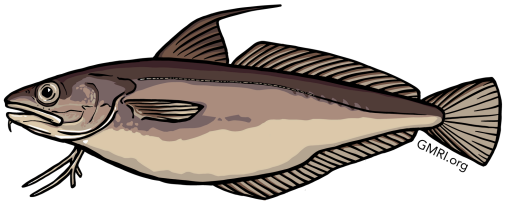
Measuring Quality: White Hake



Handling Strategies

- Trawl gear
- Day trips
- Fish stored in slurry or standard ice, headed and gutted

Total fish measured: 739 white hake were measured (representing an estimated 4,000-6,000 pounds)

Experimental Design

White hake was stored in slurry ice and on standard (cracked) ice to compare the impact on quality, which was measured immediately after capture and after storage at an offload facility. White hake from other vessels, including trawlers and gillnetters, were also measured as possible at the offload facility.

Methods of Measuring Quality

Certified Quality Reader (CQR) – handheld device that runs a small electrical current through fish tissue to measure resistance; higher numbers indicate higher quality.

Temperature data – tracked fish temperature with digital loggers on the vessels through offload.

Key Results

- CQR measurements immediately after capture showed a score of 25, indicating high quality.
- Temperature data collected on the vessel showed containers with slurry ice decreased the temperature to 31 F after 20 minutes. Standard ice took more than 13 hours to decrease the temperature below 40F.
- After 1-2 days storage at an offload facility, CQR measurements of headed and gutted white hake, including in slurry and in standard ice, showed a larger than expected number of low quality scores (0-5).
- After 4 days storage at the offload facility, headed and gutted white hake kept on standard ice decreased in quality by 28%, and those stored in slurry ice decreased by 56%.

Takeaways

- Slurry ice decreases fish temperature significantly faster than standard (cracked) ice, so is useful on the vessel for bringing fish down to a temp below 40 F.
- Headed and gutted fish should not be stored in a slurry longer than 2-4 hours, otherwise quality can decrease because of too much freshwater exposure – they should be moved to ice after 2-4 hours. Whole fish can be stored in slurry for 24-48 hours.

For more details on this experiment with this species and results on quality experiments with a range of other species, visit gmri.org/quality.

Gulf of Maine Research Institute