



## CHAPTER I

### INTRODUCTION

Turtles are involved with at least two hundred million years of evolutionary history. They are adapted to live in different types of habitats such as oceans, rivers, ponds, swamps, forests and deserts. In Thailand, there are 28 species of turtles (26 native species and 2 introduced species) or over 10 % of the existing species. This makes Thailand one of the few countries in the world which more than 25 native species of turtles. Turtles are grouped in the Order Chelonia (also known as Order Testudines), Class Reptilia. There are 12 different living families of turtles in the world; in Thailand 6 families occur, where largest family is the Family Emydidae of which 13 species are found.

The Malayan snail eating turtle, *Malayemys subtrijuga*, is a virtually endemic species and is the most common emydid in Thailand. It is widespread in slow-flowing and standing waters like canals, ponds, in lowland areas, and also in rice-fields. In addition, it has been reported to occur in Cambodia, Southern Vietnam and Malaysia.

*M. subtrijuga* profited from man's construction of canals and other water courses in the past. Today, agricultural trends such as the increasing use of pesticides and other agrochemicals, mechanical ploughs which often damage turtles, increasingly severe droughts resulting in water bodies drying out completely, and a growing rural population without adequate sewage and waste disposal facilities, may affect its population density in the future (van Dijk and Thirakhupt, 1994). Already the species has disappeared from the famed Bangkok canals, where it was still abundant in the late 1960's (Taylor, 1970).

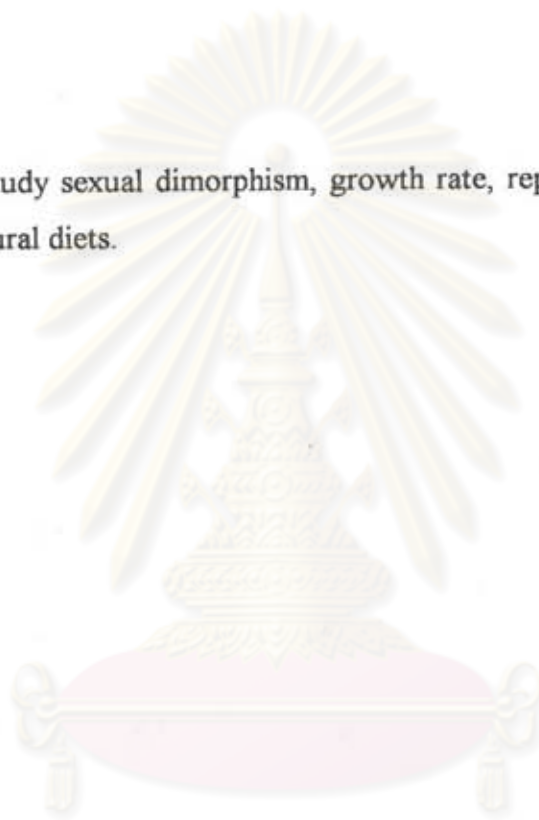
A review of the literature concerning *M. subtrijuga* shows that the knowledge of this species is still fragmentary. Most scientific papers are mainly on its taxonomy that have been conducted descriptively but the papers on its biology are very few.

For this reason, there is a great need to study *M. subtrijuga*, especially its sexual dimorphism, growth rate, natural diet, reproductive biology and its parasites.

It is expected that the information obtained from the present study will contribute to basic population biological research, not only of this species, but could also be adopted in the biological study and conservation of other turtles and ecosystem inhabitants.

### **Objectives**

To study sexual dimorphism, growth rate, reproductive biology including parasites and natural diets.



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