



# Atlantic States Marine Fisheries Commission

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## MEMORANDUM

**TO:** Atlantic Herring Section  
**FROM:** Atlantic Herring Technical Committee  
**DATE:** March 12, 2018  
**SUBJECT:** Response to Section Task Regarding 100 Fish Samples

At their February 2018 meeting, the Atlantic Herring Section (Section) asked the Atlantic Herring Technical Committee (TC) to investigate a method of scaling-up samples of herring that are less than the required 100 fish minimum, as outlined in the spawning re-closure procedure. This task was prompted by concern that samples of herring greater than 90 fish but less than 100 fish are not considered when determining the need for a spawning re-closure.

The TC met via conference call on March 9<sup>th</sup> to discuss this task. Overall, the TC noted that there are two requirements for a sample in the re-closure protocol: 1) the sample be a minimum of 100 randomly selected adult sized fish; and 2) the sample be comprised of a significant number of spawning herring, defined as 25% or more mature herring in a sample. Of these two requirements, the TC concluded that the second requirement to have 25% mature herring in a sample is the priority and should be met in every sample used to evaluate the need for a re-closure. For the first requirement, while the TC recommends the Section maintain a target of 100 fish per sample to ensure a robust protocol, the TC expressed comfort with a minimum baseline of 80 fish per sample, as long as 25% of those fish are mature herring. Since the TC recommends priority be given to the percent composition of the sample, no analysis is needed to scale-up a sample of herring less than 100 fish; the 25% can also be applied to a sample of less than 100 fish.

The TC does highlight that whether there is an 80 fish or 100 fish minimum requirement, a line must be drawn somewhere to define a sample. As a result, there will always be some samples which fall slightly short of the requirement. The TC also notes that the stipulations for a sample in the forecast system (as opposed to the re-closure protocol) are slightly different in that each sample must contain at least 25 female herring in gonadal stages III-V. At present, samples which contain less than 100 fish are included in the forecast system as long as they meet the 25 female fish requirement.