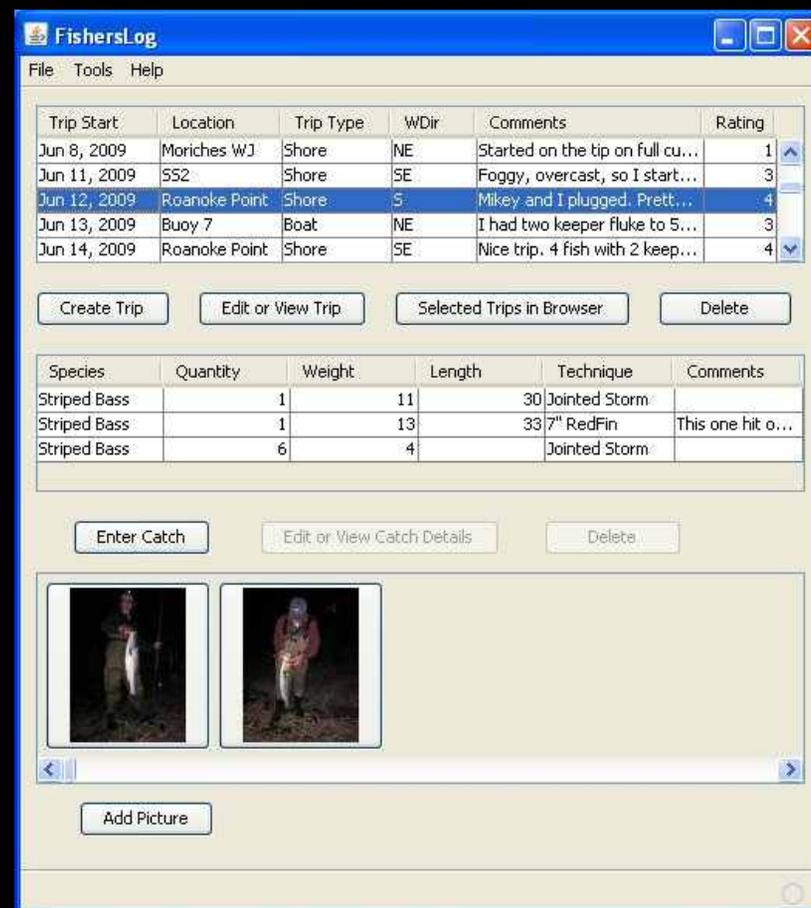


By: John
Skinner

FishersLog

A Software Based
Approach to
Maintaining
a Fishing Log

There's a south-facing spot on Long Island's South Shore that I fished over twenty times in 2009. I fish it for quality, so I'm interested in poundage. Is there a relationship between my poundage productivity and wind direction for that location? The bar chart in Figure 1 suggests a strong correlation. It looks like this spot produces best with an onshore wind and some lateral push along the shore. The straight onshore and offshore winds did the worst. It's easy to see a pattern here in that the same types of wind have very similar productivity. Angular onshore winds, SW and SE, average around 75 pounds per trip. Straight winds, S and N, only 20 pounds per trip. SSW, which is between the two types, produced between the two at about 40 pounds per trip.



FishersLog
Main Window.

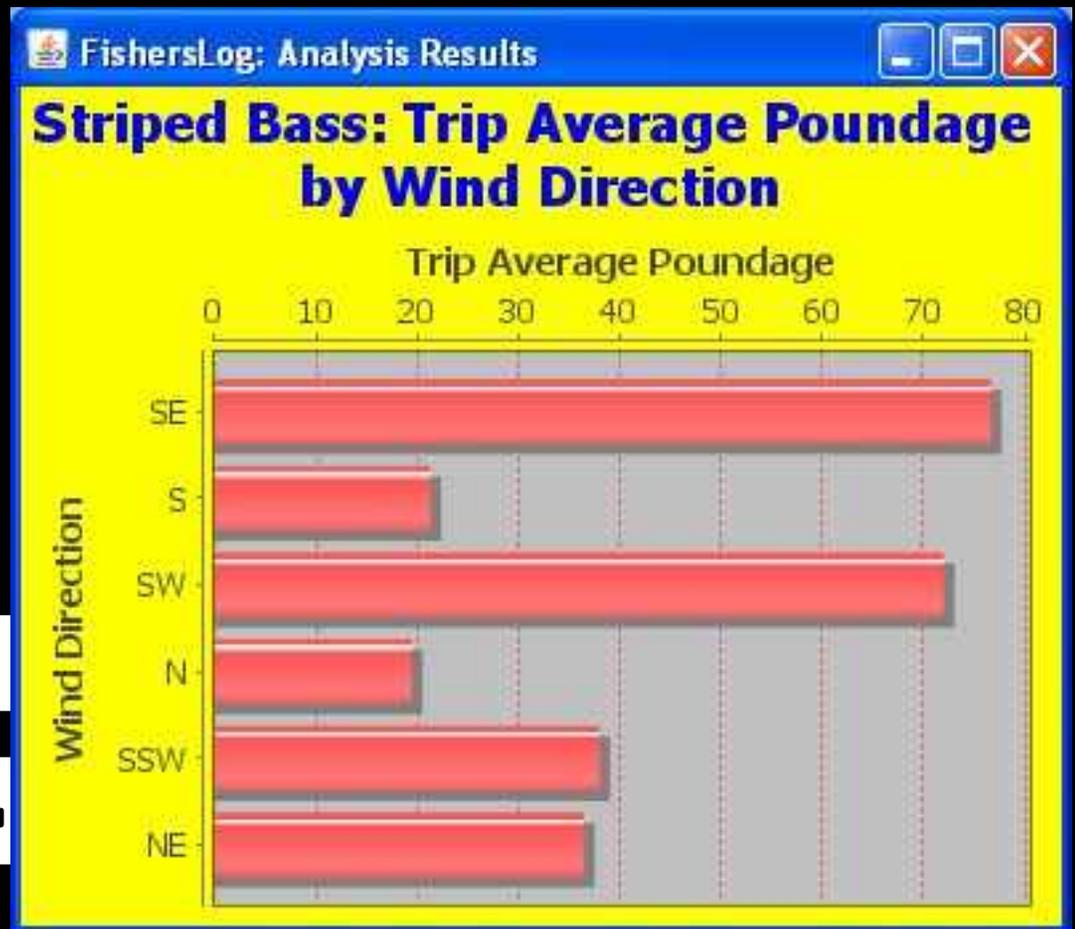


Figure 1

This bar chart shows the relationship of wind direction to striped bass poundage caught from "SS2", a Long Island South Shore location in the author's 2009 fishing log.

That “75 pounds per trip” turns out to be a significant number for me personally. It’s how I do when I’m fishing my systems under good conditions. Consider Figure 2 that displays the results of the same analysis run on a different South Shore spot that I target on a fairly narrow wind direction window. Three of the four bars settled at around 75 pounds per trip, and I’m quite sure with another year of data that I’ll see the “NW” bar catch up. Between the two spots, I have a fair amount of the compass accounted for with good fishing options. That’s something I try hard to do, because although we can choose where and on what tides we fish, we have no control over the wind.

2009 was the first fishing season that I was able to visualize in this graphical manner. The path to getting there started in the winter of 2008 when I realized that the notebook-based fishing logs that I relied on so heavily to steer my trip planning had become unmanageable, and that demands on my time were cutting into the accuracy and completeness of my logs.

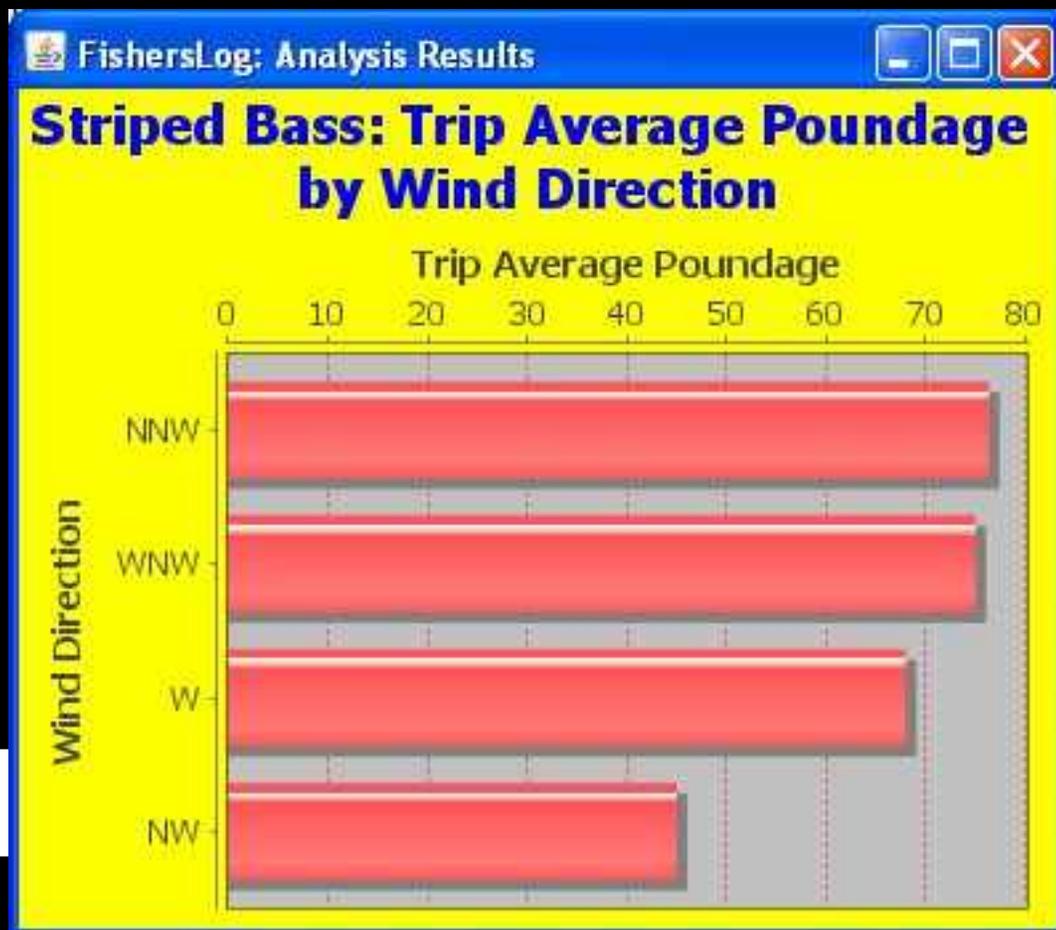


Figure 2

Results from another Long Island South Shore location, "SS1", in the author's 2009 log.

Fishing logs are valuable at several levels. While investment firms often warn us “past performance is no guarantee of future results,” the careful consideration of years of past fishing experiences can be the key to consistent success. I rely frequently on my logs to give me clues as to where I might fish under given conditions. I tend to ignore fishing reports, and let my past observations guide me. At the most basic level, fishing logs enable us to preserve memories that we can reminisce about years later. I often flip through logs during the offseason just to relive fishing experiences at a time when fishing is still months away. Pattern spotting is the most advanced use of logs. The objective is to look over a collection of experiences and find relationships between conditions and catches. The relationship of productivity to wind direction in Figure 1 is an example. The way in which a fishing log is maintained and processed will have a lot to do with its usefulness for pattern spotting.

Regardless of whether fishing patterns are obvious or subtle, you need to put your time in to find them. The way I’ve always thought about this is that time spent at the water generates data. That data equals experiences – what happened where and under what conditions. The path to doing well on a consistent basis depends on an angler’s ability to accumulate, store, and analyze the data.

The most basic way to do this is to just keep everything in your head. Good luck with that technique. Unless you have a memory like the Spencer Reid character on the TV show Criminal Minds, you'll have a hard time remembering the details of more than a single season. What scares me sometimes is to see how distorted my memories can be when I compare them to the cold hard facts stored in my logs. It's hard to trust memories.

Notebook logs are a nice low-tech solution to the data storage problem, but they have their drawbacks. One problem is that as they accumulate with years of logging, it becomes hard to find anything in them. I might know an approximate date on the calendar that something happened, but I usually have to go through a few books to hit the right year.

The worst problem is the time required to keep a written log, and this has become the biggest source of frustration for me. Logging is often most important when the fishing is good. Unfortunately, the free time required to write detailed log entries can be hard to find while trying to balance work and family obligations with a hot bite. I kept falling into the trap of putting it off, and many times I'd fall a week or so behind on the logging and then have to play catch-up when the hot window passed. Then I'd have to rely on a tired memory to sort out what happened over several outings. Between this and the difficulty of finding anything in the notebook pile, I became frustrated to the point where I decided there had to be a better way. I quickly came to the conclusion that the best solution would be to use a computer program written specifically to solve the problem. I would gladly spend the average \$30 to \$50 price of a specialized program that would make my life easier. It was off to yahoo.com to search for a program.

My first requirement was that whatever I chose needed to be a program that ran and stored its data on my computer. I was fully aware that there were web-based solutions in which you could subscribe to a site that would store your log. The advantage of this model was that you could enter your log from anywhere on the Internet. My log is precious to me. I wanted control and responsibility over it. If someone else stores my data, I'm dependent on them. If they go out of business for some reason, what happens to my data? Even if I can retrieve it somehow, it would be useless without the program from which it was generated. I justified this fear recently when visiting just such a site that had been online for four years and attracted anglers with the promise to allow them to "access log data from anywhere on the Internet". At the time of this writing, their site had a statement in big red letters stating that the service was shut down permanently on July 31, 2009.

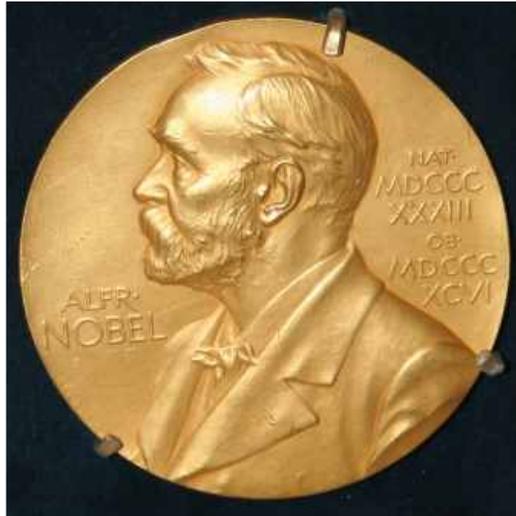
I also had no interest in storing, viewing, or analyzing years of fishing efforts on a smart phone. It's a rapidly changing market divided among different operating systems that do not offer cross platform interoperability. For example, Android applications do not work on iPhones. Even if I could find a full-blown phone-based fishing log package that I liked, I would be tied to a particular type of phone and data plan for as long as I wanted to maintain my log. I also wanted to work with my log on something larger than a tiny phone screen.

Most of the programs I found were based on the user's computer, and I downloaded the trial versions of several of those. The ones that actually installed and then ran correctly were not what I was looking for. It became clear rather quickly that I was not going to solve my logging problem by throwing a few bucks at it.



As much as I enjoy writing about fishing, it does not pay my mortgage. I've made my living in software development for over 20 years. Almost all of that has been writing experiment control software for a government research lab. My job is to take a complex experiment involving about \$10 million worth of instrumentation and present it to scientists in a way that makes it easy for them to collect the data that they use to determine the structures of important biological molecules. I design and implement the user interfaces, which is what the users interact with on the computer screen to control the experiment. I'm also responsible for the underlying control code and the logging of every aspect of the experiment in a relational database. It's major league science and three Nobel prizes have been won in the past several years from work done in part on the research stations controlled by my software. As winter of 2008 hit, I thought it might be interesting to combine my day job expertise with my fishing log problem. I decided to write my own fishing log program.

I initially was writing the program just for myself. I had three requirements to start. 1) The program should be immune to future operating system upgrades. 2) It would need to be able to generate detailed log entries very quickly. 3) It should make it easier to find things.



Logging should be a long-term endeavor. There was no way I was going to write a logging system that might not run on some future version of Windows. This was actually the easiest problem to solve. Software written in the programming language Java is not targeted to a particular operating system. Java programs run on the Java Runtime Environment (JRE) that runs on a computer. The saying for Java is “write once run anywhere”, which meant I could write and compile my program one time, and the resulting “executable” would run on any computer running modern day Java, which is nearly all computers.



I accomplished the second goal by making most of the data selectable by dropdown menus. The program will learn your locations, fish species, and techniques so that these will also be available as menu selections. The only typing is eventually limited to entering comments. The sun and moon data is calculated automatically so you don't need to look up and record it. After some careful research, I concluded that unless you were fishing in a boat tied to a weather buoy, efforts to automatically fill in weather and water conditions by accessing Internet sources would produce inaccurate data the vast majority of the time. It would be faster and more accurate for the user to just select their actual observations from the dropdown menus. (Figure 3)

FishersLog: Trip Editor

Start Friday End Location

Wind Direction Wind Speed Sky Precipitation

 Waning Gibbeous Moon, 76% illuminated
 Full Moon 5 days ago, 3rd Quarter Moon in 3 days
 Moonrise: 11:41 pm Sunrise: 5:18 am
 Moonset: 9:35 am Sunset: 8:23 pm

Air temperature

Barometer

Wave Height Feet Wave Type

Water Clarity Water Temperature

Rate this Trip: (0-5, 0=No rating, 1=Poor, 5 = Excellent):

Comments

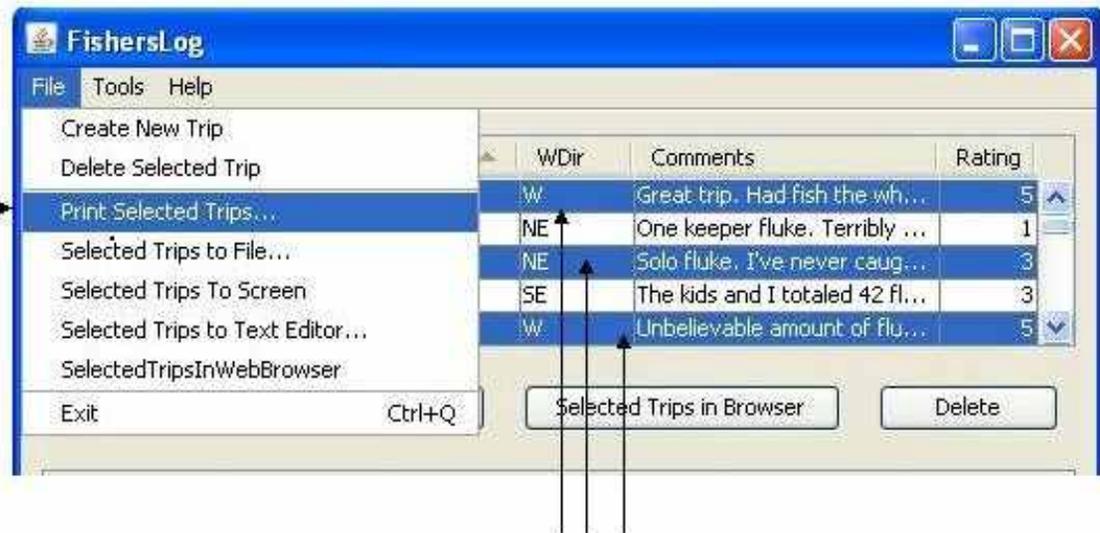
Figure 3

The FishersLog trip editor interface. Care was taken to reduce typing to speed up the creation of trip entries. Sun and moon data are calculated automatically.

Specific trips are easier to find because you can sort on the most important trip details, such as date, location, and wind direction. I provided several ways to generate trip reports, including sending one or more trips to a printer, text editor, or a web browser as HTML (Figure 4). I allowed the association of pictures with trips. Already, I was much better off than I was with the notebook pile.

My project progressed much faster than I expected. While there was still snow on the ground that winter, I realized that the program might be worth marketing, but there was no way I would make it available to the public without a season of testing. I made a few tweaks, developed an installer, and distributed it to a few people for the 2009 season while I also used it. A couple of my testers urged me to add graphical analysis tools to mine the data. This was not part of my original plan, and I was initially reluctant to put that effort in. When off-season boredom hit in December 2009, I decided to explore the possibilities of analysis tools, and my opinion of their value did a complete turnaround when I started crunching the data of my complete 2009 log with some prototype code.

FishersLog supports multiple ways to output your reports.



You may select multiple trips for report generation.

Figure 4

Reports in several different formats may be generated for one or more trips.

The data in FishersLog is stored in an embedded relational database. This makes some types of analysis queries rather easy, because that's what relational databases are designed for. So it's easy from a coding perspective to ask something like "how many bass did I catch where location equals Montauk". The results of that query might be interesting and fun, but not particularly useful. Where I ended up investing a lot of time was in designing ways to look at the data that might help me see trends I didn't see before. The analysis results that I cited at the beginning of this article are a prime example. I knew I wanted to fish onshore winds in the first location, "SS2", but wasn't aware that the angular component of the wind was having such an impact on my catches until I looked at the bar charts. Figure 5 shows the query tool configured to produce those results. Figures 6 and 7 show how one can do further analysis of the relationship of fish size to wind for a specific location.

I also added the notion of trip rating, and the analysis of that user-defined score. There is no way any computer program can guess what a "good trip" is because that's something that changes from season to season. For example, if I landed 4 false albacore on a fall 2008 trip, that was excellent. If I landed 4 on a fall 2009 trip, something was off, because I frequently had double-digit catches that year. The only way to account for this was to allow the user to rate each trip. Then it would be possible to ask the program questions such as "Where do I do best on a north wind?" That query is also shown in Figure 5.



Figure 5

The FishersLog analysis tool interface.

Analyze Catch Patterns

Plot: Trip Average ▾ Number Caught Larger Than ▾ 19 ▾ Pounds ▾ of species: Striped Bass ▾
by: Wind Direction ▾ where: Location ▾ equals: 551 ▾ Plot Result

Figure 6

A query for the average number of striped bass heavier than 19 pounds for each trip to location "551".

Figure 7

The results of the Figure 6 query.



Most users will install the program on their computer's hard drive, but if you would like to make your log mobile, you can install it on a portable drive instead. These include thumb/flash drives and external USB drives. This will enable you to edit and view your log on different computers. This has obvious advantages for anglers who might want to view or edit their log while at work or at home.

FishersLog runs on Windows and Mac Leopard and Snow Leopard systems. The download is free, and the program will work for a 7-day free trial period. To use it beyond the trial period you'll need to purchase the program's license for about the cost of one good plug, \$19.95. This is a one-time payment for a lifetime license. You can learn more about the program at www.fisherslog.com. User suggestions have already helped shape the program, so feedback is always appreciated.

Even if you have no interest in maintaining a computer-based log, the trip editor screenshot in Figure 3 can be used as a guide to the important pieces of data that could form the basis of trip entries in a notebook journal. When you start keeping a log, you'll likely be surprised how often you go back to it to recall important information. As years pass, the log will take on sentimental value. There is no substitute for time spent on the water when it comes to developing one's fishing skills. The maintenance and study of a personal fishing log that preserves the details of your time spent on the water can be crucial in working toward consistent fishing success.