

**Northern Shrimp Advisory Panel
Portsmouth, New Hampshire
September 27, 2000
1:00-5:00 pm**

Attendance:

Amy Schick	Maggie Raymond	Bob Campbell
Maggie Hunter	David Goethel	Butch Thompson
Dan Schick	Craig Pendleton	Spencer Fuller
Dale Prentice	Peter Kendall	Ray Walsh
Tom Eaton	John Norton	

Announcements:

October 23, 9:00-5:00 – AP meeting (Portland, Maine) to discuss upcoming season and Amendment 1

October 30, 10:00-5:00 – Section meeting (Danvers, Massachusetts) to establish 2000-2001 fishing season.

Meeting Summary:

Add agenda item to Oct.23 meeting regarding consensus input on the PID/Amendment 1 from the Advisors- full day meeting necessary.

Preliminary assessment information (Dan Schick)

The assessment will be conducted the first week of October. The following information is preliminary and is subject to change.

Last season – no surprise to fishermen that January CPUE from port sampling data was up at 466 pounds/hour towing, which is about as high as we've seen. This is much higher than expected. CPUE declined to 245 in February and 122 in March. Surprisingly, the shrimp aggregated causing the high CPUE. The cause of the aggregation is unknown. Temperature rise of 2 degrees in the eastern Gulf of Maine may help to explain the aggregation, which could have been a forcing function pushing shrimp near shore. (Industry felt that the aggregation was no due to water temperatures, but rather larger stock size than forecasted).

Fishery – caught about 2400 mt during the 51 day season, up from 1800 mt the year before at 91 days. The same number of shrimp were caught, but average size increased during the 1999-2000 season. The fishery caught mostly females, which are larger in size. Therefore the fishing mortality rate, which is based on number killed versus the number out there, was 0.3 meaning that there are more shrimp out there. Biomass is up to 6-7,000 metric tons. The population has grown. The F rate was in the sustainable range.

Summer survey – untransformed numbers of shrimp per tow in the summer survey were up a little bit to 1800 from 1648 in 1999. The transformed numbers were up from 398 shrimp in 1999 to 807 shrimp in 2000. One year failure in 1998, but more coming along in the youngest shrimp seen, 1999 year class. UP considerably in the number per tow over 22 mm from 174 in 1999 to 283 in 2000, which indicated the shrimp available to the fishery in the upcoming season. In addition the weight over 22 mm increased from 1.9 kg per tow in 1999 to 3.2 kg per tow in 2000. The size distribution from the summer survey shows an increase in the number of immature males and female 2's. The female 1's remain low. The immature males will not be coming along for a couple of years, but recruitment is up.

Things are better than last year. There has been some recruitment.

Discussion:

(Industry felt that the aggregation was no due to water temperatures, but rather larger stock size than forecasted)

D. Goethel – interaction of shrimp and whiting. Last year lots of whiting. Whiting eat shrimp. Any thoughts?

D. Schick – not unusual to find whiting and shrimp together, but aggregation of that much whiting and shrimp is unusual. Whiting was probably going after small shrimp.

D. Goethel – slime showed up in western GOM a few weeks ago and everything disappeared. Is this toxic to shrimp?

D. Schick – The slime is like a jellyfish, a colony of organisms. The colonies bloom for different reasons and stick around for an undetermined amount of time. The organism can sting and kill, which may cause the fish to move.

C. Pendleton – Concern that didn't see the 1.5 year olds, which are the shrimp that will recruit to the fishery next year and the year after. Are there concerns with the low year class? Can the fishery survive through a bad recruitment year?

D. Schick – Saw equal numbers of 96&97 year classes during the summer survey. Haven't hit the 97s yet since they were transitionals last year. The 97s will be there for the fishery in 2002. The 98s are almost non-existent. The 99s are the best recruitment we've seen since 93. Missing a year class. This season, will see some big shrimp. The next season will have small to middle size shrimp, with few available to the fishery.

P. Kendall – Was the spike in the fall survey caught last season?

D. Schick – The two surveys caught about the same amount of weight and distribution. An increase in the weight of shrimp in the fall survey in 1998 and 1999.

D. Goethel – small shrimp are found on the hard bottom. Is survey gear selecting larger shrimp?

D. Schick – the summer survey fishes mostly on mud and uses 10 inch rock hoppers, while the fall survey uses 8 inch? rollers.

J. Norton – based on projections from last year, the TC predicted 1200 mt would be about a 0.35 F. The landings were 2400 mt with an F of 0.3. How do the numbers get that far off?

D. Schick – they are not that far off because we saw more shrimp in the survey this year. Option 2 from last years assessment was that 1000 mt would result in an F of 0.25 and 2000 mt would result in and F of 0.56. The biomass is higher than what we saw last year causing the difference.

J. Norton – concerned that the model is not forecasting properly. The shrimp were in the water but not counted. Missing recruitment.

D. Schick – the small shrimp can't be counted because they are not susceptible to the gear. We use the information that we have available. The procedure is standard every year.

J. Norton – do other surveys pick up smaller shrimp in other parts of the world/other pandalus fisheries?

D. Schick – we get about as good of a look at recruitment that anyone can get. Our sampling coverage of the area is high.

J. Norton – want to cut down on the negative impacts to the fishery.

D. Goethel – concerned that we may go the other way with biomass going up. The biomass that is there is not exploitable at this time.

D. Schick – the stock has bottomed out and started up. The biomass is mostly in the larger shrimp because they weigh more than the small shrimp.

D. Goethel – industry has a vested interest in protecting recruitment. That means protecting females until they drop their eggs again this year. Question this year will be how to we get the female 2s and stay out of the males.

P. Kendall – did the survey miss shrimp last year?

D. Schick – don't think we missed much. The model was not that far off. There is always some error is characterizing the stock, but not a very big difference. The shrimp were more concentrated near shore during last year's fishing season for some anomalous reason(s).

S. Fuller – if there is a trend in decreasing fishing mortality over time. What will this mortality be in 5 years?

D. Schick – retrospective analysis is run every year to look at changes with increasing information. The terminal year is the poorest estimation every year. The fishing mortality rate estimated last year for the 1998-1999 season was 0.56, whereas the value calculated last year was 0.5. So the retrospective caused the F to increase. Can't predict what will happen to the numbers this year. Variation will decrease with time, but no trend in the value of F is seen.

S. Fuller – how many sampling points are below 90 fathoms?

D. Schick – summer survey goes from 50-110 fathoms, of those the majority are in 70-90 fathoms.

S. Fuller – most of the shrimp were found in 100-120 fathoms this summer.

R. Walsh – still believe that temperature has a big impact on shrimp. Do we have a historic look at the temperature profile to predict what's going on out there?

D. Schick – lagging temperature by 4 years, implying that temperature has the greatest impact on young shrimp, shows an inverse correlation between temperature and abundance.

R. Walsh – what is the temperature signal right now?

D. Schick – warmer temperatures (2 degrees C) on the bottom last year (fall 1999) is a big deal.

R. Walsh – is the warm water still sitting out there?

D. Schick – Don't know what temperature is right now, but looking into historic temperature information. The assessment this year will plot bottom temperature with shrimp abundance for surveys.

P. Kendall – who will decide on the overfishing definition?

A. Schick – the Technical Committee will develop options for the Section. The options will be presented in the Draft Amendment, allowing AP and public comment prior to a decision being made by the Section.

M. Raymond – what is required by ASMFC?

A. Schick – the ISFMP Charter requires an overfishing definition, and if necessary, a rebuilding schedule in any new amendment.

M. Raymond – overfishing definition should be adjustable through framework action.

J. Norton – does the law require an overfishing definition?

A. Schick – charter requires overfishing definition, need to consult with law.

D. Schick – CPUE measures density, not abundance.

S. Fuller – last winter was nothing out of the ordinary. The survey doesn't seem to be measuring the population accurately. Everything else is on the table except that the survey is missing the shrimp out there. Shrimp may be seeking colder, deeper waters causing fewer to be caught by the summer survey.

D. Schick – the groundfish surveys do not capture large numbers of shrimp.

S. Fuller – when did ASMFC get the fall survey information?

A. Schick – still haven't seen it, but was available for the model runs last week. The data was not worked up until this summer.

C. Pendleton – with funding coming down through the channels, how do we find more funding to capture the information we need.

D. Schick – meeting in MA next week to discuss industry-based survey. Are there areas that industry gear can get into that will complement the picture captured by the groundfish surveys?

J. Norton – have we covered all the summer survey questions?

C. Pendleton – sitting in on project evaluations. There is temperature profile information coming online. Is this another area that shrimp research should charge into – use the shrimp boats to gather temperature. Need to discuss egg drop and fairness issue. If we wait until the egg drop, how do we keep MA and NH involved in the fishery.

D. Schick – MA boats that were involved in shrimp fishery jumped out because of buy backs. Nordmore grate caused boats to stop fishing. Need to consider fairness between users, vessel sizes, and timing. Also need to balance biology of shrimp. Can shrimp stand a fishing mortality on all size classes.

C. Pendleton – The Industry Advisors chose a goal of protecting egg bearing shrimp and small shrimp.

J. Norton – this decision to protect small shrimp through a short, winter season was made by the TC and Section, not the Industry Advisory Panel.

D. Goethel – We dropped December on our own

C. Pendleton – if goals are tainted by pitting sectors against each other

D. Schick – should be a series of event that restrict the fishery but are fair to all sectors. The new amendment should outline these guidelines.

C. Pendleton – historically management plans haunt fishermen, and overfishing definitions have not worked.

C. Pendleton – industry research/survey should be a high priority, especially with money coming into the region for this type of work.

D. Gothel – on a general level, there is more money coming. A regionalized survey is wanted – comprehensively sampling the Gulf of Maine. ASMFC or state agency or Advisory could team together and prepare a proposal to study anything.

D. Schick – a team effort of TC and AP is exactly what they are looking for in a grant.

D. Goethel – a lot of proposals had strong fishing and weak science or weak fishing and strong science. Need strength on both sides for funding.

S. Fuller – general question of plan and overfishing. Pandalus is a classic case of an unsustainable fishery because of environmental factors. Why now do we think we can sustain the resource.

D. Schick – shrimp is not sustainable at a particular level of biomass. What is sustainable is that some level of recruitment is possible each year, but this has varied a lot between years. Management can take advantage of the peaks and valleys. A sustainable level of harvest/percent of harvest that varies with stock size is possible through the management program. The FMP will put in writing what's been done for the past 25 years.

S. Fuller – there is no law that requires an overfishing definition. Because shrimp is unique, we can't develop a reliable overfishing definition. Need to explore the option of no overfishing definition. Will Dan be the only TC representative at the October 23 meeting?

D. Schick – hoping to have the entire TC at the October 23.

J. Norton – advisors request a presentation of the TC discussion on overfishing definition. Legal advice on whether or not an overfishing definition is required.

A. Schick – will consult with Jack Dunnigan on the requirement for an overfishing definition.

D. Goethel – forging new ground, so could write a definition, based on the information that we have available, that would generally meet the requirement for an overfishing definition without getting too specific. How do we word it so that it's legal and supported scientifically. Can pick a more flexible approach where a specific number is not chosen, but a method for determining status.

J. Norton – need to keep in mind the fairness issue. Not ready to give up a six month season for this species.

P. Kendall – Dan is saying that it's difficult to determine an overfishing definition, which is promising.

J. Norton – Dan is not the only person on the Technical Committee

D. Schick – there are many ways to skin a cat and many numbers that come out of the models. Every year there will be a different set of circumstances that will guide advise to the managers.

D. Schick – the assessment should be available by October 13.

P. Kendall – how many people are on the TC?

D. Schick – one member from each state, one member from NMFS, and FMP Coordinator from ASMFC.

D. Goethel – looks like we may have some shrimp, how is the world market looking?

S. Fuller – banner year in Newfoundland. Demand for 100-150 125-175. The shell on tail market is about the same level as last year, maybe a bit softer. The Asian market is about the same as last year. Large pandalus coming out of Russia and going to Japan. The C&P prices are a bit lower, but similar to last year. Shell on tail market may be a little bit better this year.

D. Goethel – have fuel prices affected the market?

S. Fuller – no impact yet. Overshadowed by Canadian market. Lot of pandalus in the world market right now.

P. Kendall – spike in the 1.5 age group, and some more in the above 22 mm shrimp. In terms of a recommendation for a season, the season should be a little bit more than last year.

D. Schick – we are not up all that far. TC unlikely to recommend much more than Option 2 last year.

J. Norton – is it fair to say that a 2400 mt catch this season will produce a similar F as produced last season?

D. Schick – with growth in small shrimp, a 2400 mt may produce about the same F as last year, but that's a real rough guess.

P. Kendall – we want to hear that it's better.

D. Schick – it's better because of the group of males coming along. Last year there was no recruitment seen.

P. Kendall – still want them to drop eggs and protect the small shrimp, but maybe extend the season in both directions.

S. Fuller – when CPUs drop down in first weekend of March, boats went outside and found higher counts and aggregations.

D. Goethel – there was a second batch of shrimp offshore, mixed, age 2, 3, and 4.