

Twenty tsunami event deposits in the past 9,000 years along the Kuril subduction zone in Harutoriko lake, eastern Hokkaido, Japan

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We attempted to find tsunami event deposits in the lacustrine deposits of Harutoriko lake along the Kuril subduction zone, Kushiro City, Hokkaido, Japan. We could recognize twenty event deposits in the verbed clay. These event deposits erode the verbed clay. The event deposit shows several graded beddings from gravely sand to silt, and contains brackish or shallow marine shell fossils. The stratigraphy of event deposits and widespread tephtras in the Harutoriko area well corresponds to the stratigraphy of Ts2 to Ts10 tsunami event deposits in Kiritappu. This means that Ts2 to Ts10 tsunami events inundated the coastal area from Kushiro to Kiritappu. Because the oldest event deposit is dated about 9,000 cal.yBP, the average recurrence interval of tsunami is about five hundred years.