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TALLINN RADIOCARBON DATES II

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The following list includes samples dated in 1973. Benzene is used as the carrier of natural ^{14}C activity as previously described (Punning *et al*, 1973). We used both 1-channel and 2-channel scintillation devices. The detector shield comprises 10cm lead. Around the detector we put 16 Geiger-Mueller type counters in anticoincidence circuit with output signals from detector. It decreased the average background ca 20 to 40%.

Calculations are based on a ^{14}C half-life of 5568 ± 30 yr. All dates are reported in years before 1950.

Alasoo series

Alasoo peat bog is on the W beach of Lake Peipsi, Tartu Dist, Estonian SSR. Organic deposits (reed peat and sapropel) are buried under beach barrier. Samples are from vertical gutter-wall of prospecting shaft to 250cm and from borehole at greater depths. Coll 1971 and subm by U Paap and R Pirrus, Inst Geol, Acad Sci Estonian SSR (now Inst Geol). *Comment*: pollen analyses by R Pirrus.

Tln-39. Alasoo — **1270 ± 50** (**AD 680**)

Reed peat at depth 114 to 117cm. Pollen Zone SA 2.

Tln-61. Alasoo — **2770 ± 50** (**820 BC**)

Reed peat at depth 141 to 144cm. Boundary of Pollen Zones SA_1 and SA_2.

Tln-47. Alasoo — **5935 ± 45** (**3985 BC**)

Reed peat at depth 220 to 225cm. Pollen Zone SB21.

Tln-43. Alasoo — **7745 ± 85** (**5795 BC**)

Sapropel at depth 350 to 360cm. Pollen Zone BO2.

Tln-32. Alasoo — **8340 ± 70** (**6390 BC**)

Sapropel at depth 380 to 390cm. Pollen Zone BO1.

Tln-45. Kuressaare — **905 ± 90** (**AD 1045**)

Relic from SE excavations of Kuressaare Castle, Kingissepa Dist, I Saaremaa, Estonian SSR. Coll 1972 and subm by J Selirand, Inst Hist, Acad Sci, Estonian SSR. *Comment*: samples from excavations of Kuressaare Castle were dated earlier (Tln-5, -6, -37, -38: R, 1973, v 15, p 586-591).

Bolshaya Lagorta series

1760 ± 60

Tln-42. Bolshaya Lagorta **AD 190**

Peat from ancient lake sediments of the upstream Bolshaya Lagorta R. Two layers of organic sediments are in profile at depth to 145cm and 450 to 485cm. Loam with wood remains separates the peat layers. Coll 1972 at depth 27 to 35cm and subm by L Troitski, Inst Geog Acad Sci USSR (now Inst Geog).

3300 ± 110

Tln-55. Bolshaya Lagorta **1350 BC**

Peat from depth 60 to 68cm.

4385 ± 60

Tln-41. Bolshaya Lagorta **2435 BC**

Peat from depth 140 to 145cm.

4540 ± 60

Tln-54. Bolshaya Lagorta **2590 BC**

Peat from depth 470cm.

7790 ± 80

Tln-40. Bolshaya Lagorta **5840 BC**

Remains of wood from depth 650cm.

8355 ± 90

Tln-44. Sveagruve **6405 BC**

Shells from sandy clays from a terrace, 7m high, on W Spitzbergen, near Sveagruve. Coll 1967 and subm by L Troitski.

8025 ± 95

Tln-46. Usher **6075 BC**

Peat from a terrace at height 22m in outwash deposits on E coast of Mon Bay W Spitzbergen. Coll 1966 and subm by L Troitski.

Tln-48. Mleles Sala **⩾45,500**

Plant remains underlying gravel and aleurite, at depth 185 to 190cm, from right bank of Niemen R in Druskininkai, Lithuanian SSR. Coll 1972 by J M Punning, R Rajamäe, and L Smirnova, Inst Geol.

Koleshki series

Profile Koleshki is ca 1km downstream from v Koleshki on Vaga R (tributary of Severnaya Dvina R), Arkhangelsk Dist, Russian SFSR. Two complexes of interstage sediments are in profile in sands at depth 1300 to 1320cm with many shells, and underlain by 2 thin layers of peat, at depth 1530 to 1550cm. Average alt of exposure from river level is ca 19m. Samples coll 1972 by J M Punning.

31,900 ± 800

Tln-52. Koleshki-1 **29,950 BC**

Shells at depth 1300 to 1320cm.

Tln-49. Koleshki-1 **37,135 ± 450**
35,185 BC

Reed peat at depth 1535 to 1537cm.

Tln-71. Koleshki-1 **⩾49,100**

Sedge peat at depth 1547 to 1550cm.

Tln-63. Koleshki-2 **36,500 ± 700**
34,550 BC

Peat from profile 300m downstream from Koleshki-1 (see Tln-49, -52, -71). Peat, 40cm thick, underlies aleurite at alt 260 to 300cm from river level. Coll from upper part of complex 1972 by J M Punning.

Tln-50. Krasnaya Gorka **38,300 ± 1400**
36,350 BC

Sedge peat from exposure near Rogatchov, on right bank of Dnieper R, Byelorussian SSR. Ancient sediments, 30cm thick, lie in complex of sand at depth 600cm. *Comment*: dated at Leningrad State Univ ^{14}C lab at 30,000 to 46,000 (Voznyaczyk Arslanov, 1971). Coll 1972 by J M Punning, R Rajamäe, and L Smirnova.

Tln-51. Chornyi Bereg **⩾46,000**

Buried peat from till exposure near Surazh on right bank of Zapadnaya Dvina R, Byelorussian SSR. Coll 1972 by J M Punning, R Rajamäe, and L Smirnova.

Malaya Khadata series

Tln-56. Malaya Khadata **5680 ± 120**
3730 BC

Peat, underlying loam at depth 45 to 50cm from knoll on valley bog of Malaya Khadata R, 2km S of Malaya Khadata Lake. Average thickness of peat is 160cm. Coll 1972 and subm by L Troitski.

Tln-64. Malaya Khadata **6315 ± 70**
4365 BC

Peat from depth 95 to 100cm.

Tln-53. Malaya Khadata **5590 ± 50**
3640 BC

Peat from depth 155 to 160cm. *Comment*: sample of earlier date than Tln-64 from upper layer.

Tln-86. Malaya Khadata **7960 ± 100**
6010 BC

Same as Tln-53.

Tln-83. Malaya Khadata-1 **6280 ± 70**
4330 BC

Peat 200cm thick, overlying clay loam, from peat knoll on coast of Malaya Khadata Lake, Polar Ural. From depth 40 to 45cm. Coll 1973 by L Troitski.

Tln-84. Malaya Khadata-1 **6745 ± 70 / 4795 BC**

Peat from depth 95 to 100cm.

Tln-85. Malaya Khadata-1 **8670 ± 100 / 6720 BC**

Peat from basal layer of complex, at depth 195 to 200cm.

Tln-57. Yenga **3480 ± 60 / 1530 BC**

Wood remains from exposure by Yenga R, Polar Ural. The ancient sediments consist of loam, gravel with wood remains, and clay. Coll 1972 and subm by L Troitski.

Tln-58. Silla **8770 ± 120 / 6820 BC**

Decomposed woody peat from excavations Silla, in Karula upland, Estonian SSR. Sample from depth 390 to 400cm, at a lower contact of organic sediments. Coll 1972 and subm by R Karukäpp, Inst Geol.

Tln-59. Kuigli **8865 ± 70 / 6915 BC**

Decomposed reed peat from excavations Kuigli in Karula upland, Estonian SSR. Bog sediment in esker hollow is 265cm thick. Sample from depth 250 to 265cm; coll 1972 and subm by R Karukäpp.

Tln-60. Yelovetch **1270 ± 70 / AD 680**

Charcoal from cultural layer of settlement Yelovetch on right bank of Onega R, Arkhangelsk Dist. Coll 1971 and subm by E Devyatova, Inst Geol, Karelia Branch Acad Sci USSR.

Tln-62. Kurgesoo **865 ± 80 / AD 1085**

Reed peat from lagoon sediments at depth 140 to 150cm on Isle Hiiumaa, Estonian SSR. Sample coll 1971 by H Kessel and U Sepp, Inst Geol. *Comment*: date shows change from lagoon into marshland.

Tln-65. Palivere **8640 ± 70 / 6690 BC**

Wood peat from under beach barrier of Ancylus Lake, near Palivere RR Sta, Haapsalu Dist, Estonian SSR. Pollen analyses by H Kessel refer the peat to Pollen Zone BO 2. Coll 1972 and subm by Ü Paap, Inst Geol.

Tln-66. Kôdu **8480 ± 90 / 6530 BC**

Wood peat from under beach barrier of Ancylus Lake, 20km NE of Pärnu, Estonian SSR. Sample from upper part of organic sediments, 30cm thick. Pollen analyses by H Kessel refer peat to Pollen Zone BO_2. Coll 1971 and subm by H Kessel.

Tln-67. Pervomayskyi **⩾37,000**

Sphagnum peat buried by sand and aleurite on left bank of Severnaya Dvina R, near settlement Pervomayskyi, Arkhangelsk Dist. Sample from upper part of organic sediments 70cm thick. Coll 1972 by J M Punning.

31,550 ± 350

Tln-68. Shapurovo **29,600 BC**

Plant remains buried by sandy loam and till from right bank of Kasplya R, near settlement Shapurovo, Vitebsk Dist, Byelorussian SSR. Coll 1972 by J M Punning, R Rajamäe, and L Smirnova. *Comment*: ^{14}C dates by Leningrad State Univ ^{14}C Lab are: LU-78A: 29,150 ± 850 and LU-78B: 36,400 ± 800 (Voznyaczyk, 1972).

42,600 ± 600

Tln-69. Snaigupele **40,650 BC**

Submorainic organic deposits from right bank of Snaigupele R (tributary of Niemen R), ca 2km from Druskininkai, Lithuanian SSR. Coll 1972 by J M Punning, R Rajamäe, and L Smirnova. *Comment*: according to Kondratiene (1973) interglacial organic deposits are older than Merkine (Riss-Wurm) and younger than Butenai (Mindel-Riss).

39,530 ± 450

Tln-70. Konopki Lesne **37,580 BC**

Interglacial peat from profile Konopki Lesne near Lomza in NE Poland. The profile is outside the reach of the youngest glaciation and peat is covered with sands only. Sample from depth 315 to 345cm; coll and subm 1971 by E J Mojski, Inst Geol, Warsaw. *Comment* (Borowko-Dlužakowa, 1973; Borowko-Dlužakowa, Halicki, 1957): profile indicates the bipartition of the Eemian Interglacial.

Tln-72. Lomza **⩾45,400**

Interglacial peat from profile near Lomza in NE Poland (depth 730 to 760cm). Coll and subm 1971 by E J Mojski.

37,900 ± 300

Tln-73. Yanonis **35,950 BC**

Travertine overlain by morainic loam, humified sands with plant remains (250cm) near settlement Yanonis, NE of Lithuanian SSR. Sample from upper part of layer; coll 1972 by J M Punning, R Rajamäe, and L Smirnova. *Comment*: dates from travertine upper stratum: Vs-39: 22,700 ± 360; middle: Vs-40: 24,800 ± 450, and lower: Vs-41: 27,200 ± 400 (Vaitonis *et al*, 1972).

Tln-74. Gaylyunay **⩾32,000**

Submorainic complex from left bank of Niemen R, near Druskininkai, Lithuanian SSR. Interglacial (Interstadial) complex consists of aleurite with fragments of shells, and wood remains. Average thickness is 200cm. Coll 1971 by J M Punning, R Rajamäe, and L Smirnova.

8525 ± 85

Tln-75. Kerkidon **6575 BC**

Charcoal and plant remains in flood-plain sediments, at depth 850cm, from 2nd terrace of right bank Kerkidon R, SE Fergana Valley. Coll 1972 and subm by G Pšenin and L Serebryannyi, Inst Geog.

6665 ± 115

Tln-76. Kerkidon **4715 BC**

Charcoal and plant remains at depth 700cm from profile Kerkidon (see Tln-75). Coll 1972 and subm by G Pšenin and L Serebryannyi.

Tln-77. Raibola **⩾49,000**

Wood peat from left bank of Vaga R (tributary of Severnaya Dvina R), Arkhangelsk Dist, Russian SFSR. Peat layer is embedded in sands at 500cm above river level, and is covered by till. Coll 1972 and subm by E Devyatova.

8245 ± 80

Tln-78. Sopka **6295 BC**

Moss peat from left bank of Severnáya Dvina R, Arkhangelsk Dist, Russian SFSR. Peat lies in river sediments. Coll 1972 by J M Punning.

Sista-Palkino series

Profile is on right bank of Sista R, 300m upstream from hwy bridge in Leningrad Dist, Russian SFSR. Coll 1973 by T Kakum, J M Punning, and R Rajamäe.

6000 ± 80

Tln-79. Sista-Palkino **4050 BC**

Wood peat at depth 270 to 275cm, embedded during later transgression of Littorina Sea. Pollen analyses by H Kessel refers deposits to Pollen Zone V.

6570 ± 80

Tln-80. Sista-Palkino **4620 BC**

Wood peat at depth 285 to 290cm.

7980 ± 90

Tln-81. Sista-Palkino **6030 BC**

Wood peat at depth 320 to 325cm. Pollen analyses by H Kessel refers deposits to Pollen Zone VII.

3995 ± 70

Tln-82. Chartakchay **2045 BC**

Peat from 2nd terrace left bank of Chartakchay R, 20km NE of Namangan. Peat underlies gravel in clay complex. Coll 1972 and subm by G Pšenin.

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