**Whale toothed** 35 species of toothed whale (including Sperm, [Orca](http://www.abc.net.au/oceans/whale/type.htm#orca), Pilot, Melon not in SW Atlantis, Strap-toothed, Beaked);

Sperm Whales ~ (Physeter macrocephalus)

## Feeding

Toothed whales preferentially consume larger, less abundant organisms (Macleod, 2006).

No data are available on Gingko-toothed Beaked Whale feeding, but the diet of these whales is assumed to be mid- and deep-water squid and fish, as is recorded for other members of this family (Bannister et al. 1996; Pitman 2002).

toothed whales in 3 groups (MacLeod et al, 2007):

Group 1 White-beaked dolphin, Atlantic white-sided dolphin, Bottlenose dolphin, Harbour porpoise, Common dolphin, Striped dolphin: primarily forage on fish, shallow diving species, primarily foraging in the top 200 m of the water column (Schreer & Kovacs 1997; Otani et al. 1998), reduced dentition is primarily thought to be an adaptation for foraging on cephalopods, since small, peg-like teeth are poorly adapted for gripping the rubbery flesh, and prey capture is primarily by suction

Group 2: Risso’s dolpin, Sowerby’s beaked whale, Cuvier’s beaked whale, Northern bottlenose whale: primary forage on cephalopods, primarily forage at depths >500 m

Group 3: Pygmy sperm whale, Sperm whale, Long finned pilot whale: primary forage on cephalopods, primarily forage at depths >500 m, reduced dentition is primarily thought to be an adaptation for foraging on cephalopods, since small, peg-like teeth are poorly adapted for gripping the rubbery flesh, and prey capture is primarily by suction

Cephalopods are an important food source for toothed whales (Wilson et al 2007) constitute the main food source of at least 28 species (Clarke 1996).

**strap-toothed whales** ***(Mesoplodon luyurdii)***

## Feeding

[Top](http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=25556#top)

The food habits of Strap-toothed Beaked Whales were examined in detail by Sekiguchi and colleagues (1996) from stomach contents of 14 stranded whales found on South African and New Zealand coasts. Although a few unidentified fish otoliths and crustacean remains were found in two of these stomachs, 24 species of oceanic squids (some of which occur at a great depth) accounted for 94.8% of counted prey items. *Histioteuthis* sp. and *Taonius pavo* were the predominant prey species for Strap-toothed Beaked Whales. The presence of these sub-Antarctic squid species suggests a northward migration to South African waters in late summer/autumn. A similar movement has been suggested for Strap-toothed Beaked Whales off Australia (Bannister et al. 1996).   
Sekiguchi and colleagues (1996) also compared prey sizes between males with fully grown strap-teeth and females/immature males without erupted teeth. Although Strap-toothed Beaked Whale females and immature males ate longer squids than mature males, there was no significant difference in estimated squid weights eaten by both groups. The presence of fully-erupted teeth in adult male Strap-toothed Beaked Whales, therefore, does not seem to influence the size of prey ingested, even though an adult male could only open its jaws about half as wide as a female.   
Strap-toothed Beaked Whales are active predators and presumed to be strong swimmers capable of deep dives in pursuit of prey, but the mode of capture is not known. It is thought that prey are seized and disabled between the hard edges of the mandibles and the rostral palate (Ross 2006). The pair of V-shaped throat grooves typical of this family may enable distension of the throat, creating a sucking pressure and allowing larger prey to be swallowed whole.

24 species of oceanic squids (some of which occur at a great depth) accounted for 94.8% of counted prey items ***(n*** = 232),

## Life Cycle

Life history data for the Strap-toothed Beaked Whale are extremely limited. Sexual maturity is reached at about 5 m (Ross 2006). Life expectancy is unknown, although the maximum recorded age for Baird's Beaked Whale (*Berardius bairdii*) is 84 years, and for all other beaked whales recorded age is between 27 and 39 (Mead 1984 cited in MacLeod & D'Amico 2006). Natural causes of mortality are poorly understood, but are thought to include predation, disease and effects associated with 'old age' (MacLeod & D'Amico 2006).   
Breeding areas and habitat are unknown, but are presumed to be oceanic. Mating is thought to occur in summer and, after an inferred gestation period of between nine to 12 months, calves are born from summer through autumn (Ross 2006). No calving areas are known for Australian waters (Bannister et al. 1996), although the possible inshore movement of Strap-toothed Beaked Whales in summer and autumn may be associated with breeding.   
Due to the substantial scarring in Strap-toothed Beaked Whales it is believed that there is extensive physical competition for partners.   
There are no known reproductive behaviours that may make the Strap-toothed Beaked Whale particularly vulnerable to a specific threatening process. However, a suspected calving interval of at least three to four years leads to a slow reproductive capacity.

**Orca**: diet is geographic specific, varies from fish to other marine mammals to sharks. In waters off New Zealand, some killer whales feed on stingrays and sharks

(<http://www.nmfs.noaa.gov/pr/species/mammals/cetaceans/killerwhale.htm>)

The diets of orcas vary from one region to another. In the Antarctic, orcas eat about 67% fishes, 27% marine mammals and 6% squid. In the Bering Sea near Alaska, they eat about 65% fishes, 20% squids and 15% marine mammals.

**Pilot whales** *Globicephala macrorhynchus***:** Although they also take fish, pilot whales are thought to be primarily adapted to feeding on squid (Hacker, 1992). They show the tooth reduction typical of other squid-eating cetaceans (Jefferson et al., 1993). Hernandez-Garcia and Martin (1994) found that stomach contents of two short-finned pilot whales found on the Canary Islands were made up entirely of cephalopods: Todarodes sagittatus, Cranchia and juveniles of Megalocranchia.   
Mintzer et al. (2008) examined the stomach contents of short-finned pilot whales from the North Carolina coast in January 2005. *Brachioteuthis riisei* (numerical abundance 28%), an oceanic species, was the most important cephalopod prey, but *Taonius pavo* (12%) and *Histioteuthis reversa* (9%) also represented a substantial part of the diet. A large number of otoliths belonging to the fish *Scopelogadus beanii* were present (25%), indicating that the whales fed primarily off the continental shelf prior to stranding. Stomach content composition differed from those of short-finned pilot whales from the Pacific coast in which neritic species dominate the diet. These findings also suggest that there is a considerable difference between the diet of short- and long-finned pilot whales (*Globicephala melas*) in the western North Atlantic. The latter feed predominantly on the long-finned squid (*Loligo pealei*), whereas the former feed on deep-water species. <http://www.cms.int/reports/small_cetaceans/data/G_macrorhynchus/g_macrorhynchus.htm>

Melon whale

|  |  |
| --- | --- |
| **prey item** | **probability of consuming** |
| CEP Cephalopod | 0.3 |
| FPP pelagic piscivores | 0.1 |
| FMP mesopelagic fish | 0.1 |
| FPI migratory piscivores | 0.1 |
| SAR Sardines | 0.1 |
| SP shark pelagic | 0.1 |
| RAYRay | 0.1 |
| DOL Dolphin | 0.1 |
| WT marine mammals | 0.1 |
| ASL marine mammals | 0.1 |
| SEL marine mammals | 0.1 |
| WB marine mammals | 0.1 |
| SD sharks | 0.1 |
| FSP large fish | 0.1 |
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