**Table 1:** Summary of different measurement variables proposed ahead of the 2021 snow crab survey season to address current survey catchability issues, along with a description of each, their intended purpose and frequency of observation.

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| **Data variable** | **Description** | **Purpose** | **Data source** | **Frequency** |
| Footrope contact | Gather data to see how contact footrope along its length varies on different bottoms, debris loads, as well as during the passive trawling phase. | Relate differences in survey catches to variations in footrope contact. Characterize passive trawl phase catchability. | Tilt-depth probe (e.g. Star Oddi) | Small number of tows in different sediment types. |
| Door contact | Gather data to see how trawl door contact varies during trawling, especially during winching and lift-off. | Determine the relationship between the trawl lifting off of the trawl doors and trawl geometry during the passive trawling phase. | Tilt-depth probe (e.g. Star Oddi) | Infrequent random monitoring of survey |
| Trawl-vessel distance | Measure the distance between the trawl and survey vessel. | Validate indirect methods used to determine trawl position. | Trawl acoustic probe | Small number of tows |
| Winch speed and/or cable tension. | Measure how winch speed and/or cable tension varies during the passive trawling phase. | Improve methods used to determine the trawl position relative to the survey vessel in 2021 and previous survey years. |  | Small number of tows |
| Video monitoring or 3D sonar imaging probe. | Attach video and lighting equipment, or a 3D sonar imaging probe to monitor the behavior of the survey trawl. | Improve knowledge of trawl dynamics and crab catchability during trawling. | e.g. GoPro | Special experiment at the beginning of the survey. |
| Trawl symmetry | Measure whether the trawl configuration is symmetrical (i.e. equal) on either side. | Ensure that the trawl is not skewed relative to the survey vessel. |  | Regular monitoring during the survey |
| Fixed stations | Sample a representative subset of the original random sampling stations from 2013. | Check whether survey indices are biased due to relocation of survey sampling stations since 2013 |  | 50-100 survey stations |
| Double-trawl experiment | Re-analyze data from a double-trawl experiment performed in 2002, featuring a trawl-within-a-trawl design. | Directly estimate size-dependent catchability using the 2002 experiment data, used to possibly standardize catches relative to size or to validate population model size-based catchability estimates. | 2002 experiment | n/a |