

CHAPTER I

Introduction

The outbreak of box jellyfish affects the tourism industry along the coastal area since tourists encountered the box jellyfish and deaths were reported. In Thailand, sporadic accounts of severe and fatal cases of box jellyfish envenomation have been reported (Thaikruea *et al.*, 2015). According to the record, deaths from the gulf of Thailand are higher than from the Andaman Sea (Thaikruea *et al.*, 2015). Scars and painful experiences are what they leave for the victims; however, the culprit vanishes into thin air. Officers have been collecting samples around Thai waters to solve the mystery and numbers of box jellyfish have been identified according to their operation. Nevertheless, some specimens remain unclear and are difficult to identify as they do not conform to the available key or their body are damaged. Moreover, educational databases, for instance, papers, articles and textbooks, are insufficient because only a few studies were conducted. Recently, four specimens of unknown box jellyfish taxon were collected from the Gulf of Thailand by Marine and Coastal Resources Research and Development Center, The Eastern Gulf of Thailand and the Central Gulf of Thailand. The specimens were found belong to order Chirodropida, family Chirodropidae and genus *Chironex*. However, the specimen could not be classified into two species within the genus, *Chironex fleckeri* with upswept corniculum pedialial canal and 12 to 15 tentacles and *Chironex yamaguchii* with volcano shaped pedialial canal and 7 to 9 tentacles (Lewis and Bentlage, 2009). Besides, *C. fleckeri* and *C. yamaguchii* had not been reported from the region (DMCR, 2012). Consequently, it was registered as *Chironex* sp. with bulbous shape pedialial canal. Identifying this specimen whether it is *C. fleckeri* or *C. yamaguchii* is crucial since *Chironex* members are known to kill human (Lewis and Bentlage, 2009).

Research objective

1. To identify *Chironex* specimens from the Gulf of Thailand
2. To construct a dichotomous key



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