

Hematology and biochemistry of two flat-headed cats (*Prionailurus planiceps*)

K. Maklon, R. Boonyarittichaikij, R. Pattanarangsarn

Faculty of Veterinary Science, Mahidol University (Salaya), Nakorn Prathom 73170, Thailand

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Introduction

The flat-headed cat (*Prionailurus planiceps*) is a very rare species, status in IUCN red list is Data deficient. However, the numbers in captive all over the world is less than ten animals. Their habitats are restricted to Malay Peninsula and the islands of Borneo and Sumatra. They are closely related to fishing cat (*Prionailurus viverrina*). In 2005, The National Park, Wildlife and Plant Conservation Department confiscated two adult female flat-headed cats and sent to rehabilitate and quarantine at Mahidol University. After quarantine period, the cats were sent to Pratabchang Breeding Center, Ratchaburi province. The department and universities decided to dedicate breeding program for this very rare species. Hematology is one crucial parameter to determine health status and reproduction capability for future breeding program.

Materials and methods

Health check of the two adult female flat-headed cats (Code Pp01 and Pp02) was performed during the time they were kept in quarantine. Hematology and blood chemistry examination was done at Mahidol University Veterinary Teaching Hospital. Anesthesia using Tiletamine-Zolazepam (7mg/kg, IM) as generalized anesthetic agent. Blood was collected in EDTA anticoagulant and plain tube. Comparative hematological results between both cats (intraspecies) and compared to a related species, the fishing cat (interspecies) referred to hematological results from International Species Information System or ISIS edition March 2002.

Results

The complete physical examination found that the two cats had no severe clinical illness. Pp1 only had mild degree of left corneal ulcer and Pp02 had mild to moderate bilateral popliteal lymph node enlargement. Generalized appearance found adequate body condition score and normal hydration.

Some values of hematology and biochemistry (creatinine, protein, AST, ALT) compared to the fishing cat hematological results were almost in normal range (Table 1)

Test kits of FIV and FeLV were negative.

The *Hepatozoon*- like sp. was found in neutrophil of both cats.



Figure 1 The cat shown characteristic head which give this species its name.

Discussion

Hematology and biochemistry values of two adult flat-headed cats are presented as baseline information which comparative to fishing cat as preliminary study. Corneal ulcer may be caused by traumatic wound during capture or transportation. Lymph node enlargement related to the finding of blood parasite infection. *Hepatozoon* sp. transmitted by ingesting infected tick. After wild cats were quarantined in captivity, they showed better clinical and blood profiles, for example; decreasing of WBC and increasing of RBC of Pp01 and Pp02, its might be caused by improvement of food and environment including health protocol such as deworming and vitamin supplement. The two cats are now kept in the breeding center and further planning for breeding. During in the quarantine period, the behavior study was undertaking at the center.

References

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Table 1 Hematology and blood chemistry results

Hematology & biochemistry	Fishing Cat [5]	Pp01			Pp02		
		19-May-05	25-Nov-05	30-May-05	19-May-05	30-May-05	25-Nov-05
WBC (/mm ³)	4,400 – 19,800	22,000	15,600	17,400	13,100	10,400	12,500
RBC (x10 ⁶ /μl)	4.27-8.96	6.16	6.53	6.6	5.3	5.39	6.47
Platelets (x10 ³ /μl)	345-588	415	410	-	334	-	344
Protein (g/l)	5.8-8.6	10.2	9.5	8	9.2	9	9
Creatinine (mg/dl)	1.0-2.8	0.601	0.793	-	0.677	-	1.04
AST (IU/l)	15-143	40.6	52.9	-	44.9	-	94.2
ALT (IU/l)	15-165	46.1	28.7	-	38.8	-	60.1