

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF COLUMBIA

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CONSERVATION LAW FOUNDATION, )  
et al., )  
Plaintiffs )  
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) CIVIL ACTION NO. 00-1134  
(GK) )  
v. )  
)  
DONALD L. EVANS, et al., )  
SECRETARY OF COMMERCE )  
Defendants )  
)

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DECLARATION OF MICHAEL P. SISSEWINE, Ph.D.

I, MICHAEL P. SISSEWINE, declare as follows:

1. I am Director of the Northeast Fisheries Science Center, National Marine Fisheries Service, Woods Hole, Massachusetts. In this capacity, I am responsible for federal research that provides the scientific basis of fisheries management, marine mammal and endangered species protection, and other stewardship activity for marine ecosystems in the Northeast Region. This responsibility includes overseeing stock assessments for important fisheries of the Northeast USA.

These stock assessments are used by the New England and Mid-Atlantic Fishery Management Councils (Councils) in formulating recommendations regarding management of these resources, including New England groundfish managed by various plan amendments and framework actions.

2. I have more than twenty five years of experience as a research scientist, research leader, and scientific advisor on marine stewardship issues. I have written more than one hundred scientific papers and reports on issues related to fisheries management and marine stewardship. I have organized many scientific meetings, am a frequent invited speaker and invited expert at scientific meetings, and play a leadership role in several scientific organizations. For example, I am the chair of the United Nations Food and Agriculture Organization's Advisory Committee on Fisheries Research, the First Vice President (by tradition, the President-elect) of the International Council for the Exploration of the Sea, and US Delegate to the Pacific Sciences Association.

3. The purpose of this declaration is to provide comments on the affidavit submitted by Dr. Ellen Pikitch, since it is my professional judgement that some of her statements are

misleading or incorrect. Also, this declaration provides some information about current efforts to update the scientific basis for management of the New England groundfish fishery.

4. Paragraph 10 of Dr. Pikitch's affidavit states that the Scientific and Statistical Committee (SSC) of the New England Fishery Management Council concluded that the relationship between days at sea and fishing mortality is complex and it is difficult to estimate the relationship between days at sea and fishing mortality. The statement also says that the SSC was concerned about the methods used to estimate fishing mortality, and that fishing mortality had been underestimated in the past. I agree that the relationship between days at sea and fishing mortality is complex. It is true that the reduction in the level of fishing mortality that recent fishery management actions have been intended to achieve for Gulf of Maine cod, have not been achieved. However, reductions in fishing mortality intended to be achieved by days at sea reductions and closed areas have been successfully achieved for some stocks, such as Georges Bank haddock and Georges Bank yellowtail flounder.

5. Paragraph 11 of Dr. Pikitch's affidavit states that

she believes that Amendment 9 provisions for overfishing definitions are based on the "best available science." I am not qualified to comment on the validity of Dr. Pikitch's statement from a legal point of view. There is no widely accepted scientific definition of the term "best available science." However, from my scientific point of view, I believe Amendment 9 should be reevaluated, for the following reasons:

(a) Amendment 9 is, in part, based on the Overfishing Definitions Review Panel's report dated 17 June 1998. Some of the analyses contained in the report are no longer current and should be updated to reflect better and more complete data, changing circumstances in the stocks, and a greater appreciation of the technical issues involved in making medium-term (5-10 year) projections of stock status. Among other things, a recent report of the Stock Assessment Review Committee concluded that the modeling approach used by the Overfishing Definitions Review Panel to describe the production function of groundfish stocks could be improved by using information on age structure, and on stock and recruitment. Such improvements are important for estimating biological reference points on which Fishery Management Plan overfishing

definitions are based, and for projections that are used as the scientific basis for evaluating the effectiveness of fishery management rebuilding plans, in order to more realistically reflect the population dynamics of age structured populations.

(b) Amendment 9 states that the Council proposes to revise overfishing definitions "... in response to national standards and guidelines." However, there are inconsistencies between Amendment 9 and the National Standards Guidelines. In particular, Amendment 9's use of the term biomass threshold is inconsistent with the Guidelines. It sets the biomass threshold as  $1/4$  Bmsy for several stocks, while the National Standard Guidelines say that to the extent possible the threshold should not be below  $1/2$  Bmsy. Amendment 9 does not use the biomass threshold to define when a stock is overfished, whereas the National Standard Guidelines call for defining a stock as overfished when it is below the biomass threshold. Also, Amendment 9 control rules in Table 2 set fishing mortality equal to zero when the biomass is below the biomass threshold. The National Standard Guidelines use the biomass threshold to define when a stock is overfished and to trigger a rebuilding plan, not as the point where fishing must cease.

6. Recognizing the limitations of the current scientific information available as the basis for management of New England groundfish, such as those stated in paragraph 5.a, the National Marine Fisheries Service (NMFS) has initiated an expedited process to update analyses along the lines recommended by the Stock Assessment Review Committee. This process started in early February with scientists of the Northeast Fisheries Science Center (NEFSC) assembling stock assessment information and reviewing analytical methods. On 12-14 February 2002, they met with six non-NEFSC scientists (all experienced in conducting stock assessments) to develop a work plan (i.e., describing the analytical approaches to be used) for updating scientific information to support management of New England Groundfish. Four of the non-NEFSC scientists are from other NMFS Science Centers. One of the other scientists is employed by the State of North Carolina. The other is employed by the government of Canada. Since the meeting, NEFSC scientists have been conducting the aforementioned analyses. They will assemble the results and prepare a written report by March 8, 2002. During the week of 11 March 2002, the report will be reviewed by the six non-NEFSC scientists who participated in the 12-14 February meeting. These scientists will provide written comments by March 15.

Assuming that their comments do not indicate serious problems with the analyses, the results will be made available to support fisheries management by 19 March.

7. In paragraph 12 of her declaration, Dr. Pikitch states that she believes effort controls alone are insufficient to limit fishing mortality to intended levels. There is no scientific basis for concluding that effort controls, in general, are insufficient. Effort controls have been successfully employed to achieve intended results for some stocks, such as Georges Bank haddock and yellowtail flounder. The difficult question that fishery management authorities deal with is to determine the appropriate suite of management measures to achieve intended results.

8. Paragraph 13 in Dr. Pikitch's affidavit addresses the problem of discards. She calls for observers to monitor discards. Dr. Pikitch says that she thinks that the minimum level of observer coverage should be the 10% level now in place for the Pacific coast groundfish fishery. However, it is not valid statistically to infer that the minimum level in place for another fishery is relevant to what is needed to achieve a "reasonable degree of precision and accuracy" (a phrase used by

Dr. Pikitch) for NE multispecies groundfish. In fact, the sampling fraction is relatively unimportant in determining the degree of precision from an observer program for a fishery with a large number of fishing trips, like the NE multispecies groundfish fishery. The more important factor is the number of trips sampled. NMFS already has enough observer data to make "appropriate adjustments in coverage" as called for by Dr. Pikitch. Analyses to determine the precision of estimates that will result from the observer coverage proposed by NMFS are underway. Estimates of the precision of results from the Agency's current observer program have been calculated for several of the important groundfish stocks, as the basis for evaluating the improvement in precision that is expected as a result of the increase in observer coverage. Our preliminary conclusion is that the increase in observer coverage will result in estimates of discards that will be useful in future stock assessment.

I declare under penalty of perjury that the foregoing is true and correct.

Executed in Woods Hole, Massachusetts, on this twenty eight day of February, 2002.



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Michael P. Sissenwine, Ph.D.  
Director  
Northeast Fisheries Science Center