

ON THE OCCURRENCE OF KILLER WHALE (*ORCINUS ORCA* LINNAEUS, 1758) ALONG PAKISTAN COAST

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ABSTRACT

Killer whale (*Orcinus orca* Linnaeus, 1758) was previously reported from Pakistan only on one occasion. The present paper reports two more sightings of killer whales from off Churna Island in November, 2017 and from Taq, Ormara Balochistan in October, 2020. Based on the photographs of the specimens, sighted at Churna Island, it seems to match with members of Pod 11 of Indian Ocean killer whales known from Persian Gulf and Sri Lanka.

Key-words: Killer whale, *Orcinus orca*, Observer Programme, Churna Island, Taq (Ormara), Pod-11

INTRODUCTION

Killer whales are known to be widely distributed in almost all world oceans - especially common in many coastal areas in high latitudes as well as in the temperate and tropical waters (Leatherwood and Dahlheim, 1978). In Indian Ocean, killer whale is found almost from Southern Ocean to the Northern Indian Ocean and also along African Coast to East Asian waters, however, in most of these areas this species is of rare occurrence. Killer whales are reported from Northern Indian Ocean and its contiguous seas (Persian Gulf and Red Sea) as well as in the Northern Arabian Sea (Baldwin *et al.*, 1999; Notarbartolo di Sciara *et al.*, 2017, NIOKWAS, 2018; Leatherwood *et al.* 1991, Braulik *et al.*, 2010; Mohsenian *et al.*, 2019). Notarbartolo di Sciara *et al.* (2021) has recently reviewed the distribution of marine mammals including killer whale in the Arabian Sea, Red Sea, Gulf of Aden, Persian Gulf and Gulf of Oman.

From Pakistan, a single pod of killer whale of about 10 adults was observed off Astola Island, Balochistan, apparently pursuing rays beneath the survey boat (Gore *et al.*, 2012). There is no other authentic evidence of occurrence of this species in Pakistan. Present paper reports two additional records of occurrence of killer whales from Pakistan.

MATERIAL AND METHODS

WWF-Pakistan initiated a Crew-Based Observer Programme during which observers have been deputed on tuna gillnet being operated in coastal and offshore waters of Pakistan. This Observer Programme also served as a platform of opportunity for collection of information about cetaceans including their sightings in coastal and offshore waters of Pakistan (Moazzam, 2018). This Programme continued during October 2012 and September 2019. However, some observers still providing the information of cetacean sightings on voluntary basis. The reports of sightings of killer whales is presented in this paper.

RESULTS AND DISCUSSION

While fishing for tuna, about 50 km Southwest of Churna Island on November 19, 2017, an observer reported a pod of killer whales consisting of three orcas chasing a school of queenfishes (Fig. 1). A video clip of these killer whales was recorded which reveals that there are at three killer whales. One of these killer whale has a slight curved dorsal fin (Fig. 2) whereas a second whale has dorsal fins without any curve (Fig. 3). The third killer whale seems to have erect but slightly curved dorsal fin (Fig. 4).

A second pod of three killer whales (*Orcinus orca*) was observed off Taq, Ormara Balochistan on October 23, 2020 (Moazzam, 2021). These killer whale were swimming in the eastward direction. However, observer did not have a camera readily available with him, therefore, this pod could not be photographed. Since this pod was observed on October 23, 2020 by the same observer who reported the pod at Churna Island on November 19, 2017, therefore, there is no doubt in the identification of killer whale.



Fig. 1. Killer whale (*Orcinus orca*) photographed near Churna Island on November 19, 2017.



Fig. 2. Killer whale-1 with curved dorsal fin.



Fig. 3. Killer whale-2 with dorsal fin with straight margins.



Fig. 4. Killer whale -3 with erect but slightly curved dorsal fin.

Killer whales are widely distributed in world oceans including polar areas as well as in the temperate, subtropical and tropical seas. Global population of killer whales is considered as a single species (*Orcinus orca*), however, different eco/morpho-types are described both in the Northern and Southern hemispheres (Morin *et al.* 2010; Notarbartolo di Sciara *et al.*, 2021).

Three sightings known from Pakistan are reported from Balochistan coast (Fig. 5). It may be added that most of the observers who have participated in WWF-Pakistan's Crew-Based Observer Programme are familiar with killer whales but according to them they have not seen killer whales in Pakistani waters in last two decades. During the present study, an attempt was made to match the killer whales observed in November, 2017 from Pakistan with individuals included in the Northern Indian Ocean (NIO) Killer Whale ID Catalogue maintained by Northern Indian Ocean Killer Whale Alliance (NIOKWA, 2018), however, because of poor quality of the photograph no match could be made with certainty. However, the killer whale-1 (Fig. 2) looks similar to Pod-11 (NIO032) whereas killer whale-2 comes close to POD-11 (NIO029) of the NIOKWA Catalogue (Fig. 3). Killer whale -3 (Fig. 4) could not be matched with any of the photos of NIOKWA (2018). It may be added that the photographs used for matching during present study were obtained as screen shots from the video clips, therefore, these are not sharp. Being hazy, it is difficult to make match of present whales with photographs given in NIOKWA (2018).

Killer whales sighted in Dubai (Persian Gulf) were identified as members of Pod 11, two of which were first recorded off Abu Dhabi in 2008, and then seven years later almost 3,300km away in Sri Lanka (Haza, 2019; NIOKWA, 2018). The observations from Pakistan support that there is a movement of killer whale between the Arabian Gulf and Sri Lanka possibly through northern Arabian Sea. Further photographic and other evidences are required from Persian Gulf, Iranian coast (Gulf of Oman) and Arabian Sea (Oman, Iran, Pakistan, India and Sri Lanka) to ascertain the distribution and movement of the killer whales in the area.



Fig. 5. Pakistan coast showing locations of killer whale sightings.

CONCLUSION

Killer whales is widely distributed in all oceans including colder waters like Antarctica. They are also found in tropical and subtropical waters, however, there are only a few records of killer whales from Arabian Sea including a previous record made by Gore *et al.* (2012) from Pakistan. Present paper adds to the records/sightings of killer whales from waters of Pakistan (all records from Balochistan coast) to three. With limited information, it seems that Pakistani specimen recorded from Churna Island match with Pod-11 as listed in NIOKWA (2018) which known to be widely distributed from Persian Gulf to Sri Lanka and now Pakistan.

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