

## Effect of prey type on the fine-scale feeding behaviour of migrating east Australian humpback whales

Kylie Owen\*, Joseph D. Warren, Michael J. Noad, David Donnelly, Anne W. Goldizen,  
Rebecca A. Dunlop

\*Corresponding author: kylie.owen@uqconnect.edu.au

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Table S1. The ethogram for humpback whale behaviour used during all focal follows completed during this study.

Behaviour recorded	Definition
<b>Blow</b>	Visible plume of water vapour exhaled by the whale upon surfacing. It is assumed that the back of the whale is also seen.
<b>Oblique lunge</b>	Forward trajectory at angles of between 10 and 70 degrees to the sea surface without any roll, with mouth open
<b>Right side lateral lunge</b>	Forward trajectory at low angles to the sea surface with the right flank of the animal facing down, with mouth open
<b>Left side lateral lunge</b>	Forward trajectory at low angles to the sea surface with the left flank of the animal facing down, with mouth open
<b>Clockwise ventral lunge</b>	Forward trajectory that occurs from an inverted position at a low angle to the sea surface before an axial clockwise roll, with mouth open

<b>Behaviour recorded</b>	<b>Definition</b>
<b>Counter clockwise ventral lunge</b>	Forward trajectory that occurs from an inverted position at a low angle to the sea surface before an axial counter clockwise roll, with mouth open
<b>Vertical lunge</b>	Near vertical trajectory to the sea surface, with mouth open.
<b>Pectoral slap</b>	The left or right pectoral is raised out of the water and forcibly slapped with their ventral surface against the water; the whale is usually positioned on its side.
<b>Inverted pectoral slap</b>	The left or right pectoral is raised out of the water and forcibly slapped with the dorsal surface against the water; the whale is usually positioned on its back (i.e. belly up).
<b>Bilateral pectoral slap</b>	Both pectorals are raised out of the water and forcibly slapped with their dorsal surface against the water; the whale is positioned on its back.
<b>Pectoral wave</b>	The lifting of the pectoral fin clear of the water, without a violent slapping motion.
<b>Peduncle slap</b>	The entire fluke and peduncle is raised clear out of the water and forcibly slapped against the water surface; more energetic than a tail slap.
<b>Fluke Slap</b>	The fluke, and little of the peduncle, is raised out of the water and forcibly slapped against the water surface; less energetic than peduncle slap.

<b>Behaviour recorded</b>	<b>Definition</b>
<b>Inverted Fluke Slap</b>	Whilst the whale is belly up in the water, the fluke is lifted clear of the water and slapped, dorsal surface down, against the water's surface.
<b>Round out</b>	A dive where the peduncle is arched upward out of the water but the flukes are not lifted from the water. Usually heralds a deep dive by the whale. Same as a 'peduncle arch dive' or a 'high arch dive'.
<b>Fluke Down Dive</b>	A dive where a peduncle arch is followed by the fluke lifted from the water as the whale dives; the fluke is not lifted far from the water, it remains parallel to the water and its ventral surface cannot be seen from behind.
<b>Fluke Up Dive</b>	A dive where a peduncle arch is followed by the fluke lifted from the water as the whale dives; the fluke is held vertically so that its ventral surface can be seen from behind.
<b>Splash / Surface Activity</b>	An undetermined behaviour that resulted in a splash, usually recorded when the whale is far away.
<b>Spy Hop</b>	A vertical lifting of the head (usually exposing the entire rostrum and head) above the water surface. Usually a single low-energy bobbing motion.
<b>Sailing</b>	The whale is balancing head down in the water with its fluke above the water, for extended periods of time, without slapping motions.
<b>Footprint</b>	Upwelling of water causing circular ripples on the surface caused by underwater upward fluke stroke.

<b>Behaviour recorded</b>	<b>Definition</b>
<b>Underwater blow</b>	A full exhalation underwater, producing a sudden large cloud of bubbles. More forceful and bigger than ‘bubble blowing’.
<b>Vocal blow</b>	Blow accompanied by a loud vocalization.
<b>Belly up</b>	The whale floating in the water with its ventral side / belly up.
<b>Bubble blowing</b>	When the whale blows a stream of bubbles underwater. Less forceful and more gradual than an underwater blow.
<b>Logging</b>	Where the whale is lying on the waters surface with very little activity.
<b>Roll</b>	Surface or underwater roll in any direction or plane.
<b>Tail swish</b>	Movement of tail through water in sideways motion.