pick up information that the rest of our brain uses in the process of color vision for survival.

So, unfortunately you will have to fight this early learning as you learn what is really going on in the interaction between light spectra, material absorption spectra, and scattering in your quest to design and select the perfect fly colors in a given situation.

As mentioned above, almost all materials, both natural and synthetic, absorb some proportion of the light falling on them in one or more parts of the spectrum. It is this property that results in the color of the material. If we just consider the Red, Green, and Blue bands of light falling on different materials, what colors would we see as they are absorbed by materials in our flies?
Table 1: Full spectrum illumination bands, material color and absorption, and bands and perceived color of reflected light.

<table>
<thead>
<tr>
<th>Illumination</th>
<th>Material Color</th>
<th>Material Absorption</th>
<th>Reflected Bands</th>
<th>Reflected Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>RGB -&gt;</td>
<td>white</td>
<td>none -&gt;</td>
<td>RGB</td>
<td>“white”</td>
</tr>
<tr>
<td>RGB -&gt;</td>
<td>red</td>
<td>GB -&gt;</td>
<td>R</td>
<td>“red”</td>
</tr>
<tr>
<td>RGB -&gt;</td>
<td>green</td>
<td>RB -&gt;</td>
<td>G</td>
<td>“green”</td>
</tr>
<tr>
<td>RGB -&gt;</td>
<td>blue</td>
<td>RG -&gt;</td>
<td>B</td>
<td>“blue”</td>
</tr>
<tr>
<td>RGB -&gt;</td>
<td>cyan</td>
<td>R -&gt;</td>
<td>GB</td>
<td>“cyan”</td>
</tr>
<tr>
<td>RGB -&gt;</td>
<td>magneta</td>
<td>G -&gt;</td>
<td>RB</td>
<td>“magenta”</td>
</tr>
<tr>
<td>RGB -&gt;</td>
<td>yellow</td>
<td>B -&gt;</td>
<td>RG</td>
<td>“yellow”</td>
</tr>
<tr>
<td>RGB -&gt;</td>
<td>black</td>
<td>all -&gt;</td>
<td>none</td>
<td>“black”</td>
</tr>
</tbody>
</table>

Notice that the second and third columns of Table 1 represent a property of the material in your fly! Let’s look at a situation when no red is present in the illumination.

Why is this important to material selection in fly tying? Red light is the first light absorbed by water. This is shown in Figure 5. That means that there will be little red light in the sunlight headed toward a fly at a modest depth. If you are tying a baitfish streamer and looking for contrast, you might pick green for material for the back and a lighter color, maybe yellow, for the belly. At the flytying bench, YOU can certainly see the difference. This difference may be just what you need at shallow depths. If you fish the fly through a deep hole, however, the situation changes. From Table 2 you can see that the two colors will reflect the same spectral bands toward the fish’s eyes. Let’s be clear: There is no way, based on color, that any visual system could tell the difference between these two colors at modest depth.

Table 2: Partial spectrum illumination bands for sunlight after removal of red through absorption by the water column. Material colors, possible absorptions, and both the bands and perceived color of the reflected light. Notice how pairs of materials that reflect different bands when illuminated by white light cannot be distinguished when the red band is removed.

<table>
<thead>
<tr>
<th>Illumination</th>
<th>Material Color</th>
<th>Material Absorption</th>
<th>Reflected Band</th>
<th>Reflected Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>GB -&gt;</td>
<td>white</td>
<td>none -&gt;</td>
<td>GB</td>
<td>“cyan”</td>
</tr>
<tr>
<td>GB -&gt;</td>
<td>red</td>
<td>GB -&gt;</td>
<td>none</td>
<td>“black”</td>
</tr>
<tr>
<td>GB -&gt;</td>
<td>green</td>
<td>RB -&gt;</td>
<td>G</td>
<td>“green”</td>
</tr>
<tr>
<td>GB -&gt;</td>
<td>blue</td>
<td>RG -&gt;</td>
<td>B</td>
<td>“blue”</td>
</tr>
<tr>
<td>GB -&gt;</td>
<td>cyan</td>
<td>R -&gt;</td>
<td>GB</td>
<td>“cyan”</td>
</tr>
<tr>
<td>GB -&gt;</td>
<td>magenta</td>
<td>G -&gt;</td>
<td>B</td>
<td>“blue”</td>
</tr>
<tr>
<td>GB -&gt;</td>
<td>yellow</td>
<td>B -&gt;</td>
<td>G</td>
<td>“green”</td>
</tr>
<tr>
<td>GB -&gt;</td>
<td>black</td>
<td>all -&gt;</td>
<td>none</td>
<td>“black”</td>
</tr>
</tbody>
</table>
This shift in the illumination spectrum with water depth is well known to underwater photographers. They will often add a “red filter” to their cameras. These filters block green and blue light and pass red light. (That’s why white light looks red when you look through them!) In this way, the balance between red, green, and blue in the light coming to the camera is better and the scene looks more colorful. It may not be a perfect solution but the results are quite good.

**Light and the Visual Background**

The illumination of the bottom and other structures follows the same color shift pattern as described above. The target fly is seen against a background largely made up of the light reflected by these materials. Another source of background light coming to the fish’s eyes is from the space light generated by scattering and suspended particulates in the water. We’ll look at the formation of the background in the next part of this series.

**Conclusion**

Getting a fish to strike at our fly depends on the fish’s ability to detect it against the visual background from the fish’s point of view. This detection requires contrast between the target and the background. Light striking the water surface shifts in color as it travels through the water. When it illuminates our fly, the materials in the fly absorb some parts of the spectrum and reflect others toward the fish’s eyes. The spectrum of light arriving at the fish’s eyes depends both on the illumination on the and the materials within the fly. Understanding the interplay between water depth, space light effects, and material absorption provides significant leverage on figuring out how to pick material color both for tying and fishing.

If you have questions or comments, please feel free to send them to Paul Beckman at mn.fly.tyer@gmail.com.

**THE MAN AND HIS PIN**

By Steve Jensen, FTG Board of Directors

Back in the middle and late 1980’s, when it was the Federation of Fly Fishers and the annual show was called a conclave, it wasn’t unusual to see some of the more accomplished fly tiers sporting a “I’m a Rooster Cooper” pin on their shirts. Individuals not familiar with the pin might ask what it meant, where they could get one, or how much they cost. The answers were often of little help.

The creator of the pin was Darwin Atkin. Born Christmas eve, 1939, Darwin ultimately became one of the most accomplished and recognized fly tiers in the United States. When he died in January 2014, the walls of his fly tying den were covered with various awards attesting to his abilities. Within Fishers International, I believe that he garnered more awards than any other individual in the history of the organization.

Until they retired and ultimately moved to Bozeman, Montana, Darwin and his lovely wife Anna lived in Porterville, California. Darwin’s fly tying area was a small, standalone structure in his back yard which he named it the...
Rooster Cooper. The Rooster Cooper was constructed in the early 1980’s based upon plans drawn by Tom Reiger, an Industrial Arts Instructor at Monache High School where Anna taught. The actual construction was accomplished by Tom and Darwin, assisted by another Industrial Arts Instructor; a football coach; a water polo coach; and occasionally, the basketball coach (all from Monache Highschool).

The Rooster Cooper pin was Darwin’s way of recognizing individuals for their abilities or because they had helped him in some way. Although the pins were “awarded” over a period of only fifteen years, the names of the recipients include some of the most notable fly tiers at the time (unfortunately, many are no longer with us).

- Date Unknown – Darwin Atkin (#1)
- Date Unknown – Anna Atkin (#2). This pin is now permanently mounted in the Darwin Atkin Memorial Fund Plaque.
- 13 OCT 85 – Bill Blackstone (#3)
- 13 OCT 85 – Joe Roope (#13)
- 13 OCT 85 – Ron Shockly (#14)
- 14 OCT 85 – Billy Munn #11)
- 15 OCT 85 – Chuck Newmyer (#5)
- 15 OCT 85 – Dave Mosley (#6)
- 16 OCT 85 – Jimmy Nix (#12)
- 16 OCT 85 – Larry Duckwall (#15)
- 17 OCT 85 – Bud Lilly (#4)
- 17 OCT 85 – Catherine Moore (#7)
- 17 OCT 85 – Royce Dam (#16)
- 17 OCT 85 – Dr. Dick Nelson (#20)
- 21 AUG 85 – Gary Borger (#21)
- 25 OCT 85 – Boyd Aigner (#9)
- 25 OCT 85 – Dave Whitlock (#10)
- 29 JAN 86 – Frank Johnson (#8)
- 31 JAN 86 – Ross Merigold (#22)
- 14 AUG 86 – Mitch Whitney (#23)
- 15 AUG 86 – Joe Robinson (#24)
- 8 SEP 86 – Steve Bailey (#25)
- 25 AUG 86 – Bastian Verschoor (#19)
- 29 SEP 86 – Roy Richardson (#26)
- 6 OCT 86 – Judy Lehmberg (#27)
- 6 MAR 87 – Steve Jensen (#17)
- 11 AUG 87 – Jerry Bliss (#18)
- 26 JAN 88 – Dennis Bitton (#28)
- 10 APR 88 – Rob Ransom (#29)
- 31 JUL 88 – Wayne Luallen (#30)
- ?? SEP 88 – Len Holt (#31)
- ?? ??? 89 – Judith Dunham (#32)
- ?? MAR 90 – Barry White (#33)
- 6 MAY 90 – Ad Swier (#34)
- 6 MAY 90 – Win Maurer (#35)
- 6 MAY 90 – Egbert Land (#36)
- 1 AUG 90 – Al Beatty (#37)
- 1 SEP 90 – Al Wilke (#38)
- 26 AUG 91 – Marvin Nolte (#39)
- 3 SEP 91 – Tom Leach (#40)
- 19 AUG 92 – Kent Bulfinch (#41)
- 19 AUG 92 – Alice Conba (#42) – Pin was subsequently lost
- 20 SEP 92 – Bud Heintz (#43)
- 1 MAY 94 – Alice Conba (#44) – Replacement for pin #42
- 30 OCT 95 – Mike Radenrich (#45)
- 2 APR 96 – Alyce Barker (#46)
- 29 SEP 96 – Darwin Atkin (#47)
- 14 AUG 01 – Jeff “Bear” Andrews (#48)
In addition to the pins presented by Darwin, I am aware that Anna presented pins to two individuals following Darwin’s death (not numbered):

- Oscar Feliu
- Tom Logan

Pins presented in conjunction with the FFI Darwin Atkin Memorial Fly Tying Award (not numbered):

- 2015 – Steve Jensen
- 2016 – James Schollmeyer
- 2017 – Frank Johnson
- 2018 – Dave Roberts
- 2019 - (not awarded)

Currently there are discussions within Fly Fishers International to establish the Rooster Cooper Pin as the official pin to be presented in conjunction with the Darwin Atkin Memorial Award for Fly Tying Excellence. Just as the golden feather stands as a symbol of the prestigious Buz Buszek Memorial Award for Fly Tying Excellence, the Rooster Cooper Pin would represent a lasting tribute to the late Darwin Atkin.

Enter the Second Annual FFI Fly Tying Challenge
David Klausmeyer

The Fly Tying Group of Fly Fishers International is proud to announce the second annual FFI Fly Tying Challenge. This great contest, of which Fly Tyer is a proud sponsor, is open to tiers of all skill levels. Here is your chance to win glory and a great trip to fish for trophy trout.

According to Jerry Coviello, chairperson of the Fly Tying Group and regular Fly Tyer columnist, the Fly Tying Challenge features several categories of patterns: dry fly, wet fly, nymph/crustacean, and streamer. The winner of each category will receive a medal and certificate testifying to their fly tying talents, and second and third place winners will receive certificates. All first-place flies will appear in a future issue of this magazine.

In addition to submitting flies to any of the four individual categories, you may tie a sample of each pattern and also send a “tie-breaker” fly of your choice to enter a fifth, overall winner category. The accomplished tier who is crowned the overall champion will enjoy an unforgettable trip provided by John Burrell’s High Adventure Company to enjoy some of the finest trout fishing in the United States.

The overall winner and one guest will cast to trophy trout on a private section of the Soque River in Georgia’s beautiful Chattahoochee National Forest. Their time at High Adventure Company will feature three nights lodging, two days of guided fishing, and all meals. (The exact time of the trip will be arranged between the winner and High Adventure Company. To learn more about High Adventure Company’s exclusive fishing and hunting trips, check out www.highadventurecompany.com.)

Are you interested in participating in the Fly Tying Challenge? Then start honing your skills with these patterns: the Adams Irresistible (the dry fly), Royal Coachman Wet Fly (wet fly), Pink Crazy Charlie (crustacean), and Rainbow Thunder Creek (streamer). Jerry has carefully tied samples of all four styles of flies and provided pattern recipes, which you can find at www.flytyer.com, or at Fly Fishers International’s website, https://flyfishersinternational.org/Tying/Fly-Tying-Challenge. (Go to either website for complete instructions for entering the Fly Tying Challenge.)

Judging will take place at the FFI Fly Fishing Expo in July, 2020 at Montana State University in Bozeman, Montana. The winners will be announced at the Expo Hall, and they do not have to be present to win. Entry deadline is June 12, 2020. Submitted flies become the property of FFI's Fly Tying Group. (Members of the Fly Tying Group Board of Governors and Buszek recipients are not eligible to enter the contest).

Jerry says the Fly Tying Group selects four mandatory patterns so, “We’re judging apples to apples. We think these four flies also require participants to demonstrate the important skills required to make nice flies.”

With respect to selecting a pattern for the overall category, he says, “Go for it! Show us the best example of your favorite fly.”

Do you think you’re talented at the vise? Then show us your best flies, and win!
Tying the Ubiquitous Clouser Minnow

by Hugh Smith

*ubiq-ui-tous* (adjective): existing or being everywhere at the same time; constantly encountered.

We can assume Bob Clouser was a very happy camper when he finished the first example of what became the ubiquitous Clouser Minnow. “Pretty darn good smallmouth fly!” We all agreed. Over time we found he had designed a fly that performed amazingly well in many venues. This Pennsylvania pattern worked well for everything from mature tarpon to mangrove snapper in the salt, as well as just about everything in fresh water, cold or warm! Many of us heard about it, maybe saw one or a picture, then went straight to our vices. Off we went, grabbing a clump or two of bucktail and some barbell eyes. But we find finer attention to Bob’s instructions may produce an even more effective fly...though our rudimentary efforts actually worked fairly well.

Here are some techniques often overlooked that may improve your clouser tie. Start your thread about a hook eye length back from the hook eye. Run your thread aft to about one third of the hook shank and build up a small bump of thread. Put your barbell eyes up against the bump and tie in the barbell on the top of the hook shank. Tie these eyes by wrapping diagonally first to the left side of the barbell, then holding the barbell in correct alignment for an equal number of wraps on the right hand side. A drop of head cement here helps durability.

Next grab a sparse clump of bucktail that will ultimately be the belly of the fly, often white like the belly of a minnow. Prepare this clump of bucktail by removing the fuzz and guard hairs. Stack this bucktail to even the tips. Trim the clump butt section even and about a hook shank and a half in length. Hold this clump snugly between the thumb and forefinger of your non-thread hand and place it on the hook shank forward of the eyes. Take two soft turns of thread to catch the bucktail and one snug turn ending up with the thread bobbin above the shank. The snug turn will splay the bucktail unevenly, tapered toward the eye of the hook. Continue thread wraps forward toward the hook eye keeping all the bucktail on top of the hook shank short of the hook eye. Done correctly this will result in wraps getting smaller and smaller to a point near the hook eye, thus eliminating the need for scissor work on the bucktail. Then wrap the thread back to the barbells building a small conical effect. This process should result in a clump of bucktail that is taller than it is wide and totally on the top of the hook shank.

Invert the hook in the vice.

Grab two long lengths of crystal flash. Tie them in forward of the barbell eyes, on the bottom (bend side) of the shank, two on each side. Trim them to a length slightly longer than the bucktail clumps.

Repeat the above bucktail tie in with another clump of bucktail on the underside (bend side) of the hook shank. Make sure you hold the bucktail with the tall thin method and the two soft, one snug wraps. Finish the head with wraps to make it a slightly longer than normal and conical in shape. Insure this clump of bucktail runs equally on each side of the bend.

Whip finish and finish the head with UV or epoxy and wheel.

These additional techniques may give you a clouser that behaves in the water more like a wounded minnow. Though not empirically tested...I sure think they do.
Calendar of Events

January 2020

January 17 - 19, 2020 Join FFI and the North Eastern Council along with regional clubs at the Fly Fishing Show at the Royal Plaza Hotel & Trade Center in Marlborough, MA. Visit the Fly Fishing Show website for more information.

January 18 - 19, 2020 Long Beach Casting Club hosts the 3rd Annual LBCC Spey Casting Tournament at the LBCC Clubhouse in Long Beach, CA. Registration is $50 and includes breakfast, lunch, and dinner on Saturday. Click here for the event flyer or contact Mike Ivy at archie.ivyinc@verizon.net.

January 24 - 26, 2020 Join FFI and the Eastern Waters Council along with regional clubs at the Fly Fishing Show at New Jersey Convention & Expo Center in Edison, NJ. Visit the Fly Fishing Show website for more information.

January 31 - February 1, 2020 Join FFI and the South Eastern Council along with regional clubs at the Fly Fishing Show in Atlanta, GA at the Infinite Energy Center. Visit the Fly Fishing Show website for more information.

February 2020

January 31 - February 1, 2020 Join FFI and the South Eastern Council along with regional clubs at the Fly Fishing Show in Atlanta, GA at the Infinite Energy Center. Visit the Fly Fishing Show website for more information.

February 1, 2020 Greater Cincinnati Fly Fishing Show sponsored by the Buckeye United Fly Fishers at The Oasis Conference Center in Loveland, OH from 9am-4pm. Visit www.buckeyeflyfishers.com for more information.

February 15 & 16, 2020 Join FFI and the Washington State Council along with regional clubs at the Fly Fishing Show in Lynnwood, WA at the Lynnwood Convention Center. Visit the Fly Fishing Show website for more information.

February 21 - 23, 2020 Join FFI and the Northern California Council along with regional clubs at the Fly Fishing Show in Pleasanton, CA at the Alameda County Fairgrounds. Visit the Fly Fishing Show website for more information.

March 2020

March 7 & 8, 2020 Join FFI along with the Chesapeake Council and regional clubs at the Fly Fishing Show in Lancaster, PA at the Lancaster County Convention Center. Visit the Fly Fishing Show website for more information.

March 7, 2020 North Coast Fly Fishers presents The 2020 Northern Ohio Fly Fishing Expo at Holden University Center from 9a-4p. There will be fly fishing seminars, fly tying demonstrations, vendors, along with silent auction & raffles. Click here for the Expo flyer or visit www.NorthCoastFlyFishers.com for more details.

March 15, 2020 California Fly Fishers Unlimited is holding their 2020 Annual Dinner at the California Auto Museum in Sacramento, CA. Contact Laurie Banks at laurie@creekchick.com or 916-709-1309 for more information or go to www.CFFU.org.

April 2020

April 18, 2020 Tri-Lakes Fly Fishers presents Tri-Lakes Fly Fishing Expo at the Benson Center in Clinton, MO from 9a-4p. FREE ADMISSION. The Expo features seminars, fly tiers, raffles, auctions, casting instruction, and vendors. Click here for the event flyer.

Join FFI at the 2020 Fly Fishing Show

Marlborough, MA January 17-19, 2020
Edison, NJ January 24-26, 2020
Atlanta, GA January 31-February 1, 2020
Lynnwood, WA February 15-16, 2020
Pleasanton, CA February 21-23, 2020
Lancaster, PA March 7-8, 2020

Learning Center

FFI is pleased to offer FREE fly fishing instruction at the Learning Center located on the main show floor. Basic fly-casting, fly-tying and knots will be taught throughout the day every day of the Fly Fishing Show.
*Tying Times* is the official newsletter of Fly Tying Group of Fly Fishers International (FFI). It is published quarterly as a major venue for informing members of projects and upcoming events of interest to them.

Each issue also contains articles that include planning and teaching tying workshops, helpful tying techniques and descriptions of tying materials and their unique characteristics that make them especially suitable for specific tying applications.

It is intended that members may learn something new from each issue that will help them expand their fly tying skills and thus contribute to our mission, which generally is to preserve the art form of fly tying for all fly fishers.

If you are not a member and would like to receive the benefit of *Tying Times*, please join the Federation by using the following URL:  [http://flyfishersinternational.org/Membership/MembershipOverview/tabid/779/Default.aspx](http://flyfishersinternational.org/Membership/MembershipOverview/tabid/779/Default.aspx).

Are you interested in contributing to the newsletter? For assistance or to send articles, send them to [ftg@flyfishersinternational.org](mailto:ftg@flyfishersinternational.org).