

**Table 3.1** – The origins, insertions, and primary actions of the muscles of the cat.

MUSCLE	ORIGIN	INSERTION	ACTION
abductor pollicis longus	dorsal surface of the radius and ventral surface of the ulna	first metacarpal	extends and abducts digit 1
acromiodeltoid	acromion of the scapula	spinodeltoid muscle	flexion and lateral rotation of the humerus
acromiotrapezius	middorsal line from the spine of the axis to the fourth thoracic vertebra	metacromion and spine of the scapula	adducts the scapula
adductor femoris	rami of the pubis and ischium	lower one-third of the femur	adducts the thigh
adductor longus	craniomedial border of the pubis	linea aspera of middle femur	adducts the thigh
anconeus	lateral epicondyle of the humerus	lateral surface of the ulna	extends the antebrachium
biceps brachii	glenoid foss of the scapula	radial tuberosity	flexes the antebrachium, supinates the manus, and stabilizes the shoulder joint
biceps femoris	proximal one-third of the tibia and the lateral side of the patella	ischial tuberosity	abducts the thigh and flexes the shank
brachialis	lateral surface of the humerus	lateral surface of the ulna near the semilunar notch	flexes the antebrachium
brachioradialis	the humerus about midway on the shaft	styloid process of the radius	supination of the manus
caudofemoralis	second and third caudal vertebrae	lateral border of patella	abducts the thigh and flexes the shank
clavobrachialis	clavicle	lateral surface of the ulna near the semilunar notch	flexes the antebrachium
clavotrapezius	middorsal fascia of the 7th cervical vertebrae	clavicle	forward extension of the humerus
cleidomastoid	mastoid process of the temporal bone	clavicle	rotates the head when the clavicle is held stationary, and moves the clavicle cranially when the head is held stationary
cricothyroid	cricoid cartilage of the larynx	thyroid cartilage	regulates the tension exerted on the vocal chords
digastric	mastoid and jugular processes of the temporal	medial ventral border of the mandible	depression of the mandible
epitrochlearis	lateral border of the latissimus dorsi	thin aponeurosis that attaches to the olecranon	extends the antebrachium
extensor carpi radialis longus	supracondyloid ridge of the humerus	base of the third metacarpal	extends the manus

extensor carpi ulnaris	lateral epicondyle of the humerus	base of fifth metacarpal	extends the carpals on the ulnar side
extensor digitorum communis	supracondyloid ridge of the humerus	three phalanges of the second through fifth digits	extends the second through fifth digits
extensor digitorum lateralis	supracondyloid ridge of the humerus	phalanges of digits two through five	extends the digits of the manus
extensor indicis	lateral surface of the ulna	three phalanges of the second through fifth digits	extends first and second digits of the manus
extensor digitorum longus	lateral epicondyle of the femur	second and third phalanges of digits 2-5	extends the digits of the pes
extensor hallucis longus	anterior surface of the fibula	first metatarsal	flexion of the pes
extensor digitorum brevis	metatarsals 3 through 5	a single tendon splits into three distinct tendons, all of which attach to the first phalanx of the pes	extension of the digits of the pes
external intercostals	from a cranial rib starting at the seventh	adjacent caudal rib	protraction of the ribs
external oblique	lumbodorsal fascia of the caudal ribs	sternum and along the linea alba	compresses the abdomen
flexor carpi radialis	medial epicondyle of the humerus	second and third metacarpals	flexion of the carpus
flexor carpi ulnaris	two heads: humeral head near the medial epicondyle of the humerus; ulnar head from the ulna at the olecranon	pisiform bone of the carpus	flexion of the carpus
flexor digitorum brevis	calcaneus tendon	splits into three tendons that insert at the second phalanx of digits 2-5	flexes the digits of the pes
flexor digitorum longus	head of the fibula and shaft of the tibia	divides into four narrow tendons that insert at the terminal phalanx of digits 2 through 5	flexes the pes and digits
flexor digitorum profundus	radial border of the ulna	divides into five tendons that attach to the distal phalanx of digits 1 through 5	flexes the digits of the manus
flexor digitorum superficialis	two heads: superficial head from the coronoid process of the ulna; deep head from the medial epicondyle of the humerus	either side of the middle phalanx of digits 2 through 5	flexes the digits of the manus
flexor hallucis longus	shafts of both the tibia and fibula	distal phalanx of first digit	flexes the pes and digits

gastrocnemius	two heads: lateral head from the patella, the fascia of the shank, a sesamoid bone located cranial to the lateral epicondyle of the femur, and an aponeurosis from the plantaris and nearby tibia; medial head from the sesamoid bone	calcaneus	extends the pes and flexes the antebrachium
gemellus caudalis	dorsolateral surface of the ischium	trochanteric fossa of the femur	abducts the thigh
gemellus cranialis	dorsal border of the ischium and ilium	greater trochanter of the femur	abducts and medially rotates the thigh
genioglossus	ventral surface of the mandible	base of the tongue	moves the tongue during swallowing by pulling the tip of the tongue backward
geniohyoid	ventral surface of the mandible	body of the hyoid bone	protracts the hyoid bone
gluteus maximus	transverse processes of the last sacral and first caudal vertebrae	greater trochanter of the femur	abducts the thigh
gluteus medius	iliac crest, last sacral vertebrae, first caudal vertebrae, and the fascia lata	greater trochanter of the femur	abducts the thigh
gluteus minimus	lateral surface of the ilium	greater trochanter of the femur	abducts the thigh and rotates it medially
gracilis	ischium and pubis	at a thin aponeurosis that is continuous with the fascia associated with the shank	adducts and retracts the thigh
hyoglossus	hyoid bone	base of the tongue	retracts and depresses the tongue
infraspinatus	infraspinous fossa	lateral side of the greater tuberosity of the humerus	lateral rotation of the humerus
iliacus	ventral border of the ilium	lesser trochanter of the femur	flex and rotate the thigh
iliocostalis	lateral surface of most caudal ribs	lateral surface of most cranial ribs	pulls the ribs together to compress the thorax
internal intercostal	caudal rib	cranial rib	retraction of the ribs
internal oblique	lumbodorsal fascia of the caudal ribs	sternum and along the linea alba	compresses the abdomen
latissimus dorsi	fourth or fifth thoracic vertebrae to the sixth lumbar vertebra	medial surface of the humerus	pulls the forelimb dorsocaudally
levator scapulae ventralis	two heads: from the ventral side of the atlas bone and from the basioccipital bone	metacromion and into the infraspinous fossa of the scapula	pulls the scapula cranially

longissimus capitis	cervical vertebrae 4 through 7	the mastoid process of the temporal bone	lateral flexion of the head
masseter	zygomatic arch	ramus of the mandible	elevates the mandible
multifidus spinae	thoracic and lumbar vertebrae and sacrum	cranial vertebrae	both sides contract at the same time, the vertebral column is extended; one side contracts, the vertebral column bends toward that side
mylohyoid	medial surface of the mandible	median raphe	elevates the floor of the mouth
obturator externus	pubis and ischium near the border of the obturator foramen	trochanteric fossa of the femur	laterally rotates and retracts the thigh
obturator internus	ramus of the ischium	trochanteric fossa	abducts the thigh
pectineus	cranial border of the pubis	shaft of the femur	adducts the thigh
pectoantebrachialis	ventral midline	proximal end of the humerus	adduction of the humerus
pectoralis major	two heads: superficial head from the ventral midline and manubrium; deep head from the cranial half of the sternum	proximal third of the humerus	adduction of the humerus
pectoralis minor	six sternbrae or the xiphoid process	ventral border of the humerus	adduction of the humerus
peroneus brevis	distal one-half of the fibula	the first phalanx of the fifth digit	flexion of the pes
peroneus longus	lateral surface of the fibula	proximal ends of all five metatarsals	flexion of the pes
peroneus tertius	lateral surface of the fibula	the first phalanx of the fifth digit	flexes the pes and abducts and extends the fifth digit
piriformis	transverse processes of the last two sacral and first caudal vertebrae	greater trochanter of the femur	abducts the thigh
plantaris	sesamoid bone near the lateral epicondyle of the femur	calcaneus	extends the pes
popliteus	lateral epicondyle of the femur	proximal end of the tibia	flexes and medially rotates the shank
pronator quadratus	shaft of ulna	shaft of radius	pronates of the manus by rotating the radius
pronator teres	medial epicondyle of the humerus	medial border of the radius	pronates the manus by rotating the radius
psoas major	lesser trochanter of the femur	last thoracic and each of the lumbar vertebrae	flex and rotate the thigh
psoas minor	last thoracic and first three lumbar vertebrae	pubis	flexes the pelvis toward the abdomen



quadratus femoris	ischial tuberosity	ventral borders of the greater and lesser trochanters	laterally rotates the thigh
rectus abdominis	iliac crest	cartilage of the fifth through seventh ribs and the xiphoid	flexes the vertebral column and compresses the abdomen
rhomboideus capitis	lambdaoidal ridge	cranial end of the vertebral border of the scapula	cranial rotation of the scapula
rhomboideus cervicis	first four thoracic vertebrae	middle vertebral border of the scapula	adducts the scapula
rhomboideus thoracis	first four thoracic vertebrae	caudal end of the scapula's vertebral border	adducts the scapula
rectus femoris	ilium near the acetabulum	tibial tuberosity	extend the shank at the knee joint
sartorius	iliac crest	fascia surrounding the knee and tibia	adduction and rotation of the femur, and extension of the shank
scalenus	various locations on the ribs	transverse processes of the cervical vertebrae	pull the ribs cranially to expand the thorax
semimembranosus	tuberosity and ramus of the ischium	medial epicondyle at the distal end of the femur	extends the thigh
semispinalis capitis	cervical vertebrae 3-7	first 3 thoracic vertebrae	elevation of the head
semispinalis cervicis	seventh cervical and first three thoracic vertebrae	lambdaoidal crest of the occipital bone	elevation of the head
semitendinosus	ischial tuberosity	medial surface of the tibia	flexes the shank
serratus dorsalis caudalis	middorsal fascia	last four or five ribs	draws the ribs in a caudal direction
serratus dorsalis cranialis	middorsal fascia	first nine ribs	draws the ribs in a cranial direction
serratus ventralis	first nine or ten ribs and last five cervical vertebrae	vertebral border of the scapula	draws the scapula toward the thoracic wall
soleus	proximal one-third of the fibula	calcaneus	extends the pes
spinodeltoid	spine of the scapula	greater tuberosity of the humerus	protracts the humerus
spinothrapezius	spinous processes of the thoracic vertebrae	fascia of the supraspinatus and infraspinatus muscles	pulls the scapula caudally
splenius	fascia along the middorsal line of the neck	lambdaoidal ridge of the occipital bone	lateral flexion of the head
spinalis dorsi	neural spines of the more caudal thoracic vertebra	transverse processes of the more cranial vertebrae	extension of the vertebral column
sternohyoid	first costal cartilage	hyoid bone	retracts the hyoid bone

sternomastoid	cranial border of the manubrium	lambdaoidal ridge and mastoid process of the temporal bone	when the sternomastoids from each side contract simultaneously, they flex the head; individual contraction rotates the head
sternothyroid	first costal cartilage	thyroid cartilage of the larynx	retracts the hyoid bone
styloglossus	the mastoid process of the temporal bone	base of the tongue	retracts and elevates the tongue
stylohyoid	hyoid bone	hyoid bone	elevation of the hyoid bone
subscapularis	subscapular fossa	dorsal border of the lesser	adducts the humerus
supinator	lateral epicondyle of the humerus	proximal one-third of the radius	supinates the antebrachium
supraspinatus	supraspinous fossa of the scapula	greater tuberosity of the humerus	protracts the humerus
temporalis	temporal bone	coronoid process of the mandible	elevates the mandible
tensor fascia latae	ventral border of the ilium and fascia of nearby hip muscles	fascia lata to the surface of the patella	extend the shank
tenuissimus	second caudal vertebra	ischial tuberosity	abducts the thigh and
teres major	the axillary border of the scapula	proximal end of the humerus	medially flexes and rotates the humerus
teres minor	scapula near the glenoid fossa	the greater tuberosity of the humerus	laterally rotates the humerus
thyrohyoid	thyroid cartilage of the larynx on the lateral side	hyoid bone	protracts the larynx
tibialis cranialis	the proximal end of the tibia and fibula	first metatarsal	flexion of the pes
transverse abdominis	aponeurosis of the caudal costal cartilages, lumbar vertebrae, and ventral border of the ilium	linea alba	compresses the abdomen
transverse costarum	sternum	first rib and costal cartilage	pulls the ribs cranially
transverse thoracis	dorsolateral border of the sternum from the third to the eighth rib	costal cartilages	draws the ribs downward
triceps brachii	three heads of origin: a lateral head from the deltoid ridge of the humerus; a long head from the axillary border of the scapula near the glenoid fossa; and a medial head from the medial side of the humerus	olecranon of the ulna	extension of the antebrachium
xiphohumeralis	xiphoid process	ventral border of the humerus	adduction of the humerus