

Mammals of Canada

by

Charles Fothergill

1840



Writings from the Unpublished Manuscripts

Arranged in Contemporary Mammal Checklist Order

Transcribed and Compiled by

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2020

Introduction

Presented in this paper are the unpublished hand-written writings on Canadian mammals by Charles Fothergill (1782-1840). They have been transcribed from his *Essay Descriptive of the Quadrupeds of British North America*, which was written in 1830, and from natural history manuscripts written during his residence in southern Ontario between 1817 and his death in 1840. The manuscripts can be found in the Thomas Fisher Rare Book Library (TFRBL) of the University of Toronto, Manuscript Collection #140: 25 (Clendenan Manuscript) and #140:20 (MacGillivray Manuscript). *Quadrupeds*, formerly in the Blacker-Wood Library of Ornithology, is now held in the Rare Book Library of McGill University. A microfilm copy of *Quadrupeds* is also available at the TFRBL.

Fothergill set down in his many unpublished manuscripts extensive notes on the birds, mammals, herps and plants of his adopted country. Unfortunately, on his death in 1840, all of his manuscripts on the local natural history of southern Ontario were divided among family members and lost from public view. They were unknown to later 19th century Ontario residents and to newly-arrived English immigrant naturalists who founded Toronto's natural history museums in the late 1840s and early 1850s.

I was initially drawn to Fothergill for his extensive writings on the birds of southern Ontario. While transcribing the bird records in the MacGillivray and Clendenan manuscripts I could not help but be impressed by his mammal writings interspersed in those texts. Once I had transcribed his bird records it seemed natural to transcribe his mammal writings as well. The MacGillivray and Clendenan manuscripts, which contain most of his ornithological writings, are also the largest, and most important source of his mammal writings. There are other manuscripts which merit examination. In particular in TFRBL # 140:28, known as *Natural History Notes*, which contains a few writings on Canadian mammals. These have not been transcribed. My research notes indicate that they contain little useful additions to what is presented here.

Mammals forms an important and unique early record of Canadian mammal writings. When reading Fothergill's species accounts in *Mammals* readers will see his occasional speculation about the number of species that might exist in Canada and lack of knowledge of their ranges. This is a product of the knowledge of mammals at that time of writing and the fact that Fothergill did not travel outside of southern Ontario.

One will see in his writings a strong interest in taxonomy as well as interesting observations of species behavior. This is particularly interesting because for the most part discussion of taxonomy and species behavior is less evident in his *Birds of Upper Canada 1840*. No doubt the sheer volume of bird species that Fothergill encountered that were new to him, and his busy multi-faceted life, greatly limited his ability to spend the hours that his contemporaries Wilson and Audubon were able to devote to field study and compilations.

Despite Fothergill's relative isolation, one will note his references to contemporary writers especially the seminal work on Canadian mammals *Fauna Boreali Americana Volume One, The Quadrupeds* written by Dr. John Richardson and published in 1829. There are also references to American writers such as Richard Harlan's *Fauna Americana* (1825) and Samuel Mitchell who

wrote about natural history and mammals in the *American Journal of Science*.

It is difficult for contemporary naturalists living in southern Ontario, when reading the Fothergill material, not to feel a sense of how much of our wilderness we have lost. Fothergill had close contact with Pine Martins, Mink and Fishers in Port Hope and Pickering. His reports of two sightings of Cougar in Hamilton and Otonabee Township north of Port Hope, and Wolverine in Brockville are exciting and disheartening at the same time. Throughout the late 19th century and well into the 20th century naturalists doubted that Cougars even existed in Ontario. The range of the Wolverine has now shrunk to extreme northwestern Ontario and northern Quebec. As a long-time resident in an area when the Great Lakes Forests were still large intact, Fothergill's extensive mammal observations in the first half of the 19th century are unique in Ontario. If more research is undertaken on the writings of other early 19th century Canadian naturalists I strongly suspect his mammal writings, like his bird writings, will prove equally unique in Canada.

In addition to his personal observations on mammals, Fothergill relied on his contacts with neighbours as well as prominent men known to him in Upper and Lower Canada. Some of this knowledge was gained from his position as a representative in the Parliament of Upper Canada. He also relied on personal discussions with contemporary explorers and fur traders especially the well-known western Canadian trader, Simon Fraser, who ventured as far as British Columbia. Inevitably the observations recounted to him, that he set down as fact, were sometimes inaccurate or erroneous. Another unique feature of his writings is the regular inclusion of the names ascribed to species by various aboriginal tribes across the country.

I have transcribed *Mammals* in its entirety, verbatim, with no editorial changes except to occasionally provide slightly better sentence structure, and introduce occasional paragraphs to improve the flow of the text. Readers will see multiple entries for some species written at different times. I have merely grouped them together but made no effort to edit them. We know that the *Quadrupeds* material was written prior to 1830. For the most part the material from the Clendenan and MacGillivray volumes is not dated. I have also made no effort to try to arrange his writings chronologically.

There are some instances where I have not been able to decipher Fothergill's words or may have misunderstood his meaning. In such cases I have inserted square brackets [] to connect the text. I am of course entirely responsible for any errors. I have included the original page numbers for passages from the manuscripts for those who may want to examine the hand-written versions.

Quadrupeds is a scientific paper prepared by Fothergill for the first Montreal Natural History Society essay competition. *Quadrupeds* is a singular historical document with its original taxonomic order written by Fothergill in 1830. I have transcribed *Quadrupeds* as written. The original paper with my introduction, table of contents and index will be found elsewhere under the Fothergill writings.

I have arranged this volume in modern taxonomic order and family from Wikipedia's taxonomic list of North American Mammals. I have included a section outlining the family's genetic characteristics as set down by Fothergill in *Quadrupeds*. I expect that my attempt to incorporate

Fothergill's historical efforts to bring taxonomic order to various families of mammals has not always been entirely successful. For this I can only apologize in advance. Finally I have also included modern common names, as well as Fothergill's original names and first describers of each species followed by the Fothergill's writings on these species. These editorial additions and comments are identified by the use of square brackets [] to differentiate them from original text.

By far the most important work on Canadian Mammals in the 19th century is John Richardson's *Fauna Boreali Americana, Volume One: Quadrupeds* (1829) *Boreali* has long been out of print. Readers can examine Richardson's *Quadrupeds* can d through the Biodiversity Heritage Library website available online at:

<https://www.biodiversitylibrary.org/item/130520#page/7/mode/1up>

There here are at least two other important works on early Canadian Mammals written by resident naturalists prior to 1850. Overviews of these two documents are included to help bring into focus the obvious differences in breadth of content between Fothergill and his contemporaries:

1). On the *Mammals and Birds of the District of Montreal* written by Archibald Hall in 1839. Dr. Hall's paper was eventually published in parts in the *Canadian Naturalist and Geologist* 6 (1861). Hall's article contains detailed descriptions of mammals from the Montreal Natural History Society Museum. I have transcribed Hall's personal comments on each species without his detailed descriptions and written an introduction to this important work. This paper can also be found under Archibald Hall in the period: 1815-1840 Quebec.

2). Dr. Anthony Gapper published his research findings from the Toronto region entitled *Observations on the Quadrupeds found in the district of Upper Canada extending between York and Lake Simcoe, with the view of illustrating their geographical distribution, as well as describing some Species hitherto unnoticed.* in the *Zoological Journal of London* in 1830. I have transcribed the Gapper article. It will also be found on this website under Gapper in the period 1815-1840 Ontario. I have left out his illustrations. Like Hall's *Mammals* it is a rigorous and important early scientific paper on Canadian mammals.

I have done a dis-service to Fothergill by presenting his writings in *Mammals* without editing his extensive writings on individual species. If Fothergill had produced a complete manuscript of his mammal writings I have no doubt he would have organized and presented it in a typical scientific format presented below. No doubt he would have also edited his writings to make their presentation and content more cohesive..

To provide better access to Fothergill's *Mammals* I have created a simple Table of Contents and a Taxonomic Index. While Fothergill is known to have produced numerous drawings of birds, only two drawings of Canadian mammals, the Lynx, and the Muskrat have been found. His drawing of the Lynx is presented on the title page of this volume.

Identifications of many mammal species such as Lynx, Raccoon, Deer, Pine Martin, Woodchuck and Eastern Chipmunk are fairly straight forward. However the identities of some of Fothergill's

smaller species of including some bats, mice, and shrews are much more problematic. For the most difficult of these I have sought the help of Mark Peck of the ROM, who directed me to Bernard Lim and Jacqueline Miller, zoologists at the Royal Ontario Museum. Their comments on species are noted in each case. I want to thank them for their help. There are still some species that have not been identified. For any errors which may still exist I am of course responsible.

I include below comments by Ms Miller about the Fothergill writings she was asked to review:

Had a look at the descriptions against several sources and some of our collections specimens. This was difficult as many of the 'characters' cited are obscure and not taxonomically significant. I have made comments on the characters I could tease out which appear in the draft document. This ID is by no means definitive.....

For each species account the complete list of writings includes the manuscript source:

Q = Quadrupeds, M =MacGillivray and C = Clendenan, and page numbers listed followed by the actual verbatim transcriptions. I have also included Order and Family names and scientific names and first describers added where species have been identified.

In my research on the *Birds of Upper Canada* 1840 it was evident to me that Fothergill was the first describer of many Ontario and Canadian bird species. In order to assess Fothergill's place in early Canadian ornithology I conducted extensive research into early writings from 1534 to Confederation and from Newfoundland and Labrador to British Columbia and the arctic.

I have made no attempt at a similar assessment of Fothergill's contributions to knowledge of Canadian mammals. In order to do that significant research would be required to examine the early records from New France, Acadia, the Maritimes, Newfoundland, Labrador and from the Hudson's Bay naturalists who supplied specimens from the Canadian arctic and western Canada.

Finally, after completing *Quadrupeds* Fothergill included the following text entitled "Recapitulation" (Q89) which I include here. It might have formed part of an introduction he might have made if he had published his complete mammal writings:

By the preceding catalogue it will be seen that the British North American Possessions afford more than one half of all the Quadrupeds which Buffon allows to exist on the entire face of the globe. It is true many species here set down were unknown to that distinguished naturalist, and it is equally true that many more remain to be discovered. This remark is made not so much for the gratification of our national vanity as for the purpose of exciting still further inquiry.

Upon the whole we may congratulate ourselves that the ferocious animals bear so comparison either as member or formidably with those that are or may be rendered of utility to man. North America presents a wide field for observation research and experiment and it is highly gratifying to reflect on what may be accomplished by the exertions of two such respectable establishments as the Historical Society of Quebec and the Natural History Society of Montreal. These institutions deserve the thanks and best wishes of the Canadian Public.

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Order Didelphimorphia: Marsupials

Family Didelphidae: New World Opossums

Genus XI *Didelphis* (Q63)

Opossum

Generic Character

Seven fore teeth in the upper jaw, and eight in the under one. Two canine teeth in both jaws, one of each side, these are long. Head long, and conical; nose pointed, mouth wide, tongue ciliated, ears large, rounded, thin, and almost naked. Five separate toes on all the feet. Nails crooked. Tail long, round, and scaly. Hair inclined to be wholly. The tribe are furnished with a sort of pocket formed by a duplicature of the skin of the belly in which the dugs (usually 13 in number) are situated, and in which the young brood have a refuge.

Draelpus Virginiana, Virginia Opossum, or Common Opossum of North America.(Q640
[Virginia Opossum (*Didelphis virginiana*) Kerr 1792]

It is not from my own knowledge that I insert this animal in the present Catalogue; but from the report of others; and rather with the hope of exciting inquiry. I am told several individuals have been seen on our western frontier, and on the shores of Lake Erie, but having no certain knowledge of the fact I dare not insist further upon it. It is one of the most remarkable American Quadrupeds, but its propensities are so troublesome to its neighbours, that I see no reason why we should be ambitious to claim it as one of our indigenous animals.

Order Rodentia: Rodents

Family Apodontidae: Mountain Beaver

[Editor's note: in *Quadrupeds* Fothergill lumped the Mountain Beaver, which he had never encountered, with the common beaver. His comments are below.]

Castor Giganteus Great Beaver (Q71)

[Mountain Beaver (*Aplodonta rufa*) Rafinesque 1817]

I have been induced to name the Great Beaver in this catalogue because there is pretty certain evidence of the existence of such an animal in various parts of the interior towards the northwest. The Indians of many tribes firmly believe of its existence, and assert that they have often seen it. I will take, or endeavour to take, an opportunity to lay before the Society such evidences as are in my possession to prove the fact; in the mean while, I will merely remark that the skull which was found on the banks of the Delaware, nearly forty years ago, which induced the Naturalists of the United States to create a new genus under the title *Asteopera*, and which skull is still preserved in the Philadelphia Museum, in my mind belonged, beyond all doubt, to this animal, which is still in existence in our remote lakes and rivers of the interior.

Family Castoridae: Beavers

Genus XV Castor The Beaver (Q70)

Generic Character

Two incisor teeth in each jaw, very strong; no canines; Eight molar teeth in each jaw. Small eyes. Ears short and round. Five toes to each foot. Tail broad, depressed, naked, scaly. Two pouches containing odoriferous matter, on each side the male organs of generation.

Castor Fiber Common Beaver (Q71)

[North American Beaver (*Castor canadensis*) Kuhl 1820]

It will be unnecessary to say anything of the common Beaver, in this place. No animal is better known; but, unless some means are taken to preserve the breed, this valuable creature will soon be lost to this country, as it has been already lost to most parts of Europe.

Beaver (M280)

Old Peeke says the female Beaver generally suckles her young sitting on her buttocks and sometimes embraces them in her arms like a woman, shewing much affection.

Beaver (M292)

animal, would all at once become extremely busy and begin to stop up every chink, hole and crevice in the house that it could find and the house was remarkably open, being a log house in a state of ruin.

After having made all secure as it imagined, it would run and lay all the wood it could find or had strength to lift and throw it upon the fire even to the very brooms that were used in sweeping the house. It would readily answer to its name like a dog when called and would eat almost anything that was offered to it.

This interesting little animal would frequently go to bathe wash and swim in the lake and river adjoining and was at last unfortunately killed thro' mistake, by an Indian. Mr. McKee agrees with me in the feasibility of my plan respecting the taming and breeding the Beaver as a domestic animal with great profit.

Halbert says the Beaver has but two teats, he is mistaken, have 6, are situated like those of a woman between the arms. Young females have but one, then two, then three up to 5 or 6 young, and 10 ones when older or matured, but having only 6 teats 'tis said they cannot rear them all when they have more than 6 or 8. Only one litter in a year.

Seldom more than 2 or 3 houses in a dam, sometimes 10 and 12 beaver have been killed out of one house. Tame beaver will eat almost anything, are fond of potatoes. The flesh excellent when fat, are the best and fattest a little before the breaking up of the ice in the spring.

[Editor's Note: Written vertically across the centre of the page is the following:

“Previous to heavy rain it would make a dam across the room with tables, chairs and stools or anything it could get hold of to keep out the expected floods.”]

Indian names of Beaver (C2)

Flatheads —	Skul - lon
Ogee - bois	Ah - mu
Kinistineaux	Ah misk
Assiniboine	Teha - bah
Slave Indian	Kicks - tah - kee
Kootanaes	Sin - nah
Supee	Cha

Beaver, sometimes produce 10 or 12 young ones at a litter (very doubtful)

Family Dipodidae: Jumping Mice

Genus XIX Gerbillus Jerboa (Q79)

Generic Character

Two incisors and six molar teeth in each jaw; Head elongated; cheeks projecting; fore feet very short & armed with claws, the hind feet very long, terminated likewise with clawed toes. Tails very long, and more or less, hairy.

Jerboa (C424)

[Woodland Jumping Mouse (*Napaeozapus insignis*) Miller 1891]

The mouse described on the other side p. 425 is not the jumping mouse which I had not seen, the true jumping mouse is very much like the Jerboa in its form and has a very long tail twice the length of the body being nearly 6 inches long. The hind legs and toes very long the fore legs very short with an apology for an inner toe or thumb. It is a very pretty mouse – the under parts white with the sides fox colour – particularly bright in a [] next the white on the belly. Whiskers long yet large & bright back colour ridged with dusky. Length of the hind leg, thighs and toes 2 inches whilst the fore leg & foot even up to the shoulder is only $\frac{3}{4}$ in. This together with its extraordinary length of tail gives more remarkable proportions even than the Jerboa of Egypt. The body of one whose tail was 5 inches very long – $2\frac{1}{2}$ inches. The mouse varies much in size and the female of two I had was larger than the male. I had six young ones. The toes were wonderfully long & slender and covered with long white silky down.

It is Jerboa, a close inspection of one shows this animal called Jumping Mouse a real Jerboa. It is decidedly and specifically & genuinely distinct, the whole of the hind leg rests on the ground like the Kangaroos. It is thin naked & palmated or flattened, and broad with a shock of filament running along each side as far as the knee-joint and what is remarkable and apparently to adjust the animal to its spring the two middlemost of the four long and very long & very slender toes behind are connected together all the way to the last joint. The fore legs are so short as serves to connect the foot or rather fingers and hand with the shoulders and are of no use in assisting it to hear? Its gait is precisely that of the Jerboa of the East, the Kangaroo and other jumping quadrupeds of similar conformation. Another killed on August 9th at Ontario Cottage was $7\frac{1}{2}$ long of which the tail was $4\frac{1}{2}$ in. This was a male, an adult and of rather more than usually brilliant yellow or rufus-brown inclining to orange on the sides, belly yellowish-white. There are certainly two species. The representation given by Dr. Richardson for the *M. Labradorius* will do for both. It is so exact in all respects except as to size representing the animal as too large.

White-bellied Field Mouse of Canada (C4)

[Editor's Note: Unidentified Mouse]

I have outlined at P. 475 an extraordinary instance of the force of instinct in the young of the jumping mouse which is equally applicable to the common field mouse which will climb high pine trees under life emergencies with its callow [young ?] on its back - others sticking to the teats and actually trying to assist the parent by using their little ankled feet just out of the womb

against the rough bark of the tree - using ever endeavour to scramble up.

[Editor's Note: Given the lack of details, the ROM zoologists are not able to identify this species.]

Mouse, its Indian names C80

Ogee – bois	Wai – wa – be – gau – on – tchinas
Kinistineaux	Ah – pic – go – ciss
Assiniboines	Pis – piz - - an
Slave Indians	Uess – Kin – asso
Kootanaes	En - choke

Gerbillus Labradorious Labradorian Jerboa (Q80)

[Editor's Note: not identifiable]

The second species is considerably larger than the first, of a darker colour, and not so extensively spread; though it is found in all the British Provinces.

[Editor's Note: Given the lack of description, this species is not identifiable.]

Large eared Mouse, Blue or Aquatic Mouse (C256)

[Editor's Note: Juvenile *Peromyscus* Species]

Size of the jerboa mouse of a dark ash-colour almost accounting to blue above and white beneath. It has numerous and very long whiskers which are a striking feature some of them being almost 3 inches long and of a silvery white at the extremity. Nose prominent, long and much overhanging or shrew-like. Eyes large, full and black. The ears are remarkably large, broad and transparent. Tail nearly naked and of a whitish flesh colour. It is clearly a new species.

I first noticed it in wading after the nests of the Marsh or Reed Wren of Canada in the great marsh of the Don, near York. It is an excellent swimmer and diver and affects marshes and swampy ground. Some of the individuals are of a fine blue so it seems the natural colour of the adults with a white belly. I found it a frequent inhabitant of the old and deserted nests of the Reed or Marsh Wren in which it brought forth its young without making any alterations in the fabric using the same hole for ingress and egress. Whether it is ever displaced the birds and destroyed their eggs I could not clearly ascertain – but this little quadruped is not always content with (C255) such a lovely and secure a residence as the nest of the Marsh Wren.

I have found it not merely an aspirant but a natural inhabitant of the aerial dwelling place of the bird of ...himself and I have been seldom more surprised than I was on the 20th June, 1831, where on cutting down a large white ash tree with a naked top, in the forked branches of which a pair of White-headed Eagles had nidificated for many years and which tree measured more than 130 feet in height and nearly 4 in diameter – in a hollow in the bottom of the nest (and the materials of that nest filled 2 carts) a family of these Blue Mice fared sumptuously on the crumbs or rather the remnants which fell from the royal birds table every day. I know not whether this fact or that

of a pair of flycatchers breeding are an interstice of the same eagle's nest was the more wonderful of the two. This happened near our residence Ontario Cottage at Hope.

[Editor's Note: The ROM zoologists suggest that this is likely a juvenile *Peromyscus* species.]

White Mice (C305)

All the different species of mice are subject to become white and for some cause unknown in such cases have uniformly red or pink-coloured eyes, but the only instances I have met with where there was a continued and apparent regular [] and of the shur kind [] on lanes in Pickering U. C.

[Editor's Note: the text is hidden behind an article clipped from the *Cobourg Star* and pasted over.]

Instinct of Rats (C470)

The Observer, November 3, 1828

[Editor's Note: a clipping from an unidentified English newspaper]

A farmer's wife in Cheshire lately caught a rat and being determined to make an example of the little culprit, as a terror i.e. the species, with which her house has been much infested, she took the following method: she put it into a covered iron pot which she placed over a brisk fire. She then went into a place of concealment from whence she could observe the vessel that contained her martyr. The cries of the suffered soon brought into the room an assemblage of rats.

Each testified its rage and stress; five or six actually climbed to the pot lid, and tried with every means within the power of instinct to relieve the poor victim. When the sufferer ceased, the rats dispersed & strange to add, not the least vestige of those vermin has since been seen in the house. We cannot help thinking that the rats on this occasion displayed infinitely more of human feeling than the wretch, their torturer.

Family Erethizontidae: New World Porcupines

Genus XVI Hystrix The Porcupine (Q71)

Generic Character

Two fore teeth in each jaw, obliquely divided, no canine teeth. Eight molar teeth in both jaws. The head is stout, nose obtuse, thick, and tumid. Ears short and rounded. Tongue beset with spiny scales. The fore feet have the rudiment of a thumb, with an obtuse nail, and four toes, armed with powerful claws or nails; the hind feet have five toes armed in a like manner. Body covered with sharp quills. Herbivorous.

Species

Hystrix Dorsata American or Canadian Porcupine
[North American Porcupine (*Erethizon dorsatum*) Linnaeus 1758]

I know of but one species, which is common in Upper Canada although it is said that about Hudson's Bay there is a Porcupine entirely distinct from the H. Dorsata, but the reports are too vague to be admitted without further evidence. As the H. Dorstata has been well described I will merely remark that it affords an excellent dish for the table; and that I have myself witnessed the power it has to throw its quills at pleasure from the tail, a fact greatly doubted by all modern writers that I have seen.

Canadian Porcupine (M62)

I shot one on the 16th of May in a cedar swamp on my own land in Monaghan, 1818 of which the following is a description.

It was a female and an adult. Weight 11 pounds. Length from nose to the extremity of the tail 2 feet 4 inches of which the tail is 8 inches. The eyes are rather small in proportion to the size of the animal and black with a sort of pitiful plaintive expression. The nose remarkably blunt and snubby, not unlike that of a hare but deeper.

The mouth small but the front teeth two above and two below very formidable, much hooked or curved, nearly an inch long from the gum of a yellow colour and very sharp. These are cutters or incisors. The grinders are { }

The general colour of the animal is a deep blackish brown but about the head and tail are long white bristles many of them fully 5 inches. Besides these the spines on the crown of the head back of the neck and along the sides of the tail are for the most part white. At this season of the year the body is covered with (M63) a remarkably thick and long down and hair amongst which however are innumerable spines sharper and more penetrating than any needle, these, having their points of a brown colour and not projecting outwards so far even as the down much less the long hairs with which the down is mingled and which stand out 2 or 3 inches beyond the down, are not perceptible at a distance, although the white ones on the head and tail may be seen at a

considerable distance. To stroke the animal downwards from the head to the rump maybe pleasant enough at this season but to reverse the stroke would be no joke.

The legs and feet are formed very much like those of a Bear the arms and thighs very powerful, broad & nervous? no joint between the elbow and soles of the feet. The upper part of the feet covered with thick and very long hair of a shining brown. The toes which are long and distinct are 4 in number on the fore paws and five behind. The innermost behind being much smaller than the right. The claws are for the []

(M64) Captain Knott killed 4 porcupines in the month of January, 1821 in the township of Monaghan and brought them to his camp that were so fat as to be curiosities. The Indians esteem them fine food and they are no means bad judges of what is good for the table. The hair and spines are scraped off with a knife after the animal has been scalded. The quills are dyed for their fancy work before they are used for that purpose.

I am now (Sept. 1821) satisfied by the testimony of Mr. Watson now living with me upon whose testimony I can rely that the Canadian Porcupine actually has the power of throwing its quills and that too to a considerable distance and it chiefly uses its tail for this purpose by giving it a sudden lash or jerk. It can throw the quills to a distance of several yards as Watson very painfully experienced.

A porcupine was endeavouring to throw its quills into a dog that was sorely annoying it but sniffed the dogs head at last a great number died and two or three reached Watson who stood several yards off and one of them worked up his arm entering by the elbow, giving him a great deal of pain before it was extracted. The (M65) quills have a very extraordinary property. They are not only finely serrated and barbed at their point to prevent their being readily drawn out, but after they have stuck into an object, they seem to have a sort of living principle in them which is continually drawing them deeper and deeper into the flesh, so at last to be wholly buried and rendered very difficult of extraction, acting like a fine barbed augur in the flesh.

I recollect seeing one that I shot cover the bole and root of a large oak tree with its spines sticking like darts in every direction, although I never saw the animal actually touch the tree. The dog which had attacked it at the moment I fired very nearly forfeited his life through his temerity, and was some months before he quite recovered, and had all the quills extracted.

When I first heard of Porcupines in Asia being able to kill Lions by darting their quills into the bodies of those hardly animals (See Tavernier's observations in Asia in Baddam's Memoirs V.. 2 P. 57) I considered it a fiction, but from what I have witnessed in Canada I can afford greater credence to that extraordinary relation.

Porcupine of Canada (C211)

Fat, rich and delicious food. It is to be doubted whether it can shoot its quills from the superior parts of the body; but from the tail, it is certain. In the winter season, when the weather is severe, it ascends large hemlock trees and feeds on the young shoots. The quills have certainly a highly inflammatory and irritating, if not a poisonous nature. To say nothing of which I have noticed elsewhere reflecting dogs being tormented by these barbed darts, even to the death. W. Ritchie tells me of an instance where an Indian got one into his knee which penetrated so deeply as to make a contraction of the joint that crippled him for life. This curious & I may say valuable animal is rather local in its habitats, that is, there are particular sections of the country where it is scarce and others where it is numerous. This, though a fact, a more powerful & muscular animal and notwithstanding its formidable quiver of arrows, often falls a victim of the ferocious remorseless and relentless Fisher, which drives him into a tree, pursuing close behind until sufficiently near when the Fisher runs under and between the hind & fore legs & cuts the carotid artery by which means it escapes the effects of the terrible quills.

Family Geomyidae: Pocket Gophers

Genus Omitted (Q87)

I find I have omitted one of our most curious animals in its proper place. It is the *Mus Bursarius* of Linnaeus and the *Mus Saccatus* of Mitchell. Its peculiarities, however, both as to form and habits, clearly entitle it to a generic, as well as to a specific distinction; uniting as it does, some of the characteristics of the Hamsters, the Moles, and the Rats, yet differing from them all.

Genus *Pseudostoma* Pouched Burrower (Q88)

Generic Character

Two incisors, no canines and wight molar teeth is each jaw; the incisors, which are truncated, and very long and strong, are not covered by the lips, but remain always exposed t view. The molars of the upper jaw incline backwards, those of the lower jaw, forwards. Head and body large, producing a clumsy appearance. It has two enormous cheek pouches, exterior to but opening downwards, and towards, the mouth. They are concave, hairy, and separated by the ordinary integuments. Legs short, fore feet large and formed for burrowing; the hind feet are small.
Species

Pseudostoma Bursarius Pouched Burrower or Canada Rat; or Sand Rat or Pouched Rat (Q88)
[Plains Pocket Gopher (*Geomys bursarius*) Shaw 1800]

of a reddish brown colour, with white feet, large cheek pouches, covered with hair, both within and without. Eyes black, short ears, scarceful perceptible. Feet have five toes, middle nail of the fore feet much longer than the rest. Tail short and twisting, hairy at base, naked at the tip.

This animal burrows with a degree of expedition superior even to that of the Moles and Marmots and cannot easily be taken. It is indeed very rarely seen' although it is by no means uncommon in the western parts of Canada, and the sandy parts of the great plains stretching towards the Rocky Mountains.

Family Sciuridae: Squirrels

Genus XVIII *Sciurus** Squirrel (Q75)

* Belonging to the Order Glires, already characterized

Generic Character

It has two fore teeth in each jaw, the superior ones shaped like wedges, and the interior ones sharp-pointed. Some of the species are provided with hairy membranes extended from the fore to the hind legs, by which they are enabled to bear themselves up in the air, and to float, as it were, from tree to tree. This genus may, therefore, with great propriety be separated into two divisions. Those with the membrane have been termed *Petauri* or Flying Squirrels; and those without it, *Sciuri Scandentes*, or Climbing Squirrels.

<i>Cirrus Quedrivittatus</i>	Little Striped Squirrel
<i>Sciurus Lateralis</i>	Line-backed Squirrel
<i>Sciurus Grammurus</i>	Line-tailed Squirrel
<i>Sciurus Hudsonius</i>	Common American Squirrel
<i>Sciurus Striatus</i>	Ground Squirrel
<i>Sciurus Ludovicianus</i>	Broad-tailed Squirrel

In so vast a region as North America where the forests are almost of interminable extent, and where there is almost every possible variety of situation it may be easily imagined that Squirrels must exist in great variety, and in countless numbers, and such will be the case. The foregoing specification of the species hitherto discovered in the British Possessions, on the continent, comprehend, within two or three species, all that are known on the whole continent of North America.

Sciurus Cinerous. Large Grey Squirrel (Q77)
[Eastern Gray Squirrel (*Sciurus carolinensis*) Gmelin 1788]

This is remarkable for its nicety in the choice of situations. Its localities are limited to the particular districts and it has so great an antipathy to the immediate neighbourhood of the smaller species that the moment the latter become as numerous as themselves; and, as they imagine encroach on their borders they abandon the settlement and remove to other quarters. I do not know if they have ever been seen in Lower Canada and in Upper Canada they are confined to the London and Western Districts. With the exception of a few in the Niagara and Gore Districts. On the north side of Lake Ontario they are unknown. They are usually found in companies of 20, 30, or upwards in a troop, and are exceedingly destructive, so much so that it was found necessary at one time to offer a premium of 3d per head in the United States, these animals had increased in Pennsylvania when in a single year (1749) 1,280,000 were destroyed and the sum of L800 Sterling was paid for their destruction! They feed on all sorts of grain & nuts and many kinds of fruit. Their flesh is delicate and a choice morsel on the table.

Sciurus Niger. Black Squirrel (Q77)

Black Squirrel, almost everywhere abounds in the Upper Province, but it is not so common in the Lower Province of Canada. There is a singular antipathy existing between this species and the common Red Squirrel and they always fight (Q78) whenever they meet, and what is extraordinary, the little Red Squirrel though not more than half the size of the Black Squirrel always proves victorious.

Black Squirrel (M15)

There is something very extraordinary in the locality of this beautiful animal. Tho' found all along the north shore of Lake Ontario, it no where penetrates, at present, further northwards into the country than the distance of seven miles from the real water, except perhaps the east or south east side of Rice Lake, where there are wolves also rather too numerous indeed, but on the north west side of Rice Lake neither a wolf nor a Black Squirrel is to be found.

Towards Lake Erie, and on the shores of that great water, Black Squirrels are more numerous than on L. Ontario, and sometimes appears in such numbers as to seem, in relation, almost incredible.

Captain Hall of Amherstburg, at present a member of the House of Assembly, assures me that in the vicinity of Fort Erie, to his certain knowledge 1100 Black Squirrels were killed in one day. Within the limits of two Townships alone, the inhabitants of which had turned out for their destruction in consequence of the serious depredations committed by them.

As corn, fruit and nuts be constitute the chief food of this animal, its flesh constitutes a nice delicate dish for the table, its flavour being very much like that of a rabbit. Red and Grey Squirrels are likewise good eating, tho' perhaps not equal (M16) to the black species. I have been able to ascertain that this animal feeds upon the young branches of the Sugar Maple Tree during the greatest severity of winter.

The first B. Squirrel at which I was shot was in the act of feeding in this manner at the very top of a tall maple by the road side near Duffin's Creek, L. Ontario, resting upon branches so slender that I was surprised they were able to support the animal's weight.

It can not be either the Sugar Maple nor the degree of cold which determined the locality of the Black Squirrel, since it is not found in many fine warm districts where the Sugar Maple is abundant.

About every 6 or 7 years, as is the case with the Pigeons, the Black Squirrels become so numerous as to cross the river Niagara in thousands. As soon as they gain the opposite shore, they ascend the stumps of trees to dry themselves and cover them with their multitudes in a manner incredible except to an eye witnesses.

The Indians kill them in this situation. Frequently salted down in barrels, as fish are, for winter provisions. On one occasion, in swimming across the river, a great number got into an eddy of

the current and where whirled around without being able to extricate themselves. Whilst in this situation some persons drew a long net round them and at one haul no less than 700 were taken. To this Mr. Choat of Smith's Creek, my informant was an eye-witness. The Large Grey Squirrel, is found in the Niagara district, but is not common, more common to the westward about Amherstburg.

Black Squirrel (C299)

The muscle which governs & directs the movements of the jaw is most powerful, and the bite of this animal is consequently very severe. The quantity of brains is remarkably large, the cavity which contains them being nearly 2 inches by 1 inch, and the organs of suritiveness and distributiveness most prominent. The testicles of the male are of surprising magnitude. It must feed well during winter for it is very fat at its first appearance in earliest spring, or when shot as it sometimes is in the middle of winter. (C300) This species has the most beautiful tail of any of its tribe in Canada. It is altogether graceful in its motions, elegant in its attitudes and although very shy in the wild state is easily tamed and becomes then even troublesomely familiar. I have frequently kept them in the house but as often have been obliged to part with them on account of their mischievous habits and tricks. Their whole time is spent either in play or carrying off to their secret hoards whatever may serve for food afterwards and it is astonishing to behold the large quantities of grain, or roots, or nuts or fruit, they will carry off in a very short time. I found them exceedingly destructive in my garden and orchard, especially amongst the young apples and currants, they even carried off a considerable quantity of potato sets my people had put for planting.

Playful to excess if a group of several persons were standing together they would race up and down and about our persons and jump from head to head with great and most amusing agility, frequently on taking a walk, they wanted to pursue, run up my legs and thighs and get into my side or breast pocket, or sit upon my shoulder or head, and deliberately wipe their faces and smoother their whiskers with both paws, which have all the flexibility of hands and fingers. They are fond of elevated places wherein to sleep, for some time a preference was given to the open pockets of a cast off waistcoat that hung high up on a nail. This was relinquished for a small cavity on the top of a pantry, but afterwards in their rambles about, and along the roof of the house, they discovered a small pigeon box in the point of the gable and of the house and the highest part of it. Ever afterwards this was their favourite dormitory. In their wild state they always occupy the loftiest of their favourite boxes especially their elm, bass & maple, and find out the holes at the greatest limitation, no doubt to be more out of the way of their arch-enemy the red squirrel which seldom runs so high, and when it does is in pursuit of the black squirrel or driven by the scarcity of food below. It is surprising to see with what care and apparent security a large and heavy black squirrel will run to the very extremity of a small & pendant bough of a lofty elm at the height of 100 to 150 feet from the ground, and jump with unerring aim, the distance of 10 or 15 feet or even more and catch another small twig in another tree, so small that one would think it almost impossible for the animal either to have seen or caught it.

Those propensities while in a wild state not only highly become this animal but render it most essentially useful in the grand economy of nature, cause it to be excessively mischievous, destructive and annoying when domesticated as a pet. I know such is the case with most of the

wild animals of the wilderness.

Black Squirrel (C345)

The Black Squirrel is more frequently seen around during the winter months in Canada than the red and may therefore be supposed more hardy or that it is less careful to lay up hoards of winter provisions. It is found to be fat, however, when killed in the very depth of winter. Black squirrels are sometimes found with white tips to their hairs and occasionally but less frequently with a narrow white strip above the nose.

Multitude of Squirrels (C346)

“We have an account from Providence in America, that no less than 11,588 squirrels had been lately shot in that country within 10 days, and that at producing the heads, 1500 horses were at the tavern. The heads of said squirrels measured 29 1/2 bushels.”

Annual Register for 1759

Their Migrations

Ovid Village (N.J.) Sept. 10, 1816

Great numbers of squirrels are daily killed in and about this village, with clubs, stones, etc. They appear to be moving to the South. The fences are literally covered with them. Hundreds are daily slain by boys. We understand that in 1813, they moved similarly to the North, probably owing to the scarcity of Nuts, which the Squirrels subsist upon through winter. Simon Patriot N. York Spectator. Oct 12, 1816.

Black Squirrel (C346)

The largest Black Squirrel I have measured was 2 feet and 1 inch long of which the fine bushy tail was no less than 14 inches, this squirrel weighed between 2 & 3 lbs and was loaded with fat. Their flesh particularly during harvest, is white and delicate as chicken and as food much resembles young rabbit, that if anything more delicate, juicy and delicious. I found amongst other food that the Black Squirrel preys upon ripe mandrakes of which it is very fond and no wonder for that fruit is really of fine flavour in this climate and makes one the less surprised at Leah's bargain with Rachel. They also eat potatoes in the fall of the year, and I have seen them carrying off some of these roots so large & heavy that it was a wonder how they could lift, much less run with them in their mouth holding the potatoes with their teeth. The Black Squirrel appears to have more sagacity than the red species or than any other of the American squirrels. I believe that this is in a great measure attributable to the shape of the head which is longer and wider in the Canadian (more closely resembling the fox and the rat) than the other species. I have seen more than a few black squirrels mortally wounded in the top branches of a lofty tree or other tree deliberately lay itself down across a large limb or in a crotch as in such a manner to die in that when dead it might not fall into the hands of its enemy []

[Editor's Note: a small amount of text at the bottom of the page is too faint to read]

Sciurus .Macrorius, vel Magnicaudatis. Large-tailed Squirrel (Q78)
[Eastern Fox Squirrel (Sciurus niger) Linnaeus 1758]

It is not understood that his is the Ceylon Squirrel of Pennant because it has the same specific name, which is far more appropriate to the animal we claim for North America, the tail being larger and more voluminous, in proportion to the size of the body, in the American, than in the Ceylonese specimen. Total length of the American species is about one foot, seven inches, and a half, of which the tail alone is nine inches and a quarter. It is common on the banks of the great rivers of the plains, as high as the Saskatchewan, and perhaps higher.

Sciurus Hudsonius Common American Squirrel (Q78)
[American Red Squirrel (*Tamiasciurus hudsonicus*) Erxleben 1839]

This animal is universally spread over all the United States and the British Possessions in North America, and is too well known to require any particular notice here.

Common Canadian Squirrel (M5)

A Squirrel which I shot in the woods of Lorette measured 12 inches from the nose to the tip of the tail. Ears short, eyes large and black, brown lids surrounded by a circle of dark yellowish white, in some quite white.

Teeth 2 above and 2 below, very long, sharp and of a yellow colour. Whiskers long and black, nose tawny marked in the centre with a black stripe.

General colour a reddish yellowish grey, with a broad band of bright ferruginous colour from the shoulders toward the middle of the back and along the tail. Brightest on the tail, throat and breast dirty white, belly pale cinerous white, between which and the sides is a narrow black line running from the elbow of the fore-arm to the thigh.

4 toes before, 5 behind, claws sharp and brown. The tail 5 1/2 inches long, rather thin of hair, flat and margined round the tip with dusky. Grey underneath bright ferruginous above. This was a male, and said to be poor eating.

Some of the same species killed in U.C. reached 13 & even 14 inches in length of which the tail was more than 6. The general colours brighter and in the under parts quite white. Manner lively, graceful and charming. Braves the severest weather tho' it does not appear when a storm is actually raging. Does not appear much alarmed at the approach of man. Fond of sunning itself on the leafless bough of a tree.

I have shot a specimen in U.C. that measured 15 inches long and I have found the whiskers in some individuals very remarkable, those from the mouth and nose not being less than 3 inches. They have whiskers or feelers basically from the cheek, under the eyes and from above the eye on each side.

Common or Red Squirrel of Canada (M240)

This animal which is very general over nearly the whole northern continent of America does not seem to be very well known to the writers in Natural History. It is found as far north as Hudson's Bay.

In Canada it frequently fights with the Black Squirrel and although the Black species is much larger and heavier, it is said the Red Squirrel uniformly conquers, and there is one of its maneuvers in the battle which is universally asserted and believed in this country that deserves to be particularly mentioned.

It is said that if the Red Squirrel is fighting with a male Black Squirrel, it uniformly aims at the testicles of the latter, which it bites off and thereby ends the conflict. It is from this cause, as it is asserted, that the Black Squirrel has such a dread of the Red, and why the Eunuch is so frequently found amongst the Black species. The Red Squirrel is nearly as destructive to the farmer as the Striped or Ground Squirrel and ought by all means to be got rid of in his plantation.

To give some idea of the mischief done by these animals, there have been no less than 9 bushels of hickory nuts taken out of one repository made by this creature.

W Charles Dennison of York shot a black and red squirrel in the midst of a fierce combat in which the red had bitten off the testicles of the black one. He killed both at one shot. The black has a terrible dread of the red species.

Red Squirrel (C345)

Red Squirrel, is a little more than 13 inches long of which the tail is barely half. The testes are very large and full.

Sciurus Volucellus Flying Squirrel (Q78)

[Northern Flying Squirrel (*Glaucomys sabrinus*) Shaw 1801]

This interesting and beautiful creature is much more frequent in the Upper, than the Lower, Province, Canada. It is, indeed, there common and remains all the year about its usual haunts, hibernating in old trees. It loves to sport on the wing around an aged oak or other tree during the fine nights of summer when the moon is brilliant, making the while a sort of whistling or chirping noise.

Flying Squirrel (M24)

This beautiful species is [Editor's Note: this whole section is too faint to read]

Ask Choate what kind of trap he uses and I found the tail of one of this kind at my own place in the summer of 1820. One was killed by Bateson's sons at the Daily meadow farm April, 1821 and Mr. James Boulton had an old female with young ones caught near Port Hope in the summer of 1820.

I believe the species is more plentiful in the U.C. than appears as they do not willingly go abroad much in the day time. They appear to be "more plentiful" as we proceed westerly — more common in Darlington than in Hope.

It is remarkable that Topsell figures an animal in Gesner P. 414 under the names of a Flying Poutique or Scythian Mouse and obscuring that in Scythia it is called Popyelycza Latacza which appears to me can be no other than our flying squirrel. See it again

Genus XVII Arctomys Marmot (Q73)

Generic Character

Two very strong front teeth in each jaw. No canine teeth. Eight simple molars in the lower jaw, and ten in the upper. Head huge, round, but flat above. Body thick and clumsy. Eyes large and full. Ears short and rounded. Feet strong, and formed for burrowing; four toes and the rudiment of a thumb, before, and five toes behind, all the toes are armed with strong, compressed, and slightly crooked nails.

Arctomys Missouriensis Prairie Marmot (Q73)
[Black-tailed Prairie Dog (*Cynomys ludovicianus*) Ord 1815]

This species is known almost throughout the plains of the interior by the familiar name of Prairie Dog, so Lewis and Clark designated it in their Travels. It is a lively, sociable animal associating in large communities which are called Prairie Dog Villages by the hunters.

Arctomys Pruinosa Hoary Marmot (Q75)
[Hoary Marmot (*Marmota caligata*) Eschscholtz 1829]

I have already stated my opinion on this species. A description of it will be found in Pennant, Gmelin, Shaw and Schroeder. Nevertheless, I must consider it a mere variety of the common species.

[Editor's note: This is likely an Arctic species. It is likely that Fothergill is mistaken in thinking that this is a variety of the Groundhog.]

Arctomys Monax Canadian Marmot (Q73)
[Woodchuck (*Marmota monax*) Linnaeus 1758]

The first needs no comment, it is common and well known over all the Provinces, by the name Wood-Chuck, or Ground Hog. When fat it makes a very tolerable dish for the table.

Arctomys Empetra Quebec Marmot (Q74)

Quebec Marmot was long ago described by Pennant, but I have strong doubts of its identity, that is, until it is further and better determined. My present opinion is, that the A. Monax, the A.

Empetra and the A. Pruinosa, are all of one and the same species, as I very well know that the common marmot of Canada is subject to great vicissitude as to size and colour. I happened to be with a party of Indians when the first Pruinosa fell into my hands and was congratulating myself on the discovery of a new species. The Indians smiled, and remarked that it was not unusual variety of the common species. I have in this catalogue continued the species separately out of deference to respectable authors, until the matter can be fully determined, which I hope shortly to be able to do myself.

Marmot or Woodchuck (M295) Cuckogeesh

The skin of the common Marmot is said to make excellent whip-lashes. This animal is known by the name Cuckogeesh amongst the Mississaugas – and Woodchuck amongst the Europeans & American settlers in Canada.

Common Marmot of Canada: Woodchuck (C229)

Size of one killed at Ontario Cottage April 11, 1830. Total length from nose to extreme tip of tail 23 inches of which the tail was barely 7 inches. This is not a particularly large one, but it was a male and the colours bright. The face, and upper part of the all the feet a deep shining brown, almost black. The legs, thighs, belly, sides & under the neck, bright ferruginous. Side of the face, or rather the cheeks a dingy yellow. All the upper parts, a sort of yellowish grey, on a tawny ground, this is, all the bottom, or under fur is tawny, the middle of the hairs is brown, and tip yellowish white, or straw colour.

The tail is the same but darker, and the tip is altogether of a dark brown. It is bushy. The ears are short and rounded, thickly coloured with a few light coloured hairs. Eyes rather small, nose blunt and broad and furnished with very long whiskers, some of them being 3 inches long, tips next the teeth brown & then a band of white on the chin. Four long toes and the rudiment of an inner one, on each of the fore feet, five behind, all furnished with long brown claws with whitish tips. The feet are extremely muscular and strong. From the heel to the end of the middle taken behind, full 3 inches the same part before 2 1/4 inches. The outer toe is the shortest before, but the inner one shortest behind.

Canadian Marmot (C233)

The largest I ever measured was 2 feet from tip of nose to tip of tail. The mammae of the female are subject to variety, occasionally, both as to situation & number which I consider a very singular fact. I have sometimes met with 10, 5 on each side but more commonly 9, and what is remarkable 5 on the right and 4 on the left and vice versa. The usual number of young ones is 6 or 7, and sometimes 8. The young ones are very playful and docile and love to be fondled. It is a very harmless, quiet, inoffensive animal and is therefore persecuted & killed by tyrant man whenever met with. In self defense, it can bite very severely.

Black Marmot (C233)

[Editor's Note: Fothergill's description of Black Marmot appears to be a colour phase of the

common Groundhog]

My son George shot one August 29, 1835 at Monadelphia, measured 1 foot 8 inches of which the tail was 5 ½ inches. Entire colour (except the face which was of a deep brown) black with the tip of the tail at here and there a silvery hair appeared on the sides, but very few. The fur much finer than in the common kind, more yellowish white. An adult male and apparently distinct, being full grown and therefore much less than the full grown common species. This circumstance, with the difference of colour and marks and quality of fur, seems to constitute it as a distinct species.

(C241) It may, perhaps, be considered as an additional proof that this is a distinct species, that the individual described at P. 233 was shot from off the snag of a pine tree (to which it ran from the ground instead of running to its hole, which the common kind would have done on being surprised) at last 30 feet from the ground I have since found, however, that Marmots of the common kind occasionally climb young trees to the height of 13 to 15 feet or more for the sake of eating the young birds.

(C245) I have noted an account of one killed near Duffin's Creek by son George on 2nd August, 1835. I have now to describe another killed not far from the same place by Wilson [Huss?] on the 23rd of April, 1837. This was a female, and weighed nearly 5 lbs, feeling exceedingly heavy in proportion to its size. Its length was 2 feet and 1 inch from nose to the extreme end of the tail. The tail was nearly 7 inches measuring from the root to the end of the longest hair, it had no white tip, and was broad and flat towards the end, shaped something like a large spatula, and thickly beset with hair.

(C245)

It contained 3 young ones, rather, more than 3 part-grown, perfectly formed and rather larger than the Shur Mouse, which is the largest of the mice in Canada. From appearances they would have been brought to partruition in little more than a week's time, so that, one may put down the period of bringing forth the last week of April or the first of May, according to the season (tho' if the animal does not come out during winter the season cannot have much to with it). The last at all events has been long and severe, and I was much surprised at the quantity of fat which appeared both inside and out, especially in the region of the abdomen. I do not wonder at the skins of Woodchuck being much prized by those who are in the [] for whip-lashes. It is tough and flexible beyond that of most other animals and stretches to a great extent. I am convinced the skin of the above female might, without any great exertion have been put onto & effectively a creature twice the size. There were but six teats and these more were rather singularly placed, two between the fore legs 2 on the chest, and then a considerable space between them & the lowermost two on the lower abdomen between the hind legs. These were more of a flattened form and resembled black warts.

[Editor's Note: this passage is on the same page as discussion of the Black Marmot but separated by a blank space. The content appears to relate to CF's discussion of the Black Marmot but in any case is assumed to be merely colour phase of the common Groundhog.]

Arctomys Richardsonii Tawny Marmot Q75
[Richardson's Ground Squirrel (*Uroditellus richardsonii*) Sabine 1822]

These species are justly named after the two celebrated travelers Captain Franklin and Dr. Richardson. They are well described in the Linnean Transactions of London by Sabine. They inhabit the northern parts of our territory on this continent.

Arctomys Tridecemlineata Striped Marmot (Q74)
[Thirteen-lined Ground Squirrel (*Ictidonyx tridecemlineatus*) Mitchill 1821]

This name Tridecemlinea was, I believe, given to this beautiful and interesting species by Dr. Mitchell of New York and with great propriety, although he considered the animal belonging to the genus Sciurus, rather than Arctomys. Perhaps he has had reason to change that opinion, as the subject became better known. This species inhabits the northern parts of Canada, and the great plains, and the banks of the rivers, that intersect them as far as the Rocky Mountains, burrowing into the ground, and never ascending trees. It is distinguished by being of a deep chestnut colour, striped with six white lines, alternating with an equal number of longitudinal rows of white spots, and white beneath, producing a most pleasing effect.

Sciurus Lateralis Line-backed Squirrel (Q78)
[Thirteen-lined Ground Squirrel ???]

This is also a native of the Rocky Mountains. It is a ground Squirrel bearing some resemblance to the common species (*Striatus*) but is larger, and undoubtedly distinct.

Arctomys Franklinii The Franklin Marmot (Q750)
Franklin's Ground Squirrel (*Pollocitellus franklinii*) Sabine 1822

Arctomys Parayii Grey Arctic Marmot (Q75)
[Arctic Ground Squirrel (*Uroditellus parayii*) Richardson 1825]

The authority for the specific distinction of the *A. parayii* is too good (Dr. Richardson) to be doubted. The animal was discovered many years ago, but not fully determined until late years. It has an extensive range in the northern parts of this continent.

Sciurus Grammurus Line-tailed Squirrel (Q78)
[Unidentified mammal]

Another inhabitant of the Rocky Mountains where it dwells in hole or crevices of the rocks and feeds on the buds of the stunted shrubs which grow there. The fur is very coarse and it is remarkable for having 3 black lines on each side (of) the tail.

Sciurus Striatus Common Ground Squirrel (Q78)
[Unidentified mammal]

The same remarks as have been made on the preceding, apply to this species.

Sciurus Ludovicianus Broad-tailed Squirrel (Q78)
[Unidentified mammal]

This animal seems peculiar to the rivers, or rather to the banks of rivers which fall into Lake Winnipeg. The upper parts are dark grey, and the under parts a reddish-brown colour. The tail is longer than the body and is remarkable for its breadth.

[Editor's Note: With out-of-date common and scientific names and no real descriptions Fothergill's Line-tailed, Common Ground and Broad-tailed Squirrels are not identifiable.]

Sciurus Quedrivittatus Little Striped Squirrel (Q78)
[Least Chipmunk (*Neotamas minimus*) Bachman 1839]

A beautiful species, distinguished by four white lines upon its head, on a ground colour of ferruginous brown. It is a small species, not exceeding, in its total length, including the tail, seven inches and a quarter. It is a native of the Rocky Mountains.

Little Ground Squirrel (Chipmunk) (M23)
[Eastern Chipmunk (*Tamias striatus*) Linnaeus 1758]

This is the common Ground Squirrel a very beautiful little animal. The first I saw was in Haldimand in the month of May, 1817. Sunning itself after a long winter's repose near the mouth of its hole into which it darted with the quickness of lightning.

It is common in Upper Canada and does great mischief amongst wheat when the grain is nearly ripe devouring and carrying off large quantities. It is furnished with two pouches like the ape genus, one on each side of the mouth in the cheek and after stuffing itself with as much as it can eat in the same way, it fills both pouches to their utmost extent. When filled in this way the head has a remarkable appearance, swollen to nearly twice its former dimensions.

The female has 8 teats so that I presume she may bring forth 8 young ones.

Provincial Name Chip - munk I suppose from its cry.

Indian name

Not eaten by the Indians see folio 197

(M197) Length 10 inches, from the tip of nose to the tip of the tail, of this measure, the tail alone is nearly 4 inches. It has two cutting teeth in the upper and 2 in the under jaw, those below very long.

It is furnished with a pouch in each cheek for the reception of grain similar to what many of the monkey tribe possess, and it is surprising what a quantity of grain can be stowed in these receptacles. Sometimes, indeed, the head, in time of harvest, will appear twice the natural size, and such is the quantity of wheat carried off by one of these animals during a summer that a

single squirrel, even of this minute species, has been known to secrete from 1 to 2 bushels.

Eyelids white beneath the eye, from the whiskers to below the ear, a ferruginous stroke. Top of the head and face a ferruginous grey, ears short and rounded but appear much longer in some than in others, of a light whitish grey behind and tinged with ferruginous in front.

The hair upon the ears is very short, the under parts from the chin to the anus quite white, sides of a rich buff colour. Down the back, from the hind head. a fine cinerous grey marked down the middle of the back with a line of very deep reddish brown on each side of this.

Near the sides is a broad waving line of yellowish-white pointed at each end and margined with another line of the same deep reddish-brown which marks the centre of the back producing a very pleasing and striking effect, even as far off as the animal can be perceived.

The whole rump and back part of the thighs is of a fine bright tawny colour. The tail, tho' not very bushy, is finely feathered, the hairs on the top and sides, have their base, dirty-yellow, black in the middle, and

[Editor's Note: written vertically in the left margin is the following: I have recommended, from experience, to the Canadian farmer, very deep planting, say 6 or 7 inches for their maize.]

(M198) light grey at the tips, the under part is tawny it has 4 toes and claws before and 5 behind. The fore legs are very short and are sometimes used like hands as in the common squirrel, tho' not so frequently. The thighs behind are thick and strong.

Although the Indians will eat the other species of squirrel, and account them delicious fare, yet they will not touch this animal, considering it an unclean creature. The name given to it by the Mississaugas is

The common provincial name is Chip - munk which is not very unlike the noise it most frequently makes tho' it has one note, sharp and shrill, especially when suddenly alarmed, which is very like the chipping of some kinds of small birds. I never saw one attempt to run up a tree tho' it may be very frequently seen upon logs and sometimes on old stumps, it has generally two or 3 entrances to its subterranean abodes.

The foregoing description was taken from a beautiful female, but I believe there is little difference in the colouring of the male and female. It is very common throughout the Province of Upper Canada and does incredible mischief to the farmer. A good practical farmer of the Genessee country? in the U. C. told me he considered every squirrel of any species including this, killed in the spring of the year, was worth 1\$. He did not therefore begrudge his children powder and shot with which to kill them.

I have measured some reached between 11 and 12 inches in length, of which the tail was 4 1/2 inches. Male and female very much alike. Much more tawny on the rump and stripes brighter in some than in others.

Ground Squirrel (M238)

This beautiful but destructive little animal is in a great degree a ventriloquist, having or seeming to have the power of making its note of alarm, which is a kind of quick and sudden and shrill chirp or rather squeak appear to proceed from an opposite quarter at the time and which would otherwise infallibly direct the pursuer to the identical spot where the animal was.

When near its hole it looks fearlessly at the beholder and generally makes a stand before it pops underground. When caught at a distance from any of its holes, it runs and jumps with great expedition to the nearest of its several entrances. It is not an easy matter to calculate the mischief done to the Canadian farmer in many seasons by this creature, particularly to Indian corn. I have known extensive plantings and crops entirely destroyed by them.

From the moment of planting, until the stem of the plant is high and thick, their ravages proceed regularly day after day, and when the stem has become too thick to gnaw off, or the seed become a strong fibrous root, they wait till the ear is formed and ripening when they climb up and pick out the grains with great dispatch and carry them off to their depositories, so that they attack this plant in almost all its stages and pursue it even into the barn and the stack, before the seed has begun to vegetate they seem to be directed to the spot. (M239) Where it lies by their fine sense of smelling, when it has got a few inches out of the ground, they dig down to the grain close to the root and devour the seed. Every individual of this species that maintains its ground in a large plantation of maize during the whole season destroys at least 2 bushels or what would produce 2 bushels. of grain, so that it behooves the farmer to look very sharp in the spring and kill every one he sees and besides maintain plenty of cats which are fond of destroying them.

But they seem to have some means of communicating intelligence to their friends in the forest, for although only a few of them may be observed at the first planting of a piece of ground, and those few are mostly if not entirely killed off, yet the numbers seemed constantly replenished from the forest, the thinner the clearings or settlements are scattered the greater the devastation.

Amongst my crops at Rice Lake I have about 10 acres of maize and although I had 4 cats, all good hunters and who killed many, yet for weeks together in May, June and July I have shot 6, 8, 10, 12 and sometimes 14 of these creatures daily till I have been fairly tired out and have lost more than half my crops into the bargain and immediately after their numbers have been a little got?under.? Myriads of Orioles come to attack the remainder of my crop.

Ground Squirrel (C345)

Universally called Chip-munk in Canada, prey upon eggs of common poultry when they can get at them as well as upon the eggs of other birds and it is a wondrous sight to see so diminutive an animal carrying off so large an object. I was at first greatly puzzled to know how they could release their hold of so round and smooth an object till I found they stuck their corrective? Cutting teeth into the shell.

Ground Squirrel (C345)

Why the Indians will not eat the ground squirrel, whilst they eat the other kinds delicate flavour I know not for in truth none of the genus can afford a finer morsel, unless indeed it be the Black Squirrel.

Super Family Muroidea: Mice, Rats and Voles

Family Cricetidae: Voles, New World Rats and Mice

[Editor's Note: In *Quadrupeds* Fothergill discusses the Genetic Character of these North American species with the Black and Norwegian Rats and the House Mouse. This description will be found in the next section under Muridae: True Rats and Mice.]

Mus Canadensis Sheer Mouse (Q80)

[Meadow Vole (*Microtus pennsylvanicus*) Ord 1815]

The species here termed Canadensis is non-descript, which is a little remarkable considering how numerous and destructive it is. I discovered it in England, in Lancashire, several years ago and suppose it had been carried by ships to Liverpool. It abounds in Upper Canada and is an absolute pest to farmers destroying an incredible quantity of potatoes, carrots, parsnips, turnips etc. in short any, and every kind of roots and (Q82) fruits. In size it is between a mouse and a rat, of a dark, brownish, gray, with short legs, short rounded ears, a large head and a short tail. Living in fields in summer and entering into vaults and cellars and root houses in winter.

Shur Mouse (C433)

An ugly and most destructive animal, the link between the mouse and the rat. It has very much the appearance of a young water rat but with a shorter tail. This is the name by which it is known in most parts of Canada (U. C.). I saw a specimen at Nuttalls near Rochdale in Lancashire many years ago, that was killed in that county, so that it has been introduced (I suppose by shipping) into England.

Length rather more than 7 ½ inches of which the tail was exactly 2 inches, by this it will appear that the body is long and the tail short, the ears, especially the orifice into the head very large but almost connected in fur and not prominent being more or less so at the pleasure of the animal. Eyes rather small, black and staring as if greatly frightened. They are placed near the nose and are also near together. The fore or cutting teeth are very long being ¼ inches out of the gums and the bite is severe. The teeth have a strong resemblance to those of a Beaver and a Muskrat. These cutting teeth are 2 above & 2 below (as to other mice) the grinders are small in proportion and placed far behind.

The head being large and is 1 ½ in long. Body large, thick plump heavy and legs very stout, particularly the fore legs. Its belly seems to rub about the ground. Its motions are slow and though its scent is acute it does not appear to see well. 4 toes before and 5 behind as in the other mice, but the hind toes and claws are much the longest. The latter appear placed far behind. The colour above much resembles that of the Norway Rat being a part of light, dirty, reddish brown lined lined or speckled with black. Belly a dirty ash colour. The fur in winter is long, warm and thick. Tail is brown above & pale ash-colour below, slightly or thinly haired. The whiskers are numerous but not so long as in many other mice. The Shur Mouse is much darker coloured towards winter generally than in summer. I have seen some nearly of an entire black. Its sense of smelling is very acute.

Shur Mouse (C507)

I have never been able to prove whether the Shurmouse is in any degree carnivorous. Amongst roots and vegetables it is most destructive. When its stores of provisions fail it will girdle fruit trees, particularly apple and plum trees under the snow in such a manner as to utterly kill them. It has beaten tracks under the snow in every direction and far great distances and even under logs of wood. I never found its tracks in every possible figure and curvature in mazes and lengths such as human art could produce dug out or rather partially dug out of the surface of the soil. Similar tracks and mazes I have found amongst the roots of crop land. Parsnips, carrots and beets and other sweet and succulent roots it completely scoops out leaving the rind only. I have frequently been served this trick by them (every father in Crow's story of what happened to his parsnips in Pickering). Their numbers in most of the settled parts of U. C. are perfectly astonishing and they are a large pest of the farmer. In one day ploughing the hay of my neighbour Brand killed more than a hundred merely by following the furrow as it was turned up in the fall of the year. They will not go into a trap nor so I know of any bait they will take but they will drink mild and may be destroyed in cellars by a concoction of nux vomica – in milk.

Mus Aquaticus Blue or Marsh Mouse (Q81)

[Editor's Note: not identified]

The Mus Aquaticus is also a new species discovered by myself in the great marsh of the Don, near York in Upper Canada about 4 years ago, whilst wading after waterfowl. Since that time I have seen it in other marshy situations. It is the colour of a common mouse of a fine bluish-grey or cinerous colour, with large naked ears. It is an excellent swimmer and often taken possession of the nests of the Reed-Wren.

Castor Ondatra Musk Rat (Q71)

[Muskrat (*Ondontra zibethicus*) Linnaeus 1766]

The affinities between the Musk-Rat and the Beaver, are too close, and striking, to allow me to remove it from the Castor Family, as some modern writers have done. This animal, like the Beaver, is too well known to need any particular comment.

[Editor's Note: In *Quadrupeds* Fothergill lumped the Muskrat with the Beaver as indicated by the scientific name he ascribed to it.]

Muskrat (M113)

Its weight when full-grown is from 2 to 3 pounds. I have known specimens exceed 3 pounds. It varies considerably in size and is subject to change of colour. In one year I had two white ones, a colour that is very rare, and the following year I had two black ones, the last are still in my possession. The two former ones I was silly enough to let a man, who did not seem fully aware of their rarity or value, carry to New York.

especially on the back of a darker hue. The base of the fine fur which covers the whole body is of a cinerous or ash colour.

The total length of a full grown specimen is generally from 22 to 23 inches, sometimes 2 feet from the nose to the extremity of the tail, of which the naked part of the tail is 9 inches. I say the naked part because for about an inch the base of the tail is thickly covered with short fur.

The head is small for the size of the animal, brown on the top and whitish about the mouth and chin. It has numerous and very long whiskers, black or deep brown with light extremities, some of these are 3 inches long. Its ears are so short and so deeply embedded in fine fur as to be scarcely perceptible. Eyes are small black and somewhat prominent. It has (M114) two teeth in each jaw. Those in the lower jaw are frequently more than an inch long.

The arms and thighs are of a cinerous brown. Belly reddish or yellowish white. The fore feet and legs are very short and small and I have frequently seen the animal use them after the manner of a squirrel.

It has five toes before and 5 behind, but the inner toe before is so short as to be scarcely perceptible and seems merely as a socket for the small for the small claw with which it is furnished. The claws are whitish and sharp. Those behind being much longer and more formidable than those those before. The hind feet are large and naked and of an ash colour, the toes long and semi-palmated or webbed. The toes, webs and inner sides of the feet are margined with soft downy bristles thickly set of a yellowish shining white. The use appears to be to assist in swimming. The soles of the hind feet and legs to the first joint are fleshy and not very unlike the inside of the hand of an Indian.

The tail is flat or vertically compressed and covered all over with scales like a fish or serpent. These are intermixed with brown hairy bristles which are most numerous near the ridge and bottom of the tail.

It is wonderful that an animal, so numerous as this is in Canada, should not have been more accurately described than heretofore. Bewick's is a very bare account (M115) and his figure is by no means a good one or giving any ideal of the form and attitude of the animal. Its head is not thick tho' it may be short. So far from its eyes being large, they are very small for the size of the animal. I have never heard of its being called Ondabia – in Canada nor do I believe it is any where known by that name in either province and we need not say that it is fond of the water and swims well because the water is as much or even more of a natural element than it is of the otter.

I never heard of several families socializing together. I believe seldom more than 2 inhabit the same house. Nothing can be more ridiculous than saying they are taken in the spring by making a hole in their houses "and letting the light suddenly in upon them". The fact being that they are first speared whilst asleep in their houses and then a hole is made with a tomahawk to take out the game. In the figure the animal is made to look too much like a Norway rat and the ears far too conspicuous and long. It has a short thick, marmot-like appearance when sitting.

On dissection I found the tongue short, broad, and fleshy. Its heart very small, its liver very

large. In its stomach (M116) vegetable matter very finely masticated and not easy to discover what kind.

It will not be easy to give a complete idea of the feet and tail by a stuffed specimen as they dry up too much. The flat part of the tail of this specimen was an inch broad.

It is reckoned amongst the greatest delicacies of an Indian Epicure and is both roasted and boiled? as it preys upon choice roots and the finest parts of vegetables. It is in the best condition for the table in the months of February and March. The fur too is then in the best and most valuable condition.

The first time I ever struck a spear into one of their houses I had the luck to kill a very fine one. I found that all which had been said respecting its? excellence as an article of food was true. As a stew it is far superior to an English Hare, being more juicy and succulent with a finer flavour. The strong scent of musk is entirely confined to the skin.

In the house are two chambers, one above where it generally sleeps, and one below where it pauses in the interval of its hunting and diving, as it curls itself up to sleep on that side of the dome of its house upon which the sun shines for the sake of warmth. It is proper in spearing, to strike obliquely, with the same degree of obliquity as the rays of the sun happens to fall. The spear has only one barb (M117) the whole iron part of the spear ought to be about 2 feet 3 and the socket into which the wooden handle is fitted should not be too large or thick that it may readily follow the barbed part when the house is frozen and not stick. The wooden shaft to the spear should be about 6 feet long.

Muskrats are both speared and shot and caught in traps. About 10,000 are annually killed upon the Rice Lake although there are but a few families of Indians remaining.

This animal can remain a long time under water. When feeding in an evening I have observed that unless alarmed it generally returns to the same spot to eat from whence it dived for its food. It appears to go down and either dig up some root or cut down some aquatic plant with its teeth, as a beaver cuts down a tree, and brings up what it so procures to eat out of the water.

When the winter is breaking up, it will feed and hunt in this way upon the edge of the ice. Although its eyes are small, it is quick sighted and discerns an object at a considerable distance.

The total number of muskrats killed annually in the Canadas must amount to may hundred thousand. The N.W. Company alone have exported in a single year

The average price of the skins in my time 1/3 Upper Canada
It breeds after generally, indeed, unless some accident happens, twice a year and produces from 10 to 12 young ones each time.

Muskrat (C81)

Strong Jamaica spirits and Muscovado sugar made into a thick syrup or paste is a capital bait for

Muskrat. I have known a newly cut pole daubed with this ointment and stuck in a marsh frequented by Muskrats, gnawed entirely down in one night. They will scent the bait afar off.

Muskrat

extends across the continent of N. A. Its Indian names are the following amongst the

Flat heads	Kil - outh
Kootanaes	Kap- me - nahs
Ogee- bois	Wash - usk
Kinistineaux	Wah - tetisisk
Assiniboine	Sink - au - pai
Slave Indians	Me - es - soom - skiks

Muskrat (C307)

Although the Muskrat is a herbaceous animal in its general feeding I find it is one of the animals which prey upon fresh-water mussels, diving down for them and bringing them up in their fore paws, its teeth are well adapted for the operation of opening them using the teeth as an expert oyster-eater uses the knife, holding the muscle as a squirrel holds a nut between the fore paws. The muskrat also eats grass. Whenever in the early spring or late in the fall you see a few fresh muscle shells without the fish and a little grass lately cut on the banks of a stream or by the root of a tree overhanging it you may be sure there is a neighbour of a muskrat & there set your trap & you will catch him..

I once had a cream-coloured, or rather a light yellow, Muskrat in my possession at the Rice Lake, and W. Ritchie of L. Simcoe has now 2 or pure white.

Gerbillus Canadensis Canadian Jerboa or Jumping Mouse (Q80)
[White-footed Mouse (*Peromyscus leucopus*) Rafinesque 1818]

The first species is well known, having been often described as the Jumping Mouse of Canada; and, sometimes as the Fox Mouse, because of its colour. It is common throughout the woods and fields of the British American Provinces.

Jumping Mouse of Canada (C425)
or Fox Mouse, See also page 4
[Editor's Note: White-footed Mouse (*Peromyscus leucopus*) Probable]

Total length 7 ½ inches sometimes 8 inches of which the tail is 3½ inches. It is a pretty mouse, the upper parts of a bay or reddish fox colour, more of less bright in different individuals. The under parts are of a pure white. The line which separates the bay colour from the white is well defined. The white extends from nose to tail and includes the fore legs and all the under sides and nearly half of the thighs behind. The tail is dusky above and yellowish-white underneath. It is very strong i.e. and I suspect occasionally affects of the animal when jumping. The hind toes are very long and delicate. Ears broad & very prominent, projecting nearly ¾ of an inch. Whiskers very numerous and long, their longest being more than ½ inches. Eyes large, full, black, prominent, soft, expressive, liquid. I know not why it has been called the jumping mouse. It is not jumping as a mouse peculiar or characteristic more than other mice. I have certainly seen it take some extraordinary bounds or leaps particularly when engaged in play when it often plays at leap-frog, taking very high leaps over the backs of each other. But other mice for ought I know many do the same. It is most destructive & numerous and the more mischievous as being equally common in houses and he forest.

Its affection for its young is strong & remarkable & I have witnessed a point of instinct very extraordinary & not a little puzzling to know have the sense of danger was communicated to the young & blind. In burning a brush heap a nest of field mice was destroyed, the mother in her fright & young took one of her young just littered naked & blind in the mouth directing the others by some unknown but powerful impulse to hold fast by her teats on each side and in this manner she effected an escape and the preservation of her young, for we could not find it in our hearts to kill them under such circumstances. The above noted mouse is in fact a large long-tailed field mouse and not a Jerboa or Mirones or Jumping Mouse properly so-called yet I think it pretty certain there are in U. Canada two species of Meriones – a larger and a smaller one. Dr. Richardson has admirably figured (or rather Landseer) the larger species (short insert had to read) as so also for

[Editor's Note: Comments of the ROM zoologists on this mammal are as follows: "likely the white-footed mouse (*Peromyscus leucopus*) but cannot rule out the deer mouse (*P. maniculatus*) given the degree of variability in external morphological characters between the two species."]

Mus Cinerous Blue Rat (Q80)
[Editor's Note: Unknown Rat Species]

The Blue or Cinerous Rat, is a newly discovered and undescribed species, inhabiting the eastern

side of the Rocky Mountains at their base. It is about the size of the Black Rat, with large membranous ears and a fine cinerous colour, much inclining to blue. It is an aboriginal of the country, and I believe peculiar to it.

Mus Sylvaticus Common Field Mouse (Q80)
[Editor's Note: Unknown Mouse Species]

The Sylvaticus or Field Mouse, everywhere abound. The fields and woods are literally over run by them.

[Editor's note: Without adequate descriptions Fothergill's Blue Rat and Common Field Mouse are not readily identifiable.]

Family Muridae: Old World True Rats and Mice

Genus XX Mus The Rat (Q80)

Generic Character

Upper fore teeth wedge-shaped. Three and sometimes only two grinders in each jaw; and the clavicles, or collar bones, are complete. Snout narrow, and elongated. Fore feet have four clawed toes, and a wart, having an obtuse nail, in place of a thumb. Hind feet have five clawed toes. Tail long, tapering, scaly, naked.

This is one of the genera in which new discoveries may be expected. The forests of Canada abound with mice.

Mus Ratus Black Rat (Q80)

Black Rat (*Rattus rattus*)

Mus Decumanus Norway Rat (Q80)

Norway Rat (*Rattus norvegicus*)

The Black Rat is known only in a few solitary places as it is fast disappearing before the large Grey Norwegian species which I am sorry to say is rapidly spreading over the country. It has arrived as far west as Kingston and Niagara; carried by vessels and in packages of goods; but it has not yet surrounded the north side of Lake Ontario.

Mus Domesticus Common House Mouse (Q81)

[Editor's note: Fothergill provides no details on this species.]

Order Lagomorpha: Rabbits, Hares and Pikas

Family Leporidae: Rabbits and Hares

Genus XIV *Lepus* The Hare (Q69)

Belonging to the order Glires

Character of the Order

Having two front teeth in each jaw, usually very long, somewhat curved and large, but without any canine teeth. Their feet are furnished with claws, and they are formed both for running and leaping. Their diet is almost exclusively vegetable. One or two, out of ten genera which constitute this order, being found to use animal food in cases of distress or emergency.

Generic Character

Two fore teeth in each jaw; those in the upper are double, the interior ones being smallest. The fore feet have five toes each, and the hind feet but four. Their hind legs are much longer than the fore legs, whence arises their extraordinary speed, and bounding leaps.

Lepus Variabilis Varying Hare or common hare of Canada (Q69)
[Snowshoe Hare (*Lepus americanus*) Erxleben 1777]

The first of these is the common Hare of Canada, which becomes an entire white during winter, saving the tips of the ears, only, which remain dusky, or black. It never burrows, particularly affects groves of young pine trees, braves our severest winters without any other shelter than an old log, or root of a tree, and may be killed at all times. It is more numerous in the Upper, than the lower Province.

[Editor's Note: Page C90 below. This is the most difficult page to transcribe that I have ever encountered in all the Fothergill writings. Readability is greatly affected by additional writing vertically bottom to top across the whole page. Ultimately it may be not be transcribable.]

(C90) White hares killed in the manner of Huntington []

Two of these white hares []with this years..white hares being..and killed. The first which was a leveret of about [] that [] a country man in confusing [].and was killed by him on his farm with sticks.

The second which was a full grown adult. It was killed by a main hand of the country man on the 5th of May which throughout this part of the country is a day set apart for this sport of the farmers in which fields []. Both the specimens more often entire white but in every other respect they exactly resemble the common species. The first specimen was kept many days for the inspection of the restricted []whose curiosity had been rendered by reports.

These specimens must scarcely be confused with the Alpine Hare of Scotland which is perfectly distinct from the common species and more nearly allied to the Hare of Canada could [] the North American. This is a trait of the Canadian hare worthy of [] proves [] sociability in the [] of the [].of the discoverer or possessor of one of these animals sets up a large breeding. The Hare will immediately []and instances will tremble or roll over as if shot and many have been taken as in the manner by the []

The animal weight of this species in []is no more than 3 1/2 lbs and I have never weighed one which is not half of that of a good English Hare. The species is common in most parts of U C. tho' it has its favourite spots such as rising grounds that are warm & covered with young pines and beeches seem its favourite haunt.

A fine specimen of the common Canadian Hare in its summer dress was killed in the [] near my place on Duffin's Creek on May 9th 1937. It weighed 3 3/4 lbs and was in good condition. Total length from nose to end of scut 20 1/2 inches of which the [] which the fur was little [] The [] was 3 1/2 inches of extreme height [] placing the [] in proportion being in the central fully [] in proportion , being fully [] and much rounded with the []

[Editor's Note: I have not attempted transcribing he vertical writing. End of passage and page]

Lepus Glacialis Northern Hare (Q69)
[Arctic Hare (*Lepus arcticus*) Ross 1819]

For a knowledge of the second species we are indebted to Captain Parry's Voyage to the Polar Seas. It is found throughout the extreme northern parts of this continent, and attains a large size.

Lepus Cuniculus Common Rabbit (Q69)

We have no species of this genus, in its wild state that burrows in the ground. The common rabbit being here known only in its domestic state.

[Editor's note: No record of the common Eastern Cottontail Rabbit (*Sylilgus floridanus*) has been found in the Fothergill writings. Given the volume and detail of his mammal writings it seems likely that there is at least one other manuscript that has been lost or has not yet been found. This seems certain given a similar situation with his ornithological writings.]

Order Eulipotyphia: Moles and Shrews

Family Soricidae: Shrews

Genus XXI Sorex Shrew (Q82)

Generic Character

Two incisors in each jaw. Six canines in the upper jaw, with eight molars; and ten molar teeth in the lower jaw. Head long, nose elongated into a sort of snout and movable, ears short, and rounded, eyes small, tail long.

Sorex Constrictus	Short-tailed Shrew
Sorex Aquaticus	Water Shrew
Sorex Araneus	Faetid Shrew

The whole of these are found in Upper Canada, but how far they extend I do not know.

[Editor's note: In *Quadrupeds* Fothergill lists four species of shrews. One he describes as *Sorex Parvus* or Little Shrew may well be the Least Shrew (*Cryptotis parva*) which is discussed below. There are at least seven shrews in eastern Canada that might encompass the three shrews listed above. His Ash-coloured Shrew, which might be the Smokey Shrew (*Sores jumeus*) described in Clendenan and discussed immediately hereunder.]

Ash-coloured Shrew of Canada (C435)

[Northern Short-tailed Shrew (*Blarina brevicauda*) Say 1823]

Length 4 ½ inches of which the tail was barely 1 inch. General colour of the whole body, the same, except being a little lighter on the belly i.e. a dark ash colour or cinerous, 5 toes before and 5 behind, therein differing from the mice. Eyes so exceedingly small as to be scarcely discernible. The ears appeared to me remarkable and differing from what I ever saw, opening upwards and being curved and connected by 3 membranous folds, one lapping over another and all hid in the finest fur. At first sight the head appears to want both eyes & ears and it is only by a minute examination they are discovered.

This structure and defense of the ears is doubtless to preserve them from sand, dust and dirt in the act of burrowing. The teeth are likewise remarkable for the 2 incisors below stand straight forward or outwards until near their extremities when they suddenly turn or hook upwards whilst those above are shorter and so much hooked as to resemble a hawk's bill in miniature, the points of all these are black, besides these formidable little incisors, both jaws are well furnished with numerous small, black grinders. Its bile is very severe.

Discovered by my father-in-law (Richardson) in the Township of Pickering near the lake shore under some old rails, where it had layed up a hiberniculum or large nest, that was very warm and comfortable. It emitted a sort of loud chirrup or shrill whistle like a bird. The lips were round and fleshy, the snout long and very sharp-pointed, nose somewhat indurated or horny. The tail was a

light brown and thinly haired, the fur very short and fine and resembling the most exquisite velvet.

Sorex Parvus Little Shrew 9Q820

[Editor's note: In *Quadrupeds* Fothergill merely includes this species without comment.]

Minute Shrew (C486)

[American Pygmy Shrew (*Sorex hoyi*) Baird 1857 Probable]

This is a non-descript; and, indeed, a very great curiosity. It was killed by Jonathan Rogers whilst making sugar from the Maple trees on the 1st of May 1837. (whilst some snow was still on the ground) near Monadelphia from whom I got it. He described its activity as so great that he had the utmost difficulty in collecting it so much so to have been impossible but for its getting bewildered and partly smothered in the snow. It was first discovered in a decayed maple tree on being cut up to replenish the fire used in boiling the sugar. Although its eyes are scarcely visible in the fur without the aid of magnifiers its own powers of vision are wonderfully keen an active, as a proof of it, after it was put in a box of no great dimensions, a young man on endeavouring to catch it again, even in that confined situation found it so difficult a matter that nearly a quarter of an hour elapsed before he could effect his object. Perhaps I am too hasty in asserting it to be a non-descript since Dr. Richardson following Drs. Godman & Harlan has described a Little Shrew, very similar, that was discovered on Long's Expedition to the Rocky Mountains, at the Council Bluffs on the banks of the Missouri under the name of *Sorex Parvus*.

Godman says that it was caught by W. Titian Peale in a pitfall at Engineer Cantonment. It is clear that Harlan & Godman both allude to, and describe, the same animal, which Godman justly describes as one of the smallest mammiferous animals belonging to the American continent. Although Richardson mentions a specimen in the Zoological Society's Museum and another caught on the shores of the Behring's Straits that approximates very nearly to mine, he retains the name given by Say. He describes the one in the Museum of the Zoolog'ical Society which is nearly strictly applicable to mine. What shall we say then are there two distinct species of small shrew? - the long tailed and the short-tailed kinds? I am inclined at present, to believe there are. The length of tail is of itself a striking and determinate feature. I was sorry that my specimen was so much dried up before I got it that I could not examine some parts so correctly as I wished, particularly its to the other side. (C487) The length and size of the head, in proportion, was very remarkable. The whole animal, from the nose to the root of the tail, measured no more than $2 \frac{3}{8}$, yet the head from the snout to the output was fully one half. The whiskers at the extremity, $1 \frac{3}{8}$ ths; and, had the appearance of being long in proportion, somewhat angular, light brown above and yellowish white with a silky lustre, beneath.

General colour of the body above olivaceous brown, and a dingy grey or cinerous, below the belly. Snout, legs and feet pale, yellowish brown, toes & claws white, or nearly white. The snout very much beset with long, hair-like bristles, some of them as whiskers, marking as far back as the hind head. Opening of the ears large and its sense of hearing acute. Hind toes very long and it can run and leap with extraordinary swiftness. It has a naked muzzle and dark brown or black teeth. In many respects, this small quadruped, after all, resembles the *S. Araneus*.

I have noticed so much difference in the colour of all the furred animals in Canada down to moles & shrews, that I do not place much might on that point. The length of tail, as part of the osseous structure, is a more decisive specific character, and the animal to which I have alluded above seem to differ essentially, in that respect, from the *S. Parvus* of Harlan & Godman.

[Editor's Note: The ROM zoologists comment: "mostly likely to be a pygmy shrew, unlikely to be *C. parvus*".]

Family Talpidae: Moles

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Genus XXII Talpa Mole (Q82)

Generic Character

Two incisor teeth, 6 canines, and 6 molars, in the upper jaw. Four incisors, 6 canines and 6 molars in the lower jaw. Snout much elongated, and terminating in a sort of cartilaginous button. Eyes very small scarcely discernible. External ears wanting. Feet short and pertadactyle; nails, long, flat and adapted for digging.

Star-nosed Mole (M51)

[Star-nosed Mole (*Condylura cristata*) Linnaeus 1758]

Description of one killed by my son Theodore on the flats of Duffin's Creek May 9, 1837.

Total length to the end of the longest hairs on the tail 8 inches of which the tail was 3 inches. Of a deep shining black above except on the face and snout and sides of the fore arms which were brown.

Talpa Canadensis Canadian or Irradicated Mole (Q82)

[Hairy-tailed Mole (*Parascalops breweri*) Bachman 1842]

This well known species is peculiar to the North American continent, and it is sometimes found of a pure white. It is unknown in Europe.

Order Chiroptera; Bats

Family Vespertillonidae: Vesper Bats

Genus XXVI Vespertallis Bat (Q85)

Generic Character

Teeth erect, sharp-pointed, approximated; hands palmated, with a membrane surrounding the body, and enabling the animal to fly. Tail long, and compressed in the inter femoral membrane. Fur soft and thick. Nocturnae. Insectivorous. Hibernating in caves and old trees; hanging by the hind claws; with the head downwards and the whole body enveloped in the wing or membranes.

Species

Vespertallis Pruinosa	Hoary Bat
Vespertallis Argutus	Large-headed Bat
Vespertallis Marinas	Common Bat
Vespertallis Altivolans	High-flying Bat

Generic Character

Teeth erect sharp-pointed, approximated; Hands palmated with a membrane surrounding the body and enabling the animal to fly. Tail long and compressed in the interfemoral membrane. Fur soft and thick, Nocturnal. Insectivorous, hibernating in caves and old trees. Hanging with the hind claws with the head downwards and the whole body enveloped in the wing membranes.

Bat (Q87)

[Editor's Notes: unidentifiable species briefly mentioned below]

I have frequently caught the common bat of England, in this country, also the Long-eared species and the Alticolans or High-flying Bat. I have not yet met with the Horse-Shoe Bat, though I have been told of a variety which I take to be this species.

The V. Pruinosa is not common in the settled parts of Canada, but it is more frequent in the interior, and desert parts of the country, towards the west.

I have never seen more than one specimen of the Red Bat or Vespertillio Rufus. It was flying abroad at noonday, on the banks of the Don, near York, in the month of October; and at first sight I could not conceive what it was. I was, at the time, in pursuit of woodcocks, and shot it on the wing. It is a rare species in Canada. Although said to be common in Pennsylvania.

Small Canadian Bat (C 61)

[Little Brown Bat (*Myotis lucifugus*) Le Conte 1831
Probable, see discussion below]

Length about 3 ½ inches of which the tail is full half. Breadth is width from tip to tip of wing 10 inches. Colour above olivaceous brown, beneath a very pale olive or olivaceous white. It might with no impropriety be called the Olivaceous Bat. It is chiefly remarkable for the length of its tail & legs. Ears not so long as those of the Long-eared Bat of England nor so short as those of the little Bat. Body broad & plump, eyes very small, teeth very sharp, mouth wide & much whiskered. I have measured many, all invariably 10 inches wide varying a trifle in length from 3 ½ to 3 ¾ inches. The ears are about the length of the head, ovated, nostrils small round haired near together, 2 canine teeth above, 2 below, appearance of incisors from the first of the grinders being larger than others & pointed, there are also small pointed teeth behind the canines.

[Editor's Note: Royal Ontario Museum zoologists, Burton Lim and Jacqueline Miller, have examined Fothergill's description. They conclude that it is likely a Little Brown Bat but cannot absolutely rule out Northern long-eared Bat (*Myotis septentrionalis*)]

Olivaceous or Black-faced Bat (C517)

[Little Brown Bat (*Myotis lucifugus*) Probable]

Extremest breadth 10 inches. Total length from nose to tip of tail, 3 ½ inches, or at most 3 ¾ inches, of which the tail is 1 ½ inches. The whole tail, except the extreme tip, is included within the membrane. Inside the mouth very red. Appearance of 2 canine or cutting teeth, both on each side in upper jaw, occasioned by the length and sharp points of the first of the grinders which are longer than the others, also on each side of the lower jaw, very minute incisors (3 or 4) appear in front between the canines of the upper jaw. Nostrils round and projecting, near together, lips naked and brown. Lower part of the forehead and the cheeks as far as the ears, very dark brown, nearly black, eyes conspicuous, bright piercing. Ears more than half an inch high, broad, ovate, proceeds inside about half length. Upper fur, light shining olive, underneath still paler, approaching to yellowish white. Ears and membranes of wings & tail, of a dark sooty brown. Length from the fore arm from the elbow to the claw at the pinion, 1 ½ inch. This was a male. In others the male was rather a trifle less than the female, and always of a darker colour. The toes long and of equal length. The tongue fleshy and formed almost exactly like that of the human tongue. The molars are double-pointed and sharp, the incisors remarkably so. I counted 5 molars, but may be more. The female sometimes, but rarely, brings forth 2 young ones, the latter end of June or beginning of July, but more generally only 1. It is curious to see the little things fully formed when scarcely 1/10 of an inch long. It is the commonest Bat of U. C.

[Editor's Note: Jacqueline Miller makes the following comments about this bat. "Most likely the little brown bat (*Myotis lucifugus*), which was the most common UC bat prior to white-nose syndrome. I am not convinced C61 and C517 are different species"].

Order Carnivora: Meat-eaters

Family Felidae: Felines

Genus VIII: Felis, The Cat (Q56)

Generic Character

Six cutting teeth, all equal; with two tusks in each jaw, and three more tusks on each side of both jaws. The tongue has rough papillae which point backwards. The feet are armed with talons, or hooked claws, that are lodged in a sheath and can be projected or drawn in at pleasure. When thrown, or falling from a distance, these animals alight on their feet. The females have 8 paps, and are multifarious. Prey entirely on animal food, and are consequently eminently rapacious.

Felis Canadensis	Canadian Lynx Q57
Felis Fasciatus	Striped Lynx
Felis Montana	Mountain Lynx
Felis Aureus	Yellow Lynx Q57

All of these are found in our Colonies, but the first species only is common, the others are all of rare occurrence and the Striped and Yellow species, have never been seen, that I have heard of, north of Red River Settlements, nor very far from the foot of the Rocky Mountains; westward of that range, towards the Pacific, they are more common. The Red (Editor's note: Rufus today the scientific name for Bobcat) and the Mountain Lynx or Mountain-cat as it is often called, have frequently been shot in Upper Canada especially in the western parts of this province. The Mountain Lynx has none of the pencils hair upon the tips of the ears which form so striking and well known a characteristic of the ordinary species. The Lynx Canadensis is commonly found in all parts of the British Provinces of America, generally alone, but sometimes in pairs. It is fierce and powerful, and very destructive of all kinds of game that it can master, not even the deer excepted. Its fur is not considered very valuable, the skin not being worth more than four or five shillings.

Large bearded Lynx of Canada C519
[Lynx (*Lynx canadensis*) Kerr 1792]

Length from nose to tip of tail 3 feet 8 inches of which the tail with the fur on may be not quite 5 inches to the extreme ends of the fur. From the nose to the root of the ears behind 7 ½ inches. Ears of a triangular form much pointed and 3 inches wide at thin base. The black tuft on the top 2 inches making altitude of the ear when pricked 5 inches. Fore paws 9 inches in circumference and the hind 10 inches. Length of the longest toe and claw before 3 ½ inches, behind 4 inches. Circumference of the wrist before 6 inches, behind 7 inches. Spread of the foot fore 4 ½ inches, behind 5 ½ inches. Curve of the largest talon 1 ½ inches. Colour of the talon transparent, yellowish-white or pearl colour. Whiskers very stiff & strong the longest 3 ½ inches, black at the base, then brown and the remaining 2/3rds quite white. Teeth most formidable. Canines ¾ inch, long, the molars ..I could only make out to be 3 ...much pointed or cobated, gape wide, nose and lips black. Chin white except exterior tip of the mouth which was brown. Eye greenish-yellow

orbits white or a white circle round the eye.

Fur appears grey, from the tips of the fur being white, but the fur underneath is dingy ferruginous clouded with black in some places. Ears grey with black tips & a black rimidge. The whole fur of this specimen was exceedingly rich, thick and in the highest perfection, a wonderful & pretty regular mixture of grey, white, black and ferruginous though black being chiefly down the middle of the back and more on the sides and belly. Inside as the fur when blown open dingy ferruginous. Fur on the belly longer and not so fine as on the back. The tail round, abrupt and of a hoary ferruginous with a black tip and a line of white underneath. It is not black for more than an inch. Feet hoary and wonderfully protected by fur, as much so as the alpine hare and the Snowy Owl. This specimen which was a male had a very large heard, whiskers or tuft of long hairs or fur on each side the throat, spring a little below the (C518) corners of the mouth on each side under the ears. Front part next the mouth white and the rest behind black. The black hairs being the longest and fully 3 inches long. These whiskers are full and conspicuous and greatly enhance the ferocious appearance when the animal is irritated. On the belly the general colour of which was grey appeared 10 or 12 large roundish spots of black but somewhat dimly defined. Hind legs remarkable in their length, round the anus and back part of the hams. Thighs & legs a uniform dingy ferruginous. The fur of this species very superior to that of the common kind.

We have clearly two kinds even in the settled parts of Canada. The above was killed within a hundred yards of my own field at Ontario Cottage in March, 1831. The following dimensions undertaken before it was killed with much accuracy, although not in the usual way the animal being laid on its side and its legs and paws placed in a line within body. Measured in this way it was something more than 5 feet long, its height 27 inches. Dr. Richardson is certainly wrong in saying that we have but 1 species north of the Great Lakes and eastward of the Rocky Mountains. This species being quite distinct from the *F. Canadensis* often seen in pairs, their cry so exactly resembles that of a child under pain as to have deceived in more than once, both Messrs F and myself ran out of the house on the repeated cries of the one described above thinking it was a child. Destructive of lambs and even of sheep. Inside claws especially the spur on the fore feet the largest to enable it to climb trees expeditiously. Tuft in the ears no doubt to aid the sense of hearing.

Dr. Richardson is therefore mistaken when he says P 101 of his Fauna that the *F. Canadensis* is the only species of this genus that exist north of the Great Lake & eastwards of the Rocky Mountains.

Lynx (C520) I should wish my drawing of this animal taken from nature to be etched by T. Lawseer.

Canadian Lynx, commonly called Wild Cat (M256)
Pichoux

There are certainly two varieties of this animal in Canada but whether entitled to be called distinct species or not may require much further investigation. At present I am rather inclined to consider the animals I am about to describe as distinct species.

In the winter of 1817 two male & female were shot about 5 miles behind Port Hope and brought to me. The weight was from 10 to 12 lbs. Length 2 feet 3 inches of which the tail alone was 5 inches. The fore arm near the elbow measured 7 inches in circumference and below the elbow point 5 1/4 inches.

The head and feet appeared very large for the size of the animal. The irides were orange and the whiskers, which were very long, black and white mixed. Perhaps I ought rather to call the irides orange-yellow.

The aspect of the countenance was wild, savage, and ferocious. Chin white, the mouth on each side by the whiskers was spotted with black, round the eyes yellowish white. Forehead greyish, ears broad at base, on the top of a dark grey in the middle a very light grey almost white with black tips. The black tips are so conspicuous as to be readily discernible at a distance. There were no tufts of long hair at the tips of the ears.

The general colour of the back was like that of an English hare but somewhat more inclined to tawny. The belly and inside of (M257) the thighs whitish, spotted and barred with black. The tail has a few bars or rings of black near the extremity which is tipped with white. It is also white underneath. The feet were very large and the talons, that were white, much hooked and very sharp and fitted into a socket or sheath like as in a common cat.

From the hock or knee-joint behind to the toes it was covered with a very fine thick down of a dark grey colour very like the same part in an English hare and it appears to me that this animal must use this part of its limbs in a similar way either in crouching or springing from it.

The animal is most tawny about the neck, sides, and backside of the thighs, and near the tail. If it had a longer tail it would be a compleat Tyger in miniature. The teeth were most formidable, particularly the two incisors on each side which are much hooked and fully half an inch long from the gum forwards.

Another specimen killed on the Lakes of Cheboctiquoun [Editor's Note: This almost certainly refers to the Kawartha Lakes in particular Stony Lake; there is a Cheboutequion Drive on the north side of Upper Stony Lake] in the winter of 1820 & 21 differed materially in some points that are essential. It measured from tip of nose to the end of the tail 3 feet 3 1/2 inches of which the tail was nearly 6 inches.

The ears in this specimen were adorned with long tufts of hair at their extremities which were black and white 2 inches long beyond the ears and highly ornamental. (M258) These came to a sharp point. The ears in this specimen were very broad at the base, a fine grey on the outside, black towards the tips, whitish in the inside and tawny on the edges. Some of the whiskers were upwards of 3 inches long & quite white.

What was very remarkable and characteristic in this species was a large beard or mustachios near the corners of the mouth and on each side the chin. These were formed by large tufts of soft hair one on each side, black-grey and white. Some of these hairs were nearly 4 inches long. When erect and seen in front they appeared like a kind of ruff half surrounding the cheeks and face.

There were no bars nor spots of black in any part of this animal which was wholly of a light colour, of a hoary or frosty appearance. The under parts were of a dirty yellowish white. The upper parts of a fine light grey somewhat mixed with pale tawny, darkest in the centre of the back and paler towards the belly.

The tail was much the same colour but near the end it was encircled with a narrow ring of white. The tip was quite black and much more bushy than the rest of the tail appearing like a knob or bob-tail. The whole animal, but more particularly about the head and face was much dashed with pale ash-colour. The hind legs and thighs were singularly long, and the feet uncommonly large and downy.

The feet were nearly 4 inches in diameter, some of the talons were an (M259) inch long beyond the sheath. All these were strong, much hooked, extremely sharp and of a white colour. This specimen was killed in the depth of winter and the fur was thick and fine.

I cannot but conclude it a distinct species from the first described specimen. I had no opportunity of weighing it, but I imagine its weight could not be much less than 20 lbs. It was altogether a much larger and more formidable animal than those first described, and the tufts on the ears, the remarkable beard, the tail, and the length of the hind legs, were all peculiar characteristics. I do not consider it as a common animal in this part of Canada or the Indians would kill more of them.

Felis Rufa Red Lynx (Q57)
[Bobcat (*Lynx rufus*) Schreiber 1777]

[Editor's note: Fothergill discusses what he thinks are various varieties of Lynx above. His "Red Lynx" is now the scientific name for Bobcat.]

Lesser Brindled or Spotted Lynx (C357)

This beautiful animal is uncommon in Canada, although a specimen may now and then be procured. It is about 1/3 less than the common Lynx. It has smaller ears and shorter whiskers with less and shorter hairy pencils on the tips. There were scarcely any on the specimen that passed through my hands. The tail was longer in proportion and had 3 black rings round it which the larger species has not. All the colours of the body more brighter and more ferruginous, thickly spotted over the belly with large spots of a bluish-black colour on a white ground with a few transverse bars of the same and a remarkable stripe of black ran across each forearm near the elbow and a stripe of the former marked each ? It is more active and ferocious than the common Lynx and the fur is superior.

Small Tygers (M285)

of an undescribed species are found westward of the Rocky Mountains and a great variety of unknown birds and plants.

[Editor's Note: Both the Lynx and the Bobcat inhabit British Columbia. Since the Bobcat is smaller and more tiger-like in appearance this brief notation probably refers to a Bobcat.]

The Cougar (Q57)

[Mountain Lion (*Felis concolor*) Linnaeus 1771]

The Cougar is the most common of the two (Jaguar) and both are more frequent as we proceed westward towards the great plains of the interior. They are the Lion and the Tyger of this Continent and are in truth, most formidable animals. Since my residence in the Newcastle District a stout young man was struck by a Cougar, from the bough of a tree under which he was passing, and had a very narrow escape with his life: the accident occurred in the dusk of the evening, and in the Township of Hamilton. More recently a man was followed for some miles in the Township of Otonabee by one of these animals and escaped only by the ferocious beast seizing a bag that the man was carrying on his back instead of the man himself. I have not known of more than three or four instances of either of these creatures being seen within any of our settlements during the last fifteen years.

Cougar (C8)

A few years ago a family consisting of a man and his wife and 2 small children left Plymouth in Connecticut for Natchez on the Mississippi - going down the Ohio on a raft it separated the man fell into the water and his wife who sat upon one of the floating logs leaning over to save her husband who was struggling near her, lost her balance and fell also and both were drowned. The two little children, who were both girls, were left sleeping on a feather bed and floated down the stream of that magnificent river. They were picked up by some watermen then taken ashore.

Some charitable persons undertook to educate and bring them up and did so the oldest child was old enough to talk a little and [] her name out and reveal they were from Plymouth. As there were several Plymouths in the United States it was some time before it was discovered from which they came. At length the right place was found but those who had taken care of them were unwilling they should leave them until the girls grew up so his four young women grew up when their curiosity to trace who were their friends and relatives in Connecticut became so ardent they could no longer forbear responding to the necessary inquiries.

As soon as it was known at Plymouth a subscription was made in church to bear their expenses from the Ohio to Plymouth and a man by the name of Goss with 2 horses, sent off to recover them to their native place where much interest was excited concerning them. The journey was long, and on their return the party proceeded very slowly, the man having to walk and the 2 girls on horseback, had to pass through a very desolate part of the wilderness called the 40 mile woods in the midst of which is the blue swamp where there is a good deal of rough grass and herbage. Here the party determined to halt and allow their horses to graze whilst they partook of some cold provisions brought with them (C55) which at their repast a large cougar ran along a log close to them and ascended the nearest tree from which he steadily gazed on the family. The girls who had been brought up in a very retired way and ignorant of worked eagerly inquired of their guide what it would do. Goss who was fearful of alarming them said it was merely a large cat and so of no concern and bidding them go on with their meal said he would go & kill the cat.

He was a powerful intrepid man and had a pair of pistols with him. He resolutely ascended the tree and having got as near as he thought was necessary discharged one of his pistols at the brute which merely advanced and spit at him as a cat would do but did not attempt to come down or descend the tree in any degree injured by the shot. Goss ascended the tree a little higher and taking good aim fired his second pistol. This shot evidently took effect as he could see blood coming out the animal's nose. Still, however, it neither fell nor moved from the spot but growled and spit as before. Goss now sat upon a bow and reloaded his pistols more heavily than before he again fired and brought the animal down. He took the skin and stuffed it with grass & leaves and carried him along in triumph and an informant a friend of Goss thereafter saw it at his house. This proves the Cougar not to be a dangerous assailant of man.

Cougar (C56)

My specimen measures in its total length at 6 feet 10 inches of which the tail alone was 2 feet and 3 inches. There appears to be two kinds by those exhibited in the show in Whitby 1835 which had a small head and black [] on each cheek.

[Editor's Note: there is reference in the Fothergill literature to a Cougar mentioned by Doel. This record has not been found]

Family Canidae; Canines

Division II (Q48)

As those which have feet divided into toes, and are classed in sections according to their different formations and propensities: — those that are rapacious have 6 or more cutting teeth in each jaw, with large canine teeth separated from them; — and those that are herbivores, or frugivores, and which have no canine teeth — and only 2 cutting teeth in each jaw.

Order III Fera (Q49)

Character

Having mostly 6 front teeth in the upper and under jaw somewhat conically shaped with sharp canine teeth on each side and grinders that terminate in pointed eminences. These have feet divided into toes that are armed with talons, so sharp crooked claws. Nearly all the animals in this order are rapacious and live principally on the flesh of other animals.

Genus VII Canus The Dog

Generic Enumeration

Six front teeth in both jaws. Those on the sides are located and longer than the intermediate ones. Six grinders in the upper and seven grinders in the under jaw. Two dog teeth in each jaw one on each side and separated from the rest. These are strong curved and very sharp pointed.

Caus Vulpes Arcticus Arctic or White Wolf

Canus Lupus Common Wolf (Q52)

[Gray Wolf (*Canus lupus*) Say 1823]

Of this well known destructive animals it is necessary to say anything in this place further than that I am sorry to remark its numbers have greatly increased in the Upper Province of late years and that some strong legislative enactment is absolutely necessary to preserve our farmers from their depredations.

Canus Lycaon Major Large Black Wolf (Q52)

A most formidable animal of this description capable of breaking the strongest traps of the hunter occasionally make his appearance in our settlements. He is much larger, stouter and longer than the common wolf, and is made more like a grey horse. He is covered with a coat of long, shaggy hair of an intense and shining black and is generally seen alone or at most two or three together. He is quite distinct from the common Black Wolf or *C Lycaon-Minor* and is I believe an hitherto unsubscribed species. The brief description I have just given was taken from a more lengthy one drawn from a specimen killed within two miles of Hamilton Court House about ten years ago since which time I have only heard of two or three individuals being seen. Fortunately the animal is as rare as he is formidable when met with.

Canus Lycaon Minor Lesser Black Wolf (Q52)

This is the Loup Noire of Buffon, and the Lycaeon of Linnaeus and Gmelin. It is also a rare animal in our North American Provinces though more common than the last (Q53) mentioned species. He is less than the common wolf and has more the appearance too, has a milder aspect than that of the wolf. He is inclined to rocky and mountainous districts and seldom make his appearance in the settlements. His hair is finer and more of a woolly nature than that of the common wolf and is not long and shaggy. It is of one entire black.

Canus Nubilus Dusky Wolf (Q53)

This is also found in the same region with the last mentioned species. But he is much more robust and formidable. His colour is darker. His size is greatly superior either to the Prairie or Common Wolf some individuals having been found nearly six feet long including the tail and of a proportionate height. He emits an odour quite as disagreeable as that of the common fox. His aspect is most ferocious and he is altogether a

Timber Wolf (Q52) [Editor's Note: It is not clear where this comes from]
(Canus lupus)

I find I have omitted in its proper place a small sized but very formidable species of wolf that is found in considerable numbers between the 60th degree of North Latitude and the Polar Sea. It's of a bluish grey in summer and quite white during winter. Daring, ferocious and destructive to the last degree and by no means afraid to attack man himself whenever any favourable opportunity occurs

[Editor's Note: Missing passage hidden under the above leaf added in]

The Indian names of Wolf are the following (C41)

Timber Wolf (*Canus lupus*)

Ogee – bois	My – he - gun
Kinistineaux	Mi – hai - can
Assiniboine	Shouga – con – gue – tchia
Slave Indians	Muc – quoo – ya – orah – peen
Kootonais	Kah – Kane
Flat – heads	Tin – kil – assen

Several reasons are given for the reluctance which most Indians have to the destruction of wolves one of which is that they are mostly more like themselves and have an equal right to range the forest, but I suspect as the animal is connected with their religious mythology being one of their inferior mention that that is the chief reason if so their conversion to Christianity may remove the sample which a premium of 4 lbs per head is unable to do. It would be curious to inquire how far these modern Indians expecting this animal so coincides with the Wolf Fonesis of the Scandinavians! The anecdote and extraordinary affinity I have elsewhere related

documents prove a common origin.

Wolves (M59)

Some of the Chippewa or Mississauga Indians have curious notions concerning Wolves worthy of record one of them shewing some affinity too striking to be omitted. Between the mythology of the ancient inhabitants of the North of Europe, and its is not impossible that the Wolf [] may be the primogenitor of the expected or respected Wolf -dog of the Savages.

These Indians have the belief that at each litter the female wolf brings forth 3 whelps and that one of these is a wolf-dog. Now, as it is said, and by them believed, a wolf drinks in the manner of a sheep. At a certain age the mother leads forth her 3 progeny to drink at a running stream, and whilst they are drinking, she stands carefully by, watching with the utmost solicitude, which of the three, as one is uniformly found to do, drinks like a dog lapping with its tongue. Upon this she instantly falls and tears to pieces leaving the others alive, and 'tis said that if this act should fail of performance in any single instance, as 'tis prophesied (M57) as will sometimes be the case, the Wolf-dog would grow to an enormous size with ferocity and powers proportionate, and at a certain time, declaring war against the whole race of wolves would entirely destroy and exterminate them.

It is remarkable further that the Indians have a certain superstitious dread of Wolves whilst they have no fear of bears.

They also say that if an Indian carries off the young whelps on finding them in a helpless state in the forest, to his wigwam, the wolf, their parent, tracks him and lies in wait, never indeed molesting the Wigwam but as certain as death she will watch and wait ever for many weeks until she finds the robber hunting alone in the forest when she infallibly worries him to death. On this account principally the Indians care not to meddle with them.

Canus Latranus or Prairie Wolf (Q53) [Coyote (*Canus latrans*) Say 1823]

This species is the most common and numerous in the extensive plains west of the Great Lakes extending to the Rocky Mountains and even beyond that stupendous range. General colour onerous grey varied occasionally with black and sometimes with ferruginous. He has white lips and yellow eyes and the tip of his tail is black. He is somewhat larger than the common wolf. He is said to be the most sagacious of all wolves and when found in large packs is formidable even to the gigantic bison.

Foxes (M153)

There are a great many varieties of the Fox in Canada, black, white, silver grey, black grey, cross and common Red Fox. It has been remarked that the hair of Cats is replete with electric fluid and that to stroke it backwards in the dark will elicit sparks.

Indian names of Fox (C347)

Agu bois	Na goucho
Kinistineaux	Mak – kai – shis
Assiniboine	Shonga – shan
Slave Indian	Pin -ah – too – ye
Flat – head	Ar – lin
Pawnee	Ghouc – ki – ai

Canus Vulpes	Common Red Fox (Q55)
Canus Argentatus	Silver Grey Fox
Canus Vulpes Niger	Black Fox
Canus Vulpes Cruci-gera	Cross Fox
Red Fox (<i>Vulpes vulpes</i>)	Linnaeus 1758

Of this well known animal nothing further need to said in this place than that its numbers are found to increase in proportion to the number of settlements a fact that may be explained without much difficulty since their means of subsistence increase in proportion as the lands are cultivated and the early farmer in this country has something else to do than to go “a fox-hunting”.

For my own part I have little doubt that but that these are entirely distinct species though I cannot be ignorant that many intelligent persons consider them more varieties. But no Indian or other hunter acquainted with the habits of the animals, nor will any dealer in fur consider them the same. A London price, current alone is almost sufficient to convince any one of the vast difference there is in the quality of the fur to say nothing of other variations as to form habits manners and instinct.

The fur of the Black Fox is the most rare and valuable next to this comes the Silver Grey; then the Cross-Fox; and lastly the common Frey Fox whose fur is so coarse as scarcely to deserve the name of fur and it is seldom worth carrying to market whereas the skin of a good

(Q55) Black Fox sometimes brings the owner 15 or 20 pounds is a good Silver Fox be 10 pounds and a Cross-Fox from 1 pound to 2 pound 10 and upwards whilst a common fox would not be worth more than 2/6 or 3/6.

If there is a mongrel amongst the species enumerated it is the Cross-Fox which it is not impossible may have been produced between a Silver Grey and a Red or a Black and a Silver-Grey or a Black and a Red Fox. But it is remarkable that they are all found in the same districts and yet remain unmixed keeping up their distinguishing characteristics . Their very names are

sufficient to describe them with the exception perhaps of the Cross-Fox which is so named because of the black cross which passes over his shoulders and legs. His ears are also commonly black and his tail nearly so with white tips whilst his body and face are of a beautiful silver grey.

(C 347)

The fox is the most difficult of all the wild animals of America to take. There is, however, one infallible irresistible bait, the womb or pelvis of the female caught in the heat. The preparation should be kept in a phial for use. The trap should be boiled first in pure water and then rubbed with balsam (Canadian Balsam) and put back into pure boiling water in order to spread the balsam more generally over the trap and even then mittens impregnated also with balsam or assafatida [Editor's Note: assafatida is an umbelliferous medicinal plant] must be on the hands and feet. The footsteps to and from the trap must be carefully dusted up with the loose snow entirely full, with the wing of a fowl. The hunter in doing so walking backwards and dusting up as he goes.

Bits of meat must be strewed round the trap but not in or upon it. Feathers newly plucked off a newly killed bird should be put under and even over the trap. When all is ready sett a small stick smeared over with the ointment above named must be stuck in the very centre of the trap. Simon Fraser (from whom I had the above amusing account of his initiative into the only really killing made in the North-west. (C348) Early in the spring is the time to look for the female fox in heat. A roasted fish makes a capital drag for a fox in the north-west. Simon Fraser describes a Blue Fox as being common but only in particular spots towards Hudson's Bay & between that & the Athabascans. The fur accordingly fine but too much like that of a rabbit to be very valuable. He considers it a distinct species and its localities partial & peculiar.

Fox (M153)

The fur of the Red Fox of Canada (and perhaps the other kinds) has this quality in a very remarkable degree, soon after the death of the animal stroking it downwards in the usual manner, in winter at least causes it to make a loud crackling noise very perceptible at a considerable distance.

This animal is fond of hunting Muskrats in the winter season and in this avocation he make full use of his proverbial sagacity. When he has ascertained by his quick scent that the Muskrat is at home, he suddenly and with much expedition as the frost will allow, makes such a hole in the roof of the house as will first admit his neck and head into the upper chamber where the Muskrat usually sleeps.

On the first alarm the Muskrat immediately dives under the ice. The Fox is very well aware that the rat cannot remain very long absent for want of air, he therefore remain perfectly motionless.

[Editors's note: There is no indication where the text goes from here.]

Fox (C391)

I am not sure that we have any recorded instances of dogs copulating and producing young ones that can be depended on. Buffon denies that Wolves & dogs will intermix but this I have already proved to be fact and it is well known amongst the American Indians, at least to be fact, that I know of no instance of successful experiment between Foxes and dogs which may be considered as the more extraordinary in every respect between the Fox & dog, than between the Wolf and Dog, and I am the more inclined to doubt the practicability of the connexion from the ill success which attended the many experiments tried by Kittewell to accomplish such a purpose and no one had better opportunities or could be more likely to succeed. Yet he failed after trying very curious experiments, when the natural means prove unsuccessful.

Canus Vulpes Velox Small Flying Fox of the Rocky Mountains (Q55)
[Swift Fox (*Vulpes velox*) Say 1823]

This is a newly discovered and very small species inhabiting the Rocky Mountains and their immediate vicinity. He is scarcely half the size of the common [] Fox the [] colour (Q56) is ferruginous mixed with grey and his fur is of the most exquisite softness. He receives his name from the extraordinary speed at which he runs which appears more like the flight of a bird than the motion of a quadruped. He burrows in the ground and never affect the cover of the forest. He is the burrowing fox of Lewis and Clark.

Canus vulpes Glacialis Arctic or Icey Fox (Q55)
[Arctic Fox (*Alopex lagopus*) Linnaeus 1758]

The Arctic Fox is the same with the Isatis of authors and is confined to the Arctic Circle and the shores of the Polar Sea. He is of a blue grey in summer and white in winter and is noted above all other foxes for his wonderful sagacity.

Ice Fox (C348)

One of the most sagacious of animals, a very curious and particular account of this animals will be found in Tooke's Survey of Russia in the Annual Register of 1799.

Canus Vulpes Griseus Common Grey Fox (Q53)
[Grey Fox (*Urocyon cinereoargenteus*) Schreiber 1775]

Blue Fox (C351)

Mr Allan the Merchant of Port Hope in addition to what I learned from Simon Fraser, says the fur, although fine & cottony has no hold on the skin, soft, easily rubbed off & of very little or no value. The Blue Fox is a little larger than the I. satis and quite distinct. The I. satis is also migratory, coming & going with the Snowy Owl and the Ptarmigan whereas the Blue Fox seems to be confined to a particular range of country, not directly outer coast but in the interior & to the same long stretch? of woodland country occupied by the Woodland Caribou or Rein-Deer.

Family Ursidae: Bears

Genus IX Ursus (Q59)

The Bear

Generic Character

Six fore teeth in the upper jaw, alternatively hollow in the inside; there are also six in the under jaw, the two lateral ones being lobated. The dog teeth are strong, conical, and solitary. Eyes furnished with a nictitating membrane. Nose prominent, ears erect, body round and robust, legs muscular, joints remarkably flexible, feet armed with enormous claws, tail short.

Ursus Cinerous Large Grey or Grizzly Bear

Ursus Aratus Brown Bear

[Brown Bear (*Ursus arctos*) Linnaeus 1758]

U. Cinerous Large Grizzly Bear, (Q60)

by far the most formidable animal on this continent, or perhaps, any where else. His invincible courage and ferocity and bloodthirstiness, integrated on a frame so powerful, that the strongest Buffalo or Bison has no chance in his paws makes him the dread of all other creatures, not excepting the lords of the forest themselves, who never dare to attack him single-handed. When a party of Indians determine on the encounter, they arm and paint themselves, as if for war, four or five or six join together in the combat, and even then are sometimes defeated with the loss of life. He is only found on the great plains of the interior, and is of vast magnitude. Adults of this species are sometimes found 9 feet long, with six feet circumference of body, near the forearms, and four feet around the neck, feet 12 inches long, by 9 or 10 inches wide, armed with talons 4 inches long with jaws and teeth of frightful magnitude, and eyes flashing a red fire on its enemy. It has been named horribilis by some writers, for it is indeed a most terrible animal, cruel, vindictive, remorseless, and turns its back on no living creature. It is subject to much variety of colour, and never climbs trees: it is hibernating, differing from all other bears, (except the Great Sea or Polar Bear), it prefers animal food, but will prey occasionally on roots, vegetables, & fruits.

Ursus Arcturus. Brown Bear (Q61)

This species is also confined to the western parts of our territory, and never appears in our settlements; but it is common in the interior, and towards the northwest; and, and far as has been observed, does not differ essentially from the Brown Bear of Norway, Germany, and Switzerland, and other parts of Europe.

Grisley Bear of the Interior (M279)

Duncan Cameron Esq., an M. P. for Glengarry in the present Parliament of U. C. (1825) formerly, and may be at present, of the N.W. Company, tells the following extraordinary anecdote which occurred under his own notice on the passage of a Brigade of 17 Canoes up the

river Saskatchewan, whilst towing.

Some young cubs of this species appeared by the river side. A man belonging to one of the canoes shot one of them without noticing or seeing any old one. This happened in the morning and they proceeded a long day's journey without thinking any more of the affair and encamped at night in the customary manner.

On discovering the catastrophe which had befallen one of her cubs, the old bear tracked the party and arrived at the camp in the dead of night and what is almost incredible, after examining the party which consisted of nearly a hundred men, singled out the identical man who had killed her cub and instantly dispatched him and retired unhurt and without injuring any other of the party.

The claws or talons of this animal are remarkably large and beautiful and none of the gentlemen of the N. W. doubt its being a distinct animal. It is the only really ferocious and dangerous animal of the interior and the Indians are very shy of attacking it.

Grizzly Bear (M285)

Brown Bears are found near the Columbia.

Ursus Americanus Major Long-legged Black Bear
Ursus Americanus Minor Short-legged Black Bear
[Black Bear (*Ursus americanus*) Pallas 1780]

The Greater and Lesser, or long legged and short-legged, Black Bears of America. These are the common Bears of the Country; and, in some seasons, according to the quality of wild fruits and nuts, are very numerous. It is certain there are two distinct species. The legs of the first are much longer, and the body lighter and more slim, than those of the second species, the nose is also longer and more uniformly of reddish brown. The two kinds do not associate and the long-legged kind are not so apt to climb trees as the other. These carnivorous propensities, also, seem stronger, and some of them attain an enormous size. A male of this species was killed not long ago in the Township of Monaghan that weighed upwards of 400 lbs.

Black Bear (M15)

The commonest Bear of Canada is of a Black colour, with fine glossy hair. In the upper Province many individuals reach the enormous bulk and solidity of 3 cwt, or between 3 and 400 lbs weight.

Strength and agility surprising. A man who had wounded a bear in this province had his gun twisted out of his hands in a moment and bent like a piece of small wire in all directions by the paws of the bear with the greatest ease. Whilst the animal was venting its rage upon the gun, the man luckily made his escape by the help of nimble heels.

The usual way in which a bear destroys its enemy is by rearing up on its posteriors and whilst closely embracing the victim between its fore arms, raises its hind claws, which are terrible

instruments for the purpose, and in an instant tears open the body or limb or the unlucky object.

I cannot hear of one instance of its voluntarily attacking a man except provoked. Most savage when it has young ones always throws itself into a sitting posture with its head between the fore-paws when apprehension of attack. The Indians use their knives. They close with the bears and strike them as the embrace commences.

Mr. Chrysler, of Chrysler's Farm, told me of a feat to which he was an eye witness that I could (M16) not have expected from a Mississauga Indian. As a raft was passing down the Long Sault in the Saint Lawrence, a female bear came down to the water-side accompanied by her two young cubs in order to cross it. The cubs, being too young to swim over by themselves, got upon the back of their mother who boldly entered the water in face of the raft.

Bears swim slowly but are very powerful in the water. A Mississauga Indian who was upon the raft with Chrysler's party drew his knife jumped into the river dived, got under the bear, as she was swimming, and stabbed her into the belly and knifed her and drew her carcass to the raft upon which the young cubs were also taken alive.

As Bears climb trees with the greatest ease and security a fugitive from them can have no safety by such a retreat unless he takes care to climb a very small or thin tree which the bear cannot get up because he cannot fully embrace it.

Long-legged Bear (C151) Black Bear

more frequently hibernates by which I mean actually builds or forms and artificial winter residence than the short-legged species and sometimes produces more young at a birthing. An undoubted fact of both I have received from Mr. Esty a surveyor of New Brunswick who was an eye-witness. A very large female of the species was killed at no great distance from Fredericton that had no fewer than six cubs nearly matured in her matrix whereas the usual mother is not more than 2 or 3. In truth I never saw or know of one of the short-legged kind with more than 3 living cubs following her. Not far from the spot where the above mentioned prolific lady was killed was a small natural meadow which produced a great quantity of grass. In this meadow the bear had formed a hybernaculum of hay of a monstrous size, nearly as large as a medium-sized cottage with but one hole in it for an entrance on the south side. The walls were exceedingly thick & well matted together and very warm and comfortable inside. This species is much more ferocious and dangerous than the common kind, more active, smaller head and proportionately a brown nose, smaller ears, much longer legs, legs addicted to climb trees and more swift of foot.

Bear (C83)

The following are Indian names of:

Flat – heads	Tim – ah – I – a – kin
Ogee – bois	Mue – quane
Kinistineaux	Mus – quan

Assiniboines	Wa – kang – si – gah	
Slave Indian	Kai – y – zou	
Kootonaes	Sh – lou – oo – thou	a Grizzly Bear
	Na – pook – oo	a Black Bear

Bears (C95)

Bears are so fond of sugar that they may be caught in nooses carefully sett with sugar as bait so as to catch them. They are certainly very promiscuous feeders but I had no idea, until very lately, that they preyed upon fish. W. Ritchie of Lake Simcoe (1833) informs that at the lower rapids of the river, Nottsawasaga there is a considerable space of ground, perhaps half an acre, warn entirely smooth and bare by these animals drawing large sturgeon out of the water in their arms and paws as those fish crowd together & endeavour to ascend these rapids in order to spawn. The bears sit quite still and watch for their coming and seize them as they strive to work up amongst the stones in ascending the river. They destroy and feed upon Black Bass in a similar way.

Great White or Polar Bear Q61
 [Polar Bear (*Ursus Maritimes*) Phipps 1771]

Great White or Polar Bear. Found only on the shores of the Polar Sea, Hudson's Bay, and the Coasts of Labrador and Newfoundland. In no respect differing from the same species found in the Greenland Seas and the North of Europe.

Family Procyonidae; Raccoons

[Editor's note: Fothergill includes the Raccoon under the Generic Character of the Bear described above. Fothergill's descriptions of the Raccoon have been placed in its contemporary family.]

Urus Lotor. Raccoon (Q62)
[Raccoon (*Procyon lotor*) Linnaeus 1758]

When it is considered that the French were the first European settlers of Canada; and maintained so close an intercourse with it for a century and a half, and carried on the fur trade very extensively, it is really surprising Buffon should have asserted that the Raccoon (Q63) is not found in this country, whereas scarcely any of our wild animals are more common, and its spends the whole year with us, hibernating in hollow trees. Several thousand of the skins of this animal are annually exported to Europe, and the United States of America, from the British Colonies and territories on this continent, and it must be needless to describe an animal so universally well known.

Raccoon (C97)

its Indian names amongst the

Ogee – bois	Ess – sai – bun
Kinistineaux	not known amongst the Creepers
Assiniboines	Wee – tcha
Slave Indians	not known amongst themselves

Raccoons are amongst the destroyers of freshwater mussels. They also prey upon fish when they can catch them. It is briefly in the spring and fall of the year when they kill the muscles.

Raccoons (M56)

Raccoons get so very fat towards the latter end of harvest that when skinned they appear one lump of fat. I saw one in October, 1817 that appeared to me fully an inch thick of fat all over. They are esteemed delicious meat for the table by the Upper Canadians. I was asked 5 s. for the specimen in question which weighed 2 1/2 lbs.

Raccoons take the water very readily and are superb swimmers are frequently caught in Muskrat traps whether they are in search of the roots of aquatic plants or small fish as the muskrats themselves I cannot yet say but it is certain they often frequent and hunt the same marshes. They cannot swim so fast as a good dog.

In his Notes on Virginia, Jefferson states the usual weight of a full grown raccoon at 16 lbs.

According to the London Sales of Furs, the value of the raccoon skins vary between 4/ and 12/6 on an average. The darkest colours are the most valuable and the lightest the least so. The quality

of the fur also varies according to the climate of the particular region from wherever they are brought. See p. 103

Raccoons (M103)

Raccoons are found entirely across the American Continent wherever there is wood, as high as the 60* of N. Latitude and probably higher. Buffon's ignorance of this particular is wholly astonishing, and the more so, as the trade carried on the fur-trade with Canada for so many years.

The engravings usually found in books represent the fore-legs as too long, they are in fact very short, though the toes or rather fingers (for the animal uses its fore paws as such like a squirrel) are long and wonderfully flexible and powerful. It usually eats whilst sitting on its rump, or lower part of the hind legs (from the sole of the foot to the knee joint resting under ground) and holding its load between its forepaws.

It is as playful as a kitten and extremely sagacious, inquisitive, restless, cunning, agile and perpetually in motion when awake. It prys into every hole and corner and pulls out whatever it can reach. A great robber of bird's nests and of honey, fond of all kinds of sweets of fruits, fresh fish, reptiles, in short, a universal feeder. Very fond of warmth See P. 249

Raccoons (M249)

Having had tame ones at different times running about my house, gardens, and premises, both at the Rice Lake and at Ontario Cottage, I have had many opportunities of remarking their manners. All their actions and manners have a very close resemblance to the Bear but are more supple, active, and agile. Can twist itself in every possible attitude apparently without any difficulty. Those in Europe who merely see the animal in shews can have no idea of its manners.

It can climb up trees backwards way, that is the posterior and tail and hind legs uppermost, and the head and fur legs downwards, to defend itself as it goes with as much address as the usual mode of climbing. It will sometimes hang pendant from its two hind legs and sometimes from only one according to pleasure. On these occasions the lower part of the leg or toes are thrown in the form of a hook over the bough of the tree. When climbing a tree in the common mode its manner of doing so is exactly like that of a bear, that is leg embracing with its arms the whole tree. Its fore paws or rather hands for it (continued at P. 360)

Raccoon (M360)

uses then as a monkey would do and with as much readiness very affectionate and fond of embracing and shaking hands with its master and licking and kissing them. My son George had one in a box on the top of a pole, about the height of a man's head near my garden gate where he usually slept at night. When I returned home late in the evening when this fellow was in his house he was accustomed to lean down and offer to shake hands and was much disappointed if I refused. Notwithstanding its playfulness would fight very desperately when offended and particularly with dogs which it did not seem to fear though he had lost one eye in one of his engagements as the warm weather came on he seemed to grow amorous and was very desirous of making love to some of our cats several of which we had about the house

Family Mustelidae: Mustelids

Genus XII Mustela (Q64)

The Weasel

Generic Character

Six cutting teeth in each jaw; those of the upper jaw erect, distinct, sharp pointed; those of the lower jaw are blunter, and appear as if huddled together, and two of them stand within the line of the rest. The molar teeth are conical and cutting. The open jaws of all the genus exhibit a fearful display of destructive teeth. Head small, oval, flat; Ears small; body much elongated; legs short, five toes on each foot armed with sharp crooked claws. The whole tribe carnivorous, ferocious, insatiable, preying chiefly in the night.

Genus XII Mustela The Weasel (Q64-65)

Mustela Canadensis	The Fisher
Mustela Americana	The Skunk
Mustela Martes	The Marten
Mustela Latreda	The Sable
Mustela Vison	The Mink
Mustela Furo	The Ferret
Mustela Vulgaris	Common Weasel
Mustela Inconstans	The Stoat
Mustela Erminca	The Ermine

(Q65) This specification presents a most formidable list of a most formidable and numerous family, which is most destructive to all the smaller quadrupeds; to birds, to reptiles, to fish; in short to animal life in every shape that can be over come by its members, who are all ferocious, cruel, vindictive and blood-thirsty, insatiable, leaving nothing alive it is in their power to destroy.

Long before I became acquainted wit any of the works of Drs Gall and Spurzheim, and other phrenologists; I had been struck, on dissecting various quadrupeds and birds, with the wonderful adaptation of certain parts and organs, to certain and particular ends, and was surprised to find the analogy run through nearly all the animals that came under my notice, even to the reptile tribes.

I am not about to enter into any long or minute disquisition on this subject on the present occasion but it will be readily believed that with (Q66) this preliminary experience, I became speedily concert to a theory that has not with more ridicule, and slight, than it merits. I mean the doctrine of Phrenology, and, whilst I am briefly noticing the Mustela family, I should scarcely be excused were I not to state, that no animals can furnish stronger confirmation of the truth of a part of this science, or theory, than every individual of the tribe, but some undoubtedly more than others. I am sorry I cannot at present lay my hand upon the skull of one of the larger species; but I take the liberty of enclosing, along with this essay, the skull of a mink, that happens to be

within reach, together with the skull of a Musk-Rat, for the amusement of the Society, and I hope that they will arrive in an unbroken state.

As I have stated, the Mink, in common with the rest of the tribe, is cruel, vindictive, blood-thirsty, and insatiable, to the last degree. The Musk-Rat, on the contrary, is one of the most harmless and inoffensive of creatures, quarreling and interfering with no one, feeding on aquatic vegetables and roots, in the most sequestered spots, and chiefly underwater. Let the two skulls be placed in close comparison and it will immediately be seen that whilst the organ of destructiveness is larger, in proportion, in the Mink, perhaps, then could be discovered in any other animal, it is absolutely wanting in the harmless Musk Rat.

(Q 67) I hope the Society will pardon what may be considered a digression although in some measure connected with our subject.

The number of Fisher, Martin, and Mink Skins, annually exported from the British Possessions in North America, which together amount to nearly 60,000, sufficiently indicate how numerous these animals are in this part of the world.

Some authors and travelers have imagined that the Skunk had only recently made an appearance in the Canadas, but it is undoubtedly one of the aboriginals of the Upper Province, where it is common. Notwithstanding the abominable odour, which it can emit at pleasure, the flesh is said to be a palatable and delicate food.

I have inserted the sable in our list because some skins have been sent from the extreme parts in the North-West, which can only be attributed to that animal. They were sold by auction at one guinea, each, before their superior quality, and distinct character was observed by competent judges.

The Ferret exists, with us, only in a tamed or domestic state.

The Stoat, is not common. I have seen some four or five in a wild state, but not more. The Ermine, which is little more than half its size, is much more frequent, and is found to be dispersed over the whole of our possessions in North America. (Q68) Its fur is a silky texture, and of the most exquisite fineness. As I have received a highly ornamented saddle, and horse, accouterments from the interior, that belonged to a Chief of the Sioux Nation, in part trimmed with the fur of this beautiful little animal, I conclude that it extends over all the plains of the Mississippi, and of the Missouri. Could they be obtained in sufficient abundance, their skins would not fail to be an article of lucrative commerce.

Viverra Weasel Tribe (C15)

The species of Viverra found in Canada are:

1. Fisher
2. Do White variety
3. Striped Skunk

4. Spotted Skunk
5. Little Skunk
6. Sable
7. Martin
8. Mink
9. Stoat
10. Ermine
11. Weasel
12. Little Weasel, or Little Stoat
13. Long-tailed Stoat

Of the Genus *Viverra*, *Mustela* and *Mephitis*

If the first term means a ferret, since the days of Pliny and Aristotle, *Mustela* or Weasel and *Mephitis* a skunk or stinking animal, undoubtedly the Linnean family of *Viverra* has been very unnecessarily multiplied and Shaw is quite correct in saying that the distinctions made by more modern naturalists, with the exception, perhaps, of the Mink, are not founded in nature. No part of the world possesses so many, and such variety of this tribe as North America and the British Possessions there abound with them, as may be easily credited by the numbers annually exported by the Fur Companies and Individual Traders In England since the destruction of the larger forests they have been driven chiefly to hedge rows, holes of banks and rabbit warrens.

Genus XIII *Lutra* The Otter (Q68)

Generic Character

Six incisor teeth in both jaws, two canine teeth in each jaw, and ten grinders, or molar teeth in each jaw. The canine teeth much hooked. Head broad and flat, tongue somewhat passillous; Body long, stout, and low upon the legs, toes armed with hooked nails, and connected together, or webbed. The tail not quite so long as the body, but very strong, and depressed at the base. Body covered with soft fur. Carnivorous and amphibious.

Lutra Marina Sea Otter (Q68) [Sea Otter (*Enhydra lutris*) Linnaeus 1758]

The Sea Otter, which affords the finest and most costly fur in the whole world, is unknown on our northern, and Atlantic, coasts; but on the shores of the Pacific Ocean and within our territories, it is not infrequent, and furnishes the most valuable product, of all that country, to our traders.

Sea Otter (M285)

Sea Otters are in high season in February and March, when so, the pelt is thin and whitish or yellowish white, the fur long of a jet black and soft, silky, texture.

Lutra Canadensis Common Otter (Q68)
[Northern River Otter (*Lutra canadensis*) Schroeder 1777]

Many authors have described our Canadian Otter as a different species from the common otter of Great Britain.(Q69) It is certainly found of a much larger growth in these colonies than in Europe, and of a deeper brown or black, and its fur is of an infinitely greater degree of fineness than the European specimens; but I cannot find that the specific characters are essentially different.

The Common Otter of Canada (M320)

Remarkable, my informant Colonel Thomas Horner M.P. to be relied upon. The animal had been watched for hours hunting under the ice, both water and ice clear. Every fact to be discerned.

Ever and anon parts with a globule of air which rises to the surface and may be seen like a ball of quicksilver under the ice. These emitted from time to time in various directions during the chase. When all the air is expended, the animal rather than return to his hole or for a fresh supply, goes from globule to globule and sucks it in again as occasion might require re-emitting it as before until the sport was ended. It is a matter of great curiosity to know how often the same air could be inspired and respired in this manner without taint or loss of vital quality. This is a very curious fact and a remarkable [simplification ?] of a peculiar instinct.

The Otter can swim faster than any salmon. It seizes its prey exactly in the manner of a shark by turning obliquely. Always swims under a shoal of fish and its eyes are placed on the upper part of its head looking upwards. Two or more Otters sometimes hunt in company and will even chase the salmon into a net from which, except a gill-net, they readily escape by lifting up the bottom with the nose. The jaws are overhung as in the shark. The last particulars from an old Fisher of the River Tweed.

Otter (C81)

Its Indian names are amongst the

Flat heads	Il -te - koo
Kootanaes	Kah - woo - kaels
Ogee-bois	Ne - kick
Kinistineaux	Ne - kick
Assiniboines	Pee - taun
Slave Indians	Ai - mun - iz

Urus Meles, vel Labradoria - American Badger. (Q62)
[American Badger (*Taxidea taxus*) Schroeder 1777]

Until Sabine, in the index to Capt. Parry's Voyage to the Polar Sea proved this animal to be a distinct species, it was always considered to be the same with the Badger of Europe. It is by no means a common animal, and its habits render it difficult of observation, frequenting the most solitary places, and burrowing in the earth; it roams abroad only during the night, and preys on every description of food that comes within its reach.

[Editor's note: In *Quadrupeds* Fothergill includes the Badger under the Generic Character of the Bear. His descriptions of the Badger have been placed in its contemporary family.]

Badger (C2)

The different Indian names for the American Badger are the following:

In the Slave Indian Mes - tun - e - soo - pe

Note: a space is left to add more names but no more entries were made.

Urus Gulo. Wolverine. (Q62)
[Wolverine (*Gulo gulo*) Linnaeus 1758]

This animal, so famous for its gluttonous propensities, cannot be said to be a common species in any part of our colonies, and yet it is occasionally met with in almost every part of them. When famished, it is extremely venturesome, and has been known to enter towns in Upper Canada, of considerable magnitude. One of the last that was killed in this province, was detected in an orchard in the town of Brockville. Late writers on subjects of this nature have placed this animal in a new genus (*Gulo*) and designate it as the *Gulo Arcticus*, but I see no good reason why, on the present occasion, I should not follow the example of Linnaeus and Pallas.

[Editor's note: In *Quadrupeds* Fothergill includes the Wolverine under the Generic Character of the Bear. His descriptions of the Wolverine have been placed in its contemporary family.]

Wolverine (C166)

This destructive animal will gnaw through logs 12 to 18 inches in diameter in little more than 12 hours to get at provisions One was killed in an orchard in the village of Brockville four years ago which proves its mendacity.

Pine Martin C476

[Pine Martin (*Martes americana*) Turton 1806]

United in the most destructive proposition this insatiable little animal has all the cunning of the Fox in its needs of seeking the pray as occasion may require. I have often wondered how the rough legged grous of Canada has been able to preserve its species from the numbers and variety of its enemies. It may be said to be like the species hare in that exist without a friend. Amongst these the Martin is the most wasteful and destructive but its mode of attack when the ground is covered with snow in winter displays an immense attractiveness and sagacity having espied a partridge sitting upon a log or shrub which he can see at great distance he cautiously approaches until he is fearful of being discovered he then takes an accurate estimation of the place where the bird is sitting or standing, buries his whole body in the snow but so near the surface that he can distinguish his course having crept along like a snake just under the surface until he has arrived at a distance of a very few feet from the victim he peeps out but with his head only the partridge which is a curious and inquisitive bird even to fully elevates his head & neck with an indeciveness attitude and instead of flying along descends to admire the attenuated nose and staring eye of its enemy which alone it sees and remains motionless until the Martin has taken the fatal bound and plunged sank its fangs into the delicious blood of the unhappy bird.

Large Black Marten (C470)

Martin, Pine openly pursues squirrels to the tops of the highest trees and devours them, this hunt is very diverting to witness

[Editor's Note: C470 is actually a cut out article about the Instinct of Rats
This reference may be actually in CF's Index]

Fisher (C479)

[Fisher (*Martes pennanti*) Erxleben 1777]

[Editor's Note: the microfilm copy of this page is mostly illegible]

no one can taking out the tracks and then can [] that may have been caught from and pulling down many for it is too strong often.. down on the weight of the loss commonly seen in martin traps. If it has received a blow or two by the legs whilst in the snow it becomes so wary as to attack and tear down the trap on the [] apart from the entrance & experienced martin hunters generally make every 4th or 5th trap in this line of sufficient strength and magnitude to flag the progress of the destroyer and wary fishers are caught in this manner. The fur is in Canada though mixed with long hair it is usually black and shining and by the sales in London the price varies from 9p or 0p to 20p according to the fineness and seasons of the skins.

Since the French have the fur because in Canada and enjoyed so large a Martin of its fur so [] a time it is certainly a matter of astonishment that Buffon should have been so ignorant of its animals. The Fisher deserving at the head of the Mustela tribe hundreds of whole skins are annually dispatched seems to have been wholly unknown to him while he notices two common varieties of this martin under the names of Pekan and Vison in such a manner as to shew that he was ignorant even of the Pine Martin which as to distinct as to variety that I am almost inclined to believe that there is no specific distinction between the common Sweet Martin as it is called and the [] Martin or Pine Martin of this I am certain that I have seen every possible variety and shade of brown and of brown to black. In the body and white & cream colour to yellow and orange in the breast of thousands of Pine Martins. I have never seen in America & elsewhere all of which I am confident were of the same species. Hundreds of Martins in Canada have the under fur of rich orange colour throughout and more than one martin entirely white has passed through my hands. They are sometimes found entirely yellow. If any martin deserves to be coincident distinct it is the large Black kind sometimes killed on Anticosti & which is common about the Lake ..

Fisher (C478)

One would scarcely imagine the Fisher was more agile in a tree than a Martin, yet it is so, and can as it often does run down and devour that animal. Nothing can be more amusing than a display of this kind. The Fisher is very powerful about the neck and shoulders and attacks and destroys animals larger than itself. Amongst the tribe it destroys is the Raccoon, the [] and even the Porcupine. In the destruction of the latter animal it is obliged to use a good deal of artifice to avoid the wounds that would be otherwise inflicted by the quills. Having discovered a Porcupine feeding in a tree he cautiously advanced until his approach is very near. The victim, when he suddenly rushes at full speed through the hind legs and so under the belly of the Porcupine until he has seized the throat and inflicted the deadly wound in carotid artery. It is a most formidable animal.

No ordinary Dog has any chance with him. He generally, at the outset, fastens on the nose of the dog who becomes utterly dismayed by a grip nothing short of a toothed steel-trap. As a ferocious and carnivorous ranger of the forest, he is little less formidable than the Wolverine and Cougar as

to the Lynx I deem his more ferocious. He is equally bold in open combat as subtle as a poacher, witnessed by his mode of watching a line of Martin traps which is by night as well as day never leaving it as long as a body can be found.

[Editor's Note: this is followed by a continuation of discussion of the Fisher from C474]

Length of longest canine more than $\frac{3}{4}$ of an inch from the gum. Goramn, Harlan and [] describe the larger a M. Pennanti. There is certainly such a disproportion of species, the names of Pekan, & vison ought both to be scouted by all Naturalists. Modern refinement has been carried a bit too far, I think, in respect to this genus. The viveria of Linnaeus having been multiplied into two others Mustela and Mephitis. See Pennant, Cuvier Godman, Harlan, Richardson etc etc

The words of [Editor's Note: last partial sentence is illegible]

Fisher (C475)

Where this name I know not but it is universal in the north west territories of America amongst the fur traders for the largest and most formidable of all the Mustela genus. In Lower Canada it is not infrequently called Black Cat by the white hunters. Although their skins have been exported for many years from Canada it seems to have escaped the notice of naturalists until lately and even now I know of no good account of it. Those who are acquainted with the spirit, ferocity and sanguinary character of the polecat weasel, stoat, ferret and the lesser animals of this genus will readily comprehend the formidable character which must be possessed by a creature many times larger for to which and with multiplied powers of a similar nature. The Fisher is, indeed, a most terrible foe & all the smaller inhabitants of the forest and even to some of larger stature than itself as the raccoon or .. which it sometimes destroys, & devours even to the tail which has been proved by no less than three raccoons' tails being found in one nest or abiding place of this creature in a hollow tree. Raccoons, Muskrats, Marmots, Squirrels of all kinds. Martins and every animal it has known to overcome besides birds, particularly partridges, grouse, wild turkey etc all perish before it, active and strong beyond the [] powers of animals of the same bulk, he can not only climb trees but can run along and grasping any branch sufficient to bear its weight he can therefore and does pursue and overtake the most agile squirrel that ever sprang from bough to bough his bounds are wonderful his strength vast in proportion his scent and sight acute and his bite cruel his speed great. I have seen him hunt on a stile of which I had no previous

[Editor's note: text at bottom of the page difficult to read]

(C474) the weasel is active, cruel, malignant blood thirsty and vindictive [] indomitable spirit indefatigable to be subdued only by death such is the character also of the martin, mink, stoat, polecat, skunk and all the lesser animals of the same genus in a greater or lesser degree. Imagine them how formidable must be that creature of similar figuration but larger bodily powers the same faculties indeed both in [body] and mind greatly multiplied such is the Fisher.

The Fisher brings forth its young in hollow trees.

This animal is found entirely across the continent and it is known amongst the principal Indian Nations by the following names:

Ogee-bois	Ho – jick
Kinistineaux	Ho – chack
Assiniboine	Is – kai -jauck
Slave Indians	Pin – ne- too – ye
Flat-Heads	Chuss – ar – Chass

Its numbers in comparison with minks and Martins and the lesser species of the same genus may be gathered from the returns of the furs of the N.W. Company. I observe both Dr Harlan & Richardson give the absurd synonym of Pekan (a synonym that ought be scouted by all naturalists as being wholly vague and ideal) to this animal certainly Buffon's account such s it is of the Pekan will not apply to it.

It is yet doubtful with me whether we have not 2 kinds of Fisher in Canada. If not it must increase in size for several years for there is a very great disproportion in size and I have specimens of both in my collection. The largest is of the following dimensions:

From nose to or hind head nearly 7 inches
 corner of the eye 2 inches
 to the root of the tail 2 feet 7 ½ inches
 length of the tail alone 1 foot 6 ½ inches

So that the total length is 4 feet & 2 inches a most enormous size. Ears rather bold and prominent rounded & very broad being rather more than 1 ½ inches mid... (see p. 478)

Fisher (C478) (continued from p 474) Length of longest canine more than ¾ of an inch from the gum. Godman, Harlan and Crabbibain describes the larger, as the M. Pennnanti. There is certainly a disproportion of size as to lead one to suspect a distinction of species . The names of Pikan & Vison ought both to be scouted by all Naturalists. Modern refinement has been carried a little too far, I think, in respect to this genus , the Viverous of Linnaeus having been multiplied into two others, Mustel and Mephitis. See Pennant, Cuvier, Bodman, Harland, Richardson etc etc

[Editor's Note: "The woods & Lake Winnipeg" appears next without any context.]
 Fisher (C 476)

Shaw is right in saying that the distinctions between the Vivera & Mustela are not founded in nature with the exception of those which are palmated on the hind feet as the minks are. The anatomical difference in the structure of the mink is also very great enabling it to remain long under water. The cavity of the chest is capacious and elongated, and the lungs double-lobed. It is indeed as much amphibious as the Otter. I am not yet quite certain how much the Fisher is the same.

Fisher (M207)
 Indian: Otcheegk

Bewick does not give any figure of this animal nor indeed any very particular account of it, he

makes mention of it from Pennant under his article of the Sable.

I cannot find this animal in Buffon unless it is his "Great Guiana Martin".

It is *Viverra Piscator* of Shaw, and the Fisher Weasel of Pennant and Shaw. Wood describes it in his appendix to Buffon. I have had specimens in my possession from the Lakes Cheboctiquou that measured 3 feet 8 inches in length from nose to tip of tail, of which the tail alone was 18 inches. It is a very noble species of the *Viverrae*.

Ermine (C456)

[Ermine (*Mustela erminea*) Linnaeus 1758]

Total length from top of nose to end of tail exactly 12 inches. Tail to the end of the longest hairs 4 inches. The black part 1 ½ inches & fairly penciled. Neck long 2 inches & very powerful. Whiskers long & white, eyes large brilliant & jet black. Ears large & remarkably open, cartilage rounded and a double fold or convolution. Sense of hearing must be wonderfully acute the ear inside having a very remarkable double process difficult to describe. Legs particularly the fore paws very sharp and the arm muscular, naked part of the nose paler brown (yellowish altogether of a pure white tinged with straw colour on the rump and thighs behind the tail. Genitals very large & full in proportion. A fine male killed March 22, 1833 in Pickering. Head remarkably flat and broad. Eyes as in most of the genus very near the nose. The fur is wonderfully fine. Neck appears thicker than the body, the latter very small as round as a piece of rope. Weight []. Diameter of the opening of the ear $\frac{3}{4}$ inches.

It is very remarkable that even Dr. Richardson confounds this animal with the Stoat and Bewick does not seem to have known the real Stoat which is a much larger animal and has coarse hairs instead of the very finest fur imaginable.

Weasel of Canada (C15)

[Long-tailed Weasel (*Mustela frenata*) Lichtenstein 1831]

Length from 12 to 13 inches of which the tail alone measuring in the longest hairs is 5 inches. It is certainly distinct from the ermine not only being larger, and with much coarser hair or fur, longer tail etc, but it does not always, indeed it seldom, becomes quite white in winter. The eyes of the Ermine are much larger in proportion than those of any other of the tribe and there is no comparison as to the superior fineness of its fur.

Mink (C82)

[Mink (*Mustela vison*) Schroeder 1771]

Its Indian names are:

Ogee -bois
Kinistineaux

Shawn – gonish
Ah – chack – en

The mink as well as the Raccoon and Muskrat is a destroyer of the freshwater mussels.

Mink (M207)

Bewick has no mention whatever either of this animal or of any at all like it, and what is more remarkable Buffon (who ought to have known all the Canadian animals intimately from the circumstances of its having been a French Colony and then having the furr trade) gives a most wretched and imperfect account under the names of Pekan and Vison. Pennant also has it Pekan and Linnaeus *Mustela Canadensis*. (See folio 296)

Mink: (M296)

Indian name: Shawnguaseeh

This valuable species of *Mustela*, valuable at least for its skin, preys chiefly on small fish and frogs. It takes the water with almost the same facility as the Otter and prefers fish to any other kind of food.

It has been seen running along the bottom of clear pools & rivulets with the same ease and dexterity as on land and turning up the stones and catching the small fish etc as they ran from beneath. It cannot however stay under water nearly as long as the Otter.

It swims well & with strength for it will cross & dive in strong rapids. At some of the rapids on the smaller rivers of Canada, which are always open in winter, and where there are high banks of ice & snow on each side, a curious spectacle may be frequently seen, as was particularly the case below our mill on the Otonabee river winter of 1821 & 2. A great number of minks assembled for the purpose of fishing on each side (of) the river, they swam, they dived, ran, leaped & sported in every possible direction & manner, ran in & out of the cracks on the ice, rode upon each others backs, rolled upon their sides & backs & played all sorts of antics.

Fish abounded & they seemed in the highest glee tho' the weather was intensely cold & the ice & snow bank on which they sported was 10 feet thick.

They frequently kill young ducks & goslings of which they are very fond, seizing them by the neck.

Mink (C345)

I have known several instances of Minks pursuing trout into the pump-logs which supply the Distilleries, etc. Port Hope with water. Mr. Brown had to pull up his whole line of logs to find where the obstruction was and discovered the bore stopped by a large mink which had stuck fast in its pursuits of a Trout. Properly speaking a Mink is an amphibious Weasel. Fish being quite as acceptable to its appetites as fowl and it can hunt under water.

Mink (C446)

Minks breed in holes in the ground and in the roots of old trees that are fallen or in stumps but not in trees like the martin. They bring forth their young, or litter, in the spring but how long they carry their young I have not yet ascertained but I have seen them engender in the depth of winter in such weather for severity of frost as our wants have imagined would cure any animal passion of love but especially salacious as they are pugnacious. A number of males and females will play together at some rapid that never freezes, alternatively catching fish and copulating and playing all sorts of antics in the water under the water and in the ice banks, sometimes 10 or a dozen or more may be caught at a time at this sport in that very coldest of winter but not when it is very stormy. Linnean as to [] I know.

Minks vary considerably as to size the usual length from up to more to tip of tail being from 21

to 24 inc but the largest in my collection measured 27 ½ inches in length. They vary very much as to colour also from light to dark brown and even to an intense black. The darkest coloured skins, as amongst the martins are considered the most valuable. A white spot is uniformly found in front on their throat and the chin is also white in most specimens.

This species is decided..... [Editor's Note: text ends]

[Editor's Note: the script on this page is overlaid with a hand-written cutting. On the microfilm copy is is difficult to read and the text underneath fractured so incomplete.]

Family Mephitidae: Skunks

[Editor's note: In *Quadrupeds* and his other writings Fothergill treated the skunks as members of the weasel tribe, hence *Mustela Americana*. He discusses their generic characters there.

A limited discussion of skunks in *Quadrupeds* under the weasel tribe will be found there. Most of his writings are found in Clendenan and MacGillivray.

In C15 Fothergill lists 3 species of skunk: Striped, Spotted and Little. Only discussion of the common Striped Skunk has been found in his other writings.]

Striped Skunk C437

[Striped Skunk (*Mephitis mephitis*) Schroeder 1776]

I have heard an intelligent American express his surprise that the skunk should be found as far north as Canada as in the States. It is supposed to be a delicate animal and very susceptible to cold. It is however by no means uncommon in the U. C. but how it spends the winter I am not exactly prepared to say. I saw one at the Rice Lake that was killed so early in the spring that the snow was scarcely off the ground. It is the most beautiful of its tribe though not so elegantly formed as the Pine Martin being shorter in proportion and of a more clumsy make. It has but two colours, black and white, but these are so singularly and elegantly displayed as to produce a very pleasing effect. The predominant colour of the entire animal is a deep shining black but narrow white stripes about two inches long runs along the ridge of the nose or snout commencing at the base of the forehead and extending nearly to the nostrils. The crown of the head is marked by a large round cap of yellowish-white or cream colour from from which diverges two lines of the same colour down the back part of the neck, where they are narrow and nearly approximate, these becoming broader. They pass, one down each side the whole length of the animal and onto each side of the tail. terminating only at the extremity of the long bushy hairs of the tail.

The black on the upper parts commences at a point in the center of this cap or cowl passes in a narrow line down the back of the neck but expands so as to cover the whole back and upper part of the tail near its junction with the body. All the under parts jet black. This was a female killed at my own place Ontario Cottage in the act of eating Turnips in the garden. It measured 2 feet 4 ½ inches from the tip of the nose to the extremity of the tail. It had 5 toes before and 5 behind and the claws or talons were much larger on the fore paws than on the hind ones. They were nearly an inch long, strong, sharp, formidable and almost white, well calculated for what it is very expert at digging or burrowing. They were shaped before not very unlike those of a mole.

(C436) Ears short and rounded and situated more on the side than on top of the head. Eyes & ears as in most of the genus situated forward or near the nose. Teeth exactly like those of the Martin appearing very formidable and its bite is very severe. From the knee or back joint behind to the sole of the foot bare of hair and fleshy as if it frequently sat up on its haunches like the squirrels and opossums which I believe it does. From the appearance of the hind claws it makes use of its fore feet only in burrowing. Its tail is very bushy and it carries it like a squirrel. The tail is black underneath. Its hair also partakes also of the nature of fur and seems a mixture of both. A day or tow after the above mentioned female was killed her mate was caught in my neighbour's hen-house in the act of sucking eggs after having killed several large chickens. I never heard that it had the power of climbing trees which I doubt. It will eat cabbages, turnips,

carrots, parsnips and several kinds of vegetables besides animal food. Although clearly a *Mustela*, it is by no means so active as most of the family. Its power of stinking redefends exceeds probably that of any other animal.

I was once very nearly severely punished this way by the very first skunk I ever saw. I was riding leisurely along to the Rice Lake by the Indian pathway before there was a regular road cut out through the forest when I suddenly saw before me a very beautiful and extraordinary animal running at a slow pace in the path before me with a tail elevated and much frazzled. I had no gun for a [wonder?] with me and thinking I could catch it I jumped off my horse and gave chase and was within a few inches of laying hold of it as it gained its hole. The man to whom I related the circumstances at the circumstances at the ferry on Rice Lake who was an American laughed heartily when I mentioned the fact and asked what animal it was, He said justly too if I had touched it I should have a hundred reasons to remember it to my dying day for I was sorry I had no opportunity of verifying the above I think. But at a guess it was 5 or 6 lbs. It was very hairy & fat (C453) The odour which is emitted by this animal is musk-like, pungent and penetrating to an extraordinary degree and there is a wonder that the scent when one is killed is perceivable for days and weeks after the event.

The stink of the Polecat is nothing to it in point of pungency and durability. As a proof of it, it actually penetrates a solid body thus going [] into the root. I once met one coming out thinking it an uncommon and beautiful creature without the least suspicion of when it really was & he attempted to catch it and succeeded so far as to get its head & shoulders into a tin can. He held in his hand the animal immediately resented by emitting a small squirt of this same odour but not being greatly irritated it was only a small, a very small sprinkling, yet was it not only to communicate a stench to every part of the house above but it actually penetrated to the very center to a large mass of butter than in the cellar from where it was retreating, so much so that the butter could not be used. If care is taken in skinning this animal and removing the vesicles between the thighs which contain the odorous liquid these cannot be a greater delicacy for the table it is in fact superior to house [] and is usually very fat. In the United States it is considered as a tender animal very susceptible to cold and an intelligent American once expressed his surprise to me that one had strayed and connected so far to the north as Canada. It is not an uncommon animal in the Upper Province and not to be called rare in the Lower and no doubt an original. In Henry's M.S.S. I find the description, a short one, of a new species, smaller and more beautiful.

Skunk (M295)
Indian: Shegorph

The flesh of the skunk is said to be excellent for the table of the animal can be killed and cleansed without becoming tainted with the horrible fluid which is secreted in the hind parts. The scent is said to be an excellent bait for catching several wild animals and making trains.

There are 2 kinds of skunks in British America.

Family Odobenidae: Walrus

Division III Or, Pinneated, living chiefly in water, and preying partly on fish, and partly on herbage.

Genus XXIII Trichechus Morse (Q83)

Two incisors in the upper jaw, and two canines and ten molars: - no incisors, no canines and ten molars in the lower jaw. The two superior canines are in fact enormous tusks longer than the head, which is round and the snout appears as if swollen. (Q84) Tail very short, anterior feet or fins like those of the seal, with five toes armed with very sharp nails. Hind feet in the same direction as the body with five toes united by a membrane. Body large and elongated like that of a seal.

Trichechus osmaris The Morse (Q84)

[Walrus (*Odobenus rosmarus*) Linnaeus 1758]

This large animal sometimes attains a length of 10 feet. It was formerly common in the Gulf of St. Lawrence. It is now rare in that quarter but is still sufficiently common further to the North.

The Morse (Q86)

Some particulars respecting the Morse - hunting in the Gulph of St. Lawrence, will be found in Hakluyt's Voyages. In the year 1591. Fifteen hundred were killed by one small bark at Ramea.

Family Phocidae: Earless Seals

Genus XXIV Phoca (Q84)

Generic Character [Editor's Note: insert]

Incisors varied in form, sometimes triangular, sometimes conical, sometimes ground, and all more or less distinct from each other. Canines strong, conical and most frequently proportioned to the size of the head. The head is round with lips apparently swollen. Eyes very large, and staring, eye-lids slightly developed except the nictitating membrane. Ears wanting or very rudimentary. Feet five-toed, the posterior toes naked. Tail short and thick. Four abdominal mammae, hair short, stiff, glossy, recumbent. Whiskers very long and abundant. Amphibious and prey on fish. Living in troops.

Phoca Cristata	Sea Lion
Phoca Vitulina	Common Seal
Phoca Groenlandira	Greenland Seal
Phoca Fetida	Stinking Seal
Phoca Barbata	Great Seal
Phoca Ursina	Sea Bear

Division 4th (Q85)

Winged, or the connecting link between Quadrupeds and Birds

The Seals (Q86)

[Harbour Seal (*Phoca vitulina*) Linnaeus 1758]

The common seal (*Phoca vitulina*) sometimes ascends the St. Lawrence, and they have more than once been taken in Lake Ontario.

(Q 87) The larger kinds especially the *Phoca cristata* (Sea Lion) and *Barbata* (Great Seal) and *Ursina* (Sea Bear) are found only in our northern Seas.

[Editor's note: Fothergill lists 6 "seals" with their scientific names. I have added the scientific names after these mentioned in the text above. The other two species: *Phoca groenlandica* (Greenland Seal) and *Phoca fetida* (Stinking Seal) were not discussed. Included immediately hereunder is the text on "The Morse" which was commonly referred to as the Walrus which Fothergill did not list]

Seals in Lake Ontario (M88)

Mr. Wardiker of Albany saw a living seal, either at Sackets Harbour or Gravelle's Point. I do not recollect which, on his way to this Province in February, 1821, that was caught upon the ice in Lake Ontario a few days before and which was exhibited as a [] I believe what was supposed to be a sea serpent not long since in the same lake was a seal.

Last year, likewise, in the Rice Lake, some Indians in a canoe were greatly alarmed by which they conceived to be an enormous water snake, but which from their description could have been nothing else than a seal.

[Editor's Note: Access by seals to Rice Lake seems highly unlikely; the sighting was most likely a fully mature Black Rat Snake]

Large Water Serpent of Lake Ontario (M10)

Inquiring whilst in Quebec amongst a large and respectable but mixed company, as to the aquatic monsters said to have been occasionally seen in Lake Ontario, I was informed by two gentlemen of veracity and integrity, and which was further confirmed by Colonel MacKay, late of the North West Company & by W. [Aubrotus?], Land Surveyor of 3 Rivers, that 6 or 7 years ago, 4 men made affidavit before a magistrate that passing near Amherst Island between that and Snake Island in their boat, within 8 miles of Kingston, they suddenly beheld to their great dismay, a monstrous serpent on the surface of the water.

According to their estimation not less than 20 feet, nor more than 25, in length it carried its head fully 7 or 8 feet erect above the boat, from which it was not far distant. It passed them with rapidity offering no harm. A serpent, perhaps the same, being similarly described and being seen near the same place was seen by others several times afterwards but the last 5 years have not been heard of

Sea Serpent in Lake Ontario (C101)

Editor's Note: On page 100, 101 and 103 under the title "Sea Serpent" Fothergill discusses an account by Dr Barclay of such an animal in UK on Stronda in the year 1808. This particular article likely accounts for his placing the article below with it.

I am satisfied of the truth of the numerous reports of an enormous sea serpent being frequently seen in Lake Ontario. J. D. Smith Esq M.P. tells me his father saw it distinctly at the mouth of Smith's Creek and the next day it scared a woman who was walking at the mouth of Scarboro Creek a little above when it came close to shore and looked at her (it was near this place where the Watson's were frightened in Nov. 1829). It came so near the woman as to frighten her almost out of her wits and she took to the hills as fast as possible & ran to a house not far off. Old Mr. Stinson, a most respectable witness who resided on Nicholson's Island some years ago observed at for a considerable close to shore with that island and was so near that he plainly distinguished the scales on its neck, its mouth and the fire of its eyes & he described it with a flattened head and formed generally in every respect like a snake.

In the description of Leviathan in the Book of Job then is much more that is applicable with Sea Serpent than to the Morse. See page 103

[Editor's Note: It is unclear what these passages discussing "Sea Serpents" refers to.]

Great Sea Serpent or
Sealephis Atlanticus of New England (C223)

Although we have had of late abundant evidence such as it is of the existence in this our day of the great sea serpent of Pontippidan and other still more animal writers, yet I cannot help but thinking the Linnean Society of New England have gone a little too far in giving it not only a generic but also a specific character though the animal itself has undergone no inspection by modern naturalists. Nevertheless out of complaisance to a body that has taken so much pains to ascertain all that could be ascertained respecting the animal up to the period of the first (and far anything I know the only) report of their committee, I shall retain the scientific cognomen above written.

In making use of the terms "such s it is" I allude to the nature of the evidence given for the present existence of the animal in question much with the same view as for the same reasons that Sir W. Jeoff did on having sufficient evidence for the reality of witchcraft supernatural appearances & my notice for doing so is that the aggregate evidence depends upon newspapers past which is most uncertain and by so confidently to be relied on, which is fully tested by the story of the mermaid in Caithness yet more pertinently by more knowledge in regard to the Kufer story (which must be given)

To return to the report of the L. S. of New England, which is certainly an interesting document (I have only seen a copy of it in *May Natural Philosophy* publ. In Philadelphia, we must agree, according to the report in the general habits of the animal so far that it is migratory, pursuing (C225) of the smaller kinds of fish such as mackerel, herring etc etc and it appears reasonable to Jessers that it visits to more southern and calmer and shallower seas or for the purpose of spawning as well as food that it is an animal of rare occurrence in that, although never, as yet seen in tropical climates it seems to greatly enjoy smooth & shallow and consequently warm water that its head is flattened and its body of a dark colour that it has both a vertical and lateral motion, the vertical motion seems to be used when on the surface and the lateral or serpentine when under the surface it usually carries its head from 10 to 12 inches to 2 feet above it; that when seen in this position it greatly resembles the animal cuts of it; that its usual length from 60 to 70 feet; and from its head about the size of that of a horse and its body as thick and round as a common flour barrel but as to its being of a commellar or scaled skin on any part, of the N.E. L. S. can in in as be shown as yet, its eyes projecting & piercing and the underparts lighter coloured than the upper, the mouth very wide and serpentine & the tongue forked, seen only in the fall of the years from August to October both on the European & around our coasts, modern observation correspond very accurately with Pontipiddan's account. The best testimony in the N.E.L. appears to be those of M. Geoffrey and W.B. Pearson of Gloucester of 1817 and of J. Toppan, W. Summerby and R. Bragg of the Schooner *Laura* of the same year as to the account of supposed progeny killed by some labouring at Cape Ann, I consider it all chimerical.

Order Artiodactyla: Bovids, Deers and Antilopes

Family Bovidae: Bovids

Order I Belluce

Having obtuse front teeth in both jaws. Feet armed with hoofs that are entire in some species, and sub-divided in others. The greater part subsist on vegetables.

Genus II Bos*

The Ox

Characteristics

Eight teeth in the lower jaw, none in the upper but in lieu thereof a callous membrane. Horns hollow and curved equally forward and upward. Ears large and flexible. Head and neck very powerful. Dew-lapped. Four mammae. Feet hoofed and divided or cloven. Chewing the cud is a striking characteristic of the ruminating family, but its characters are determined by the horns and teeth. The habits are essentially herbivorous.

* This genus belongs to the Linnean order of Pecora but is here ranked next to the horse from its being next in the scale of importance to man.

Of the Bison Bos Bonasas (Q29)
[American Bison (*Bison bison*) Linnaeus 1758]

Although the Bison, of the interior (miss-named a Buffalo by the first European travelers and hunters on this continent) appears to differ in many particulars from the true Bonasas, or Bonasus of the ancients; if we may judge from the head that a figured by Gesner and by the description sent to that diligent naturalist by his learned friend Dr Say. Yet upon the whole it seems more nearly to resemble the animals described by Aristotle and Pliny and others under that name, than any other with which we are acquainted. I have therefore ventured to retain it in preference to many others of the synonyms of modern authors and perhaps hereafter I may be able to prove it to be the same animal altered only by accidental circumstances and that it is not specifically distinct.

The essential or specific characters of the American Bison are Horns, round, thick and wide at the base, directed at first laterally, from the sides of the head and then upwards, tapering rapidly to very sharp points, Head short, broad and thick, with fiery eyes, a large beard, and most ferocious aspect. His head, neck, shoulders and superior parts are clothed within a thick shaggy mane. His withers are high and projecting and his shoulders are very capacious, powerful and elevated. His back is arched and fleshy, forming a sort of hunch, highly prized by the Indians as an article of food. He is (Q30) deep and rather flat-sided, with short legs, his hinder parts are light and his tail short. He is formed rather for strength than speed, although very agile.

He is an animal of vast stature and of corresponding strength, from 5 feet to 5 feet 6 and even 5 feet nine inches high at the withers; and from 7 feet 9 inches even to 9 feet long; and everything more than 2,000 pounds; being so uncommon magnitude for the bulls of this species to attain. In the Fauna Americana it is stated that the largest weigh from 1,600 to 2,000 lbs, but instances have been known to their weighing no less than 3,000 lbs.

He is not naturally of a ferocious disposition but rather the contrary, avoiding the face of man and all the more sanguinary animals of the desert but when wounded or attacked in the rutting season he is most desperate and it is not then safe to meet his encounter. Their senses of hearing of sight and of smelling are all acute and their attachments are particularly strong.

No wild animal on this continent could be reclaimed with greater advantages to civilized man than the Bison. His vast strength enables him, on his single person, to accomplish more in the plough, or the draft, than the stouter pair of Oxen. This has been fully proven by experiments made in the neighborhood of Cincinnati, on the Ohio. He mingled readily with the common domestic breeds of horned cattle and his flesh as beef is not of the inferior quality. It is said that (Q31 this animal does not now exist in a wild state to the eastward of the Mississippi. But on the plains of the west to the feet of the Rocky Mountains and far into the regions of the north and north west Bisons are found in perfect regularity extending over the plains in vast herds as far as the eye could reach. It would not be a difficult matter therefore through an Indian agency to obtain as many of the young calves at the proper season as might be necessary to try the experiment of domestication on a broad and satisfactory scale; and, should the Society hereafter turn their attention this way, there is no doubt but an important or valuable and a lasting benefit would be conferred on the country.

Some account of Bison (C515)

As the Leviathan of the ocean requires extensive and deep seas in which to careen and fulfill the ends of its creation so it is as great continents that nature is seen on the grandest scale and her creatures sprout in their largest growth and in the greatest multitudes. All that has been said of the myriads of herrings of the swarms of locusts of the flights of pigeons as realized in the numbers of a much larger animal, the largest indeed that is known on the American continent, the Bison. On the vast plains which cover the central parts of British North America between the Missouri and Saskatchewan and the Rocky Mountains and Lake superior and Winnipeg millions of this noble species are continually roaming to and fro in droves of from a few hundreds to ten or twenty thousand and even more as their multitudes may be sometimes seen to extend like the waves of the seas in every direction as far as the eye can reach. An anecdote told by Mr Henry in his M. S. of the numbers drowned at one time in the river [blank space] may serve to give some ideal of the almost incredible multitudes sometimes estimated in one line of passage. Although the animal is now pretty well known to naturalists and notwithstanding the recent and excellent work by Dr. Richardson it is in my power to make some interesting additions to its history.

First examine the proofs and arguments as its being the Bonassus of the ancients. As it is unknown on the shores of the polar sea and has never been found or seen higher than latitude 60 degrees or 64 it could not have arrived in America from the old continent. The following notices

may be taken from Henry's M.S.

p. 40 2nd part 41, 79, 81, 82, 83, 86, 91, 100, 108, 121, 145, 147, 148 to 152, 155 to 157

See also the last leaf on the back of the book

Indian Names for Bison (C516)

Ogee-bois		
Chippawayan	Pe – che -ke	
Kinistineaux	Moos – touche	
Assiniboine	Pee – tai	
Slave Indians	Ai – nen	
Sassee	Il – ki ai	Bull Buffalo
	Hun – na	Cow Buffalo
Kootanaes	Nil – skeep	Bull Buffalo
	Thle – koss – ao	Cow Buffalo
	Thle – kooss -oo - nummass	Calf Buffalo
Flat-heads	Chooth – lin	Bull Buffalo
	Es – stun – alt – e	Cow Buttalo

Of the Musk-Ox or Musk Bison *Bos Moschatus* (Q31)
[Musk Ox (*Ovibus moschatus*) Zimmerman 1780]

Following Blainville, Dr. Harland has removed this species, in his *Fauna Americana* to a new genus under the name of *Avibos*, though I must confess without apparent reason, at least in my judgment. I have therefore retained the order nomenclature thinking it by no means advisable, in any point of view to multiply genera and species unnecessarily. The fewer the distinctions the greater the simplicity, and simplicity is, or ought to be, the soul of science.

Pennant, Gmelin, Shaw and Cuvier

(Q32) have all considered this animal as *Bos*, and the trifling similarities which it has to the genus *Ovis* do not seem of sufficient importance to write the families. The animal, wolf, being of rare occurrence further south than the 65th degree of North Latitude seldom comes under the notice of zoologists but a most excellent description, together with ample particulars of its habits and manners will be found in Hearne's account of his journey to the mouth of the Coppermine River and it is probable that some further light may be thrown upon its natural history in Dr. Richardson's "*Fauna Boreali Americana*" a work I have not yet seen; but I am scarcely imagine a more ample or satisfactory account can be given of this animal than that which is contained in Hearne's book.

It might prove of service to the interests of agriculture, manufactures and commerce could some experiments be made on the long wool and hair of the singular quadruped to show how far it might be rendered valuable in a national point of view in situations for to the north where animals of the less hardy constitution would be unable to support existence. The musky flavour of the flesh is occasioned by a species of moss or lichen on which it feeds amongst the rocks and mountains that are its favourite haunts, and amongst which it roams in herds of twenty or thirty and sometime more, even to the borders of the Polar Sea.

(Q33) The specific characteristics of the *Bos Moschatus* are a horny large in proportion to the size of the animal, united at their base, on the top of the head then falling down the sides of the face and turning suddenly upwards at the points. Ears short eyes small and remote from each other and from the nose, which certainly more nearly resembles that of the sheep than the muzzle of an ox. It may be said to be without a muzzle, mouth small, lips thick. Body deep and much elongated, covered all over with long black hair having a soft wool underneath of a fine ash colour that is equal in quality to the finest wool of Shetland and may hereafter prove serviceable in our manufactures. The legs are short and strong, the hooves larger before than behind, very strong and hard, the points converging towards each other and enabling the creature to hold a firm footing on the pointed rocks amongst which it springs and runs with surprising agility. The tail is short, and not easily discerned at a distance. The size of the animal is that of an ordinary cow.

Although the adults are scarcely fit for the table, the young calves afford a delicate food for man and there is no doubt that the place has been hitherto undervalued. It is altogether a most curious and interesting animal, well deserving the attention of the Society.

Genus III Ovis (Q34)

The Sheep

Belonging to the order Pecora

Character of the Order

Furnished with several front teeth that are blunt and wedge-shaped, they have no front teeth in the upper jaw, and their feet have cloven hoofs. They have four stomachs, chew the cud, or ruminates, and feed entirely on vegetables.

Genetic Characteristics

Eight front teeth in the under jaw, no canine teeth. Facial fine usually crooked and without a muzzle. Horns concave, angular, wrinkled and commonly turned backwards. All the species are covered with wool and in some the wool is mixed with long hairs variously twisted and interwoven. Legs slender, feet hooved and pointed. They are herbivorous and granivorous.

Ovis Montana Silky-haired Goat of the Rocky Mountains (Q37)
[Mountain Goat (*Oreamnus americana*) Blainville 1816]

The Mufflon, Argali, Ibex or Big Horn Sheep of the Rocky Mountains (Ovis Ammon) and Ovis Montana The Silky-haired Goat of the Rocky Mountains (Q37)

I must crave the liberty of coupling these two rare animals together, in the remarks I have to make upon them, not because I consider them of the same species, but because there is much confusion respecting them amongst the authors who have attempted to describe their characteristics, habits, and manners. The truth is their haunts are so remote and inaccessible that few and those for the most part ill-qualified to judge, have had the necessary opportunities to determine their specific characteristics.

Only one single individual of the O. Montana has found the way to London and that is on the Museum belonging to the Linnean Society. The A. Ammon, if it is admitted, as most writers agree to admit, that it is the same animal with the argali of the older Continents is better known, though it is still a rare and valuable quadruped. Some authors and those two of a just celebrity rank these animals some with the sheep, some with the goat and others with the antelopes family. It is on account of this uncertainty, and because (Q38) their affinities seem more nearly to approach the sheep than either the goat or the antelope, that I have thought it best, for the present, to treat of them under the head where they are found. As I am taking some pains to elucidate their natural history I hope, hereafter, to be able to throw some important lights on the subject.

The horns of the male A. Ammon, are of enormous growth. They are curved first backwards, the forwards, and then upwards, with the points turned somewhat outwards or to one side. They are triangular at the base and are deeply wrinkled for nearly half their length, then smooth. I have heard of a pair of these horns weighing nearly 80 pounds and more than 3 ½ feet long. The

female too has horns but these are much smaller, more slender and more nearly resembling those of a common goat. Ears broad, pointed and straight. Tail short. Body covered with hair of a grayish fawn colour, during winter, with a fine down or wool underneath. It is from 4 to 5 feet long. Height 3 feet 6 inches, to 3 feet 9 inches. Wonderfully active and swift, hardly shy, pugnacious. Habitat the Rocky Mountains from their southern extremity on the confines of California as far north as that tremendous chain of granitic rocks have been explored.

The specific characters of the A. Montana may be thus drawn:

Horns black, annulated, curved backwards, short and conical. Body much elongated, although short on the leg. In size rather exceeding the common sheep (Q39) horns long and pointed. Tail short and curved upwards. The whole body is covered with long, white, silky hairs, having their base thickly beset with a down or wool of the most exquisite softness, superior as it is said in fineness to the wool of any known animal not excepting the famous giant of Cashmere.

This species is not found so far to the southward, although it inhabits the same range of mountains as the A. Ammon, but is common from the 50th to the 60th parallels of north latitude. It is particularly numerous about the upper forks of the Columbia River in our country and the Society could scarcely confer a greater boon on modern zoology and perhaps on our agriculture, manufactures and commerce than by using their influence in obtaining specimens living as well as dead through the agency of the North-west, and Hudson's Bay Company and their servants and it is scarcely to be doubted that successful results must follow.

The Mufflon, Argali; Ixex or Big Horn Sheep of the Rocky Mountains (*Ovis Ammon*)
[Bighorn Sheep (*Ovis canadensis*) Shaw 1804]

[Editor's Note: The Bighorn is discussed in *Quadrupeds* under the Mountain Goat above.]

Rocky Mountain Sheep (C97)

Is figured in Shaw and Nodder's *Naturalists Miscellany* under the name of Canada Sheep wherein it is presented as being of a brown colour with a white rump. It is a bad figure much too like the common sheep and the horns too near the head in their curvature.

Indian names of this animal

Slave Indians	Oo – mohk – e – Kineu
Kootanaes	Nil – ye - ass

Large Horned Sheep or Goat of the Rocky Mountains (M339)

Duncan Cameron Esquire, M.P. for Glengarry in the present Parliament, & formerly of the N. W. Company, assures me that he once saw the skull and horns of a male of this species which, after being long dried, weighed 97 lbs, and as the skull was small and thin, the horns alone must have weighed upwards of 90 lbs. He describes the horn as being very rugged with many circles and the points turning inwards.

Family Cervidae: Deers

Genus V Cervus The Deer or Stag (Q40)

Of the order Pecora, already characterized

Generic Characters

Horn at first fleshy, acutely sensible, cartilaginous, and covered with soft hair as down, afterwards solid, brittle and more or less branched, rugged and in some species palmated. They are annually renewed. Eight large teeth in the under jaw, no canine teeth. Eyes clear, large, full, sparkling. Body straight, light, and flat-sided. Legs most delicately formed, light, but strong and nervous. Remarkable for having no fall bladder. All the species are herbivores, though some will destroy and devour snakes. They are timid, salacious, affectionate. In habit both the old and new worlds.

So great is the confusion of authors in respect of the various species of this elegant genus that it would require a volume of no small dimensions to treat satisfactorily of this interesting family alone. I have paid a good deal of attention to the subject for the last fifteen years and am only sorry that I have at present neither time nor space in this brief essay to explain with the fullness I desire, the reasons which have induced me to arrange the above nomenclature in the manner I have done, but that it is more correct than any specification to be found in any single work, at present extant, I am pretty well satisfied time will show a few remarks will serve to determine the different species, in the above examination (Q42) at least so many of them ? Are known to other writers by their synonyms.

Cervus Elephas Stag or Red Deer (Q42)
[Elk (*Cervus canadensis*) Linnaeus 1758]

This is the *C. Canadensis* of Brisson, Linnaeus and Gmelin. The Cerf du Canada of Perrault and Warden. The staff of America of Catesby, the *C. Major* of Ord, and the Wapiti of Barton, Mitchell, Leach and Warden and also of Curvier. I have preferred the Latin name that has been given to the common stag or Red-Deer of Great Britain, and many other parts of Europe because I am satisfied that the Deer I mean under this name and many of which I have discovered in small herds in various parts of our colonies, here, is precisely the same animal with the *C. Elephas* of Europe.

Cervus Major The Wapiti Deer (Q42)
Elk

This is the Deer I have alluded to in my preliminary remarks and which has never been satisfactory described. That Dr. Harland supposes it to be the same animal with the last mentioned species, in his *Fauna Americana* is obvious by the synonyms he has give. But the true Wapiti which is a rare animal and favoured only in the remote and unfrequented deserts in the west, and north -west where it roams in small herds (Q43) and is accordingly shy and of difficult approach, is a much larger quadruped than the common Staf. It is indeed the largest known deer,

next to the moose and his horns are essentially different from those of the common Stag, being palmated, more or less, in the upper branches which is a character unknown to the C. Elephas whose antlers are uniformly round and pointed.

Elk (M 321)

Colonel Thomas Horner spoke of an Elk which to his knowledge weighed upwards of 900 lbs when killed. Their race in the western parts of Canada was destroyed only a few years ago by Indians now living who killed them all one winter in which there happened to be a deep snow crusted on top.

Wappiti or Biche (C83)

S. Fraser tells me that it is inconsiderable without hearing it what a noise and musical noise too large herds of Biche make in passing along in large bodies during the night along the banks of rivers & plains of the north west. All are whilst at the same time and in many different keys and may be heard at a vast distance in the night. He says it may be compared sometimes when at great distance to a large band of music.

Red-Deer or Wapati (C121)

Indian names amongst the

Flat – heads	Tae – yetz - a
	Snore - chiltz – un – is a Dol
Tupees	Chess – sai
Kootanaes	Kilth – Kat – le
Ogree – bois	No – mash – kose
Kinistineaux	Wah – was – skais
Assiniboines	Pow – no – kow
Cheoreuil Kootanaes	Wak - mat

Elk of Canada (M321)

Colonel Thomas Horner spoke of an Elk which to his knowledge weighed upwards of 900 lbs when killed. Their race in the western parts of Canada was destroyed only a few years ago by Indians now living who killed them all one winter in which there happened to be a deep snow crusted on top.

Cervus Canadensis Major (Q43)
[Caribou (*Rangifer tarondus*) Zimmerman 1780]

By the name I mean the true Caribou, or common Deer of Canada, an animal often mentioned and sufficiently common since the days of the first travelers on this continent, yet, to this hour, never described with any degree of accuracy notwithstanding the scientific and judicious Jefferson in his Notes on Virginia, long since expressed his wish “that naturalists who are acquainted with the renowned Elk of Europe, and who may hereafter visit the northern parts of America, would examine well the animals called there, by the names of grey and black moose, caribou, original and Elk”. Etc etc. (see his valuable little work on Virginia). I have given the name of Canadensis because it is the commonest Deer of Canada and added the term Major because all our Indians and hunters agree there are two kinds, one much larger than the other and with a specific difference in the ramifications and direction of the horns. Nothing can show how little has been understood on this subject than confounding this species with the Reindeer, an animal altogether unknown in the southern or settled parts of Canada, whilst the Caribou almost every where abounds.

(Q44) The horns of the Cariboo furnish a very distinguishing characteristic differing materially from the antlers of the deer kind rising near together in front immediately over the eyes. The stem retires backward over and behind the ears as if to protect the neck, then recurving forwards they bend inwards so far over the face that the last projecting points or antlers are perpendicular over the nose. The old bucks have no less than twenty antlers or branches and sometimes more, forming a beautiful crown over the head and the stems of the horns are so conveniently curved that the animal can readily bring all the sharp points to bear at once upon its enemy. In the old bucks a slight degree of palmation may be observed in the upper branches. There after I shall give a more full and particular account of this species many of which I have kept alive.

Cervus Canadensis Minor or Lesser Caribou (Q44)
Caribou

This species is also common throughout Canada and differs chiefly in having shorter and thicker legs in never attaining the same stature in the smaller size of the ears, and tail and in having its horns less branched and flattened and with fewer antlers.

Cervus Tarandes or Rein-Deer (Q45)
Caribou

As I have already observed this species one of the most celebrated and remarkable of the family to which it belongs had been confounded with the Caribou by authors who ought to have known better. It is essentially different from the Cariboo in having conspicuous brow-antlers on the horns on its entire form which is more heavy and clumsy and in the formation of its feet, which are broad, loose and spreading and comparatively flat whilst in the Cariboo the feet are high, narrow, firm, compact and very sharp-pointed. I very much doubt whether the rein-deer has ever been seen so low down as the northernmost shore of Lake Superior. It is so certain that the Cariboo has been mistaken for the true rein-deer that were it not for the testimony of some modern travelers of highly deserved consideration who have explored the Arctic regions

belonging to the Crown of Great Britain on this continent and who say that the C. Tarandus is there found in the wild state. I should greatly doubt our having it at all.. But of this I am well assured, it is no where found in the settler parts of British North America.

Notes: Containing some omissions and remarks (Q86)

I would not have it understood that I assert the true Rein-Deer of the North of Europe is not found in America, but, that it is not found so lower down as any of our settlements south of Hudson's Bay; and, further, that the Cariboo, although bearing some similitude to the Rein-Deer is a distinct species. I am not without suspicions that the animal that I have named the Lesser Cariboo, and the Virginian Deer, are mere varieties of the same species.

Canadian Rain-Deer or Caribou (C215)

Nothing can exceed the delicacy & richness the marrow which is obtained from the jaw bones of this animal. Great numbers of the horns of this animal are found in many parts of the bottom of Lake Simcoe. W. Ritchie of Medonte or Oro has a number of them but few of the skeletons or any other remains of them.

Cervus Alces Moose Deer or Elk (Q42)
[Moose (*Alces alces*) Linnaeus 1758]

Of the first species, there is no doubt its characters and habitats are well known and all authors have agreed upon its scientific and trivial name. It is found in Newfoundland, Cape Breton, Nova Scotia, New Brunswick, Labrador, Hudson's Bay, and Lower Canada, but although occasionally seen in the colder parts of Upper Canada, it is, in that province, now a rare animal.

Notes: Containing some omissions and remarks (Q86)

I ought to have qualified my assertion respecting the Moose-Deer, some what more than I have done. They are found and killed every winter, in greater or lesser numbers, in the Ottawa District, but further to the westward they are certainly rare.

Moose Deer (C37)

Some idea of the speed at which these animals can trot may be had from the fact that about 25 years ago (say about 1805) a man who had tamed and broken in a pair went for a considerable ride from Montreal to Quebec in a rig being drawn to them in a sleigh made for the purpose. One of them died however from the exertion. This I had from Chester Ford, my tenant.

The finest pair of horns of this animal I have even seen are in the possession of Dr Baldwin of Spadina near York. They formerly belonged to the Honorable Peter Rupell, President of the Province.

Moose Deer, Spike-Horn Variety (C39)

I am informed by Simon Fraser that about English River in the North West there is a curious and distant species or at least variety, of the Moose, either the spike-horn moose from the circumstance of its having a single spiked horn projected from the centre of the forehead directly behind the large antlers. In other respects it resembles the common Moose of these parts from which however it keeps in separate herds. It is barely possible Mr Fraser may mistake this animal which may be in other than a Woodland Caribou and yet he is so well acquainted with the wild animals of those parts where he resided so many years that supposition can scarcely be entertained.

Wild animals appear to be able to smell water at a great distance and it is a fact that many Indians have that faculty.

Moose Deer (C39)

The following are some of the Indian names of this animal in the

Ogee – bois language	Mouse or monge
Kinistineaux	Mous – wah
Assiniboine	Tah

Slave Indians	Ci – kit – is – so
Sussee	Tin – ni – chai
Kootanaes	Stch – e – nah – soo – koo

A very large male moose whose skin measured 14 feet long by 8 wide was killed by the Rice Lake Indians Sept 1831 now in possession of Captain Anderson though I rather think a young Elk.

I learn from Mr Simon Fraser so long in the North West that there is a variety or species of Moose about the English River.

The flesh of the Moose is superior a delicate flavour and juiciness to that of any other of the deer kind killed in the North West. Some interesting notions of the moose in Audubon's Ornithological Biography and from it in Athenium No 379 P. 88

Moose Deer (M54)

Charles Haywood and others being out shooting pigeons behind Willard's house not more than a mile, on the 21st of Sept., 1817, saw a very large Moose which they described to me larger than the largest one in this neighbourhood, feeding in the wood at his ease. But being disturbed by their firing at some Pigeons he became alarmed and bolted off in high flight going over logs and the highest bushes with the utmost freedom and agility as tho' they were nothing. The animal is extremely rare in this part of Canada.

Notation: A young male was killed on the River Trent near the Rice Lake 1831.

Clipping from the *Montreal Gazette* May 12th, 1835

This year has been more than usually fatal to the Moose Deer. The Lorette Indians have killed about thirty this spring, and probably an equal number has been killed by other hunters. The deep falls of snow and the prolonged frosts of the spring which form a crust on its surface, afford a very favorable condition of things for this description of deer-hunting, which is probably peculiar to North America. The moose has a closed hoof, not spreading like that of the rein-deer; it consequently sinks to the ground at every footstep.

In the fall, the brood choose their beat where the shoots of their favourite trees are most abundant, and treading the snow at each fall, they manage to pass the winter if undisturbed. The parties who seek them, first find their beat, and if the crust and snow are favorable, they start the deer and pursue them on snow shoes. The exceedingly timid animal, first rushing off with a bold and strong full speed, soon flags, and a couple of miles or rather more, according to the state of the snow, brings up its pursuers to dispatch him with the gun, or cut the sinews of his hind legs with the tomahawk. Its senses of smelling and hearing are exceedingly acute, and it is almost impossible to surprise it, but it easily thus falls overpowered by its own struggles, claiming the pity of its pursuer with a submission so unresisting, that it sometimes draws a tear even from the savage. Ib.P. 56

Cervus Virginianus or Virginia Deer (Q46)

[White-tailed Deer (*Odocoileus virginianus*) Zimmerman 1789]

This species, which is widely spread from Jame's Bay to Mexico approaches most nearly to the Fallow Deer of England than any other kind to be found in the colonies. It is the Cerf of Louisiane of Cuvier and has been well and often described.

Long-tailed Deer (C111)

Shooting deer by moonlight is an interesting diversion in some parts of Upper Canada especially in the west, but it requires great caution on the part of the hunter as the leader of the herd will discover him almost in the first stir or smell him when the leading deer first suspects he tramps forcefully with his fore-foot once when the whole herd or such as he may have with him halts & look around with ear and tail erect. The first deer cautiously reconnoiters the spot where the supposed & recently contacted enemy is in ambush and whilst doing as often gets shot but when afraid there is a danger he stamps twice or sometimes thrice with great force on the ground so as to be heard at a considerable distance when the whole herd instantly scrambles off at full speed. A. W. Putnam, a friend of Dr. Duncomb in the London District, is a great night hunter in this way.

Virginian or Long-tailed Deer (C109)

Will follow the skunk and instantly kill it in the same manner as they kill snakes. They will follow the track for a great distance and seems to have a peculiar antipathy to that animal which, indeed has many enemies. A slice of a Deer's raw liver soaked in strong vinegar or dropping vinegar upon it is an Indian remedy and is a very efficient one for inflamed or sore eyes.

Sometimes in fighting, old bucks so entangle their horns together that they cannot disengage themselves and perish in consequence. Scadding has a pair in such a position that strongest man cannot pull asunder without breaking. This pair was found in the Township of Mono & in struggling to get free they had worked their heads under a fallen tree and the wolves had eaten their bodies.

Long-tailed Deer of Canada (C113)

It is well known that the Common Deer of Canada are beautifully and regularly spotted with white margined in longitudinal rows of oval spots of white and reddish fallow ground whilst young but that the spots disappear in total as the animal arrives at maturity or is able to take care of itself. This is one of the wise provisions of nature, or rather of the all-wise and all-beautiful God of nature for these spots make it a much more difficult matter to discover the young animal whilst squatting or lying in a covert under a threat of danger and the first alarm the young deer instinctively seek to hide themselves. But the most extraordinary fact relative to these spots is this, that whilst the animal is so alarmed it has no scent. A dog will actually run quite over or gaining favor so walk close by it without being able to scent it at all but the moment they disappear the deer may be traced by the scent it is said to be seated in their hoofs in sale in their feet in like manner with the complete adults. If these spots disappear in the fall of the same year

in which they are fawned or in other words when the first hair drops off and the second coat which is of the permanent adult colour spreads over the body. This is of a more dingy fawn or more nearly of a mouse colour and renders the animal very difficult of observation whilst standing still. The horns are at full maturity about the first of November or towards the end of October and they do not lose the down or covering of velvety hair until at maturity. The vulgar have a notion that the horns acquire a prong.

*** or rather a longitudinal row on each the back and the others irregularly disposed of though mainly at great distances along the []

(C115)

[] and some travelers of celebrity have asserted the antler in addition to every years growth but this is of course an error as the horns form its principle specific character and the yearly buck of 100 lbs weight has as many antlers as the buck of 300 – 400 lbs weight. The number of antlers seldom exceed it on each horn (some have five on one horn & six on the other) although towards the base of the root of the horns of the adult there are rugged promiscuous having very much the appearance of the rudiments of brave or age antlers, but which never absolutely acquire that character these provide so far in old bucks however as to give the delivered effect to its assaults upon every enemy perceived within the curvature of the horns. The head of a buck weighing about 250 lbs shows much of the following dimensions

1. A line drawn from the centre of the head behind the horns & exactly in the middle between the ears, to the nose 16 inches
2. From the root of the horn, in front, to the tip of the nose – 11 ½ inches
3. From the corner of the eye to the tip of the nose - 7 ½ inches
4. From the root of the horn to the root of the other in front across the upper part of the forehead – 3 inches
5. The ears which were remarkably large measured from the tip of the hinder part of the root of the horns - 9 inches and more fully 3 inches broad across the opening at the widest part--
6. Both horns, measuring from the tip of one to the tip of the other, round & following from outmost & hinder curvature and across the forehead – exactly 4 feet
7. A single horn, measured in the same manner - 22 inches
8. A line drawn from the tip of one horn to the tip of the other straight across from point to point in front – 19 inches

(C117)

by which it is seen they curve considerably inwards, as well as forwards, and with the antler adjoining, and immediately behind. The necessity of an eye or brow (as on most other species of deer) antler, in defense being much more formidable.

9. The longest antler, measured singly from the junction with the stem of the horn, to its point do not exceed 7 inches, on the drawing the different lengths are given by which it will be seen they are irregular.

10. The curvature of the stem, first backward & then forward & then upward is very considerable, forming nearly $\frac{1}{3}$ rd of a circle.

11. A line drawn from the stem of the root in front to the tip straight was exactly one foot so that the tip was one foot of elevation & nearly two of curvature.

The horn is so far curved backwards as to cover & protect the ears when likewise thrown back. The stem is round as far as the second antler where it becomes slightly flattened and palmated particularly where the antlers are articulated. The antlers are very sharply pointed. From the forehead to the first antler the horn of the adult are very rugged or covered with knobs or small rough projections. The colour of the horn in its perfect state just freed from its downy covering is a bright reddish-brown fading into yellowish-white on the antlers & projections & towards the extremities. The drawing will give us as accurate a representation as could be taken. In attack or defense by putting....

* They are not only irregular as to length but also as to number & nothing can show the untruth of the operation of their obtaining an additional antler with each year of its growth than two in my possession one of 4 with 9 antlers & one much larger of 5? with []

(C119) [] down & drawing on the nose the points of all the antlers can be brought to bear upon an enemy in a most formidable manner, and during flight, by the great curvature backwards of the main stem & elevating the nose so as to be horizontal with the line of the back or somewhat elongated above that. The horns are placed in such a position as to avoid being caught in the branches of trees or brush wood, and in this manner they always run, trot or bound. Amongst the absurdities of Buffon is certainly the attempt to show that the horns of the stag or rather of a vegetable than of an animal growth. His remarks that the reindeer of Lapland, the fallow deer of Freeland & the caribou of Canada are the same animal is equally absurd he might have well have said that all the Cervi were the same animals varied only by change of situation & climate. At this rate Noah would not have required an ark of half the dimensions actually given.

Nose black, the a run of greyish or cream-coloured white, middle of the face between the nose & eye, a very deep black, grey around the eyes a whitish circle, very long black eye-lashes & black hairs or bristles as feelers both above and below the eye. Forehead very tinged with ferruginous inside the ears, outside grey and white.

Long-tailed Deer (C121)

The long-tailed Deer in Wood's Museum in York is a very large one and appears by the horns to be about 7 years old. It has the upright forked prongs near the base and in the inside of the which I am inclined to think the Black-tailed or Jumping Deer have not. The tail appeared to be fully a foot in length, white beneath and fawn-coloured above without any black at all. The ears of this kind are much larger, longer and thickly covered with hair than the Black-tailed kind which are shorter and broader and nearly matted and of a darker colour nor did I observe those peculiar marks on the side of the shank bones a little above the buttock as in the black-tailed kind. I have reason also to believe that the long-tailed deer attains a larger size than the black-tailed species, and I am satisfied they are distinct.

Seer, Different Indian names of

Cabbrie or Fallow Deer, or Jumpng Deer

amongst the Flatheads	Choo – ool – la
Kootanaes	Cha – wltz – the – greese oil
Ogee -bois	Much – ca – tai- wen – ou – oush
Kinistineaux	Ah – pis – r – mouse – cuse
Assiniboine	Tah – tu – gan
Slave Indians	Ou – wah -cass

Red Deer or Wapati

amongst the Flatheads	Tae – yetz – a
	Snore – niltz – an -is a doe
Sussees	Chiss – sai
Kootanaes	Kilth – Kat – le
Ogee- bois	Ho – mash – kose
Kinistineaux	Wah – was – skais
Assiniboine	O – pah
Slave Indians	Poon – no – kow

Chireuil

Kootanaes	Wak - mat
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Virginian or Long-tailed Deer (C129)

Is of a bright bay, and sometimes even of a light and bright red colour in summer and it exhibits a strange motley appearance when changing from its winter to its summer garb.

Cabbrie or Jumping Deer

of the north from Simon Fraser's description to one of this deer I suppose it was an antelope of the smaller kind.

Mr Simon Fraser's papers are with Mr McKenzie at Terrebone behind Montreal. Fraser knew Alex Henry well and says that he would not have been drowned in the Columbia but for McTavish who taunted and dared him to his fate. Henry saw the danger and knew they must perish which he chose rather to do rather than be considered a coward.

Long-tailed Deer (C161)

The following is the measurement of a large deer which I skinned which was killed in the Township of Clark December 5, 1831. The 4 quarters weighed 284 lbs. The whole animal gutted 280. Total length from nose to end of tail 7 feet 1 inch of which the tail was almost to the end of the hairs 15 inches but of the tail (without the hair, 11 inches.) Height of the ? When pickled 11 ½ inches . From nose to the root of the horns, in front, 10 ½ inches. From the bottom of the root of the horn, behind, to the root of the tail 4 feet & 9 inches. Neck measured from the root of the ears to top of the withers 1 foot 7 ½ inches. Circumference of the neck (it is very muscular) in

the middle 2 feet and 4 inches. The roots of the horns on top of the forehead only 3 inches apart. Height of the animal from the toe, when standing, 3 feet 9 inches. The hind shank long measuring 1 foot 9 inches from toe to hock. Girth round the chest 3 feet 7 inches.

It appeared to be 5 years old or rising five antler measurements of the same buck 14 inches round foreshank just below knee 13 inches, round fore arm at the elbow 9 ½ inches, middle between elbow joint & knee 11 ¾ inches, round hind shank, by the process 8 inches in circumference just above the hock, round thickest part of the thigh near fork, 2 feet 4 ½ inches, round middle of the thigh round the centre muscle 17 inches.

Superior parts of the body dark reddish-grey, inside of hair being ash colour until near extremity when it is darker being nearly black and tipped with reddish-fawn colour or dull ferruginous in such a manner that in the hair lies smooth the coat exhibits about equal portions of deep ash & ferruginous thus forming the sort of grey above mentioned. On the sides the colours are lighter and brighter until it becomes towards the belly of a uniform sub-bull or the orange of Werner. The same brighter colours also extend to the outside of the thighs & legs. Chin, throat and inside of the forearms, belly, and on the inside of the thighs a pure white. The breast between the fore legs is of a dark grey or deep ash colour. Fore part of the neck dull yellowish-brown, a long white vertical mark 3 inches high by 1 broad is conspicuous on the front of each foot as it ascends on high the division of the toes and it is under this mark the scent []. A smaller white mark is also placed under each of the hind claws and a little above the fore claws. A white spot or mark also surrounds the warty process on the outside & near the middle of the hind shank bone where the skin is ... and more fleshy and having a hollow or groove..

[Editor's note: to 163]

C163

the middle in which the process is situated on the inside of the back. In a singular and very large tuft of long thick, dense hair of a deep, rich chocolate red colour of Werner, nearly black in the middle and surrounded by a circle of an orange-brown of Werner. The hind feet of the hock and all along the back part of the shank becomes a line of bright ferruginous. The hoofs which are long and rather high are very sharp pointed and capable of inflicting a serious wound and of a shining black colour. As this animal is remarkably sickle-hooked as a Yorkshireman would call it. The use of this tuft of hair is very obvious to protect that part from chafing too much when much agitated in its gait. The description may be finished from the preserved specimen in my possession.

Cervus Macrotis or Large Eared or Black -tailed Deer (Q44)
[Mule Deer (*Odocoileus hemionus*) Rafinesque 1817]

The ears of this species are very large, and covered with long hair and much rounded at the top. The tail is so long when hanging down as to reach nearly to the rock. It is black above and white below and around it and is a strikingly distinguishing characteristic (Q 45) although most numerous on the plains of the interior and in the most unfrequented places. I have found this species even in the settled parts of Upper Canada, but not frequently.

Family Antilocapridae: Pronghorn

[Editor's note: Antelopes have been split from the Deer and placed in their own family. Fothergill placed the Pronghorn with the Deer when describing their generic character.]

Cervus Anticapra or Common Antelope (Q46)

[Pronghorn (*Antilocapra americana*) Zimmerman 1789]

This animal is the link between the goat and the deer but having greater similitude to the last than the first. I have placed him amongst the cervi. His characters however are materially different. His horns, triangular and wrinkled transversely at the base rise in two prongs separating as they rise wider and wider inclining outwards and backwards at the extremities. About two thirds of their height is a short and sharp pointed antler projecting forward. His eyes are very large. Soft and full reddish brown in the back, white on the belly and inside of his legs and buttocks black on the sides, near the flank. Top of the head, cheeks, and lips white, face chestnut. There is also a white spot near the ear. He is a trifle larger than the roe-buck, being upward of three feet long from the ears to the root of the tail and nearly three feet high. He is airy, light agile and swift to a surprising degree and can outrun all the animals of the plains of the interior, where he is found as far as the feet of the Rock Mountains.

Cervus Capreolus or Roe-Buck (Q46)

Pronghorn

The smallest and most rare of the family on (Q47) the continent. Notwithstanding what various travelers have asserted. I entertained many doubts, until the last two years that we really had the roe-buck amongst us but having heard much of a small deer by the report of the hunters to which they gave the name of Spike-Horn I became more particular in my inquiries and the result has been a conviction that the true *Capreolus* may be ranked amongst our Canadian Quadrupeds, although I have not yet obtained a perfect specimen I have a pair of very perfect horns, taken from the head of an adult of this species, killed in Saxony which my Indian hunter declares to be exactly similar to the species sometimes met with, though rarely in the remote hunting grounds in this province.

I have now gone hastily through the catalogue of this elegant and interesting family scarcely an individual of which is not serviceable to man, either as food or as contributing materials for clothing or for various kinds of domestic manufactures. Many of the larger species were formerly used, even in England and the West and for agricultural purposes but such has been the increase of other animals better adapted for those purposes in modern time that we need scarcely call upon the deer of the forest to supply their place and it is probable in a few years many of the species?

[Editor's note: It is unclear which species Fothergill is trying to identify. *Cervus capreolus* is the European Roe Deer not found in North America.]

Cabbrie or Jumping Deer (C129)

Of the north from Simon Fraser's descriptions to one of this deer I should suppose it was an antelope of the smaller kinds.

Simon Fraser's papers are with Mr McKenzie at Terrebonne behind Montreal.

Fraser knew Alex Henry well and says he would not have been drowned in the Colombia but for McTavish who taunted and dared him to his face. Henry saw the danger and knew they must perish which he chose to do than be considered a coward.

Deer, Different Indian names of Cabbie or Fallow or Jumping Deer (C121)

Amongst Flat -heads	Choo - ool - le
Kootanaes	Cha - sultz - the - gruse - ovil
Ogee - bois	Muck - ca - tai -wun - ou - ouich
Kinistineaux	Ah - pis - e - mouse - cuse
Assiniboine	Tah - to - gan
Slave Indians	Ou - euph - caa

Introduced Domestic Animals

Domestic Cat (C32)

The cat's great propensity for fish

Dog (C80)

[Domestic Dog]

The various Indian names for this animal on the N. American Continent are as follows:

Ogee – bois	Animouche
Kinistineaux	Ah – tim
Assiniboines	Thonga
Slave Indians	In – me – tai
Kootanaes	Kah – chin
Flat – heads	Ahgh – a - cheen

Horse (C78)

[Domestic Horse]

The Indian names are as follows amongst the:

Ogee -bois	Tai -pai – jik – o – skung – hee
Kinistineaux	Mis – tah – tin
Assiniboines	Ah – can – ye – cabe – or – tanga – shonga
Slave Indians	Poo – no – ko – me – tai
Kootanaes	Ah – kit – th – la – ah – chin
	Ah – kee (is the mare)
Sussee	Chis – tle
Flat – heads	Chiltz – altz - har

Sagacity of a Mare (M188)

[Domestic Horse]

A remarkable instance of sagacity, or rather force of habit and instinct combined, lately occurred in a mare the property of Mr. Losee now of Whitby Township. His present residence is upwards of 50 miles from his former one in Haldimand where Captain Frazier now lives.

He has an old favourite mare that has brought him many foals and it seems she was in the habit of dropping her foals always in the same place, on a dunghill behind or near a barn. When the time of foaling drew near she set out from Whitby, no fence or other impediment being capable of restraining her, and traveled all the way into Haldimand.

Many persons who knew the mare endeavoured to stop her, but the attempt was uniformly vain

she would leap the fence at the side of the road, or run open mouth at the person making the attempt, and on arriving at the farm alluded to, she went quietly to the old spot and dropped her foal.

Domestic Cow

Old English Bison Urus or Wild Bull (C516)

I have no doubt that our ancestors were acquainted with two species of wild cattle in Britain. One much larger than the other. The largest being the Bison or Weld to which the large horns mentioned by Dr Gesner and those sometimes found by diggers on accidental exposures in various parts of England, such as those mentioned on the leaf of this book, belonged. The smaller kind were those white cattle sacred to the Druidical Priesthood and which are still preserved in Chillingham Park and the cause of those last being longer preserved than the others probably arose from the sacred purpose to which they had been put.

Wild Cattle, White Bulls – Human Affinities (C509)

I am inclined to think the white cattle of Chillingham are the remains of the sacred breed used in the sacrifices by the Druids. Whether those were antecedent and consequently aboriginal or subsequent to the arrival of the Phoenicians may be questioned but that there was another breed of wild & horned cattle in the British Islands when generally in a state of wilderness, I think there is no doubt from the descriptions of the ancient curiosities. We know that white bulls were sacrificed in the Druidal ceremonies probably by their colour as an emblem of purity but it is not probable that when our [] for the sacrifice dependence []

[Editor's Note: not transcribed as passage is relevant to England and difficult to read. The passage continues on half of page 508.]

Common Sheep (C492)

Whether this commonly supposed silly & nearly brainless animal has more of imagination than some others of supposed superior intellect or not I shall not say but the following note which may be relied upon as corroboration in the strangest manner the truth of Scripture relative to the affair between Jacob & Laban. One Eliazer Orvus, a man of probity & truth amongst his ewes with lamb in 1821 in Pickering U.C. had one that was likely to die in lambing. He cut its throat in the field where there were many other also in the family way six of these gazed intently at the operation. The dying ewe with a large gash in the throat & drooping ears presented to them a spectacle of uncommon & powerful interest, 4 out of six of the ewes produced lambs with the appearance of gashed throats 7 drooping ears but not live long. This is a fact.

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