

CHAPTER I

Introduction

Currently, seven species of butterfly lizards in genus *Leiolepis* Cuvier, 1829, consisting of *L. belliana* (Hardwicke and Gray, 1827), *L. reevesii* (Gray, 1831), *L. guttata* Cuvier, 1829, *L. peguensis* Peters, 1971, *L. triploida* Peters, 1971, *L. guentherpetersi* Darevsky & Kupriyanova, 1993, and *L. boehmei* Darevsky & Kupriyanova, 1993 are recognized in Southeast Asia (Darevsky and Kupriyanova, 1993). Of these, four species comprising *L. belliana*, *L. reevesii*, *L. boehmei*, *L. triploida* were reported to occur in Thailand (Chan-ard et al., 1999). The common name of these lizards is derived from the contrasting flank colors that are displayed toward their intruders, and that, with some imagination, resemble a butterfly's wing when seen from above.

Butterfly lizards are inhabitants of arid habitats, where they dig deep burrows as refuges from heat, fire and predators. Thai people, especially in the northeast, like to hunt them for food, causing population decline in some areas.

Although, butterfly lizards can be found in many parts of Thailand, the basic knowledge in biology and ecology of them was rare in most cases. The visible external features between species/subspecies, sexes and ages are sometimes difficult to identify. To date, only a few studies on morphological comparison, sexual dimorphism and karyological comparison of butterfly lizards have been conducted. Moreover, the data of their habitat characteristics and their distribution ranges in Thailand is still unclear. Therefore, the detailed study on morphological variations

between species/subspecies, sexual differences within a species, karyotypes of each species as well as their habitat characteristics and distribution ranges should be conducted in order to identify them correctly and to provide basic ecological knowledge for future researches. The results of this study will also be useful for the conservation management of butterfly lizards in the future.

Objectives

1. To investigate species richness and the distribution of butterfly lizards in Thailand

2. To study morphological differences and sexual dimorphism between and within species/subspecies of butterfly lizards

3. To study the chromosome number, the shape of chromosomes, and the standard karyotype of butterfly lizards

4. To study the habitat characteristics of butterfly lizards