Dolphin Watch

1770 Regional Summary

Below is a summary of observational data submitted by citizen scientists from the community as part of the Dolphin Watch initiative. Data were submitted via the Dolphin Research Australia online sighting report form between April 2018 and January 2019.

Sightings were made during all months between April and January with the exception of December suggesting that dolphins are likely to be present year-round in the 1770 region. The majority of groups observed were Australian humpback dolphins that contained at least one calf. Feeding and travelling were the most frequently reported behaviours for groups, with resting or milling and socialising also observed. These observations suggest that the 1770 area, and specifically in and adjacent to Round Hill Estuary, may be an important region for a formerly unstudied population of this species. Further investigations are required to address the potential significance of this site, however, these observations, while limited, provide a small and essential baseline for the occurrence of coastal dolphins in this region, most pertinently, the vulnerable Australian humpback dolphin.

Data summary

Site: 1770

Duration: April 2018 – January 2019

Number of sightings: 52

Number of days: 44

Observation Platform

Kayak (n = 29)

Land (n = 22)

Other (n=1)

Observation Conditions:

The majority of observations were made in fair weather conditions.

Table 1: Wind speeds experienced for observations made between April 2018 and January 2019.

Wind Speed	N	%
5 to 10	29	58
10 to 15	15	30
15 to 20	5	10
> 20	0	0
unknown	1	2

Time of Day

The majority (n = 32) of the observations were made in the afternoon (12pm-6pm) with 19 observation made in the morning (8am-12pm).

Group Observations

Species Observed

- Australian humpback dolphin
- Indo-Pacific bottlenose dolphin

The majority of groups observed were Australian humpback dolphins (94%). Two groups contained both Indo-Pacific and Australian humpback dolphins.

Table 3: Summary of the number and percentage of groups of each species observed.

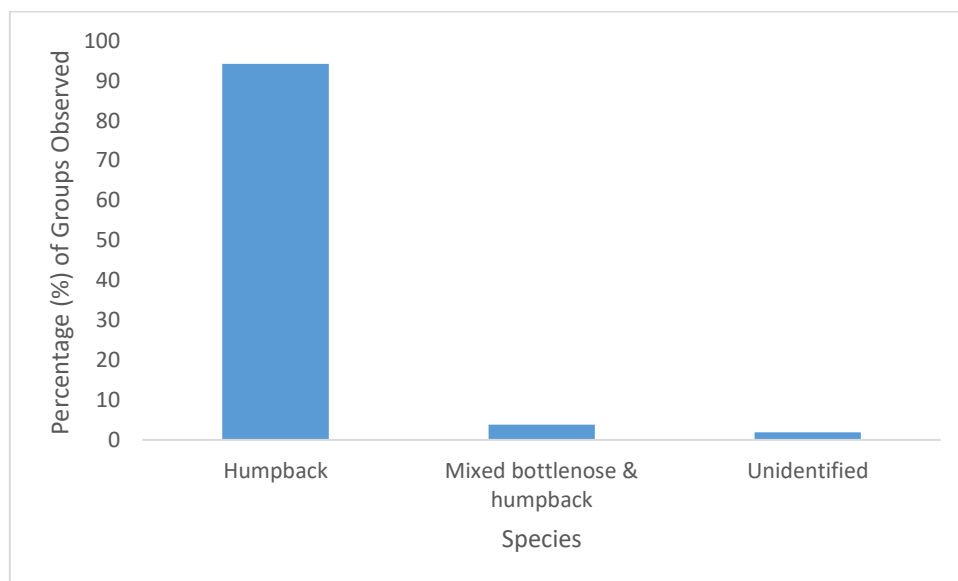| Species	n	%
Humpback	49	94.2
Mixed bottlenose & humpback	2	3.9
Unidentified	1	1.9
Total	52	100

Figure 1: Percentage of groups of different species (Australian humpback dolphins, mixed group of Indo-Pacific bottlenose dolphins and Australian humpback dolphins and unidentified species) observed (N = 52).

Confidence of Species ID

Observers were definite of the species on 96% of observations (n = 50). The remaining observations were noted as 'probable' for the classification of species (n = 2).

Sighting Locations

Observations of dolphin groups, particularly of Australian humpback dolphins, were made adjacent to the 1770 Headland, at the entrance to the Round Mountain estuary and in the estuary up. Locations of groups were estimated using descriptions provided by observers (Figure 2).
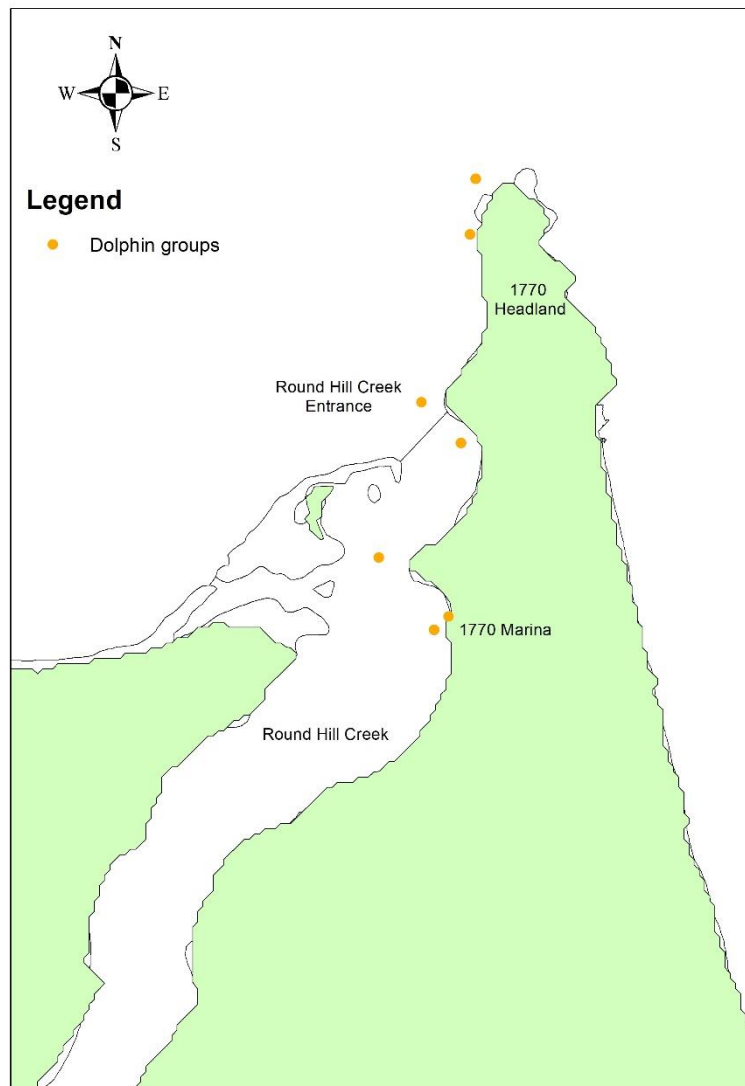

Figure 2: Approximate locations of dolphin groups observed between April 2018 and January 2019 (Note: fewer points appear due to overlay of coordinates).

Group Size

Groups ranged between 1 and 10 individuals with average group sizes of 3 individuals (S.D. 1.82).

Group Composition

The majority of groups observed contained calves (61.5%). Three sightings were made of groups containing possible newborn (neonate) calves.

Table 3: Number and percentage of groups observed with calves (labelled as 'yes') or without calves (labelled as 'no') or unconfirmed (labelled as 'unknown').

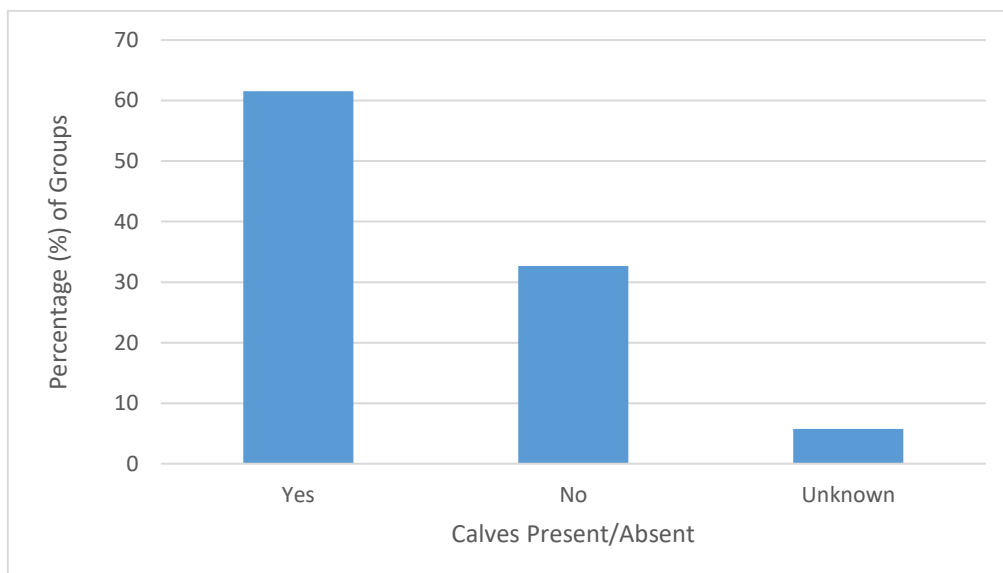| Calf Present/Absent	# Groups	Percent (%)
Yes	32	61.5
No	17	32.7
Unknown	3	5.8

Figure 3: Percentage of groups observed with calves present (n = 32), absent (n = 17) or unconfirmed (n = 3).

Group Behaviour

Observers classified the behaviour of groups into four main behaviour states defined as feeding, milling (or resting), socialising and travelling. If the behaviour state could not be ascertained, it was recorded as 'unknown'. Feeding and travelling were the most commonly observed behaviours, with fewer groups observed to mill or rest and socialise.
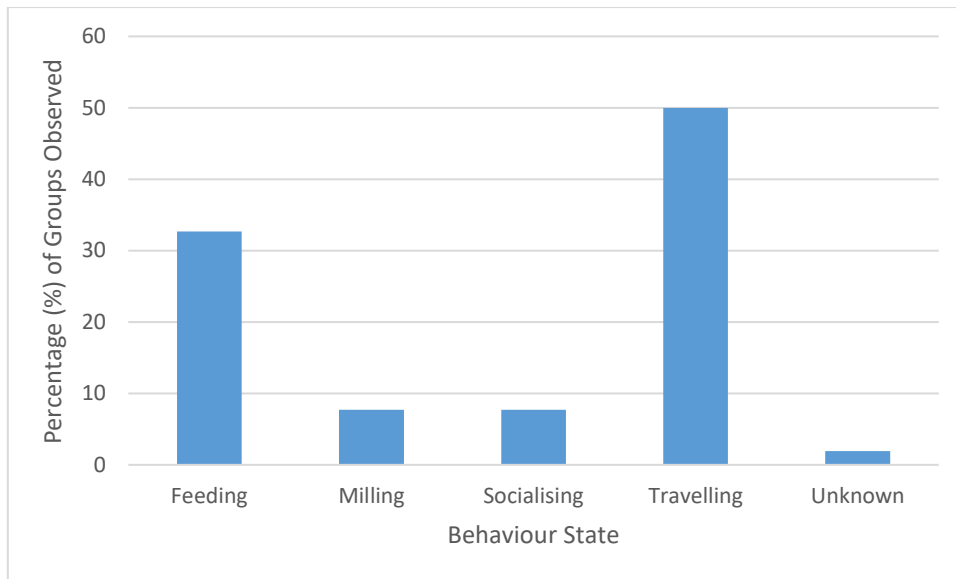
Figure 4: Percentage of groups observed engaged in different behaviour states.