



Common or Uncommon? The Unusual Presence of Short-Beaked Common Dolphins (*Delphinus delphis*) in a Shallow, Semi-Enclosed Embayment in Victoria, Australia.

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ABSTRACT

The presence of short-beaked common dolphins (*Delphinus delphis*) in deep-water habitats, typically along the continental shelf or slope, is well documented. Despite the frequency of sightings and the regularity of strandings along the southern Australian coastline, common dolphins remain poorly understood in Victorian waters. Prior to 2006 the sighting of common dolphins in Port Phillip was considered a rare event and had only been documented on several occasions. Here, we present our observations of short-beaked common dolphins in Port Phillip, a semi-enclosed embayment with a mean depth of 13.6 m.

Random transects and opportunistic surveys completed by the Dolphin Research Institute (DRI) since 2006 have documented the regular presence of a small number of short-beaked common dolphins, including neonates and juveniles, along a region of the south-eastern shoreline of Port Phillip between April and October. Common dolphins were located in relatively shallow water close to the coastline (depth range = 5-15m, mean water depth = 11.3m, SD = 0.6m, mean distance from shoreline = 677m, SD = 47m) and showed high site fidelity to approximately 17kms of coastline.

Identification photos taken of dorsal fins and body colouration have revealed that 11 individuals regularly inhabit the area, however the population is believed to consist of approximately 30 individuals. Prey abundance is believed to be one of the attractants of common dolphins to the area. Large shoals of bait fish are often encountered in the region and common dolphins are frequently observed feeding on these.

The recent appearance of a small population of common dolphins exhibiting high site fidelity in relatively shallow water warrants further investigation. DRI will continue to monitor the dolphins into the future to determine their seasonal distribution, degree of site fidelity, habitat use and the genetic viability of the population.

BACKGROUND

DRI has conducted regular photographic identification surveys of the resident bottlenose dolphin population in the southern region of Port Phillip since 1993. Scarpaci *et al.* (1999) believed the sighting of short-beaked common dolphins in Port Phillip was a rare event. DRI researchers have regularly encountered short-beaked common dolphins along the south-east coast of Port Phillip since 2006.

PORT PHILLIP

Port Phillip is a relatively shallow, marine embayment of approximately 1930 km². The mean depth of the bay is 13.6 m whilst the deepest region, the centre, has a maximum depth of approximately 24 m (CSIRO 1996).



Figure 1: Map of Australia and the location of Port Phillip, a shallow, semi-enclosed marine embayment.

BOAT SURVEYS

- Random line transects along south-east coast of Port Phillip June–September 2007
- Opportunistic encounters during bottlenose dolphin fin ID/ biopsy surveys in Port Phillip all year round 2006–2009

REGULARLY SIGHTED INDIVIDUALS



LOCATION OF COMMON DOLPHINS

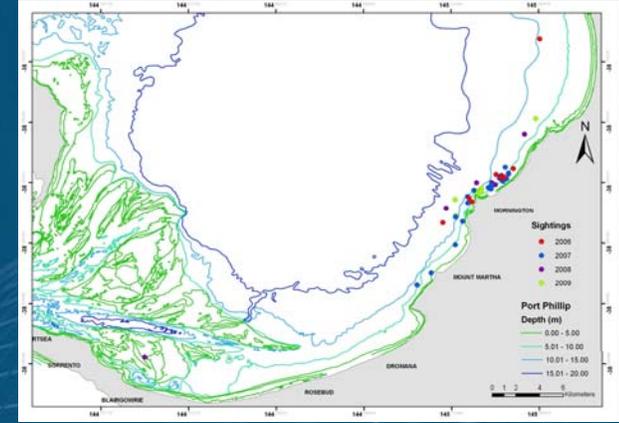


Figure 2: Map of south-east Port Phillip displaying the locations of common dolphin sightings 2006-2009. Bathymetry map sourced from Department of Primary Industries, Victoria.

OBSERVATIONS

- Common dolphins often observed in small pods of 2-6
- Population consists of approximately 30 individuals
- Water depth during common dolphin encounters ranges from 5-15m
- Common dolphins show high site fidelity along a 17 km stretch of south-eastern Port Phillip
- Single common dolphin regularly seen interacting in resident bottlenose dolphin pod
- Dolphins 7000 CD, 10 101 CD, 10 102 CD and clean fin 01 CD often observed together
- Common dolphins subject to frequent forced interactions from sail and power boats



References
 CSIRO (1996) 'Port Phillip Bay Environmental Study - Final Report.' CSIRO Australia, Dickson, ACT, Australia
 Scarpaci C, Bigger SW, Saville TA, Nuggeoda D (1999) A rare sighting of the common dolphin *Delphinus delphis* in Port Phillip Bay. *The Victorian Naturalist* 116, 65-67.