How Vulnerable are Populations of the Pacific Humpback Dolphin (*Sousa chinensis*)?

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Introduction

The *Sousa chinensis*, otherwise known as the Indo-Pacific humpback dolphin or the Chinese white dolphin inhabits the eastern Indian coast and the western Pacific. *S. chinensis* was recently split from the *Sousa plumbea* (Indian Ocean Humpback dolphin) by DNA analysis conducted in a 2014 study. This study also brought to light another subspecies in Australia (*Sousa sahulensis*) and the necessity of additional taxonomic research needed for this genus in the Bay of Bengal, Taiwan, Malaysia, and Borneo.

S. chinensis calves are born black, as they age they freckle and lighter colors come in, the adults can come in multiple colors including white, grey, pink, and some even appearing albino. The pink pigment is more common along China and is due to the dolphin thermoregulating, or keeping warm, with overdeveloped blood vessels.

S. chinensis was first discovered off the coast of Taiwan near the river mouth of the Eastern Taiwan Strait where they congregate. They generally stay in areas no deeper than 5 m and there has been little evidence for them going deeper than 15 m. They usually stay in small pods up to four breathing for 20-30 seconds and diving for up to 8 minutes, though adults tend to return to the surface after 4 minutes.

Introduction continued

Younger dolphins that don't have the lung capacity of the adults can stay a maximum of three minutes under the water and need to breath for about 1 minute at the surface.

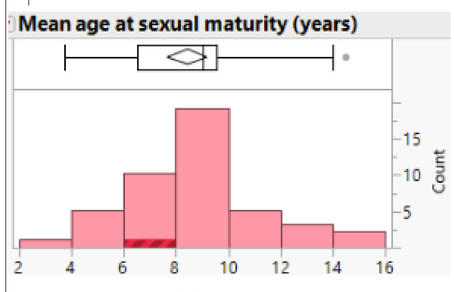
In this study I analyzed the life history traits and maternal investment patterns for cetaceans as a group, with an emphasis on the Indo-Pacific humpback dolphin (*S. chinensis)*.

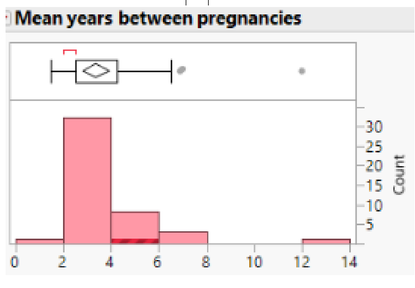
Methods

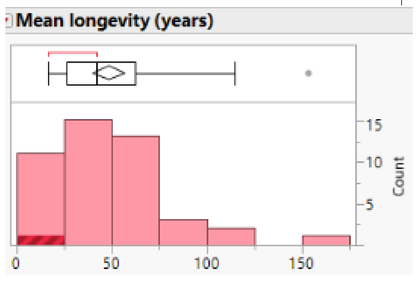
Data were obtained from online sources including scholarly papers from peer-reviewed journals, Wikipedia, research labs and institutions such as NOAA Fisheries. Data were analyzed using JMP Statistical Software (13.2)

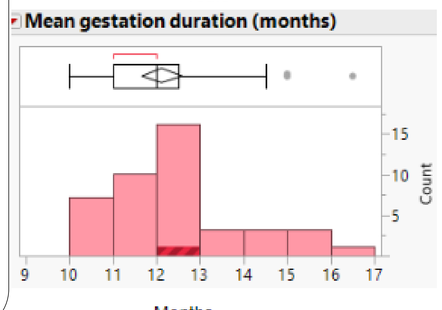
Results

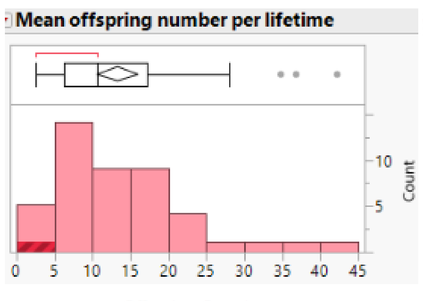
Compared to other cetaceans, Indo-Pacific humpback dolphins are average in mean gestation duration, between 12 to 13 months, their mean lactation period is between 15 and 20 months. They reach sexual maturity at about 7 years and have 5 years in between each pregnancy and they have a life expectancy of only 25 years. As a result, Indo-Pacific humpback dolphin populations grow at a much slower rate than the populations of other cetaceans.

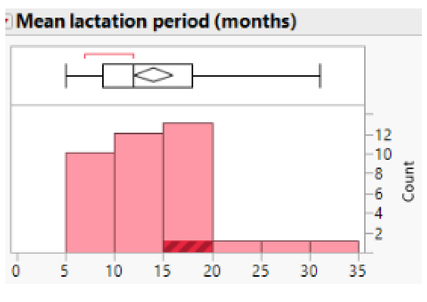












Conclusion

Because of their limited maternal investment patterns, the Indo-Pacific Humpback Dolphin will produce only 3 offspring during their lifetime. Thus, populations are not likely to recover from anthropogenic or natural causes of mortality as well as other cetaceans.

The IUCN rating for the *Sousa chinensis* deems them vulnerable, but with their small and decreasing population and their habitat's close proximity to the coast of these developed areas they are put at even more risk. Due to pollution of plastics, lack of clean water coming out of the Eastern Taiwan Strait, and dolphin observation tours the Indo-Pacific Humpback Dolphin is becoming increasingly more threatened.

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