

ATLANTIC STATES MARINE FISHERIES  
COMMISSION

AMERICAN EEL MANAGEMENT BOARD

Quality Hotel and Conference Center  
Arlington, Virginia

January 30, 2001

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The American Eel Management Board of the Atlantic States Marine Fisheries Commission convened in the Presidential Room of the Quality Hotel and Conference Center, Arlington, Virginia, January 30, 2001, and was called to order at 10:30 o'clock a.m. by Chairman Lewis Flagg.

CHAIRMAN LEWIS FLAGG: If you could take your seats, please. Good morning, everybody. My name is Lew Flagg and I'm the new chairman for the American Eel Board. I drew the short straw.

Before we start, I'd just like to mention that we're going to go by the agenda that's listed in the final notice of the meeting week. So, ignore the agenda on the front of the minutes and use the one that came with your final notice. At this time I'd like to have Heather call the roll.

(Whereupon, the roll call was taken by Ms. Heather Stirratt.)

MS. HEATHER STIRRATT: Mr. Chairman, you have a quorum.

CHAIRMAN FLAGG: Thank you, Heather. If you would take a look at the agenda, we'd like to have an approval of the agenda. Are there additional items which should be added to the agenda at this time?

MR. WILLIAM A. ADLER: Move it be accepted.

CHAIRMAN FLAGG: Move to accept the agenda as printed. Is there a second?

MR. PRESTON PATE, JR.: Second.

CHAIRMAN FLAGG: Second by Preston Pate. Any discussion? All those in favor, signify by saying aye. The motion carried on a voice vote. At this time I want to turn the mike over to Lance Stewart.

DR. LANCE STEWART: Just a word of thanks to the Board for their indulgence in dealing with very unique species and the very creative process, I think, that we followed through here on American eel.

It certainly was a discovery process and species that really commands a lot of attention internationally through all life stages, so thanks very much for your help, and especially Heather as our staff did a commendable job. Thank you.

CHAIRMAN FLAGG: Thank you, Lance. All of the meeting materials had been mailed our prior to this meeting. And for those that may not have them, there are extra copies, I believe, on the table. So, please avail yourself of those if you don't have copies.

At this time, you were mailed the meeting minutes for the previous meeting of the Eel Board.

MR. DAVID V.D. BORDEN: Move approval.

CHAIRMAN FLAGG: Move approval by David Borden. Second?

MR. ADLER: Second.

CHAIRMAN FLAGG: Second by Bill Adler. Comments? All those in favor, signify by saying aye; opposed. The motion carries on a voice vote.

At this time we will take any comments from the public that wish to make any comments relative to American eel. We will also offer opportunities to make comments throughout the process of this meeting. Are there any individuals that would like to make a comment at this time? Seeing none, we will proceed.

At this time I'm going to have Heather give us a report on the Plan Review Team report and the FMP review.

MS. STIRRATT: Thank you, Mr. Chairman. The two documents that I'm going to be referring to are under Attachments 1 and 2 in your meeting packet. And what I will do is start with the PRT report and take any questions that you may have and then move on to the FMP review.

The PRT convened via conference call on November 16, 2000, to discuss the status of state compliance. Compliance elements for American eel include the young of the year abundance survey and full implementation and enforcement

of the management measures listed under Section 4.

After discussion of the reports submitted by 16 of the 17 states and jurisdictions, all were found to be in compliance. The PRT notes that the District of Columbia has not yet submitted a report to the Commission regarding the status of that jurisdiction's compliance, although numerous requests were made by Commission staff in this regard.

The state of New Hampshire, Pennsylvania, South Carolina, Georgia and Florida have all requested and continue to meet the de minimis criteria established in the plan. The states of Massachusetts, Rhode Island, Connecticut and New York also meet this criterion although they have not requested such status.

Normally the PRT would make comments on specific areas of state concern. The PRT has elected at this time to postpone such statements until the FMP is fully implemented.

January 1, 2001, was the implementation date so this next round of compliance status reviews, which will happen late this fall, we will then make some state-specific concern statements, if necessary.

The PRT has, however, noted several general comments, including the following. The PRT strongly recommends that all states implement the mandatory reporting requirements. The main reason for this is that, as you know, we're dealing with various reports on landings data.

And we're getting reports -- for some of the states that actually have mandatory reporting, they're providing their own data. For other states, we're getting data from the National Marine Fisheries Service database, and it just makes it difficult when we're trying to assess

those states who are actually meeting de minimis status or not to determine that factor.

The PRT also wishes to remind the states of a standardized American eel report format. It's included in Section 3.4.1. Most of the states did follow this report format, but it would be great if all of the states could do it.

It just makes review much easier for the PRT. The PRT also wishes to remind the states that the annual report should cover the previous calendar year. Many of the states -- and it does get confusing -- many of the states will submit a report for year 2000, but it needs to cover the previous calendar year, which would be calendar year 1999.

And I'm willing to take any questions or comments on the PRT report at this time.

CHAIRMAN FLAGG: Any questions of Heather? Yes, Pat.

MR. PAT AUGUSTINE: Thank you, Mr. Chairman. Relative, again, to Washington, D.C., is it possible that they shouldn't be in this whole process?

I hate to put it that way and I hate to be so blunt. I'm not sure that -- and, again, I think it goes to the ISFMP for consideration -- do they participate in any of the activities that are required by the Compact by all other states for all other fishery activities?

And if they don't, and if there's a consistent pattern here, it seems to me that sooner or later the issue has to be addressed as to whether we find them non-compliant, which amounts to nothing because if they have no fishery, why are they being considered as equal to a state entity?

Maybe I'm reaching a little beyond where I should be reaching, but every fishery plan that we have or every compliance issue that comes up, they're either not in compliance or report in progress and nothing seems to happen.

So, I think the wrong person getting hold of this document or any one of these documents sends the wrong message. If we're all obligated to agree to an FMP and the group rules, so to speak, then I think we all should comply.

If not, then I think the group should either find Washington, D.C., out of compliance or maybe they don't belong in the Compact. I mean, that's a very broad statement. I don't mean to be derogatory in it, but it's an issue I think sooner or later that's got to be addressed and maybe it's at the ISFMP level and not at this level. Thank you.

CHAIRMAN FLAGG: Other comments? Bruce.

MR. BRUCE FREEMAN: Thank you, Mr. Chairman. Heather, you indicated several recommendations from the Plan Review Team, one of which is the mandatory reporting. It was my understanding that all states have agreed to this. Are you saying that reporting is not occurring?

MS. STIRRATT: My understanding, and I can only give one example -- and, Gordon, please correct me if I'm wrong -- Vic Vecchio had mentioned that in New York they do not have mandatory reporting requirements on American eel, and that he felt as though if that was a requirement that, in fact, their management of the information, the landings information, would be much more accurate. Gordon, feel free to correct me if I'm wrong.

MR. GORDON C. COLVIN: I can't speak to anyone else. The status in New York is that a proposed rule was published a week ago yesterday that, among many other things, requires mandatory trip-based reporting in all currently unreported marine fisheries in the state.

Expectation is that at the ACCSP meeting in a couple of days, knock wood, with luck, a proposal will be funded that will enable New York and its partners, the National Marine Fisheries Service and Cooperative Extension, to actually deal with the trip reports and input the data to ACCSP. So in our case that's the plan. I do not know what the status may be elsewhere.

MR. FREEMAN: My suggestion would be that if, in fact, the Plan Development Team finds a state, for some reason, not reporting as required by the plan, that that particular instance be reported to the Board.

We then can take action. I'm just indicating from our own experience, if we get a general letter indicating that reporting may be inadequate, unless, Heather, you can point out that we are not abiding by what we're supposed to, we probably won't take any action.

So, if the reporting is a problem, we need to do something about it. A comment like this probably won't do it. We need to be more specific.

CHAIRMAN FLAGG: Heather wanted to respond and then, Gordon.

MS. STIRRATT: If I may, Bruce, I mentioned earlier that the plan isn't fully implemented until January 1, 2001. When this report was drafted, it was prior to that date.

So please understand the PRT's concern in stating that any state would be found out of compliance at that time. This is merely just a heads up that this is a problem. It's been noted previously at Board meetings, the situation that the PRT and also the Technical Committee found itself in in trying to determine de minimis status with the landings data that are available at this time.

So in the future I will make note of your suggestion and it will be done. I just couldn't do that prior to the implementation date.

CHAIRMAN FLAGG: Gordon.

MR. COLVIN: Let me just, also, amplify on what I said before a little bit. It's noted here in the report that New York is eligible for de minimis status based on the landing records that exist.

We have not requested de minimis status and will not because it is our belief that by and large American eel landings do not get incorporated into the current the National Marine Fisheries Service's landings information.

And the reason is that they're traditionally marketed outside the normal marketing chain that would pick up landings that don't come in under the trip reports and the dealer reports that dictate the balance of our landings.

And we believe that once we go to mandatory trip reporting for all fisheries, not just those that require federal permits, which is the case now, that we'll be picking that stuff up and our landings will take a big jump up.

Now, let me just point out that part of what goes on in this is that this is one of many fisheries --

lobsters comes to mind and several others -- where we have this delicate issue of balancing the timeframe of implementation of reporting requirements under the fishery management program with rolling out the implementation of ACCSP.

And we all recognize that this need to juxtapose schedules exists and I think we need to try to work with it. As I said earlier, in our case, our ability to do what we are proposing to do is dependent upon the funding we expect to receive to enhance our statistics capabilities in the state. Others may be in the same position and they may wish to speak to that.

CHAIRMAN FLAGG: Tom Fote.

MR. TOM FOTE: Gordon, when you say that you're changing your regulations, is that on fish that are caught in marine waters and not in fresh water?

MR. COLVIN: It is predominantly directed at the marine and coastal district, but it may apply to some species up river and I don't know the extent of that, Tom.

There already are in New York state mandatory reporting requirements annually for all inland commercial fisheries. Those requirements have existed for a long time. The magnitude of those landings, which are reported, is very small.

MR. FOTE: Some of the eels that are not harvested for food, that are harvested for bait, I don't know if those landings are being reported, especially in New Jersey, because what is being developed now because the demand for eels got larger, so --

MR. COLVIN: Well, let me say it this way, Tom. If there are commercial landings of eels from the inland waters of New York that are not being reported, I believe that that failure to report is illegal.

MR. FOTE: Okay. But I think we might have that problem in New Jersey, I'm not sure. I mean, I don't know if we are picking up the fresh water eels because they're basically done by the fresh water and NMFS figures wouldn't pick those up either, especially because I think NMFS merely looks at exports and basically what's being exported. If they're used in state for bait fisheries, are we missing that whole table there? So I'd be interested.

CHAIRMAN FLAGG: Well, we have a bit of a situation like some of the other states in that we have an inland agency that is involved with non-titled fisheries.

And a lot of these eel fisheries that occur in inland waters are permitted by another agency, which we really don't have any control over. But what we've been able to do, administratively we've worked out a system where the inland fisheries agency is required by law to permit all eel fishermen in fresh water, and what they've done is they've included a condition of that permit that they have to report their landings to our agency in order to be eligible to receive a permit the following year.

So through an administrative process, we've been able to impose a mandatory reporting requirement on inland fishermen that are permitted by another agency. That's a method which other states may be able to use in terms of if they have that particular situation. Tom.

MR. FOTE: Yes, just a thought, because a lot of those areas were closed for the harvest for food fish because of PCB contamination, and yet they're using them as bait now so it's basically

open as a different fishery. So that was my concern.

CHAIRMAN FLAGG: Other comments? Yes, David.

MR. DAVID CUPKA: Mr. Chairman, if it would be appropriate and considering Heather's earlier comments on where we stand relative to compliance issues, and that they really aren't compliance issues until the plan is fully implemented in the state, I'd like to move that the Board accept the Plan Review Team report.

MR. JOHN I. NELSON: Second.

CHAIRMAN FLAGG: Motion by David Cupka, second by John Nelson to accept the report of the PRT. Comments?

MR. AUGUSTINE: Call the question.

CHAIRMAN FLAGG: We'll give a minute to caucus. All those in favor of the motion to accept the report of the PRT relative to compliance; those opposed. Okay, the motion was carried on a voice vote. Heather, you have further information for us.

MS. STIRRATT: Yes, I'd like to focus on the FMP review. Just a note here, the newly approved FMP, you all do this on an annual basis, and you do it for every species board that you may sit on.

The American Eel Plan, having been just approved in April of 2000, required staff and the PRT to develop a completely new FMP review. As required by the Charter, the FMP review must contain information on the current status of the stock, the status of the fishery, the status of research and monitoring, the status of monitoring

measures, the status of compliance and recommendations of the PRT.

What I would like to do -- you know, I know that you've received this information in advance, but I would like to go over this just very briefly by each section.

The status of the stock remains to be very poorly understood. The main reason for this, as we've already mentioned today, is because our data is very limited.

The FMP seeks to improve this situation by requiring the states to provide additional information on harvest as well as cohort data, and that's by way of the young of the year abundance survey.

The status of the fishery. Landings from Maine to Florida indicate a decline since the mid-1970s when there seems to have been a peak. To focus on the more recent years, commercial landings have increased slightly or they did increase slightly in 1999.

In 1998, just to give you a reference point, the landings were at 1.034 million pounds. In 1999 that went up to 1.036 so we're talking about, you know, a few thousand pounds, but, still, a notable, slight increase.

In 1999, just to give you an idea, the characterization of which states primarily took the majority of that landings; 58 percent of the landings came from Maryland, Virginia and Delaware.

The recreational landings for American eel are highly uncertain. The proportional standard errors that are associated with the MRFSS database information for American eel range from upwards of 50s all the way to 100 percent.

So we're talking about information on recreational landings that is very highly uncertain. I did provide some numbers in the FMP review itself. If you have any questions about that, I'd be happy to answer them.

Please keep in mind that the MRFSS database and the way that they collect information doesn't extend fully into the fresh water reaches, so you certainly are not going to have an adequate representation of what the catches may or may not be.

Status of research and monitoring. Entries within this section are derived both from the requirements of the FMP as well as those research needs which are identified on an annual basis by various individuals involved with the ASMFC process.

In terms of the status of management measures, this is pulled directly from the FMP. It lists out the requirements found in Sections 3 and 4. It also includes the requirements of the states to perform the annual young of the year abundance survey.

The status of compliance, which was just mentioned, all states are really found to be in compliance for calendar year 2000 given that we weren't under a fully implemented FMP at that time.

And, finally, the recommendations of the PRT. These vary a little bit from what I just spoke about. Again, you know, as typical, the PRT recommends that the states fully implement the FMP, but in addition to that, the PRT is aware of an international group which is taking a look, it's ICES, taking a look at American eel and other eel populations and trying to assess the status of those stocks and really the fisheries as well.

So the PRT is recommending at this time that the Board consider information that is generated through international bodies and international discussion forums, which may actually parallel some of the questions and quandaries that this Board may face in the years to come.

De minimis status. The PRT is also recommending that, again, de minimis is a problem the way it's currently worded in the plan. It focuses on landings data by life stage and, as I've mentioned previously in many Board meetings, that information is simply just not available at this time.

In addition to that, you know, again, it's the source of data which is also a problem. For those states that have mandatory reporting, we're able to get that information directly from the states. If not, we have to mix and match NMFS database with the state database information as well.

And then, finally, the PRT notes that catch per unit effort may be difficult to determine. and the reason for this is that we have fishery practices which are ongoing with American eel that aren't necessarily a standard in other fisheries.

And I was pointed directly to the stockpiling of harvest waiting for the right market conditions to distribute your catch, and in addition to that, just holding activities in general. So, Mr. Chairman, that completes my review of the FMP review.

CHAIRMAN FLAGG: Are there questions of Heather concerning the FMP review? David Borden.

MR. BORDEN: Thank you, Mr. Chairman. A question, Heather. There was a meeting in January where the Technical Committee got together and recommended that the young of the

year survey requirement in the plan go from one sample location or two down to one. Does that require Board action?

MS. STIRRATT: Actually, that was approved at that time.

MR. BORDEN: Okay, it was approved by the Technical Committee?

MS. STIRRATT: Well, it was approved by the Board, as well, at that time.

MR. BORDEN: At the same time?

MS. STIRRATT: Yes.

MR. BORDEN: Okay, I stand corrected, then. I guess the only other question, Mr. Chairman, is do you need a motion to approve the report or the state plans at this point?

CHAIRMAN FLAGG: Yes, I would entertain a motion, but I wanted to get a comment. A.C. Carpenter has his hand up.

MR. A.C. CARPENTER: The section on the status of the fishery refers to landings in Maryland and Virginia and Delaware accounting for 58 percent. I would like to see that section also refer to the Potomac contribution.

I heard words a little bit ago that if you don't participate, they don't want you here. Well, I don't want anybody to forget that we do participate and are a major player in this particular species. So, I would like to have that section reflect the Potomac's contribution to that.

MS. STIRRATT: Certainly, A.C., I'll see that it gets done.

CHAIRMAN FLAGG: Other questions of Heather? Yes, a question in the back of the room? Could we have your name, please.

MR. JAMES FLETCHER: James Fletcher, United National Fishermen's Association. I don't notice anything in these management measures concerning the 18.6 year tide cycles for the North Atlantic oscillation or the abundance of other species such as striped bass that contribute to this population.

And if we keep now beginning to hear slight things about environmental conditions, some of the known environmental impacts that are being reported since the 1500s not coming into this management plan, I question why they're not considered and not part of it. Thank you.

CHAIRMAN FLAGG: Thank you. Any other comment? Yes, Heather.

MS. STIRRATT: Actually, Mr. Fletcher, I'd like to respond to that statement and say that you should stay tuned here today because I believe that Julie Weeder is going to be giving us a presentation from the ICES working group discussion which is an international forum.

And hopefully, if the Board is amenable to the recommendation which was made by the PRT, they are currently considering environmental factors and variations like that, and it may be interesting for this Board to consider that type of approach to management in the future.



MR. FLETCHER: To respond to that comment, ICES and the Norwegians have been using this information for the past 50 years in their fisheries management and the Board and the Councils have not, so it's sort of too little, too late.

And to know about it and then not include it in the plan and then come back and say stay tuned, from the industry's standpoint we've been utilizing it for a number of years and it's a point of management that's not being done. And, you know, I'd like an explanation if they've been using it for that length of time, why haven't we. Thank you.

MS. STIRRATT: Mr. Fletcher, we just recently were asked by ICES to make a recommendation for individuals that could serve on that panel for discussion. We have not been invited in previous years and have been pretty much outside of those discussions altogether.

Now we have been given the opportunity to have a seat at the table and Julie has been generous enough to bring that information back to this body for further consideration.

CHAIRMAN FLAGG: Another point I think to be made is that as we all recognize, the American Eel Plan is really data poor, and one of the foundations of the plan is to try to collect better and more accurate and comprehensive data concerning the fishery and the status of the stock.

So, we're really in the beginning stages of trying to develop more information that will lead into a better management approach for this resource. Yes, Paul Perra.

MR. PAUL PERRA: I noticed in your report on the fisheries you mention the elver fisheries but didn't really talk about it at all, and I think there's a lot of interest in, for instance, the price change and any qualitative information you could put in a plan review.

Maybe the next time around you could include a few sentences on what's happening in that fishery because I understand there's been a change in price and, therefore, perhaps a change in effort.

CHAIRMAN FLAGG: If I could just elaborate a little bit on that point, the 2000 elver fishery in Maine was really a bust. The fishery started out with a price of about \$15 a pound to the harvesters.

Throughout the season it rapidly dropped down to \$10 and less per pound. It got to the point where the people in the fishery actually began to pull their gear half way through the season because it just wasn't worthwhile for them to continue fishing.

We had, also, a situation where a number of dealers that had bought elvers actually released them back into the river because they couldn't even recover the cost of shipping them overseas.

So from a marketing standpoint, the fishery was really very, very bad last year, and initial indications are that this year they don't look any better.

I have talked with several dealers in Maine that have been very heavily involved in the fishery over the past decade and the markets in the Far East are not looking very lucrative this year either. Pat Augustine.

MR. AUGUSTINE: Thank you, Mr. Chairman. If Mr. Borden would like to offer up a motion, I'd like to second it. You had previously said you were going to so wake up, Mr. Borden.

MR. BORDEN: Kind of like the army. Before I make a motion, I just want to get clear, we approved all the state plans in January so there's no action required on those at this point?

CHAIRMAN FLAGG: Heather.

MS. STIRRATT: All of the state implementation plans were approved at the June Board meeting last year in Portland, so I don't believe there's any further action needed on those.

MR. BORDEN: All right, so all we need, then, is simply a motion to accept the report of the committee.

MS. STIRRATT: That's correct.

MR. BORDEN: So moved.

CHAIRMAN FLAGG: I have a motion by Dave Borden, second by Pat Augustine to accept the FMP review on American eel. Discussion? A.C.

MR. CARPENTER: One more comment about the recommendations from the FMP review team about the CPUE. The practice of stockpiling, until the market is corrected, is certainly one that goes on with our fishery as well.

But we require the reporting to be at the point of landing and we consider that to be the day's harvest being landed even if it is stockpiled for sale later. So, you can sort of get around that problem if you define landing as the day's harvest, not the day's sale.

MS. STIRRATT: A.C., that's good news. If you don't mind, I'd like to get a feel for the other states that maybe have that same regulation. If so, it may not be as big of a problem as the PRT seems to think it is. Does anyone else have that regulation in place? Thank you very much?

CHAIRMAN FLAGG: Other comments on the motion.

MR. AUGUSTINE: Call the question.

CHAIRMAN FLAGG: Caucus? Okay, all those in favor of the motion to accept the FMP review, please say aye; those opposed; abstentions. The motion was carried on a voice vote.

At this time we will move on to the Technical Committee report and Julie Weeder will give us some information on the Technical Committee.

MS. JULIE WEEDER: All right, today I'm going to talk to you about three things. One of them is not on the agenda, but it's just a brief update for you on how the young of year abundance survey went for all of the states last year.

Then we're going to talk about the age and sex workshop which occurred last fall. And, finally, you'll hear about the ICES meeting that Vic Vecchio and I attended last August.

In general, the young of the year abundance survey last year went very well. All of the states that did not apply for an exemption did go out and at least try to find sites to catch the elvers at.

They employed various methods including dip nets, fyke nets, and various elver traps that are passive gear. And I think the general feeling was

that things went pretty well. The three states that were granted exemptions didn't do any of that, which is understandable.

So, anyway, we seem to be on track. And I know that starting this spring everybody, of course, has it on track to do it. They're making plans right now. So, I think that that first year that we took to kind of sort things out really did the trick.

I'm going to talk now about the age and sex workshop. You have an attachment in your materials, Attachment 3, which this will be referring to.

If you recall, the Technical Committee and Heather, as our representative, I suppose, to you guys, let you guys know that we thought it would be important to be able to have the states come together and talk about methodologies for collecting demographic information.

Many of the states are not currently studying eel age or sex. And, also, eels have particular problems, especially for age determination, which really required that all the states have a good idea of the best methods to begin with.

And some of the state have already been doing some of this work so we were able to -- and not only the particular states' governments, but experts from academia and other groups were able to come together and let them know the best way to do this.

So, this occurred on November 30th and December 1st. We met in Laurel, Maryland, for about a day and a half with the goal that we wanted to discuss these methods for determining the age and sex of American eel and to basically provide the states with the tools to begin collecting this information.

By that, I mean the knowledge. They, of course, need to have the equipment and such at their lab already, although I will talk about that in a minute. Some of the states don't have the equipment.

Each day we first started with some presentations, about 20 to 30 minutes apiece, by all the invited speakers that were using each method. So the first day we talked about sex determination. The second day we talked about age determination.

After we had the presentations, we then took breakout sessions where the Technical Committee members got together and were able to just talk informally with the speakers and also, most importantly, actually try to apply the methods right there.

We had the microscopes and the hot plates and some otoliths and they were able to, I think, gain some confidence in how to do it and to see that in some cases it isn't horribly time consuming to prepare the tissues or the hard parts.

After the breakout sessions, we had a group discussion that was led by the ASMFC representatives where the states, again, informally were able to just talk about their impressions for these different methods, whether they thought it was feasible for them to use it in their particular state, and any concerns they might have that might keep them from implementing these methods, keeping in mind that right now none of this is required of any of the states.

So we're really trying to encourage people to start doing this on a voluntary basis whenever possible. The first day we talked about sex determination. We had two different speakers that presented, really, the two main methods that are used for this species.

I was one of the speakers and I talked about the histological method of gonad preparation. And Dr. Ken Olivera of the University of Massachusetts was the speaker who talked about the squash method, which I'll explain in a minute which is also used. It sounds very technical, doesn't it?

But that's the beauty of it, you know, it's not real complicated.

Neither of these methods requires substantial personnel input. It's sort of really a lot of time input. And above a certain size, the sex may not need to be determined for these animals because they're all female.

Dr. Olivera has found consistently with co-authors that above about 40 centimeters all of the eels that he finds are female. And in Maryland we found the same thing in our samples in the tidal reaches, and I believe that some of his were in fresh water.

But, nonetheless, basically that was good news for us because that really means that there's a whole segment of the population that we can just assume the sex of.

In the histological method, you basically collect the gonadal tissue, either because you can visually see the gonad when they open the eel up or, if you can't because it's too young, you just take a whole section of the body.

Then you preserve the samples in formalin or sometimes alcohol and send them off to a histological laboratory. The laboratory does all of the tedious work where they dehydrate the tissue; they inject it with paraffin; they take very thin slices, stain them, and mount them on slides.

Then they send them back to you and all you have to do is set at the microscope and interpret them. It's wonderful. So, the advantages of this -- well, actually, let's first talk about the disadvantages.

The biggest disadvantage is that you have to pay the lab. So there's an element of expense that I could save virtually all states do not currently have budgeted. Estimates of how much it might cost range from about \$2 to \$5 per sample, depending on whether you have a good relationship with the lab or, in many cases, I think it might be possible to work with a histological lab that's associated with the individual state.

In Maryland we're able to work with a cooperative laboratory that has this lab and they're able to give us a discount on the price. So, it might be possible to do that. But, nonetheless, it's expensive.

Also, interpretation is somewhat more difficult. That's partly because you have a lot more resolution in what you're looking at because you can see the individual cells very clearly.

The advantages of this are that you can quantify the stage of sexual maturity of the animal. Rather than just saying it's a female or a male, you could say it's a particularly gravid female or it's sexually immature or, perhaps, it's in a transitional phase between sexes, even.

And to me -- and I think most people would agree -- the biggest advantage is that you can sex yellow eels. You can sex sexually immature animals, meaning they are not silver eels that are actively migrating to spawn, they don't have big engorged gonads, but you can still determine what sex they are.

In the squash method you will collect the gonadal tissue, which requires that you are able to visualize it. So you just basically take the hemostat out and take a little sample of it and preserve it.

And then when you're ready, you take a little piece of it, put it on a slide, apply a stain, put a cover slip on it and squash it down, hence the name, and immediately examine the tissue under a compound microscope.

So, the advantages of this method are that it's pretty simple. There's no lab involved. It's probably a little bit easier to teach people how to do it because the interpretation is perhaps a little bit simpler.

But, the disadvantages are that you can't quantify sexual maturity stage, and I believe that Dr. Olivera has only used it successfully on silver eels. This came out at the workshop. He agreed that it's really most valuable if you have sexually mature animals.

So, after we had these presentations and we had the breakout sessions, we were able to show people some examples of what the histology looked like and some examples of what the squash looked like.

Ken had the squash method right there and they squashed the tissue. And I had some pictures there to show people, if they were looking at a histological sample, what the cells look like; if it was a female versus a male, how you could really differentiate the two, which takes a little practice.

So, I think the group seemed to understand pretty well what was involved and thought that perhaps it was doable except that as often is happening with this species, they're not very optimistic

about it because they can't devote the time and money to it that's not already kind of planned for.

So the general impression was that they're not very optimistic about being able to collect it voluntarily. Specific topics of discussion about that were, first of all, that, a very valid point, the utility of this data for stock assessment has not yet been demonstrated.

It's not like the Stock Assessment Committee and the Technical Committee have agreed that we have a stock assessment and that it's really crucial to have this sex information. Right now we have no stock assessment.

So, they don't necessarily want to spend a lot of time and money collecting something that, for all they know, may not be the key point.

Again, they can't spare the time and money for a species that's not a funding priority. However, we did discuss the fact that voluntary data collection now could help us to prevent any mandatory collections later on.

If we all kind of work together and do the best we can, we might be able to get the information that we need without some sort of more drastic measures sometime in the future.

Now I'm going to talk about just the last thing we talked about, which was the age determination. Dr. Ken Olivera spoke again about the sectioning, etching and staining of otoliths that he uses.

Wendy Morrison and Dr. David Secor of the Chesapeake Biological Laboratory at the University of Maryland talked about the interpretation of annuli and really just basically once you have the otolith what are you looking at.

And I talked about the grinding and polishing method of otolith preparation that we use in Maryland, primarily. In general, the choice of the aging method that you use should be based on the survey objectives, the individual population characteristics, and basically both methods are appropriate in certain circumstances.

Polishing methods, like we use, are probably best for younger and faster growing fish with obvious annuli because it doesn't provide a huge amount of resolution. But, you know, if your fish are young, you don't need the resolution.

The sectioning, etching and staining method is more involved. It's best for use when there are many annuli that are very close together and when you may suspect false annuli, which has been documented again and again with American eel.

So, in the sectioning and staining method, you mount the otolith in a block of plastic, take a section through it with a microtome, not microtome -- I forget the term -- a diamond saw, very thin section, mount it on a slide, polish it with various grits of sandpaper.

You etch it with acid and you put stain on it. And this results in a very beautifully visualized specimen. However, it is more time

consuming and it requires that you have the saw which, as it turns out in the discussion, was a big drawback for a lot of people.

The polishing method that I talked about is much simpler. You basically take the otolith, you stick it onto the slide with some plastic and you look at it.

And perhaps you polish it a tiny bit and then put some emersion oil on it but pretty much there's a lot less involved. However, we have found that it has drawbacks when you get to older fish because you just can't tell the difference between some of these annuli.

So, topics of discussion for the aging section, most of the states agreed to collect and archive the otoliths even if they didn't think they'd be able to use them right now.

We have an archive protocol that was provided by John Castleman, which basically just means that you archive them dry. However, there were some concerns about adequate sampling and data accuracy, which really just came out of this discussion.

They weren't necessarily specifically about aging. They were about what do we do with this information. Basically, are age samples from the fresh and estuarine waters comparable?

We didn't know if you decide to go out and start taking some of these samples on a voluntary basis, if you took some from fresh water, would you be able to say anything about estuarine water and vice-versa.

And coming out of that, will an any age-length key that you come up with be accurate because there could be some variation in the growth in different environments. Also, spacial coverage may not be sufficient, depending on where your sampling is occurring.

Age validation, I think everybody agreed, was very necessary because known-age fish are pretty hard to come by with American eels.

And, also, a lot of discussion that we needed to know adequate sample sizes and we needed to have kind of a bigger overall picture of what our plan was. And that is to be handled by the Stock Assessment Committee, which has been formed but we haven't had a big meeting yet about sample size.

So, the issue of how to implement the age sampling. If they did decide to do it, lots of the states don't have the equipment that they need. So, we all agreed that perhaps we could share the equipment between the states or possibly send samples between different states to try to make it work out.

Also, there was a consensus that ASMFC should consider forming a committee for age determination. This committee would assist in age sampling for multiple species because these same issues come up, and every time we talk about aging fish, we have problems with making it work on the state-by-state level.

So perhaps this committee could help to facilitate that so it wouldn't just be for American eel. To support this initiative, all the states agreed that they would take an inventory of the available aging equipment that they had.

In conclusion, the outcomes of the meeting. Many questions were raised that require further discussions, problems that were identified that must be dealt with.

However, the workshop led to the consideration of how each state could begin age and sex sampling and it provided each state with the skills they needed to begin doing this.

And I think a general feeling that I got from it and others that I've talked to, a lot of the states seemed pretty optimistic that they might be able to do something at least on a limited basis. Now

they know how to do it and they can explore the possibility.

CHAIRMAN FLAGG: Any questions of Julie concerning her report on the age-length workshop. Bruce.

MR. FREEMAN: Has there been verification that the ring that's interpreted as an annulus is indeed an age mark?

MS. WEEDER: In some places, yes. However, it's very possible that that is very site specific. And I think that the committee felt that it was important to do that on a broader basis or a broader scale.

CHAIRMAN FLAGG: Other questions? I just have one question, Julie. Was there any discussion about the possibility of developing age-length keys for different localities and different environments in which eels inhabit? Is there any possibility that that might be a likely way to develop a fast method of aging?

MS. WEEDER: Sure. Yes, I believe that out of our discussion where people were really concerned about if I were to go somewhere and take a sample, would it mean anything, would it be related to anything else, I think that a lot of people realized that we may need to be addressing this more on a regional basis.

And so I think that's where we're going to at this point in thinking about breaking things up. So we wouldn't necessarily have a coastwide age-length key, because the coast has many different environments, many different growth rates, many different rates of fishing.

CHAIRMAN FLAGG: Thank you. Heather.

MS. STIRRATT: Just as a side note to what Julie just said, I brought up that issue specifically in terms of why is this useful. And I mentioned, to my ignorance, actually, and found out that I was completely wrong that a length-age key may not be possible for American eel, and that is because you'll find multiple ages at perhaps the same length.

And so for American eel -- and I'll mention this coming up in the long range planning section -- you know, this workshop was very useful, but the main thing that came out of it were numerous questions.

And so it really puts the emphasis now on getting these issues before a much more focused group, such as the Stock Assessment Subcommittee, for further discussion to really vet out some of the models that may be appropriate to apply for American eel as it is a unique finfish species.

CHAIRMAN FLAGG: Yes, David Perkins.

MR. DAVID PERKINS: Just sort of following up on the discussion that the group had on development of a committee on age determination for multi-species, and is that something that the Commission has considered before? I mean, there's obviously many advantages of not reinventing the wheel over and over again.

CHAIRMAN FLAGG: Pat Augustine.

MR. AUGUSTINE: Thank you, Mr. Chairman. That was the question that I was going to ask, whether that should be an issue brought up before the Board or before the ISMFP Board. I'm not sure where it should be brought up.

But, you did refer to this kind of a committee, and I've heard it before since I've been involved, but nothing has happened; no action has been taken. I don't know what venue it would come up under, whether ISMFP or the Board, so I guess I'm looking for direction.

CHAIRMAN FLAGG: Paul Perra.

MR. PERRA: In the past we've handled it on an ad hoc basis. Each Board has tried to get resources to do it, and we've done it for numerous species over the years. I think it's a good idea, maybe, to give it a central focus, and I would suggest we consider recommending the Management and Science Committee, perhaps, form a committee. We could recommend that to the Policy Board.

CHAIRMAN FLAGG: Yes, Susan.

MS. SUSAN SHIPMAN: Thank you, Mr. Chairman. Also, you'll recall the action plan that we reviewed. You know, we have annual action plans and this would be an appropriate type thing to work into that plan as we begin developing that in the summer.

And we hope to more effectively engage the Board in development of those plans. So if that's something this Board is interested in, you know, keep that in mind as we begin working toward the action plan for 2002 of something to work in so that we can budget the resources for it.

CHAIRMAN FLAGG: Roy Miller.

MR. ROY MILLER: Thank you, Mr. Chairman. I noted in Julie's report that reference is made to age and sex composition as being voluntary at



this point in time. And I just wanted to check with Heather.

Is it, in fact, voluntary? It seems to me that age and sex of life stages is one of the monitoring compliance elements in the plan, is it not?

MS. STIRRATT: It is a monitoring requirement on a voluntary basis. It is not a requirement of the states to actually perform that. If you can hold on, Roy, I'll get the exact section, but in my interpretation of the way that the plan is written, that is a voluntary action, that the states are not required to take that data currently.

MR. MILLER: Well, we can come back to that when you want to, but I was referring to Section 3.4.1. That's the one you might want to look at, Heather.

MS. STIRRATT: Yes, Roy, that 3.4.1 is the format for reporting. If the states have that information, then, yes, they're required to report it. But in the monitoring section, it does not state specifically that the states are required to collect sexing data.

CHAIRMAN FLAGG: Bruce Freeman.

MR. FREEMAN: Let me just back up a minute, and, Julie, just dwell a minute on the issue of the aging. You spoke about the difficulties with different life stages. Are you referring to the issue of some eels staying in estuarine waters as opposed to those that are ascending fresh water; then there would, indeed, be differences so far as aging is concerned when the annulus is laid down?

MS. WEEDER: Yes. One major difference in environment that comes up over and over again is fresh water versus tidal samples. I think that

there are differences in growth, at least that we've found in Maryland, between those different sections.

They aren't so much probably affecting the annulus formation. It's a matter of really just the size that the eel -- how long it takes an eel to reach a certain size could be drastically different between a fresh water and a tidal situation.

Another difference between fresh water and tidal waters can be the level of fishing intensity, which is doubtlessly affecting the size of the eels that are present.

CHAIRMAN FLAGG: Other questions of Julie concerning the age and sex workshop? James Fletcher.

MR. FLETCHER: Given that the Europeans in aquaculture are using the effects of estrogen to increase the growth rate, wouldn't it be necessary to take in the effects of estrogen in the waters, and the assumption that anything greater than 40 centimeters would be a female would be an incorrect assumption?

CHAIRMAN FLAGG: I don't know that would be the case, at least from all the samples that have been taken in Maine. There were several thousand samples taken, and they were all females that were in excess of 40 centimeters.

MR. FLETCHER: But aquaculture in Belgium uses estrogen-type compounds to increase growth; and thereby if we hit areas that have large concentrations of estrogen in certain waters, the assumptions would not hold true simply because you have to sample out of areas without estrogen now. As the amount of estrogen increases, then the assumption could not be held. Thank you.

MS. WEEDER: Can I just address that? This addresses things other than if there's different levels of estrogen in different places. I don't know that the committee just decided to never sex anything above 40 centimeters.

That isn't where we're coming from. We were saying that if you wanted to know about sex of American eel, you may not have to sex every single fish. However, that doesn't mean that when the state is doing this sampling, they are automatically going to assume that right off the bat.

Some of the discussion centered around if you do it for a year or so, you can determine whether this is holding true where you are, and then you can modify your sampling so that you don't have to worry about those larger fish.

But we certainly wouldn't make the assumption across the board and never look at an eel above that size.

CHAIRMAN FLAGG: Other comments or questions of Julie? If not, I think we'd better move right along to the second report which Julie is going to present at this time.

MS. WEEDER: All right, what I'm going to talk about right here is addressed in your Attachment 4. In those materials I summarized the major parts of the report that came out of the ICES working group meeting to give you an idea of the language that the group decided upon.

Today I want to give you a brief overview of why we were there, what we set out to do, and the recommendations that came out of that meeting. So if you want more detail, you can refer to the materials that I provided. You can, also, of course, go to the full working group report.

The International Council for the Exploration of the Sea is an international science organization which provides a forum for the promotion, coordination and dissemination of research on the systems of the North Atlantic.

It provides scientific information and advice to governments for the purpose of fishery conservation in addition to ecosystem health. This group has a history of the European eel.

They have been looking at it for a number of years because there's been a marked decline in abundance of European eel. So, they have gone through several years of reviews of working group meetings where the group came together and determined what sort of data was needed, and then they've gone on to begin trying to estimate some of the reference points that are needed.

Possibly because of this history with the European eel, the governments of Canada and the United States posed some questions to ICES regarding American eel. They wanted ICES to determine what the status was.

And these governments nominated scientists to come together in the ICES working group meeting to answer their questions. So ICES really provided a forum and a framework for the meeting to occur.

There was a five-day meeting from August 28th to September 1st of last year. Twenty-one participants were there. Four people were from the United States. That was Vic Vecchio, myself, Dr. Jim McCleave, and Dr. David Secor.

Canada had eleven participants and there were six advisors from various countries in Europe.

Our goals in general were to assess some trends in recruitment and evaluate the effects of fishing by evaluating the available information about American eel.

Now there were specific goal points that are in your materials that we talked about, and I can get into great detail about that, but the gist of that is trends and recruitment and effects of fishing; and once we review that information, to provide recommendations to ensure required escapement and more generally sustainability of the species.

Once we got to the meeting, we looked at a lot of documents that were provided by the different attendees. You're familiar with the shortage of information about American eel that we have in the United States.

It turns out that Canada is in a similar situation. They have more information than we have about recruitment. Specifically, they have a long-term survey on the St. Lawrence River that looks at young eels that has been extrapolated to the recruitment index.

So in general, Canada, while they have some other surveys, they also have a bit of a shortage of information. One difference, however, is that Canada is much more confident about their information than we are.

Specifically, of landings information, they have great confidence in the accuracy of that information. So, we had five days that we talked about these issues. We talked specifically about the particular points that questions were asked about with recruitment and effects of fishing and how much escapement would be required and how to go about that.

And, in summary, the factors that generally came out were that the working group concluded that there has been substantial reductions in available

habitat for American eel. All the trends in abundance in yellow eels, silver eels and young of year eels are either declining or neutral.

There has been a severe decline in abundance in northern areas. Exploitation is continuous. And, to address the gentleman's point about oceanographic effects, it was recognized that factors beyond our control in the ocean can affect the success of the next year's young of year reaching the continent.

So, unknown oceanographic effects, including the North Atlantic Oscillation, were evaluated and determined to be possibly significant effects on the sustainability of the stock because they influence recruitment year to year.

The primary recommendation that came out of this meeting was to adopt precautionary approach to management of the American eel. The precautionary approach principle has a history within ICES and also in various other national and international management arenas.

It means something rather specific. For ICES it means that you need to assume that recruitment is dependent on total spawning stock size unless you can demonstrate otherwise.

From that we need to set biological reference points, primarily fishing mortality rates and spawning biomass levels, to ensure that stocks and their exploitation remain within safe biological limits.

So a key point of adopting the precautionary approach is to eventually have these biological reference points and to make sure that you are within the safe biological limits.

However, due to the lack of information available to the group, biological reference points were not estimated at the meeting because we couldn't estimate them with any precision. Thus, the recommendations focused on

maintaining existing exploitation rates, reducing other sources of mortality and improving data collection and exchange.

More specific recommendations of the working group: no increased exploitation in areas where exploitation is currently occurring; no development of fisheries in currently unexploited areas, so, basically try to keep fishing mortality at at least the level it currently is.

Reduce human-induced mortality wherever possible. That would include things like turbines on dams. Improve data gathering and monitoring of compliance with existing regulations to ensure that the information that is available for management is more abundant and accurate.

Resolve fish passage problems. That includes both upstream and downstream issues. Upstream passage, if there's not enough then, of course, it blocks off a lot of available habitat and, of course, downstream you have direct mortality often of the spawning individuals who we really are focusing on for management.

Define management units based on existing jurisdictions.

Management would ideally occur on a watershed basis, so they're recognizing that regional management might be the way to go. However, those management units, of course, would be based on whatever the jurisdictions decide.

Explore an international forum for the exchange of information about American eel. This would act as a clearing house for information that included data for stock assessment, recommendations, such things as that. That's all.

CHAIRMAN FLAGG: Questions of Julie? Yes, Bruce.

MR. FREEMAN: Julie, you may have mentioned this, and I was just jotting down something else, but the European countries that have been exploiting eels for a very long period of time, what type of information do they have?

MS. WEEDER: They have better information than we do. They have more fishery-independent surveys of abundance. They've been looking at elver abundance for longer. I think generally there's longer datasets. And generally they've recognized eels as being important for a really long time. So perhaps the accuracy of that data is also better.

MR. FREEMAN: Was there any mention -- I'm familiar with one instance of a large river system in Spain who over the last 20 years has been heavily polluted and then subsequent has been cleaned up and historically a very large elver fishery, non-existent for 15 or 20 years and now very large again once the water qualities increased.

Perhaps we can expect that, but was there any discussion relative to systems where they have recovered very rapidly because of the oceanic distribution; that is, that there is apparently always some juvenile recruits coming in the systems and how that whole scenario impacts?

It's very different than almost all the fisheries that we deal with, at least from the reproductive standpoint of the fish going to one location or some general location in the ocean and then distribution of the young coming from that centralized location.

I'm just curious if there was discussion relative to that phenomenon and what came of it? What are the management implications?

MS. WEEDER: Sure. There wasn't a lot of discussion about European research. We did have reference documents. However, most of the discussion focused on what kind of information we had or didn't have, as usually the case was.

Specifically, of course, Canada in particular I think was concerned that in any management that we had that would result in reduced escapement could impact them.

Also, the point was made that the more northern regions of the distribution would be first impacted by any general decline in abundance of recruits and that has been shown notably in the St. Lawrence River system. So some people say that that is evidence that there is general decline in the stock health and the number of recruits that are coming out.

CHAIRMAN FLAGG: Yes, David Pierce.

DR. DAVID PIERCE: Julie or Heather, what conclusions and recommendations from this working group meeting were so unique that we need to consider them for our management plan? It seems to me that many of these issues have been covered quite well already by this Board. What have we not covered that was revealed by the working group?

MS. STIRRATT: Specific to your question, David, I think is the point that they make about the development of reference points. That certainly has not been done for the management of this species here with the Commission.

It may be something that the Board wants to consider. Again, the PRT has recommended that this Board at least be briefed on the developments of the ICES working group, and we've tried to provide you with that information

today. Whether or not the Board decides to take any action whatsoever on these recommendations lies fully with you.

But, I would note that given the lacking data and the numerous questions which exist around assessing the stock that we currently have within our state waters, it may behoove us to start these discussions or to initiate them.

And, again, I'm going to kind of sum things up here in my long-range planning statement.

MS. WEEDER: One other point is that this generally recognizes that this species has an international distribution. We need to be looking beyond what is going on in the United States.

And we need to at least know and hopefully agree with and coordinate with Canada to make sure that their efforts at conservation are not at odds with ours.

Also, an important point that came out was that south of the United States, we know virtually nothing about any sorts of eel exploitation, although there is anecdotal evidence that it occurs.

So this meeting brought out the importance of bringing those other countries into the discussion because I think we all agree that any state's management of American eel affects the other states and the same argument is true for other countries.

CHAIRMAN FLAGG: Yes, Dave Perkins.

MR. PERKINS: Julie, do you know if there are any plans for the working group to continue meeting in future years?

MS. WEEDER: No, there are currently no plans. I believe that ICES is undergoing a change in how they organize such things. They're asking the member countries who have asked for the advice to fund the working group meetings to a greater extent than they currently do.

And because of that, it's really uncertain whether any sort of meeting could occur again, although we all agreed that it was very drastically needed, that that occur because we couldn't even set the reference points that we need.

CHAIRMAN FLAGG: Pat Augustine.

MR. AUGUSTINE: Thank you, Mr. Chair. Back to Heather's comment after you responded to Dr. Pierce's comment. Are you suggesting, then, that some of the suggestions that were made as a result of Julie's report, they will receive consideration in your follow-on report as to what we're going to be doing or what we possibly could do?

MS. STIRRATT: Yes.

CHAIRMAN FLAGG: Other comments? Dave Perkins.

MR. PERKINS: So, you identified the need for reference points but then I thought I heard you say, Julie, that we don't have the information to develop them. So, where do we stand?

MS. WEEDER: We need to get the information to develop them.

MR. PERKINS: And what sort of timeframe is that going to entail?

MS. WEEDER: Well, this was not specifically discussed at the meeting; however, if you took more of a regional approach to developing these reference points, as suggested by ICES, possibly as few as a couple of years or three years of information might be adequate to work on a yield-per-recruit model, which would give you some idea of where you are relative to those reference points.

And it wouldn't require that all of the states are doing it simultaneously as long as your conclusions are not extrapolated too far.

CHAIRMAN FLAGG: Other questions? Yes, Julie.

MS. WEEDER: Going back to the previous question about what came out of this meeting that we haven't already recognized, I think that the recommendation that there's no increased exploitation in areas where there's currently exploitation is a particularly relevant point.

And generally the sentiment that we really need to get an idea of what's going on and really an urgency that was felt by the group about the current status of the species which is largely unknown; and, also, given the fact that the European eel is not doing so well, the concerns that we could be going in that direction and not know it. And I think that that was really important for us to hear.

CHAIRMAN FLAGG: Any further comments? At this time I would entertain a motion from the Board to accept the two reports from the Technical Committee. Pat Augustine.

MR. AUGUSTINE: So moved, Mr. Chairman.

CHAIRMAN FLAGG: Motion by Pat Augustine to accept the reports of the Technical Committee; second by A.C. Carpenter. Discussion? All those in favor say aye; those opposed; abstentions. The motion carries on a voice vote.

The next item is election of vice-chair, and I would entertain nominations for vice-chair of the American Eel Board.

MR. COLVIN: I nominate Jack Travelstead.

MR. NELSON: Second.

CHAIRMAN FLAGG: Okay, we have a nomination --

MR. AUGUSTINE: I make a motion we close nominations and cast one vote.

CHAIRMAN FLAGG: Nomination of Jack Travelstead and I have a motion to move the nominations be closed. All those in favor, signify by saying aye. Congratulations, Jack.

At this time I'd like to have Heather give us a report on staff overview of the long-range planning/schedule.

MS. STIRRATT: Okay, I'm going to be extremely brief, but please do correct me or provide me with new information where it's appropriate. According to the Action Plan for 2001, the American Eel FMP will come under a maintenance and monitoring status.

The Charter requires that a review of the status of compliance and the preparation of a report on implementation and enforcement of the FMP's requirements be provided to the Board on an annual basis.

In order to achieve this requirement staff has estimated one, possibly two PRT meetings and conference calls will be required in 2001. Therefore, a minimal budget will be required to fully get us going on that.

Staff has not been made aware of any other work requirements beyond the monitoring and maintenance status. And you all may see differently around the table; and if so, I need to know that.

Staff notes that one thing that you should be mindful of coming down the road here is that in 2004/2005 a stock assessment should at least be initiated. This timeframe is generated by the Commission's peer review protocols.

And the stock assessment trigger is every five years for all of the species that we manage here at the Commission. So, given everything that you've heard today, we need to be at least moving down that road or starting discussions.

Staff would advise that initial stock assessment discussions begin as soon as possible given the lacking availability of data and the need to develop and/or assign a stock assessment modeling tool specific for American eel.

Initiation of these discussions is not anticipated to be expensive. We're dealing with a very small committee and I think most of the discussions could occur via conference call at a minimum.

And, again, just to kind of review what Julie said, you know, three years of data is what is really needed as a minimum to really get us on our feet. And by 2004 or 2005 we may actually have that data.

So, right now would be the time to at least get these people together, the Stock Assessment Subcommittee, try and get them started on some of the discussions and/or question sessions and try to really get a head start on this one.

We've all seen some of the problems that some of the other species have experienced in trying to facilitate and fully complete their stock assessments. Lobster comes to mind with some of the problems last year.

And I think that one of the things that MSC has mentioned to me, at least in their peer review meetings, is that the ISFMP staff could probably better coordinate those efforts if they start a little bit earlier in trying to initiate those discussions.

So I just raise that as something you may want to consider. I haven't been given any direction by the Board to initiate those discussions, but I think it would be wise to do so.

CHAIRMAN FLAGG: Comments from members of the Board? Yes, Bruce.

MR. FREEMAN: I would just indicate that I think the strategy that Heather laid out is reasonable. And the fact that we're not asking for a large amount of money, it should start now, I think it wise. So I would recommend that we follow that strategy.

CHAIRMAN FLAGG: Other comments? Do we need a vote on that or is there consensus among the group? Is anybody objecting? Okay,

hearing no objection, we'll proceed with that. Other questions? Yes, Bruce.

MR. FREEMAN: Lew, I have one question and I'll direct it towards Heather. We talked early on about the monitoring. And I think, Heather, you indicated that three states did not -- this is for the young of year, the larval -- did not have monitoring.

I recall, though, that discussion was at the time those states weren't able to budget nor have the ability to monitor relative to the implementation to the plan. But that was something they were going to do in the future.

So it wasn't that those states simply asked to bow out, it was something that they asked not to be compelled to be required at this time, but I believe they indicated they would indeed put something in place. Is that correct?

MS. STIRRATT: Bruce, your recollection is correct. And, unfortunately, I don't have the exact statement that was made by the Board at that time. Correct me if I'm wrong for those of you who were involved in that.

The states of New Hampshire, Georgia and the District of Columbia were exempted for the year 2000 to perform the young-of-the-year abundance survey, and that all states in the year 2001 would full implement that requirement. And to my knowledge, and no one else has informed me of any different to this date, that's the way that things were agreed to.

CHAIRMAN FLAGG: Yes, Susan.

MS. SHIPMAN: Just to allay Mr. Freeman's fears, we've been collecting little elvers since the



middle of January. I have little ziplock bags full of them.

MR. FREEMAN: Susan, it wasn't my fear, but just recall that a commitment was made and when you were able to, you would.

MS. SHIPMAN: Yes.

MR. FREEMAN: But I just think the important point is that all the states will be doing it so so far as sampling is concerned, it will be quite effective.

MS. SHIPMAN: It had to do with the timing of the run. By the time we worked out the methodology, we had missed the run.

MR. FREEMAN: Well, I just want to make the point that we should have a coastwide collection. And one could argue, well, actually you need it south of Florida and north of Maine, but apparently the Canadians are doing something and, of course, we don't know what happens down in the Caribbean, but --

MS. SHIPMAN: I'll go down and find out if you want.

MR. FREEMAN: I thought you were going to Newfoundland to check that. All right.

MS. SHIPMAN: That's the vice-chairman. He's going to Newfoundland. (Laughter)

CHAIRMAN FLAGG: The other item which I think maybe is something we need to deal with again is we really didn't address the District of

Columbia issue. Is there any advice that the Board wants to give in terms of should we be making contact with D.C.? Yes, Susan.

MS. SHIPMAN: The District of Columbia issue is a broader issue that goes to the Charter and it goes to the Atlantic Coastal Act. And I think it's a discussion better reserved for the Policy Board.

CHAIRMAN FLAGG: Okay, then I presume we can take that up in the context of Policy Board discussions relative to D.C. participation. Thank you. Tom Fote.

MR. FOTE: The day before I came down here I got a call from two of our legislators that are considering opening up a limited glass eel fishery similar to what Virginia does for instate aquaculture. When would I need to get that proposal to you for 2002?

CHAIRMAN FLAGG: Heather.

MS. STIRRATT: When the state management programs would be changing, if possible. But I guess I'm a little bit confused, Tom. Aquaculture is not a specific issue within this plan.

It is a specific issue within the sturgeon plan in that you need to notify the Commission and go through a certain process. If it's a state management plan issue where you're changing your management plan based upon aquaculture for stock enhancement or something like that, then I will need to go back and take a second look at the plan.

MR. FOTE: We right now do not have a glass eel fishery because we've basically been shut down by legislation by not passing a bill.

What they're proposing is opening up similar to what Virginia has, which will allow for a couple hundred pounds of being harvested of glass eels in our state to be in-state aquaculturally raised. And, you know, I wanted to find out when we'd have to get that to accomplish it in 2002.

MS. STIRRATT: Tom, if you and I can get together following the meeting, I'll give you the exact dates.

CHAIRMAN FLAGG: Okay, I think we're on to other business now. Is there other business to come before the American Eel Board? Hearing none, we can adjourn.

(Whereupon, the meeting was adjourned at 12:00 o'clock noon, January 30, 2001.)

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