

FISHERY MONITORING WITHIN NATURES VALLEY

Kyle Smith

Fish! I like fish! I like to catch them, I like to watch them, I like to eat them and I especially like to study them. So I get very concerned when I read articles with statements like: “At least 70% of the world’s fisheries are either depleted or fully exploited” (United Nations Environment Programme) and that “Coral reefs have declined by about 30% in the last 30 years” (CI Frontline). The number of articles goes on and although targeting different areas or concerns, they are all loudly stating that the world’s oceans are in trouble and fish stocks are in rapid decline.

South Africa, has unfortunately not been spared and due to stock assessments highlighting the dramatic decrease in catch rates of many fish species the traditional linefishery was declared to be in a State of Emergency 1998. For example it was shown that catch rates of geelbek had declined by 97% in comparison to historic levels whilst the dusky kob population was estimated to be sitting at between 2 and 7% of historic levels (Griffiths 2000). This had implications for all anglers as recreational size and bag limits were revised, becoming stricter, whilst the number of licenses issued for commercial fishing was drastically reduced. However, when attempting to review how our fish stocks are doing it becomes abundantly apparent that we need long term monitoring programs to be in place in order to accurately assess and document changes occurring within the recreational fishery.

During 2003 and 2004 research was conducted on the Plettenberg Bay linefisheries including the recreational coastal anglers. Many of you may remember the research student Kelly King and her sidekick Archibold van der Westhuizen. Although this study provided valuable data it was in essence a snapshot of the local fishery and provided limited data on long term fishing trends. By using the same methods SANParks is busy setting up monitoring programs within the areas of their jurisdiction, including the De Vasselot section of Tsitsikamma National Park. The project is following a staged affair in that the first stage is a more in depth study detailing all aspects of the fishery and

changes that may have occurred since the study done by Kelly King. This includes information on the following: Total effort – where and when are people fishing.

Total catch – what species are being targeted and caught, how many and what size?

Catch-Per-Unit-Effort – to be used as an indirect indicator of abundance

Basic demographics – who is fishing and why

And finally what are the anglers attitudes towards and knowledge of the recreational angling regulations and the management authority (being SANParks).

Hopefully you can see that this is in fact a two way process and is aimed at not only getting indirect information on fish abundance but also to get the anglers perceptions of what's happening, why and what should be done about it. It is in fact an opportunity for the sharing of ideas and information.

The second phase of the project will be to scale down the amount of information collected, focusing only on catch and effort, but will increase the number of sampling days as the project will swing from being run by me, as a scientist, to being run by park management.

By implementing these programs we can gather important empirical data that will be used to pick up trends in both resource use and also fish abundance and importantly identify anglers perceptions and understanding. I believe the project has real validity and can provide relevant and important fishery data and at this stage I would like to invite interested local anglers who would like to contribute or become more involved to start recording their individual catch and effort data. Local catch cards are being developed and all the angler needs to record is the date, the time spent fishing and what fish were caught giving species, numbers and size if possible. The catch cards will be collected once a month by myself and used to bolster the information captured during the fishery surveys. It will be important to fill out the cards each time you go fishing even if no fish were caught. The more people who fill these out the more accurate our estimates will be

on catch-per-unit-effort and total fish caught. Remember this is YOUR resource, so let's look after it together!

References:

United Nations Environment Programme

Conservation International Frontlines Magazine, 2003

Griffiths MH, 2000 – Long-term trends in catch and effort of commercial linefish off South Africa's Cape Province: Snapshots of the 20th Century. South African Journal of Marine Science 22: 81 - 110