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Coordinated feeding by Clymene dolphins (*Stenella clymene*) in the Gulf of Mexico

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Little is known of the natural history of the Clymene dolphin (*Stenella clymene*). Available information on its feeding habits is limited to stomach contents of two individuals. One animal that stranded in New Jersey contained squid beaks and small otoliths, mostly myctophids (Perrin *et al*., 1981); the second specimen had squid beaks and eye-lenses (N. B. Barros and D. K. Odell, Southeast US Stranding Network, unpubl. data). Perrin *et al*. (1981) presumed that Clymene dolphins may take prey largely at night and in deep waters, since myctophids are mesopelagic and most species vertically migrate to the water's surface at night. We report an account of Clymene dolphins feeding in a coordinated manner on schooling fish in the Gulf of Mexico. Our observations are of interest because the feeding episode described here occurred during the daytime, and observations on feeding behaviors by this species have not previously been published.

On 24 September 1996, between 1420 and 1500 h, a group of approximately 30 dolphins was observed feeding in a coordinated manner in the Gulf of Mexico, south of Port O'Connor, Texas (27°12.44 N; 95°17.61 W) in water 1243 m deep. Observations were made from the 19.8 m vessel M/V *Chip XIII*, using handheld 10×40 power binoculars. Overcast skies, with a Beaufort sea state of 3, made detailed observations difficult.

The dolphins were observed feeding in an area of 15 m diameter (based on comparison with adult dolphin body lengths of approximately 2 m). The dolphins displayed a negative response (ceasing their coordinated behaviors and moving away) twice when the boat approached within 100 m of the activity; therefore, the boat was kept at an appropriate distance so as to not disrupt the dolphins.

Clymene dolphins are easily confused with spinner dolphins (Jefferson *et al*., 1993). These dolphins were identified as Clymene dolphins based on the following criteria: a body size and shape that is more robust than that of the spinner dolphin; a shorter rostrum than that of the spinner; and a dark gray cape that dipped above the eye and below the dorsal fin. From the observation distance, it was not possible to see a distinctive black 'moustache' on the rostrum. No birds were associated with the feeding activity. The fish were approximately 10–15 cm in length and slender; it was not possible to identify the fish species. While the majority of the dolphins worked to keep the fish together in a ball near the surface, individuals appeared to take turns pursuing fish. The containment was very fluid, with many of the surfacings being made counter-clockwise to the fish school. Some dolphins passed through the edge of the aggregation, rolling on their sides in an arc towards the fish. Some dolphins were observed gliding through the fringes, and even the center, of the fish school. They became more active outside the fish school, with some splashing as the animals arced back towards the school. After 40 minutes of observation, the boat resumed its course, while the dolphins continued their activity.

Clymene dolphins have been sighted primarily in deep waters (250–5000 m or deeper) (Mullin *et al*., 1994; Perrin & Mead, 1994). This report is consistent with the known range of this species in the Gulf of Mexico, where it occurs in water depths ranging from at least 704–3064 m (Mullin *et al*., 1994).

Using a variety of feeding behaviors, many dolphin species are opportunistic and take advantage of available prey. Opportunistic observations of coordinated feeding on fish schools have been made for a number of delphinids, including killer whales (*Orcinus orca*) (Similä & Ugarte, 1993), dusky dolphins (*Lagenorhynchus obscurus*) (Würsig & Würsig, 1980), Atlantic spotted dolphins (*Stenella frontalis*) (Martin, 1986; Fertl & Würsig, 1995), long-beaked common dolphins (*Delphinus capensis*) (Gallo-Reynoso, 1991), rough-toothed dolphins (*Steno bredanensis*) (Smeenk & Richards,

1995; Steiner, 1995), and bottlenose dolphins (*Tursiops truncatus*) (Bel'kovich *et al*., 1991; Shane, 1990). It is not known whether this reported observation is typical or atypical of Clymene dolphin feeding habits or behavior. It has been suggested that the Clymene dolphin's diet is similar to that of the spinner dolphin (Perrin *et al*., 1981). Like the spinner dolphin, the Clymene dolphin probably feeds primarily on mesopelagic fish and squid. Both dolphin species presumably feed opportunistically on epipelagic fish occurring near the surface. For example, spinner dolphins have been observed feeding on flying fish (Würsig *et al*., 1994).

Fifteen years after its redescription, the Clymene dolphin remains a poorly known cetacean (e.g. Perrin & Mead, 1994; Jefferson *et al*., 1995; Jefferson, 1996). As noted by Mullin *et al*. (1994), continued monitoring of cetacean distribution and numbers in the Gulf of Mexico will add much needed information to the knowledge of this species.

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The Clymene dolphin (Stenella clymene), in older texts known as the Short-snouted spinner dolphin, is a dolphin endemic to the Atlantic Ocean.Â They appear to prefer deep water. Plenty of sightings have been recorded in the Gulf of Mexico. The species has not been sighted however in the Mediterranean Sea. Total population is unknown. The only population estimate available is for the north part of the Gulf of Mexico, where a count of 5,500 individuals was reported. The species may be naturally rare in comparison with others in the Stenella genus. Human interaction. Some individuals have been killed from directed fisheries in the Caribbean and others in nets off West Africa. S. clymene is currently genetically differentiated from its putative parental species, Stenella coerueloalba and Stenella longisrostris, although low levels of introgressive hybridization may be occurring. Although non-reticulate forms of evolution, such as incomplete lineage sorting, could explain our genetic results, we consider that the genetic and morphological evidence taken together argue more convincingly towards a case of hybrid speciation. We anticipate that our study will bring attention to this important aspect of reticulate evolution in non-model mammal species. The study of specia The Clymene dolphin (Stenella clymene), in older texts known as the short-snouted spinner dolphin , is a dolphin endemic to the Atlantic Ocean. It is the only confirmed case of hybrid speciation in marine mammals, descending from the spinner dolphin and the striped dolphin. More Info.Â About Interactions. Most organisms interact with other organisms in some way or another, and how they do so usually defines how they fit into an ecosystem. These intereactions come to us from Global Biotic Interactions (GLoBI) , a database and webservice that combines interaction data from numerous sources, including iNaturalist. You can actually contribute to this database by adding the "Eating", "Eaten by", and "Host" observation fields to observations that demonstrate those interactions. Clymene Dolphin - Stenella clymene. Cuvier's Beaked Whale - Ziphius cavirostris. Dwarf Sperm Whale - Kogia simus.Â So, yes there are many types of dolphins in the Gulf of Mexico. You specifically asked about porpoises. I was so excited to answer because of my experiences with dolphins and whales that I got carried away. Below is the difference between dolphins and porpoises. Dolphins tend to have prominent, elongated â€œbeaksâ€ and cone-shaped teeth, while porpoises have smaller mouths and spade-shaped teeth. The dolphin's hooked or curved dorsal fin (the one in the middle of the animal's back) also differs from the porpoise's triangular dorsal fin. All dolphins are whales, but not all whales a Clymene dolphins are found in the deep, tropical waters of the Atlantic Ocean. They are the smallest dolphin in the genus Stenella, which also includes spinner dolphins, Atlantic spotted dolphins, pantropical spotted dolphins, and striped dolphins.Â Based on the most recent surveys, our scientists estimate that there are about 129 dolphins in the northern Gulf of Mexico stock. Estimates for this stock have varied widely over time. The number of dolphins in the western North Atlantic stock is unknown.