

Weddell Sea along the Greenwich meridian (SR-2). Zooplankton was sampled with Juddey net, mouth area 0,1 m<sup>2</sup>, mesh size 180 mkm. Biological sampling was accompanied with hydrological survey, both biological and hydrological survey were made every 10 miles at SR-1 and every 20 miles at SR-2. A total of 120 zooplankton samples were collected from the layer 0–300 m.

Inside each hydrological front significant biomass decrease was observed, while in the vicinities of the fronts (20–40 miles) plankton biomass often increased. In both sections this pattern was similar, other patterns in the biomass distribution varied. Zooplankton biomass at SR-1 was 1,5 times higher than at SR-2, the biomass increased northward at SR-1 and southward at SR-2.

There are a few dominant species in polar and subpolar zooplankton that control main biological processes within the communities. It was expectable that in the frontal zones, where hydrological characteristics change sharply, dominant species change from one to another and structure of communities significantly changes. But during the antarctic summer the distribution of mass species of copepods (*Calanus simillimus*, *Calanoides acutus*, *Rhincalanus gigas*, *Metridia lucens*) (and chaetognaths *Eukrohnia hamata*, *Pseudosagitta gazellae*, *Pseudosagitta maxima*) is not associated with the ACC fronts.

**А. А. Урбан**

*Институт мерзлотоведения им. П. И. Мельникова СО РАН*

### **МИКРОРЕЛЬЕФ И МОРФОЛОГИЯ АККУМУЛЯТИВНОЙ ПОВЕРХНОСТИ В ОБЛАСТИ МОРОЗНОГО ПУЧЕНИЯ ГРУНТА**

В данной статье представлены материалы полевых исследований, проведенных коллективом российско-германских экспедиций «Дельта Лены-2009» и «Дельта Лены-2010». Рассматриваются ландшафтные, климатические, литологические и геокриологические особенности типичного участка третьей надпойменной террасы, поверхность которой характеризуется широким распространением процессов морозного пучения на примере острова Курунгах-Сисэ в устьевой области р. Лена.

Mouth part of Lena Delta is presented by vast terrace lowland. Within this territory few terrace's level were allocated. Each level is characterized different lithological composition, thickness of sediment, its age and genesis. In view of temperature regime is also different for whole territory. These factors exert influence on development of relief formation processes.

The role of cryogenic relief formation processes in landscape transformation is great. Such form of frost heave processes as bulgunnyakh and pingo are widely distributed in East part of Lena Delta and occurrence on third terrace. It should be noted, bulgunnyakhs also are distributed on the level of height flood-land and near to foot of second terrace. Some forms are characterized fast upgrowth. Its speed is estimated by meters for last decades.

This paper studies landscape, climatic, lithological and geocryological features of third terrace under its influence modern relief of surface was formed (Kurungnakh-Sise Island).

This paper presents materials of field researches of Russian-German expeditions «Lena Delta 2009» and «Lena Delta 2010». Landscape, climatic, lithological and geocryological features of third terrace under its influence modern relief of surface was formed is considered (Kurungnakh-Sise Island).

**Е. Н. Хохликова, М. Н. Хохликова**

*Лицей № 40*

### **УЧЕТ КЛИМАТИЧЕСКИХ ФАКТОРОВ ПРИ ПРОЕКТИРОВАНИИ И ЗАСТРОЙКЕ ГОРОДОВ (на примере Петрозаводска)**

В работе рассмотрено влияние элементов климата на архитектурно-строительное проектирование, в частности, на строительство зданий и застройку территории г. Петрозаводска.