CONTENTS

Summary i–vi

Chapter 1 Introduction 1

1.1. Background 1

1.2. Study area and Accessibility 5

1.3. Physiography, Climate and Vegetation 6

1.4. Geological setting 8

1.4.1. Regional geology 8

1.4.2. Tectonic setup 9

1.4.3. Stratigraphic setup 10

1.4.4. Geology of the study area 16

1.5. Scope and objective of the present work 17

1.6. Methodology 19

Chapter 2 Sedimentological Analysis 21

2.1. Introduction 21

2.2. Aeolian stratification types 21

2.3. Aeolian bounding surfaces 24

2.4. Aeolian facies 27

Chapter 3 Coastal Geomorphology 45

3.1. Introduction 45

3.2. Miliolite cliffs and platforms 45

3.2.1. General characteristics 45

3.2.2 Cliff profiles 47

3.2.3. Marine notches 52

3.3. Bioerosion and Bioconstruction 55

3.4. Marine and sub-aerial erosional processes 57

3.4.1. Erosion of the Miliolite platforms 57

3.4.2. Erosion of the Miliolite cliffs 59

Chapter 4 Discussions 62

4.1. Introduction 62

4.2. Aeolian depositional processes 62

4.2.1. Type of aeolian system 62

4.2.2. Dune morphology and morphodynamics 63

4.2.3. Aeolian architecture, growth and destruction of dunes 64

4.2.4. Controls on sedimentation 74

4.3. Geomorphological analysis of the cliff and notch profiles 76

4.3.1. Cliff profiles and relative role of marine and sub-aerial erosion 76

4.3.2. Notch geometry and geomorphological inferences 77

4.4. Tectono-eustatic changes: Inferences from raised notches and platforms 79

Chapter 5 Conclusions 83

References

List of publications based on the present work