

WIKIPEDIA

# List of tsunamis

---

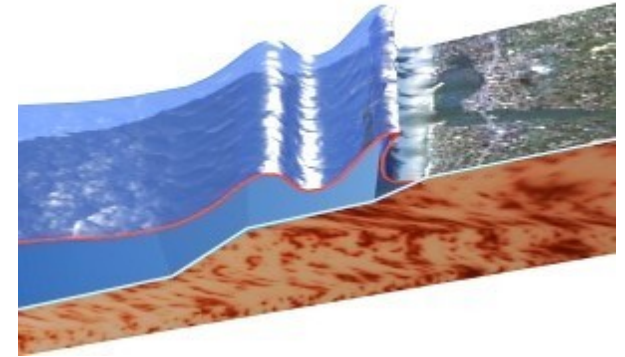
This article lists notable **tsunamis**, which are sorted by the date and location that the tsunami occurred.

Because of seismic and volcanic activity associated with tectonic plate boundaries along the Pacific Ring of Fire, tsunamis occur most frequently in the Pacific Ocean, but are a worldwide natural phenomenon. They are possible wherever large bodies of water are found, including inland lakes, where they can be caused by landslides and glacier calving. Very small tsunamis, non-destructive and undetectable without specialized equipment, occur frequently as a result of minor earthquakes and other events.

Around 1600 BCE, a tsunami caused by the eruption of Thira devastated the Minoan civilization on Crete and related cultures in the Cyclades, as well as in areas on the Greek mainland facing the eruption, such as the Argolid.

The oldest recorded tsunami occurred in 479 BCE. It destroyed a Persian army that was attacking the town of Potidaea in Greece.<sup>[1]</sup>

As early as 426 BCE, the Greek historian Thucydides inquired in his book *History of the Peloponnesian War* (3.89.1–6) about the causes of tsunamis. He argued that such events could only be explained as a consequence of ocean earthquakes, and could see no other possible causes.<sup>[2]</sup>



A depiction of wave shoaling

## Contents

**Prehistoric**

**Before 1001 CE**

**1000–1700 CE**

**1700s**

**1800s**

**1900–1950**

**1950–2000**

**2000s/2010s**

**Highest or tallest**

**Deadliest**

**See also**

**References**

**External links**

## Prehistoric

Date	Location	Main Article	Primary Cause	Description
≈7000–6000 BCE	<u>Lisbon</u> , Portugal		Unknown	A series of giant boulders and cobbles have been found 14 m above mean sea level near <u>Guincho Beach</u> . <sup>[3]</sup>
≈6225–6170 BCE	Norwegian Sea	<u>Storegga Slide</u>	Landslide	The Storegga Slide(s), 100 km north-west of the <u>Møre</u> coast in the Norwegian Sea, caused a large tsunami in the <u>North Atlantic Ocean</u> . The collapse involved ~290 km of coastal shelf, and a total volume of 3,500 km <sup>3</sup> of debris. <sup>[4]</sup> Based on carbon dating of plant material from sediment deposited by the tsunami, the latest incident occurred around 6225–6170 BCE. <sup>[5][6]</sup> In <u>Scotland</u> , traces of the tsunami have been found in sediment from <u>Montrose Basin</u> , the Firth of Forth, up to 80 km inland and 4 metres above current normal tide levels.
≈1600 BCE	<u>Santorini</u> , <u>Greece</u>	<u>Minoan eruption</u>	Volcanic eruption	The volcanic eruption on Santorini, Greece is assumed to have caused severe damage to cities around it, most notably the <u>Minoan civilization</u> on <u>Crete</u> . A tsunami is assumed to be the factor that caused the most damage.

## Before 1001 CE

Date	Location	Main Article	Primary Cause	Description
<b>479 BCE</b>	<b>Potidaea, Greece</b>	<u>479 BCE Potidaea tsunami</u>		The earliest recorded tsunami in history. <sup>[1]</sup> During the Persian siege of the sea town Potidaea, Greece, <u>Herodotus</u> reports how Persian attackers who tried to exploit an unusual retreat of the water were suddenly surprised by "a great flood-tide, higher, as the people of the place say, than any one of the many that had been before". Herodotus attributes the cause of the sudden flood to the wrath of <u>Poseidon</u> . <sup>[7]</sup>
<b>426 BCE</b>	<b>Malian Gulf, Greece</b>	<u>426 BC Malian Gulf tsunami</u>		In the summer of 426 BCE, a tsunami hit the gulf between the northwest tip of <u>Euboea</u> and <u>Lamia</u> . <sup>[8]</sup> The Greek historian <u>Thucydides</u> (3.89.1–6) described how the tsunami and a series of earthquakes affected the <u>Peloponnesian War</u> (431–404 BCE) and, for the first time, associated earthquakes with waves in terms of cause and effect. <sup>[9]</sup>
<b>373 BCE</b>	<b>Helike, Greece</b>		Earthquake	An earthquake and a tsunami destroyed the prosperous Greek city of <u>Helike</u> , 2 km from the sea. The fate of the city, which remained permanently submerged, was often commented upon by ancient writers <sup>[10]</sup> and may have inspired the contemporary <u>Plato</u> to the myth of <u>Atlantis</u> .
60 BCE	Portugal and Galicia		Earthquake	An earthquake of intensity IX and an estimated magnitude of 6.7 caused a tsunami along the coasts of Portugal and Galicia. <sup>[11]</sup> Little more is known due to the scarcity of records from the Roman possession of the Iberian Peninsula.
<b>79 CE</b>	<b>Gulf of Naples, Italy</b>	<u>Eruption of Mount Vesuvius in 79</u>	Volcanic eruption	A smaller tsunami was witnessed in the <u>Bay of Naples</u> by <u>Pliny the Younger</u> during the eruption of <u>Mount Vesuvius</u> . <sup>[12]</sup>
<b>115 CE</b>	<b>Caesarea, Israel</b>		Earthquake (?)	Underwater geoarchaeological excavations on the shallow shelf (~10 m depth) at <u>Caesarea, Israel</u> , documented a tsunami that struck the ancient harbor. Talmudic sources record a tsunami on 13 December A.D. 115, impacting <u>Caesarea</u> and <u>Yavne</u> . The tsunami was probably triggered by an earthquake that destroyed <u>Antioch</u> , and was generated somewhere on the <u>Cyprian Arc</u> fault system. <sup>[13]</sup>
<b>262 CE</b>	<b>Southwest Anatolia (Turkey)</b>	<u>262 Southwest Anatolia earthquake</u>	Earthquake	Many cities were flooded by the sea, with the cities of <u>Roman Asia</u> reporting the worst tsunami damage. In many places, fissures appeared in the earth and filled with water; in others, towns were overwhelmed by the sea. <sup>[14][15][16]</sup>

Date	Location	Main Article	Primary Cause	Description
365 CE	Alexandria, Southern and Eastern Mediterranean	<u>365 Crete earthquake</u>	Earthquake	<p>On the morning of 21 July 365 AD, an earthquake caused a tsunami more than 100 feet (30 m) high, devastating <u>Alexandria</u> and the eastern and southern shores of the <u>Mediterranean</u>, killing many thousands, and hurling ships nearly two miles inland.<sup>[17][18]</sup> This tsunami also devastated many large cities in what is now <u>Libya</u> and <u>Tunisia</u>. The anniversary of the disaster was still commemorated annually at the end of the 6th century in Alexandria as a "day of horror."<sup>[19]</sup></p> <p>Researchers at the <u>University of Cambridge</u> recently carbon dated corals on the coast of <u>Crete</u> which were lifted 10 metres and clear of the water during the earthquake, indicating the tsunami was generated by an earthquake in a steep fault in the <u>Hellenic Trench</u>. Scientists estimate that such an uplift is only likely to occur once in 5,000 years; however, the other segments of the fault could slip on a similar scale every 800 years or so.<sup>[20]</sup></p>
551 CE	Lebanese Coast	<u>551 Beirut earthquake</u>	Earthquake	<p>The 9 July 551 CE earthquake was one of the largest seismic events in and around Lebanon during the Byzantine period. The earthquake was associated with a tsunami along the Lebanese coast and a local landslide near Al-Batron. A large fire in Beirut also continued for almost two months.<sup>[21]</sup></p>
684 CE	Nankai, Japan	<u>684 Hakuō Nankai earthquake</u>	Earthquake	<p>The first recorded tsunami in Japan, it hit on November 29, 684 on the shore of the <u>Kii</u>, <u>Shikoku</u>, and <u>Awaji</u> region. The earthquake, estimated at magnitude 8.4,<sup>[11]</sup> was followed by a huge tsunami, but no estimates exist for the number of deaths.<sup>[22]</sup></p>
869 CE	Sanriku, Japan	<u>869 Jogan Sanriku earthquake</u>	Earthquake	<p>The <u>Sanriku</u> region was struck by a major tsunami that caused flooding extending 4 km inland from the coast. The town of <u>Tagajō</u> was destroyed, with an estimated 1,000 casualties.</p>
887 CE	Nankai, Japan	<u>887 Ninna Nankai earthquake</u>	Earthquake	<p>On August 26 of the <u>Ninna</u> era, there was a strong shock in the <u>Kyoto</u> region, causing great destruction. A tsunami flooded the coastal region, and some people died. The coast of <u>Settsu Province</u> (<u>Osaka Prefecture</u>) suffered especially heavily, and the tsunami was also observed on the coast of the <u>Sea of Hyūga</u> (<u>Miyazaki Prefecture</u>).<sup>[11]</sup></p>

## **1000–1700 CE**

---

Date	Location	Main Article	Primary Cause	Description
1293	Kamakura, Japan	<u>1293 Kamakura earthquake</u>	Earthquake	A magnitude 7.1 quake and tsunami hit Kamakura, then Japan's <i>de facto</i> capital, killing 23,000 after resulting fires.
1303	Eastern Mediterranean	1303 Crete earthquake	Earthquake	A team from <u>Southern Cross University</u> in <u>Lismore, New South Wales</u> , Australia, found evidence of five tsunamis that hit Greece over the past 2000 years. "Most were small and local, but in 1303 a larger one hit Crete, Rhodes, Alexandria and Acre in Israel." <sup>[23]</sup>
1361	Nankai, Japan	1361 Shōhei <u>Nankai earthquake</u>	Earthquake	On 3 August 1361, during the <u>Shōhei</u> era, an 8.4 quake hit <u>Nankaidō</u> , followed by a tsunami. A total of 660 deaths were reported. The earthquake shook <u>Awa</u> , <u>Settsu</u> , <u>Kii</u> , <u>Yamato</u> and <u>Awaji Provinces</u> ( <u>Tokushima</u> , <u>Osaka</u> , <u>Wakayama</u> and <u>Nara Prefectures</u> and <u>Awaji Island</u> ). A tsunami struck <u>Awa</u> and <u>Tosa Provinces</u> ( <u>Tokushima</u> and <u>Kōchi Prefectures</u> ), in <u>Kii Strait</u> and in <u>Osaka Bay</u> . The Hot spring of Yunomine, Kii ( <u>Tanabe</u> , <u>Wakayama</u> ) stopped. The port of <u>Yuki</u> , <u>Awa</u> ( <u>Minami</u> , <u>Tokushima</u> ) was destroyed, and more than 1,700 houses were washed away.
1420	Caldera, Chile	<u>1420 Caldera earthquake</u>	Earthquake	On 1 September 1420, an enormous earthquake shook what is now Chile's <u>Atacama Region</u> . Landslides occurred along the coast and tsunamis affected not only Chile but also Hawaii and Japan. <sup>[24][25]</sup>
1498	Nankai, Japan	<u>1498 Nankai earthquake</u>	Earthquake	On September 20, 1498, during the <u>Meiō</u> era, a 7.5 earthquake hit. The ports in <u>Kii Province</u> ( <u>Wakayama Prefecture</u> ) were damaged by a tsunami several meters high. 30–40 thousand deaths estimated. <sup>[11][26]</sup> The building around the great Buddha of <u>Kamakura</u> (altitude 7m) was swept away by the tsunami. <sup>[27]</sup>
1531	Lisbon, Portugal	<u>1531 Lisbon earthquake</u>	Earthquake	The earthquake of 26 January was accompanied by a tsunami in the Tagus River that destroyed ships in Lisbon harbour
1541	Nueva Cadiz, Venezuela		Earthquake	In 1528, <u>Cristóbal Guerra</u> founded <u>Nueva Cádiz</u> on the island of <u>Cubagua</u> , the first Spanish settlement in Venezuela. Nueva Cádiz, with a population of 1000-1500, may have been destroyed in an earthquake followed by tsunami in 1541—it also could have been a <u>major hurricane</u> . <sup>[28]</sup> The ruins were declared a National Monument of Venezuela in 1979.
1605	Nankai, Japan	<u>1605 Nankai earthquake</u>	Earthquake	On February 3, 1605, in the <u>Keichō</u> era, a magnitude 8.1 quake and tsunami hit Japan. A tsunami with a maximum known height of 30 m was observed from the <u>Bōsō Peninsula</u> to the eastern part of <u>Kyushu Island</u> . The eastern part of the Bōsō Peninsula,

Date	Location	Main Article	Primary Cause	Description
				Edo Bay (Tokyo Bay), Sagami and Tōtōmi Provinces (Kanagawa and Shizuoka Prefectures), and the southeastern coast of Tosa Province (Kōchi Prefecture) suffered particularly heavily. <sup>[11]</sup> 700 houses (41%) in Hiro, Kii (Hirogawa, Wakayama) were washed away, and 3,600 people drowned in the area of Shishikui, Awa (Kaiyō, Tokushima). Wave heights reached 5–6 meters at Kannoura, Tosa (Tōyō, Kōchi) and 8–10 m at Sakihama, Tosa (Muroto, Kōchi). 350 drowned at Kannoura and 60 at Sakihama. In total more than 5,000 drowned.
1607	Bristol Channel, Great Britain	<u>Bristol Channel floods, 1607</u>	Disputed	On 30 January 1607, at least 2,000 drowned, while houses and villages were swept away and an area of ~200 square miles (520 km <sup>2</sup> ) was inundated. Until the 1990s, it was undisputed that flooding was caused by a storm surge aggravated by other factors, but recent research indicates a tsunami. <sup>[29]</sup> The postulated cause is a submarine earthquake off the Irish coast.
1693	Sicily	<u>1693 Sicily earthquake</u>	Earthquake	A large foreshock on January 9 was followed on January 11 by the most powerful earthquake in Italian history. The ensuing tsunami devastated the Ionian Sea coast and the Straits of Messina. It remains unclear whether the tsunami was directly caused by the earthquake or by a large underwater landslide triggered by the event.

## 1700s

---