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TALLINN RADIOCARBON DATES IV

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The following list includes samples dated in 1975. The measurement of ^{14}C activity was performed with 1-channel and 2-channel scintillation devices. Special attention was paid to the decrease of the background. The effectiveness of the measurement is ca 50% (Punning, Rajamäe, 1975). The "enriched standard" (Alekseejev *et al*, 1971) has been used as a contemporary reference standard of modern carbon. Age calculations are based on the ^{14}C half-life of 5568 ± 30 yr, with 1950 as the standard year of reference. All samples are calculated to ± 1σ with respect to sample, standard and background after counting times of at least 2800 minutes. $^{13}C/^{12}C$ measurements and corrections have not been made for these samples.

I. GEOLOGIC SAMPLES

A. Estonian SSR

9820 ± 130
Tln-130. Lemmeoja **7870 BC**

Wood peat from exposure on bank of Lemmeoja R, Pärnu Dist. Peat 45cm thick underlies eolian sands and gravel containing shells of mollusks. Sample taken from upper part of peat. Coll 1974 and subm by H Kessel, Inst Geol, Acad Sci Estonian SSR (now Inst Geol).

6240 ± 210
Tln-132. Koivasoo **4290 BC**

Coarse detritic sapropel from Kõivasoo mire, I Hiiumaa. Mire formed after separation of near-shore lake from open sea by littoral deposits of Hg Littorino regression. Sample from depth 200 to 210cm. Coll 1974 and subm by H Kessel.

9565 ± 120
Tln-131. Koivasoo **7615 BC**

Lacustrine lime from Kõivasoo mire (see Tln-132). Sample from depth 220 to 230cm.

4975 ± 100
Tln-134. Sindi **3025 BC**

Buried sedge peat from profile on left bank of Pärnu R, Pärnu Dist. Peat buried under Littorina Sea medium-grained sands. Sample from depth 180 to 185cm. Coll 1974 and subm by H Kessel.

7215 ± 90
Tln-133. Sindi **5265 BC**

Buried reed peat from profile on left bank of Pärnu R (see Tln-134). Sample from depth 300 to 310cm.

8915 ± 90

Tln-135. Sojamäe **6965 BC**

Coarse detritic sapropel from Sõjamäe bog, Harju Dist. Lagoonal sediments of Yoldia Sea overlie moraine. Sample from depth 430 to 450cm. Coll 1974 and subm by H Kessel.

5520 ± 100

Tln-178. Oara **3570 BC**

Buried sedge and reed peat underlies Littorina Sea deposits, Pärnu Dist. Sample coll from upper part, 0 to 5cm, of organogenous layer, 95cm thick. Pollen analysis by H Kessel refer peat to Pollen Zone AT2. Sample coll 1975 by J M Punning and R Vaikmäe.

7275 ± 80

Tln-179. Oara **5325 BC**

Sapropel with aleuritic interlayers from lower part, 90 to 93cm, of organogenous layer. Pollen Zone AT1.

B. Byelorussian SSR

9770 ± 110

Tln-136. Morino **7820 BC**

Peat with wood remains from bog-like sediments on right bank of Nieman R, 2km downstream from v Morino, Grodno Dist. Alluvial deposits of 1st terrace, 380cm thick. Sample from depth 350 to 380cm. Coll 1974 and subm by L Voznyachuk, Inst Geochem & Geophysics, Acad Sci Byelorussian SSR.

10,870 ± 100

Tln-137. Lateshi **8920 BC**

Peat from aleuritic complex in 5m terrace on left bank of Niemen R near v Lateshi, Grodno Dist. Terrace underlies dunes 8 to 10m high. Sample from depth 600 to 610cm. Coll 1974 and subm by L Voznyachuk.

23,850 ± 300

Tln-138. Gozha **21,900 BC**

Plant remains from aleuritic complex on right bank of Nieman R near v Gozha, Grodno Dist. Complex containing Dryas flora is embedded in alluvium in terrace 13 to 15m high. Sample from depth 1250 to 1275cm. Coll 1974 and subm by L Voznyachuk.

24,050 ± 450

Tln-139. Plaskovchyi **22,100 BC**

Plant remains from bog-lake sediments in aleuritic complex of buried terrace, 7 to 8m high, on right bank of Niemen R, opposite v Plaskovchyi, Grodno Dist. Sample from depth 624 to 635cm. Coll 1974 and subm by L Voznyachuk.

775 ± 60

Tln-155. Gozhka **AD 1175**

Wood from 1st terrace at confluence of Gozhka R with Niemen R, Grodno Dist. Sample from depth 277 to 305cm. Coll 1974 and subm by L Voznyachuk.

1990 ± 80
Tln-161. Novyi Sverzhen **40 BC**

Peat from bog-lake sediments in alluvial complex of 1st terrace, ca 3m high, on left bank of Niemen R near v Novyi Sverzhen, Grodno Dist. Sample from depth 230 to 250cm. Coll 1974 and subm by L Voznyachuk.

3820 ± 100
Tln-163. Ogorodniki **1870 BC**

Peat from bog-lake sediments in alluvial complex of 1st terrace, ca 3m high, on right bank of Niemen R near v Ogorodniki, Grodno Dist. Sample from depth 227 to 230cm. Coll 1974 and subm by L Voznyachuk.

C. Arkhangelsk and Murmansk Districts

Chevakino series

7890 ± 90
Tln-127. Chevakino **5940 BC**

Buried peat with wood remains from ancient sea terrace on left bank of Severnaya Dvina R near v Chevakino. Arkhangelsk Dist. Peat, abundant in half-decayed wood remains, underlies fine-grained sands. Sample from depth 60 to 65cm. Coll 1974 and subm by B Koshechkin, Inst Geol, Kola Branch Acad Sci USSR.

9060 ± 110
Tln-128. Chevakino **7110 BC**

Buried peat from ancient sea terrace on left bank of Severnaya Dvina R (see Tln-127). Sample from depth 120 to 125 cm. Coll 1974 and subm by B Koshechkin.

9820 ± 140
Tln-129. Chevakino **7870 BC**

Buried peat from ancient sea terrace on left bank of Severnaya Dvina R (see Tln-127). Sample from depth 160 to 165cm. Coll 1974 and subm by B Koshechkin.

29,020 ± 550
Tln-159. Lovozerskaya tundra **27,070 BC**

Plant remains from borehole in N part of Lovozerskaya tundra, Murmansk Dist. Lake-bog sediments 9m thick are embedded between moraines. Samples from depth 1530 to 1640cm. Coll 1974 and subm by V Evzerov, Inst Geol, Kola Branch Acad Sci USSR.

Tln-162. Lovozerskaya tundra **⩾30,000**

Wood twigs from same complex as Tln-159. Sample from depth 1530 to 1640cm. Coll 1974 and subm by V Evzerov.

D. West Spitzbergen (Svalbard)

9510 ± 90
Tln-145. Sveagruva **7560 BC**

Shells from 22m terrace on N coast of Van Mijen fiord, 2km W of settlement Sveagruva. Coll 1974 by L Troitski, Inst Geog, Acad Sci USSR, and J M Punning.

Tln-146. Sveagruva **10,340 ± 110**
8390 BC

Shells from 40m terrace on N coast of Van Mijen fiord 2km W of settlement Sveagruva. Sample at depth 8m from surface of terrace. Coll 1974 by L Troitski and J M Punning.

Dames-moraine series

The so-called Dames-moraine represents a complex of glacial and glacial-marine deposits 8km long, 1km wide, and 40m high on N coast of Van Mijen fiord. Dames-moraine is regarded as primary relief of glacial-marine accumulation (Semevskij & Shkatov, 1965), result of 2nd abrasive distribution of surface of glacial-marine deposits (Troitsky, 1967), or an iceberg glacial-marine deposits (Lavrushin, 1969). Our data confirm that Dames-moraine is a complex of marginal deposits of Paula glacier. Sample coll 1974 by J M Punning and L Troitski.

Tln-147. Dames-moraine **8555 ± 90**
6605 BC

Shells from distal slope ca 5km W of settlement Sveagruva. Sample from surface of deposits at height 40m.

Tln-148. Dames-moraine **7850 ± 80**
5900 BC

Shells from distal slope ca 3km W of settlement Sveagruva. Sample from surface.

Tln-149. Dames-moraine **8150 ± 90**
6200 BC

Shells from proximal slope at height 1m ca 5km W of settlement Sveagruva.

Tln-150. Dames-moraine **640 ± 60**
AD 1310

Driftwood from surface of distal slope.

Tln-151. Dames-moraine **605 ± 50**
AD 1345

Driftwood from surface in middle part.

Tln-152. Dames-moraine **8115 ± 80**
6165 BC

Shells from surface ca 2km from settlement Sveagruva. Sample at height 32m in middle part.

Tln-160. Geiki-moraine **8405 ± 90**
6455 BC

Shells from surface of Geiki-moraine near settlement Sveagruva. Sample at height 5m. Coll 1974 by J M Punning and L Troitski.

Kiellströmdalen series

Tln-168. Kiellströmdalen **9095 ± 90** **7145 BC**

Shells from surface of remnant sea terrace 25m from river level on right bank of Kiellströmdalen R ca 15km E of settlement Sveagruva. Sample coll 1974 by J M Punning and L Troitski.

Tln-171. Kiellströmdalen **8670 ± 80** **6720 BC**

Shells (*Saxicava arctica*) from remnant 15m sea terrace (see Tln-168). Coll 1974 by J M Punning and L Troitski.

Tln-187. Kiellströmdalen **8805 ± 80** **6855 BC**

Shells (*Pecten islandicus*) from same place as Tln-171.

Tln-170. Rindersbukta **6660 ± 70** **4710 BC**

Shells washed out by streamlet from 80m terrace on E coast of Rindersbukta, Van Mijen fiord. Sample coll 1974 by J M Punning and L Troitski.

Tln-157. Kapp Linne **⩾41,000**

Shells from exposure on right bank of Linne R ca 1.5km downstream from lake Linne. Sample underlay moraine. Coll 1974 by J M Punning and L Troitski.

Grön fiord series

Tln-164. Grön fiord **5160 ± 90** **3210 BC**

Shells from surface of 5m terrace on W coast of Grön fiord opposite settlement Barentsburg. Coll 1974 by J M Punning and L Troitski.

Tln-165. Grön fiord **8830 ± 80** **6880 BC**

Shells from surface of 9m terrace (see Tln-164).

Tln-166. Grön fiord **9355 ± 80** **7405 BC**

Shells from surface of 20m terrace (see Tln-164).

Tln-167. Grön fiord **9840 ± 90** **7890 BC**

Shells from surface of 40m terrace (see Tln-164.)

Tln-172. Grön fiord moraine **8000 ± 70** **6050 BC**

Shells from dark gray loam near retreating margin of Grön fiord glacier. Sample coll 1974 and subm by L Troitski.

Tln-185. Grön fiord moraine **3250 ± 60** **1300 BC**

Shells from W part of push moraine of Grön fiord glacier. Sample coll 1974 and subm by L Troitski.

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8660 ± 70
Tln-169. Sassendalen **6710 BC**

Shells from 40m terrace in valley Sassendalen. Age dated by outer layer (10 to 50%). Sample coll 1974 and subm by L Troitski.

8770 ± 100
Tln-169A. Sassendalen **6820 BC**

Same as Tln-169. Age dated by inner layer.

Renarodden series

8150 ± 70
Tln-173. Renarodden **6200 BC**

Shells at depth 7m from surface of 30m terrace, cape Renarodden, Bellsund. Sample from contact of shingle and fine-grained loam. Coll 1974 and subm by L Troitski.

9930 ± 70
Tln-174. Renarodden **7980 BC**

Shells at depth 5m from surface of 30m terrace, cape Renarodden, Bellsund. Sample from right part of exposure. Coll 1974 and subm by L Troitski.

30,750 ± 800
Tln-175. Renarodden **28,800 BC**

Shells from marine deposits in 30m terrace, cape Renarodden, Bellsund. Coll 1974 and subm by L Troitski.

9970 ± 80
Tln-186. Brögger **8020 BC**

Shells at depth 3m from surface of 25m terrace, 4km W of settlement Ny-Alesund. Coll 1975 and subm by L Troitski.

II. ARCHAEOLOGIC SAMPLES

Estonian SSR

Laossina series

460 ± 60
Tln-158. Laossina **AD 1490**

Charcoal from burial mound in Laossina, Põlva Dist. Estimated archaeol age: end of 1st millennium AD. Coll 1974 and subm by M Aun, Inst Hist, Acad Sci Estonian SSR (now Inst Hist).

1140 ± 80
Tln-180. Laossina **AD 810**

Charcoal from burial mound in v Laossina. Coll 1974 from depth 84cm and subm by M Aun.

460 ± 80
Tln-184. Laossina **AD 1490**

Charcoal from burial mound in v Laossina. Coll 1974 from depth 25cm and subm by M Aun.

Lohu series

810 ± 60

Tln-181. Lohu **AD 1140**

Charcoal from buried wall of stronghold Lohu on W bank of Keila R, Rapla Dist. Estimated archaeol age: 11th century. Sample coll 1974 and subm by E Tõnisson, Inst Hist.

810 ± 60

Tln-182. Lohu **AD 1140**

Charcoal from same complex as Tln-181.

790 ± 60

Tln-183. Lohu **AD 1160**

Charcoal from same complex as Tln-181.

1680 ± 60

Tln-190. Pajumoisa **AD 270**

Charcoal from stone grave on I Saaremaa. Estimated archaeol age: 5th century. Coll 1975 from depth 75 to 78cm and subm by T Tamla, Inst Hist.

1505 ± 80

Tln-191. Pajumoisa **AD 445**

Charcoal from stone grave on I Saaremaa. Coll 1975 from depth 70 to 75cm and subm by T Tamla.

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