

Nuchjaree Oundee 2013: Population Study of Indo-Pacific Hump-backed Dolphins (*Sousa chinensis* Osbeck, 1765) in Khanom Coastal Area, Nakhon Si Thammarat Province, based on Photo-Identified Individuals. Master of Science (Marine Science), Major Field: Marine Science, Department of Marine Science. Thesis Advisor: Assistant Professor Thon Thamrongnawasawat, Ph.D. 220 pages.

Population study of Indo-Pacific hump-backed dolphins (*Sousa chinensis* Osbeck, 1765) in Khanom Coastal Area, Nakhon Si Thammarat Province and surrounding area based on photo-identified individuals were conducted in total amount 44 trips by boat-based survey. One km far from shore with approximately 60-70 km per trip, covering 66-80 km². The dolphins were sighted in 38 trips (86.4% sighting occasion). A total of 41 individuals were identified and catalogued by photo-identification method using ACDsee Pro v.4 software. Thirty-eight individuals were sighted only at Khanom coastline and 3 individuals were sighted only at Koh Wang Nai-Wang Nok. Frequency sighting of individuals ranged from 1 to 17 times, the most sighting dolphin was ID: M-SC-034K. The estimation of Khanom coastline dolphins abundance from the MARK program analysis was 38±1 (Mean±SE) with 38 individuals per 66 km² in density. The number of dolphins ranged from 1 to 19 individuals (Mean±SE = 6±1), the most frequency numbers were 2 individuals. The 38 individuals were classified in 9 calves, 8 juveniles, 12 sub-adults and 9 adults. They were encountered at the distance off shore of 10 to 1900 meters (MEAN±SE = 242.17±49.45) and 1.3 to 8.2 meters (MEAN±SE = 2.80±0.24) deep in the water. The majority of times were at Thong Ching Bay. Dolphins were mostly found during 10:00-11:00 am and Thong Ching Bay was the highest frequency of this period. The behaviors of Khanom dolphins were categorized into 2 types; (1) major behavior i.e. respiratory, feeding, courtship and mating, nursing and (2) minor behavior i.e. inquisitive, aggressive, playing learning and interaction with boat.

Student's signature

Thesis Advisor's signature