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Subject: : Gear Talk

Topic: : Line wt debate

Re: Line wt debate

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URL:

You are correct if you use the same 3 weight line, the same length leader, the same fly, impart the same line velocity, shoot equal amounts of line for a total cast of say 30 feet in length, and cast at the same height over the water. Assuming all this occurs, absolutely, both lines will hit the water with the same energy no matter whether cast from an ultra fast, fast, medium or slow action rod – graphite or bamboo. However, in practice that's not what happens.

What casts a fly is the line's momentum. The mass of the line is constant no matter what rod you spool it on so what does change is line velocity.

Fast action rods generally are better suited to aerialize more line, cast for distance and cut through the wind with higher line speeds and tighter loops, while medium action rods are better suited to throw shorter casts. Fast action rods are generally more difficult to load at close ranges and many times in order to load and "feel" the rod, the caster increases line speed and by increasing line speed momentum is increased. Medium action rods are much easier to load and "feel" and at close distances the result is a slower and more relaxed casting motion, which results in a slower line speed and therefore less momentum.

So what happens on say a 25 foot cast is the velocity of the line cast from a fast action rod generally ends up being faster than that of a medium action rod, which means the cast from the fast action rod has more momentum which must be dissipated. Assuming the length of line cast and the fall distance to the water being equal, the fast action rod will hit the water with more energy simply because equal amounts are dissipated during the cast but the fast action cast starts with more energy so therefore, more is left at the end of the cast. Many times a line that is cast too fast for the distance completely straightens out, snaps back towards the casters and falls to the water with a big plop. You can do that with either rod but generally speaking and from working with and observing many casters, the tendency of many with a fast action rod, especially when working at close distances, is to impart too much line speed, which results in an excess of momentum and therefore a less delicate presentation that with a medium action rod.

As for loops, you don't want tight loops completely straightening out your leader especially when fishing dry flies. If you're using a 12 foot leader that has a 4 foot 6x tippet section you don't want the leader fully turning over and going straight - you'll get drag immediately. Ideally you want the tippet section not completely unfolding and kind of piling or lying in a 'S' curve.

Tight loops also result in less wind resistance. If you were to look at a tight loop cast coming directly at you, the leading edge of the line (the front edge of the 'U' you see coming at you) may be 2 feet or less high. A more open loop may be 4 feet or more high. Less surface area of the leading edge of the line (2 feet in the tight loop cast) pushing through the wind means less resistance, which means less energy is dissipated by the wind during the cast. Therefore, a tight loop cast at a close distance won't dissipate as much energy as an open

loop and is more prone to not being delicate. Not that it cannot be done but it is more prone to not being delicate.

As for line weights, lighter line is used when more delicate presentations are required. You're generally using smaller flies, casting at close distances and in slower, clear, calm water where you want the line to land gently and minimize surface disturbances. A 5 weight line simply weighs more per linear foot than a 3 weight line so if you drop a 10 foot section of 3 weight and 5 weight line from 10 feet above the water, the 3 weight line will land softer on the water because it has less potential energy to start with. Potential energy equals mass (3 weight has less) times gravity (constant for both) times height (10 feet for both). The lighter line is also more susceptible to wind resistance, which further decreases the speed of the line hitting the water.

So my statements are more generally speaking. If you can create the same conditions it doesn't matter what rod you use the result will be the same but most people cannot. That is why medium action rods are better suited for working up close and fast action rods are better suited for working at greater distances. That is also why lighter lines are more delicate than heavier lines, too.