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## An Encounter with a Large School of Dolphins off the Coast of Charlotteville, Trinidad and Tobago

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## An Encounter with a Large School of Dolphins off the Coast of Charlotteville, Trinidad and Tobago

The waters surrounding Trinidad and Tobago are known to be used by at least 19 species of cetacean, including 14 species of dolphin (Cetacean Conservation and Research Organization [CCARO], online). Very little information is known about the distribution, abundance or habitat use of cetaceans around either island, especially Tobago. Here, we describe the first recorded sighting of Atlantic spotted dolphins (*Stenella frontalis*) off the coast of Tobago, and the largest group containing this species recorded for either island.

On 6 August, 2012 at around 1400 h, AED and two companions were being transported by a small fishing pirogue to St. Giles Island to do some recreational snorkelling.

About halfway between the jetty and the destination (approximately 11° 20' 52" N; 60° 33' 52" W; Fig. 1), the boatman alerted the passengers to the presence of dolphins ahead of the boat. Within minutes the boat was surrounded by between 50 and 100 individuals (lower and upper estimates).



Fig. 1. Map showing approximate location of encounter.

Several were swimming alongside the boat and displaying wake-riding and bow-riding behaviours. Others were milling in the wider area, surfacing often. Aerial behaviours were observed in at least one individual (Fig. 2). The encounter lasted around 15 minutes, after which the group moved away from the boat.

Some of the dolphins were easier to identify than others. Many of the individuals that approached the boat close enough to be clearly seen were grey with spots, had a dark cape on the back, a lighter underside and a pale spinal blaze extending into the dark cape ending just under the dorsal fin (Fig. 3). The tri-colour patterning in conjunction with the observed pale blaze identifies these



Fig. 2. Aerial behaviours of *Stenella frontalis*.



Fig. 3. This individual displays the 'pale spinal blaze' and spotting that are characteristic of *S. frontalis*.



Fig. 4. Extent of spotting increases with age in *S. frontalis*; the individual in the foreground is heavily spotted, to the point that it obscures the cape and blaze.

spotted individuals as *Stenella frontalis*, Atlantic spotted dolphins. Atlantic spotted dolphins typically display a distinct variation in patterning with age. At birth, calves have a two-toned pattern and are unspotted. As the animal matures, spotting increases until some adults become heavily spotted, obscuring the cape and blaze (Herzing 2006). The group observed here included several heavily spotted individuals (Fig. 4), as well as those on which the cape and blaze were visible.

Other individuals, seen and photographed further away from the boat, appeared unspotted and uniformly grey with a narrow rostrum (Fig. 5). It was not possible to see the lower sides and underside of the unspotted individuals, thus the species could not be confirmed.



**Fig. 5.** Unspotted individuals. These individuals had a relatively long, narrow rostrum and seemed a uniform colour, but as the underside was not visible, confirmation of species was not possible.

There are two possibilities here. The first is that we were in fact observing a mixed species group and these unspotted individuals were *Tursiops truncatus* (bottlenose dolphins). This species is commonly observed in the coastal waters of Trinidad and Tobago (Naranjit, unpublished) and is known to associate with *S. frontalis* (Herzing and Johnston 1997). However, it must be noted that the rostrums of the unspotted individuals were relatively long and narrow in comparison to locally observed bottlenose dolphins, and more similar to those of *S. frontalis*.

The second possibility is that all the individuals were *S. frontalis*, and the variation observed was intra-species variation. The extent of spotting on *S. frontalis* is known to vary geographically; a heavily spotted form is commonly observed over the continental shelf, while oceanic populations tend to include more lightly spotted individuals (Jefferson *et al.* 2011). In Trinidad, many of the Atlantic spotted dolphins seen are lightly spotted (Naranjit, unpublished), and there have been observations of virtually unspotted individuals off the coast of Brazil (Jefferson *et al.* 2011). Therefore, the possibility remains that we were observing natural variation in extent of spotting within this species rather than a mixed species group.

This is the first recorded sighting of Atlantic spotted

dolphins around Tobago. Coastal groups of this species tend to number between 5 and 15 (Jefferson *et al.* 2011) although offshore groups may contain more than 200 individuals (Shirihai 2006). In Trinidad and Tobago the majority of reported dolphin groups of any species contain fewer than 20 individuals, and the largest group of *S. frontalis* previously recorded for Trinidad contained at least 17 individuals (Naranjit, unpublished). This makes the encounter described in this note the largest group containing *S. frontalis* individuals currently recorded for either island.

It is important to consider that in Trinidad and Tobago:

- the number of cetacean sightings reported is very low
- most sightings of dolphin groups are probably not reported
- most reported sightings are around the island of Trinidad
- there have been no previous sightings of *S. frontalis* reported around Tobago.

These factors make it difficult to draw accurate conclusions about what is typical for *S. frontalis* groups around Trinidad and Tobago.

More data are needed on cetaceans in Trinidad and Tobago if we are to understand the habitat use and behaviour of these animals, their population dynamics and the potential threats they face, such as disease, predators, marine pollution (noise, chemical, debris), vessel strikes, entanglement in fishing gear, prey depletion and hunting. Such information will aid in the development of effective conservation strategies to protect cetaceans in Trinidad and Tobago.

One successful means of obtaining some of this information is through collecting reports of whales and dolphins from the general public. Information on the date, time, location, number, description and behaviour of the animals is most helpful, as are photographs and videos of an encounter. In Trinidad and Tobago, the CCARO collects such reports through forms on their website ([www.ccaro.org](http://www.ccaro.org)) and encourages members of the public to contribute to the scientific understanding of these animals by reporting sightings.

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