

Stenella clymene (Gray, 1850)

English: Clymene dolphin

German: Clymene-Delphin

Spanish: Delfín clymene

French: Dauphin de Clymène

Family Delphinidae

1. Description

The Clymene dolphin is small but rather stocky and has a moderately long beak. The dorsal fin is tall and nearly triangular to slightly falcate, and flippers and flukes resemble those of other members of the genera *Delphinus* or *Stenella*. The coloration is tripartite: the belly is white, the flanks are light grey and the cape is dark grey. There is a dark grey line running down the length of the top of the beak, but the most distinctive feature is a black "moustache" marking of variable extent at the top of the beak. With this exception, most of this species' external characters are very similar to those of the spinner dolphin. Body size reaches 170–190 cm in females and 176–197 cm in males, and maximum body mass recorded was 80kg (Jefferson, 2009).

2. Distribution

<http://www.iucnredlist.org/apps/redlist/details/20730/0/rangemap>

Distribution of Stenella clymene (Hammond et al. 2008; © IUCN): the species prefers the tropical, subtropical and occasionally the warm temperate waters of the Atlantic Ocean

The Clymene dolphin is found in tropical and warm temperate waters of both the North and South Atlantic Oceans. The northernmost records are from New Jersey (39°17'N) in the western Atlantic and from Mauritania (16° 13'W) in the eastern Atlantic. The southernmost record on the west is from southern Brazil (29°58'S), in the central Atlantic at 3°40'S off Ascension Island (Fertl et al. 2003), and in the east near northern Angola (7°S, Weir, 2006). It can be expected to occur along the eastern seaboard of the United States, throughout the Gulf of Mexico and Caribbean, along the north-eastern coast of South America, throughout the equatorial Atlantic and along the entire tropical coast of West Africa (Perrin and Mead, 1994).

3. Population size

The scarcity of records of this species indicates that the Clymene dolphin may not be very abundant, at least in coastal waters. Considering the difficulty of distinguishing it from similarly marked species at sea, however, it may not be as rare as it would seem to be (Perrin and Mead, 1994). The best recent abundance estimate for the western North Atlantic is 6,086 animals (CV = 0.93) (Mullin and Fulling 2003). No Clymene dolphins have been observed in subsequent surveys (Waring et al. 2007). The best available abundance estimate for the northern Gulf of Mexico in oceanic waters, pooled from 2003 to 2004, was 6,575 (CV=0.36) (Mullin 2007).

Based on capture records, *S. clymene* appears to be the most common cetacean in Ghana's coastal waters, but no individual stocks have been distinguished on the coasts of West Africa (Van Waerebeek et al. 2000 and refs. therein). However, new West African specimens of *S. clymene* are evidence that the present unequal distribution of this species in the western and eastern parts of the tropical North Atlantic could be an artefact of poor sampling in African waters (Robineau et al. 1994).

4. Biology and Behaviour

Habitat: Clymene dolphins were found in waters with bottom depths ranging from 44 to 4500 m (mean = 1870 m). A single sighting reported at a location with a bottom depth of 44 m is considered to be atypical, as this species has an otherwise exclusively oceanic distribution (Perrin and Mead, 1994, and refs. therein; Fertl et al. 2003).

Schooling: Group sizes range from at least one individual in a mixed-species school of spinner dolphins *Stenella longirostris* to a group of an estimated 1000 animals (mean = 71). Stranding group size range from 1 to 46 individuals, with single individuals being most common. There is information available for seven mass strandings, all of which occurred in the south-eastern USA (Fertl et al. 2003)

Watkins and Moore (1982, in Perrin and Mead, 1994) observed groups of 1–10 animals around St Vincent in the Caribbean. The Clymene dolphins were swimming in close association with schools of spinner dolphins but remained clustered together and did not approach the vessel as closely as the spinners did. Three groups of Clymene dolphins seen off the US coast consisted of three, eight and 15 animals. Perrin and Mead (1994) also reported that schools of this species may be segregated by sex and age; three mass strandings in Florida were of two females with calves, three adult males, and six adult males. Of 47 specimens from a mass stranding in Louisiana in 1985, 43 were males (164–197cm), two were females (155 and 168cm, probably immature) and two were of unknown sex.

A school off West Africa consisted of approximately 50 dolphins. Schools of this species have also been seen in the company of common dolphins (*Delphinus delphis*) off West Africa (Perrin and Mead, 1994, and refs. therein).

Food: Clymene dolphins may be night feeders on small fish and squids. The stomach of one stranded specimen contained one pair of small squid beaks (unidentified) and over 800 very small otoliths of fishes of the families Myctophidae, Argentinidae and Bregmacerotidae. Most of the species represented are mesopelagic but known to reach the surface at night during the course of vertical migrations. One myctophid (*Lampanyctus* sp.) usually does not occur in surface waters even at night (Perrin and Mead, 1994, and refs. therein). As opposed to this, Fertl et al. (1997) report on Clymene dolphins feeding during the daytime in a co-ordinated manner on schooling fish in the Gulf of Mexico in water 1,243m deep.

5. Migration

unknown

6. Threats

Direct catches: Clymene dolphins were taken by harpoon in small numbers in a subsistence fishery at St Vincent in the Lesser Antilles (Perrin and Mead, 1994 and refs. therein). Off the coast of West Africa, this species is possibly one of several taken in large numbers in tuna purse seines in the Gulf of Guinea (Van Waerebeek *et al.* 2000).

Incidental catch: They were captured incidentally in gillnets in Venezuelan waters and utilised for longline shark bait and for human consumption (Perrin and Mead, 1994 and refs. therein). They may be one of the species taken in tuna purse seines in the eastern tropical Atlantic (Jefferson *et al.* 1993) and have been recorded from by-catches in Brazilian fisheries (Zerbini and Kotas, 1998). Annual estimated fishery-related mortality and serious injury to the US western Atlantic and the northern Gulf of Mexico stocks during 2001-2005 were zero, as there were no reports of deaths or serious injury to Clymene dolphins (Waring *et al.* 2007).

Pollution: Contaminant levels have not been recorded (Jefferson and Curry, 2003).

7. Remarks

Range states (Hammond *et al.* 2008)

Antigua and Barbuda; Bahamas; Barbados; Belize; Brazil; Cameroon; Cape Verde; Cayman Islands; Côte d'Ivoire; Dominica; Gabon; Ghana; Guinea; Honduras; Jamaica; Mauritania; Mexico; Netherlands Antilles; Puerto Rico; Saint Helena; Saint Vincent and the Grenadines; Senegal; Sierra Leone; USA; Venezuela

The Clymene dolphin is listed as "Data Deficient" by the IUCN. The West African population is listed in Appendix II of CMS. The species is listed in Appendix II of CITES.

The species is poorly known with respect to biology, life history, distribution and migratory habits. Further research on all aspects of its biology is needed. Sightings at sea suggest a wide home-range, and individuals or groups thus may cross many international boundaries, especially in the Caribbean. Therefore, full inclusion in Appendix II of CMS should be considered.

See further recommendations in Hucke-Gaete (2000) in Appendix II.

8. Sources

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