

NOTES

The Occurrence of a Black Marlin, *Tetrapterus mazara*, without Spear

Although it is quite commonly believed that the spearfishes are dependent upon the use of their spears as weapons for securing food, this is not necessarily the case as is demonstrated by the following observation.

A 545-pound black marlin (*Tetrapterus mazara* Jordan and Snyder), which was without a spear, was taken recently on long-line fishing gear, in Hawaiian waters. The specimen, with others of the same species, was brought into the auction room of the Kyodo Fishing Company, Ltd., on October 24, 1949. The appearance of the specimen indicated that the spear had been lost by injury. There was no indication that the loss was at all recent although considerable scar tissue was

present on the snout. Even though the fish was without a spear the specimen was equal in condition to the normal fish of the same species. This seems to disprove the belief that the spear is necessary for natural and adequate feeding. Unfortunately, length measurements of black marlin of this size are not practicable as the fish are cut in pieces to facilitate transporting to market.

According to the operators of the auction, spearfishes without spears have been observed before in the Honolulu market, although such occurrences are very rare.—Harvey L. Moore, *Section of Biology and Oceanography, Pacific Oceanic Fishery Investigations, U. S. Fish and Wildlife Service, Honolulu, Hawaii.*

Additional Records Confirming the Trans-Pacific Distribution of the Pacific Saury, *Cololabis saira* (Brevoort)¹

During January, 1948, the senior author and Dr. O. R. Smith of the U. S. Fish and Wildlife Service collected 10 specimens of *Cololabis saira* (Brevoort) by submerged light and dip net while aboard the tuna-fishing vessel "Oregon" en route from San Diego, California, to the Hawaiian Islands. One specimen 39.0 mm. long was taken on January 4 at 28° 22' N, 137° 12' W. Seven specimens, 30.0, 31.5, 33.0, 34.5, 34.5, 35.0, and 36.0 mm. in length, were captured on January 6 at 25° 14' N, 144° 41' W. One specimen 33.0 mm. long was taken on January 7 at 23° 52' N, 148° 41' W. A final

48.0 mm. specimen was captured on January 9 at 23° 04' N, 153° 19' W. All measurements are standard length.

These additional records of occurrence of the Pacific saury substantiate Hubbs's conclusion from morphological comparison that *C. saira* and *C. brevirostris* are not distinct species (Hubbs, *Univ. Calif. Pub. Zool.* 16 (3): 157, 1916), and Schultz's note (*Copeia*, 1940 (4):270), based on his collection of specimens in the oceanic areas between San Francisco and Honolulu, indicating that *C. saira* is trans-Pacific in distribution.—Milner B. Schaefer and John W. Reintjes, *Section of Biology and Oceanography, Pacific Oceanic Fishery Investigations, U. S. Fish and Wildlife Service, Honolulu, Hawaii.*

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