



Australian Government

Department of Sustainability, Environment,  
Water, Population and Communities



# Species group report card — cetaceans

Supporting the marine bioregional plan  
for the North Marine Region

prepared under the *Environment Protection and Biodiversity Conservation Act 1999*

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## **Images:**

Snubfin Dolphin – D.Thiele, Yellowstripe Snapper – Robert Thorn and DSEWPaC, Crested Tern fishing – R.Freeman, Nautilus – A.Heyward and M.Rees, Morning Light – I.Kiessling, Soft corals – A.Heyward and M.Rees, A gorgonian with polyps extended – Geoscience Australia, Customs boat – Australian Customs, Freshwater sawfish – R.Pillans, CSIRO Marine and Atmospheric Research, Hard corals – A.Heyward and M.Rees



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# SPECIES GROUP REPORT CARD – CETACEANS

Supporting the marine bioregional plan for the North Marine Region prepared under the *Environment Protection and Biodiversity Conservation Act 1999*

## Report cards

The primary objective of the report cards is to provide accessible information on the conservation values found in Commonwealth marine regions. This information is maintained by the Department of Sustainability, Environment, Water, Population and Communities and is available online through the department's website ([www.environment.gov.au](http://www.environment.gov.au)). A glossary of terms relevant to marine bioregional planning is located at [www.environment.gov.au/marineplans](http://www.environment.gov.au/marineplans).

Reflecting the categories of conservation values, there are three types of report cards:

- species group report cards
- marine environment report cards
- protected places report cards.

While the focus of these report cards is the Commonwealth marine environment, in some instances pressures and ecological processes occurring in state waters are referred to where there is connectivity between pressures and ecological processes in state and Commonwealth waters.





## Species group report cards

Species group report cards are prepared for large taxonomic groups that include species identified as conservation values in a region; that is, species that are listed under Part 13 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and live in the Commonwealth marine area for all or part of their lifecycle. All listed threatened, migratory and marine species and all cetaceans occurring in Commonwealth waters are protected under the EPBC Act and are identified in the relevant marine bioregional plans as conservation values.

Species group report cards focus on species for which the region is important from a conservation perspective; for example, species of which a significant proportion of the population or an important life stage occurs in the region's waters.

For these species, the report cards:

- outline the conservation status of the species and the current state of knowledge about its ecology in the region
- define biologically important areas; that is, areas where aggregations of individuals of a species display biologically important behaviours
- assess the level of concern in relation to different pressures.



## 1. Cetaceans of the North Marine Region

Forty-five species of cetacean occur in Australian waters. Of these, nine species are known to occur regularly in the waters of the North Marine Region, including three species of whale and six species of dolphin (see Attachment 1, Table A1). A further 15 cetacean species may infrequently occur in the region (see Attachment 1, Table A2).

The North Marine Region and adjacent areas are important for several species of cetacean, particularly inshore dolphin species. The Australian snubfin dolphin is newly described and is endemic to Australian and possibly Papua New Guinean waters (Beasley et al. 2005). Indo-Pacific humpback dolphins and Indo-Pacific bottlenose dolphins (also known as spotted bottlenose dolphins, coastal bottlenose dolphins or Indian Ocean bottlenose dolphins) are also resident in the region.

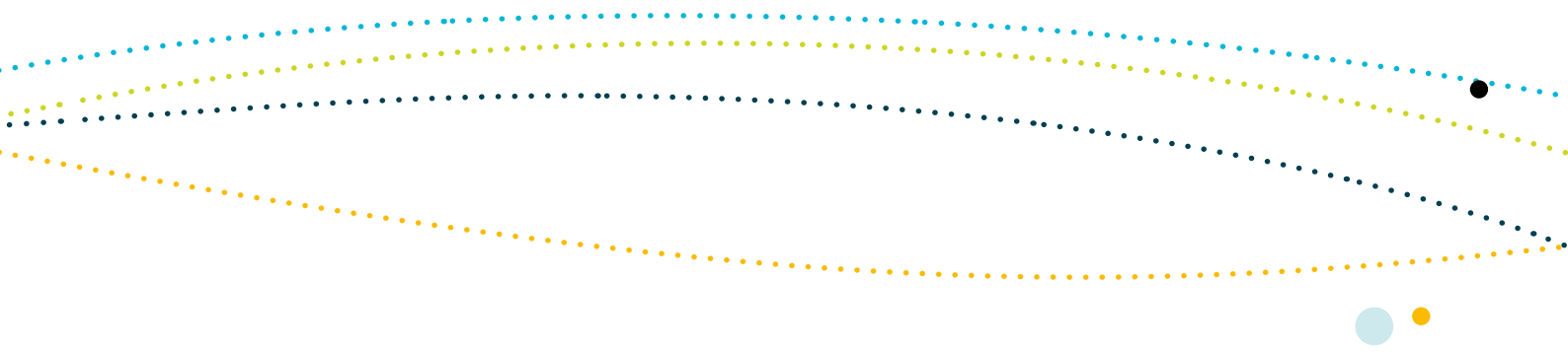
All cetaceans are protected under the EPBC Act. Three species of cetacean known to occur in the region are listed as migratory under the EPBC Act. Additionally, the long-snouted spinner dolphin, Australian snubfin dolphin (then listed as the Irrawaddy dolphin) and Indo-Pacific humpback dolphin were considered priority species under the 1996 Action Plan for Australian Cetaceans, although information is still too scarce to assign them to a conservation category (Bannister et al. 1996; Ross 2006).

Of the listed cetaceans known to occur in the North Marine Region, this report card focuses on the Australian snubfin dolphin, Indo-Pacific humpback dolphin and Indo-Pacific bottlenose dolphin, based on consideration of their conservation status; distribution and population structure within the region; life history characteristics; and the potential for the populations in the region to be genetically distinct from populations elsewhere.

### Australian snubfin, Indo-Pacific humpback & Indo-Pacific bottlenose dolphins

The Australian snubfin dolphin (*Orcaella heinsohni*), Indo-Pacific humpback dolphin (*Sousa chinensis*) and Indo-Pacific bottlenose dolphin (*Tursiops aduncus*) are primarily found in coastal waters and tend to co-occur in estuarine embayments; however, each species is also found offshore and differs in its broader range of preferred habitat types. Habitat use and distribution of all three inshore dolphins is often associated with mangrove systems, although the spatial use in mangrove habitats varies between the species.

The Australian snubfin dolphin generally inhabits coastal and estuarine waters, often in association with mangrove systems, and most sightings occur in depths up to 10 metres, close to river and creek mouths and upstream in some tidal rivers (Palmer 2009; Parra 2006; Parra et al. 2006b). However, the species has also been recorded up to 23 kilometres offshore



(DSEWPaC 2011a), and Parra et al. (2006a) found that it occurs mostly in shallow waters up to 10 kilometres from the coast and 20 kilometres from the nearest river mouth. The large expanses of shallow water (depths of up to 50 metres) on the Sahul Shelf to the north-west of the region suggests that it may be possible for the Australian snubfin dolphin to range between northern Australia and the Sahul Islands of eastern Indonesia and Papua New Guinea (DSEWPaC 2011a).

The Indo-Pacific bottlenose dolphin and Indo-Pacific humpback dolphin are found in a wider range of habitats. Indo-Pacific humpback dolphins occur in coastal lagoons and enclosed bays with mangrove forests and seagrass beds, but are also found in open coastal waters around islands and coastal cliffs in association with rock or coral reefs (Palmer 2009; Parra et al. 2006a, 2006b; Thiele 2008). The species usually occurs close to the coast, generally at depths of up to 20 metres, but it has been seen 55 kilometres offshore in shallow water (Corkeron et al. 1997; Jefferson 2000 in DSEWPaC 2011b). In some areas, such as the waters off the coast of Queensland, Indo-Pacific humpback dolphins are found within 6 kilometres of the coast, probably due to shallow waters offshore (particularly sheltered reefs and sand flats) that contain similar prey assemblages to nearshore areas (Corkeron et al. 1997 in Jacob 2009; Parra et al. 2006a, 2006b). Parra et al. (2006a) found that the species occurred mostly in shallow waters within 10 kilometres of the coast and within 20 kilometres of the nearest river mouth. Indo-Pacific bottlenose dolphins tend to occur in deeper, more open coastal waters, primarily in continental shelf waters (up to 200 m deep), including coastal areas around oceanic islands, and they tend to forage across a wider range of habitats. Although the species may be concentrated in areas where there is estuarine influence, they do not seem to enter far into the muddy, turbid waters of estuaries (Reeves & Brownell 2009).

All three dolphins are generalist, opportunistic feeders, and differences in their diet reflect the range of habitats they occupy. Indo-Pacific bottlenose dolphins feed on a variety of fish and cephalopods, but a few prey species may dominate their diet in specific areas (Amir et al. 2005; Cockcroft & Ross 1990; Corkeron 1990; DSEWPaC 2011c). Indo-Pacific humpback dolphins eat a wide variety of coastal and estuarine-associated fishes, as well as reef, littoral and demersal fish species. Australian snubfin dolphins eat a variety of coastal and estuarine-associated fishes, cephalopods, crustaceans and benthic species. Both Australian snubfins and Indo-Pacific humpbacks consume prey from throughout the water column (Parra & Jedensjö 2009). Knowledge of the seasonal movements, migrations and breeding seasonality of these inshore dolphin species is lacking for the North Marine Region.



## Biologically important areas

Biologically important areas are areas that are particularly important for the conservation of the protected species and where aggregations of individuals display biologically important behaviour such as breeding, foraging, resting or migration. The presence of the observed behaviour is assumed to indicate that the habitat required for the behaviour is also present. Biologically important areas have been identified for some EPBC Act listed species found in the North Marine Region, using expert scientific knowledge about species' distribution, abundance and behaviour in the region. The selection of species was informed by the availability of scientific information, the conservation status of listed species and the importance of the region for the species. The range of species for which biologically important areas are identified will continue to expand as reliable spatial and scientific information becomes available.

Biologically important areas have been identified for the Australian snubfin dolphin, Indo-Pacific bottlenose dolphin and Indo-Pacific humpback dolphin. Behaviours used to identify biologically important areas for cetaceans include breeding and foraging.

Biologically important areas are included in the North Marine Region Conservation Values Atlas ([www.environment.gov.au/cva](http://www.environment.gov.au/cva)).







## 2. Vulnerabilities and pressures

### Vulnerabilities

Inshore dolphins are particularly vulnerable to impacts from human activities because their near-shore coastal distribution overlaps with the areas of highest human use in the marine environment. Their vulnerability to pressures is intensified due to their life history characteristics: they are long-lived; females take many years to reach sexual maturity (e.g. around nine years for the Australian snubfin dolphin); and they have a low rate of reproduction (one calf every 2–3 years). Inshore dolphins are also vulnerable to human-induced pressures due to their wide distribution within known ranges, but rare occurrence; their low population numbers; and the separation of their subpopulations. The distribution of Australian snubfin dolphins is severely fragmented, placing the species at increased risk of extinction (Caughley & Gunn 1996; Parra 2006). Evidence suggests that Indo-Pacific humpback dolphin and possibly Indo-Pacific bottlenose dolphin distributions are also severely fragmented (Parra 2006), at least in some parts of their range. All three species exhibit site fidelity and long-term associations between individuals.

All of these factors increase the species' vulnerability to pressures that disturb or destroy their ability to maintain biologically important activities. These factors also increase the importance of inshore dolphin biologically important areas adjacent to the North Marine Region, as the species have few alternative habitats. For this reason, pressures are of greater concern if they have the potential to impact inshore dolphin biologically important areas.

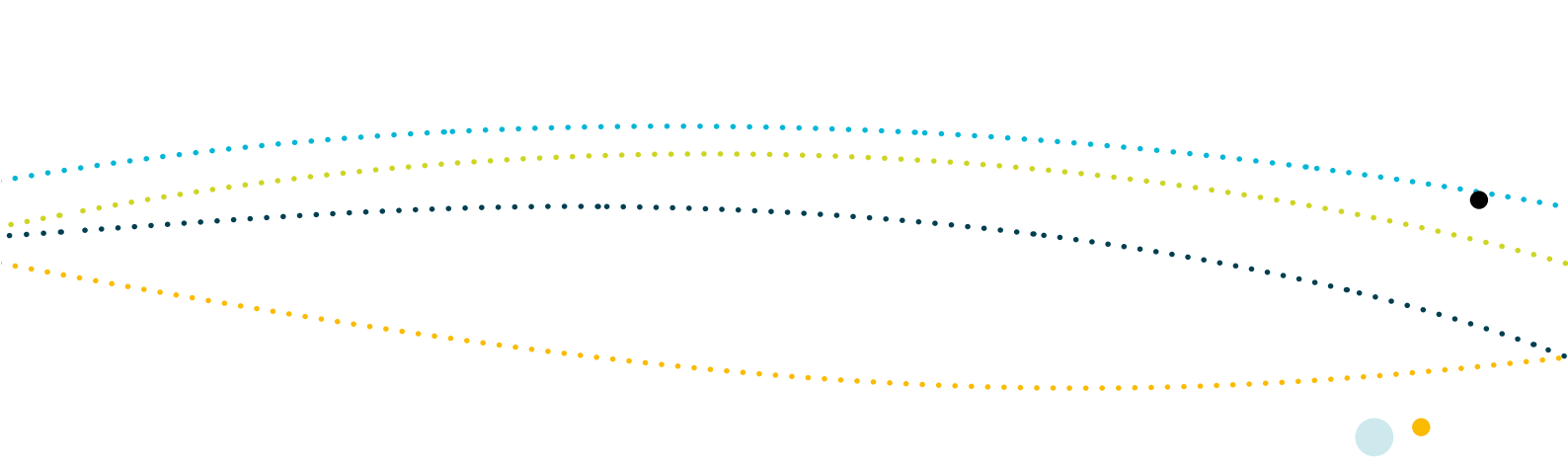
### Analysis of pressures

On the basis of current information, pressures have been analysed for the three cetacean species discussed in this report card. A summary of the pressure analysis for cetaceans is provided in Table 1. Only those pressures identified as of *concern* or of *potential concern* are discussed in further detail below. An explanation of the pressure analysis process, including the definition of substantial impact used in this analysis, is provided in Part 3 and Section 1.1 of Schedule 1 of the plan.

**Table 1: Outputs of the cetacean species pressure analysis for the North Marine Region**

Pressure	Source	Species		
		Australian snubfin dolphin	Indo-Pacific bottlenose dolphin	Indo-Pacific humpback dolphin
Sea level rise	Climate change	Yellow	Green	Green
Changes in sea temperature	Climate change	Yellow	Yellow	Yellow
Changes in oceanography	Climate change	White	White	White
Ocean acidification	Climate change	Yellow	Yellow	Yellow
Chemical pollution/ Contaminants	Shipping	Green	Green	Green
	Vessels (other)	Green	Green	Green
	Onshore and offshore mining operations	Yellow	Yellow	Yellow
Nutrient pollution	Agricultural activities	Green	Green	Green
	Urban development	Green	Green	Green
Changes in turbidity	Dredging (spoil dumping)	White	White	White
Marine debris	Land-based activities	Yellow	Yellow	Yellow
	Fishing boats	Yellow	Yellow	Yellow
	Shipping	Yellow	Yellow	Yellow
	Vessels (other)	Yellow	Yellow	Yellow
Noise pollution	Seismic exploration	Green	Green	Green
	Defence/surveillance activities	Green	Green	Green
	Shipping	Yellow	Yellow	Yellow
	Vessels (other)	Yellow	Yellow	Yellow
	Onshore and offshore construction	Yellow	Yellow	Yellow
Physical habitat modification	Fishing gear (active and derelict)	White	Green	White
	Dredging and/or Dredge spoil	Yellow	Yellow	Yellow
	Offshore construction and installation of infrastructure	Yellow	Yellow	Yellow
	Onshore construction	Red	Red	Red
	Climate change (changes in storm frequency etc)	Green	Green	Green
Human presence at sensitive site	Tourism	Grey	Grey	Grey
	Recreational and charter fishing (burleying)	Grey	Grey	Grey
	Research	Grey	Grey	Grey
Extraction of living resources	Commercial fishing (domestic or non-domestic)	Grey	Grey	Grey
	Indigenous harvest	Grey	Grey	Grey
	Commercial fishing (prey depletion)	Green	Green	Green
Bycatch	Commercial fishing	Yellow	Yellow	Yellow
	Recreational and charter fishing	Green	Green	Green
Oil pollution	Shipping	Green	Green	Green
	Vessels (other)	Green	Green	Green
	Oil rigs	Grey	Grey	Grey
Collision with vessels	Shipping	Green	Green	Green
	Fishing	Green	Green	Green
	Tourism	Green	Green	Green
Disease	Shipping	Green	Green	Green
	Fishing	Green	Green	Green

**Legend**  of concern  of potential concern  of less concern  not of concern  data deficient or not assessed



The climate change-related pressures of changes in sea temperature and ocean acidification are *of potential concern* for all three dolphin species assessed. In addition, climate change-induced sea level rise is *of potential concern* for Australian snubfin dolphins. Climate change-related pressures are likely to affect inshore dolphins primarily through habitat modification and prey depletion, which are likely to adversely affect dolphin breeding, feeding, migration and spatial distribution.

### **Sea level rise–climate change**

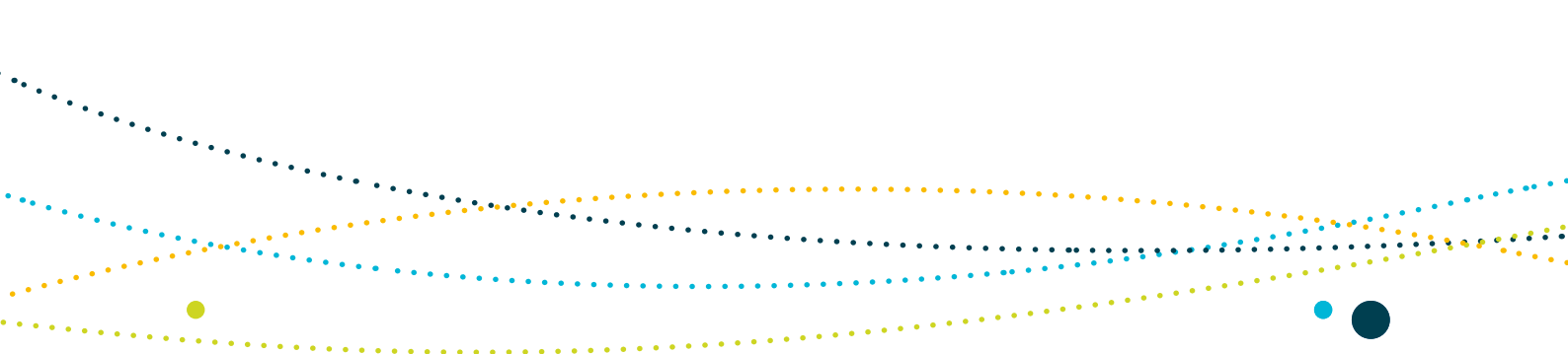
Sea level rise is *of potential concern* for Australian snubfin dolphins. Global sea levels have risen by 20 centimetres between 1870 and 2004 and predictions estimate a further rise of 5–15 centimetres by 2030, relative to 1990 levels (Church et al. 2009). Longer term predictions estimate increases of 0.5 – 1.0 metres by 2100, relative to 2000 levels (Climate Commission 2011). Sea level rise is expected to have long-term impacts in areas adjacent to the North Marine Region, including mangrove habitats and seagrass beds, which are important habitats for dolphins and their prey (Parra & Corkeron 2001; Parra et al. 2002; Robertson & Arnold 2009). Australian snubfin dolphins are likely to be particularly impacted by sea level rise because they often inhabit areas near seagrass beds (Parra & Corkeron 2001; Parra 2006; Parra et al. 2002; Robertson & Arnold 2009). Although the impacts of sea level rise on Australian snubfin dolphins are likely to be mainly in coastal waters, any consequent changes in the species' prey or habitat availability may affect the species across its range.

### **Changes in sea temperature–climate change**

Changes in sea temperature is *of potential concern* for all three dolphin species assessed. Sea temperatures have warmed by 0.7 °C between 1910–1929 and 1989–2008, and current projections estimate ocean temperatures will be 1 °C warmer by 2030 (Lough 2009). Changes in sea temperature have trophic level effects on prey species (Hobday et al. 2006; Lough 2009; McLeod 2009), with subsequent negative effects on higher trophic level species, such as dolphins. For example, sea temperature changes are predicted to significantly impact the distribution and abundance of benthic fishes, demersal fishes, zooplankton and associated biological communities (Hobday et al. 2006), which are primary prey species for inshore dolphins.

### **Ocean acidification–climate change**

Ocean acidification is *of potential concern* for all three dolphin species assessed. Driven by increasing levels of atmospheric CO<sub>2</sub> and subsequent chemical changes in the ocean, acidification is already underway and detectable. Since pre-industrial times, acidification has lowered ocean pH by 0.1 units (Howard et al. 2009). Furthermore, climate models predict this trend will continue, with a further 0.2–0.3 unit decline by 2100 (Howard et al. 2009). Ocean acidification may alter prey availability and have a physiological effect on many species (Howard et al. 2009; Raven et al. 2005). Reef species are predicted to be affected by ocean



acidification, reducing their availability as prey for top predators (Hobday et al. 2007). Indo-Pacific humpback and Indo-Pacific bottlenose dolphins consume reef species, and Australian snubfin dolphins are also found in habitat complexes that include reefs. The effect of loss of reef prey on these dolphin species is not yet known.

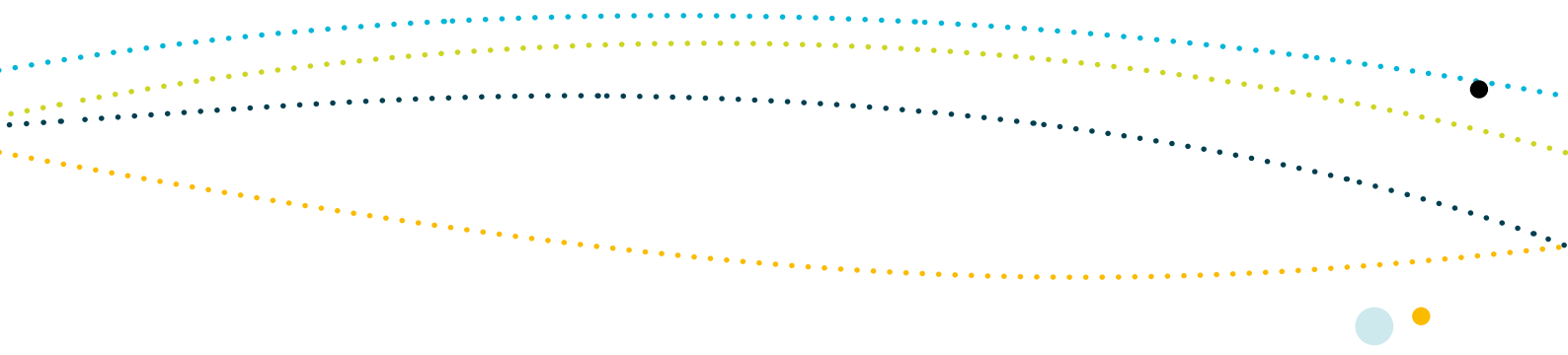
### ***Chemical pollution/contaminants—offshore and onshore mining***

Chemical pollution or contamination from onshore and offshore mining is *of potential concern* for all three dolphin species assessed. Although chemical pollution is relatively rare in the North Marine Region, mining operations in and adjacent to the region have the potential to introduce chemicals into the Commonwealth marine environment. For example, a chemical spill in 2010 at a mine and refinery in Nhulunbuy, approximately 1000 kilometres east of Darwin, released approximately 88 tonnes of alumina into Gove Harbour, adjacent to the North Marine Region (Rebgetz et al. 2010). Chemical pollution may increase as mining operations in the region expand (Bannister et al. 1996).

Cetaceans that frequent nearshore areas, such as Australian snubfin, Indo-Pacific humpback and Indo-Pacific bottlenose dolphins, are more susceptible to high levels of chemical pollutants than wholly offshore species (Jacob 2009). Many polluting compounds have adverse physiological effects on vertebrates, including immunosuppression, hepatotoxicity, carcinogenesis, reproductive and developmental toxicity, dermal toxicity and neurotoxicity, and can lead to impaired fertility, reduced fecundity and increased mortality. Studies on South African bottlenose dolphins indicate that the first calf can receive almost 80 per cent of the mother's accumulated burden of these contaminants within the first seven weeks of nursing, and this is suspected to result in significant mortality (Bannister et al. 1996; Gaus et al. 2001; Murdoch et al. 2008).

### ***Marine debris—fishing boats; vessels (other); land-based activities; shipping***

Marine debris is *of potential concern* for all three dolphin species assessed. Marine debris, including derelict fishing nets, accumulates in high concentrations along the coasts of north-western Cape York, Groote Eylandt and north-east Arnhem Land (DEWHA 2009a; Limpus 2009; Roelofs et al. 2005). Cetaceans can be affected by marine debris through entanglement or ingestion. Entanglement can cause drowning, suffocation, strangulation, starvation and other injuries (DEWHA 2009b); ingestion can cause blocking or perforation of the digestive tract, resulting in injury or death (Ceccarelli 2009).



Whales and dolphins entangled in derelict fishing gear have been recorded around Australia's coasts (Chatto & Warneke 2000). Since 1998, there have been 104 records of cetaceans in Australian waters affected by plastic debris through entanglement or ingestion, with the majority (92.2 per cent) relating to entanglement (Ceccarelli 2009). Studies and personal observations have recorded Indo-Pacific humpback dolphins and other unidentified species found either dead or alive in fishing nets (Kiessling 2003). Net injuries, and polyfilament and monofilament scarring on individuals have been recorded in other regions, including Western Australia (WWF 2010). Between 1990 and 2008, the death or injury of individuals from 14 species (including the Indo-Pacific humpback dolphin and Indo-Pacific bottlenose dolphin) can be directly attributed to interactions with plastic debris (Ceccarelli 2009). However, the full impact of marine debris on inshore dolphins is largely unknown.

#### **Noise pollution—offshore and onshore construction; shipping; vessels (other)**

Noise pollution from shipping is *of potential concern* for all three dolphin species assessed. Noise pollution from offshore and onshore construction, including activities such as pile driving and wharf construction, is *of potential concern* for all three species. Although there is a lack of specific data on the effects of noise pollution on dolphins in the North Marine Region, noise pollution from anthropogenic sources has the potential to adversely impact small cetaceans (Nowacek et al. 2007).

The North Marine Region and adjacent areas inhabited by inshore dolphins are traversed by a range of vessels, including shipping, commercial fishing vessels, recreational and charter fishing vessels, cruise ships and tour boats. The potential impacts on inshore dolphins of elevated noise levels from shipping include: limiting the detection of natural sounds; disturbing normal behaviour, causing possible displacement from areas; and physical trauma causing death, or temporary or permanent physical damage to sensory systems (di Lorio & Clark 2010; NRC 2005; Nowacek et al. 2007; Richardson et al. 1995). Inshore dolphins rely on acoustic signals to maintain contact with associates, and vessel noise can mask communication (Van Parijs & Corkeron 2001). Given cetaceans' sensitive hearing and the known effects of underwater noise, it is likely that inshore dolphins are disturbed or displaced when they are exposed to even low levels of underwater noise. In particular, both the Australian snubfin dolphin and the Indo-Pacific humpback dolphin are expected to exhibit vessel avoidance behaviour in response to vessel noise (DSEWPaC 2011a, 2011b) because they produce whistles at the same frequency as vessel traffic noise.

At close range, loud noises such as those generated by pile driving, can physically injure animals or cause temporary or permanent damage to hearing thresholds (David 2006; Nowacek et al. 2007; Richardson et al. 1995). Elevated noise levels from activities such as wharf construction can also potentially limit the detection of natural sounds and disturb normal behaviour, resulting in possible displacement from areas (Nowacek et al. 2007; Richardson et al. 1995). Kent et al. (2009) found that the frequencies that marine mammals are most sensitive to overlap with the higher frequencies of pile driving noise levels (10 Hz to 5 kHz).



### ***Physical habitat modification—dredging; offshore and onshore construction***

Physical habitat modification due to onshore construction is *of concern* and physical habitat modification due to offshore construction and dredging activities is *of potential concern* for all three dolphin species assessed.

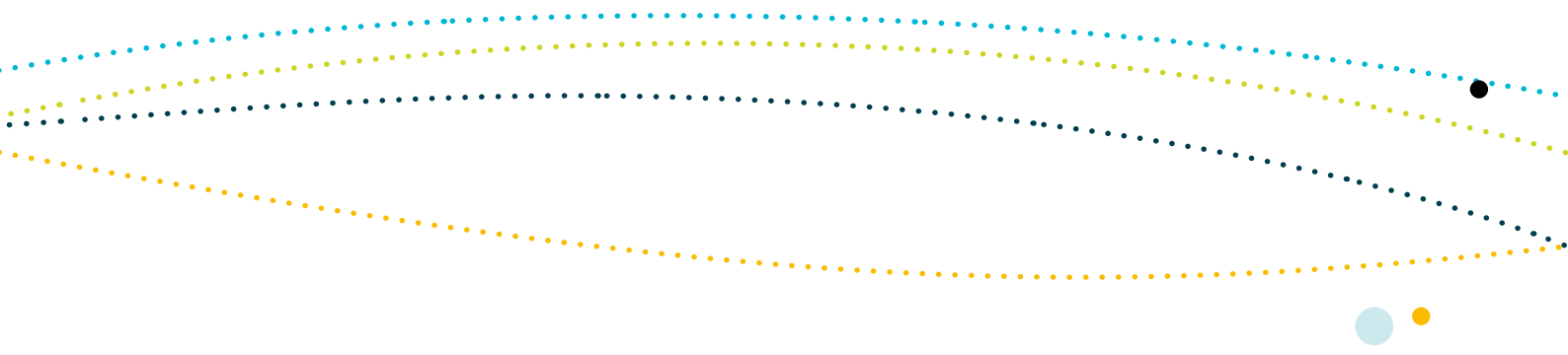
As part of the Inpex Browse Ltd project, an onshore liquefaction (LNG) and fractionation (LPG) facility will be constructed at Blaydin Point, Darwin. All three inshore dolphin species are known to inhabit this area. The construction activities will impact the marine environment of Darwin Harbour, with the most significant impacts expected during the construction phase (NRETAS 2011). In order to monitor the impacts on inshore dolphins, a research project is being developed to identify particular habitats and provide a baseline estimate of inshore dolphin abundance (Inpex 2012).

Construction activities that physically modify the marine environment have the potential to displace populations of dolphins that rely on specific characteristics of an area. Although the long-term impacts of habitat loss and degradation on cetaceans within Australian waters are largely unknown, in other parts of the world, habitat loss and degradation due to coastal development has significantly affected many cetacean populations (CMS 2011; Elliott et al. 2009; Jefferson et al. 2009; IUCN 2010). As populations of inshore dolphins are small and localised, they are particularly susceptible to habitat degradation and displacement (Corkeron et al. 1997; Ross 2006). Dredging for major developments can occur at a large scale and over a number of years, particularly with port developments. These activities can result in local-scale change in the composition, structure and function of habitats, and increase the potential for a wide range of pressures including direct removal of habitat (for example, seagrass and mangroves), physical disturbance and sedimentation. Dredging activity in Darwin Harbour will be in close proximity to Indo-Pacific humpback dolphin groups (Inpex 2011).

Habitat modification from coastal development is considered one of the greatest threats to inshore dolphins (Corkeron et al. 1997; Ross 2006). Physical habitat modification associated with construction and dredging activities is expected to increase in and adjacent to the North Marine Region due to increased development in the area. These multiple sources of physical habitat modification are therefore contributing to the ratings of concern and of potential concern for inshore dolphins.

### ***Bycatch—commercial fishing***

Bycatch from domestic commercial fishing is *of potential concern* for all three dolphin species assessed. Bycatch predominantly results in drowning of the species and may also change species distribution and population health. The impact of bycatch can be particularly problematic for marine mammals because they are long-lived, and have slow growth rates and low fecundity (Cox et al. 2003).



Gillnets and similar nets have the greatest potential to impact on inshore dolphins (Read et al. 2006; Reeves & Brownell 2009; Reeves et al. 2003; Slooten 2007). Diet studies by Heinsohn (1979), Marsh et al. (1989), and Parra and Jedensjö (2009) for Australian snubfin dolphins and Indo-Pacific humpback dolphins indicate that coastal–estuarine waters are important foraging habitats for these species and, as a result, the species are at greater risk of directly or indirectly interacting with fisheries operating in these areas (Parra & Jedensjö 2009). Indo-Pacific bottlenose dolphins share a similar coastal distribution and also forage in deeper water where fisheries operate.

There are few recent records of interactions between fisheries and inshore dolphins in the North Marine Region (DPIFM 2005, 2006; DRDPIFR 2008, 2009, 2010). Bycatch action plans for several fisheries were introduced in 2001 to reduce the bycatch of dolphins and other marine mammals (Ross 2006).

### 3. Relevant protection measures

The Australian snubfin dolphin and Indo-Pacific humpback dolphin are listed as cetacean and migratory species, the Indo-Pacific bottlenose dolphin is listed as cetacean, and the Arafura Sea and Timor Sea population of the Indo-Pacific bottlenose dolphin is listed as migratory under the EPBC Act. Under the Act, it is generally an offence to kill, injure, take, trade, keep or move listed marine, migratory or threatened species on Australian Government land or in Commonwealth waters without a permit.

The Australian Whale Sanctuary was established under the EPBC Act to protect all whales and dolphins in Australian waters. The Australian Whale Sanctuary comprises the Commonwealth marine area and covers all of Australia's Exclusive Economic Zone which generally extends out to 200 nautical miles from the coast and includes the waters surrounding Australia's external territories such as Christmas, Cocos (Keeling), Norfolk, Heard and Macdonald Islands. Within the Australian Whale Sanctuary it is an offence to kill, injure or interfere with a cetacean. Severe penalties apply to anyone convicted of such offences. More information about the Australian Whale Sanctuary can be found at [www.environment.gov.au/coasts/species/cetaceans/conservation/sanctuary.html](http://www.environment.gov.au/coasts/species/cetaceans/conservation/sanctuary.html).

Alongside the EPBC Act, a broad range of sector-specific management measures to address environmental issues and mitigate impacts apply to activities that take place in Commonwealth marine areas. These measures give effect to regulatory and administrative requirements under Commonwealth and state legislation for activities such as commercial and recreational fishing, oil and gas exploration and production, ports activities and maritime transport. In some instances, as in the case of shipping, these measures also fulfil Australia's obligations under a number of international conventions for the protection of the marine environment from pollution and environmental harm.



## EPBC Act conservation plans and action plans

- Australian national guidelines for whale and dolphin watching (DEH 2005)
- Threat abatement plan for the impacts of marine debris on vertebrate marine life (DEWHA 2009a)
- Action plan for Australian cetaceans (Bannister et al. 1996)
- EPBC Act policy statement 2.1: interaction between offshore seismic exploration and whales (DEWHA 2008)

## International measures

Australia is a signatory to the following international agreements for the conservation of cetaceans:

- Convention on International Trade in Endangered Species for Wild Flora and Fauna (CITES)—[www.cites.org](http://www.cites.org)
- The Bonn Convention: Conservation of Migratory Species (CMS)—[www.cms.int](http://www.cms.int)
- Convention on Biological Diversity (CBD)—[www.cbd.int/convention](http://www.cbd.int/convention)
- International Whaling Commission (IWC)—[www.iwcoffice.org/commission/convention.htm](http://www.iwcoffice.org/commission/convention.htm)

For more information on conservation listings under the EPBC Act, and related management objectives and protection measures, visit:

- [www.environment.gov.au/epbc/protect/species-communities.html](http://www.environment.gov.au/epbc/protect/species-communities.html)  
(listed threatened species)
- [www.environment.gov.au/epbc/protect/migratory.html](http://www.environment.gov.au/epbc/protect/migratory.html)  
(listed migratory species)
- <http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl>  
(species profile and threats database)





# REFERENCES

Amir, OA, Berggren, P, Ndaru, SGM & Jiddawi, NS 2005, 'Feeding ecology of the Indo-Pacific bottlenose dolphin (*Tursiops aduncus*) incidentally caught in the gillnet fisheries off Zanzibar, Tanzania', *Estuarine Coastal and Shelf Science*, vol. 63, pp. 429–437.

Bannister, JL, Kemper, CL & Warneke, RM 1996, *The action plan for Australian cetaceans*, Australian Nature Conservation Agency, Canberra, viewed 21 June 2011, <[www.environment.gov.au/coasts/publications/cetaceans-action-plan/pubs/whaleplan.pdf](http://www.environment.gov.au/coasts/publications/cetaceans-action-plan/pubs/whaleplan.pdf)>.

Beasley, I, Robertson, KM & Arnold, P 2005, 'Description of a new dolphin, the Australian snub-fin dolphin *Orcaella heinsohni* sp. n. (Cetacea, Delphinidae)', *Marine Mammal Science*, vol. 21, pp. 365–400.

Caughley, G & Gunn, A 1996, *Conservation biology in theory and practice*, Blackwell Science, Oxford.

Ceccarelli, DM 2009, *Impacts of plastic debris on Australian marine wildlife*, report by C&R Consulting for the Australian Government Department of the Environment, Water, Heritage and the Arts, Canberra.

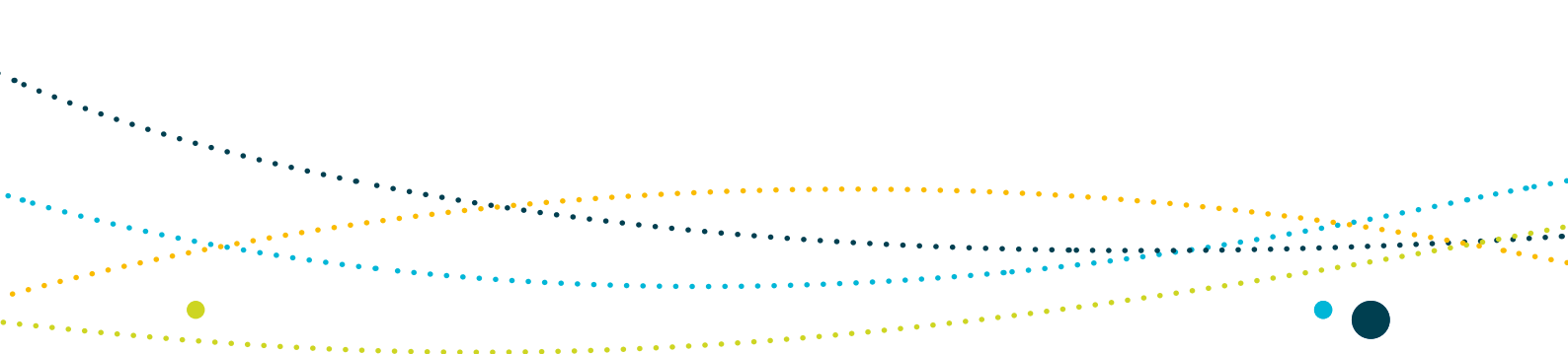
Chatto, R & Warneke, RM 2000, 'Records of cetacean strandings in the Northern Territory of Australia', *The Beagle, Records of the Museums and Art Galleries of the Northern Territory*, vol. 16, pp. 163–175.

Church JA, White, NJ, Hunter, JR, McInnes, K & Mitchell, W 2009, 'Sea level', in ES Poloczanska, AJ Hobday & AJ Richardson (eds), *A marine climate change impacts and adaptation report card for Australia 2009*, National Climate Change Adaptation Research Facility.

Climate Commission 2011, *The critical decade: climate science, risks and responses*, Australian Government Department of Climate Change and Energy Efficiency, Canberra.

CMS (Convention on the Conservation of Migratory Species of Wild Animals) 2011, *Small cetaceans reports*, viewed 17 June 2011, <[www.cms.int/reports/small\\_cetaceans/data/t\\_aduncus/t\\_aduncus.PDF](http://www.cms.int/reports/small_cetaceans/data/t_aduncus/t_aduncus.PDF)>

Cockcroft, VG & Ross, GJB 1990, 'Age, growth and reproduction of bottlenose dolphins *Tursiops truncatus* from the east coast of southern Africa', *Fishery Bulletin*, vol. 88, pp. 289–302.



Corkeron, PJ 1990, 'Aspects of the behavioural ecology of inshore dolphins, *Tursiops truncatus* and *Sousa chinensis*, in Moreton Bay, Australia', in S Leatherwood & RR Reeves (eds), *The bottlenose dolphin*, Academic Press, San Diego.

Corkeron, PJ, Morissette, NM, Porter, LJ & Marsh, H 1997, 'Distribution and status of hump-backed dolphins *Sousa chinensis* in Australian waters', *Asian Marine Biology*, vol. 14, pp. 49–59.

Cox, TM, Read, AJ, Swanner, D, Urian, K & Waples, D 2003, 'Behavioral responses of bottlenose dolphins, *Tursiops truncatus*, to gillnets and acoustic alarms', *Biological Conservation*, vol. 115, pp. 203–212.

David, JA 2006, 'Likely sensitivity of bottlenose dolphins to pile-driving noise', *Water and Environment Journal*, vol. 20, pp. 48–54.

DEH (Australian Government Department of the Environment and Heritage) 2005, *Australian national guidelines for whale and dolphin watching*, viewed 21 June 2011, <[www.environment.gov.au/coasts/publications/pubs/whale-watching-guidelines-2005.pdf](http://www.environment.gov.au/coasts/publications/pubs/whale-watching-guidelines-2005.pdf)>

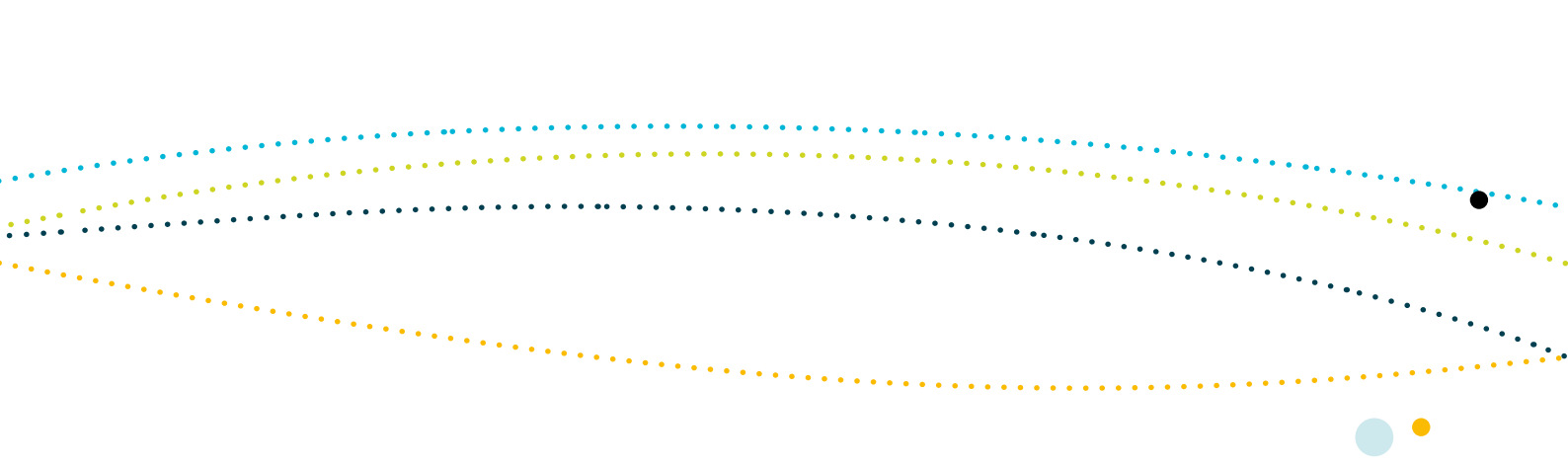
DEWHA (Australian Government Department of the Environment, Water, Heritage and the Arts) 2008, *EPBC Act policy statement 2.1: interaction between offshore seismic exploration and whales*, Canberra, viewed 6 July 2011, <[www.environment.gov.au/epbc/publications/pubs/seismic-whales.pdf](http://www.environment.gov.au/epbc/publications/pubs/seismic-whales.pdf)>

DEWHA (Australian Government Department of the Environment, Water, Heritage and the Arts) 2009a, *Threat abatement plan for the impacts of marine debris on vertebrate marine life*, viewed 17 June 2011, <[www.environment.gov.au/biodiversity/threatened/publications/tap/pubs/marine-debris-threat-abatement-plan.pdf](http://www.environment.gov.au/biodiversity/threatened/publications/tap/pubs/marine-debris-threat-abatement-plan.pdf)>

DEWHA (Australian Government Department of the Environment, Water, Heritage and the Arts) 2009b, *Background paper for the threat abatement plan for the impacts of marine debris on vertebrate marine life*, Canberra, viewed 17 June 2011, <[www.environment.gov.au/biodiversity/threatened/publications/tap/pubs/marine-debris-background-paper.pdf](http://www.environment.gov.au/biodiversity/threatened/publications/tap/pubs/marine-debris-background-paper.pdf)>

DSEWPaC (Australian Government Department of Sustainability, Environment, Water, Population and Communities) 2011a, Australian snubfin dolphin, viewed 20 June 2011, <[www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon\\_id=81322](http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=81322)>

DSEWPaC (Australian Government Department of Sustainability, Environment, Water, Population and Communities) 2011b, Indian Ocean bottlenose dolphin, spotted bottlenose dolphin, viewed 20 June 2011, <[www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon\\_id=68418](http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=68418)>



DSEWPaC (Australian Government Department of Sustainability, Environment, Water, Population and Communities) 2011c, Indo-Pacific humpback dolphin, viewed 20 June 2011, <[www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon\\_id=50](http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=50)>

di Lorio, L & Clark, CW 2010, 'Exposure to seismic survey alters blue whale acoustic communication', *Biology Letters*, vol. 6, no. 1, pp. 51–54.

DPIFM (Northern Territory Government Department of Primary Industry, Fisheries and Mines) 2005, Fishery Status Report 2005 – Fishery Report No. 85, viewed 17 June 2011, <[www.nt.gov.au/d/Content/File/p/Fish\\_Rep/FR85.pdf](http://www.nt.gov.au/d/Content/File/p/Fish_Rep/FR85.pdf)>

DPIFM (Northern Territory Government Department of Primary Industry, Fisheries and Mines) 2006, Fishery Status Report 2006 – Fishery Report No. 87, viewed 17 June 2011, <[www.nt.gov.au/d/Content/File/p/Fish\\_Rep/FR87.pdf](http://www.nt.gov.au/d/Content/File/p/Fish_Rep/FR87.pdf)>

DRDPIFR (Northern Territory Government Department of Regional Development, Primary Industry, Fisheries and Resources) 2008, Fishery Status Report 2007 – Fishery Report No. 94, viewed 17 June 2011, <[www.nt.gov.au/d/Content/File/p/Fish\\_Rep/FR94.pdf](http://www.nt.gov.au/d/Content/File/p/Fish_Rep/FR94.pdf)>

DRDPIFR (Northern Territory Government Department of Regional Development, Primary Industry, Fisheries and Resources) 2009, Fishery Status Report 2008 – Fishery Report No. 101, viewed 17 June 2011, <[www.nt.gov.au/d/Content/File/p/Fish\\_Rep/FR101\\_FSR.pdf](http://www.nt.gov.au/d/Content/File/p/Fish_Rep/FR101_FSR.pdf)>

DRDPIFR (Northern Territory Government Department of Regional Development, Primary Industry, Fisheries and Resources) 2010, Fishery Status Report 2009 – Fishery Report No. 104, viewed 17 June 2011, <[www.nt.gov.au/d/Content/File/p/Fish\\_Rep/FR104.pdf](http://www.nt.gov.au/d/Content/File/p/Fish_Rep/FR104.pdf)>

Elliott, W, Sohl, H & Burgener, V 2009, Small cetaceans, the forgotten whales, WWF Species Programme, Gland, Switzerland, viewed 17 June 2011, <[www.worldwildlife.org/who/media/press/2009/WWFBinaryitem12794.pdf](http://www.worldwildlife.org/who/media/press/2009/WWFBinaryitem12794.pdf)>

Gaus, C, Paepke, O, Dennison, N, Haynes, D, Shaw, GR, Connell, DW & Mueller, JF 2001, 'Evidence for the presence of a widespread PCDD source in coastal sediments and soils from Queensland, Australia', *Chemosphere*, vol. 43, nos. 4–7, pp. 549–558.

Heinsohn, GE 1979, *Biology of small cetaceans in North Queensland waters*, Great Barrier Reef Marine Park Authority, Townsville, Queensland.

Hobday, AJ, Okey, TA, Poloczanska, ES, Kunz, TJ & Richardson, AJ (eds) 2006, *Impacts of climate change on Australian marine life: part A executive summary*, CSIRO Marine and Atmospheric Research report to the Australian Greenhouse Office, Australian Government Department of Environment and Heritage, Canberra.



Hobday, AJ, Okey, TA, Poloczanska, ES, Kunz, TJ & Richardson, AJ (eds) 2007, Impacts of climate change on Australian marine life, CSIRO Marine and Atmospheric Research report to the Australian Greenhouse Office, Australian Government Department of Environment and Heritage, Canberra.

Howard, WR, Havenhand, J, Parker, L, Raftos, D, Ross, P, Williamson, J & Matear, R 2009, 'Ocean acidification', in ES Poloczanska, AJ Hobday & AJ Richardson (eds), A marine climate change impacts and adaptation report card for Australia 2009, NCCARF Publication 05/09, viewed 17 June 2011, <[www.oceanclimatechange.org.au/content/images/uploads/OceanAcidification\\_2009.pdf](http://www.oceanclimatechange.org.au/content/images/uploads/OceanAcidification_2009.pdf)>

Inpex 2011, Inpex Ichthys gas field development project draft environmental impact statement, viewed 17 June 2011, <[www.inpex.com.au/ichthys-environmental-assessment/downloads/draft-eis/draft-eis.aspx](http://www.inpex.com.au/ichthys-environmental-assessment/downloads/draft-eis/draft-eis.aspx)>

Inpex 2012, *Coastal offset strategy*, viewed 30 April 2012, <[www.inpex.com.au/media/35172/x075-ah-str-0001\\_4coastaloffsetstrategy.pdf](http://www.inpex.com.au/media/35172/x075-ah-str-0001_4coastaloffsetstrategy.pdf)>

IUCN (International Union for the Conservation of Nature) 2010, Red list of threatened species, viewed 17 June 2011, <[www.iucnredlist.org](http://www.iucnredlist.org)>

Jacob, S 2009, The ecology and conservation of tropical inshore dolphins, *Sousa chinensis*, *Orcaella heinsohni* and *Orcaella brevirostris*: a review of current knowledge, an NR595 project report submitted in partial fulfilment of the requirements for the Master of Marine Science and Management at the University of New England, Armidale.

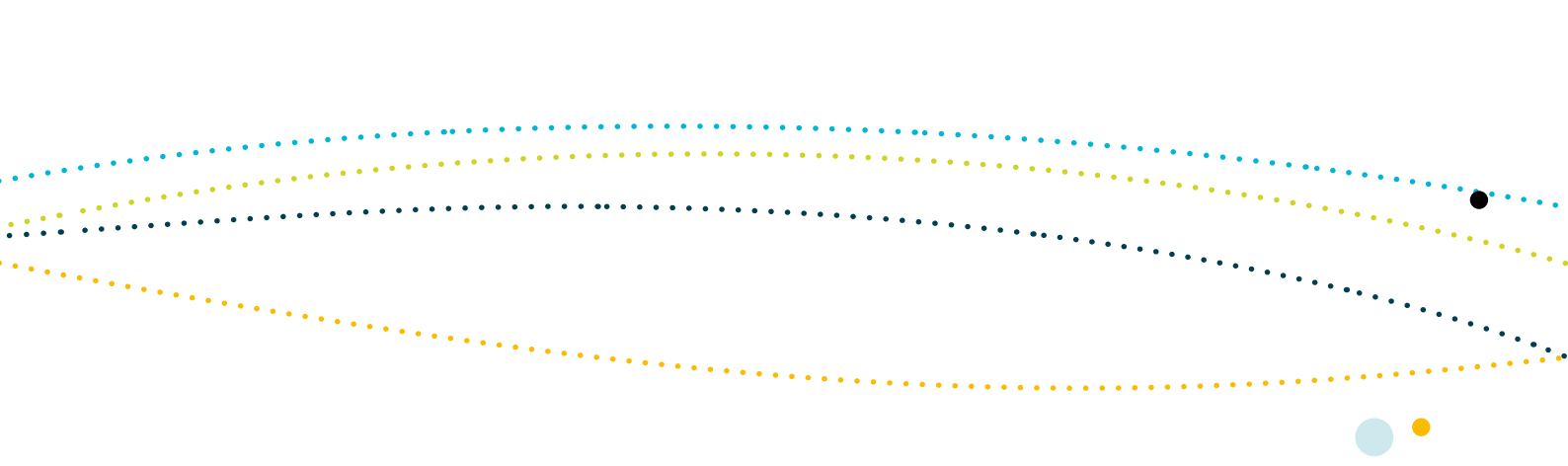
Jefferson, TA, Hung, SK & Wursig, B 2009, 'Protecting small cetaceans from coastal development: impact assessment and mitigation experience in Hong Kong', *Marine Policy*, vol. 33, pp. 305–311.

Kent, CPS, McCauley, RD & Duncan, AJ 2009, Environmental impacts of underwater noise associated with harbour works, Port Hedland, report to SKM/ BHP Billiton.

Kiessling, I 2003, Finding solutions: derelict fishing gear and other marine debris in northern Australia, National Oceans Office, Hobart, viewed 17 June 2011, <[www.environment.gov.au/coasts/mbp/publications/north/pubs/marine-debris-report.pdf](http://www.environment.gov.au/coasts/mbp/publications/north/pubs/marine-debris-report.pdf)>

Limpus, C 2009, A biological review of Australian marine turtles, Queensland Environment Protection Agency, Brisbane.

Lough, JM 2009, 'Temperature', in ES Poloczanska, AJ Hobday & AJ Richardson (eds), A marine climate change impacts and adaptation report card for Australia 2009, NCCARF Publication 05/09, viewed 17 June 2011, <[www.oceanclimatechange.org.au/content/images/uploads/Temperature.pdf](http://www.oceanclimatechange.org.au/content/images/uploads/Temperature.pdf)>



McLeod, CD 2009, 'Global climate change, range changes and potential implications for the conservation of marine cetaceans: a review and synthesis', *Endangered Species Research*, vol. 7, pp. 125–136.

Marsh, H, Lloze, R, Heinsohn, GE & Kasuya, T 1989, 'Irrawaddy dolphin *Orcaella brevirostris*', in SH Ridgeway & R Harrison (eds), *Handbook of marine mammals, river dolphins and the larger toothed whales*, vol. 4, pp. 101–118.

Murdoch, EM, Reif, JS, Mazzoil, M, McCulloch, SD, Fair, PA & Bossart, GD 2008, 'Lobomycosis in bottlenose dolphins (*Tursiops truncatus*) from the Indian River Lagoon, Florida: estimation of prevalence, temporal trends, and spatial distribution', *EcoHealth*, vol. 5, no. 3, pp. 289–297.

Nowacek, PD, Thorne, H L, Johnston, WD, Tyack, LP 2007, 'Response of cetaceans to anthropogenic noise', *Marine Mammal Review*, vol. 37, no. 2, pp. 81–115.

NRC (National Research Council of the National Academies) 2005, *Marine mammal populations and ocean noise: determining when noise causes biologically significant effects*, National Academies Press, Washington DC.

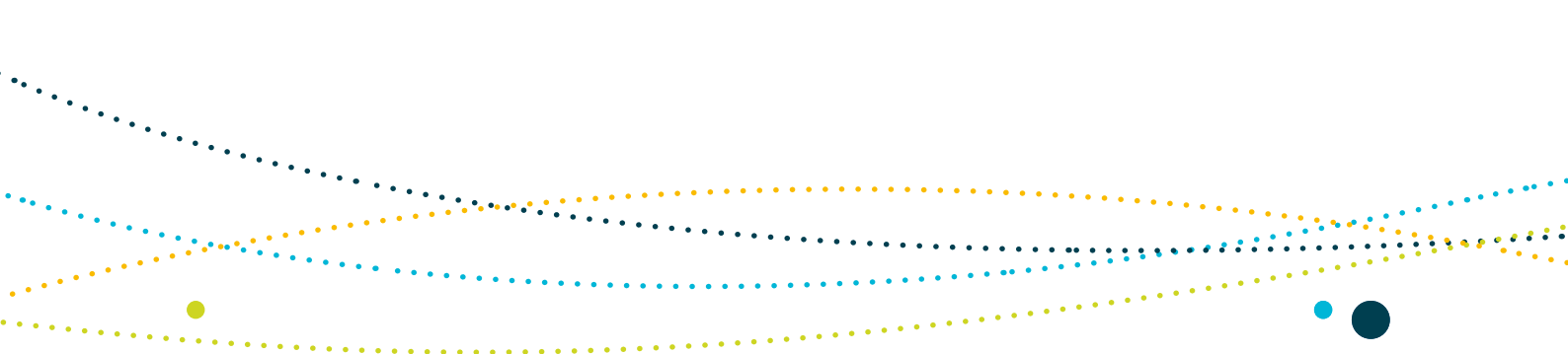
NRETAS (Northern Territory Government Department of Natural Resources, Environment, the Arts and Sport) 2011, *Assessment report 65 Ichthys gas field development project, Blaydin Point, Inpex Browse LTD, Environmental assessment report and recommendations*, viewed 30 April 2012, <[www.inpex.com.au/media/27796/report%20\(pdf\)%20%20nretas%20inpex%20assessment%20report%20%20dated%2017%20may%202011.pdf](http://www.inpex.com.au/media/27796/report%20(pdf)%20%20nretas%20inpex%20assessment%20report%20%20dated%2017%20may%202011.pdf)>

Palmer, C 2009, *Ecology of the Australian snubfin Orcaella heinsohni and Indo-Pacific humpback *Sousa chinensis* dolphins in Kakadu National Park*, unpublished interim report (no. 3) to the Northern Territory Department of Natural Resources, Environment, the Arts and Sport, Darwin.

Parra, GJ 2006, 'Resource partitioning in sympatric delphinids: space use and habitat preferences of Australian snubfin and Indo-Pacific humpback dolphins', *Journal of Animal Ecology*, vol. 75, pp. 862–874.

Parra, GJ & Corkeron, PJ 2001, 'Feasibility of using photo-identification techniques to study the Irrawaddy dolphin, *Orcaella brevirostris*', *Aquatic Mammals*, vol. 27, pp. 45–49.

Parra, G, Corkeron, PJ & Marsh, H 2002, *The Indo-Pacific humpback dolphin, *Sousa chinensis* (Osbeck, 1765), in Australian waters: a summary of current knowledge and recommendations for their conservation*, unpublished report to the Scientific Committee of the International Whaling Commission, SC/54/SM27.



Parra, GJ, Corkeron, PJ & Marsh, H 2006a, 'Population sizes, site fidelity and residence patterns of Australian snubfin and Indo-Pacific humpback dolphins: implications for conservation', *Biological Conservation*, vol. 129, pp. 167–180.

Parra, GJ & Jedensjö, M 2009, Feeding habits of Australian snubfin (*Orcaella heinsohni*) and Indo-Pacific humpback dolphins (*Sousa chinensis*), project report to Reef and Rainforest Research Centre Limited, Cairns.

Parra, GJ, Schick, R & Corkeron, PJ 2006b, 'Spatial distribution and environmental correlates of Australian snubfin and Indo-Pacific humpback dolphins', *Ecography*, vol. 29, pp. 396–406.

Raven, J, Caldeira, K, Elderfield, H, Hoegh-Guldberg, O, Liss, P, Riebesell, U, Shepherd, J, Turley, C & Watson, A 2005, *Ocean acidification due to increasing carbon dioxide*, The Royal Society, London.

Read, AJ, Drinker, P & Northridge, S 2006, 'Bycatch of marine mammals in US and global fisheries', *Conservation Biology*, vol. 20, pp. 163–169.

Rebgetz, L, Johnson, A & Bothroyd, S 2010, 'Rio Tinto Alcan probed over industrial spill', ABC news online, viewed 29 June 2011, <[www.abc.net.au/news/stories/2010/04/22/2879740.htm](http://www.abc.net.au/news/stories/2010/04/22/2879740.htm)>.

Reeves, RR & Brownell, RL, Jr (eds) 2009, Indo-Pacific bottlenose dolphin assessment workshop report: Solomon Islands case study of *Tursiops aduncus*, occasional paper of the Species Survival Commission, No. 40, IUCN, Gland, Switzerland.

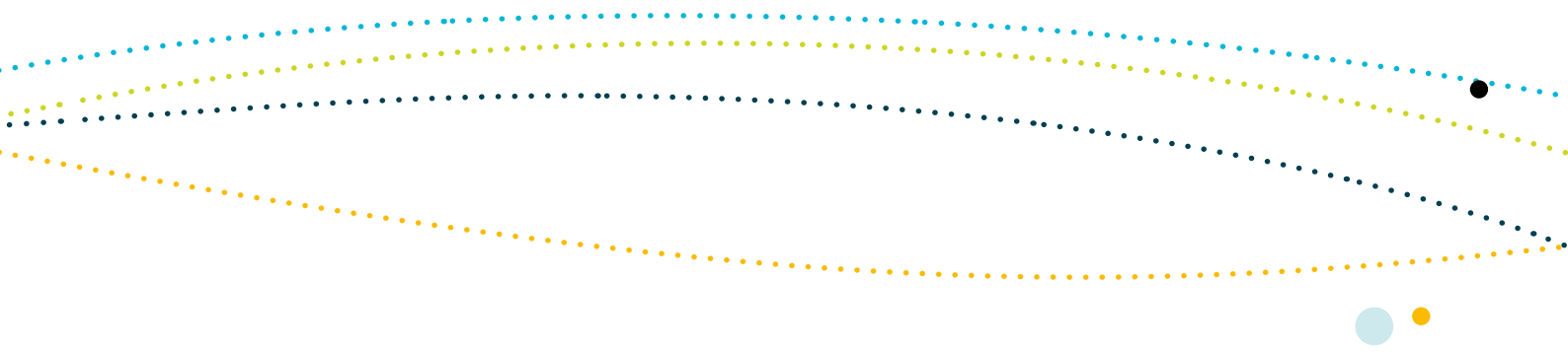
Reeves, RR, Smith, BD, Crespo, EA & di Sciara Notarbartolo, G 2003, *Dolphins, whales and porpoises: 2002–2010 conservation action plan for the world's cetaceans*, IUCN/SSC Cetacean Specialist Group, IUCN, Gland, Switzerland and Cambridge, UK.

Richardson, JW, Greene, CR Jr, Malme, CI & Thomson, DH 1995, *Marine mammals and noise*, Academic Press, San Diego.

Robertson, KM & Arnold, PW 2009, 'Australian snubfin dolphin *Orcaella heinsohni*', in WF Perrin, B Würsig & JGM Thewissen (eds), *Encyclopedia of marine mammals*, Academic Press, Amsterdam, pp. 62–64.

Roelofs, A, Coles, R & Smit, N 2005, A survey of intertidal seagrass from Van Diemen Gulf to Castlereagh Bay, Northern Territory, and from Gove to Horn Island, Queensland, report prepared for the National Oceans Office, Australian Government Department of the Environment and Heritage, Hobart.

Ross, GJB 2006, *Review of the conservation status of Australia's smaller whales and dolphins*, Australian Government, Canberra.



Slooten, E 2007, 'Conservation management in the face of uncertainty: effectiveness of four options for managing Hector's dolphin bycatch', *Endangered Species Research*, vol. 3, pp. 169–179.

Thiele, D 2008, *Ecology of inshore and riverine dolphin species in north-western Australian waters: Kimberley coast Orcaella project (summary of current knowledge – EPBC listed inshore dolphin species on the Kimberley Coast)*, background report to the Australian Government Department of the Environment, Water, Heritage and the Arts, Canberra.

Van Parijs, SM & Corkeron, PJ 2001, 'Boat traffic affects the acoustic behaviour of Pacific humpback dolphins, *Sousa chinensis*', *Journal of the Marine Biological Association of the UK*, vol. 81, pp. 533–538.

WWF (World Wildlife Fund) 2010, *Collision course: snubfin dolphin injuries in Roebuck Bay*, report prepared by Dr Deborah Thiele.

# ATTACHMENT 1: CETACEAN SPECIES OCCURRING IN THE NORTH MARINE REGION

**Table A1: Cetacean species known to occur in the North Marine Region**

Species (common name/scientific name)	Conservation status
Australian snubfin dolphin <i>Orcaella heinsohni</i>	Cetacean, migratory
Bottlenose dolphin <i>Tursiops truncatus</i>	Cetacean
False killer whale <i>Pseudorca crassidens</i>	Cetacean
Indo-Pacific bottlenose dolphin, Indian Ocean bottlenose dolphin, spotted bottlenose dolphin <i>Tursiops aduncus</i>	Cetacean, migratory (Arafura/Timor Sea populations)
Indo-Pacific humpback dolphin <i>Sousa chinensis</i>	Cetacean, migratory
Long-snouted spinner dolphin <i>Stenella longirostris</i>	Cetacean, migratory (east tropical Pacific and south-east Asian populations)
Melon-headed whale <i>Peponocephala electra</i>	Cetacean
Short-finned pilot whale <i>Globicephala macrorhynchus</i>	Cetacean
Spotted dolphin, pantropical spotted dolphin <i>Stenella attenuata</i>	Cetacean, migratory (east tropical Pacific and south-east Asian populations)



**Table A2: Cetacean species known to occur in the North Marine Region on an infrequent basis**

Species (common name/scientific name)	Conservation status
Blue whale <i>Balaenoptera musculus</i>	Endangered, cetacean, migratory
Humpback whale <i>Megaptera novaeangliae</i>	Vulnerable, cetacean, migratory
Antarctic minke whale, dark-shoulder minke whale <i>Balaenoptera bonaerensis</i>	Cetacean, migratory
Bryde's whale <i>Balaenoptera edeni</i>	Cetacean, migratory
Common dolphin <i>Delphinus delphis</i>	Cetacean
Cuvier's beaked whale, goose-beaked whale <i>Ziphius cavirostris</i>	Cetacean
Dwarf sperm whale <i>Kogia sima</i>	Cetacean
Fraser's dolphin, Sarawak dolphin <i>Lagenodelphis hosei</i>	Cetacean, migratory (south-east Asian population)
Killer whale, orca <i>Orcinus orca</i>	Cetacean, migratory
Pigmy killer whale <i>Feresa attenuata</i>	Cetacean
Pygmy sperm whale <i>Kogia breviceps</i>	Cetacean
Risso's dolphin, grampus <i>Grampus griseus</i>	Cetacean
Rough-toothed dolphin <i>Steno bredanensis</i>	Cetacean
Sperm whale <i>Physeter macrocephalus</i>	Cetacean, migratory
Striped dolphin, euphrosyne dolphin <i>Stenella coeruleoalba</i>	Cetacean

