Meeting notes for ASOCs discussion on the 2021 ASO Data quality verification project

**Internal Participants**: Monique Dupuis (FMC), Véronic Levesque (Regional Coordinator Gulf Region), Sébastien Beauchamp (Regional Coordinator Quebec Region).

**External Participants**: Albert Moore (Javitech), Greg Connor (Biorex) – 2 separate meetings.

* The purpose of this meeting was to discuss the ASO data verifications performed during the 2021 season. The upcoming 2022 season is to be discussed in the future with the Program Regional Coordinator.
* Science changed the observer sampling protocol during the 2021 fishery, eliminating the recroding of missing crab legs and the count of numbers of crabs in the traps in order to reduce observers’ workload. Science confirms we have seen an **increase** in observer sampling in 2021, with an average 8.5 traps sampled per trip, compared to an average of 5.0 traps per trip in 2019, an increase of 3.5 traps.

**Note:** The ASOP was temporarily suspended in 2020 under FMO 2020-01 and 2020-03 (COVID emergency measures).

* In previous years, observer companies submitted data sheets to DFO by fax, but these were sent via scanned e-mail to the generic Gulf Soft Shell Crab email in 2021, due to the fact that DFO fax machines were old and in need of repairs and not easily repairable.
* Company-specific comments:
  + **Biorex** **Gulf** : there was a delay of about 3-4 weeks before any observer sampling data was sent, which is required for the proper management of the fishery, including the application of the soft shell crab protocol.
  + **Biorex Quebec** : transmission of observer data generally went well, although it was interrupted in mid-season. Data transmission was re-established once we communicated with the office.
  + **Javitech:** overall it went well – with a short adjustment period of a few days only.
* **Action - Veronic : to remind the companies of the importance to submit this data on a timely manner as it has a direct impact on the department’s ability to implement the soft shell protocol.**
* Thank you for your cooperation last season. It was a challenging year following the FMOs. We were able to provide you with the observer data verification reports again in 2021 which, based on the feedback received from the corporations in previous seasons, seem to be well appreciated by the Corporations. We saw the importance in continuing them in 2021, given the number of new observers that were hired and we wanted to provide you with valuable feedback on the quality of their data.
* Our main observations based on these verifications:
  + Science noted that some observers had rather low numbers of adolescent crabs in their observed samples, possibly indicating that these observers may not be taking random crab samples. Corporations were advised that observers were not to avoid sampling adolescent crab.
    - **Action - Monique :** Emphasize the importance and best way to get a representative sample from the catch and not to avoid or target soft shell/adolescent crabs.
  + Carapace conditions: We still see observers, both new and experienced, entering carapace condition as 3 for their entirety of their samples. This suggests that observers are entering these values as defaults rather than objectively determining them. We question the accuracy of the observer data in relations to carapace conditions.
    - **Action - Monique :**  Advise the observer corporations that it’s important that we have accurate carapace conditions as it relates to the crab being measured.
  + Numerous observer trip reports and feedback were sent from April to June 2021 as Excel documents (new from PDFs in 2019). Where we recommended additional training be offered to specific observers, we often saw an improvement in subsequent data. On the other hand, some observers either did not get the recommended training or otherwise failed to improve their measurement and sampling methods, as reports flagging data quality issues kept coming up over and over again.
* Observer trip assignation in GFIS:
  + - **Biorex:** During this verification exercise, it was very challenging for us to verify that we had received all the observer data sheets as many observer assignation were not done in GFIS.
      * **Action - Veronic : R**emind Biorex of the importance to assign observers deployments into GFIS on a timely basis.
    - **Javitech:** thank you for assigning observer deployments into GFIS. It was very easy for us to verify that we had received all the documentation required because the information was available in GFIS.
* Science confirmed that we received observer data from 40 observers in 2021. Out of the these 40 observers, about 15 of them were new observers with serious data quality issues. Soft crab closures based on these data is problematic. These data are also problematic when characterizing the composition of crab catches, such as size-frequencies, as well as the proportions of adolescent crab and soft-crab.
* Lastly, we’ve combined all observer verification reports into one document per company (**Javitech**) or per region (**Biorex**). We are sharing these with you so that you get a snapshot of the 2021 season for each observer. Note that this is a condensed resume of what was on each reports that we sent to you during the season. We are also sending you a full season report (zip files) for each observers similar to each report that we sent you in season. These are full season overview per each observer.
* Observer training discussion topic (***Véronic to confirm if we are discussing at this meeting or at another meeting specific to upcoming season discussion***) :

**Action - Veronic : R**emind the corporations of the importance of providing a good initial training for the observers before deploying them. We do know that some new observers may need an adaptation period to get their sea legs. When an observer repeatedly submits poor-quality data, that becomes an issue for the department, since they cannot be reliably used for in-season management and long term fishery management.

**Internal Notes:**

* If asked if we will continue this verification this year: We haven’t made a decision on it as of yet. However, we will continue to ask you to scan the detailed observer data sheets to the Gulf Soft Shell Crab generic e-mail instead of faxing them over.