First Record of Pacific Angel Shark (Squatina californica) in Canadian Pacific Waters

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We report the first verified record of a Pacific Angel Shark (Squatina californica) from British Columbia, Canada. A Pacific Angel Shark, 1.1–1.2 m in total length, was observed on 30 April 2016 in approximately 12 m of water, 30 m from the tip of Clover Point, Vancouver Island, British Columbia (48°24′10″N, 123°20′56″W).

Key Words: Pacific Angel Shark; Squatina californica; British Columbia; first record

The Pacific Angel Shark (Squatina californica) is a distinctive chondrichthyan in appearance, with a flattened body and large pectoral fins (Ebert 2003). The flattened body along with dorsally placed eyes make this species easy to distinguish from other sharks. The large pectoral fins are clearly separated from the head, and the gill slits are partly lateral to the head (Ebert 2003) making it easy to distinguish from skates and rays. The dorsal body surface ranges in colour from grayish brown to reddish with speckled dark spots; the ventral body surface is white (Ebert 2003). The Pacific Angel Shark has a large, terminal mouth with conical nasal barbels on the anterior margin (Compagno et al. 2005).

This species is endemic to the eastern Pacific and is found in temperate waters on the continental shelf (Ebert 2003). It usually occupies depths less than 100 m but has been observed at 183 m (Ebert 2003). The Pacific Angel Shark is demersal, typically found on sandy or muddy flat bottoms near rocky reefs or kelp forests (Ebert 2003). It is an ambush predator, remaining motionless in one location, partly covered by sand, waiting to strike quickly at bony fishes that swim close to its head (Fouts and Nelson 1999).

In the eastern North Pacific, the Pacific Angel Shark has been reported from southeastern Alaska to the Gulf of California (Evermann and Goldsborough 1907). However, the northern extent of this distribution is drawn from a single record from 1903 in southeastern Alaska (Evermann and Goldsborough 1907), which was problematic even when first reported (Mecklenburg et al. 2002). The exact locality for this specimen was not available, but the designation in southeastern Alaska in Evermann and Goldsborough (1907) places it somewhere between Dixon Entrance and Portland Canal to Yakatut Bay. The next most northerly record is a single specimen captured in October 1931 near Seattle in Puget Sound, Washington (Schultz et al. 1932; Mecklenburg et al. 2002).

In contrast, the Pacific Angel Shark is common throughout California and Mexico (Cailliet 2005). In California, a commercial fishery for this species operated out of Santa Barbara from the late-1970s through the 1980s until 1990 when drift net fishing was banned by the State of California (Richards 2001). A commercial fishery for Pacific Angel Shark exists in Mexico, both along the Pacific coast and in the Gulf of California (Richards 2001; Cailliet 2005).

Despite a published distribution range that extends northward to Alaska, to date there has been no record of a Pacific Angel Shark from Canadian Pacific waters. On 30 April 2016 at approximately 1600 Pacific Standard Time, a Pacific Angel Shark was observed and photographed (Figure 1) by an underwater diver in approximately 12 m of water, 30 m from the tip of Clover Point, Vancouver Island, British Columbia (48°24′10″N, 123°20′56″W). The diver estimated the shark to be 1.1–1.2 m in total length. It was resting, motionless, on the rocky bottom. The occurrence was reported to the Pacific Shark Sightings Network of Fisheries and Oceans Canada (www.pac.dfo-mpo.gc.ca/SharkSightings).

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Literature Cited


Figure 1. First record of a Pacific Angel Shark (*Squatina californica*) approximately 1.1–1.2 m in total length, photographed at Clover Point, Vancouver Island, British Columbia, on 30 April 2016. Photo: Mark Cantwell.


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