

Title: Vertical Hook and Line Research Estimate

Date of Application:

Applicants

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Summary

This is a proposal for a vertical hook & line research for stock abundance estimate from the National Marine Fisheries Service to authorize an additional sampling method within the Rockfish Conservation Areas (RCAs) off the coast of California. The proposed sampling method would include fishing with the historically proven type gear known as vertical hook and line gear (VH&L) in rocky areas of the RCA's that are unsuitable for trawling.

The existing sampling method consists of conventional trawling that misses large portions of the RCA's where it is too rocky to trawl. The VH&L method would reach sample areas within the RCA's that have previously been missed with conventional trawling methods. Consequently, the proposed VH&L method along with the existing trawling methods of data collection should result in a more accurate fish species and biomass estimate.

The operators would be commercial fishers experienced in this method that have knowledge of the RCA's to be assessed. Four vessels would fish approximately 35 to 45 days a year. Each vessel would carry a fisheries observer. Each vessels would make potentially 15 to 30 drops a day with 10 to 30 hooks on each set

c. Statement Of Purpose and Goals including description of disposition of all species harvested

Purpose

In 2002 when California Coast RCNs were implemented, commercial fishers were excluded from the areas in hopes that populations of "overfished," species would increase. The monitoring program that was set up to analyze changes in numbers of fish species and biomass within the RCA's consists of fishing by trawling the RCA's and determining totals from the sample numbers caught.

There is a concern that the present method for monitoring fish species and biomass by trawling does not reflect a true number and is much smaller than actually exists. The reason for this concern is that the present trawling method can't be done properly within excessively rocky areas where many of the rockfish species hold tight within a fathom of the bottom. Therefore, these fish are unaccounted for in the fish biomass surveys and remain classified as threatened.

Goal

Our goal is to work with the National Marine Fisheries Service to help establish a more realistic estimate of the numbers and species of rock.fish within the established RCA's along California Coast

Fishers would be allowed to sell their catch at best market price. By allowing the sample fish to be marketed, the fish themselves would fund the data collecting process. This would allow for a more complete sampling process since fisheries management has indicated that insufficient funds has limited their ability to establish complete biomass estimates.

The VH&L method would use mono bead gear with 10-20-30 hook sections in 30 to 250 fathoms over hard rocky areas where it is unsuitable for trawling. All line sets and catch would be recorded for data collection using multi function electronics including; GPS, fish sounding, cameras, VMS, and DVD recorders.

In order to fund the research, fishers would be allowed to sell their catch at best market price.

This proposal would be beneficial in several ways; it would increase the area monitored to reflect a truer sample, it would include the fisher in the RCA monitoring program, and it would allow for the fisher to regain some of their commercial fishing business.

Specifically:

We request permission to conduct collaborative directed fishing surveys outside of 3 miles of California Coast RCA's in the areas unsuitable for trawling with vertical hook and line gear (VH&L) to assure that all areas are represented within the fish species and biomass surveys. We also request permission to sell the catch in open market to fund the program.

Fishing gear design and method

Fishing gear would consist of 400 lb. test mono main line with 80 lb. test line to hooks as brake away and 5-10 lb. steel weight with 100 lb. test mono brake away. The gear would include # 96 tarred braided nylon line as a main haul in line or newer Dacron-spider line for better tight line sensitivity and #8 long shanked steel galvanized hooks.

The hooks would have paul's or jute attached with black dressing to hold it on and as attractant. All hooks to be baited with fresh market squid or cured mackerel.

d.) Justification for issuance of research permission

The concept is to establish another sample/data gathering tool other than trawling. Hook and line is much more precise and can access nontrawlable areas where a large percentage of reddish species live.

Since there is no way to accurately count the number of fish in the ocean ie. (cows in the field) - (chickens in the pin) (trees in the orchard) it is time to use traditional harvest tools to establish a more accurate estimate of the existing biomass in order to have a timely benchmark of how much volume of what is where. Echo soundings along do not tell you what variety is there. Rovers and under water cameras are far too expensive. Trawling can't cover all rocky areas and does major damage wherever it goes.

e.) Significance of this proposal:

If research is carried out properly, is significant for all RCA's along the coast of California:

The West Coast Groundfish Bottom Trawl Survey of 25 fm to 600 fm some 700 trawls a year falls short in groundfish estimate abilities as it avoids heavy rocky terrain where it may be hung up or lost as many have in the fishery in the past.

Vertical hook and line data collection can be another tool in the box for managers to use for many years.

It is the goal to manage and harvest the ground fish resource at a most abundant level. The more there are, the more can be sustainably harvested which is well understood by most Commercial fishers.

Of all the other harvest methods including trawl, longline, gillnet, troll line bottom, and trawl midwater, vertical hook and line is least invasive and very effective. The other methods can cause habitat damage and break leaving more gear in the ocean.

The goal is to establish a quantitative number based on real gathered data to compare to future gathered data with the same method.

f.). Research

The VHL gear fishing technique should continue to be part the RCA's monitoring plan through the lifetime of the RCA's.

G. Number of Vessels Covered Under Research;

Initially, **four vessels** would **fish approximately 35 to 45 days a year**. **Each vessel** would carry a fisheries observer. **Each vessel would make 15 to 30 drops a day with 10 to 30 hooks on each set.**

If this research is approved and is successful as expected, it is perceived as having ten designated areas but one vessel may cover two or three areas if needed in order to have data gathered uniformly. The areas would include:

Oregon border - Cape Mendocino
Cape Mendocino - Point Arena
Point Arena - Point Ryes
Point Ryes - Pigen Point
Pigen Point - Point Sur
Point Sur - Buchoen
Buchoen - Conception
Conception - Magu
Magu - Dana Point
Dana Point- Mexico border

h.) Species and value to be determined.

i.) Monitoring

The electronic equipment does the monitoring. The fisher can take any other data requested. The fisher can't pay for the observer. It is far too expensive and economically unfeasible at \$700.00/day. The present method that pays for an observer on near shore would need to pay.

Data Collection and Analysis Methodology:

The petitioner would both like to not be responsible for declaring the method on analysis that is the job of a biologist. The petitioner seeks to provide the proof of volume and diversity of all rockfish stocks and provide samples of all areas so a realistic estimate can be established. We are suggesting to make three to five sets of ten hook gillnet with a 600 ft. by 600 ft. rocky area or roughly 1/8 by 1/8 mile. If fish are metered but not biting, then return until a sample is established. If only catching Yellow eye or Cow cod, then a five hook gillnet could be used to determine the size of the area. When encountering other schooling species, 20 to 30 hooks could be used in order to sample volume.

There is no exact science to fish sampling, but it would quickly become

apparent to the fisher how to perform.

The biological sample analysis would be determined by the biologist. Things may change on method and should be flexible as assessments were taken.

How Vessels Would Be Chosen to participate in the Research:

Vessels that have the appropriate gear, research experience, and local knowledge will be selected by the research applicant and project partners.

Summary

The objective of this proposal is to achieve a real biomass estimate method to reflect numbers, diversity and position of the overall rockcod resource off the coast of California, outside three miles, 30 to 250 fathoms all species using vertical hook and line gear.

The council have deemed the yelloweye rockfish endangered when it has never been sampled appropriately. Only use a bottom trawl survey that doesn't go close to or on rocky areas where the largest percentage of the rockcod live and exist all the way thru Canada and are abundant in Alaska. The endangered status is based on a guesstimation, not an estimation. The petition offers a more accurate way of estimation.

Vertical hook and line is the cleanest method of fishing. It is effective in untrawlable areas. The rockcod resource has been allowed to rebuild for sometime with trawl removal and very limited hook and line harvest and extensive RCA's. It is our belief that the Yelloweye and cowcod have recovered enough to where these stocks can be sampled and estimated for abundance and diversity along with all other species..

J.) Initially, four vessels would fish approximately 35 to 45 days a year. Each vessel would carry a fisheries observer. Each vessel would make 10 to 30 drops a day with 10 to 30 hooks on each set.

m.) Signature of Applicants

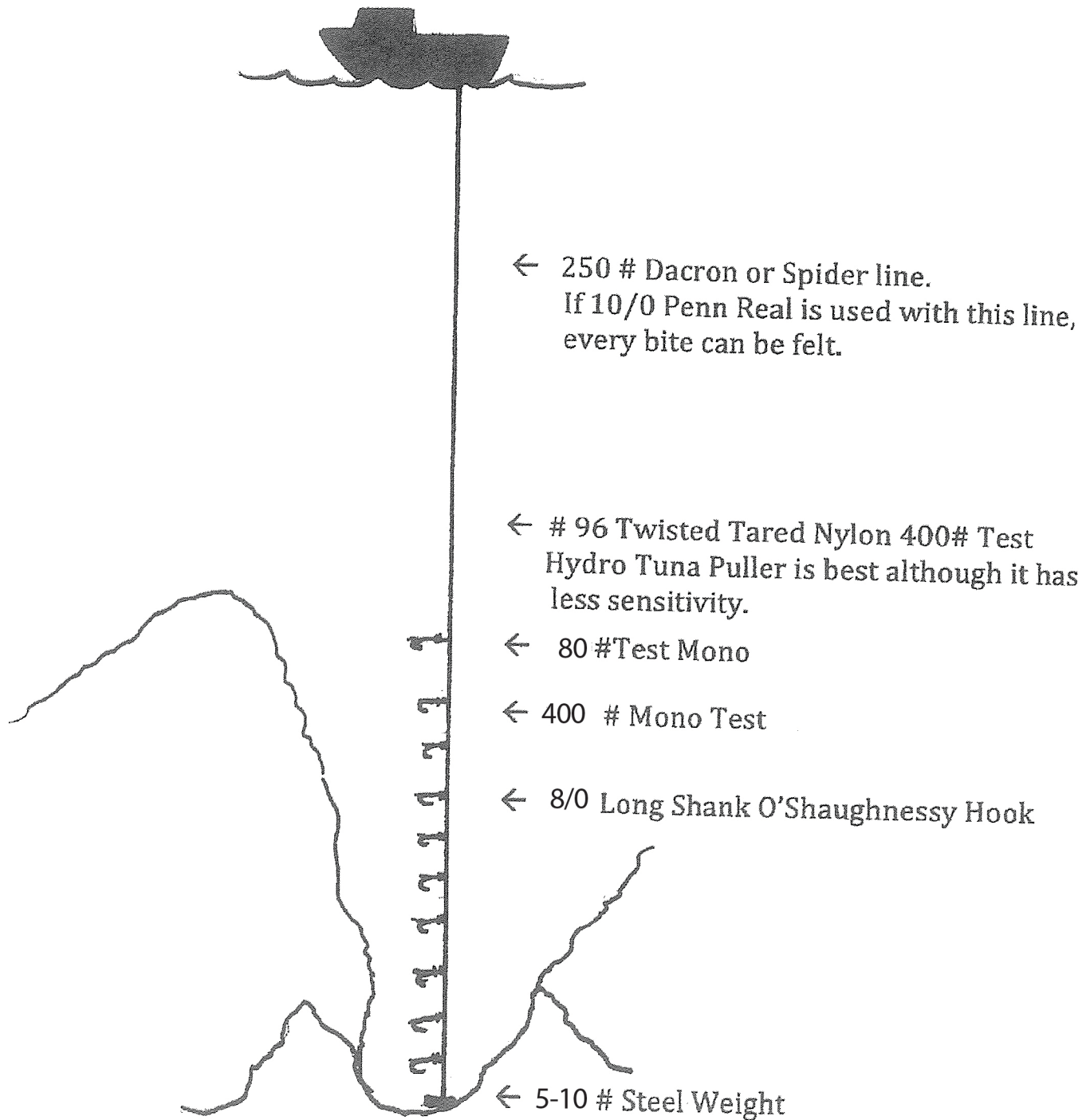
Dan Platt

Date

Dan Yoakum

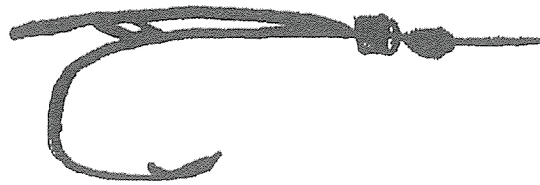
Date

Example of Boat and Hook and Line Gear

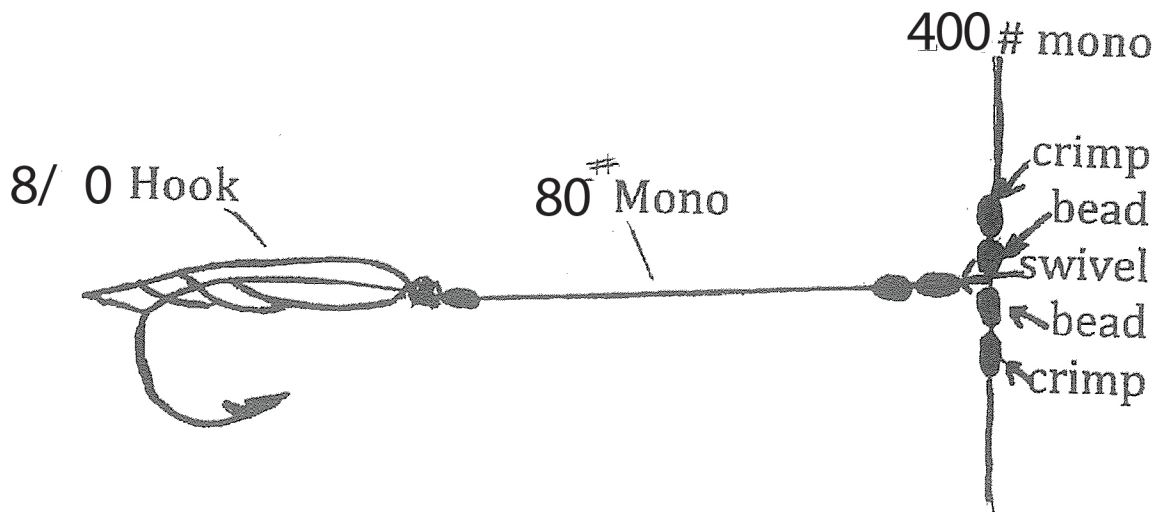


EXAMPLE OF HOOKS

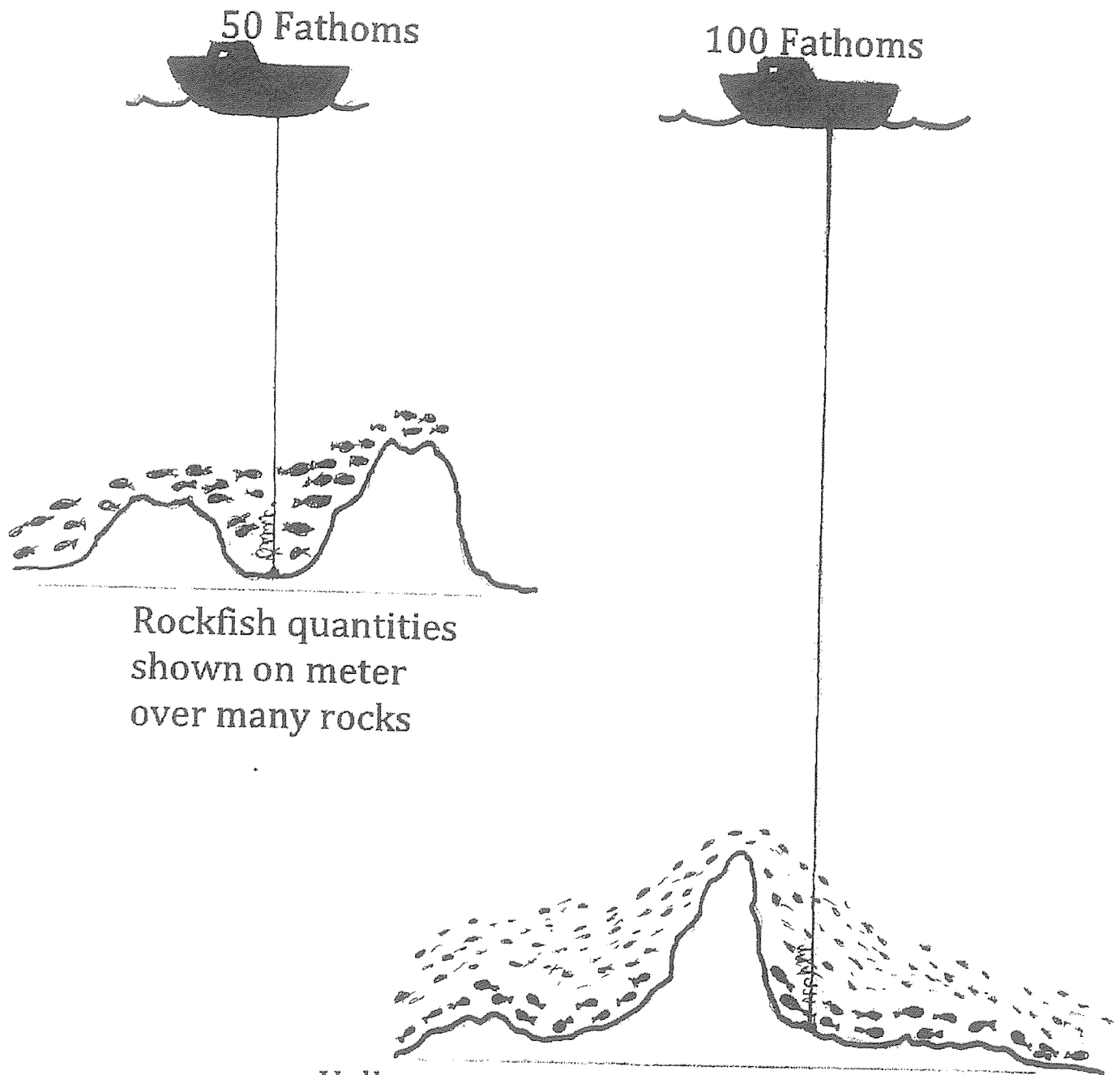
8/ 0 Tined Long Shank O'Shaughnessy Hook
With Skirting And Tied Hair



Hook Setup



ECHO METERING



Rockfish quantities
shown on meter
over many rocks

Yelloweye rockfish hold under Chilly
or Yellowtail rockfish. This is how they
meter on most rocky areas. Cowcod
hold simiarly

Electronic Data Collection and Observer

Simplified to an experienced commercial fisher with modern multifunction display electronics and recorded on DVD with camera, also a VMS would be sufficient policing. Many commercial vessels are already equipped with this equipment except for the DVD that can hook up to most multifunction displays.

Multifunction displays with DVD **recorder** attached. *All drops* would be **marked** on the plotter, on **the** same display **bottom recording** of rock or **hard** bottom and fish **marks** would be displayed.

Also on same **display motion** camera **of fish** landed on **deck**. **Once picked, the** same machine could **be used in order to have conductivity.**

Observer could come **and go** as **the please**. **The data** can be **collected** without **them**. **Samples could be saved at their request**

Sampling Method

250 lb. test Mono bead gear. 50 lb. test to hook for brake away #710 longshank 0 soleven
tinned hooks, 80 # mono break away to 5-10 lb. weight.

Upon finking a rock or hard bottom with fish marks the fisher would set a 10 hook ganion depending on volume and type of fish caught, the fisher may drop a 20 or 30 hook ganion so as to display volume of fish. The fisher may drop 33-5 times in approximately 500 square foot area where there is fish displayed. This may very depending on conditions at the permites discretion in order to perform data collection efficiently. *As* fish do not bit all the time by any means, It may be needed to return to sample area in order to retain a sample.

All times, GPS position, Bottom fish recorder, camera, size and weight, numbers can
be recorded.

Large reef areas would be sampled.
All rockfish categories, no sole or other flat fish no Pacific Whiting.

The era of Protectionist has run its course. It is time for a "where and how many estimate/) in order to establish a real number and location. For instance Cowcod 200 lbs cap suggested in previous EFP would be one ten hook ganyon with ten fish being mature fish can weigh 20 lbs the estimate would be over with the ridiculous data of one drop in the right spot. When cowcod encountered 5 hooks could be use may be sufficient

I've personally known them to climb 16 hooks or so at best. Yellow eye rockfish 34 lbs this is another ridiculous number. There's nothing to be learned by catching three adult fish period.

We would request that a number be estimated of a fully recovered biomass guesstimate and a sustainable yield level for that be estimated.

Then divided by how many estimate fishery vessels involved allowed for each area then multiply by five. This may still fall short of doing a realistic survey of the entire area.

The catch estimate is the quandary. You can't have an estimate without real data. Otherwise you have a guesstimate. This proposal is to establish a real estimate on fact. A mark to go by. Not an external protectionist guesstimate with no hard since data.

It is our suggestion that the amount of hooks used and how they are used, be the regulator of perceived OFS amounts when encountered.