**Table SC I.**  Summary statistics for total dry stomach content weights (mg) for wild and caged mature females (MF), mature males (MM), and pygmy males (PM) by season and sawildmpling area.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Date | Area | Sampling treatment | Crab category | min | median | max | n | Mean | St dev | no empty stomachs | no stomachs (less than 10mg) | % of stomach content less 10mg |
| Spring 2012 | Cheticamp | Wild | MF | 1.6 | 9.0 | 124.3 | 20 | 23.2 | 31.4 | - | 11 | 55.0 |
|  |  |  | MM | 0.0 | 4.8 | 273.6 | 21 | 35.3 | 63.8 | 1 | 12 | 57.1 |
|  |  |  | PM | 0.1 | 2.7 | 68.6 | 21 | 15.6 | 20.4 | - | 12 | 57.1 |
|  | Grande-Rivière | Wild | MF | 0.0 | 7.0 | 140.6 | 20 | 31.2 | 42.9 | 2 | 11 | 55.0 |
|  |  |  | MM | 0.2 | 4.6 | 375.3 | 21 | 53.1 | 103.9 | - | 13 | 61.9 |
|  |  |  | PM | 1.1 | 26.6 | 147.4 | 5 | 62.2 | 65.1 | - | 1 | 20.0 |
|  | Louisbourg | Wild | MF | 0.4 | 47.1 | 203.7 | 23 | 69.7 | 64.3 | - | 5 | 21.7 |
|  |  |  | MM | 3.8 | 39.0 | 1281.6 | 20 | 212.3 | 347.4 | - | 4 | 20.0 |
|  |  |  | PM | 0.0 | 11.9 | 154.3 | 20 | 21.8 | 34.5 | 1 | 7 | 35.0 |
|  | Margaree | Wild | MF | 1.9 | 16.6 | 116.1 | 20 | 29.5 | 29.8 | - | 10 | 50.0 |
|  |  |  | MM | 0.0 | 13.3 | 241.7 | 20 | 42.3 | 63.5 | 1 | 9 | 45.0 |
|  |  |  | PM | 0.8 | 23.8 | 242.0 | 20 | 45.9 | 64.5 | - | 8 | 40.0 |
| Fall 2012 | Cheticamp | Wild | MF | 0.0 | 34.5 | 166.4 | 20 | 47.4 | 51.0 | 1 | 7 | 35.0 |
|  |  |  | MM | 3.0 | 367.0 | 1890 | 20 | 564.0 | 611.0 | - | 3 | 15.0 |
|  |  |  | PM | 3.5 | 114.3 | 506.3 | 20 | 171.4 | 161.8 | - | 2 | 10.0 |
|  | Cheticamp | Cage | MF | 0.0 | 0.9 | 24.3 | 20 | 2.5 | 5.4 | 4 | 19 | 95.0 |
|  |  |  | MM | 1.2 | 6.1 | 45.4 | 20 | 9.5 | 10.3 | - | 13 | 65.0 |
|  |  |  | PM | 0.0 | 1.0 | 183.7 | 19 | 12.5 | 41.7 | 4 | 16 | 84.2 |
|  | Grande-Rivière | Wild | MF | 0.0 | 26.3 | 255.7 | 21 | 49.1 | 65.3 | 3 | 9 | 42.9 |
|  |  |  | MM | 1.9 | 121.7 | 1417.0 | 20 | 315.4 | 436.3 | - | 6 | 30.0 |
|  |  |  | PM | 0.0 | 1.4 | 15.6 | 20 | 3.1 | 4.2 | 3 | 18 | 90.0 |
|  | Louisbourg | Wild | MF | 4.7 | 138.8 | 527.3 | 20 | 169.8 | 143.3 | - | 3 | 15.0 |
|  |  |  | MM | 2.0 | 376.0 | 1521.0 | 20 | 502.0 | 488.0 | - | 3 | 15.0 |
|  |  |  | PM | 11.3 | 135.3 | 739.7 | 20 | 199.2 | 199.9 | - | 0 | 0.0 |
|  | Margaree | Wild | MF | 11.5 | 185.1 | 345.2 | 21 | 183.1 | 101.3 | - | 0 | 0.0 |
|  |  |  | MM | 9.0 | 270.0 | 1706.0 | 20 | 473.0 | 509.0 | - | 1 | 5.0 |
|  |  |  | PM | 0.0 | 76.9 | 259.3 | 18 | 86.5 | 074.2 | 1 | 1 | 5.6 |
|  | Margaree | Cage | MF | 0.0 | 7.0 | 43.9 | 19 | 9.8 | 12.2 | 3 | 11 | 57.9 |
|  |  |  | MM | 0.9 | 5.5 | 61.4 | 18 | 11.3 | 14.6 | - | 13 | 72.2 |
|  |  |  | PM | 0.0 | 2.9 | 34.0 | 21 | 4.6 | 7.2 | 2 | 19 | 90.5 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Spring 2013 | Cheticamp | Wild | MF | 1.1 | 23.7 | 239.3 | 20 | 50.6 | 70.6 | - | 7 | 35.0 |
|  |  |  | MM | 0.4 | 27.4 | 543.5 | 20 | 83.0 | 139.2 | - | 6 | 30.0 |
|  |  |  | PM | 1.2 | 11.9 | 314.6 | 20 | 55.1 | 92.7 | - | 9 | 45.0 |
|  | Cheticamp | Cage | MF | 3.9 | 82.8 | 374.2 | 19 | 104.3 | 107.1 | - | 5 | 26.3 |
|  |  |  | MM | 0.2 | 4.1 | 62.8 | 18 | 8.4 | 14.6 | - | 14 | 77.8 |
|  |  |  | PM | 0.0 | 2.1 | 207.5 | 19 | 34.6 | 73.7 | 1 | 13 | 68.4 |
|  | Grande-Rivière | Wild | MF | 0.6 | 19.8 | 101.9 | 20 | 30.6 | 31.2 | - | 7 | 35.0 |
|  |  |  | MM | 0.0 | 190.0 | 2096.0 | 20 | 467.0 | 580.0 | 1 | 3 | 15.0 |
|  |  |  | PM | 0.0 | 17.1 | 167.3 | 19 | 34.8 | 43.5 | 1 | 7 | 36.8 |
|  | Louisbourg | Wild | MF | 9.3 | 102.9 | 123.4 | 7 | 83.1 | 43.9 | - | 1 | 14.3 |
|  |  |  | MM | 2.0 | 10.9 | 282.7 | 20 | 51.4 | 84.7 | - | 8 | 40.0 |
|  |  |  | PM | 3.3 | 23.8 | 133.6 | 18 | 48.0 | 45.0 | - | 3 | 16.7 |
|  | Margaree | Wild | MF | 0.3 | 5.7 | 174.1 | 21 | 30.0 | 47.4 | - | 11 | 52.4 |
|  |  |  | MM | 2.2 | 10.7 | 749.7 | 19 | 104.8 | 219.4 | - | 9 | 47.4 |
|  |  |  | PM | 0.0 | 7.3 | 413.4 | 20 | 39.4 | 98.5 | 2 | 13 | 65.0 |
|  | Margaree | Cage | MF | 1.3 | 5.9 | 161.0 | 19 | 32.7 | 46.0 | - | 10 | 52.6 |
|  |  |  | MM | 0.2 | 2.6 | 92.1 | 16 | 10.3 | 22.8 | - | 12 | 75.0 |
|  |  |  | PM | 0.4 | 1.5 | 12.2 | 18 | 2.9 | 3.2 | - | 16 | 88.9 |
| Fall 2013 | Cheticamp | Wild | MF | 0.0 | 7.9 | 599.9 | 20 | 43.5 | 132.2 | 1 | 11 | 55.0 |
|  |  |  | MM | 0.0 | 10.5 | 151.8 | 20 | 23.8 | 39.6 | 1 | 10 | 50.0 |
|  |  |  | PM | 0.0 | 2.9 | 352.1 | 20 | 23.0 | 77.7 | 1 | 14 | 70.0 |
|  | Cheticamp | Cage | MF | 0.0 | 3.8 | 86.1 | 16 | 19.6 | 27.9 | 1 | 11 | 68.8 |
|  |  |  | MM | 0.0 | 1.4 | 880.3 | 15 | 62.3 | 226.4 | 1 | 11 | 73.3 |
|  |  |  | PM | 0.0 | 13.8 | 133.2 | 16 | 33.0 | 44.0 | 2 | 8 | 50.0 |
|  | Margaree | Wild | MF | 0.0 | 2.4 | 52.1 | 19 | 8.1 | 13.3 | 3 | 15 | 78.9 |
|  |  |  | MM | 0.0 | 3.7 | 378.3 | 20 | 38.5 | 89.7 | 1 | 14 | 70.0 |
|  |  |  | PM | 0.0 | 1.9 | 350.4 | 21 | 28.7 | 80.5 | 3 | 18 | 85.7 |
|  | Margaree | Cage | MF | 0.0 | 3.7 | 232.7 | 17 | 22.1 | 56.0 | 2 | 12 | 70.6 |
|  |  |  | MM | 0.0 | 2.3 | 865.7 | 9 | 104.5 | 286.0 | 1 | 6 | 66.7 |
|  |  |  | PM | 0.0 | 3.0 | 29.7 | 13 | 5.3 | 10.4 | 2 | 11 | 84.6 |

**Table SC II.** Summary of median dry stomach content weight values (in mg) of snow crab (*Chionoecetes opilio*) by season from different sampling areas. Data are separated to show the three crab categories: mature females (MF), mature males (MM) and pygmy males (PM). Median values sharing the same subscript are not different. For sampling areas where no subscript are shown, no differences were detected among seasons (Kruskal-Wallis testing, p < 0.05).

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Crab category | Area | n | Spring 2012 | n | Fall 2012 | n | Spring 2013 | n | Fall 2013 | P |
| MF | Margaree wild | 20 | 16.5b | 21 | 185.1a | 21 | 5.7b | 19 | 2.4b | < 0.0005 |
|  | Cheticamp wild | 20 | 9 | 19 | 34.5 | 20 | 23.7 | 20 | 7.85 | 0.146 |
|  | Margaree cage | - | - | 19 | 7 | 19 | 5.9 | 17 | 3.7 | 0.202 |
|  | Cheticamp cage | - | - | 20 | 0.9a | 18 | 82.8b | 16 | 3.75a | < 0.0005 |
|  | Grande-Rivière wild | 20 | 6.95 | 21 | 26.3 | 20 | 19.8 | - | - | 0.563 |
|  | Louisbourg wild | 23 | 47.1a | 20 | 138.75b | 7 | 102.9ab | - | - | 0.043 |
|  |  |  |  |  |  |  |  |  |  |  |
| MM | Margaree wild | 20 | 13.3a | 20 | 270.1b | 19 | 10.7a | 20 | 3.7a | < 0.0005 |
|  | Cheticamp wild | 21 | 4.8a | 20 | 366.6b | 20 | 27.35a | 20 | 10.5a | <0.0005 |
|  | Margaree cage | - | - | 18 | 5.45 | 16 | 2.6 | 9 | 2.3 | 0.189 |
|  | Cheticamp cage | - | - | 20 | 6.05a | 18 | 4.05ab | 15 | 1.4b | 0.047 |
|  | Grande-Rivière wild | 20 | 4.6a | 20 | 121.6b | 20 | 189.6b | - | - | 0.003 |
|  | Louisbourg wild | 20 | 39.05ab | 20 | 376.05a | 19 | 10.9b | - | - | 0.001 |
|  |  |  |  |  |  |  |  |  |  |  |
| PM | Margaree wild | 20 | 23.85ab | 18 | 76.85a | 20 | 7.3b | 21 | 1.9b | <0.0005 |
|  | Cheticamp wild | 21 | 2.7b | 19 | 112.7a | 20 | 11.95b | 20 | 2.9b | <0.0005 |
|  | Margaree cage | - | - | 21 | 2.9 | 19 | 1.5 | 13 | 0.3 | 0.082 |
|  | Cheticamp cage | - | - | 19 | 1 | 19 | 2.1 | 16 | 13.75 | 0.11 |
|  | Grande-Rivière wild | 5 | 26.6b | 20 | 1.4a | 19 | 17.1b | - | - | <0.0005 |
|  | Louisbourg wild | 20 | 11.9b | 20 | 135.35a | 18 | 23.85b | - | - | <0.0005 |
|  |  |  |  |  |  |  |  |  |  |  |

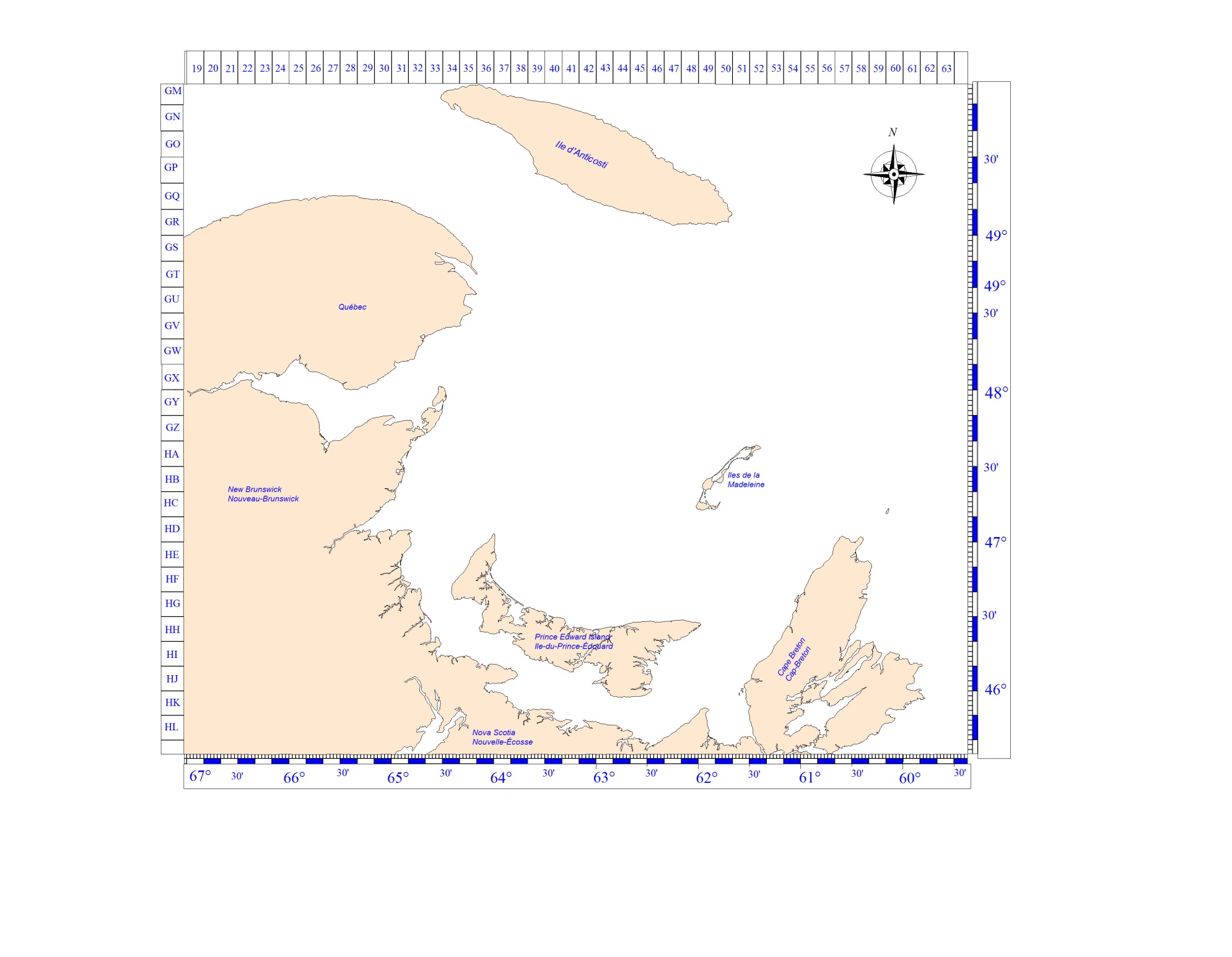
**Table SC III.** Summary of median dry stomach content weight values (in mg) of snow crab (*Chionoecetes opilio*) by sampling area from different seasons. Data are separated to show the three crab categories: mature females (MF), mature males (MM) and pygmy males (PM). Median values sharing the same subscript are not different. For sampling areas where no subscript are shown, no differences were detected among sampling areas (Kruskal-Wallis testing, p < 0.05).

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Crab Category | Sampling season | Margaree wild | n | Cheticamp wild | n | Margaree cage | n | Cheticamp cage | n | Grande-Rivière wild | n | Louisbourg wild | P |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Spring 2012 | 16.55ab | 20 | 9ab | - | - | - | - | 20 | 6.95a | 23 | 47.1b | 0.042 |
| MF | Fall 2012 | 185.1a | 19 | 34.5d | 19 | 7bc | 20 | 0.9b | 21 | 26.3c | 20 | 138.75ad | <0.0005 |
|  | Spring 2013 | 5.7a | 20 | 23.7ab | 19 | 5.9ab | 18 | 82.8b | 20 | 19.8ab | 7 | 102.9ab | 0.003 |
|  | Fall 2013 | 2.1 | 20 | 7.85 | 17 | 3.7 | 16 | 3.75 | - | - | - | - | 0.169 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Spring 2012 | 13.3ab | 21 | 4.8b | - | - | - | - | 20 | 4.6b | 20 | 39.05a | 0.006 |
| MM | Fall 2012 | 270.15a | 20 | 366.6a | 18 | 5.45bc | 20 | 6.05b | 20 | 121.65ac | 20 | 376.05a | <0.0005 |
|  | Spring 2013 | 10.7ab | 20 | 27.35ab | 16 | 2.6a | 18 | 4.05a | 20 | 189.65b | 19 | 10.9ab | < 0.0005 |
|  | Fall 2013 | 3.7 | 20 | 10.5 | 9 | 2.3 | 15 | 1.4 | - | - | - | - | 0.166 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Spring 2012 | 23.85 | 21 | 2.7 | - | - | - | - | 5 | 26.6 | 20 | 11.9 | 0.204 |
| PM | Fall 2012 | 76.85b | 20 | 114.25b | 21 | 2.9a | 19 | 1a | 20 | 1.4a | 20 | 135.35b | < 0.0005 |
|  | Spring 2013 | 7.3abc | 20 | 11.95bc | 17 | 1.5a | 19 | 2.1ac | 19 | 17.1bc | 18 | 23.85b | < 0.0005 |
|  | Fall 2013 | 1.9 | 20 | 2.9 | 13 | 0.3 | 16 | 13.75 | - | - | - | - | 0.074 |

**Table SC IV.** Summary of median dry stomach content weight values (in mg) of snow crab category (mature females (MF), mature males (MM) and pygmy males (PM)) by area. Data are separated to show the four sampling season. Median values sharing the same subscript are not different. For sampling areas where no subscript are shown, no differences were detected among sampling areas (Kruskal-Wallis testing, p < 0.05).

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sampling season | Sampling area | Mature females | n | Mature males | n | Pygmy males | n | P |
|  | Margaree wild | 16.55 | 20 | 13.30 | 20 | 23.85 | 20 | 0.921 |
|  | Margaree cage | - | - | - | - | - | - | - |
| Spring 2012 | Cheticamp wild | 9.00 | 20 | 4.80 | 21 | 2.70 | 21 | 0.493 |
|  | Cheticamp cage | - | - | - | - | - | - | - |
|  | Grande-Rivière wild | 6.95 | 20 | 4.60 | 20 | 26.60 | 6 | 0.532 |
|  | Louisbourg wild | 47.10ab | 23 | 39.05a | 20 | 11.90b | 20 | 0.011 |
|  | Margaree wild | 185.10ab | 21 | 270.15a | 20 | 76.85b | 18 | 0.004 |
|  | Margaree cage | 7 | 19 | 5.45 | 18 | 2.9 | 21 | 0.103 |
| Fall 2012 | Cheticamp wild | 34.50a | 19 | 366.60b | 20 | 114.25b | 20 | <0.0005 |
|  | Cheticamp cage | 0.90a | 20 | 6.05b | 20 | 1.00a | 19 | <0.0005 |
|  | Grande-Rivière wild | 26.30a | 21 | 121.65a | 20 | 1.40b | 20 | <0.0005 |
|  | Louisbourg wild | 138.80 | 20 | 376.00 | 20 | 135.3 | 20 | 0.139 |
|  | Margaree wild | 5.70 | 21 | 10.70 | 19 | 7.30 | 20 | 0.166 |
|  | Margaree cage | 5.90a | 19 | 2.60ab | 16 | 1.50b | 17 | 0.001 |
| Spring 2013 | Cheticamp wild | 23.70 | 20 | 27.35 | 20 | 11.95 | 20 | 0.566 |
|  | Cheticamp cage | 82.80a | 18 | 4.05b | 18 | 2.10b | 19 | <0.0005 |
|  | Grande-Rivière wild | 19.80a | 20 | 189.65b | 20 | 17.10a | 19 | 0.013 |
|  | Louisbourg wild | 102.90 | 7 | 10.90 | 19 | 23.85 | 18 | 0.055 |
|  | Margaree wild | 2.40 | 19 | 3.70 | 20 | 1.90 | 21 | 0.507 |
|  | Margaree cage | 3.70 | 17 | 2.30 | 9 | 0.30 | 13 | 0.100 |
| Fall 2013 | Cheticamp wild | 7.85 | 20 | 10.5 | 20 | 2.90 | 20 | 0.215 |
|  | Cheticamp cage | 3.75 | 16 | 1.4 | 15 | 13.75 | 16 | 0.230 |
|  | Grande-Rivière wild | - | - | - | - | - | - | - |
|  | Louisbourg wild | - | - | - | - | - | - | - |

**Figure SC X.** Snow crab sampling stations in 2012 and 2013. a) Grande-Rivière; b) Cheticamp; c) Margaree; d) Louisbourg.



d

a

c

b

**Figure SC 1**: Histogram showing stomach fullness for mature females (MF), mature males (MM) and pygmy males (PM) by season and sampling area (grey bars: less than 25% full; diagonal lines: 26-50% full; black bars: 51-75% full; diagonal grid: 76-100%).

**Figure SC 2**: Histogram showing mean dry stomach content weights (mg) of mature females (MF), mature males (MM) and pygmy males (PM) by sampling season and area.



**Figure SC 3a**: Frequency of occurrence histogram showing prey categories for mature females (MF), mature males (MM) and pygmy males by sampling season and area.



Polycheates

Fish

Crustaceans

Crab

Mollusks

Eggs

Other

Man made

Echinoderms

Algae/plant

Detritus

**Figure SC 3b**: Frequency of occurrence histogram showing prey categories for mature females (MF), mature males (MM) and pygmy males by sampling season and area (detritus removed).



Polycheates

Fish

Crustaceans

Crab

Mollusks

Eggs

Other

Man made

Echinoderms

Algae/plant

**Figure SC 4**: Frequency of occurrence histogram showing prey categories for mature females (MF), mature males (MM) and pygmy males (PM) by sampling season and area (light grey bars: mature females; white bars with diagonal lines: mature males; dark grey bars: pygmy males).

**Figure SC 5**: Histogram showing total stomach content weights by prey category for mature females (MF), mature males (MM) and pygmy males (PM) by sampling season and area (light grey bars: mature females; white bars with diagonal lines: mature males; dark grey bars: pygmy males).



**Figure SC 6a**: Histogram showing the content weight percentages by prey category for mature females (MF), mature males (MM) and pygmy males (PM) by season and area.

Fall 2012

Spring 2013

Fall 2013

Spring 2012



Grande-Rivière wild

Louisbourg wild

Cheticamp cage

Margaree cage

Cheticamp wild

Margaree wild

Polycheates

Fish

Crustaceans

Crab

Mollusks

Eggs

Other

Man made

Echinoderms

Algae/plant

Detritus

**Figure SC 6b**: Histogram showing the content weight percentages by prey category for mature females (MF), mature males (MM) and pygmy males (PM) by season and area (detritus removed). 

Polycheates

Fish

Crustaceans

Crab

Mollusks

Eggs

Other

Man made

Echinoderms

Algae/plant

**Figure SC 7.** Frequency of occurrence histogram showing prey categories for mature females (MF), mature males (MM) and pygmy males (PM) by season and treatment (areas combined).



Polycheates

Fish

Crustaceans

Crab

Mollusks

Eggs

Other

Man made

Echinoderms

Algae/plant

Detritus

**Figure SC 8.** Histogram showing the content weight percentage by prey category for mature females (MF), mature males (MM) and pygmy males (PM) by season and treatment (areas combined).



Polycheates

Fish

Crustaceans

Crab

Mollusks

Eggs

Other

Man made

Echinoderms

Algae/plant

Detritus