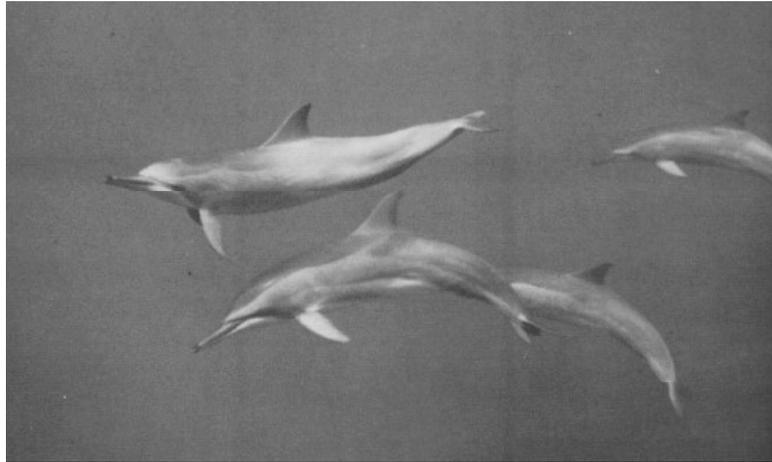


SPINNER DOLPHIN (T)

Stenella longirostris (Gray, 1928)



Other Common Names in Current Use

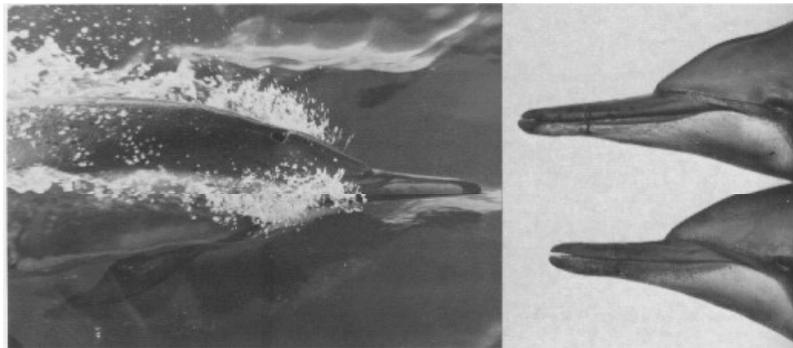
Spinner, spinner porpoise; delfin tornillon or delfin churumbelo (Latin America); hashinaga iruka (Japanese); dlinnonosyy or vertyashchiysya del'fin (Russian).

Description

Adult spinner dolphins are about 1.5-2.2 m long, with females on the average about 4 cm shorter than males. Size varies among the several geographical races (see section on Distribution below). The Costa Rican spinner is the longest, adults reaching 2 m or more, while the immediately adjacent "eastern" form is the smallest (one pregnant female weighed only 39 kg (85 lb)).

The races also differ widely from each other in body shape and in color pattern. The Costa Rican and "eastern" spinners differ in length and in relative length of the beak (longer in the Costa Rican) but are otherwise similar. Both are dark gray except for light areas on the throat, in the axilla (behind the flipper), and in the genital region. Sizes of the light areas vary among individuals. In calves they are confluent, making the animal basically dark above and white below. Older juveniles are intermediate. The Costa Rican and eastern spinners also share a peculiar sexual dimorphism in body shape. In adult males the dorsal fin is erectly triangular; in some large males it even is canted forward, appearing to be "on backwards." Degree of forward cant of the fin is correlated with size of the postanal ventral hump composed largely of connective tissue. The combination of forward-leaning dorsal fin and large ventral hump give large males an appearance unique among the dolphins. The function of the anomalous features is unknown.

The more offshore northern and southern "whitebelly" spinners and spinners around Hawaii and in other parts of Polynesia are more like spinners in other tropical waters around the world. The color pattern consists of a dark gray dorsal cape, a lighter gray lateral area, and a white belly. The three elements of the pattern vary geographically in contrast and definition. In the "northern" whitebelly spinner, the cape is relatively indistinct and the margin between lateral field and white underside is more or less ragged. In "southern" whitebelly spinners the cape is more visible, and the lateral field darkens ventrally, giving the animal a striped appearance at a distance. In spinners around Hawaii, all three zones of the pattern are well defined and contrast sharply with each other. The Hawaiian spinner has the most falcate fin among the races, but it is still erectly subtriangular. The ventral hump is nearly absent. The whitebelly spinners are again intermediate, having a highly variable degree of erectness of dorsal fin and size of ventral hump. These, of course, are average differences, and some individuals in any large herd or sample can be expected to exhibit the "wrong" color pattern or shape. The whitebelly spinners are especially variable.



A spinner dolphin just breaking the surface, its blowhole open. Note the gentle angle formed between the melon and the long slim beak, the distinctive black edges of the lips, and the black rostrum tip. The photos show variation in beak length among spinner dolphins. (Photos courtesy of NMFS and by W. F. Perrin.)

Natural History Notes

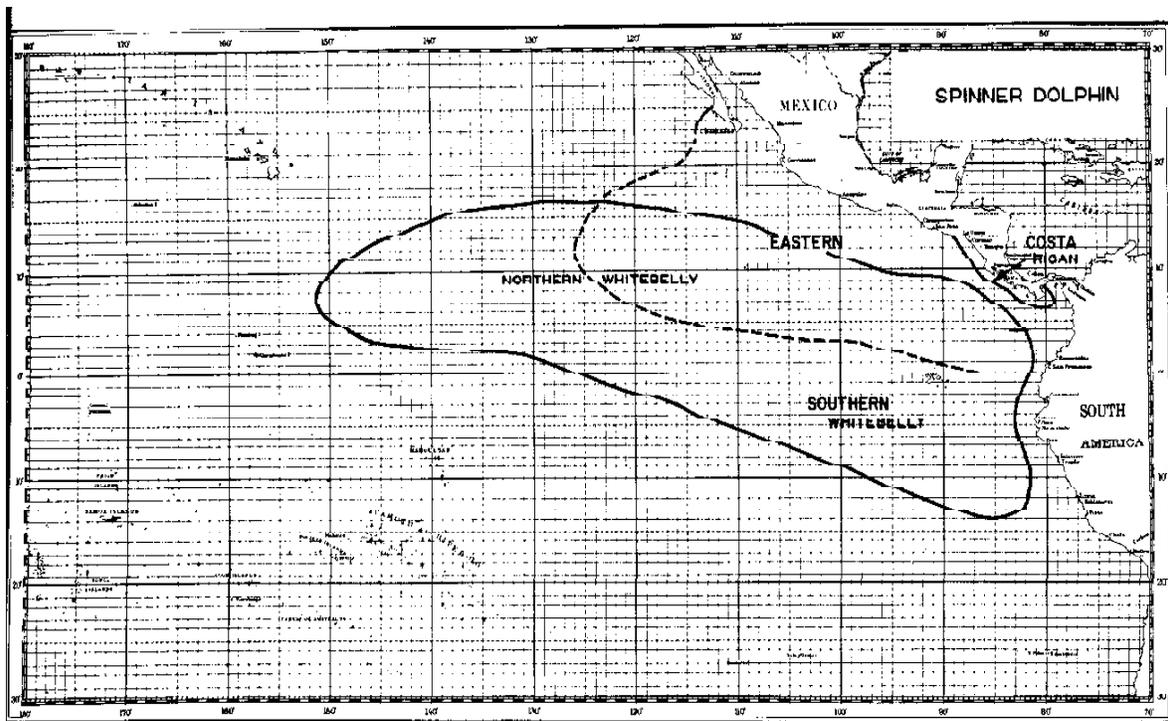
Spinners often occur in very large herds, and it is not unusual to find them mixed with spotted dolphins. Both species experience significant mortality in the eastern tropical Pacific as a result of tuna purse seine operations. The two forms most involved are the eastern and whitebelly spinners. Harassment by tuna boats appears to have affected the behavior of these dolphins. On the tuna grounds most herds now begin "running," swimming very rapidly near the surface with long flat jumps, whenever a motor vessel approaches. This is less true of animals of the Costa Rican and Hawaiian races, which still appear relatively unafraid and approach vessels to ride the bow.

The spinner's common name is derived from its habit of leaping clear of the water and spinning on its longitudinal axis, rotating as many as 7 times in one leap.



Spinner dolphins showing their amazing leaping ability as part of an oceanarium show
(NMFS photo by K.C. Balcomb)

Distribution



The spinner is a tropical animal, its range in the eastern tropical Pacific coinciding roughly with that of the spotted dolphin. In the rest of the Indo-Pacific, it is not found on the high seas but stays close to islands and banks. The reason for the high seas

distribution in the eastern tropical Pacific is not known but probably has something to do with the fact that the region is peculiar in having a very shallow mixed layer (50-100 m) overlaid by a sharp thermocline (region of rapidly changing temperature with depth) and a thick oxygen-minimum layer. These oceanographic features define a shallow, sharply bounded habitat that may in some way approximate the habitat around islands and over banks.

Can Be Confused With

Among the small dolphins with long beaks, the spinner is unique in having an erect triangular dorsal fin, the best field character to look for. The spinning behavior (as distinguished from other kinds of high leaps, somersaults, etc.) is also diagnostic. These two features, in combination with the long beak, reliably separate spinners from common dolphins, striped dolphins spotted dolphins Fraser's dolphins, and bottlenose dolphins.

Identification of Dead Specimens

Again, the long beak and triangular dorsal fin are diagnostic. The spinners also have relatively high tooth counts (45-61 in the eastern tropical Pacific), although the lower end of the range overlaps those of some of the other long-beaked dolphins. If the tripartite color pattern is intact, it also is diagnostic.

Excerpted from:
NOAA Technical Report NMFS Circular 444
"Whales, Dolphins, and Porpoises of the Eastern North Pacific and Adjacent Arctic Waters - A Guide to Their Identification" by Stephen Leatherwood, Randall R. Reeves, William F. Perrin, and William E. Evans with Appendix A on Tagging by Larry Hobbs. July 1982. U.S. Department of Commerce