

RADIOCARBON DATES OF RIGA II

V S VEKSLER

All-Union Research Institute of Submarine Geology and Geophysics
Riga, USSR

INTRODUCTION

Our standard procedure of ^{14}C concentration measurements is reported in Riga I. We report here data on samples from the Latvian SSR and Eastern Siberia.

GEOLOGIC SAMPLES

Latvia

Torfkaln Purvs Bog series

Torfkaln Purvs Bog is SE of Riga, near Salaspils and contains high-moor type sediments. Its area is ca 160ha. Average peat is 3.5m thick, 4.8 max. The bog structure and characteristics were previously studied (Normals, 1943; Druvij & Birkman, 1960).

The botanical composition of the peat indicates that all stages typical for this region of Latvia, from low-lying to highmoor peat bog, are present in the bog development. The absolute chronology of the bog has been described (Stelle, Savvaitov & Veksler, 1974). Samples were subm by V Stelle.

Riga-21.	2140 \pm 130
Weakly decomposed sphagnum peat from 1.05 to 1.10m depth.	
Riga-18.	2430 \pm 130
Strongly decomposed sphagnum peat from 1.30 to 1.35m depth.	
Riga-18a.	2410 \pm 80
Humic acids of previous sample.	
Riga-12.	3880 \pm 140
Weakly decomposed sphagnum peat, from 1.75 to 1.80m depth.	
Riga-17.	5290 \pm 50
Strongly decomposed peat from 2.05 to 2.10m depth.	
Riga-17a.	5360 \pm 60
Humic acids of sample 17.	
Riga-13.	5840 \pm 140
Strongly decomposed peat, from 2.30 to 2.40m depth.	

Riga-14.	6430 ± 130
Moderately decomposed sphagnum peat, from 2.55 to 2.60m depth.	
Riga-20.	7390 ± 130
Weakly decomposed sphagnum peat, from 2.75 to 2.80m depth.	
Riga-42.	7450 ± 130
Strongly decomposed hypno-sedge peat, from 2.80 to 2.85m depth.	
Riga-10.	7890 ± 130
Strongly decomposed hypno-sedge peat, from 2.85 to 2.90m depth.	
Riga-10a.	7760 ± 130
Humic acids of sample 10.	
Riga-15.	8020 ± 140
Strongly decomposed hypno-sedge peat, from 2.90 to 2.95m depth. Humid acid dating.	
Riga-19.	8890 ± 140
Strongly decomposed sedge peat, from 3.35 to 3.40m depth.	
Riga-16.	9410 ± 140
Strongly decomposed sedge-equisetic peat, from 3.60 to 3.65m depth. Humic acid dating.	

Sarnate Bog series

Sarnate Bog is one of the reference chronological sequence sections of the Kurzeme coastline. It is 30km S of the town of Ventspils. Its structure is characterized by a sequence of layers of bog and lake origin. The bog sediments are overlain by fine-grained sands and locally by grayish loamy clays.

Sporo-pollen analysis of the section and its radiocarbon dates (Table 1) were undertaken for the periphery, mainly low-lying peat, the sedimenta-

TABLE 1
Radiocarbon dates of Sarnate Bog

Lab no.	¹⁴ C date (yr BP)	Sporo-pollen zone	Provenience
Riga-38	7090 ± 140	BO2/AT1	Interface between Boreal and Atlantic layers
-29	7920 ± 160	BO2	Upper max of pine pollen
-56	8150 ± 130	BO1	Lower max of alder and hazel pollen
-23a	8300 ± 200	BO1	Offset of rational interface of alder pollen
-23	8520 ± 200	BO1	Lower Boreal max of pine pollen
-25	8950 ± 200	BO1	
-24	10,580 ± 250	Dr3	Hypnous peat horizon

tion of which occurred during the first half of the postglacial period (Stelle & Veksler, 1975).

Tirela Bog series

Tirela Bog is in the thermokarst depression of the W Kurzeme upland, 10km S of Edole. It is a highmoor-type peat reservoir, and measures 30ha. Radiocarbon samples were coll in the central part of the bog and subm by A Lacis.

Riga-300.	4080 ± 140
Highmoor peat from 1.25 to 1.35m.	
Riga-301.	4320 ± 140
Highmoor peat from 1.35 to 1.45m.	
Riga-303.	8400 ± 150
Magellanicum peat from 4.9 to 5.0m.	
Riga-304.	8520 ± 140
Magellanicum peat from 5.0 to 5.1m.	
Riga-305.	10,180 ± 140
Sapropel from clayey deposits; depth: 6.65 to 6.70m.	

Blidenes Bog series

Blidenes Bog is in the limnoglacial plain of E Kurzeme upland near Blidenes and consists of two types of peat, highmoor and low-lying. Samples were coll in the NE part of the low-lying reservoir and subm by A Lacis.

Riga-308.	5840 ± 140
Peat from 3.40 to 3.50m depth.	
Riga-307.	7450 ± 100
Sapropel with peat laminae from 3.50 to 3.60m depth.	
Riga-306.	9300 ± 80
Sapropel from 4.60 to 4.70m depth.	

Lambartu Bog series

Lambartu Bog is in the limnoglacial plain of Middle-Latvian lowland near Salenieki, Bauska region and measures 400ha. There are three types of peat—highmoor, mixed and low-lying. Samples were coll from the middle highmoor part of the reservoir, and subm by A Lacis.

Riga-317.	2170 ± 100
Peat from 3.65 to 3.75m depth.	

Riga-316. **3610 ± 120**

Peat from 4.8 to 4.9m depth.

Riga-315. **4630 ± 140**

Sapropel from 6.0 to 61.m depth.

Riga-314. **6510 ± 140**

Sapropel from 6.25 to 6.35m depth.

Gauya River series

Samples Riga-74, -105, -75, -76, -77 were coll near Viesuleni from river bank. Samples subm by V Stelle.

Riga-74. **11,110 ± 350**

Hypnous peat from riverflat terrace alluvium III at 3.38 to 3.25m.

Riga-105. **11,270 ± 230**

Hypnous peat from same horizon.

Riga-75. **8230 ± 140**

Wood from dark-brown peat horizon at 2.35 to 2.25m.

Riga-76. **1790 ± 120**

Wood fragments from alluvial outcrop clearings in sands at 1.75 to 1.90m.

Riga-77. **950 ± 80**

Oak wood from alluvial flat in clayey sands at 0.95 to 1.60m.

Riga-33. **10,530 ± 250**

Small plant fragments from III river flat terrace, river bank 3km from lower Valmiera. Subm by O Aboltniš and V Stelle.

Riga-256. **2770 ± 300**

Wood from 4.5m depth of river flat terrace of bank of lower Nurmižupite R delta.

Riga-319. **3030 ± 120**

Wood from 4.20 to 4.40m depth of first terrace of bank of lower Nurmižupite R.

Riga-318. **1780 ± 80**

Wood from 2.55 to 2.60m depth from oxbow-lake sec of high river flat near Mucenieki near Nurmižupite R. Riga-256, -318, -319 subm by I Daniels.

Riga-72. **21,420 ± 440**

Buried peat from landslide near Adamovo on bank of Daugava R 3km from lower Kraslava.

Riga-263.**≥4370**

Wood peat with fragments of branches and yellow fine-grained sand laminae with transition to dark-gray rich in organic clay in lower part. Taken from 3.1m depth from bank of Pededze R 250m from lower Sita R delta; subm by I Danilans.

Riga-320.**3920 ± 120**

Wood from 4.5m depth in terrace I outcrop of bank of Daugava R near Piedruya, subm by I Danilans.

Riga-323.**7200 ± 120**

Wood from same section at 5.8 to 6.0m depth; subm by I Danilans.

Riga-257.**3250 ± 150**

Wood from layer 20m above level of Maza Jugla R; subm by I Danilans.

Riga-37.**10,320 ± 230**

Strongly decomposed peat under sands of local basin terrace, from 2.2m depth on bank of Daugava R near Kaulezers Lake; subm by O Aboltinš, G Eberhard and V Stelle.

Riga-39.**13,320 ± 250**

Mossy peat with plant fragments from moraine of bank of Rauna R; subm by O Aboltinš and V Stelle.

Riga-253.**6560 ± 250**

Wood from second river flat terrace of Ogra R near Sturiši; subm by I Danilans.

Riga-258.**3750 ± 50**

Wood from 5m depth at bank of Bolshaya Jugla R near Zaki; subm by I Danilans.

Riga-271.**4950 ± 60**

Peat from 3.6 to 3.2m depth near Kesteriems; subm by Z Meirons.

Riga-270.**5300 ± 240**

Humic acids of Riga-271.

Riga-140.**10,650 ± 190**

Sample of well-preserved pine wood from III river flat terrace of Memele R near Pinelupe; subm by I Straume.

Riga-69.**9720 ± 180**

Strongly decomposed peat with wood fragments from 2.90 to 3.05m depth, under sediments of Runi R bank of oxbow lake, 12km from Priekule. Subm by V Stelle.

Riga-192. **7750 ± 180**

Wood from lower layer of gyttja of *Ancylus* lake regression at 3m from surface on bank of Venta R near Varve. Assumed date: Holocene. Subm by I Veinberg.

Riga-189. **9560 ± 220**

Wood from contact of clays of *Ancylus* transgression and underlying sands from 2m depth. Sample was taken from bank of Venta R opposite mouth of Packule R. Assumed date: Holocene. Subm by I Veinberg.

Riga-174. **7640 ± 150**

Sample from outcrop on bank of Irbe R from lowest part of gyttja overlain by littorina sands and silts, 6m thick. Assumed date: Holocene. Subm by I Veinberg.

Riga-116. **12,500 ± 500**

Plant detritus from 2.5m depth on bank of Iecava R near Ozolnieki. Subm by V Stelle.

Eatern Siberia series**Riga-207.** **2070 ± 120**

Young tree branch 5cm in diam, with 5- to 6-yr rings. Sample taken from scarp of Konda R in layer of frozen peat.

Riga-203. **3630 ± 110**

Wood from scarp on bank of Konda R 10km from its delta, 2.0 to 2.1m depth.

Riga-204. **5370 ± 160**

Same as Riga-203, 5.2 to 5.5m depth.

Riga-205. **3660 ± 120**

Same as Riga-203, 6.85 to 7.1m depth.

Riga-199. **3720 ± 150**

Same as Riga-203, 10.1 to 10.25m depth.

Riga-206. **3520 ± 160**

Same as Riga-203, 11.15 to 11.25m depth.

Riga-208. **3500 ± 170**

Well-preserved brown wood from outcrop of 4m terrace from bank of Chara R in town of Chara, Kalarski region, Chita. Sediments are of channel-alluvial type.

Riga-202. **10,620 ± 220**

Wood taken from bank of Mui R. Assumed date: upper Pleistocene-Holocene.

Riga-298.**11,840 ± 250**

Well-preserved wood from spruce root on terrace-like surface of bank of Mui R near Ust-Muya, Buryat ASSR. Assumed date: Holocene-upper Pleistocene.

Riga-198.**12,920 ± 210**

Wood branch 20cm in diam; last 30 rings in sample. Coll from same point as Riga-202, above.

Riga-322.**≥45,000**

Slightly carbonized wood, buried in sediments of Late Neogene, from boring at 200m depth near Ust-Muya, Buryat ASSR. Riga-201, -205, -208, -198, -199, -298, -322 subm by A Kulchitski.

Riga-126.**39,000 ± 680**

Very earthy peat from lower part of humus horizon on surface of III Baikal terrace, W Sv Nos peninsula, Buryat ASSR.

Riga-127.**37,000 ± 520**

Earthy peat from buried soil on surface of III Baikal terrace; same as Riga-126.

Riga-128.**35,200 ± 510**

Upper part of buried soil of III Baikal terrace surface; same as Riga-126.

Riga-62.**≥39,200**

Humic acids from soil-peat humus layer of moraine, Cape Omagachan, Buryat ASSR.

Riga-58.**1840 ± 30**

Peat from bog with fire horizons at 0.5m depth, on surface of 8m Baikal terrace, Cape Bireya, Buryat ASSR.

Riga-68.**22,280 ± 450**

Well-decomposed peat from humus horizon, under deluvial-proluvial sediments at 6.3m depth on surface of 12m Baikal terrace, W bank of Sv Nos peninsula, Buryat ASSR.

Riga-52.**2770 ± 108**

Coal forest fire from coal buried under aeolian sands on surface of 7.5m Baikal terrace, Cape Peschaniye Bugri, Buryat ASSR.

Riga-53.**8770 ± 394**

Coal from forest fire from same section as Riga-52. *Comment:* all samples except Riga-127 subm by V Mats.

Riga-139.**6750 ± 100**

Peat with plant fragments, from W bank of Tiya R delta at N part of Lake Baikal. Subm by E Karabanov.

ARCHAEOLOGIC SAMPLES

Irkutsk series**Riga-50.****7000 ± 150**

Coal from cultural horizon VI from Goreliy Les site, Irkutsk region.

Riga-51.**8440 ± 120**

Coal from cultural horizon VII; from Goreliy Les site, Irkutsk region.

Riga-71.**770 ± 100**

Coal from surface of tomb at depth 0.85m at Ust-Belaya site, Irkutsk region. Samples subm by N Savelyev.

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