

First Report on the Fatal Shark Attacks along
the Western Coast, Korea, with records of white
shark, *Carcharodon carcharias*, in Korean Waters.

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Introduction

Six fatal attacks by shark to shell divers occurred along the Western coast of Korea from 1959 to 1996. These incidents involving sharks were confirmed by investigation of the Maritime Police station on the basis of the witnesses' statements. However only documents, such as the date, location, the vocation of the dead, sex, and statements of the witnesses, remain at the press and there were no investigations or reports by shark scientists so far. We report about these shark attack incidents along the Western coast of Korea for the first time, on the basis of the material of the press and the Maritime Police, and also give some biological data about *Carcharodon carcharias* which were captured by fishing boats in the waters of the attacks from 1996 to 2001.

The authors have reported these incidents to International Shark Attack File (ISAF), which is controled by American Elasmobranch Society at Florida Museum of Natural History, Gainesville, Florida, and the present six Korean incidents are case-numbered 3331 to 3336. These incidents are the first offically reported case of the shark attacks in Korea.

Results and Discussion

The locations of shark attacks are concentrated in the waters of Kunsan, Chonbuk and Boryong, Chungnam along the western coast of Korea. Six victims are all dead after the attacks, and five of them are professional shell divers. All the attacks on shell divers happened in May. These six shark attacks are

summmmerized in Table 1.

Table 1. Shark attacks in Korea

Case No. *	Date of attack	Name of victim	Locality	Fatal
3331	Summer, 1959	man (swimmer)	36° 17' N 126° 31' E	die
3332	May 23, 1981	Pak Kyong-sun (29, woman, shell diver)	36° 14' N 126° 21' E	//
3333	May 15, 1986	man (shell diver)	36° 05' N 126° 27' E	//
3334	May 27, 1988	Ko Bong-ae (38, woman, shell diver)	36° 20' N 126° 21' E	//
3335	May 12, 1995	Kim Sun-sim (44, woman, shell diver)	36° 23' N 126° 20' E	//
3336	May 10, 1996	Lee Kwan-seok (33, man, shell diver)	36° 05' N 126° 27' E	//

* Shark attack case number of International Shark Attack File (ISAF), Florida Museum of Natural History, Gainesville, Florida, 32611-2035, U.S.A.

Nine *Carcharodon carcharias* were captured by fishing boats near the Korean coast from 1996 to 2001, and seven of them were captured in the waters of the incidents occurred. The time was mostly in May and the beginning of June. The authors measured the water temperature where the third incident of 1986 and the sixth incident of 1996 occurred, at 11a.m. on May 15, 1998. The temperature of the surface water was 14.9°C and the temperature 30 meters below the surface was 11.8°C. The depth of the water was 30 to 35 meters and the bottom was sandy mud. It is in agreement with the time of the shark attack outside the country and also the appearance. At a shark attack in Ich Hyun, Japan in May, 1995 the surface water was 11.4°C and the water at 14m was 11.8°C. The white shark is a cool water species (Nakaya, 1996), usually appearing in water that is 11°C to 24°C (Casey and Pratt, 1985), with the coldest record for the species at 7°C (Nakano and Nakaya, 1987). Choi investigated the occurrence of the white shark off the coast of Kun-san, and suggested that white sharks are likely to stay in the waters of the middle western coast of Korea, from May to July (Choi, 1999). Every May, an abundant fishing ground is formed in the Western coast of Korea because the already existing low temperature water of the Western coast is mixed with the warm current, divided from Kuroshio warm current which comes from the South.

Reference

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