

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

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

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

Behaviour recorded	Definition
Counter clockwise ventral lunge	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
Vertical lunge	Near vertical trajectory to the sea surface, with mouth open.
Pectoral slap	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.
Inverted pectoral slap	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).
Bilateral pectoral slap	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.
Pectoral wave	The lifting of the pectoral fin clear of the water, without a violent slapping motion.
Peduncle slap	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.
Fluke Slap	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.

Behaviour recorded	Definition
Inverted Fluke Slap	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.
Round out	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'.
Fluke Down Dive	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.
Fluke Up Dive	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.
Splash / Surface Activity	An undetermined behaviour that resulted in a splash, usually recorded when the whale is far away.
Spy Hop	A vertical lifting of the head (usually exposing the entire rostrum and head) above the water surface. Usually a single low-energy bobbing motion.
Sailing	The whale is balancing head down in the water with its fluke above the water, for extended periods of time, without slapping motions.
Footprint	Upwelling of water causing circular ripples on the surface caused by underwater upward fluke stroke.

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