

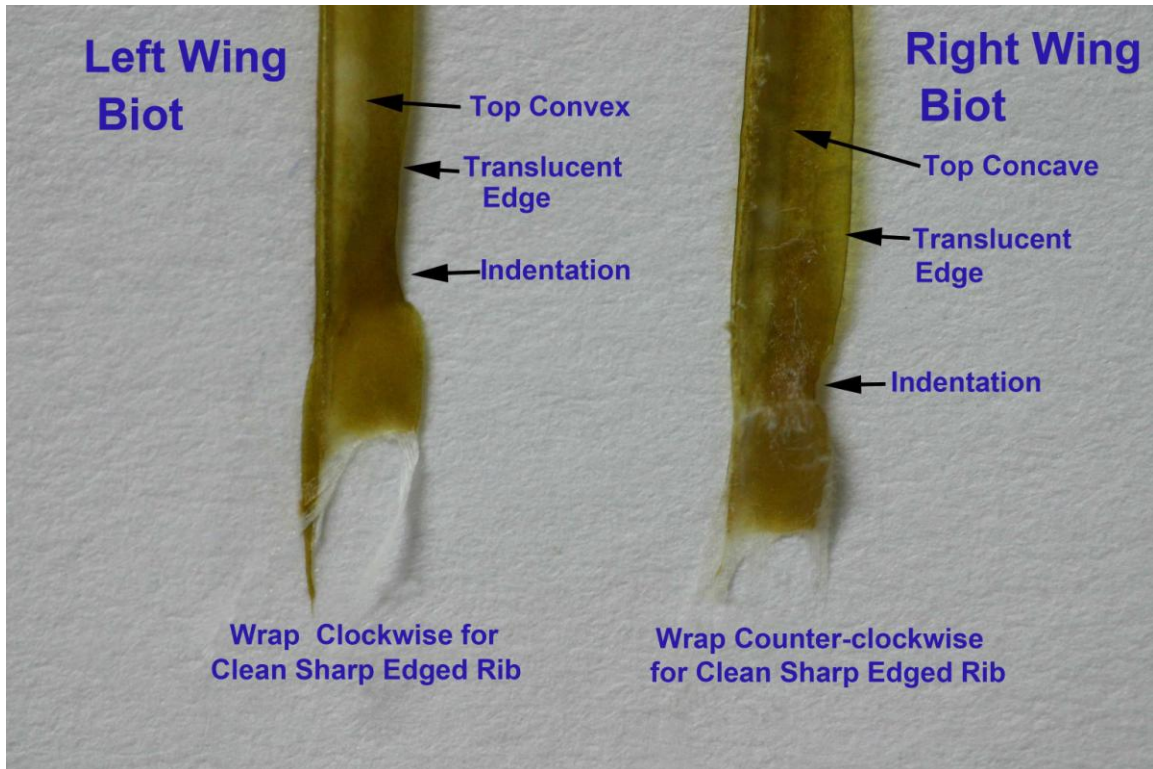
BIOT FLY BODY TYPES And ATTACHMENT GUIDELINES

Biotics are very useful as fly body materials as they provide a low bulk ribbed or a smooth body depending on how the biot is attached to the hook. A ribbed body is obtained if the smooth indented edge of the biot is attached toward the biot application direction while a smooth body is obtained if the smooth indented edge is attached away from the biot application direction. These guidelines often appear in fly tying articles and are well known. However, inconsistent results will still be obtained unless the biot's source is used to determine the appropriate wrapping direction to obtain the desired body characteristics. Unless the source of the biot is considered, a specific wrapping direction could result in clean and sharp or ragged edged ribbed biot body or similarly a very smooth or somewhat wavy "smooth" body. The correct biot wrapping direction to obtain a specific desired outcome is different depending on whether the biot is obtained from the left wing or right wing feather. These guidelines are intended to reduce the annoying frustration of obtaining inconsistent results when tying biot fly bodies. (A quick summary for the steam-side tyer is included at the end of this article).

The biot is obtained from the leading edge of the birds flight feathers. One of the biot's lateral edges is smooth and somewhat translucent and the other edge has ridges that are different on the two sides of the biot. The smooth lateral edge has a slight indentation about 2-3 mm above the base of the biot; this indentation can also be used to verify which side of the biot is smooth. As each successive wrap covers the previous wraps front edge, the smooth lateral edge must be toward the biot application direction on the hook if a ribbed body is desired and away from the biot application direction if a smooth body is desired. Since the biots from the left and right wings have differences similar to human hands, the biots from the left/right wings will need to be wrapped in different directions to obtain the same results. When a cut cross-section of a biot is observed from the base end of the biot with the translucent edge to the right, a left wing biot is convex on the top while the right wing biot is concave on the top. Determining whether a particular biot is convex or concave on the top may require the use of a magnifying aid. The desired tying rotation direction then sets whether the biot should be tied on the front or back side of the hook to avoid having the biot initially wrapped back on itself which may kink and break the biot.

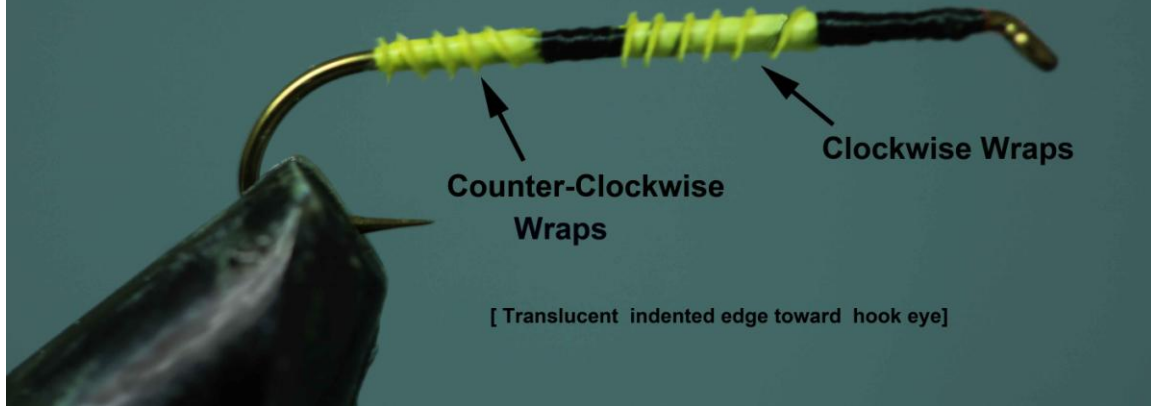
Determining if the biot is from the left or right wing is straightforward if the feather's trailing edge barbs are intact. If the biot is purchased in the stripped condition, the determination may be less obvious if the stripping is done by cutting down the middle of the central stem. In any case, the translucent edge and indentation is on the bottom of the biot when attached to the stem. A sample can be removed if required to observe the location of the indentation. The indentation, however, may not be visible if the biot was cut from the stem instead of pulled-off of the stem. Another indication of the left/right status on a stripped biot feather is the downward curve of the biots from the stem

although this may not be decisive depending on the stems distortion in the cutting process. Finally, a magnifying aid can be used to determine if the biots source by determining if the top edge is convex or concave while aligning the biot with the smooth edge is a specific direction. Left wing biots are more convenient to use for both clean sharp ribbed and very smooth biot fly bodies as they are wrapped clockwise; clockwise wrapping results in tying off the biot in the same direction as the normal thread wrapping direction. Note that using a matched pair of quill feathers always presents the opportunity for inter-mixing the left/right wing biots likely yielding inconsistent fly bodies! The photograph below shows the attributes of a turkey biot that can be used to determine its wing source.



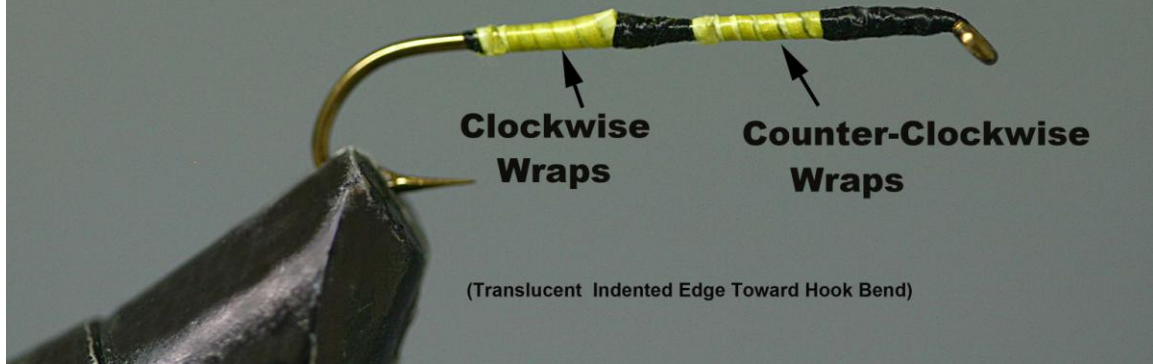
For **ribbed fly bodies**, the biot tip is tied with smooth edge toward the biot body application direction (normally toward the hook eye). If a biot from the left wing is used, a clean sharp edge is obtained when the biot is attached to the front side of the hook and wrapped clockwise (relative to looking at eye of hook). If the left wing biot is attached to the back side of the hook and wrapped -counterclockwise, a somewhat ragged edge rib is obtained. The reverse situation occurs when a biot from the right wing is used. The photograph below shows the difference in the body ribs when a biot is wrapped in the two directions.

Ribbed Biot Body with Left Wing Biot



For **smooth biot fly bodies**, the biot tip is tied with the smooth indented edge away from the biot body application direction (normally toward the hook bend). If the left wing biot is attached to the front side of the hook and wrapped clockwise, a very smooth body is obtained. If the left wing biot is used, a slightly wavy body is obtained when the biot is attached to the back side of the hook and wrapped counter-clockwise. The reverse situation occurs when a biot from the right wing is used. The differences in the final smooth body appearance due to the wrapping direction are not as pronounced compared to the ribbed biot differences. A magnifying glass may be required to note the differences.

Smooth Biot Fly Body with Left Wing Biot



The tables below summarize the biot attaching considerations. The basic steps are:

1. Decide on the type of biot body you want on the fly
2. Determine if you have a left or right wing biot
3. Find the type of body you want in the table (or narrative), attach, and wrap per the guidelines shown for the left or right wing biot.

Ribbed Biot Bodies		
Smooth Indented Edge of Biot Toward Body Application Direction		
Type of Ribbed Biot	Attachment Side of Hook and Wrapping Direction	
	Left Wing Biot	Right Wing Biot
Clean Sharp Edged Ribbed Biot Fly Body	Front side of Hook and Clockwise	Back Side of Hook and Counter-Clockwise
Frayed Rib Biot Fly	Back Side of Hook and Counter-Clockwise	Front side of Hook and Clockwise

Smooth Biot Bodies Smooth Indented Edge of Biot Away from Body Application Direction		
Type of Smooth Biot Body	Attachment Side of Hook and Wrapping Direction	
	Left Wing Biot	Right Wing Biot
Very smooth body	Front side of Hook and Clockwise	Back Side of Hook and Counter-Clockwise
Slightly wavy body	Back Side of Hook and Counter-Clockwise	Front side of Hook and Clockwise

Other Biot Tying Tips:

1. Use a multi micro-filament thread that can be fully flattened to avoid cutting the biot during the attachment process. The thread should also be flattened while dressing the hook assuming the biot is attached directly to the hook dressing.
2. Try to keep the portion of the hook to be biot wrapped as smooth as possible. A rough wrapping surface will cause the ribs to become distorted.
3. Consider pre-wetting the biot with a paper towel if they crack while wrapping. Wetting may not be required depending on the properties of the individual biots.
4. Attach the biot to the stem with an angle of about 45 degrees back from vertical if the biot is to be wrapped toward the eye of the hook. This will lessen the tendency of the biot to rotate when starting the wrapping process. Biots tend to rotate 180 degrees when the wrapping process is started.
5. If desired, the biot's durability on the fly can be improved by dressing the wrapped section with head cement or other sealants. The biot's appearance, of course, is altered somewhat by the application of cements and sealants

Biot Attachment Quick Stream-Side Summary:

In the event you are at stream-side and the trout are eagerly taking naturals that can be only imitated by a biot body fly, you can use this never fail method to create your consistent original biot body flies.

1. Remove all the biots you want to use from a single biot stem by pulling them off and keep them together.
2. Attach one biot to a hook with the indented translucent edge toward the hook eye if you want a ribbed body or in the other direction if you want a smooth body. Tie the biot to the front side of the hook and wrap it clockwise and observe the result.
Tie another biot to the back side of a hook with the same smooth translucent indented edge orientation and wrap counter- clockwise. Determine which body you like best, attach and wrap the rest in the same direction.

3. If you run out of the first set of individual biots and need to use another biot stem, start at step 1 and repeat the process.

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