

Thesis title	The bones and muscles of the pelvic girdle and hind limbs of the flying "foxes" ( <u>P. lylei</u> )		
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#### Abstract

Six flying foxes (P. lylei) are studied, of these, three are used to study the bones and the rest are used to study the muscles. The flying foxes' hind limbs are evolved for hanging and gripping, therefore their hind limbs are rotated laterally opposite to the medial rotation of other mammal's hind limbs. The pelvic girdle and hind limb's bones are unique in shape. The hip bone is elongated and delicate, both hip bones fuse with coccyx. There is no pubic symphysis. The femur is shorter than tibia. The lateral trochanter is comparable to human's lesser trochanter and is bigger than medial trochanter. The intercondylar fossa locates at the anterior surface of distal end of this bone. The tibia, the longest bone of hind limbs, is a lateral bone of leg and the distal end has a torsion so that a malleolus becomes the anterior malleolus. The fibular is shorter than tibia, about a half length of tibia. The metatarsal bones look like human's metacarpal bones, the distal phalangeal bones curve to form

a point at the distal end. The muscles of flying fox when compare to human should be classified into two groups. The first group is slightly different from human such as detail of shape, origin, insertion or function. The second group is clearly different or found in flying fox only such as ilio-femoris, coccygo-femoris and pubo-femoris which are muscles of the thigh. The flexor digitorum longus tibialis and flexor digitorum longus fibularis are long flexor muscles of toes and these are the biggest muscles of the anterior compartment of leg and possessing strong tendons to all toes. The muscles cause the powerful gripping function of feet of this species. The muscles of wing membrane, femero-plagiopatagium, calcaro-uropatagium and metatarso-uropatagium, are specialized muscles of flying fox.