Chapter 5

Conclusion and Recommendation

5.1 Conclusion

5.1.1 Home range size

Home range sizes of yellow tortoises in the wet season, dry season and year-round varied greatly among individuals. In general the males tended to have a larger home range than females, but there were no significant differences in both seasons and year-round. Captive tortoisesalso tended to have wider home range sizes than wild tortoises but only the median home range sizes of captives during the dry season was significantly larger than the median home range sizes of wild tortoises.

5.1.2 Activity

Most tortoises were often found inactive beneath leave litter in both seasons. However, they spent most of their time inactive during the dry season more than in the wet season. For year-round daytime activity, females tended to be more active than males, but there were no significant differences between them. Observations around the clock on one individual (KNR19) showed that during the wet season, KNR19 was more active during daytime than nighttime but in the dry season, KNR19 spent the entire of daytime inactive and had a few activities at night.

5.1.3 Temperature and relative humidity

Male tortoises kept resting at significantly higher average surrounding temperature than females. Captive tortoises also kept resting and moving at significantly higher average surrounding temperature than wild tortoises. However, there were no significant differences in

surrounding relative humidity between sexes and between captive and wild tortoises during active or inactive period.

5.1.4 Habitat use

Yellow tortoises utilized many types of forest habitats such as mixed-deciduous forest, dry evergreen forest, dry dipterocarp forest and ecotonal habitat but mostly preferred to live in mixed-deciduous forest. Captive tortoises are varied more widely in their habitat use when compared to wild tortoises.

5.1.5 Survival of captive tortoises

Captive tortoises, after reintroduced, tended to survive well as the survival rate was not less than wild tortoises and the annual weight changes follow the same pattern as in the wild tortoises.

5.2 Recommendation

5.2.1 To improve the accuracy of estimating home range size, number of fixes should be collected as many as possible in order to reduce empty area in Minimum Convex Polygon method.

5.2.2 For future intensive researches, the trail string method should be applied since it would show the patterns of movement, distances moved and area used by tortoises.

5.2.3 Electronic equipment such as receiver, data processor and GPS will be damaged or may show inaccurate measurements under hot and wet condition. Therefore, the researcher should make special cover cases to protect them from direct sunlight or from high humidity.

5.2.4 To study the activity of tortoises in natural habitat and to obtain better results, the researcher should observe activity by radio-telemetry because it would transmit activity data and environmental condition data and does not cause any disturbance to the study tortoises.

5.2.5 The activity of tortoises in the wet and dry season should be carried out in more detail before any definite conclusions can be made.

5.2.6 Diet of tortoises should be investigated by identifying the contents of their feces because there is little chance to find the tortoises while active and eating at the same time. During this study, some staffs of KNR informed that they used to see yellow tortoise while eating dead wildlife and droppings of tiger.

5.2.7 In the feces of yellow tortoises, a number of plant seed were often found. It is recommended that the researcher should check the kind of seeds by planting them. The result may partly answer questions about yellow torotises as important seed dispersers.

5.2.8 Detailed and long-term study on captive tortoises of different sexes and age classes are required in order to fulfill the reintroduction program.

5.2.9 Reintroductions, if necessary, should be done at the beginning of the wet season due to greater availability of food.

5.2.10 Another interesting finding from this study is about ticks on the body of tortoises. A study of the biology of these ticks should provide some significant information associated with the tortoise's biology and ecology.