

That Sinking Feeling

Darren Lewis gets to grips with freshwater lines that misbehave in the salt.



Casting for Bass at Dawn in the Solent, but in this light, how do you know what your line is doing?

Sexy stuff saltwater fishing, the lone fisherman stood heroically on a far flung rock, the isolated figure braving the surf in the distance, hard fighting beautiful fish, it's no wonder that it's one of the fastest growing areas of our sport. Manufacturers are falling over themselves to sell us the right equipment, but what if you live far from the coast, what if you're unsure saltwater fly fishing will suit you, what then? I'm sure that there lots of you who would love to give this a go, but are wary of forking out serious money on something you might not like. However, the point of this article is to encourage you to give it a go, to learn new skills, and the good news is your normal reservoir equipment is roughly the right weight and rod length to enable you to give it a go. But there's something different about saltwater fishing, something that's not that obvious, and it's pretty important that you know if you're going to the coast with a freshwater outfit.

Throwing the light on sodium

Since the dawn of time rivers and volcanoes have constantly fed dissolved minerals into the sea, and evaporation of the water from the surface into the atmosphere has concentrated these minerals in the ocean. So how does this affect you, apart from making it taste salty and rusting the zips on your fishing vest? The concentration of these minerals has made the saltwater denser than fresh water, which means that if you go charging down to the sea with your slow sinking line to target some Pollack off the rocks, you may be a bit disappointed to find your sinking line floating way above their heads. So does this mean your freshwater lines are useless in the salt? Not at all.

Conversion factors

All we need to know is how freshwater lines behave in the salt. Yes, the lines won't be ideal for reasons I'll cover later, but I bet every still water fly fisherman in the country already owns at least one line that is good enough to give it a go. So what are the main differences? Well a floating line will obviously float even better than it did before due to the extra density of saltwater, that's the easy one, but what about the rest? Well there's no information on this anywhere that I could find, and the manufacturers certainly won't tell you as they want you to buy their specialist lines, so I had to find out for myself.

The science bit.

I never set out to write a scientific paper, this article was never something that was going to be put up for review by my peers to certify it's accuracy. What I needed to determine was a simple rule of thumb that would be easy to remember by somebody stood on a rock by the sea. Quite simply I'd fill a fish tank with freshwater and time the descent of a variety of sinking lines to determine their sink rate, then do exactly the same with saltwater. A problem I hadn't anticipated when doing the research was getting the lines to sink in a consistent manner. I couldn't let the lines sink whilst I held the other end as this was causing a significant swing sideways, a complication I couldn't factor into any meaningful results. I could follow the line down as it sank by holding it, but then how would I know I wasn't pushing the line down faster, or even slowing it down, and besides it made measuring the sink rate awkward as I could no longer see horizontally to get a clear view. I had no choice, the line had to be free falling, so after a deep breath I chopped up lots of sinking lines with varying sink rates to get a spread of results. But then I found another problem, it was very hard to get a section of line to sink horizontally, it wanted to dive down end first, spearing its way down and again skewing the results.

So, the solution was to cut a 1 foot section off seven lines, and to glue each of them into a hoop, this way there was no end to land first, there was no interference from me, and they all sank in a consistent horizontal plane in each medium. This also sealed the ends of line, ensuring that water couldn't wick up the core of some lines making them denser and sinking faster and faster as I tested them. To be extra sure there was consistency in sink rates and to get rid of the unpredictable surface tension when I dropped them in, I also allowed the line to accelerate to it's sinking speed before I started measuring it, ie. I let it sink 2" before it entered the measuring zone. I also measured each result ten times, discarded the fastest and slowest time, and took an average of the remaining times.



A 3" sinker making it's way down through the fresh water sample.

The verdict

After a very tedious 140 tests, there wasn't an obvious result. In my childish optimism I had anticipated something obvious, like each line sank at exactly 2" slower in saltwater, but this hadn't happened, the results varied across the board. A further complication that I soon realised was that some lines sank at exactly the speed they were rated as, and some sank at significantly different speeds to that quoted, for example a slow clear intermediate quoted as 2"/sec that actually sank at over 4 inches per second. I was initially a bit stumped that I didn't get an obvious result, so I tried a graph, did some maths, and then I spotted the clear relationship I was looking for.

I converted each result into percentages, and found that all the lines sank between 78% and 82% slower in salt water. To say my relief was palpable after all those tests would be an understatement! **So there it was, the golden 'easy to remember rule' I was looking for, if you're fishing in saltwater, reduce the sink rate by 20%, ie. a 5"/s sinker is now a 4"/s sinker.** This also explains why a really slow sinking line will float in saltwater, if the sink rate is within 20% of neutral buoyancy in freshwater, then it will float in saltwater. In fact, if you factor surface tension into the equation, I'd speculate that any freshwater line designed to sink at less than 1"/sec will float in saltwater. Alas I don't have a selection of old intermediates or neutral densities that I could butcher to find out, although I am open to line donations to repeat the experiment to find out for sure.

Knowing that these results would be published, I was keen to make sure that my results were accurate, so I repeated all 140 tests with new water samples a week later and was able to confirm my results, I even tried some common saltwater flies, and had roughly the same results, some faster, some slower, but all roughly around the 20% mark.



A Chartreuse Clouser sinking 23% faster than it's used to when placed in freshwater.

So I don't need to buy any saltwater equipment?

Well, yes and no. Rods 9' to 10' long are suitable and lines rated #7 to 8 are heavy enough to cast smaller saltwater flies without over gunning the fish, and any reel can be used within reason. But remember if your outfit is not described as being for saltwater use, only use it for a limited time to see if saltwater fly fishing suits you or not, and wash it meticulously after use. Remember to periodically grease and oil the reels afterwards as the exposure to salt, and the resultant cleaning of the reels afterwards, can soon strip a reel of its protective coatings and lubes.

The right kit for the job is of course preferable, so if you think you could get into saltwater fishing then you have two choices really, buy a cheap outfit, clean it every time, and still accept the fact that the salt will destroy it sooner rather than later, or bite the bullet and buy the gear that's suited to the job. Either way, a line tray is an essential, not only to keep the line off sharp rocks, but to keep the running line off the surface tension of the water to aid long casts, and to stop the surf washing it 10 feet behind you. And if you're going to the surf, wear chest waders and a good wading jacket, and make sure everything's done up tight! Most importantly, if you're new to an area or just unsure, fish the outgoing tide. The coast can be a dangerous place, only yesterday an angler was washed off the rocks at Rumps Point in Cornwall to his death, whenever you're fishing from the coast safety should be your utmost priority. Even if you know an area really well rip currents can develop due to the ever changing sea bed, swells from passing ships can sweep you off the rocks, a freak wave can drag you under, never be complacent on the coast. And as we're talking about safety I would also recommend a lesson or two from an AAPGAI instructor, not only will they be able to give fishing and safety advice, but wind WILL be an issue when casting on the coast, so best to learn how to deal with it beforehand rather than suffer frustrating wasted trips.

So at least you don't need to buy saltwater lines anyway, after all, I've just shown you that you don't. Well, yes I'm afraid you should. The point of this article is to get you out there giving it a try with your freshwater equipment confident in how it will behave, but remember, none of the freshwater equipment is designed for the job, and line technology is a very complicated area of our sport fine tuned to its intended use. Saltwater lines are fundamentally different, and these changes are most certainly to your advantage. Firstly as they are for denser saltwater they can be made thinner and still retain the same floating/sinking characteristics as their freshwater cousins, which means they're not so affected by the wind, a big plus! Another obvious benefit is that saltwater lines have a thicker steeper front taper, sometimes with a compound taper in the head, for turning over bigger flies, another obvious advantage. They quite often have shorter heads too, this makes quick angle changes to cruising fish easier as there's less line to control, and it's easier to load the rod quickly which means you spend more time fishing and less time false casting. Lastly, they tend to be 'high floating', this not only assists quick lifts off the water for quick angle changes, but it disturbs the water less so you don't spook fish that you may not have seen.

So what's a 'Tropical' line, and why do I need one?

There are two fundamental saltwater line types, temperate and tropical. Temperate basically means cooler waters, the sort of line you'd use in the UK for example, and the tropical line is for use in places like Cuba. The reason you'd want a tropical line is that in much warmer destinations, the extreme heat and humidity can totally transform your usual fly line into a limp, sticky mess. Being sticky is obviously a problem when it comes to friction sliding through the rings when you're casting, but due to the limpness the line can't support it's own weight between the rings causing it to sag further increasing drag. But the problems from the limpness and stickiness don't end there, it easily tangles and knots onto itself, and the inherent memory from the lines core is magnified as there's no longer any resistance from the coating to it's coiling itself up. The end result is a line that tangles, coils and knots easily, and even if it doesn't tangle, it doesn't cast very far anyway as it's so sticky and limp. Not surprisingly, I urge you not to use a British line in the tropics! Tropical lines get around these problems in a variety of ways. Firstly the core, saltwater lines have braided cores which have naturally less memory as there's no one dominant material pulling it in any one direction, and they're formed from a stiffer material, typically a stiffer monofilament, to help alleviate limpness. The coatings are also much stiffer and harder, this not only helps with the lines 'shootability' when it comes to distance casting, but it eliminates the 'stickiness' and makes them more resilient to abrasion from coral and sand. Further factors to consider is that your average Tarpon or GT is significantly bigger and more powerful than the fish targeted in more temperate saltwater, so the cores have significantly higher breaking strains, as much as 75lb when compared to the usual 20lb-25lb breaking strains. So why not just buy a tropical line and use it everywhere? Because if you try and use one in more temperate climes, not only would the taper be over the top for British species causing an unnecessarily splashy presentation, but the line in a cold climate would be so stiff it would be like casting wire! Lines are designed to do a specific job in specific circumstances, so even though I'm encouraging you to 'give it a go' with your freshwater kit as an interim solution, to avoid frustration in the long term, always use the line designed for the job.

Profile

Darren Lewis is an AAPGAI instructor and was the lead instructor for Sportfish at their Reading casting school. Coming from Pembrokeshire he is a keen Bass fisherman, but can be found chasing sea trout and Salmon all over the country. He is also a gifted fly tyer and photographer.