6.2. Benthos community

6.2.1. Monitoring the Northern shrimp (*Pandalus borealis*)

Text and figure by Thangstad, T.H.

Northern shrimps are widely distributed in the Barents Sea. Traditionally, the densest shrimp concentrations have been observed in the central parts and round Svalbard. From 2004 to 2012 the distribution has gradually moved eastward (Fig. xx). Mean biomass has varied considerably during 2004-2012, increasing by about 66% up to 2006, then decreasing and increasing again to 2006-levels in 2012. Highest shrimp densities were observed at bottom temperatures between zero and 4°C, while the limit of their upper temperature preference appears to lie at about 6-8°C. The warming of the western Barents Sea coincides with the eastward shift in shrimp distribution (Fig. 6.2.1.1).

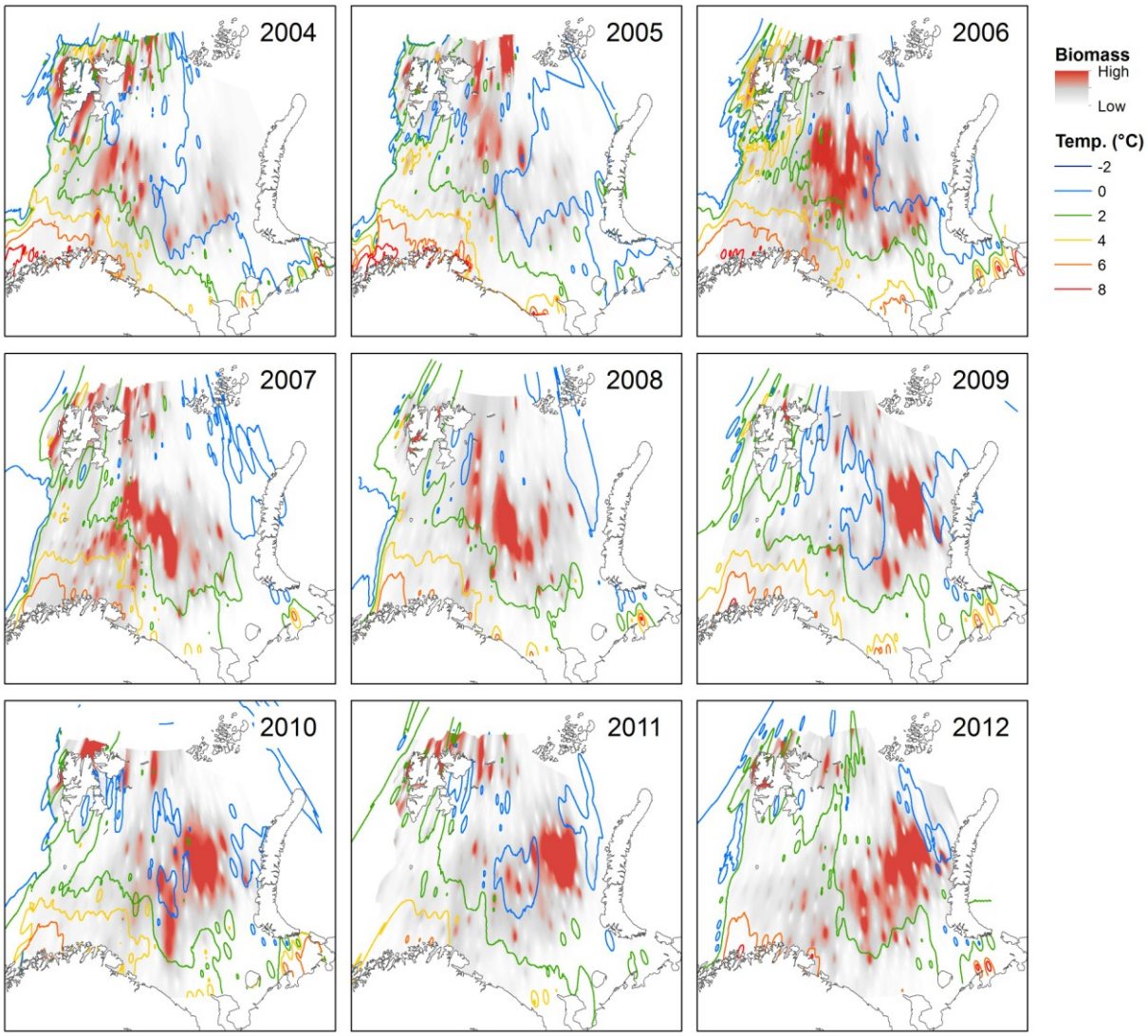

Figure 6.2.1.1. Distribution of the Northern shrimps (*Pandalus borealis*), August-September 2012

6.2.2. Distribution of Red King crab (*Paralithodes camtschaticus*)

Text by Prozorkevich, D.

Figures by Krivosheya P.

Red King crab was distributed along the coast and between (34° and 44°E) Kola Bay and Cape Kanin (Figure 6.2.2.1). In 2012 catches of red king crab highest since 2010. The highest catch was taken north for Cape Kanin, where153 specimens were captured, corresponding to 38.6 kg / nautical mile.

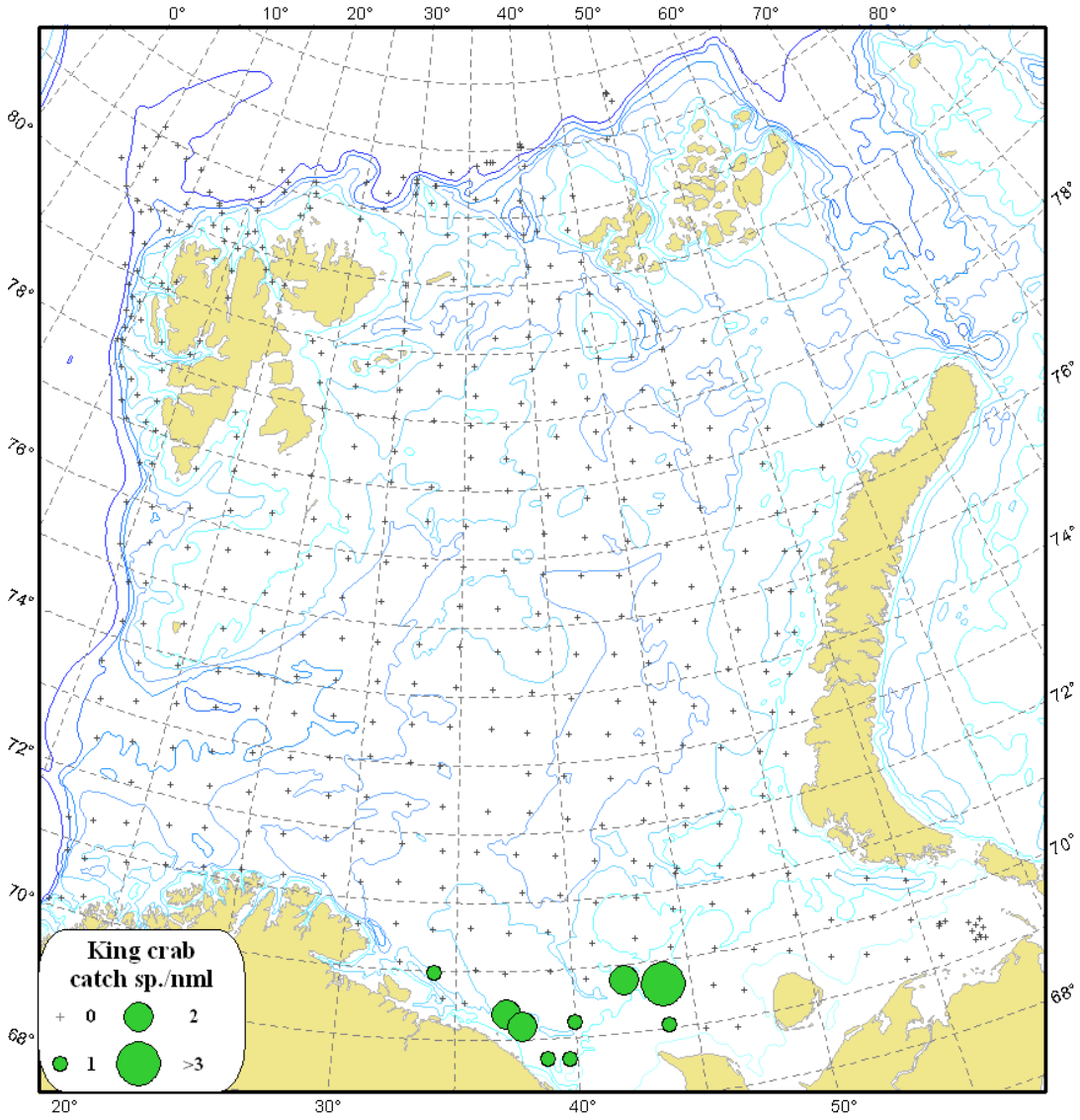

Figure 6.2.2.1. Distribution of Red King crab **(***Paralithodes camtschaticus***)**, August-September 2012

6.2.3. Snow crab (*Chionoecetes opilio*)

Text by Prozorkevich D. and Lubin P.

Figures by Krivosheya P.

The number and distribution area of snow crab in the Barents Sea is increasing rapidly (Figure 6.3.3.1). The total number calculated by the swept area method is $15.7*10^9$ individuals. A total number of 118 stations were sampled in 2012, while the number of stations in 2011 and 2010 were 84 and 53, respectively.

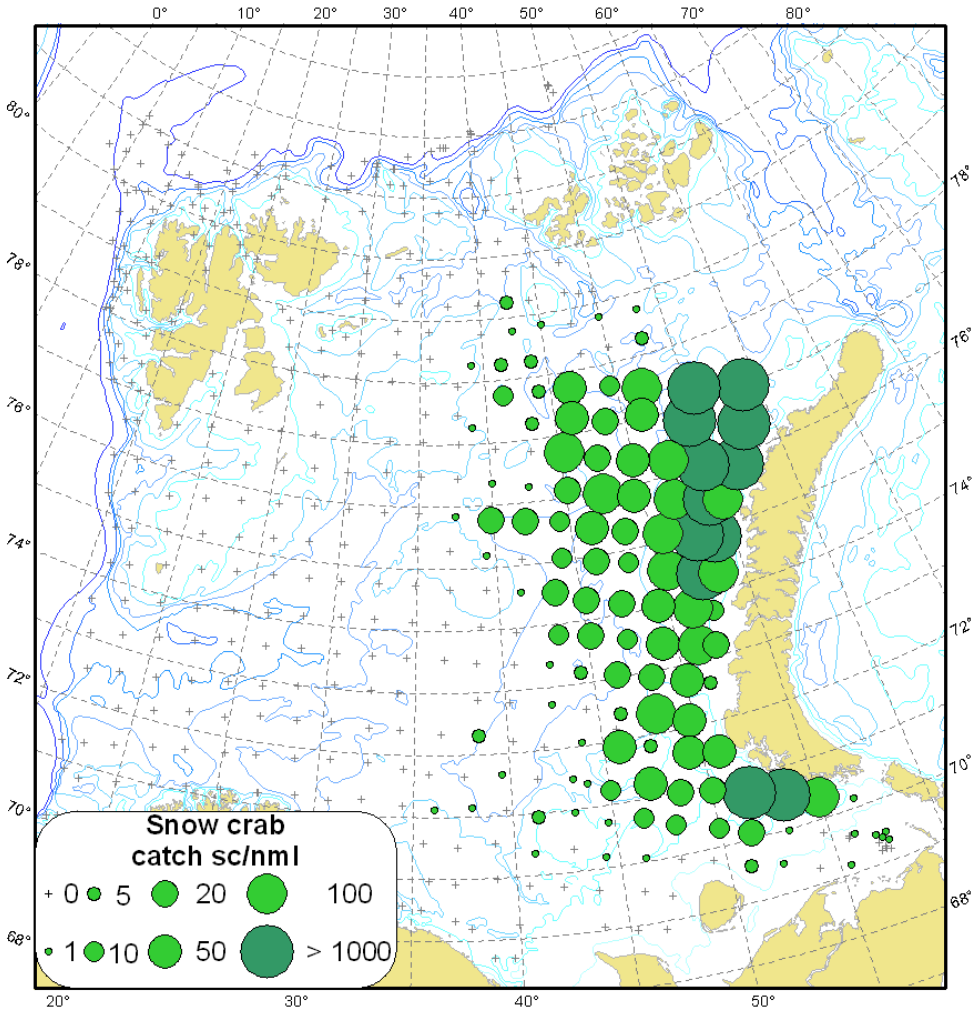

Figure 6.2.3.1 Snow crab (*Chionoecetes opilio*), August-September 2012

Maximum catch was registered in 6511 sp. (171 kg) per nautical mile. Whereas species with 30-mm width of carapace dominated the samples in 2012, the dominant species in 2011 were those with carapace lengths of 20-mm. (Figure 6.3.3.2). The number of crabs with carapace length in excess of 10 cm did not exceed 1 %.

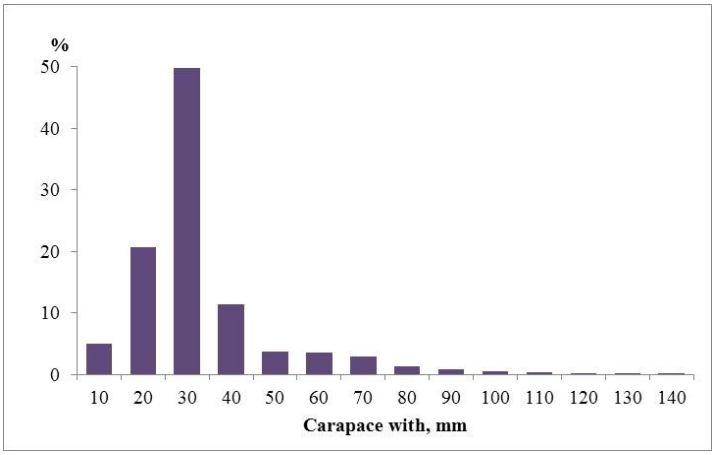

Figure 6.2.3.2. The size composition of the Snow crab (*Chionoecetes opilio*) population recorded by the Ecosystem Survey in August-October 2012.

6.2.4. Distribution and amount of *Gonatus fabricii*

Text by Prozorkevich D. Lubin P. and Eriksen. E.

Figures by Krivosheya P. and Eriksen. E.

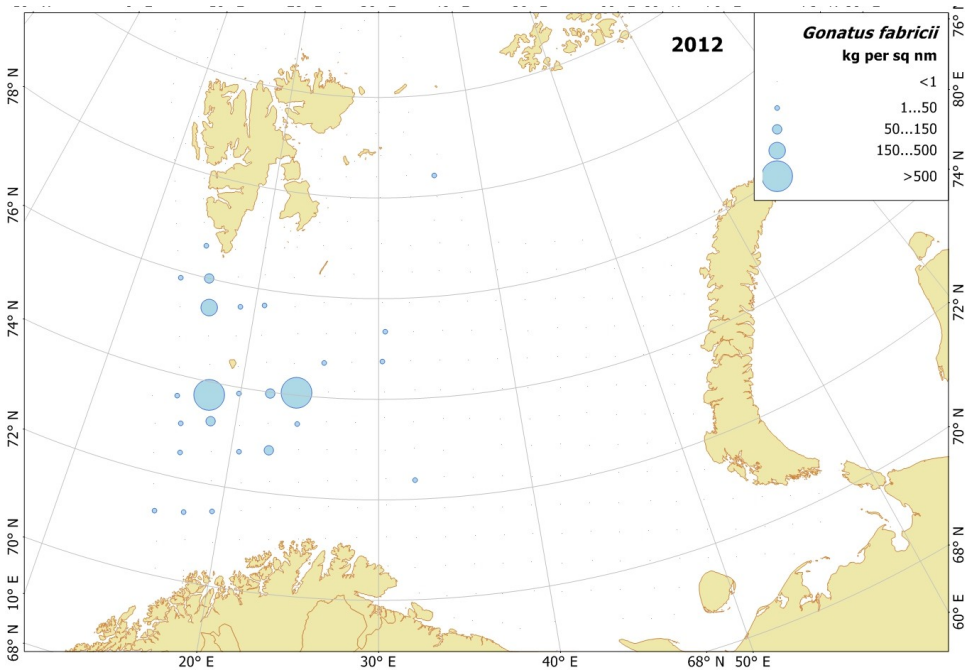

Figure 6.2.4.1. Distribution of *Gonatus fabricii*, August-September 2012.

Gonatus fabricii is a by-catch in the pelagic catches, taken in the 0-group stations. *Gonatus fabricii* was observed in the western parts of the Barents Se. In 2012 *Gonatus* was distributed in the western part of the Barents Sea (Figure 6.3.3.3).

Mean density varied from 1 to 500 kg per sq nautical miles was 13 individuals per trawl haul. The calculated density reached 16.7 thousand individuals per square nautical mile with an average of 357 fish per square nautical mile. No index was calculated for this species.