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GLIWICE RADIOCARBON DATES V

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Most of the dates reported in this list were obtained between November 1975 and December 1976. All samples were subjected to standard de Vries pretreatment. Age calculations are based on a contemporary value equal to 0.95 of the activity of NBS oxalic acid standard and on the Libby value for the half-life of radiocarbon. Results are reported as conventional radiocarbon dates in years before AD 1950. All measurements were made with our L1 counter (Mościcki & Zastawny, 1976). Counting rates of all samples were normalized to the standard value of CO_2 pressure and corrected for the counting efficiency (Pazdur *et al,* 1978). Errors quoted ($\pm 1\sigma$) include estimated overall standard deviations of count rates for the unknown sample, contemporary standard and background (Pazdur, & Walanus, in press). No corrections for $^{13}C/^{12}C$ ratio were made for measurements reported in this list. The value of $\delta^{13}C$ for our NBS oxalic acid standard is equal to -19.41% relative to the PDB standard. The descriptions of the samples are based on information provided by the submitters.

SAMPLE DESCRIPTIONS

GEOLOGIC SAMPLES

Leba Bar series

Samples from dunes on Leba Bar at Baltic coast dated for geomorphol and stratigraphic investigations of Leba Bar coastal dunes (Borówka, 1975; Tobolski, 1975). Subm by Stefan Kozarski, Inst Geog, A Mickiewicz Univ, Poznań.

Gd-421. Czolpino 1/73-KB **3340 ± 130**

Charcoal from depth 3.1 to 3.2m. Both Cołpino samples are from fossil soil levels in dune, ca 1.7km NE of Czołpino (54° 43′ N, 17° 15′ E). Coll Sept 1973 by Krzysztof Borówka.

Gd-422. Czolpino 2/73-KB **390 ± 120**

Fragments of pine wood partially charred from depth ca 1m. *Comment*: previous dates from this region, assoc with same problem, see Gd-137: 850 ± 100 and Gd-154: 860 ± 100 (R, 1976, v 18, p 51).

Gd-418. Leba-Neptun 1/34-38cm **1435 ± 140**

Sandy well-decomposed peat from depth 34 to 38cm. All 3 Leba-Neptun samples are from different depths of organic layer ranging from +50cm to −60cm, on beach overlain by coastal dune, 200m E of Leba-Neptun (54° 46′ 10″ N, 17° 34′ 05″ E). Coll Nov 1975 by Kazimierz Tobolski.

Gd-416. Leba-Neptun 2/79-84cm **2450 ± 140**

Wood peat mixed with sand, depth 79 to 84cm.

Gd-415. Leba-Neptun 3/105-109cm 4610 ± 250

Algae gyttja from depth 105 to 109cm. *Comment* (KT): penetration of younger rootlets is possible. According to pollen analysis 1st sample is from younger part of Sub-Boreal period, 2nd—Sub-Boreal period, 3rd—transition between Atlantic and Sub-Boreal.

Gd-419. Steknica 7/BN/75 1340 ± 110

Charcoal from fossil soil level 1.2m below dune surface 1km N of Steknica v near Leba (54° 44′ N, 17° 35′ E). Coll Nov 1975 by Bolesław Nowaczyk.

Great Poland Lowland Dunes series

Samples from organic levels dated for geomorphic and stratigraphic investigation of dune formation processes in Great Poland Lowland. Coll by Bolesław Nowaczyk and subm 1975 by Stefan Kozarski.

Gd-357. Budzyń 3/BN/75 11,400 ± 320

Charcoal from fossil soil level at depth ca 180cm in parabolic dune 4.5km W of Budzyń v, Gniezno Uplands (52° 53′ 30″ N, 16° 56′ 50″ E) Coll Oct 1973.

Gd-371. Budzyń 4/BN/75 925 ± 125

Charcoal from younger organic level at same place, depth 80 to 90cm, coll Feb 1975.

Gd-378. Pomorsko 8/BN/75 11,380 ± 275

Wood from log found below series of aeolian sediments on lime gyttja filling up glacial trough in Warsaw-Berlin Ice-Marginal Valley at depth 1.5m, 3km N of Pomorsko v (52° 04′ 22″ N, 15° 29′ 18″ E). Coll Sept 1974.

Gd-366. Szabliska 6/BN/75 460 ± 130

Charcoal from humus level appearing as thin insertion separating outwash plain sands and dune sands in deflation surface 0.7km E of Szabliska v, Lubusko Uplands (52° 05′ 06″ N, 15° 31′ 50″ E). Coll March 1975, dated to establish end of erosional formation of denudational valley.

Gd-379. Osno Lake 5/BN/75 12,330 ± 290

Moss peat from base of glacial trough, thin layer at depth 5.15 to 5.19m, ca 10km SE of Kargowa v (52° 01′ 47″ N, 15° 59′ 20″ E). Coll March 1975 by Bolesław Nowaczyk, subm by Stefan Kozarski. *Comment* (SK): moss peat layer appears below lime gyttja basal part of which was dated to birch phase of Allerod. Sample dated to establish age of melting of dead ice blocks buried in glacial trough and to determine age of aeolian sediments filling in base of trough.

Jaszkowo series

Samples of sandy mud with rich admixture of plant detritus, continuous layer between calcareous gyttja in fossil meander channel on

Warta R floodplain, 3.5km N of Jaszkowo v (52° 10′ N, 16° 57′ E). Coll June 1975 by Kazimierz Tobolski and Bolesław Nowaczyk; subm by Stefan Kozarski. Samples dated to investigate floodplain deposits stratigraphy and changes of Warta R during Late Glacial and Holocene (Kozarski & Rotnicki, 1977; Kozarski, 1974).

Gd-387. Jaszkowo Ja/74/AI/374-380 11,430 ± 630
From depth 374 to 380cm.

Gd-381. Jaszkowo Ja/74/AI/360-366 9780 ± 340
From depth 360 to 366cm.

Gd-380. Jaszkowo Ja/74/AI/349-355 9770 ± 230
From depth 349 to 355cm.

General Comment (KT): introductory pollen analysis showed Younger Dryas period. Sample from upper gyttja layer previously dated, Gd-293: 9650 ± 240 (Mościcki *et al*, 1978).

Bobr R series

Dates measured for geomorphol studies of floodplain development during Late Würm and Holocene. Samples coll Nov 1975 by Wacław Florek, subm by Stefan Kozarski.

Gd-408. Wysoka Wy/75/1 3520 ± 180
Decomposed leaf and wood peat deposit *in situ* as continuous peat layer in middle part of filling series in an oxbow lake, base of Bóbr valley, depth 1.60 to 1.70m, 2km NW of Wysoka v (51° 52′ 30″ N, 15° 10′ E).

Gd-407. Gorzupia Dolna Go/75/1 4610 ± 200
Oak trunk found *in situ* in old meandering channel at base of Bóbr R valley, 880m N of Gorzupia Dolna (51° 44′ 30″ N, 15° 15′ E). Trunks occur in gravelly channel deposits covered by sands and muds. From depth 3.75m.

Gd-406. Gorzupia Dolna Go/75/2 4590 ± 200
Same, from depth 3.80m.

Gd-396. Gorzupia Dolna Go/75/3 5180 ± 180
Same, from depth 3m.

Gd-405. Gorzupia Dolna Go/75/4 5230 ± 210
Same, from depth 3m.

Gd-440. Zamrzenica 1 12,020 ± 350
Clayey gyttja layer at depth 10.40 to 10.50m in subglacial channel crossing outwash plain and Brda R terraces in Zamrzenica, 3km E of Klonowo, Forest Bory Tucholskie (53° 27′ N, 17° 55′ E). Coll April 1975 and subm by Rajmund Galon, Inst Geog, M Kopernik Univ, Toruń (Galon, 1965; Kępczyński, 1958).

Mietlica series

Samples from organic layers in vanished bay of Gopło Lake, 380m E of Mietlica v, Kuyavian Lake Dist (52° 32′ 26″ N, 18° 23′ 26″ E). Coll Sept 1975 and subm by Władysław Niewiarowski, Inst Geog, M Kopernik Univ, Toruń.

Gd-395. Mietlica 1 **8175 ± 250**

Peat from depth 1.9 to 2m.

Gd-403. Mietlica 2 **4350 ± 260**

Detrital gyttja from depth 0.85m.

Gd-404. Mietlica 3 **760 ± 160**

Mud mixed with sand from depth 0.1m.

General Comment (WN): other dates from Pakoskie Lake in vicinity of Mietlica site (R, 1973, v 15, p 503-504).

Swietokrzyskie Mt Rivers series

Subfossil oak from lowest level of flood terraces in Swiętokrzyskie Mts, dated at Lower Holocene (Lindner, 1971; Hakenberg & Lindner, 1973; Lindner, 1977). Coll Sept 1974 by Leszek Lindner, subm by S Z Rózycki, Inst Geol, Warsaw Univ, Warsaw.

Gd-360. Tama n/Czarna **1300 ± 130**

Oak wood, fragments of tree-trunk lying 1.9m below surface in deposits of flood terrace of Czarna Sulejowska R, 400m N of Tama v (51° 11′ N, 20° 11′ E).

Gd-370. Wolica n/Nida **1190 ± 120**

Oak wood, fragments of tree trunk found 1.8m below surface in deposits of flood terrace of Czarna Nida R, 450m NW of Wolica v (50° 46′ N, 20° 29′ E).

General Comment (LL): samples of black oak from Machów region were dated at Groningen (Mycielska-Dowgiałło, 1972); see also Mościcki (1953).

Niechorze series

Peat from organic deposits of 2 lake basins displayed in seashore cliffs exposed near Niechorze v, Western Pomerania. Samples with code Eo are from E lake ca 1.7km W of Niechorze (54° 05′ 35″ N, 15° 19′ E); those with code Wo are from W lake, ca 2.3km W of Niechorze (54° 05′ 30″ N, 15° 24′ E). Coll Aug 1974 by Ewa Brykczyńska, subm by Krystyna Kopczyńska-Lamparska, Inst Geol, Warsaw Univ, Warsaw.

Gd-376. Niechorze Eo1 **750 ± 120**

Peat mixed with sand from thin fossil soil layer at depth 1.3m.

Gd-359. Niechorze Eo2 **2760 ± 130**

From top of peat bed in fossil lake basin at depth 2.8m.

Gd-369. Niechorze Eo3 **6310 ± 170**

From bottom of peat bed in fossil lake basin at depth 3.3m.

Gd-373. Niechorze Eo4 **12,920 ± 330**

From thin peat layer at depth 5.3m, overlain by lake slimes.

Gd-372. Niechorze Wo2 **2880 ± 130**

From top of peat bed in fossil lake basin, depth 2.2m.

Gd-367. Niechorze Wo3 **10,140 ± 220**

From base of peat bed, depth 3.5m.

General Comment (KKL): pollen and diatom analyses and results of radiocarbon dating enabled identification of Oldest Dryas for 1st time in NW Poland (Kopczyńska-Lamparska, 1976). Youngest date falls within interval of formation of so-called "yellow dunes" in coastal zone (Prusinkiewicz & Noryśkiewicz, 1966).

Janoszyce series

Peat from different beds separated and underlain by lacustrine chalk in fossil lake basin of Janoszyce subglacial channel (52° 40′ 30″ N, 19° 33′ E), Dobrzyń Lakelalnd, 16km NW of Płock city. Coll Sept 1974 and subm by Zbigniew Lamparski, Inst Geol, Warsaw Univ, Warsaw. Samples dated to establish origin and development of Janoszyce channel in relation to Wierzbica subglacial channel and Zuchowo basin (Lamparski, 1976; Skompski & Słowański, 1964; Kozłowska, 1972).

Gd-374. Janoszyce Js1 **9910 ± 290**

From upper bed, depth 2.2m.

Gd-375. Janoszyce Js2 **11,130 ± 290**

From lower bed, depth 4.3m.

General Comment (ZL): 2 samples from neighboring sec were dated earlier; they were believed to be from different beds but results GrN-6771: 11,300 ± 95 and GrN-6772: 11,800 ± 100 indicate Allerod age for both samples.

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