

SEOUL NATIONAL UNIVERSITY ACCELERATOR MASS SPECTROMETRY (SNU-AMS) RADIOCARBON DATE LIST III

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INTRODUCTION

The accelerator mass spectrometry (AMS) facility at Seoul National University (SNU-AMS) was accepted in December 1998 and results reported first at the Vienna AMS conference in October 1999 and at the 17th Radiocarbon Conference in Israel, June 2000. At the Vienna conference, we reported our accelerator system and sample preparation systems (Kim et al. 2000). Recent developments of the AMS facility have been regularly reported at AMS conferences (Kim et al. 2001, 2004, 2007). Meanwhile, about 1000 unknown archaeological, geological, and environmental samples have been measured every year. In this report, the archaeological and geological data carried out in 2001 are presented in terms of years BP (before present, AD 1950), following the SNU-AMS date lists I and II published in *Radiocarbon* (Kim et al. 2006a,b).

ARCHAEOLOGICAL SAMPLES

MONGOLIA

Tolgoi Series

The Tolgoi site (47°18'N, 105°40'E; 1111 m height) is an archaeological site in Mongolia. It is one of a group of about 30 burials scattered at the top of an elevated hilly area. A detailed explanation for this site was given by Kim et al. (2007).

SNU01-011	1950 ± 60
SNU01-012	2430 ± 60
SNU01-013	1990 ± 40

Samples are wood from the burials.

SNU01-014	1920 ± 60
SNU01-015	1910 ± 60
SNU01-016	2020 ± 100

Samples are bones from the burials.

RUSSIA

Suchu Series

The Suchu site (51.7°N, 140.2°E) comprises ancient dwellings at Suchu Island on the lower Amur River, near Khabarovsk in far eastern Russia. Samples are charcoals investigated by the Korea National Research Institute of Cultural Heritage (NRICH) in 2001 and samples submitted by Seon-tae Kim, from the 27th dwelling in the 11th area of Suchu Island.

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SNU01-363	4820 ± 90
From E-44 area, 73 cm depth.	
SNU01-364	3030 ± 40
From 3-45 area, 60 cm depth.	
SNU01-365	4780 ± 70
From *-37 area, 120 cm depth.	
SNU01-366	4680 ± 30
From the 78th hole.	

KOREA*Jinan Series*

The Jinan site (35°53'N, 127°29'E), located in Jengchun-ri, Jinan-gun, Jeonnam-do, is an ancient, presumably Neolithic, dwelling. Samples were submitted by Chosun University Museum in 2001.

SNU01-027	4500 ± 300
Sample is an acorn (239 m height).	
SNU01-028	22,850 ± 350
Sample is charcoal from a cooking stove (240 m height).	
SNU01-029	42,000 ± 2000
Sample is charcoal from a soil wedge in a dark-brown clay bed (247 m height).	

Buyeo Series

The Buyeo site (36°16'00"N, 126°55'05"E), investigated by Buyeo National Research Institute of Cultural Heritage in 2000, comprises Gunnamji remains in Buyeo-gun, Chungnam-do.

SNU01-054	1430 ± 30
SNU01-055	1460 ± 40
Samples are charcoals (7 m height).	
SNU01-056	1520 ± 40
SNU01-057	1520 ± 40
SNU01-058	1450 ± 40
Samples are animal bones (7 m height).	
SNU01-060	1300 ± 40
SNU01-061	1380 ± 40
SNU01-062	1550 ± 60
SNU01-063	1420 ± 40
SNU01-064	1480 ± 60
SNU01-065	1340 ± 30
Samples are seeds (7 m height).	

Jangsan Series

The Jangsan site (36°44'40"N, 127°16'55"E; 80–90 m height), investigated and samples submitted by Chungnam University Museum in 2000, comprises ancient dwellings in Jangsan-ri, Cheonan-si, Gyeonggi-do. Samples are assumed to date to AD 200–400.

SNU01-125 1680 \pm 30
Sample is charcoal from the S-2 dwelling.

SNU01-126 1780 \pm 40
Sample is charcoal from the S-3 dwelling.

SNU01-127 1700 \pm 50
Sample is wood embedded in ancient irrigation canal 1.

SNU01-128 1860 \pm 40
Sample is wood embedded in ancient irrigation canal 2.

Galyong Series

The Galyong site (35°52'N, 127°28'E), investigated and samples submitted by Wonkwang University, comprises ancient dwellings in Jungcheon-myun, Jinan-gun, Jeonnam-do. This site is located on a sand bed on the alluvial plain made by the overflow of the Jungja-cheon.

SNU01-131 3760 \pm 80

SNU01-132 4510 \pm 40

SNU01-133 4560 \pm 40

Samples are charcoals, 30 cm under modern arable land.

SNU01-134 4470 \pm 40

SNU01-135 4050 \pm 40

SNU01-136 4510 \pm 80

SNU01-137 4650 \pm 30

Samples are charcoals, 60, 100, 50, and 100 cm, respectively, under modern arable land.

SNU01-138 4700 \pm 80

Samples are carbonized acorns, 50 cm under modern arable land.

SNU01-139 4200 \pm 100

SNU01-140 4460 \pm 90

SNU01-141 4540 \pm 80

Samples are charcoals, 30, 90, and 30 cm, respectively, under modern arable land.

SNU01-142 3840 \pm 40

SNU01-143 3650 \pm 40

Samples are soils, 30 cm under modern arable land.

Dongsamdong Series

The Dongsamdong site (35°03'42"N, 129°05'06"E), investigated and samples submitted by Busan City Museum in 1999, comprises ancient dwellings with typical ancient shell mounds in Daeyeon 4-dong, Busan-si.

SNU01-144 4360 \pm 60

Sample is charcoal from the 1st dwelling (5.6 m height).

SNU01-145 4680 \pm 60

Sample is animal bone from the 1st dwelling (5.6 m height).

SNU01-146 4300 \pm 40

Sample is animal bone from the 2nd dwelling (4.9 m height).

SNU01-147	5640 ± 90
SNU01-148	5540 ± 40
Samples are animal bones from the 3rd dwelling (5.8 m height).	
SNU01-149	4360 ± 50
Sample is animal bone from the 2nd layer of the shell mounds (6.6 m height).	
SNU01-150	3910 ± 40
Sample is charcoal from the 2nd layer of the shell mounds (6.6 m height).	
SNU01-151	4120 ± 40
Sample is animal bone from the 3rd layer of the shell mounds (6.3 m height).	
SNU01-152	4550 ± 50
Sample is animal bone from the 4th layer of the shell mounds (6.0 m height).	
SNU01-153	4470 ± 50
Sample is animal bone from the 5th to 1st layers of the shell mounds (5.7 m height).	
SNU01-154	5180 ± 60
Sample is animal bone from the 5th to 2nd layers of the shell mounds (6.1 m height).	
SNU01-155	4380 ± 50
Sample is animal bone from the 5th to 3rd layers of the shell mounds (5.9 m height).	
SNU01-156	4360 ± 120
Sample is animal bone from the 5th to 4th layers of the shell mounds (6 m height).	
SNU01-157	4860 ± 50
Sample is animal bone from the 5th layer of the shell mounds (5 m height).	
SNU01-158	5650 ± 70
SNU01-159	5180 ± 70
Samples are animal bones from the 7th layer of the shell mounds (5.1 m height).	
SNU01-160	6740 ± 40
SNU01-161	4400 ± 40
Samples are animal bones from the 8th layer of the shell mounds (4.2 m height).	
SNU01-162	6910 ± 60
Sample is animal bone from the 9th layer of the shell mounds (4 m height).	
SNU01-163	5910 ± 50
Sample is charcoal from the 9th layer of the shell mounds (4 m height).	

Yaeum Series

The Yaeum site (35°31'N, 129°18'E), investigated and samples submitted by Miryang University Museum in 2001, comprises ancient remains in Yaeum-dong, Nam-gu, Ulsan-si.

SNU01-177	2460 ± 40
SNU01-178	2450 ± 40
SNU01-179	2790 ± 40
SNU01-180	2690 ± 80
SNU01-181	2710 ± 80
Samples are wood from the 1st and 2nd ancient dwellings (27–61 m height).	

Jeongcheon Series

The Jeongcheon site (35°53'N, 127°29'E; 238.5 m height) comprises ancient dwellings in Jinan-gun, Jeonbuk-do.

SNU01-182 4040 ± 100

SNU01-183 4500 ± 120

Samples are charcoals, probably Neolithic.

SNU01-184 3700 ± 100

Sample is charcoal, probably Bronze Age.

Daeryun Series

The Daeryun site (36°02'30"N, 129°19'30"E) comprises ancient dwellings in Daeryun-ri, Pohang-si, Gyungbuk-do.

SNU01-211 2650 ± 40

SNU01-212 2580 ± 40

SNU01-213 2960 ± 40

Samples are charcoals.

Sorori Series

The Sorori site (36°41'05"N, 127°24'78"E), investigated and samples submitted by Yungjo Lee of Chungbuk University in 2001, is located in Oksan-myun, Cheongwon-gun, Chungbuk-do.

SNU01-287 13,490 ± 150

SNU01-288 13,600 ± 300

SNU01-289 13,700 ± 200

Samples are peat from a main hollow in a peat layer (estimated to date to 13,000 BP) where ancient rice seed was found.

Geoduri Series

The Geoduri site (37°50'54"N, 127°45'24"E; 87 m height), investigated and samples submitted by Hallym University, comprises ancient remains (assumed prehistoric age) in Dongnae-myun, Chuncheon-si, Gangwon-do.

SNU01-347 2530 ± 80

SNU01-348 2710 ± 60

SNU01-349 2820 ± 40

SNU01-350 2400 ± 40

SNU01-351 2720 ± 40

SNU01-352 2720 ± 70

SNU01-353 2760 ± 70

Samples are charcoals.

Gwanyang-dong Series

The Gwanyang-dong site (37°24'N, 126°58'E), investigated and samples submitted by Gyunggi Cultural Foundation in 2000, comprises ancient dwellings (presumably Bronze Age) in Anyang-si, Gyunggi-do.

SNU01-354	2950 ± 60
SNU01-355	2370 ± 90
SNU01-356	2680 ± 60
SNU01-357	2740 ± 40
SNU01-358	2870 ± 50

Samples are charcoals.

Donghodong Series

The Donghodong site (35°57'N, 128°34'E; 50 m height), investigated and samples submitted by the Yeongnam Institute of Cultural Properties, comprises ancient dwellings in Buk-gu, Daegu-si.

SNU01-393	3020 ± 150
SNU01-394	2850 ± 70
SNU01-395	3760 ± 40

Samples are charcoals thought to date to the 8th–6th centuries BC.

Daegok Series

The Daegok site (35°24'80"N, 127°19'50"E; 120.5 m height) comprises ancient dwellings in Dae-san-myon, Namwon-si, Jeonbuk-do.

SNU01-430	1630 ± 60
SNU01-431	1540 ± 40
SNU01-432	1510 ± 40

Samples are charcoals from the floor in the 1st dwelling in the NA area.

Myungam Series

The Myungam site (36°49'N, 127°03'E; 83.6 m height), investigated by the Chungcheong Cultural Properties Research Institute, comprises ancient dwellings assumed to be Bronze Age (2650–2950 BP), in Tanggeng-myun, Cheonan-si.

SNU01-437	2650 ± 40
SNU01-438	2530 ± 40
SNU01-439	2690 ± 60
SNU01-440	2900 ± 60
SNU01-441	2480 ± 40
SNU01-442	2650 ± 40
SNU01-443	2480 ± 40
SNU01-444	2650 ± 40
SNU01-445	2660 ± 60
SNU01-446	2580 ± 60

Samples are charcoals.

Sindab Series

The Sindab site (38°02'30"N, 127°07'00"E) is an old tomb (thought to date to the AD 6th–7th centuries) located in Jeongog-up, Yeoncheon-gun, Gyeonggi-do.

SNU01-449	1500 ± 80
SNU01-450	1530 ± 40

Samples are charcoals from the lower part of the tomb.

GEOLOGICAL SAMPLES*Goseong Series A*

Goseong site A ($38^{\circ}18'00''\text{N}$, $128^{\circ}32'30''\text{E}$) is a sand dune 200 m from the seashore in Munam-ri, Goseong-gun, Gangwon-do. Samples, assumed to be of Quaternary age, were investigated and submitted by Yongan Park in 2001.

SNU01-069 **$32,000 \pm 1000$**
Sample is peat (15 m height).

SNU01-070 **$36,700 \pm 900$**
Sample is wood from a peat bed (7 m height).

Goseong Series B

Goseong site B ($38^{\circ}18'\text{N}$, $128^{\circ}30'\text{E}$) is near Whangpo-chun, Munam-ri, Goseong-gun, Gangwon-do. Samples, assumed to be of Quaternary age, were investigated and submitted in 2001 by Yongan Park.

SNU01-071 **$16,400 \pm 200$**

SNU01-072 **6370 ± 70**

SNU01-073 **8200 ± 40**

Samples are peat, 17, 11, and 15 m depth, respectively.

Gochang Series

The Gochang site ($35^{\circ}26'\text{N}$, $126^{\circ}40'\text{E}$), investigated and samples submitted in 2000 by Juyong Kim, is a sedimentary layer in Gochangcheon, Gochang-up, Jeonbuk-do.

SNU01-164 **9080 ± 80**

SNU01-165 **4700 ± 70**

SNU01-166 **5220 ± 60**

Samples are charcoals with wood fragments.

Jangyu Series

The Jangyu site ($35^{\circ}11'\text{N}$, $128^{\circ}50'\text{E}$), investigated and samples submitted in 2000 by Daewoo Engineering, is located in Sinmun-ri, Januyu-myun, Gimhae-si, Gyeongnam-do.

SNU01-167 **5800 ± 60**

SNU01-168 **6460 ± 50**

SNU01-169 **3670 ± 30**

SNU01-170 **4680 ± 40**

SNU01-171 **7660 ± 40**

Samples are mud in a clay sedimentary layer, about 0.6 to ~9.4 m height.

Yengsan River Series A

Yengsan River site A ($34^{\circ}46'47''\text{N}$, $126^{\circ}29'27''\text{E}$), investigated and samples submitted in 2001 by the Korean Institute of Geoscience & Mineral Resources (KIGAM), is a sedimentary layer in a Yengsan River drift in Mangwon-ri, Muan-gun, Jeonnam-do (about 1.8–19.7 m height). Samples were collected about 2–20 m below the surface.

SNU01-307 **560 ± 50**
Sample is shell.

SNU01-308 **Modern**
SNU01-309 **6610 ± 80**
SNU01-312 **6860 ± 60**
SNU01-313 **6650 ± 40**
SNU01-314 **6950 ± 40**

Samples are plant fragments.

Yengsan River Series B

Yengsan River site B (34°46'36"N, 126°29'14"E; about 0.1–8.6 m height), investigated and samples submitted in 2001 by KIGAM, is a sedimentary layer in a Yengsan River drift in Mangwon-ri, Muan-gun, Jeonnam-do. Samples were collected about 2–20 m below the surface.

SNU01-325 **1150 ± 40**
SNU01-326 **2740 ± 40**
SNU01-328 **4760 ± 60**
SNU01-330 **7700 ± 60**
SNU01-332 **5690 ± 80**
SNU01-334 **3670 ± 60**
SNU01-335 **5820 ± 70**

Samples are shells.

SNU01-329 **5400 ± 30**
SNU01-331 **36,800 ± 1500**
SNU01-336 **7270 ± 150**
SNU01-337 **7860 ± 60**
SNU01-338 **7770 ± 40**
SNU01-339 **8010 ± 80**

Samples are plant fragments.

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