

Рис. 1. Местоположение района исследований: а – архипелаг Новосибирские острова: Ляховские о-ва и о-ва Анжу; б – район мыса Плоский (о. Новая Сибирь); 1 – обнажение Вершина; 2 – выходы пластовых льдов в береговых обрывах; 3 – изобаты; 4 – схематическая граница аласной котловины
 Fig. 1. Map of the study area: а – Novosibirsk Islands Archipelago: Lyakhovskiy Islands and Islands Anzhu; б – Cape Ploskiy area (Novaya Sibir' Island); 1 – section Vershina; 2 – subsurface ice locations in the sea shore; 3 – isobaths; 4 – schematic boundary of alas depression

(75°20' к.ш., 148°18' д.д.)
 g[exebkv kklgggu uohu
 iekluo evh (kf bk . 1). ogyy klv
 aa lbguo hlehgc [ue
 lavgh bamg k ihfsvx flah
 bhm]ehgh]h lbgby , kihhh-
 iuevph]h geba b hiegby
 klblevguo fdhkkldh
 Iebgheh]bkdbc geba uhegg . . .
 >hdbghc([GBB), ieh[hlgbkdbc
 geba lnh ihg G. lhcdbghc
 (Bgklblm [bheh]bb GP JIG),
 bhm]ehgu lhdh ihemgu
 e[h]hbb Bgklblm bklhbb
 flbevghc dmevlmu JIG
 (mdhhblev . B. Asp).

ih ma fhy 8 df d AXA hl fuk
 Iekdh]h uohu iekluo evh -
 h]ggg fbg - g[exxkly
 lfhgmpbhggf pbd a]gh]h
 kdehg]h[r]bgh]h eki(kf bk . 1, [).



Рис. 2. Термоцирк обнажения Вершина
 Fig. 2. Thermocirque of Vershina site

H]ggg f -
 . y
 G k h Ghz b[bv uohu
 iekluo evh hlfkly g lhevdh
 gihkklggh [huo h[uo
 fuk Iekdh]h,] bo kmffgy
 ihlyggghklv khkley [he 1,5 df, gh
 b h gmlggc klb hklh . x]m hl
 fuk,]em[v hklh , g ihf]m
 mvy , udxs]h ba ek dhey
 iekluo evh gohblky g ukh 6 f b
 g hlad hdheh 200 f ihkliggh mohbl

iek h[ahgguc mfy
 khbgbrfbky dhlehbgfb hdm]ehc
 nhfu iehsvx ib]ebablevgh ih 16
 df², ulygm g]egbb XA- g 8 df
 b]h]gbg ih ibflm ieh]hc]yhc k
 [khexlgufb hlfldfb 25-50 f . khc
 klb 1 df d x]m hl fuk Iekdh]h
 hg ihalky fhf ,] bfl ukhm
 ihoghklb 4 f. Hl pgl d ibnbb

ek□ ihelh□ ihuriky□ h□4 h□ 8-12 f.

uohu□ iekluo□ evh□ □ h[ggbb□ fbg□ (bk. 2) kduxiky□ □ aighc□ fklb□ ek□ □ lfhpbd□ , ablf□ g□ kdeg□ ekghc□ dhlehbgu□ X□ wdkihabbb□ H[sy□ ihlygghkly□ kklggghj□ h[ggby□ khkley□ ibfgh□ 150 f. □ hkghgbb□ aa□ g□ hlfdo□ hdheh□ 16,5-35 f□ aej□ lhes□ , dexxxy□ kegh□ bkehpbhggu□ ib[gh-□ fhkdb□ hkdb□ , iekluo□ evu□ b□ fhggu□ hlehgy□ (bk. 3). Ib[gh-□ fhkdb□ hlehgy□ (id□) iklegu□ fgh]helgfaehc□ lhesc□ ikebksboky□ ihkeh□ ohhrh□ hdlggghc□ jevdb□ ibfmsklggh□ m]ebklyh□ kegp□ , dbfb□ jevdfb□ ikgbd□ □ ikghf□ gihegble□ ba□ fedh□ - b□ kgagbklh]h□ ikd□ elhth-□ ieh]h□ pl□ , ihkeh□ lhgdh-□ b□ fedhagbklh]h□ ihebfbdllh]h□ ikd□ ieh]h□ pl□ , ihkeh□ fedhc□ jevdb□ , s[gy□ b□ jby□ ibfmsklggh□ m]ebklyh□ kegp□ b□ ikgbd□ k□ dbfb□ jevdfb□ dp□ b□ fgh]hbkeggufb□ fedbfb□ h[ehfdfb□ fedhnmgu□ ehbklu□ ib[gh-□ fhkdb□ hlehgy□ gkm□ keu□ jeypbhdllhgkdbo□ kdelh□ -fmcluo□ nhfabc□ bbfy□ fhsghkly□ idb□ - 2,5-3 f.

Iekluo□ e□ (id□ 2) bfl□ ieevgh□ -kehbklym□ ldklmm□ , h[mkeheggmx□ hbg]bhdhc□ imauvdh□ hamo□ , lhgdbfb□ ihkehcdfb□ eblhuo□ iaghd□ b□ hlevguo□ lhgdbo□ ihkeh□ lhgdhagbklh]h□ ikd□ ldlhgkdy□ klmdlm□ iekllh]h□ ev□ odlbamky□ gebbf□ kdeluo□ b□ auguo□ nhfabc□ hlxbo□ bgb□ ev□ hsgkly□ idb□ 2 khkley□ 5-7 f. Iekluo□ e□ idu□ fhggufb□ hlehgyfb□ (id□ 3), ikleggufb□ jm]hh[ehfhguf□ gkh]bhgguf□ emggh□ -jagh□ km]ebgkluf□ flbehf□ . hf□ lh]h□ □ lbee□ dexgu□ fgh]hbkeggu□ hllhgpu□ kgbo□ afh□ (3-6 f), ikleyxsb□ kh[hc□ hlevgu□ [ehdb□ ifyluo□ □ kdedb□ kehbkluo□ ikguo□ b□ kmikguo□ fhkdbo□ hkdh□ (bk. 4).

hsgkly□ fhggu□ hlehgy□ khkley□ hdheh□ 6-8 f.

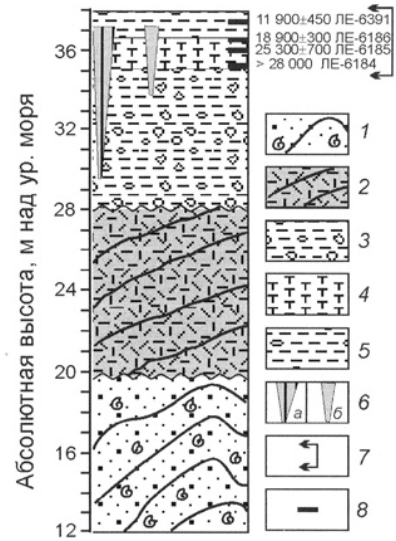


Рис. 3. Сводная стратиграфическая колонка обнажения Вершина:

1 – сложно дислоцированные прибрежно-морские отложения с малакофауной (пачка 1); 2 – подповерхностный лёд (пачка 2); 3 – моренные отложения (пачка 3); 4 – торфяник (пачка 4); 5 – покровный суглинок (пачка 5); 6 – повторно-жильный лёд: а – жилы первой генерации, б – жилы второй генерации; 7 – детально изученная часть разреза; 8 – радиоуглеродные датировки

Fig. 3. General stratigraphic sequence for Verzhina exposure, bottom to top:

1 – complex dislocated shallow-water marine deposits that include shell fragments of marine mollusks (member One); 2 – subsurface ice (member Two); 3 – till (member Three); 4 – peat (member Four); 5 – cover loam (member Five); 6 – ice wedges: a – generation One, b – generation Two; 7 – detailed study section; 8 – radiocarbon dates

Gihkklyggh□ g□ fhg□ □ fbg□ lfhpbd□ g□ ihlygbb□ 70 f□ □ bgle□ ukh□ 35-36,5 f□ ih□ ghghfm□ dfghh]agghm□ dhgldlm□ aej□ lhnygu□ hlehgy□ (id□4). Lhnygd□ bfl□ fhsghkly□ 0,9-1,5 f□ keh□ fgh]helgfaeuf□ lygh-□ jbiguhf□ lnanf□ [mh]h□ pl□ ohhrc□ khoggklyb□ id□4 khbl□ □ jgpb□ ihlhgh□ - bevguo□ evh□ . ulbg□ evh□ ihc□ jgpb□ ihbl□ d□ nhfbhgbx□ hhevgh□ jmeyghc□ klb□ [eoh□ □ dhc□ klb□ lfhpbd□ ukhlhc□ h□ 6-8 f. Rbbg□ ihgbgc□ fm□ gfb□ hklb]□ 8-10 f□ lh□ mdau□ g□ fhsghkly□ ihlhgh□ -bevguo□ evh□ . beu□ ihc□ jgpb□ , bbfh□ , kbg]glbgu□ nhfbhgbx□ lhnygd□ b□ wib]glbgu□ ih□ hlgrrgbx□ d□ ihklbexsbf□ lh□ fhgguf□ hlehgyf□ , ih]by□ bo□ g□ jem]bgm□ 5-6 f. lhy□ jgpy□ ikleg□ fg□ fhsghkly□

beftb , jhbahglevgu
 afu dhlhuo khkleyxl 30-40 kf ,
 lbdevgu - 2-2,5 f. idl5 gohblky
 bgle ukhl 36,5-38 f b ikleg
 ihdhguf kmjebgdhf dhhgh khjh
 pl k kkygghe jevdhe keh
 hlfkly lhgdb ihkehb ohhrh
 aehbrjky hikggghjh lhn
 ulh -dhhghjh pl fhsghklvx 2-
 3 kf

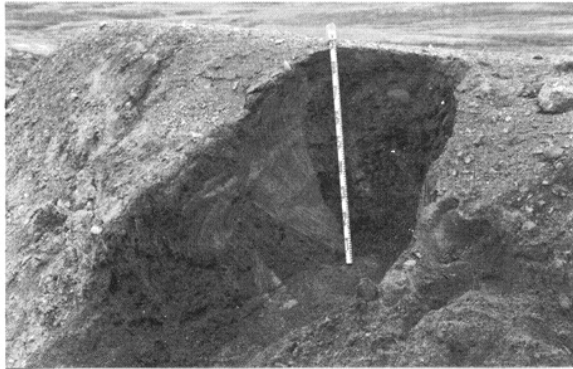


Рис. 4. Отторженец в моренных отложениях
 Fig. 4. Intact block of the sediments captured and removed by the glacier from a distance and then included into morainic deposits

ey lnygd (id 4) b
 iduksbo jh ihdhguo kmjebgdh
 (idl5) ihemg kby bhmjehguo
 lbhd , uhegg kihhh iuevphc
 geba b hiegu kblevguo
 fdhkkldb lhn . lhr lnygd
 lbhg : > 28 000 e.g. (EE-6184),
 kgyy klv - 25 300±700 e.g. (E-6185),
 dhey - 18 900±300 e.g. (EE-6186).
 >hihegblevgu lbhd h[aph ey
 lhjh lnygd , hlhgguo ba
 khkgjh [cb] ihdaeb
 21 200±700 e.g. (E-6392) - 26 000±800 e.g.
 (E-6393). Ihkehc lhn ba idb 5
 ihdhguo kmjebgdh bfl hakl
 11 900±450 e.g. (E-6391).

Jdhgklmdpby
 m ay u
 eu gjh ihdhghjh heggby
 nbdkbnxky gbgc klb aa
 dhfiedkhf bkehpbhgguo hlehgc
 dexsbf ib[gh- fhkdb hkd
 idb 1, ieklu evu idb 2 b
 iduksmx bo fhgm (id 3). Bo
 ihehblevguc hakl - kgbc

ghiecklhpq lb hkd b odlgu ey
 lhesb kgc ihkblu dgdkdhc
 kblu , g[exfhc hihghf aa g
 fuk fgghf [kbeyg b bdehvkdbc,
 2007].

Adexblevguc hlhd ihagjh
 ghiecklhpq hklhgh ihegh
 odlbamxl iebgheh]bkdb ggu b
 amevllu geba kblevguo
 fdhkkldh lhn , ihemgguo ey
 id 4 b 5, dhlhuo ohhrh khjekmxlky
 fm kh[hc. lh ihahebeh ihklb
 dhgklmdpby ieh]h]nbkdb
 mkehc ablby ibhghec ku
 kghec klb h Ghv b[bv ey dhgp
 ihagjh ghiecklhpq .

h]jekgh amevllf kihhh-
 iuevphjh geba (bk . 5), ieo
 iebghahgu 1, hghkyscky dh fgb ,
 irklmxfm h[ahgbx
 lnygd , - ib[ebablevgh h 28 000 e.g.
 - msy hev nfhbhgbb
 iebghkidl ibgebl lf (h
 70%), kb dhlhuo hfbgml iuevp
 kfakl Jhk (h 30%) b CyperKZ
 (h 35%). Iuevp kguo b
 dmklgbdh , khkleyxsy h 22% h[sjh
 khkl b ikleggy Pinus s/g
 Haploxydon (h 18 %), Picea (fg 5 %), -
 amevll evgjh ighk . lbnklklb
 iuevp Betula sect. Nanae, Alnus fruticosa,
 Salix sp. (fg 5%) fh hklb
 kblevklhly h dcv h]gbgghf
 kihklggbb wlbo dmklgbdh . b
 kihhuo , ghex dhlhuo ibohblky 8%
 h[sjh khkl iebghkidl , aegu b
 kn]ghu fob hlfkly
 ib[ebablevgh ghf khhlghrgbb :
 Bryales (h 56 %) b Sphagnum (h 44 %).
 Egrntu ikleyeb kh[hc hldulu
 ihklgkl k aggufb kmobfb b
 mfggh meggufb lmghufb
 hkhddh aedhufb b aedhh hkhdufb
 khh[sklfb , ablufb g ke[h
 aghgghf s[gbklh -kmjebgklhf
 km[kll fhgguo hlehgc
 Jbhm]ehgy lbhd > 28 000
 e.g. ihhr lnygd kvf
 ib[ebablevgh hiey fy ge
 lnhgdhiegy fy nfhbhgby
 lnygd idb 4 hghkblky dh lhhe
 iehbg d]bgkdhjh fegbdhvy

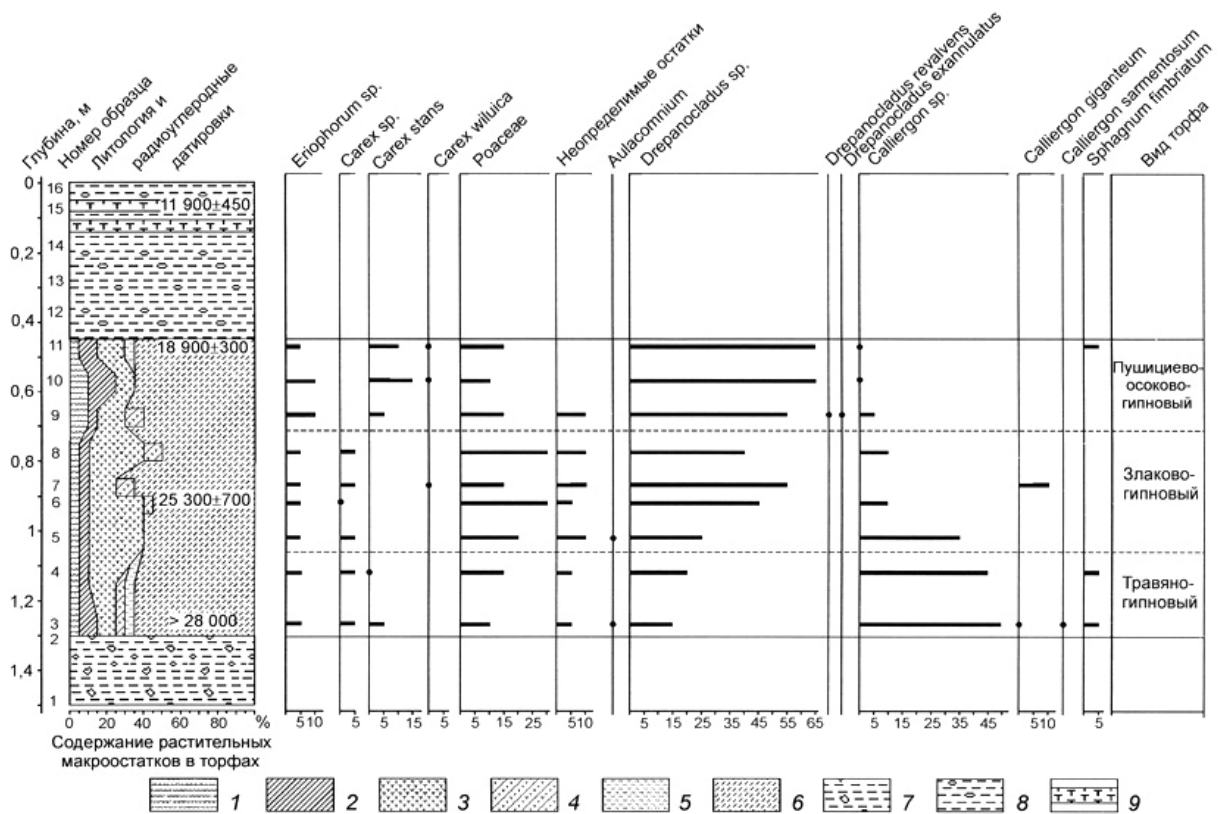


Рис. 6. Процентная диаграмма содержания растительных макроостатков в торфе верхней части разреза Вершина:
1 – пушицы; 2 – осоки; 3 – злаки; 4 – неопределимые остатки трав; 5 – сфагновые мхи; 6 – гипновые мхи; 7 – моренный валуново-галечный суглинок; 8 – покровный суглинок с гальками; 9 – прослой сильно разложившегося торфа
Fig. 6. Plant macro remains percentage diagram of upper part of Vershina exposure:
1 – Eriophorum; 2 – Carex; 3 – Poaceae; 4 – indeterminate herbs remains; 5 – Sphagnum; 6 – Bryales; 7 – till; 8 – cover loam; 9 – high degree decay peat layers

geba khkl □ gyy klv aa □ lnygbd □
 kblevguo fdhklldh □ gbgc ikleg □ gbabgguf aedhh- lbighuf
 klb lnyguo hlehghc b kihhh- lnnhf b nhfbhekV ib[eablevgh
 iuevpuo gguo, odlbamxsbo 26 000-23 000 e.g hkl □ kblevguo
 iebghdhfiedk 2, ihahey □ fdhklldh □ ihdau □ haklgb □
 dhgklmbhtv gbabggu □ lygh- heb lbighuo foh □ h □ Drepanocladus
 lbighu □ nblhpghau, ablu □ g □ kbevgh (h 45-55 %) b mfgvrgb □ khgby
 h[hggguo a[hhegguo lmghuo Calliergon (h □ 35 h □ 10%). b
 iheb]hgō □ ihgbgbyo evn □ □ lygbkluo klghc g □ nhg □
 mkehbyo ihurggh]h megghy mgkehgh]h khgby Eriophorum
 jmg]hufb hfb . mklghdhuc ymk sp. b Carex sp. (□ iēb 5 %)
 ba gbadhhkeuo debdhc [adb, b □ mebbiky aggb]hKZ h 30 %).
 hevohgd □ kbevgh ag □ Lygbkluc □ iebghdhfiedk □ 3,
 ymk ld □ ag □ b ikleg khhlklmxsf kgc klb
 aedhufb, khdfb (□ lhf bke □ Carex lnygbd □ , hev l □ mfgvrlky h 55%,
 stans), imrbpc, ihbaklfbfb g □ □ aggb □ kihhuo hakl □ h 42%.
 ebd □ ih dyf iheb]hgevguo hadh □ . hgb □ iuevpu kguo b
 G □ gaghguo kdegō khogyebkv dmklghdh □ mfgvrlky h 2-3%. b
 aggu □ mfgg □ megghu □ l □ ih- igfm hfbgbm □ iuevp □
 lmghu □ khkdh □ aedhu □ , aedhu □ b kfekl □ Jhk □ (h 57%), h 40%
 aedhh- fhohu □ khh[skl □ g □ s[gbklh - hakl □ ibkmlklb □ iuevpu
 km]ebgbklhf km[kll □ fhgguo CyperKZ □ kidl □ ibkmlklm □ iuevp □
 hlehghc Artemisia b Saxifragaceae. b kihhuo hfbgbm □ Bryales (95-100%), □ iēb

bgbguo kih h iuo ihpglh
 iklegu Polypodiaceae, Equisetum,
 Sphagnum. bgbgh hlfj Pedastrum.
 hkl iebghdhfiedk 3 b
 dhfihabpby klblevguo fdhkkldh
 lhn hkl mkehby ihurgghjh
 ibhbkdb ba[ulhgh]h meggyby,
 hahkrjh ih kggbx k iumsbf
 bglehf Jklblevghklv [ue
 ikleg kbevgh h[hgggufb
 aedhh-]bighufb , hkhdhh- aedhh-
]bighufb b]bighufb lmghufb
 nblhpgahf wlngh]h lbi, abluof
 pglevguo klyo iheb]hgh, b
 hkhdhh- aedhufb khh[sklfb ih bo
 ibnbb
 ogyy klv lhnnygd,
 nhfbhryky b ggle 23 000 -
 18 900 e.g., ikleg imrbpbh -
 hkhdhh-]bighuf lnhf , dhlfhf hev
]bighuo foh h Drepanocladus
 mebbiky h 65 %, a Calliergon -
 mfgvrlky h iuo ihpglh , ghv
 ihyeylky Sphagnum fimbriatum (5%).
 hgb fdhkkldh hkhdhuo
 (Eriophorum sp., Carex stans, K. wiluica)
 hakl h 25%, aedhuo hlfklky b
 ieo 10-15%. iebghdhfiedk 4,
 odlbamxsf ogxx klv
 lhnnygd , msy hev nhfbhgbb
 kidl ibgebl lf (h 97%).
 >hfbgglf kemb iuevp kfakl
 JhKZ (h 83%), khgb iuevp
 CyperakZ mfgvrlky h 13%,
 ieo 5% ibkmlklm iuevp
 Artemisia, bgbgu agl Caryophyllaceae.
 hgb iuevp kguo b
 dmklghdh khkleyl 5-6 %. Jhev
 kihhuo iebghkidl mfgvrlky h
 2-3%, hgb iklegu Bryales, Sphagnum.
 Jamevllu kihhh- iuevph]h geba b
 geba klblevguo fdhkkldh
 ihaheyx ihheblv , lh 23 000 -
 18 900 e.g. ihbkohbeh afsgb
 gbabgguo lygh-]bighuo nblhpgah ,
 abluo pglevguo klyo iheb]hgh ,
 iohgufb imrbpbh -hkhdhh-
]bighuf b khh[sklfb , hksbfb
 ioh gbabgguo lhnnygdh nam
 llnkng]h iblgby . Mkehby
 meggyby fgyxiky klthgm
 dkhnblbapbb lh ibnbb iheb]hgh

g ebd, g gmfuo ihurgguo
 mklde evn Jhkihklheb lygu
 (hkhdhh- aedhuo , aedhuo) lmghu
 khh[skl .
 Iebghdhfiedk 5 hl bafggby,
 ihbahrfb ihke 18 900 e.g. g
 iklegu bgbguo ag ko
 klblevguo]mii, ibf iuevp Pinus
 s/g Haploxylon yeylky aghkghc b
 l hlfklky CyperKZ JhKZ
 Artemisia, Caryophyllaceae. bgbgu
 kih iklegu Bryales. hkl
 iebghkidl mdaul g bdevgmx
 kfgm wdheh]bkdb mkehbc ihke 18 900
 e.g., hylgh, uaggmx adbf
 ihoheghf b mfgvrgbf eghklb,
 lh ibeh g lhevdh d idsgbx
 ihpkk lnhgdhiegy, gh b d
 h[ggbx b khdsbx ihdlbgh]h
 ihdulby klblevghklb . Jklblevguo
 ihdh [ue dgg ag b ikleg
 hlevgufb dmlbgdfb hkhd, aedh ,
 iheug
 G m 11 900 - 12 000 e.g.,
 hylgh, ihbahreh gdhlhh ihliagb
 b mehgb eghklb, lh ibeh d
 dlhfgghfm hah]ghegbx
 ihpkk lnhgdhiegy, amevll
 lh knhfbhebkv fehhsigu (2-3 kf)
 lh ihkehcd b ogc klb idhguo
 km]ebgdh, bfxsb hakl 11 900 ± 450
 e.g. (EE-6391). Nhfbhgbb dmighc
 ekghc dhlehbg g fuk iekdhf
 gehkv ihke 11 900 e.g.
 uhu
 >ggu , ihemggu ib bamgbb
 llbguo hlehgc h[ggby
 rbg , ihaheyx kelv y uhh h
 ieh]h]nbkdb mkehbyo ably
 ihghc ku h Ghy b]bv . G wlfh
 hklh iekluo evu bfxl rbhdh
 iehsg kikhlggb , bo iehsv
 khkleyl , ih fgvr f iuo
 kyldb dlguo dbehflh .
 kduxsyky h[ggbb rbg h
 gmlggc klb hklh lhes ubeuo
 hlehgc, ikleggy kehgh
 bkehpbggufb ib]gh- fhkdbfb
 hkdff , ieklhuf evhf b fhghc ,
 khse hllhgpu , - s hgh
 kblevklh glh idhgh]h

. Jh hakl hpgblky dđ dhgp kglh ghiecklhp [kbeyg b *Edhevkdbc*, 2007Z 2007 [; ;Zbeyg b f ., 2006].

G ihlygbb 28 000 - 18 900 e.g. g h. Ghyl b[bv kmsklheb mkehby, [e]hlylgu ey giugh]h lnhgdhiegy. Hgb fh]m [ulv hiegu dđ dbh]mfbgu . >eblevgh b khoggb , lhf bke b wihom klgdh]h ihohehgy , kd h k]h, kyagh k hliayxsf hacklf hdg mhgv dhlh]h dhgp d]bgkdh]h bgklbe hylgh , [ue hklhgh ukhd . hkgguf h[ahf wlb mkehby kblevklmx h lhf, lh ddhc - lh mklhd []hhe ebgb hklhgh- b[bkdh]h fny dhgp d]bgkdh]h fgb k]he]ky g gablevghf megbb h chg bkkehgc b hklky hlgkblevgh kl[bevguf he]h fy g ggb wli ihohehgy. Megyxs b hliayxs hacklf fhkdh]h [kkcg ehdevgh dhfigkbheh gklgb h[sē dbhbgkklb hgh i]hehblv , lh ablb [kkbb [kkcg klgkdhf dbhohg [ueh ihgevgh kvf fegguf , alf - wdkihggpbevguf . h]ekgh ieh[hlgkdbf flbef , egrnu abekv h agguo kmobo b mfggh megguo lmghuo hkhdh -aedhuo b aedhh- hkhdh khh[sklf g ke]h aghgghf s[gbklh -km]ebgbklhf km[kll fhgguo hlehgc (h 28 000 e.g.) d kbevgh h[hgguf aedhh-]bighuf , hkhdh- aedhh-]bighuf b]bighuf lmghuf nblhpghaf wllngh]h lbi b hkhdh- aedhuo khh[sklf (28 000 - 23 000 e.g.), alf d iohguf imrbpbh -hkhdh-

]bighuf khh[sklf b lyguf lmgf (23 000 - 18 900 e.g.). Jm [18 900 ± 300 e.g. odlbamky adbf momfgbf wdheh]bkdbo mkehbc, kyagguf , hylgh, k adbf ihohehgbf b mfgvrgbf eghklb, lh hl iklegbyf h ablb [kkbgc nau iheygh]h [kkcg [lfbkdbc fbgbfmf klgdh]h dbhohg . eu ihdhgh]h heggby h fy klgdh]h ihohehgy (22 000 - 10 500 e.g. ih [bg 1974]) g k h Ghyl b[bv hlkmklmx . Ihpkk nhfbhgy ekh [kghe klb h Ghyl b[bv ih grbf gguf geky ihke 1 900 e.g. b dlbg hilde []hepg . I]he]ky , lh iuc pbde ekbhgy lhlbc gh -heufkdhc gbafggklb, grbky g[m []hepg , [ue gb[he fhsguf [ahguo b f ., 1986] b hklb] fdkbfmf hdheh 9 000 e.g. >lbhd fehfhsg]h ihkehy lhn [ggc klb ihdhguo km]ebgdh h]ggby fbg hdmfglbm gevguo wli wlh]h ihpkk g h Ghyl b[bv . e]hghklb. lhu [e]hy] gmgh]h khlmgb e]hlbb [hehguo wdhkklf Bgklblm [bhe]bb GP JiG G. lhcdbgm a gēba kblevguo fdhklldh , khlmgbdh bhm]ehgc e]hlbb BB JiG b [mdhhbley . B. Acpm a lbhg b h[aph . J[h [ue [u gūhegbf [a ihdb hgh]h ba [e]hlhblevguo gmguo nhgh (Gvx- Chd , R) b debnbpbhgg]h eh]bklbkdh]h khihhgy]gkl «B» (gd -I[m]), d]huf lhu uk kh bkdggxx ibaglevghklv

Eblm

1. [gbkbfh F .: ., Lmfkdhc <?., BZhZ <<. IeZhu_ evu Ghhkb[bkdbo hklhh dđ ebd g]h heggby // Lā. hde . XIII eypbhe . kbfihabmf «hdsqb [eypbhknū : ndlū b gēba » . I ., 2004. . 37-38.
2. [gbkbfh F .: ., Lmfkdhc <?., BZhZ <<. IeZhu_ evu Ghhkb[bkdbo hklhh

dđ ebd g]h heggby // B . 2006. ū 101. 143-145.
3. [gbkbfh F .: ., Lmfkdhc <?., ;Zbeyg : .W, Edhevkdbc I .: . IeZhu_ evu Ghhkb[bkdbo hklhh - agbfuc ndlh evnh[ahgy [ihrehf b gklhysf// Lā. hde . gm . dhgn . «hy ukhdbo rbh b fhkdy dbhkn » . I ., 2007. 20-21.

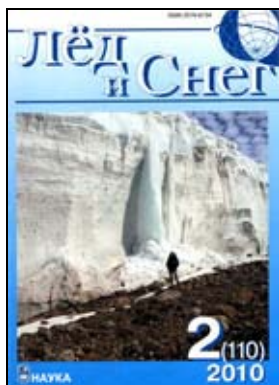
4. Kheyg : .W, *Edhevkdcb I .: . H* iecklhpghf heggbb Ghkcb[bkdb] hklhh // h[eh]bkdb kh[ulby] gh]g b d m Jhkkbb: khf . khklygb kllb]nb kof b ieh]h]nby , dhgklm d pbb: lbeu khkk . gm khsgby . □, 2007. □10-12.
5. Kheyg : .W, *Edhevkdcb I .: . Hihguc* ah lbguo hlehgc fuk fgguc(h Ghv b[bv]) // xE . hfkkbb ih bamgb lbg]h ih □ . 2007. □ 67. □76-84.
6. Kheyg : .W, *Edhevkdcb I .: . Lmfkdhc* <?., gkbjfh\ F .: . *Kl[by* lbguo hlehgc Ghkcb[bkdb] hklhh b k gh -Bg]bkdhc gbafggkbl // Ih[efu dh[epbb] iecklhpghu kh[ulbc] g Jmkkdhf □ . □, 2006. □16-17.
7. ahguo X .I ., *dkej B.C., Kumo \ : .K., Klee_ <.Y. Dh[pyby* ih ¹⁴ ieh]h]nbkdb kh[ulbc] ihag]h iecklhp] b]hehp] hlevguo chgh [dlbd] // Bahhgh -]hobfb . bkkehgy □ Ih[elbd b ehmkbb. L[ebgg, 1986. □5-12.
8. beh : .<. *lkbgh h[egbb] hklgh -b]bkdhc [dlbd] // Ih[efu dh[epbb] iecklhpghu kh[ulbc] g Jmkkdhf □ . □, 2006. □29.*
9. hkmklgy]h[ebkdy d m Jhkkbckdhc Npbb . krl 1:1 000 000 (ghv kby) . Ekl S-53-55 - Ghkcb[bkdb] hklh . H[tykglevgy aibkd . - □: ba B , 1999. 208 k
10. hkev F .=, *illbdZ* □ ihkegc egdhu fdkbfmf b]hehp] - hdgdb u[hku , flhdh b fhkd evu , bo bgb b kyav k debfif // B . 2004. □96. □47-54.
11. >bgfbd egrlguo dhfihggh b gmlggb fhkdb [kkggh ghc abb a ihkegb 130 000 e□: tek-fhgh]nby «Jabl egrlh b debfif ghc abb . Ihagc iecklhp] -]hehp] - w[glu ih]gha □ . 2. H[sy ieh]h]nby . □: H[2002. 232 k .
12. iabg L.G., *Ehdbg : .<. kaZ* «eh]h dhfiedk » lbfhkdb gbafggkbl dmlbb // Ba . iG □ . □ .]h] . 1982. □ 2. □84-95.
13. bg G.<. *hohghehby ihag]h* glh]g ih bahhiguf gguf □ .: Gmd] 1974. 256 k
14. *Edwards F.?, Anderson P.M., Brubaker L.B. et al.* Pollen-based biomes for Beringia 18,000, 6000 and 0 ¹⁴C yr BP // *Journ. of Biogeography.* 2000. V. 27. P. 521-554.
15. *Hubberten H.W., Andreev A., Astakhov V.I.* The periglacial climate and environment in northern Eurasia during the Last Glaciation // *Quaternary Science Reviews.* 2004. V. 23. P. 1333-1357.
16. *Kienast E, Schirrmester L., Siebert C., Tarasov P.* Palaeobotanical evidence for warm summers in the East Siberian Arctic during the last cold stage // *Quaternary Research.* 2005. V. 63. P. 283-300.
17. *Meyer H., Derevyagin A., Siebert C., Schirrmester L., Hubberten H.W.* Palaeoclimate reconstruction on Big Lyakhovsky Island, North Siberia - Hydrogen and oxygen isotopes in ice wedges // *Permafrost and Periglacial Processes.* 2002. V. 13. P. 91-105.
18. *Prentice I.C., Jolly D. and BIOME 6000 participants.* Mid-Holocene and glacial-maximum vegetation geography of the northern continents and Africa // *Journ. of Biogeography.* 2000. V. 27. P. 507-519.
19. *Schirrmester L., Siebert C., Kuznetsova T. et al.* Paleoenvironmental and paleoclimatic records from permafrost deposits in the Arctic region of Northern Siberia // *Quaternary International.* 2002. V. 89. P. 97-118.
20. *Svendsen J.I., Alexanderson H., Astakhov V.I. et al.* Late Quaternary ice sheet history of northern Eurasia // *Quaternary Science Reviews.* 2004. V. 23. P. 1229-1271.
21. *Tarasov P.E., Volkova V.S., Webb L. III. et al.* Last glacial maximum biomes reconstructed from pollen and plant macrofossil data from northern Eurasia // *Journ. of Biogeography.* 2000. V. 27. P. 609-620.

Summary

An exposure composed of Quaternary deposits of different nature was discovered in the inner part of the Novaya Sibir Island. It includes fossil ice, which is the evidence for the old glaciation of the region of the New Siberian Islands. The glaciation event dates to the end of Middle Pleistocene. Cover loam with peat-like interbeds and peat deposits found in the upper part of the profile overlap the morainic sediments. Radiocarbon dates ran on the peat deposit and peat interbeds delivered ages from > 28 000 to 11 900 ± 450 years BP. Environmental changes

for the study area within Late Pleistocene are reconstructed from pollen and plant macro remains data. Results of the study exclude expanded glaciation of the area during the Late Pleistocene.

Ссылка на статью:



Лед и Снег. X., гbkbfh\ F.:., hñdbgZ F.<., Iblmevdh << 2 (110) 2010. // E b kg. 2010. 2 (110), 85-92.