CHAPTER VI

Conclusion

1. Considering the morphology of peafowl follicular layers by SEM photographs, a feather kept less than 1 year had many intact layers of follicular cells in a calamus of the feather and some tissues from dermis layers were found on that follicular layer. Many small holes were found all over the layer surface.
2. Genomic DNA extracted from bloodstains had higher quality and yield than that from feathers when using the same extraction method.
3. A suitable extraction method to prepare DNA template for amplification from bloodstain samples is the QIAamp® DNA extraction method and from feathers sample is the Chelex® method.
4. The 3.5-year-old bloodstain samples stored in a desiccator could give amplified PCR products, nor the 10-year-old bloodstain samples.
5. Considering the optimization experiment of 23 microsatellite loci, 9 chicken primers could not amplify *P. m. imperator* DNA, 4 primers could amplify DNA in only some *P. m. imperator* samples, 8 primers could amplify DNA in all *P. m. imperator* samples without allelic polymorphism and 2 primers could amplify in all *P. m. imperator* samples with allelic polymorphism.
6. The HUJ2 locus revealed high allelic polymorphism in *P. m. imperator* from 7 locations.
7. Touchdown PCR could reduce some non-specific bands of the HUJ2 microsatellite locus.
8. A microsatellite motif in the ADL23 locus of a female *P. m. imperator* from Patthalung station was $(CA)_4TA(CA)_2$ and that of *P. m. imperator* from Khao

Soi Dao station was $(A)_n$. Microsatellite motif in the LEI80 locus of a *P. m. imperator* was $(CA)_7$ and in the HUJ2 locus was $(CA)_5GA$.

9. DNA polymerase enzyme sources and quality of DNA templates had a great effect on reproducibility of RAPD-PCR pattern.
10. Considering the screening of 60 RAPD primers, 39 primers could not amplify RAPD-PCR product, 19 primers could amplify RAPD-PCR product without polymorphism and 2 primers could amplify RAPD-PCR product with polymorphism.