**Methodology:**

* Data are from the annual snow crab survey.
* Female crab were classified into immature, pubescent, primiparous and multiparous maturity stages. Mature females (primiparous and multiparous) were identified by their enlarged abdomens and the presence of eggs.
* **Pubescent** females were identified based on direct observation of an enlarged, orange-coloured developing gonad. In contrast, immature females had a small, white or beige gonad.
* **Primiparous** and multiparous females were identified by their carapace condition, i.e. new-shelled or old-shelled, respectively.

**Figures :**

* Year to year comparisons of immature, pubescent and primiparous size-frequencies.
* Annual maps of immature instar VII, immature instar VIII and pubescent instar VIII.

**Observations:**

* Immature females are made up of instars I through VIII. There are very few instar IX.
* Pubescent females are mainly made up of instars VIII and IX. There are very few instar X.
* Primiparous females are mainly made up of instars IX and X. There are very few instar XI.
* The size-distribution of primiparous females echoes that of pubescent females from the previous year. The proportions of primiparous instars IX and X are roughly the same as the proportion of pubescent instars VIII and IX from the previous year.

**Female snow crab maturity stages and instar growth dynamics:**

**Instar composition:**

* Immature females are composed of instars I through VIII.
* Pubescent females only contain instar VIII and IX (and a few instar X).
* Mature female only contain instar IX and X (and a few instar XI).

**Maturity transitions:**

* A portion of immature instar VII and all immature instar VIII moult to pubescent instar VIII and IX, respectively.
* Pubescent instars VIII and IX grow to mature (primiparous) instars IX and X, respectively.

The size of pubescent female instar VIII are larger than immature instar VIII.

**Hypothesis 1** : The pubescent growth rate IVII to PVIII is higher than the IVII to IVIII growth rate.

**Hypothesis 2** : Larger animals within IVII are more likely to grow to pubescence than smaller animals.

**Hypothesis 3** : Local growth differences and changes in spatial distribution underlie the apparent global differences.