

V. CONCLUSIONS AND SUGGESTIONS

5.1 Conclusion

COI gene fragments of *Helarctos malayanus* were obtained with a base length of 652 bp to design DNA barcode. Four nucleotide base variations were found in the sunbear of the study. Specific base sequences of *H. malayanus* samples of the study were found at the 652nd base length. The base for species identification of *H. malayanus* to compare with other bear species has five base sequences. In addition, four nucleotide base variations were obtained that distinguish Sundaland and Mainland groups in sun bears. Furthermore, no amino acid variation was found in the sun bear samples. The intraspecific genetic distance of sun bears in the first cluster was found (0.78-1.57%) with genetic distance values of Sundaland (0-0.93%) and mainland (0-0.62%) subclusters.

5.2 Suggestion

Further study required adding more samples to make spesific primer of sun bear from Sumatra.

