## AN AGGRESSIVE ENCOUNTER BETWEEN A POD OF WHALES AND BILLFISH

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An aggressive interaction or "battle" between a pod of large unidentified whales and a group of billfish, also unidentified (but probably marlin in the family Istiophoridae), was observed in August 1951, near Kahuku Point, the northern most tip of the island of Oahu in the Hawaiian Archipelago. The interaction lasted approximately 5–10 minutes and occurred in calm water at approximately 1230 hours local time, about 0.9 to 1.9 km due north of a position, 21°42.2'N, 158°01'W, on the beach, and about 2.2 to 2.4 km due west of Kahuku Point. Based on charted (U.S. Coast and Geodetic Survey Chart No. 4110) depths, the interaction occurred on the surface over, what is thought to be, water with depths of about 11–35 m.

Splashing, boils of water and the backs of large whales breaking the surface were initially seen. The first evidence that billfish were involved, was the rolling to its right of a whale, such that a billfish, firmly embedded in the whale's left flank, was lifted clear of the water to a near vertical position above the whale. The billfish thrashed back and forth, snapped off its bill and fell into the water as the whale turned upright and submerged. Minutes later another billfish was lifted out of the water to a position about one-half to one-quarter from the vertical above a whale. The whale rolled back into the water with the billfish still embedded. Splashing, water boils and the backs of whales were seen for an additional few minutes, and then abruptly stopped.

Evidence, that interactions between whales and billfish occur, has been occasionally reported in the literature (Ruud, 1952; Jonsgård, 1959, 1962; Nemoto, 1959; Brown, 1960; Machida, 1970; Ohsumi, 1973). The principal evidence has been the finding of the swords of billfish embedded in whales taken by whaling vessels. Sonrel (1870, p. 144) and Brown (1960) recount observed interactions between whales and billfish. The present report provides additional evidence of such encounters, and suggests how both whole and fractured swords result and become embedded in whales.

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## MAJOR

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Sci. Rep. Whales Res. Inst., No. 31, 1979