Special thanks to:
The stakeholders, Newfoundland and Labrador Department of Fisheries and Aquaculture, and Marine Institute for their participation and support in the Snow Crab Workshop 2011.
Harvesters of any renewable resource are very important in the quality of the product and sustainability of that resource.

From a quality point of view, snow crab, even though it is covered with a shell is a very delicate animal. If you think about it, we are trying to keep this animal alive out of its natural environment. Crab lives where it is cool and it gets it’s oxygen from the water through gills and its only natural defense is to drop its limbs. Therefore, we have to create a cool damp environment and limit the stresses which trigger its defense.

If the shell, particularly the back gets damaged or cracked through handling we don’t see “red” blood. Crab does have blood but it does not contain hemoglobin or the pigment which makes blood red. Handling practices onboard sometimes may not seem important because we don’t see the effects of the damage or “blood”. Minimizing the time that the animal is exposed to our environment is critical to its survival. Not only from a live delivery to the processing facility but also to the crab returned to its environment.

The crab we return today potentially will be tomorrow’s harvest.

Only live crab should be processed, it’s the law. Dead crab has no dollar value and is a terrible waste of the resource!

This booklet is intended to identify best practices in handling and maximizing the sustainability of this renewable resource for generations.

Ray Hayter
Instructor, School of Fisheries, Fisheries and Marine Institute of Memorial University of Newfoundland
Sustainability – The ideal situation:

Release small crab before they are caught and brought to surface through the use of:

- Escapement Mechanism
- Use of Biodegradable Twine

Advantages of Escape Mechanisms:

- Reduce Sorting Time
- Reduce Injury to Undersize Crab
- Increase Percentage Larger Crab
- Allow Escape of By Catch
- Cheaper than Re-meshing Small Gear
- Rigid design More Precise
- Secured with Biodegradable Twine No Ghost Fishing

Regulation sized crab pot with escape mechanism sewn in with biodegradable twine.
Handling the Market Size Crab

GENTLY place the pot on the sorting table.

GENTLY release crab onto table.

Market size crab go to fish hold chute and the undersized gently pushed to the discard chute.
Only keep crab that are 3-3/4” and larger.

**GENTLE** movement to spiral chute.

**GENTLE** movement below decks.
Icing ratio 2:1 crab to ice in summer and 3:1 in spring.

The H.A.T. (Humidity and Temperature Sensor) placed in the fish hold to monitor temperature and relative humidity.
Bulk stowage—not the best option, but if done properly, is ok.

Bagging offers ease of unloading aboard small boats that can’t box.

Boxing is a better option.

RSW is the ultimate stowage method.
Inventory: When the boat lands, remove Day 1 catch first, then Day 2 and so on until all loads up to Day 4 are off of from the boat.

First caught, first unloaded.
Discard chute positioned close to sea surface for the safe return of discards.

Undersized and female crab are GENTLY placed down the discard chute for a safe return back into the water within minutes.

Lively crab returned, unharmed, back into the sea.
Poor Practices to Avoid

Culled crab in pans thrown overboard.

Rough handling occurs when the sorting table is not used.

Crab held belly up and rough handled.
No ice on the crab!

Pans not stacked correctly because there is too much crab in them.

Poor unloading practice. Crab are hauled in bunches from stowage and dropped roughly into pans.
It is illegal to process dead crab. The result of poor handling, stowage etc. results in bins of dead crab unable to be processed.

Shock IS a killer! Do NOT drop the pan or mishandle crab.
Determining the Condition of Crab

Lively crab.

Critically weak crab.

Dead crab.
Things To Look Out For

Soft Shell

Soft squeezed claw.
- Handle very gently
- Return gently to water by discard chute system
- Move to new hard shell area

Broken claw.
- Do NOT press as hard as this person has while testing. The shell should not break from the force given.

Low meat to shell ratio indicates a soft shell crab.

Bitter Crab Disease

Pay CLOSE attention to crab with this disease.
- Cooked like appearance
- Notable difference in underside and legs
- Do NOT return to water
- Segregate from catch and return to land for disposal
Good Handling Practices

• Pre-ice fish hold for low temperature and high humidity
• **GENTLE** handling
• Quick stowage and quick return of discards
• Maintain integrity in fish hold-keep hatch cover on
• Use sorting table and chute systems
• Stow crab belly down
• Inventory crab
• *Handle crab by carapace only, NEVER by the legs*
• **GENTLY** place crab into stowage making sure that legs are **NOT** outside of the boxes
• *Ice or chill as necessary 3:1 crab to ice, early spring, 2:1 ratio in summer*
• **GENTLY** unload the oldest crab from fish hold first
• *Maintain low temperature and high humidity until the crab is cooked.*

Healthy crab is **money** for you and **great food** for the consumer.
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The Torngat Joint Fisheries Board is committed to providing ecological sustainable solutions for the Nunatsiavut commercial fisheries in collaboration with resource users and government bodies.

NUNATSIAVUT SNOW CRAB RESOURCE-
Quality Now and for the Future