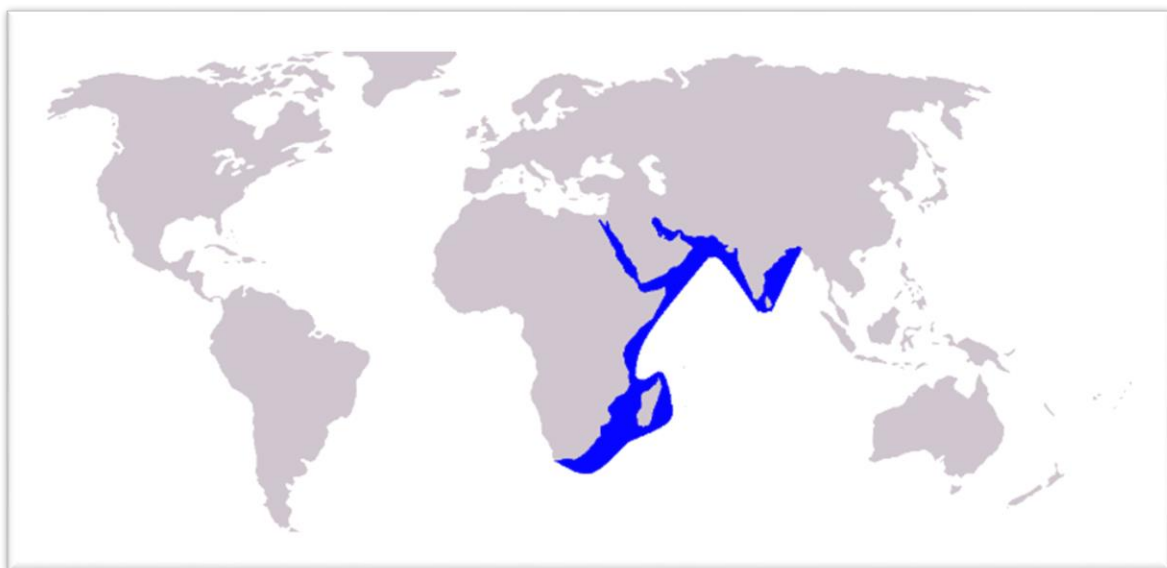


CMLRE successfully completed the characterization of Whole Mitogenome of the Indian Ocean Humpback Dolphin, *Sousa plumbea* (G. Cuvier, 1829) for the first time as part of its resident dolphin monitoring program

Sousa plumbea is the only marine mammal species which is considered as the resident population of the Kochi backwaters and classified as endangered. They are highly social in nature and living in small groups known as pods. Primarily their diet is composed of sciaenid fishes, cephalopods, and crustaceans. Periodic surveys conducted by CMLRE has confirmed the presence of single species (*Sousa plumbea*) in Kochi backwaters and the pod consists of 2-4 individuals and calves, and their year-round presence in Kochi backwaters, irrespective of seasonal changes suggests they are resident to the Kochi backwaters and depends the Kochi backwaters for their feeding and breeding. However, the morphological similarities of the species with *S. chinensis* and *S. teuszii* often confuses its identity for a regular observer and even researchers.

With an intention to resolve the long pending identity crisis of the species, CMLRE has successfully characterized the Whole Mitogenome of the Indian Ocean Humpback Dolphin, *Sousa plumbea* for the first time in the world. The mitogenome of the species was PCR amplified as overlapping segments and then sequenced, resulting in an assembled mitogenome of 16,387 bp in length. This genome includes 37 mitochondrial structural genes, two ribosomal RNA genes, 22 transfer RNA genes, 13 protein-coding genes, and a noncoding control region/D loop, all arranged in the same order as in other vertebrates. Comparative genetic analyses revealed close relationships of *S. plumbea* with *S. chinensis* (Osbeck, 1765) and *S. teuszii* (Kükenthal, 1892) showing 98% and 97% similarity respectively.

In the present study, the complete mitogenome was characterized from the tissue collected from a stranded specimen at Puthuvype beach, Kochi. The mitogenomic information generated in this study will be a valuable tool for carrying out future research on the evolution, taxonomy, conservation, and environmental adaptation of this important species. The genomic information generated will be updated in the IndOBIS data base maintained by the centre for reference.



Distributional range of *Sousa plumbea* in the world oceans.



Pictorial representation of Mitogenome of *Sausa plumbea*