

Postmortem Examination and Personal Identification of Victims of the Great East Japan Earthquake

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The forensic investigation of victims of the Great East Japan Earthquake Disaster

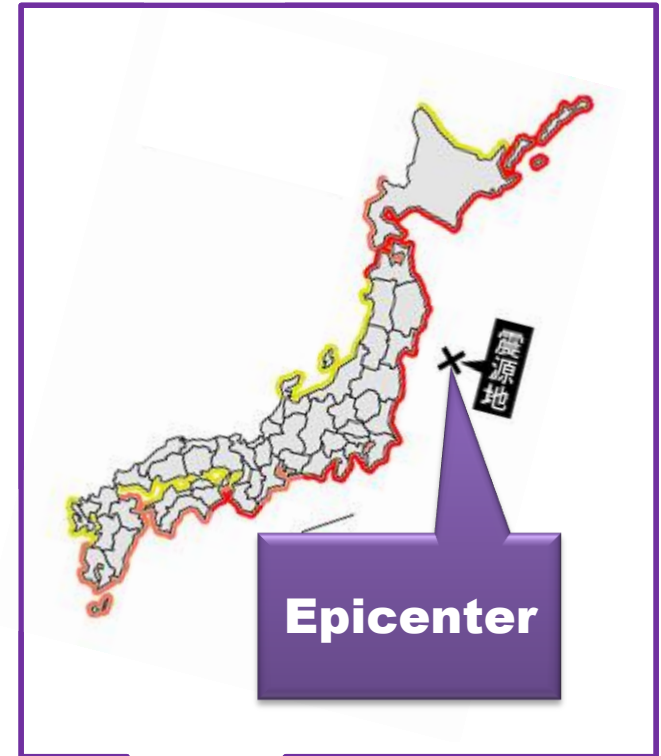
was carried out with the assistance of members of

the Japanese Society of Legal Medicine (JSLM).



The Great East Japan Earthquake

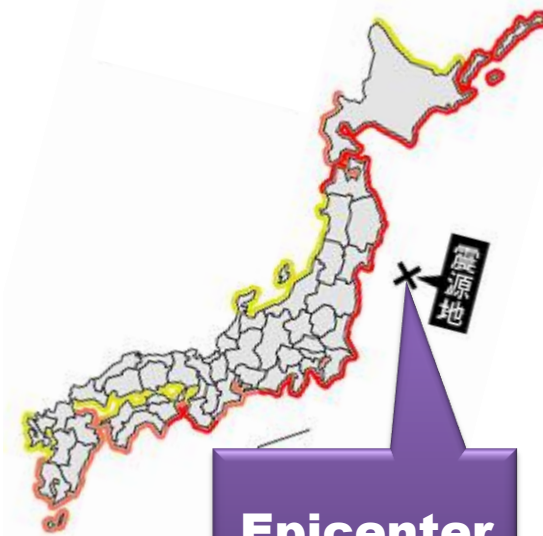
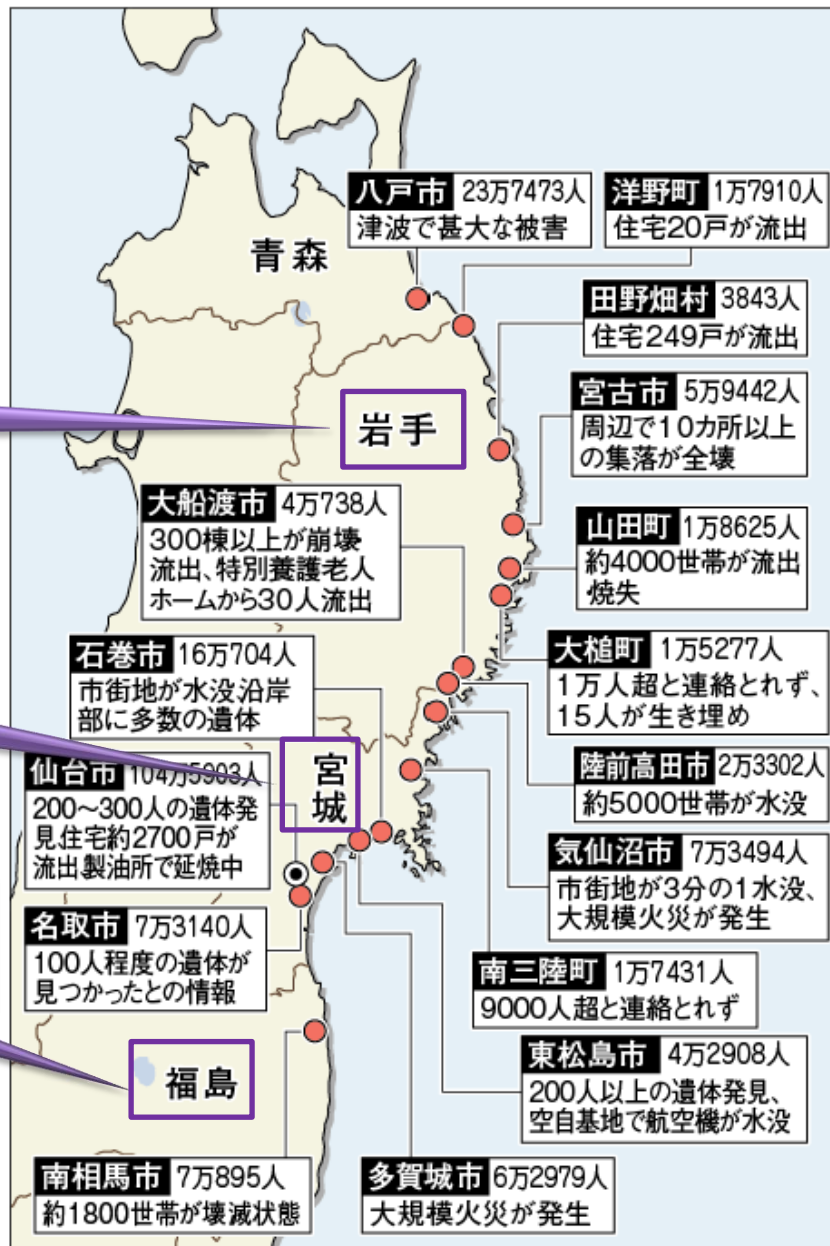
Date	March 11, 2011
Time	14:46 (JST) 5:46 (UTC)
Epicenter	38° 6' 12" N, 142° 51' 36" E
Magnitude	Mw9.0
Depth	24 km



Iwate

Miyagi

Fukushima



Epicenter

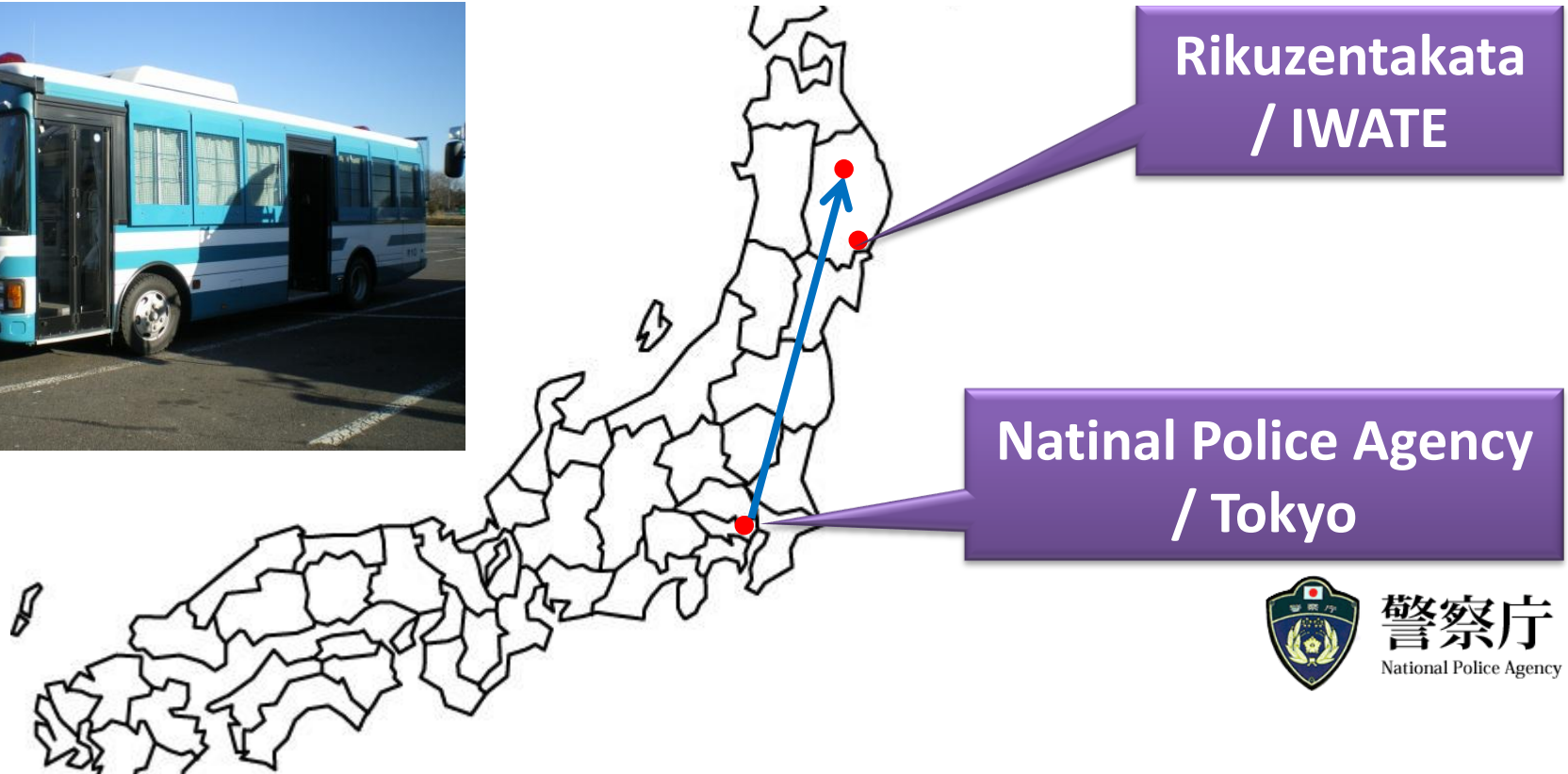
The society issued a guideline in 1997 for an integrated support system of mass disaster management based on the experience of the 1995 great Hanshin-Awaji earthquake.

The great Hanshin-Awaji Earthquake

Date	January 17, 1995
Time	5: 46 (JST) 14: 46 (UTC)
Epicenter	34° 35' 9" N, 135° 2' 1" E
Magnitude	Mw 7.3
Depth	16 km
Dead	6,434
Missing	3
Injured	43,792

March 12: *Ad hoc* Disaster Response Headquarters of JSLM was established

March 12, 10:00 pm: The first response team departs (3 pathologists and 3 dentists)



March 13, afternoon: Examination of victims began in Rikuzentakata

Most of the remains were immersed in water and covered with mud, and some victims had suffered extensive burns. Hypothermia would have also caused death in some cases.

The Headquarters successively organized and dispatched **JSLM** members through **July 6**. Some **122 pathologists** and physicians contributed a total of **1,090** person-days of work, and **31 dentists** performed a total of **298** person-days of work at the disaster sites.

JSLM	number	total
Pathologist Physician	122	1,090
Dentist	31	298

**from March 12
to July 6**

Along with **local physicians and dentists** associations, the **Japan Dental Association** and **Japan Self Defense Force** also sent support teams to the affected areas.



As of September 10, 2011, the remains of 15,781 victims, including 27 non-Japanese, had been recovered, and another 4,086 people were still listed as missing.

	No. of victims
Remains	15,781
Missing	4,086

September 10, 2011

Approximately 90% of the victims were positively identified,
in most cases

personal belongings and **body features**
including **dentition**

in some cases

DNA profiling

fingernails and **blood**

more extensive identifications are now in process

computer-assisted dental comparison system

kinship analysis of DNA profiles

No fewer than 25 countries, regions, and international organizations have sent rescue teams and other specialists to the disaster areas.

However, partly **because of the language barrier, direct overseas assistance in the examination and identification of bodies has not been possible thus far.**

Recently, Japanese police departments have been increasing the number of prefectural police officers, especially those in charge of the investigation of death scenes and victims.

	2005	2006	2007	2008	2009	2010
Inspector or coroner	136	144	147	160	196	221
Assistant inspector	128	135	143	169	317	358

This was effectual for handling the large number of remains through wide-range mobilization from outside of the devastated areas.

However, the medico-legal investigation system, such as the medical examiner system, is immature and remains as an issue to be addressed from the standpoint of mass disaster management