

THE WHO WHERE AND WHEN OF KNYSNA ANGLING?

By Kyle Smith

Monitoring of recreational and subsistence angling on the Knysna estuary has now entered its third year and is showing some interesting results. Those of you who have been reading the Honda Marine Newsletter may remember that in essence this program has been designed to find out how many people are fishing, what their motives are for fishing, how long do they fish for, what fish are being targeted and what fish are being caught (species, numbers and sizes), what bait and how much bait is being used and finally what are the anglers perceptions and knowledge regarding fishery management and the associated regulations. In a previous article I provided some of the results concerning this last point and highlighted the general low knowledge base amongst anglers regarding the current fishery regulations. In this article I thought we would explore some trends in whose fishing and how much fishing is occurring.

The Knysna recreational fishery is a male dominated fishery with the majority (78%) of participants living in Knysna and the surrounding communities (Figure 1). Interestingly, and corresponding to Knysna being a choice holiday destination, national visitors made up 14% of all participants interviewed during the first survey year whilst local Garden Route residents only comprised seven percent. Participants had a cross spectrum of educational qualifications; 30% had a matric (grade 12) certificate whilst a relatively high proportion (34%) had an incomplete secondary education and 15% only had some form of primary education. At the opposite end of the scale 17% held a tertiary qualification.

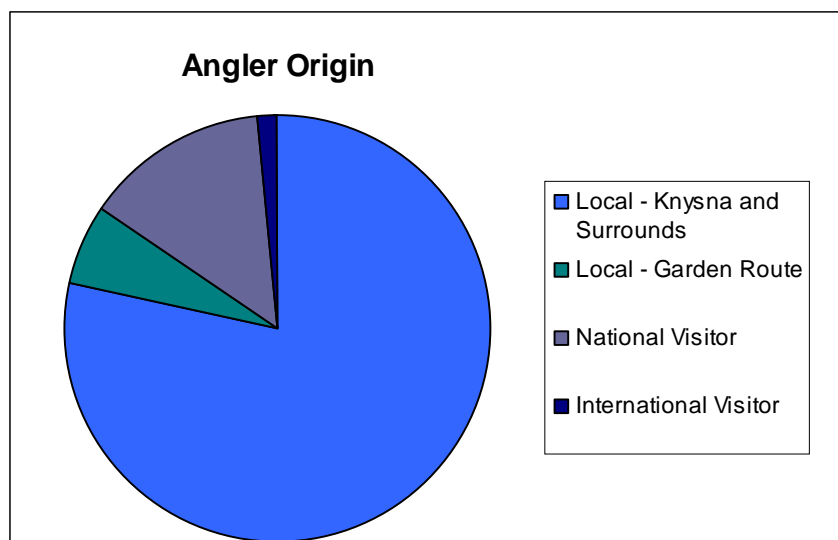


Figure 1: Origins of anglers interviewed on the Knysna estuary (June 2008 – May 2009).

The fishery was dominated by shore anglers making up 71% of all anglers counted during both the first and second years in the survey period. However, when we look at the proportion of boat anglers to shore anglers in different months we see an increase in boat

fishing over the summer months in particular in December and January when boat anglers comprised 40 and 36% of all anglers counted. The majority of anglers (57%) in the first year were using rod and reels, 33% handlines and 9% a combination whilst in the second year 63% were using rod and reels, 32% handlines and the remainder using a combination. It's important to note that the amount of fishing effort occurring through the use of plant lines has not been established and likewise night effort has not been quantified.

Total annual effort for the first survey year was estimated at 20 963 angler outings or 126 619 angler-hours whilst in the second year this increased to 24 249 angler outings or 153 981 angler-hours. In both years effort increased over the summer months with a peak in effort over the December/January holiday period and a second peak in April corresponding with the Easter period (Figure 2). The mean turnover time (time spent fishing per day by an individual angler) for all fishery sectors was just over six hours (06h04min) for the first year but increased to 06h35min in the second period. So we had an increase in the number of anglers fishing and the average time spent fishing also increased. Spatial distribution of fishing effort revealed that although fishing occurs throughout the estuary there are areas of concentrated effort (Figure 3). Areas of high concentration included the mouth, Lake Brenton, Ashmead channel, the SANParks jetty, the stretch of water between the SAParks jetty and St. James Hotel (including the train bridge) and lastly the area up near Crabs Creek. The distribution of anglers varied only slightly between the two years.

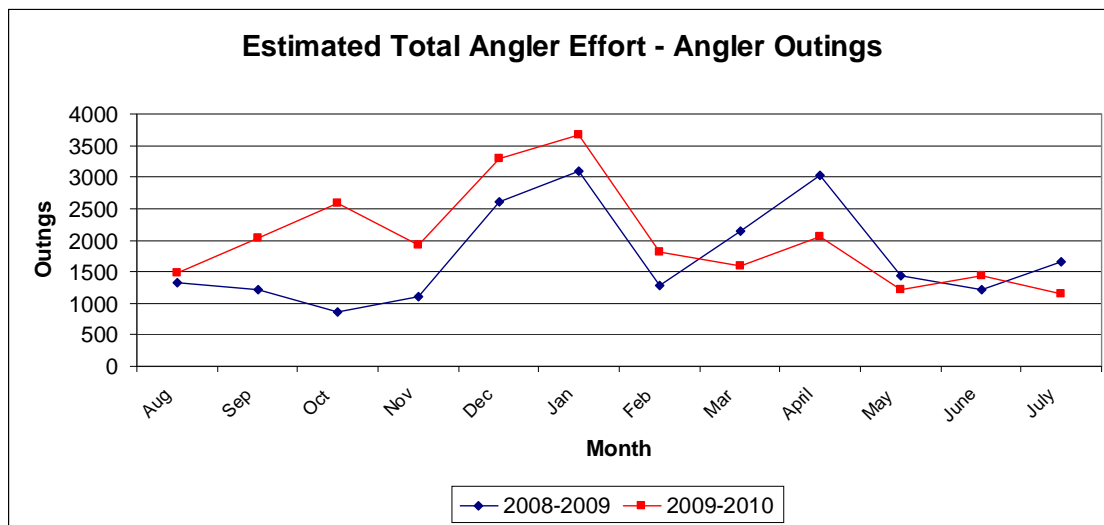


Figure 2: The estimated monthly angler effort on the Knysna estuary over a two year period.



Figure 3: Spatial distribution of observed angler effort, all sectors combined between June 2008 and May 2009. Darker colouration represents higher effort. Actual numbers not displayed.

So how does the Knysna fishery compare to other estuarine fisheries in the Garden Route? Due to its size one would expect there to be more fishing effort on Knysna but just how much? Well the Swartvlei estuary, sampled during the same period, had an estimated yearly angling effort of 48 049 angler hours in the first year which decreased to 35 363 hours in the second. The drop in effort during the second year period has been attributed to the closed mouth state. The Keurbooms estuary, which we surveyed in 2003 to 2004, had an estimated total effort of 65 848 angler hours. So in other words the total estimated effort on Knysna is more than double that of Keurbooms and almost triple of that on Swartvlei! It is a busy estuary.

The information gathered over the last two years is providing some interesting and much needed data. However, every monitoring program needs to be continuously re-assessed to evaluate how effective it is in meeting the project objectives. This project is currently going into that phase and as such we are having to scale down the angler interviews and are currently only monitoring numbers of anglers. It is also very difficult to source information on historic catch rates and although we are collecting good data on what is currently happening it would be even more beneficial to evaluate how this has changed over time. As such I would like to appeal to all those who have taken the time to read this article, that if they know of anyone with old catch diaries or even old photographs of Knysna fishermen or the fish they caught and who would be willing to allow me to copy

the data/photo's, could please either notify either myself or Honda Marine Knysna. Furthermore, should anyone be interested in aiding the monitoring program by monitoring their own catch and effort and would be willing to keep a diary to please contact me and I will provide details of what information should be kept.

Finally, most of the survey work has been carried out on the semi-rigid with a 50Hp four-stroke outboard (both donated by Honda Marine Knysna) and has performed impeccably well. On average each survey day we travel in excess of 60 km with the motor running between 4 and 4h30min each survey day and yet the fuel used only averages between 15 and 20 liters! This fuel efficiency is particularly important to me in not only in reducing running costs but also in limiting my own pollution whilst doing the research.