

2.4 AIM AND OBJECTIVES

Aim: To understand the habitat characteristics and diversity of intertidal sea anemones with detection of eco physiological changes.

To fulfil the above aim, the following **objectives** are set:

1. Distribution and diversity of Actinarians
2. Habitat characterization and preferences of Actinarians
3. Impact analysis of thermal stress on Actinarians

2.5 FLOW OF THE THESIS

There are five chapters in this thesis:

Chapter – 1 comprises introduction to the Anthozoans and Actinarians, their morphology, ecological and pharmaceutical importance, diversity at morphological and molecular level, distribution, thermal stress and bleaching impact.

Chapter – 2 describes the detailed review of literature regarding worldwide to local level diversity and distribution of sea anemone documentation along with publication of new records; Suitability and applicability of different molecular markers developed for sea anemone identification; reports on elevated Sea Surface Temperature (SST) responsible for coral bleaching event and evidence of Heat shock proteins expression as acclimatization to the thermal stress.

Chapter – 3 deals with Study sites locations along with their characteristics and detailed materials and methods followed for the proposed work.

Chapter – 4 provides the comprehensive account of the diversity of the Sea anemones at morphological and molecular level along the Saurashtra coast. The point scale distribution of the Sea anemones at the study area has been described. The detailed account on habitat preferences of sea anemones along with the study of their statistical aspect for microhabitat choice at family level is included. The details on thermal stress impact on sea anemone

in the form of bleaching recorded through the study.

Chapter – 5 provides the conclusion and future recommendation of the proposed study.

Bibliography comprised of the literature considered as review and otherwise and its arrangement.