

## Proposed 2013 Updates to the IWC List of Recognised Species of Cetaceans

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### ABSTRACT

Addition of two species to the IWC list of recognised species is recommended based on recent literature. *Inia geoffrensis* has been split into the Amazon river dolphin (*I. geoffrensis*) and the Bolivian bufeo (*I. boliviensis*). *Neophocaena phocaenoides* has been split into the Indo-Pacific finless porpoise (*N. phocaenoides*) and the narrow-ridged finless porpoise (*N. asiaorientalis*). A new bottlenose dolphin (*Tursiops australis*) has been described from southern Australia, but it is recommended that the species not be recognized at present because of questions about its validity.

### INTRODUCTION

The IWC Scientific Committee's List of Recognised Species of Cetaceans is reviewed by the Committee at varying intervals and published annually in the Journal of Cetacean Research and Management. The last update to the List was in 2007 (Perrin and Brownell 2007), when Omura's whale *Balaenoptera omurai*, the Australian snubfin dolphin *Orcaella heinsohni* and the Guiana dolphin *Sotalia guianensis* were added. Prior to that Perrin's beaked whale *Mesoplodon perrini*

was added and the senior synonym *Mesoplodon traversii* (Gray, 1874) was substituted for *M. bahamondi* Reyes *et al.* 1995 and the common name changed from Bahamonde's beaked whale to spade-toothed whale (IWC 2006). Earlier, the Committee agreed to recognise three species of right whales, two species of minke whales, two species of bottlenose dolphins and only one species of South Asian river dolphin (Perrin and Brownell 2001). Recent literature suggests that two additional species be added, *Inia boliviensis* and *Neophocaena asiaeorientalis*.

### **BOLIVIAN BUFEO (*INIA BOLIVIENSIS*)**

The species *Inia boliviensis* d'Orbigny 1834 of the Cochabamba, Santa Cruz, Beni and Pando areas of the Bolivian Amazon basin is recommended for inclusion in the IWC list in accordance with prevailing usage (Ruiz-García and Shostell, 2010). While the two *Inia* species overlap in all morphological characters (da Silva, 1994; Ruiz-García *et al.*, 2006), they have been reproductively isolated from each other by a long series of rapids for an estimated 3.1 million years (Hollatz *et al.*, 2011), and two independent lines of genetic evidence, from mtDNA and nuclear introns (Banguera-Hinestroza *et al.*, 2008; Ruiz-García *et al.*, 2008), suggest that they are on separate evolutionary trajectories and deserve recognition as phylogenetic species.

### **NARROW-RIDGED FINLESS PORPOISE (*NEOPHOCAENA ASIAEORIENTALIS*)**

Wang *et al.* (2008) and Jefferson and Wang (2011) established *Neophocaena asiaeorientalis* (Pilleri and Gahr, 1972) as a full species, based on a distinctive narrow dorsal ridge, genetic data and partial sympatry with a form with wide dorsal ridge (*N. phocaenoides*). It is found in temperate waters of the Yangtze River (*N. a. asiaeorientalis*) and northern China, Korea and Japan (*N. a. sunameri*).

### **BURRUNAN DOLPHIN (*TURSIOPS AUSTRALIS*)**

The Burrunan dolphin *Tursiops australis* was recently described by Charlton-Robb *et al.* (2011). Its validity is uncertain (Committee on Taxonomy, Society for Marine Mammalogy, 2012). Among potential problems relating to its putative species status:

1. the specimens were compared morphologically only with bottlenose dolphins from Australia,
2. despite the small sample sizes, the series overlapped in all metric characters and separation was possible only with multivariate analysis (which commonly resolves geographical forms within a species),
3. comparisons of external morphology and non-metrical characters were made only with *T. truncatus*, to the exclusion of *T. aduncus*, and
4. support for important nodes in molecular trees suggesting phylogenetic separation was low.

A rigorous re-evaluation of the relevant data and arguments is needed. It is recommended that the species not be included in the IWC list at present, pending further studies.

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