

# Amphipods (Amphipoda: Gammaridea) of the Chukchi sea

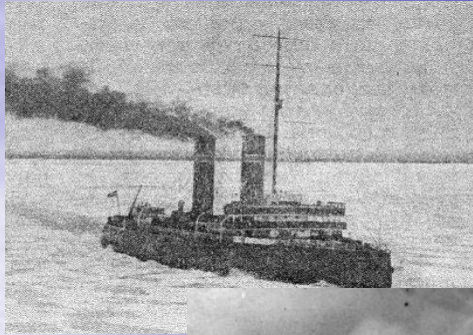
RUSALCA 2004, 2005, 2009

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Russian Academy of Sciences, Saint-Petersburg, Russia



# Explorations of the Chukchi Sea fauna



«Vega» (1878-1879)



«Taimyr» and «Waigatch»  
(1910-1915)

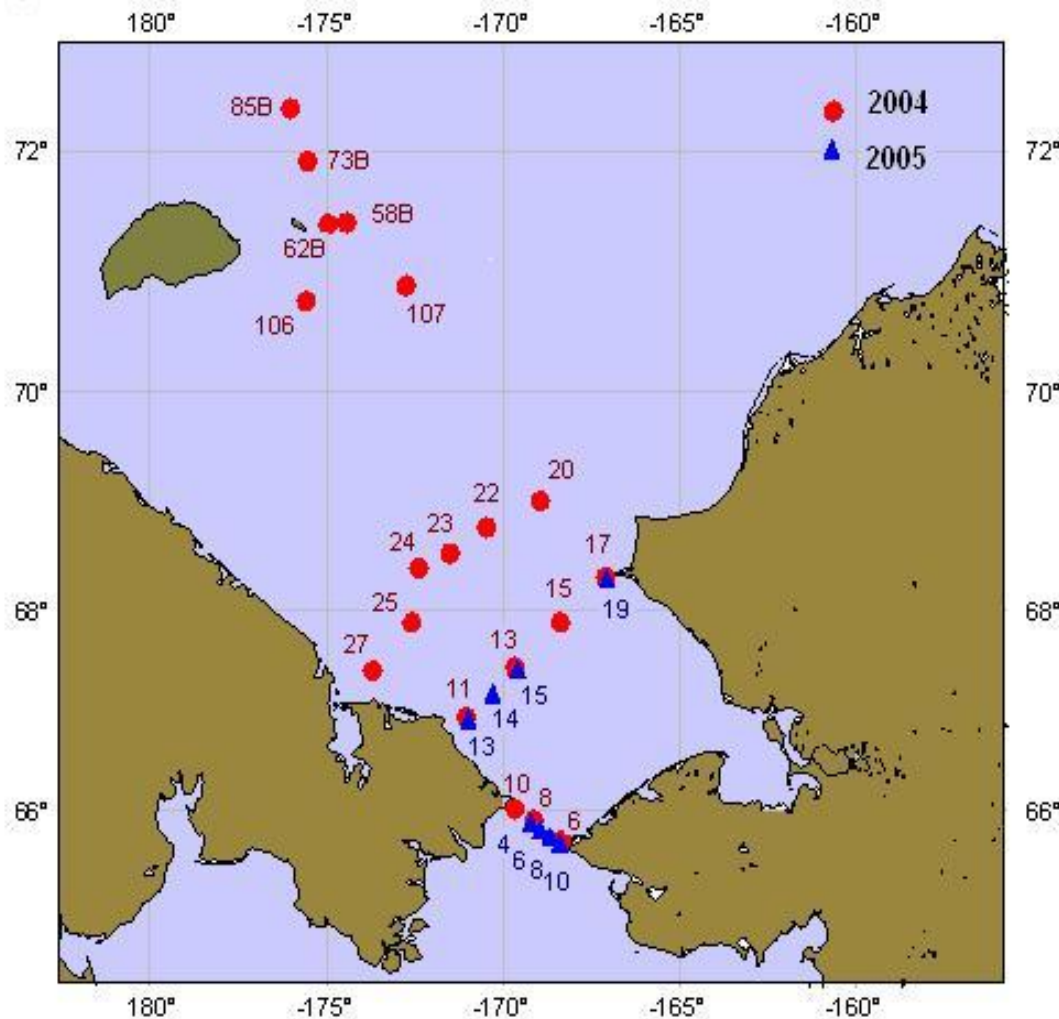
«Krasin» (1935)



«Dmitriy Laptev» (1989)



# RUSALCA: Sampling stations 2004-2005



Scale: 1:17408578 at Latitude 0°

Prof. Khromov 2004:

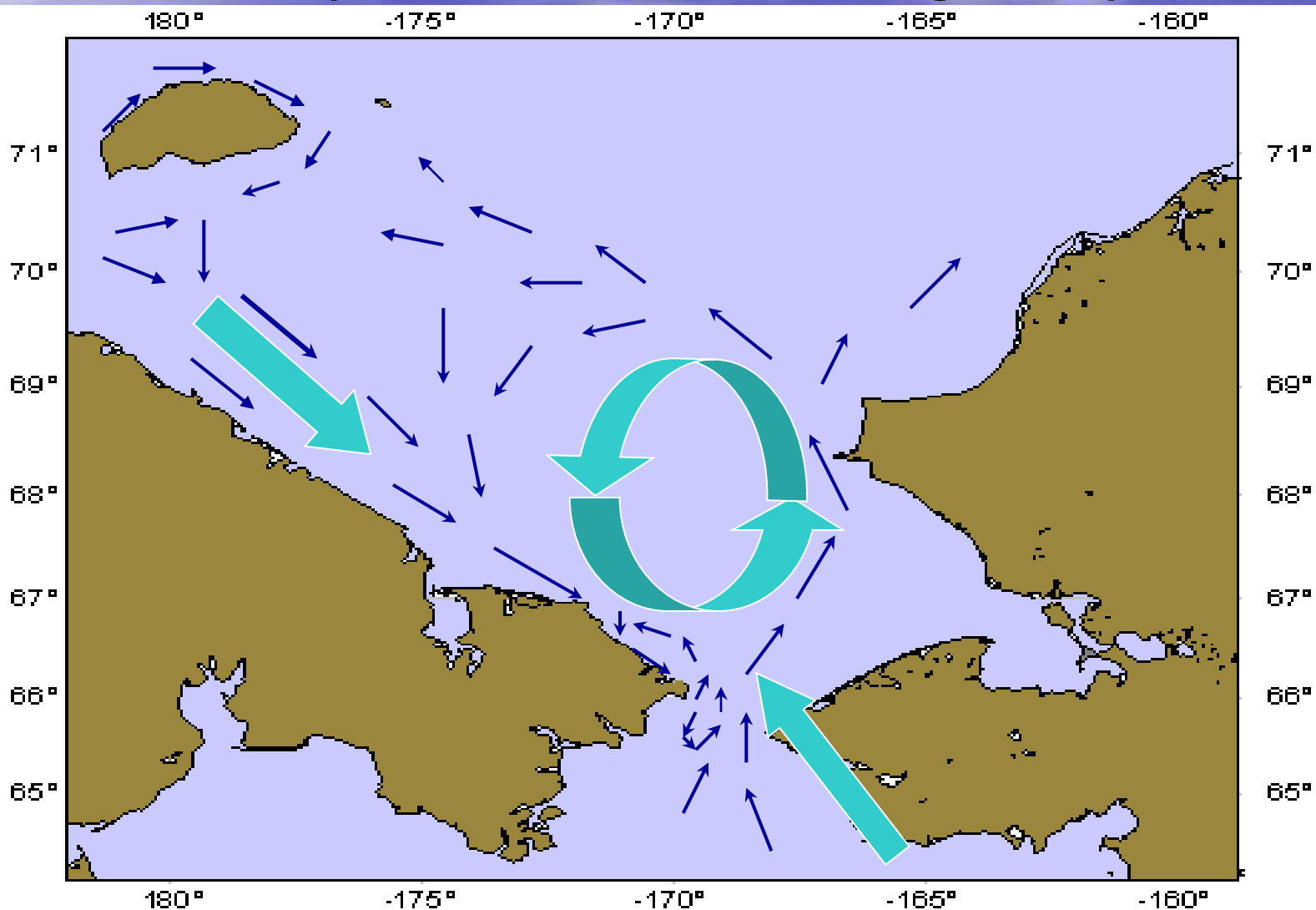
- 19 stations.

Sever 2005:

- 8 stations.

Total: 64 samples  
of amphipods

# Currents of the Chukchi sea (Ushakov P.V., with editing, 1952)

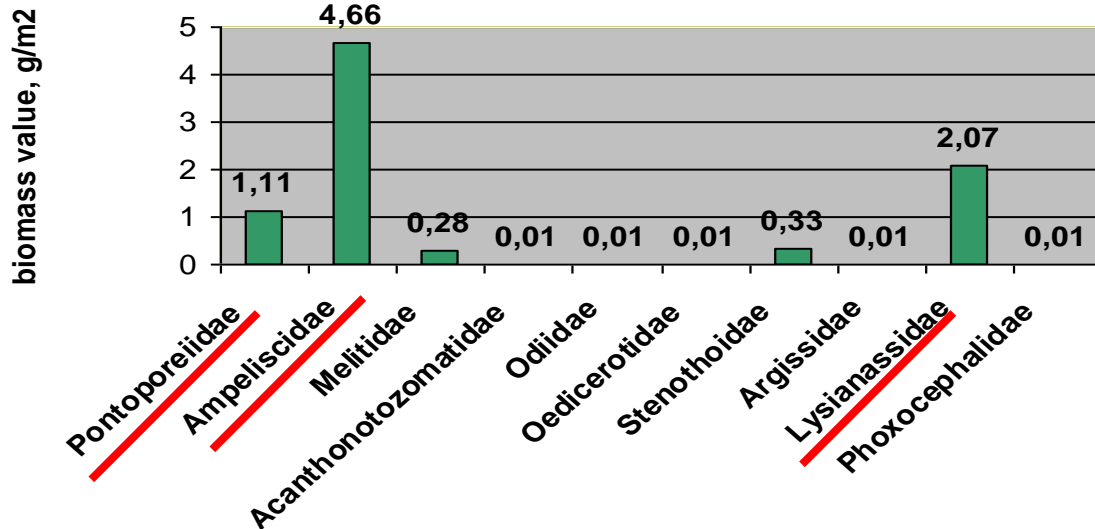


# The goals of this work:

1. To describe taxonomic structure of amphipod fauna (Amphipoda: Gammaridea) on the observed water area;
2. To designate the value of biomass for all identified amphipods;
3. To characterize the space distribution some species of amphipods.

# Average biomasses of amphipods in the Chukchi sea

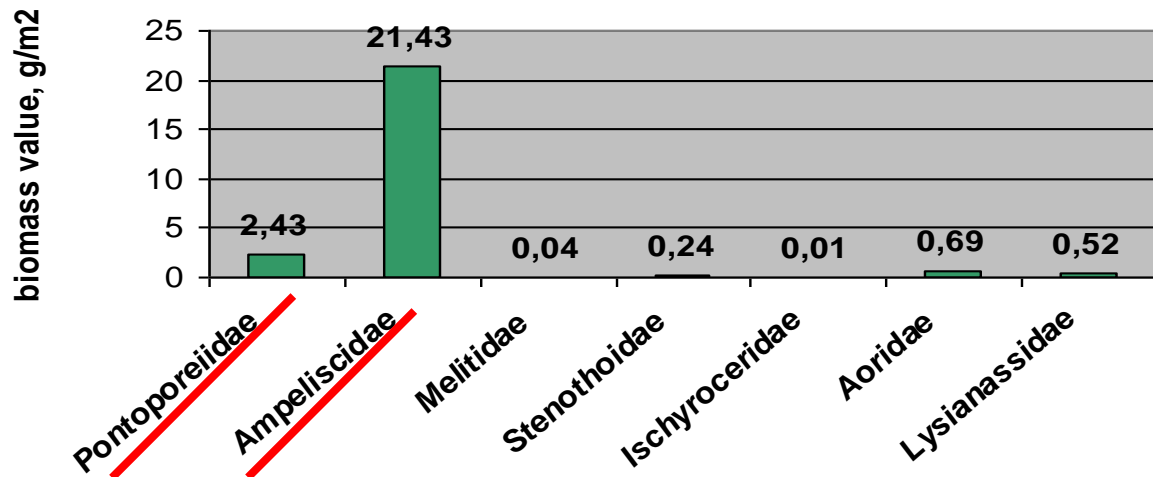
RUSALCA 2004



← 2004

2005 →

RUSALCA 2005



# Species list of abundant families:

Ampeliscidae: *Ampelisca eschrichti*  
*A. macrocephala*  
*A. birulai*  
*Byblis gaimardi*



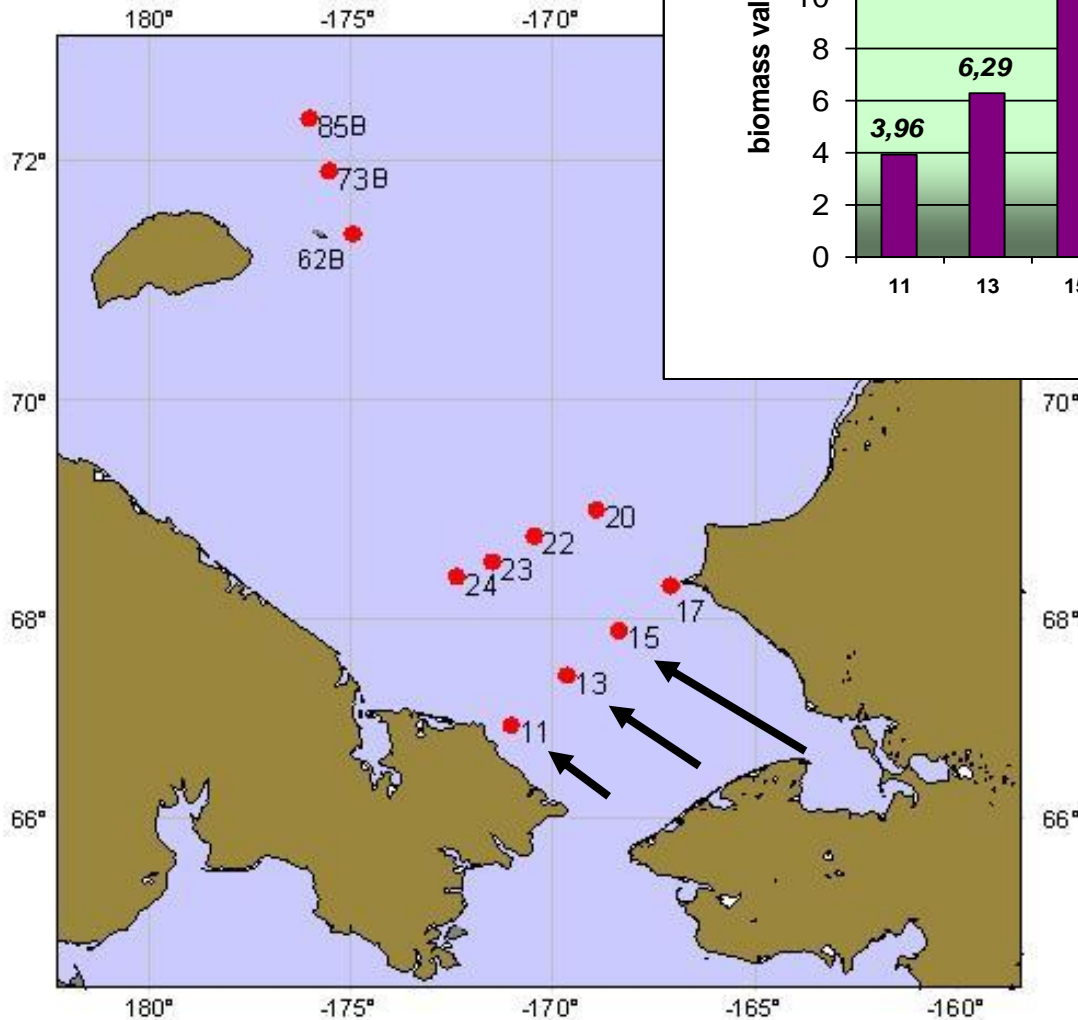
Pontoporeiidae: *Pontoporeia femorata*



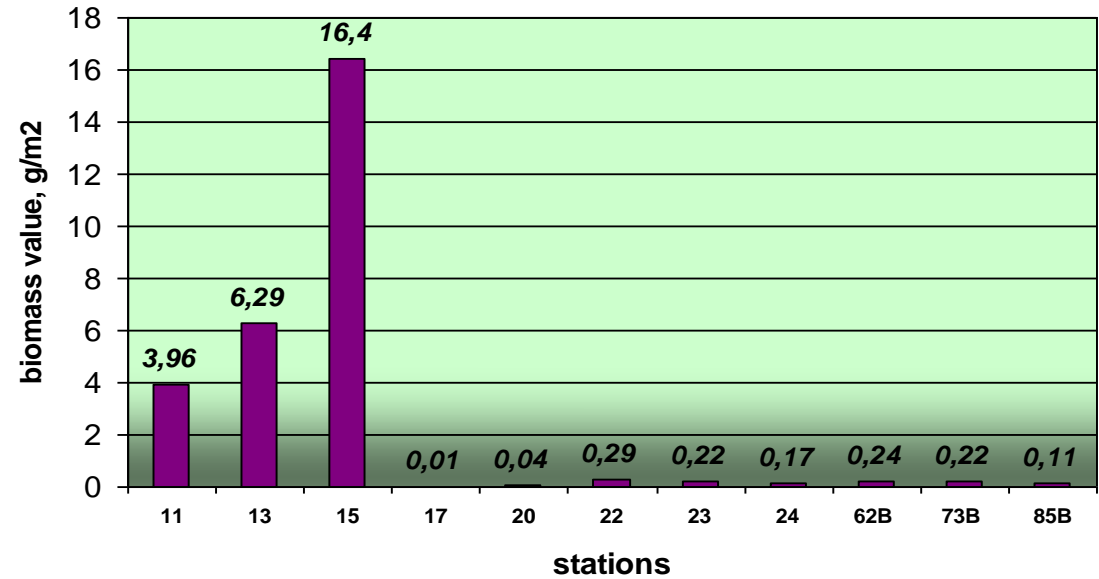
Lysianassidae: *Anonyx nugax pacificus*  
*Aristias tumidus*  
*Hippomedon denticulatus*  
*Lepidepecreum sp.*  
*Paratryphosites abyssi*  
*Socarnes bidenticulatus*



# Biomass of Pontoporeiidae



## Biomass of Pontoporeiidae (2004)



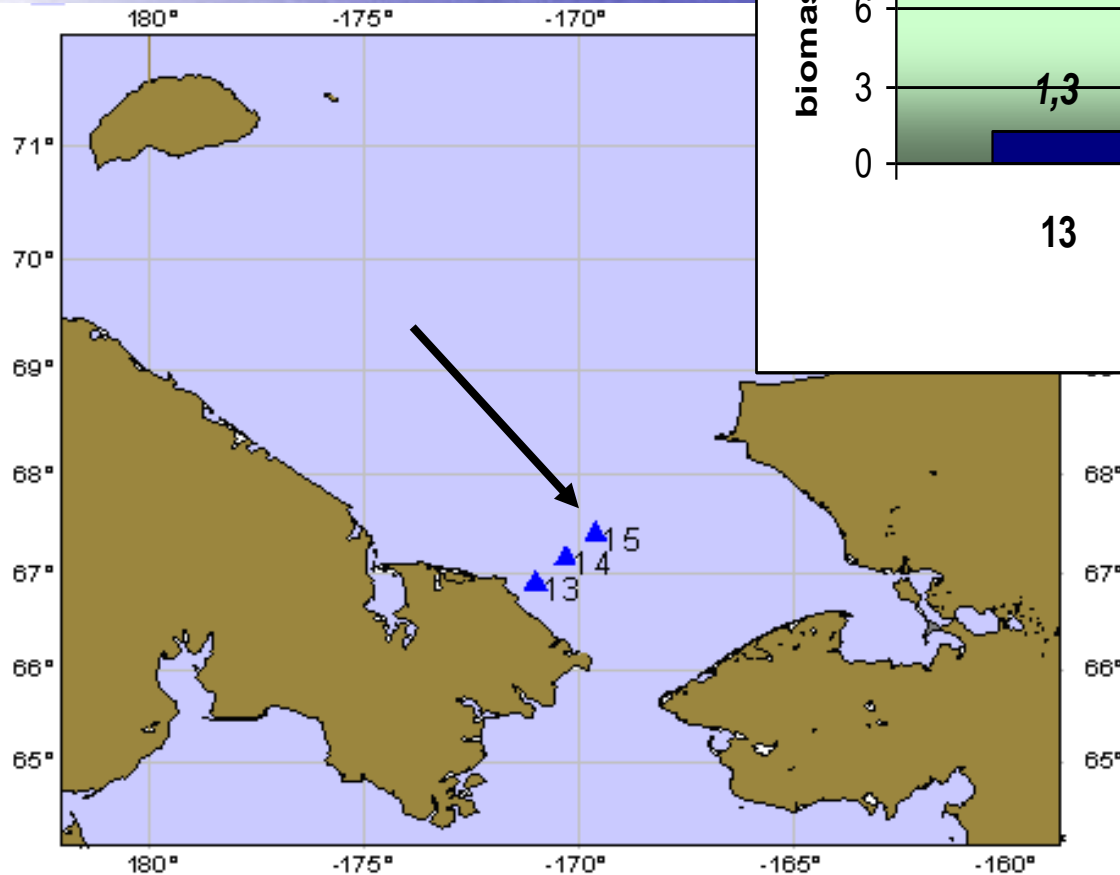
Scale: 1:15460315 at Latitude 0°

Professor Khromov

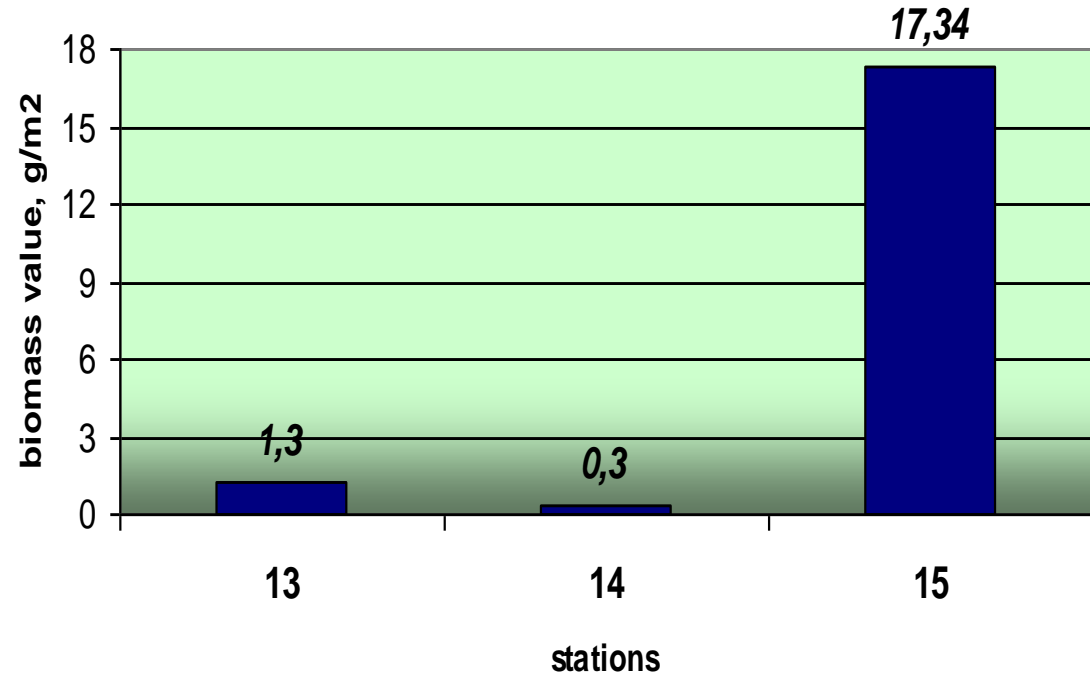
2004



# Biomass of Pontoporeiidae

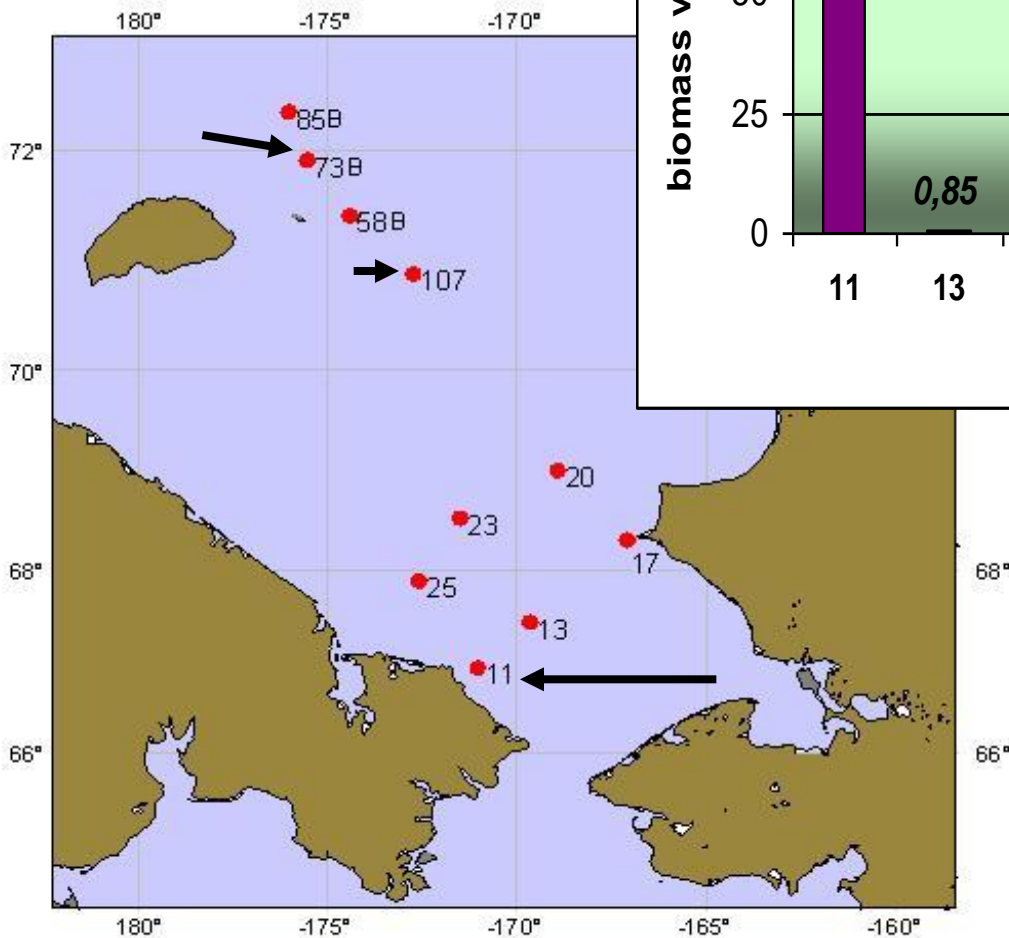


## Biomass of Pontoporeiidae (2005)

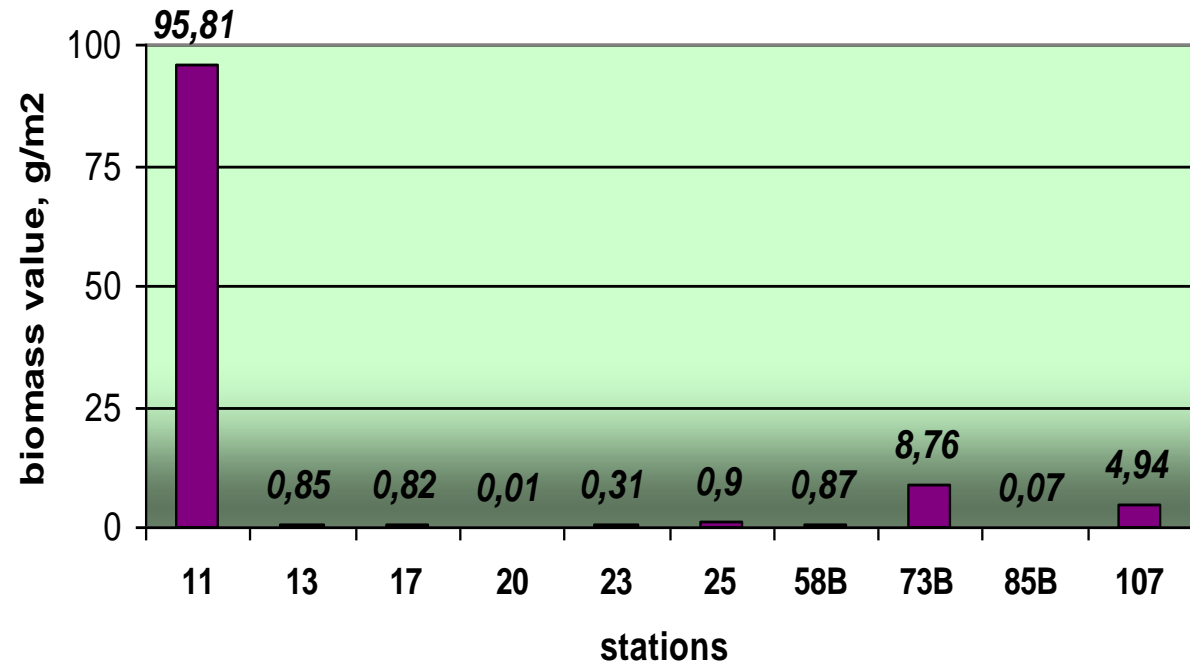


Sever 2005

# Biomass of Ampeliscidae



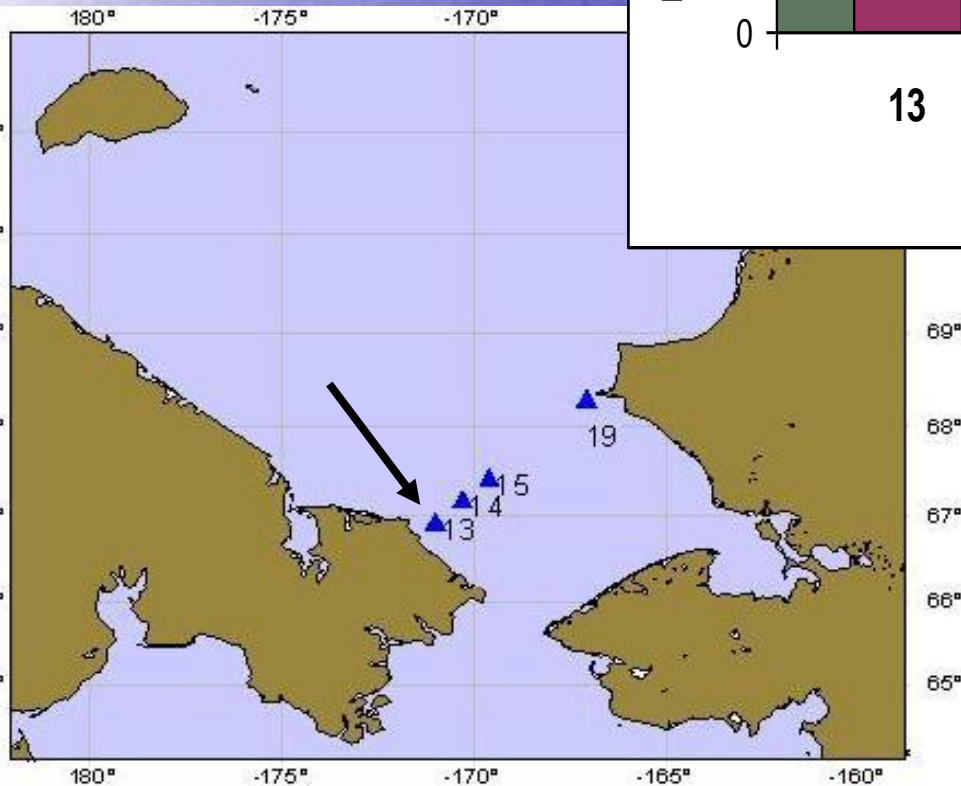
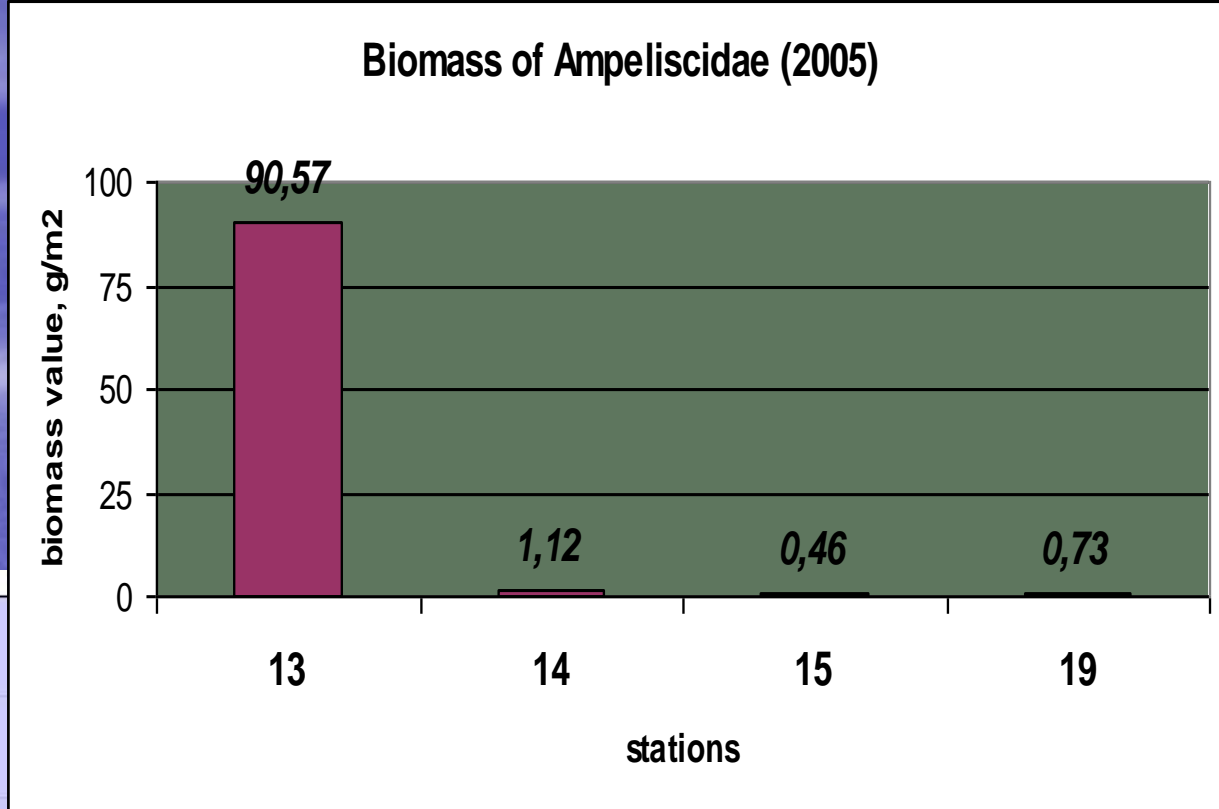
## Biomass of Ampeliscidae (2004)



Professor Khromov

2004

# Biomass of Ampeliscidae



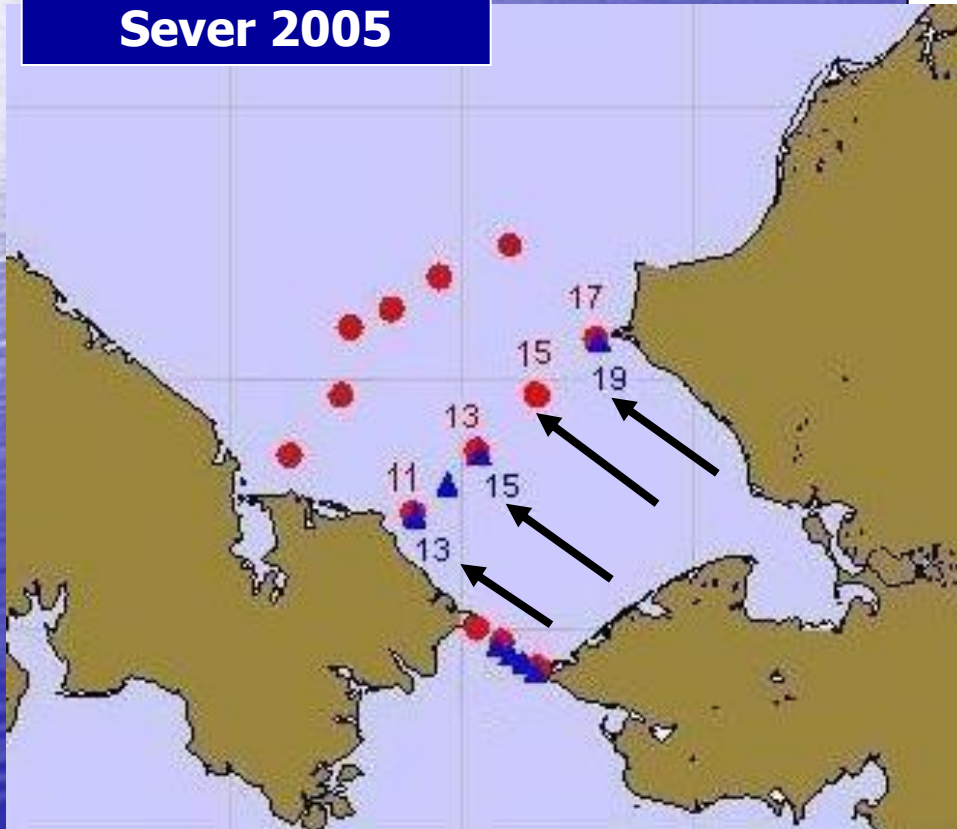
Scale: 1:15143692 at Latitude 0°

Sever 2005

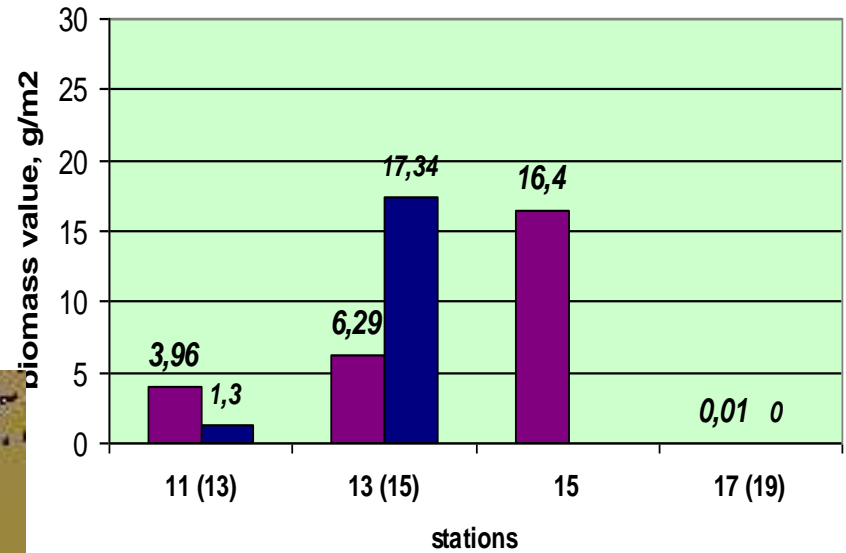
# Biomasses of Pontoporeiidae and Ampeliscidae – Serdtse-Kamen – Cape Hope transect

Prof. Khromov 2004

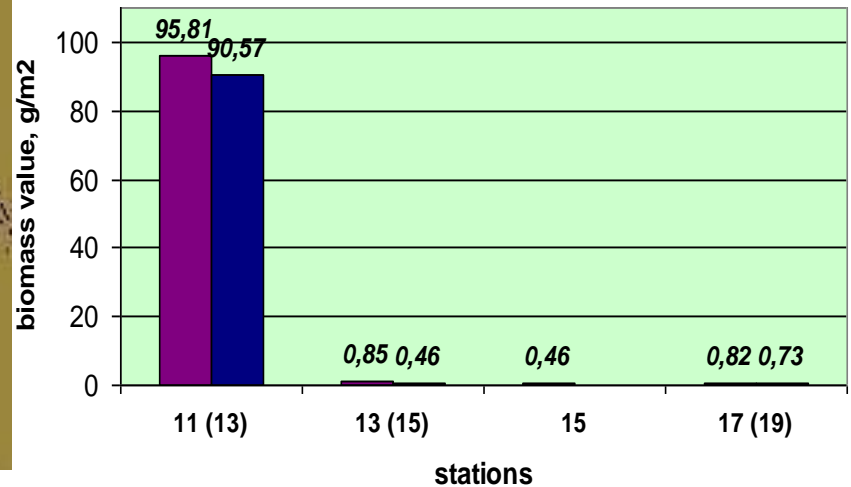
Sever 2005



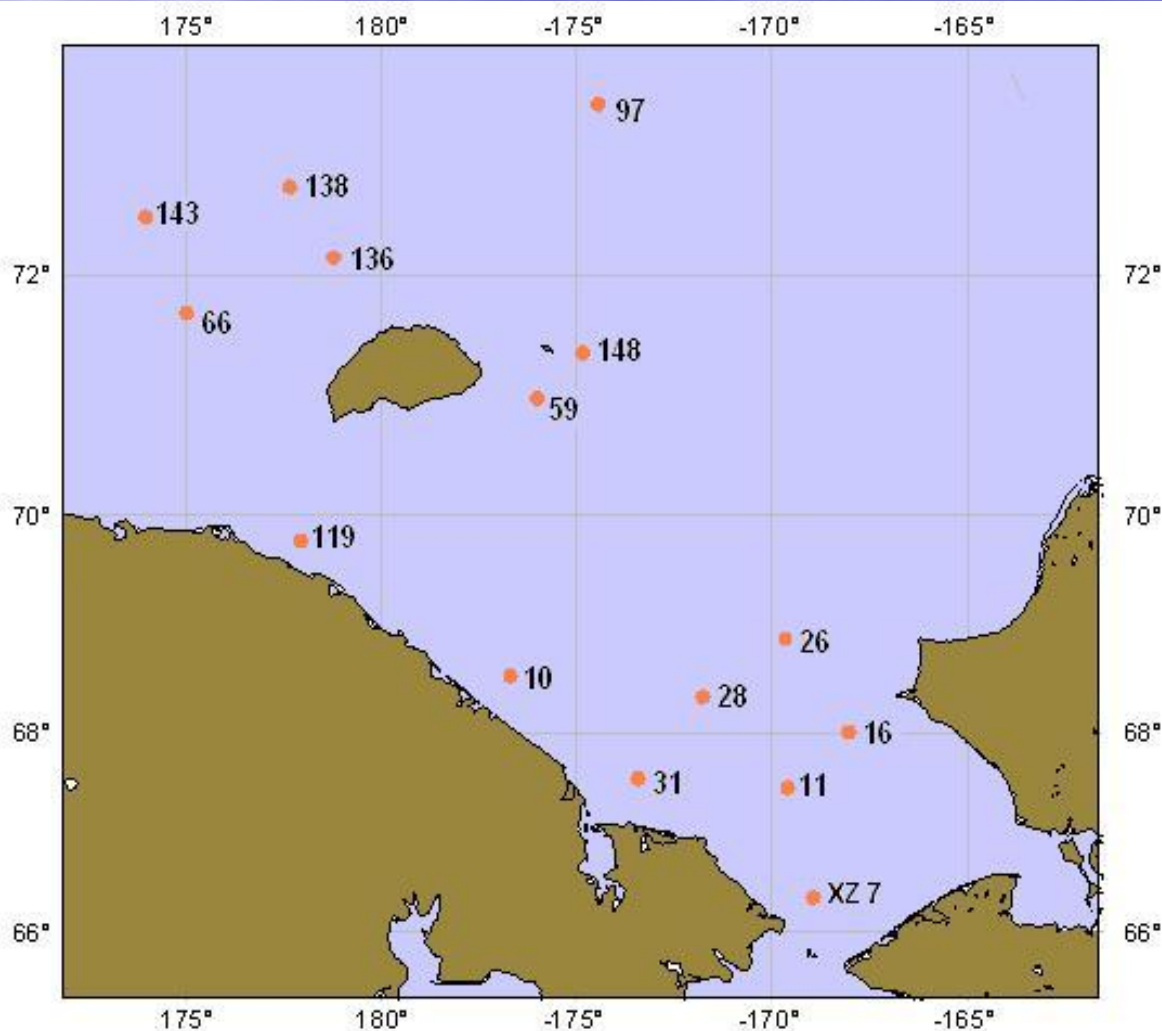
## Biomass of Pontoporeiidae



## Biomass of Ampeliscidae



# RUSALCA 2009: Sampling stations



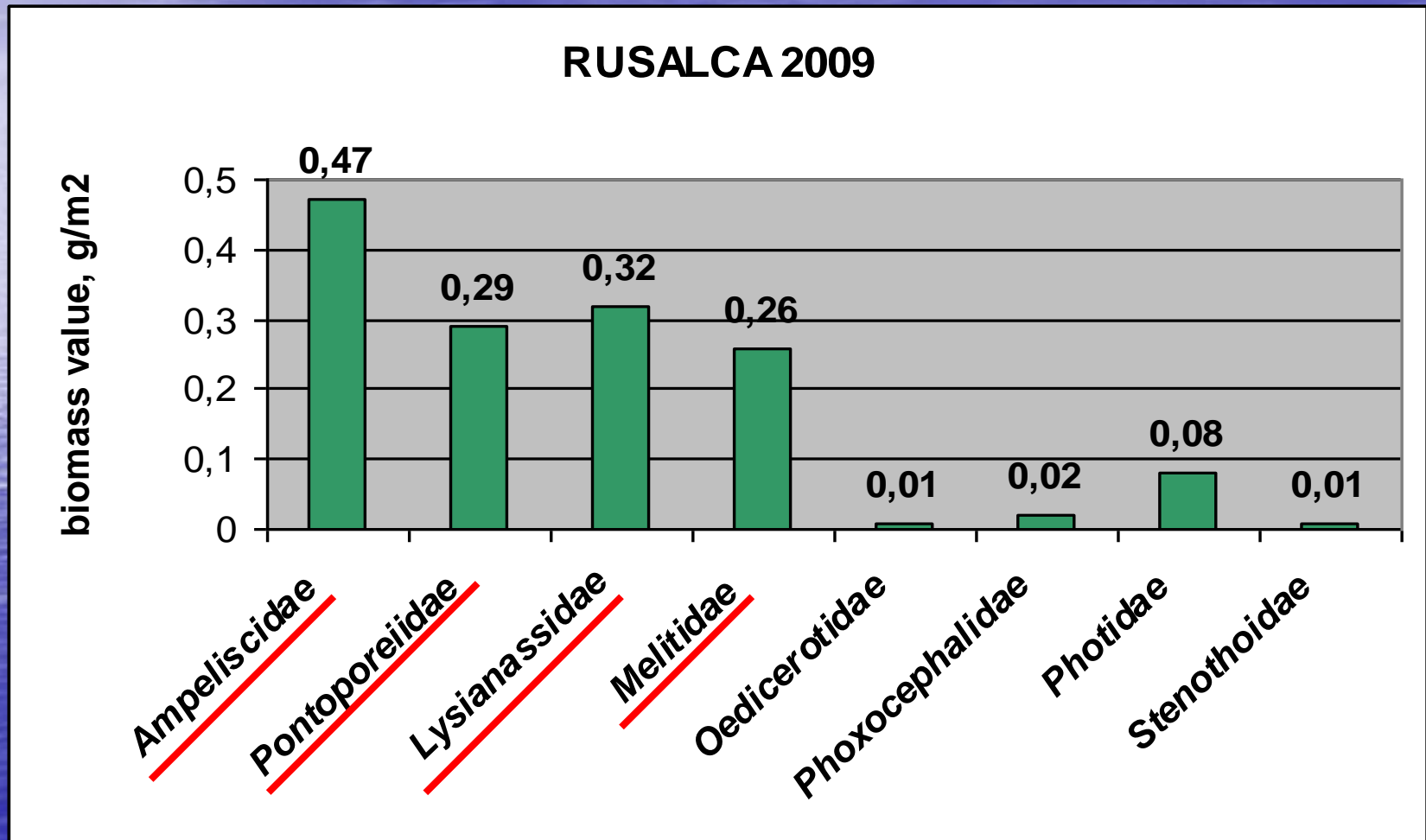
15 stations

including

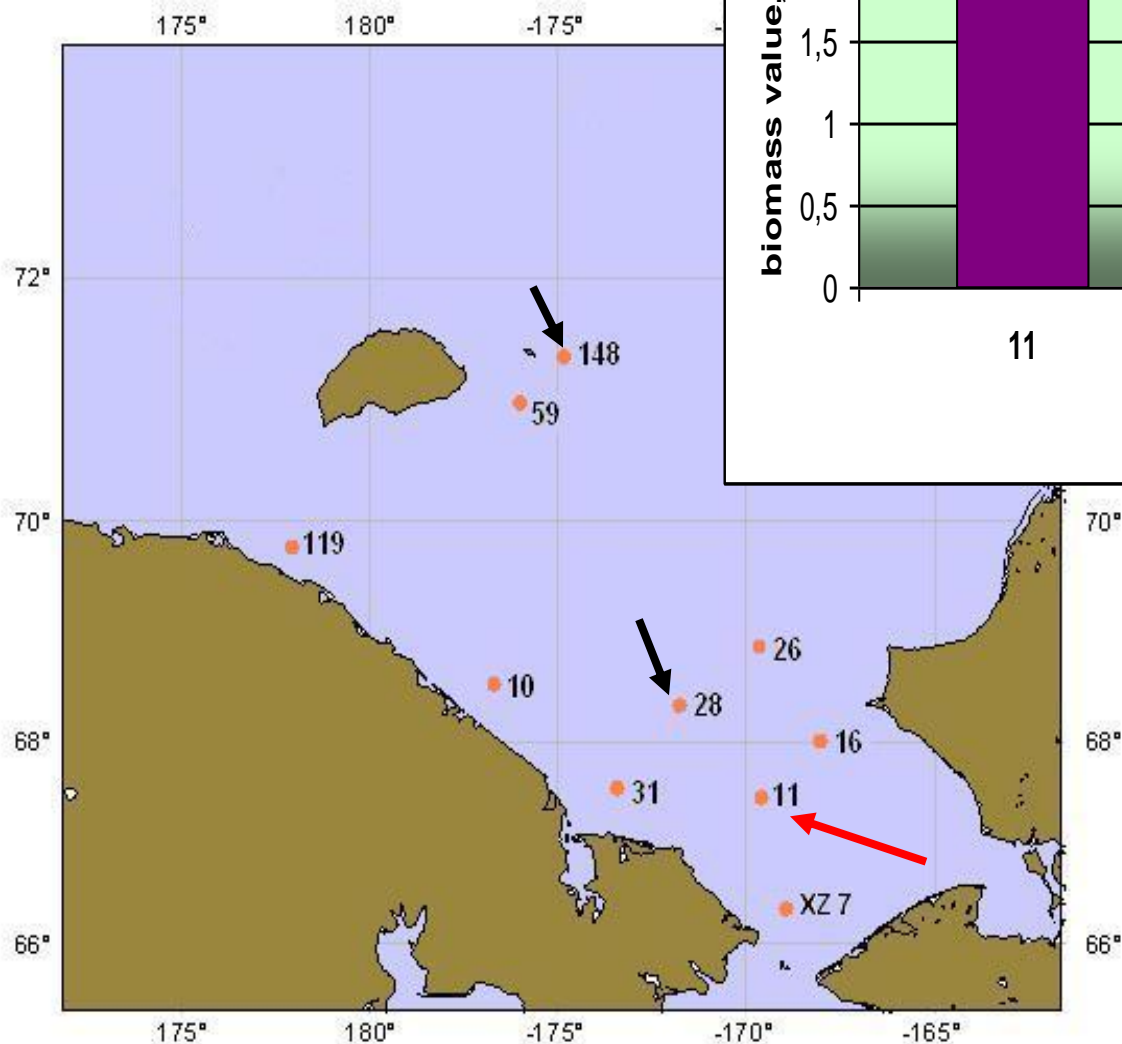
10 stations

in the Chukchi sea

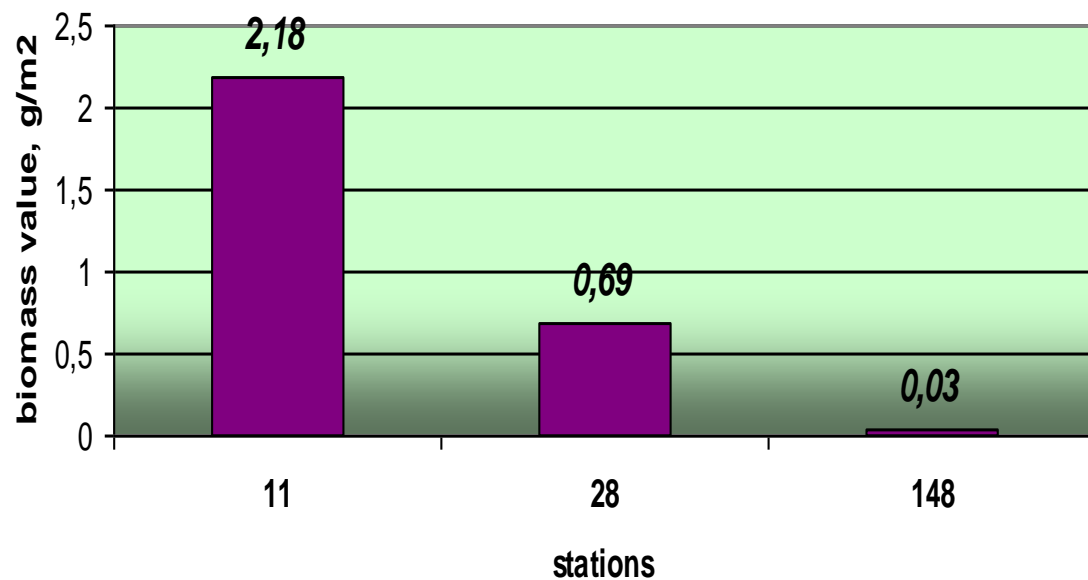
# Average biomasses of amphipods in the Chukchi sea (2009)



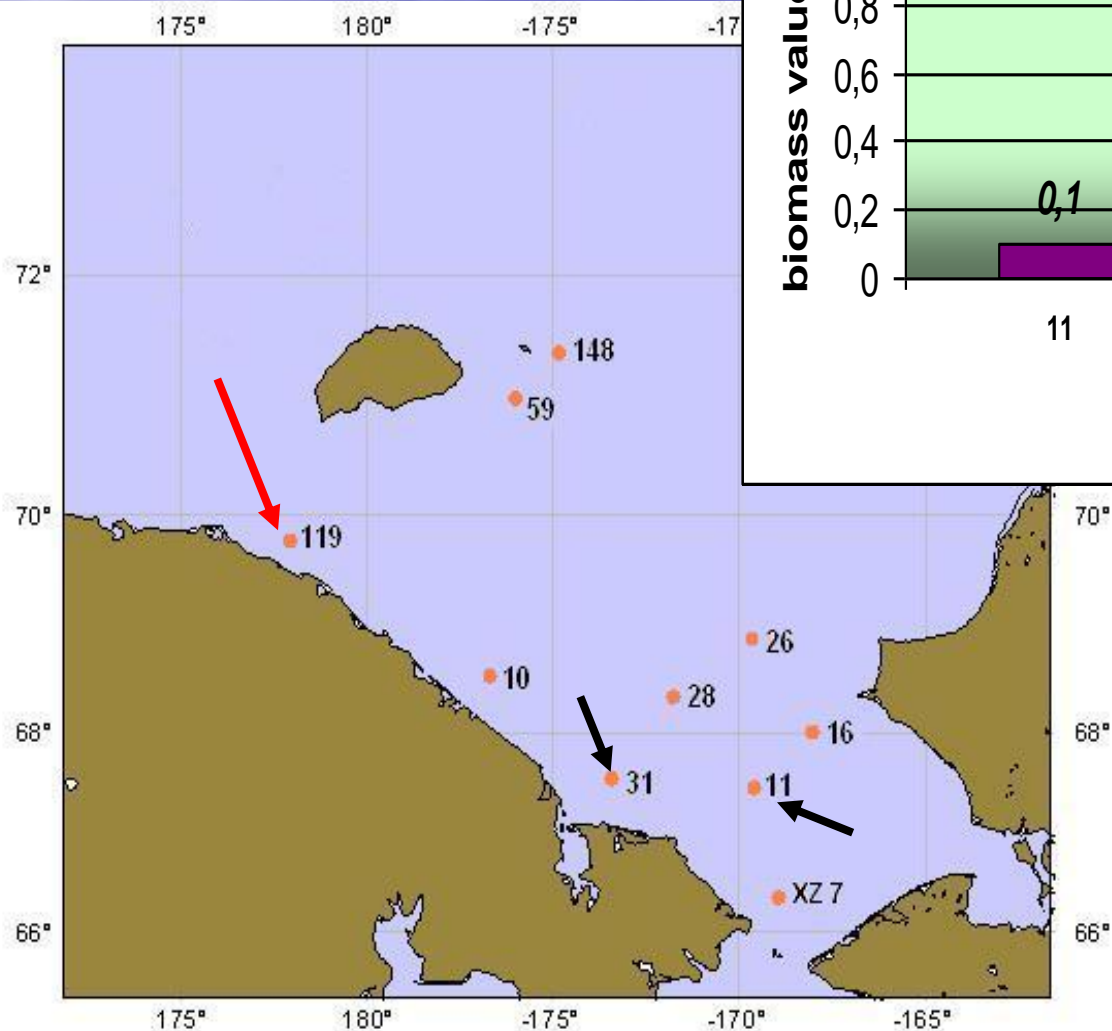
# RUSALCA-2009



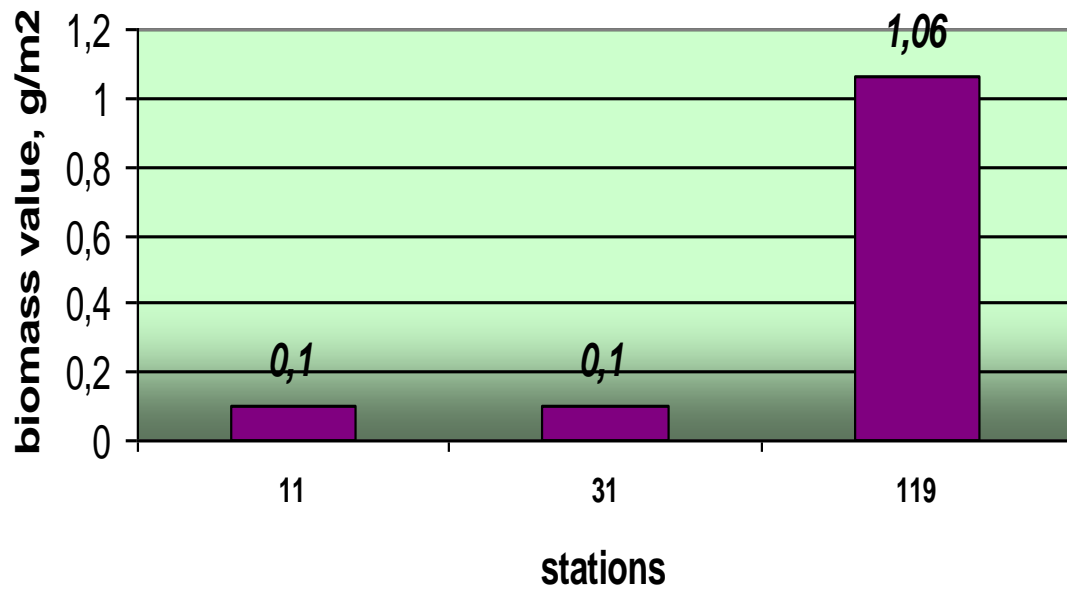
## Biomass of Pontoporeiidae (2009)



# RUSALCA-2009



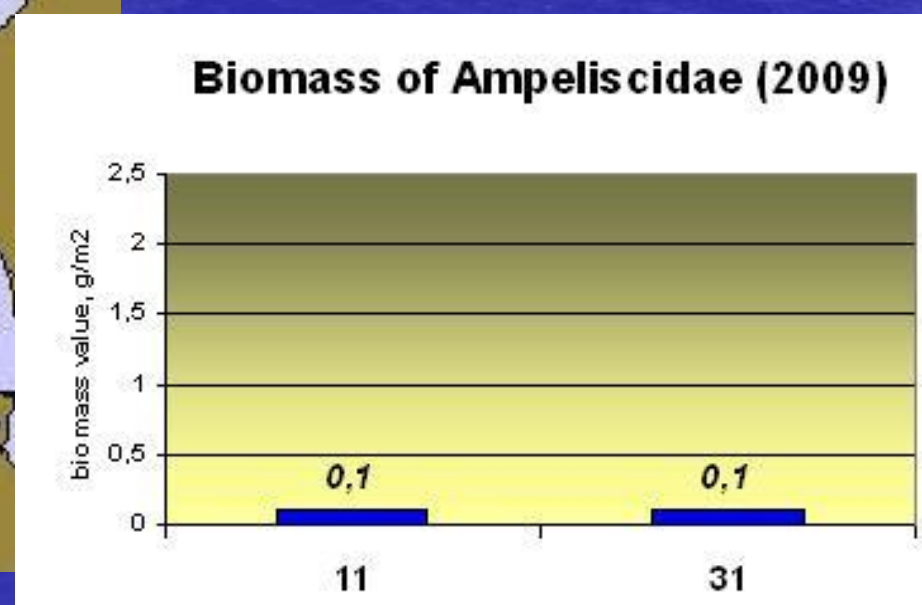
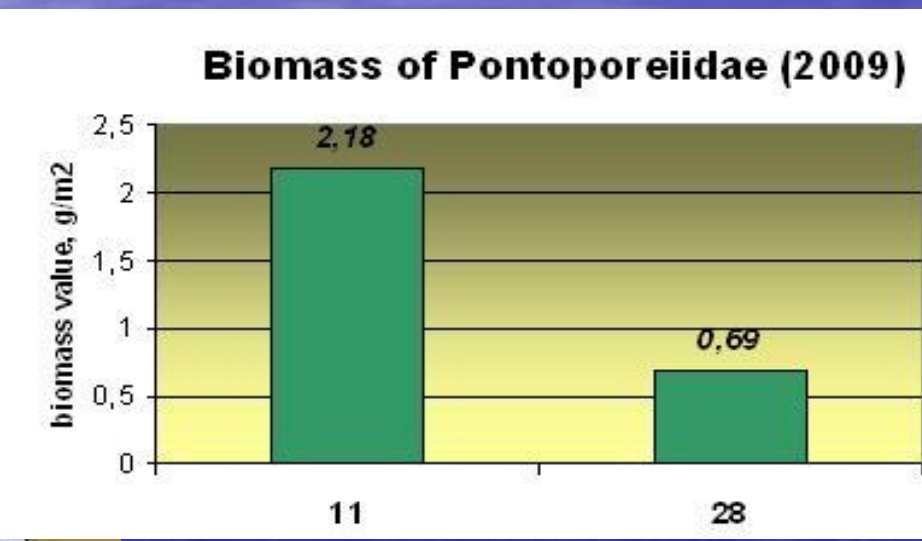
## Biomass of Ampeliscidae (2009)



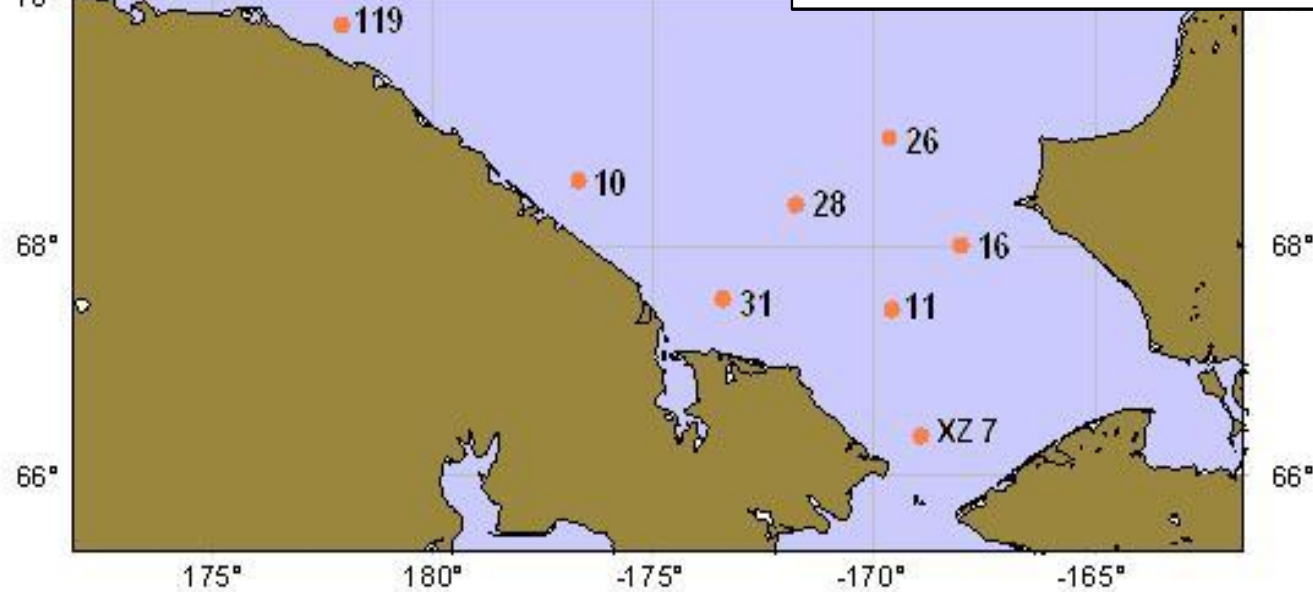
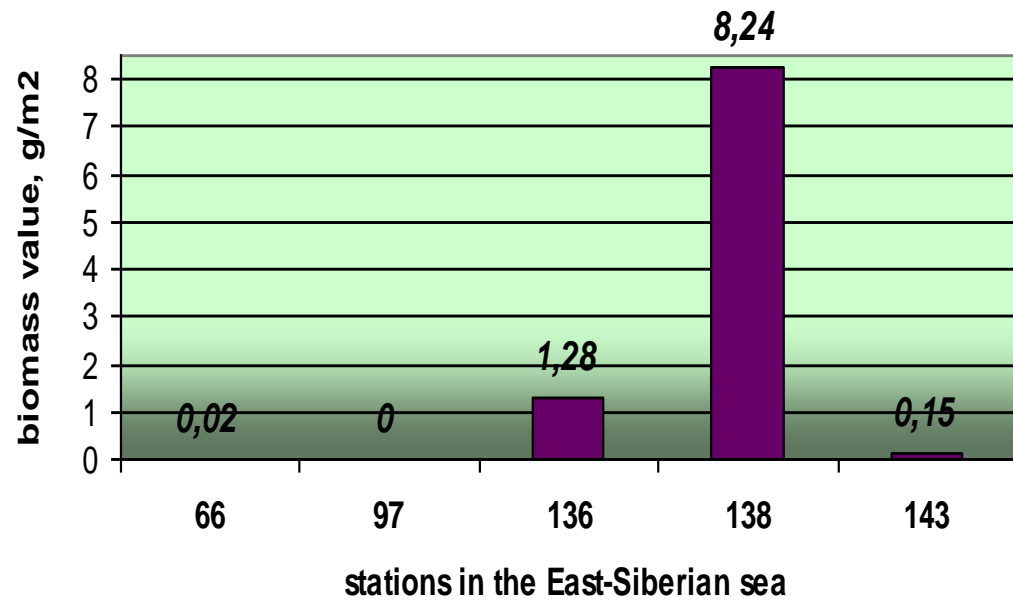
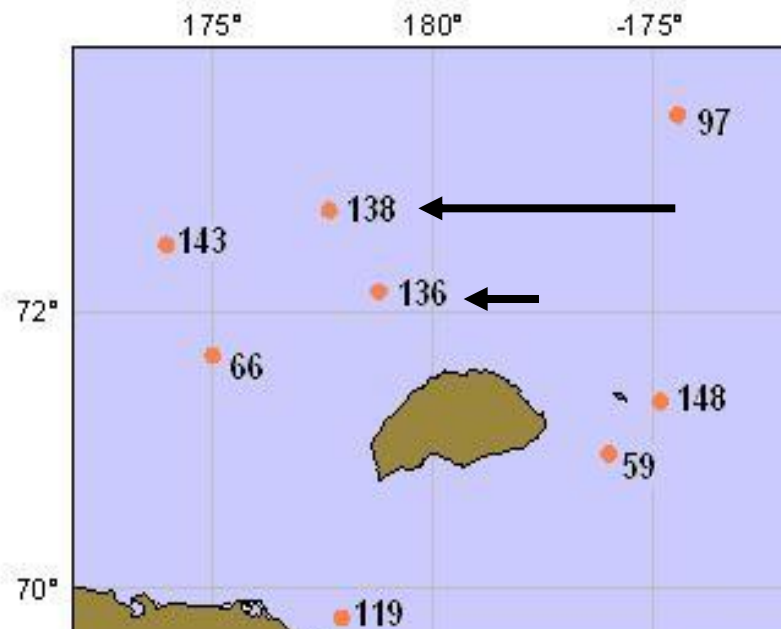
Scale: 1:17257466 at Latitude 0°



# Biomasses of Pontoporeiidae and Ampeliscidae – Serdtse-Kamen – Cape Hope and Koluchinskaya Bay- Cape Lisbourne transects



## Biomass of Ampeliscidae (2009)



Scale: 1:17257466 at Latitude 0°

List of species (Amphipoda: Gammaridea) have been found  
in the Chukchi sea  
(RUSALCA 2004, 2005, 2009)

Ampeliscidae: *Ampelisca birulai*

*A. eshrichti*

*A. latipes*

*A. macrocephala*

*Byblis gaimardi*

Pontoporeiidae: *Pontoporeia femorata*

Melitidae: *Quasimelita formosa*

*Q. quadrispinosa*

*Megamoera borealis*

*M. dentata*

*M. glacialis*

*M. rafiae*

*M. aff. subtener*

*M. unimaki*

*Maera prionochoira*

*Maera sp.*

*Melita dentata*

Stenothoidae: *Metopa clypeata*

*Metopa sp.*

Acanthonotozomatidae: *Acanthonotozoma serratum*

*Acanthonotozoma inflatum*

Odiidae: *Odius carinatus*

Argissidae: *Argissa hamatipes*

Lysianassidae: *Hippomedon sp.*

*Anonyx nugax pacificus*

*Paratryphosites abyssi*

*Aristias tumidus*

*Socarnes bidenticulatus*

*Lepidepecreum sp.*

Aoridae: *Arctolembos arcticus*

Phoxocephalidae: *Paraphoxus oculatus*

*Harpinia sp.*

Stegocephalidae: *Stegocephalus inflatus*

Oedicerotidae: *Arrhis phyllonyx phyllonyx*

*Acanthostepheia behringiensis*

Amathillopsidae: *Amathillopsis spinigera*

Eusiridae: *Eusirus cuspidatus*

**14 families, 37 species**

# Resume

1. Fauna of observed water area includes 14 families and 37 species amphipods (Amphipoda: Gammaridea);
2. - Abundant species of amphipods belong to families Ampeliscidae, Pontoporeiidae, Lysianassidae;
  - In the south-west part of the Chukchi sea the highest biomass values were recorded for family Ampeliscidae in 2004, 2005 and 2009.
3. We didn't find specimens of Ampeliscidae in Bering Strait. In the south-western part of the Chukchi sea we recorded a lot of Pontoporeiidae specimens. Those biomass values of families Ampeliscidae and Pontoporeiidae may be partly explained by presence of anticyclonic circulation in the south-east part of the Chukchi sea.

# Thank you for your attention!



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