

Radiocarbon Dating Reports of Tohoku University No.10

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Radiocarbon Dating Committee of Tohoku University*

This date list follows Radiocarbon Dating Reports of Tohoku University No. 9 (1984). Instruments and dating techniques are essentially the same as those used for a previous report by Omoto (1979). Dates are calculated based on the half-life of 5,570 years for ^{14}C and the errors are expressed as one standard deviation ($\pm 1\sigma$). The modern standard is based on the value of 95% of NBS oxalic acid.

Sample descriptions are based on the submitter's informations in following form.

Code No.	Name of sampling site	Radiocarbon age of sample
1.	Locality (with latitude and longitude) of sampling site	
2.	Altitude (in meter a.s.l.) of sampling site and depth (in meter) of sampling horizon	
3.	Materials of sample	
4.	Date of sampling (submitter)	
5.	Date of dating (operator)	
6.	Chemical assays of pretreating	
7.	Comment and reference	

The committee wishes to express his appreciations to the submitters for their informations on their samples.

Sample Descriptions

TH-968	Iwaki	1,000\pm100
1.	Yotsukura, Iwaki, Fukushima Pref. (37°4'37.3"N, 140°57'45.8"E)	
2.	G.L. 3.0 m a.s.l., 0.9-1.2 m below surface	
3.	Peat	
4.	Nov. 29, 1983 (K. Fujimoto)	
5.	Jan. 9, 1984 (K. Fujimoto)	
6.	Kigoshi <i>et al.</i> (1978)	
7.	See the description of TH-1181	

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TH-1181 Iwaki **2,010 ± 130**

1. Taira-izumizaki, Iwaki, Fukushima Pref. (37°4'27.6"N, 140°57'23.4"E)
2. G.L. 2.8 m a.s.l., 0.7-1.0 m below surface
3. Peat
4. July 15, 1985 (K. Fujimoto)
5. Oct. 2, 1985 (K. Fujimoto)
6. Kigoshi *et al.* (1978)
7. Samples (TH-968, 1181 and 1182) were obtained from the back marsh deposits behind BR-I (Beach ridge range I) on the lower Natsui River alluvial plains, southeastern Fukushima Prefecture. The sampling site of TH-1182 is farther from BR-I than the sampling sites of TH-968 and 1181. The age of TH-1182 indicates that the beginning of BR-I formation dates back before 4,000 yr B.P. (Fujimoto 1988). From the ages of TH-968 and 1181, it is inferred that the samples are at upper horizons above the base (TH-1182) of the back marsh deposits. (K. Fujimoto)

TH-1182 Iwaki **3,940 ± 170**

1. Taira-izumizaki, Iwaki, Fukushima Pref. (37°4'30.8"N, 140°57'23.4"E)
2. G.L. 3.3 m a.s.l., 2.0-2.1 m below surface
3. Peat
4. July 29, 1985 (K. Fujimoto)
5. Sep. 15, 1985 (K. Fujimoto)
6. Kigoshi *et al.* (1978)
7. Fujimoto (1988)

TH-1194 Iwaki **3,340 ± 130**

1. Taira-shimokabeya, Iwaki, Fukushima Pref. (37°4'8.1"N, 140°58'11.2"E)
2. G.L. 0 m a.s.l., 4 m below surface
3. Shell (*Spisula sachalinensis*)
4. July 16, 1985 (K. Fujimoto)
5. Sep. 17, 1985 (K. Fujimoto)
6. Chemical reaction by dropping 6N HCl
7. Fujimoto (1988)

TH-1204 Iwaki **3,610⁺¹⁴⁰₋₁₃₀**

1. Taira-shimokabeya, Iwaki, Fukushima Pref. (37°4'8.1"N, 140°58'11.2"E)
2. G.L. 0 m a.s.l., 4 m below surface
3. Shell (*Spisula sachalinensis*)

4. July 16, 1985 (K. Fujimoto)
5. Sep. 19, 1985 (K. Fujimoto)
6. Chemical reaction by dropping 6N HCl
7. Fujimoto (1988)

TH-1227 Iwaki

$$3,220^{+120}_{-110}$$

1. Taira-shimokabeya, Iwaki, Fukushima Pref. (37°4'8.1"N, 140°58'11.2"E)
2. G.L. 0 m a.s.l., 4 m below surface
3. Shell (*Spisula sachalinensis*)
4. Oct. 7, 1985 (K. Fujimoto)
5. Jan. 25, 1986 (K. Fujimoto)
6. Chemical reaction by dropping 6N HCl
7. Fujimoto (1988)

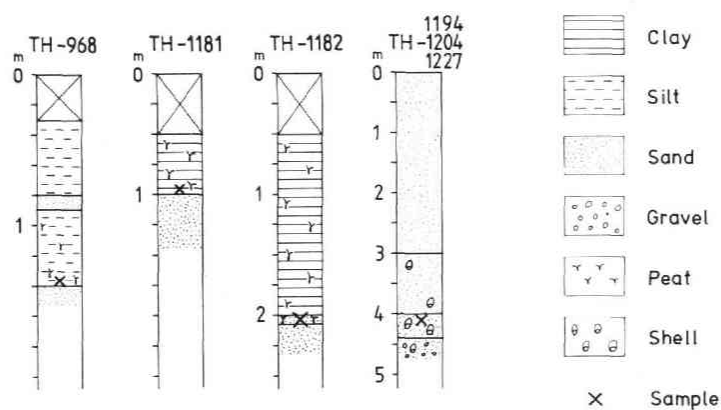


Fig.1 Columnar sections.

TH-1183 Iwaki

$$1,880 \pm 220$$

1. Yotsukura, Iwaki, Fukushima Pref. (37°4'38.1"N, 140°58'49.8"E)
2. G.L. 0 m a.s.l., 2 m below surface
3. Organic silt
4. July 17, 1985 (K. Fujimoto)
5. Sep. 14, 1985 (K. Fujimoto)
6. Kigoshi *et al.* (1978)
7. Fujimoto (1988)

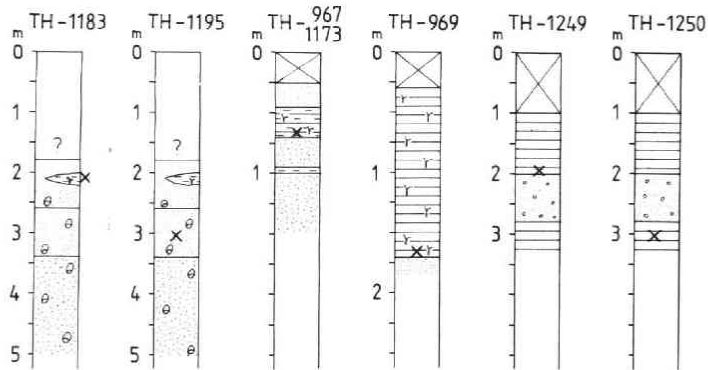


Fig. 2 Columnar sections.
Legend is shown in Fig. 1

TH-1195 Iwaki

1,770 ± 100

- 1.1 Yotsukura, Iwaki, Fukushima Pref. (37°4'38.1"N, 140°58'49.8"E)
2. G.L. 0 m a.s.l., 3 m below surface
3. Shell (*Spisula sachalinensis*)
4. July 17, 1985 (K. Fujimoto)
5. Sep. 20, 1985 (K. Fujimoto)
6. Chemical reaction by dropping 6N HCl
7. Fujimoto (1988)

TH-967 Iwaki

1,260 ± 130

1. Taira-fujima, Iwaki, Fukushima Pref. (37°2'14.2"N, 140°58'17.3"E)
2. G.L. 0.8 m a.s.l., 0.7-1.0 m below surface
3. Organic sandy silt
4. Nov. 29, 1983 (K. Fujimoto)
5. Jan. 10, 1984 (K. Fujimoto)
6. Kigoshi *et al.* (1978)
7. Fujimoto (1988)

TH-1173 Iwaki

1,110 ± 180

1. Taira-fujima, Iwaki, Fukushima Pref. (37°2'14.2"N, 140°58'17.3"E)
2. G.L. 0.8 m a.s.l., 0.7-0.8 m below surface
3. Organic silty clay
4. Apr. 24, 1985 (K. Fujimoto)
5. July 4, 1985 (K. Fujimoto)
6. Kigoshi *et al.* (1978)
7. Fujimoto (1988)

TH-969 Iwaki **2,280 ± 120**

1. Taira-suginami, Iwaki, Fukushima Pref. (37°2'51.1"N, 140°56'33.6"E)
2. G.L. 4.0 m a.s.l., 1.4-1.7 m below surface
3. Peat
4. Nov. 29, 1983 (K. Fujimoto)
5. Jan. 9, 1984 (K. Fujimoto)
6. Kigoshi *et al.* (1978)
7. This sample was obtained from the back marsh of paleo-barrier, about 3 km inland from the present coast line on the lower Natsui River alluvial plain. Standing more inland than BR-I, this barrier is estimated that it was formed before about 4,000 yr. B.P., based on the formative period of BR-I (Fujimoto 1988).
Therefore, somewhere on the back marsh of this barrier, the bottom of the back marsh deposit will certainly exist in lower horizon than that of TH-969. If C-14 sample is obtained from the lowest back marsh deposit, it will indicate the older age than 4,000 yr B.P. (K. Fujimoto).

TH-1249 Iwaki **1,060 ± 100**

1. Uchigou-shiramizu, Iwaki, Fukushima Pref. (37°1'49.2"N, 140°50'22.3"E)
2. G.L. 20 m a.s.l., 2 m below surface
3. Wood
4. Iwaki Educational and Cultural Cooperation
5. May 21, 1986 (K. Fujimoto)
6. Kigoshi *et al.* (1978)
7. TH-1249 and TH-1250 were obtained from the site of the Heian Period, about 12 km inland from the present coast line on the lower Natsui River alluvial plain (K. Fujimoto).

TH-1250 Iwaki **950 ± 120**

1. Uchigou-shiramizu, Iwaki, Fukushima Pref. (37°1'49.2"N, 140°50'22.3"E)
2. G.L. 20 m a.s.l., 3 m below surface
3. Wood
4. Iwaki Educational and Cultural Cooperation
5. May 31, 1986 (K. Fujimoto)
6. Kigoshi *et al.* (1978)
7. See the description of **TH-1249**

TH-970 Iwaki **1,130 ± 110**

1. Onahama-sumiyoshi, Iwaki, Fukushima Pref. (36°58'2.4"N, 140°53'12.2"E)

2. G.L. 1.1 m a.s.l., 1.0-1.3 m below surface
3. Organic silt
4. Nov. 30, 1983 (K. Fujimoto)
5. Dec. 23, 1983 (K. Fujimoto)
6. Kigoshi *et al.* (1978)
7. Fujimoto (1988)

TH-1228 Iwaki **1,680 ± 100**

1. Onahama-ohara, Iwaki, Fukushima Pref. (36°57'50.3"N, 140°53'19.3"E)
2. G.L. 2.0 m a.s.l., 4.7 m below surface
3. Shell (*Crassostrea gigas*)
4. Iwaki Educational and Cultural Cooperation
5. Jan. 26, 1986 (K. Fujimoto)
6. Chemical reaction by dropping 6N HCl
7. Fujimoto (1988)

TH-1229 Iwaki **2,730 ± 110**

1. Onahama-ohara, Iwaki, Fukushima Pref. (36°57'50.3"N, 140°53'19.3"E)
2. G.L. 2.0 m a.s.l., 8.7-9.0 m below surface
3. Shell (*Spisula sachalinensis*)
4. Iwaki Educational and Cultural Cooperation
5. Jan. 27, 1986 (K. Fujimoto)
6. Chemical reaction by dropping 6N HCl
7. Fujimoto (1988)

TH-1230 Iwaki **5,320 ± 140**

1. Onahama-ohara, Iwaki, Fukushima Pref. (36°57'50.3"N, 140°53'19.3"E)
2. G.L. 2.0 m a.s.l., 16.9-17.3 m below surface
3. Shell (*Scapharca broughtonii*)
4. Iwaki Educational and Cultural Cooperation
5. Jan. 28, 1986 (K. Fujimoto)
6. Chemical reaction by dropping 6N HCl
7. Fujimoto (1988)

TH-972 Iwaki **2,750 ± 160**

1. Sanuka, Iwaki, Fukushima Pref. (36°54'55.1"N, 140°48'33.6"E)
2. G.L. 1.5 m a.s.l., 3.2-3.5 m below surface
3. Peat
4. Nov. 4, 1983 (K. Fujimoto)

5. Jan. 23, 1984 (K. Fujimoto)
6. Kigoshi *et al.* (1978)
7. Fujimoto (1988)

TH-1172 Iwaki**2,350 ± 190**

1. Sanuka, Iwaki, Fukushima Pref. (36°54'55.1"N, 140°48'33.6"E)
2. G.L. 1.5 m a.s.l., 2.5-2.8 m below surface
3. Peat
4. Apr. 29, 1985 (K. Fujimoto)
5. July 3, 1985 (K. Fujimoto)
6. Kigoshi *et al.* (1978)
7. Fujimoto (1988)

TH-971 Iwaki**740 ± 100**

1. Nakoso, Iwaki, Fukushima Pref. (36°52'50.1"N, 140°47'36.0"E)
2. G.L. 1.5 m a.s.l., 0.5-0.8 m below surface
3. Organic sandy silt
4. Nov. 4, 1983 (K. Fujimoto)
5. Dec. 24, 1983 (K. Fujimoto)
6. Kigoshi *et al.* (1978)
7. Fujimoto (1988)

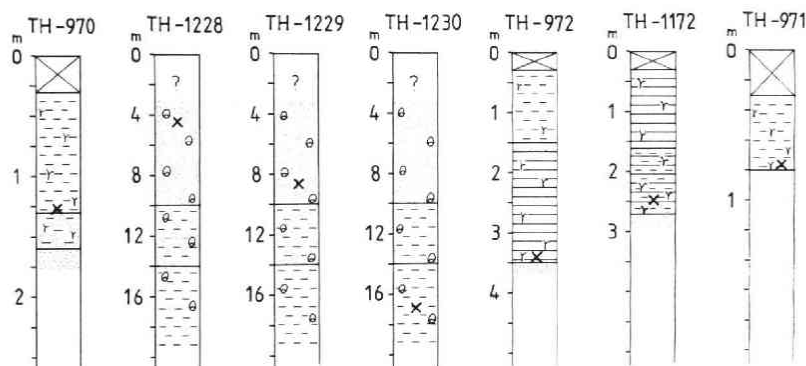


Fig. 3 Columnar Sections.
Legend is shown in Fig. 1

TH-450 Higashine**16,330 ± 560**

1. Wagomukai, Higashine, Yamagata Pref. (38°25'33.3"N, 140°24'48.1"E)
2. 147 m a.s.l., 4.5 m below surface
3. Wood

4. May 2, 1979 (M. Toyoshima)
5. September 10, 1979 (M. Toyoshima)
6. 6N HCl
7. Toyoshima (1981)

TH-451 Yuda**Older than 32,870**

1. Nakamura, Yuda, Iwate Pref. (39°17'44.2"N, 140°44'20.2"E)
2. 275 m a.s.l., 6.2 m below surface
3. Wood
4. May 5, 1979 (M. Toyoshima)
5. September 11, 1979 (M. Toyoshima)
6. 6N HCl
7. Toyoshima (1984a)

TH-452 Yuda**Older than 31,720**

1. Nakamura Yuda, Iwate Pref. (39°17'44.2"N, 140°44'20.2"E)
2. 275 m a.s.l., 4.5 m below surface
3. Wood
4. May 5, 1979 (M. Toyoshima)
5. September 13, 1979 (M. Toyoshima)
6. 6N HCl
7. Toyoshima (1984a)

TH-454 Yamagata**23,860^{+1,630}_{-1,360}**

1. Kamihigashiyama, Takase, Yamagata, Yamagata Pref. (38°15'12.0"N, 140°25'48.0"E)
2. 470 m a.s.l., 6 m below surface
3. Wood
4. August 18, 1979, (M. Toyoshima)
5. September 14, 1979 (M. Toyoshima)
6. 6N HCl
7. Toyoshima (1981)

TH-490 Sannai**12,780⁺³⁴⁰₋₃₃₀**

1. Kaminango, Sannai, Akita Pref. (39°13'54.5"N, 140°41'42.4"E)
2. 200 m a.s.l., ca. 4 m below surface
3. Wood

4. November 26, 1979 (M. Toyoshima)
5. February 27, 1980 (M. Toyoshima)
6. 6N HCl
7. Toyoshima (1984a)

TH-491 Masuda**10,980⁺²⁷⁰₋₂₅₀**

1. Yunosawa, Masuda, Akita Pref. (39°11'36.3"N, 140°37'0.2"E)
2. 150 m a.s.l., ca. 3.5 m below surface
3. Wood
4. November 28, 1979 (M. Toyoshima)
5. February 25, 1980 (M. Toyoshima)
6. 6N HCl
7. Toyoshima (1984a)

TH-495 Higashinaruse**12,680⁺³²⁰₋₃₀₀**

1. Iwaigawa, Higashinaruse, Akita Pref. (39°10'36.2"N, 140°42'18.4"E)
2. 320 m a.s.l., ca. 1.5 m below surface
3. Wood
4. November 30, 1979 (M. Toyoshima)
5. March 4, 1980 (M. Toyoshima)
6. 6N HCl
7. The slope deposits containing the sampled wood has a gradient of 20 degrees. The result mentioned above indicates that the slope deposits is of the Last Glacial age. (M. Toyoshima)

TH-843 Kawai**14,930⁺³³⁰₋₃₂₀**

1. Kuzakai, Kawai, Iwate Pref. (39°38'29.4"N, 141°19'53.4"E)
2. 705 m a.s.l., 1.7-1.8 m below surface
3. Peat
4. August 28, 1982 (M. Toyoshima, T. Tamura, and T. Miyagi)
5. October 4, 1982 (M. Toyoshima)
6. Kigoshi *et al.* (1978)
7. Toyoshima (1984b)

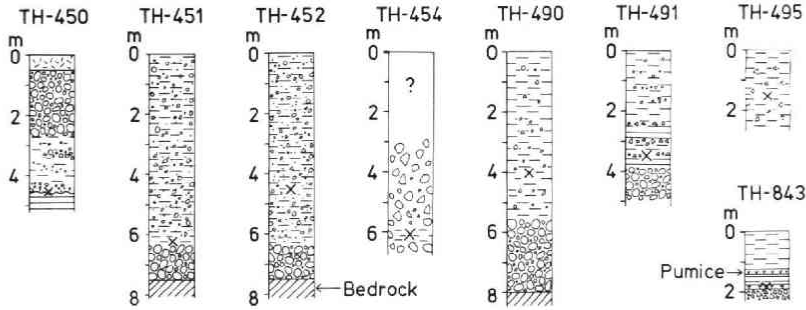


Fig. 4 Columnar Sections.

Legend is shown in Fig. 1

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