

## ART. 7. MUSEUM OF NATURAL SCIENCES.

BY C. S. RAFINESQUE, ESQ.

3. *Synopsis of four New Genera and ten new Species of Crustacea, found in the United States.*

**T**HE Crustacea or Crustaceans are a peculiar class of animals, formerly blended with the insects; but of late distinguished with propriety, since they have gills, a heart and blood, of which the insects are entirely deprived. The animals commonly called crabs, lobsters, shrimps, &c. belong to this class; they had been enumerated by Linneus in only three genera, *cancer*, *monoculus*, and *oniscus*, while they form now a large and extensive group of about one hundred and fifty genera, and one thousand species, and we only know a small share as yet.

Few species of the United States had been noticed by Linneus and Fabricius, Bose has described several and Leach some, mostly new: Dr. Samuel L. Mitchell has noticed those of New-York, in his

Memoir on them, presented to the Literary and Philosophical Society of New-York; but he has not adopted the generic improvements of Latreille, Leach, and myself, (in *Analysis of Nature*.) Mr. Say of Philadelphia, who has wisely adopted most of these improvements, has described a new genus, *Cerapus*, and begun an account of the southern species, in the fourth Number of the *Journal of the Phil. Ac. of Nat. Sc.* I shall add, thereto, fourteen new species, four of which belong to new genera; whence we may hope, that the knowledge of these animals will begin to increase in our country, and when all those which live in our lakes, rivers, and brooks, and those inhabiting the shores of Florida, Louisiana, Massachusetts, &c. shall be described, we may hope to be enabled to sketch a general enumeration and history of those singular beings. I shall

merely give, at present, synoptical descriptions of my new genera and species, the nature of this work precluding the possibility of giving figures and full descriptions, which must be delayed till I shall be able to frame an American Plaxology. I have given that name to the branch of Zoology which assumes the study of those animals. The former names, Crustaceology and Gammalogy, being both erroneous, the first being half Latin and half Greek, the second applying, or implying, a reference to the genus *Gammarus* only.

I. NECTOCERAS. (N. Order *Macruria*, N. family *Palinuria*.) Two interior antens bearing at the top a flat appendage, the two lateral antens longer simple, eyes lateral behind them: feet nearly equal, with simple nails: tail four lobed.—Obs. The name of this singular genus is derived from the two antens which have a foliaceous and swimming appendage, and means swimming horns. It has very much the habit of its family, and particularly of the genera *Crangon* and *Palinurus*: this family is the fifth belonging to the second natural order, and is distinguished by its long fan tail, ten feet without nippers, peduncled eyes, &c.

1. *Nectoceras pelagica*. Rostrum subulate, equal in length to the interior antens, their appendages oboval: body smooth fulvous, tail white, with four violet spots opposed to the lobes.—Obs. It lives in the Atlantic ocean and in the gulph stream on the *Fucus natans*, where it was first observed by Mr. Bradbury, who has shown me a fine drawing of it; I observed it likewise in 1815. Its length is two or three inches; when it loses its hold it swims with its antens and tail.

II. NECTYLUS. (N. Order *Brachuria*, N. Family *Nectonyxia*.) Body elliptic, two pairs of antens ciliated, the upper antens longer; two large thick and bifid palps; feet nearly equal, the first pair a little swelled, all with flat toes, without nails; the last segment of the tail very long.—Obs. The name means in Greek, swimming fingers, being contracted from *Nectodactylus*. It has much affinity with the genera *Orithyia* and *Ranina*, from which it differs by having all the feet without nails, and two large cheliform palps. The family *Nectonyxia* contains all the short tailed crabs with swimming nails or feet.

1. *Nectylus rugosus*. Palps cheliform two-thorned as long as the eyes; forehead three toothed and ciliated; first pair of feet with a long external thorn to the wrist; body olivaceous above, white

beneath, thorax wrinkled, last segment of the tail lanceolate acute ciliated.—Obs. This beautiful little animal is about one inch long, and lives on the sandy shores of Long-Island, where it burrows in the sand as a mole with great rapidity, and swims with equal swiftness. It was communicated to me and the Lyceum by Dr. S. L. Mitchill, who has named it *Hippaachiria* in his paper on the New-York Crustacea; but the genus *Hippa* (or rather *Emerita* of Gronovius, an anterior and better name) belongs to the long-tailed cancers, and this has the tail shorter than the thorax, and all the characters of *Ranina*, &c.

III. PSAMMYLLA. (N. Order *Branchypia*, N. Family *Gammaria*.) The two upper antens, with two long segments at the base, and many small articles at the top; lower antens very short; all the feet with one nail, the last pair much longer and larger: each segment of the body with a lateral appendage, tail with four bifid unequal filaments.—Obs. The name is abbreviated from *Psammopsylla*, which means sand-flea. The family *Gammaria* is the fifteenth in my natural classification, and is distinguished by fourteen feet, four antens, body not depressed, &c.

1. *Psammylla littoralis*. Longer antens doubly than the head, short antens not longer than their first segment; last pair of feet double in length; body rufous above, white beneath.—Obs. I have found this animal in great numbers on the shores of Long-Island and New-York, and on the Hudson river, jumping about like fleas, whence its vulgar name Sand-flea; it jumps by means of its hind feet and tail, like locusts. Length about half an inch, often less; eyes large and round.

IV. PEPHREDO. (Natural order and family of the foregoing.) The two upper antens longer and with six long segments; all the feet with one nail, and nearly equal, the two first pairs with thick swelled hands; body without lateral appendages, tail with simple filaments. Obs. This genus was noticed in my Analysis of nature, and formed on an European species; the name is mythological. It may be deemed a singularity in this family, that this genus should be a fresh water one, and the last a land one!

1. *Pephredo potamogeti*. Long antens, scarcely longer than the head and double of the short ones; body fulvous, transparent, with a central brown or longitudinal stripe.—Obs. It lives on the *Potamogeton perfoliatum* in the Hudson and the Fish-

kill, near Newburg. Length three lines, creeper, eyes very small.

1. *N. Sp. Astacus limosus*. Antens length of the thorax, rostrum equal to their peduncle, one toothed on each side, canaliculated at its base; a thorn above the eyes, another on each flank, three pairs of pincerous feet, bearded at their articulations, hands short, smooth, unarmed.—Obs. I discovered this species in 1803, and observed it again in 1816, in the muddy banks of the Delaware, near Philadelphia; vulgar name mud-lobster, length from three to nine inches; good to eat, commonly brown, with an olivaceous tinge.

2. *Astacus fossor*. Antens length of the body, rostrum short, one toothed on each side, a thorn behind the eyes; three pairs of pincerous feet, hands of the first pair very large, granular gaping toothed, with a furrowed and bispinous wrist.—Obs. Vulgar name, burrowing lobster—communicated to me by Dr. Samuel L. Mitchill—native of Virginia, Pennsylvania, and New-York; size from four to six inches, it burrows in meadows and mill dams, which it perforates and damages.

3. *Astacus ciliaris*. Antens length of the thorax, rostrum short acute, without teeth; three pairs of pincerous ciliated feet; hands of the first, short thick dotted; wrist furrowed, with two unequal teeth. Obs. Length three to four inches, entirely olivaceous brown, lives in brooks near Fishkill, Newburg, &c.

4. *Astacus pusillus*. Antens length of the thorax, rostrum oval acute, a thorn and a longitudinal angle behind each eye; three pairs of pincerous feet, hands of the first oblong dotted, wrist smooth. Obs. A very small species, living in the brooks near Saratoga, Lake George, Lake Champlain, Ulica, Oswego, &c. length one or two inches; vulgar name, brook prawn, shrimp, or lobster, entirely fulvous brown.

5. *Pagurus truncatulus*. Right hand the longest, reaching the two following pairs of long feet; hands granular; fingers with two obtuse teeth; wrists prismatic; thorax smooth, nearly square; forehead broad, truncated.—Obs. A very small species, scarcely one inch long; it lives on the shores of Long-Island in the shells of the small species of *Buccinum* and *Murex*.

6. *Grapsus limosus*. Forehead broad entire, sinus of the eyes lunular, with sharp angles, sides angular entire, back convex smooth, with some transverse wrinkles: feet compressed, angular, nearly smooth, hands small, smooth.—Obs.

A small brownish species, with yellowish hands and belly, about one inch in diameter; the body is quite square, scarcely half an inch broad. I have found it common on the sea shores of Long-Island in muddy overflowed banks, where it burrows in the mud, and is always covered with a muddy slime.

7. *Ocypoda pusilla*. Forehead advancing obtuse entire, shoulders flexuose with a sharp angle, sides angular with two angles below, and a suture between them, back convex shining olivaceous; feet compressed and bristly, hands unequal, the left granular, the right very small and smooth.—Obs. Shape of a short rhomboid, broader anteriorly as in all the real species of *Ocypoda*; those with a different shape belong to my genus *Ocypete*. Size of the foregoing, common in salt marshes and on the south shores of Long-Island.

8. *Portunus menoides*. Forehead with three teeth, the middle one longer, one fissure behind each eye, sides with five nearly equal teeth: hands prismatic, with one internal tooth, and the wrist with two teeth, the external larger, back olivaceous with small black dots.—Obs. Similar to the *Portunus menas* of Europe, which has, however, only one tooth to each wrist, the hands not prismatic, the forehead equally trilobed, and the back with large spots. Size from one to three inches, common in New-York, Long-Island, New-Jersey, &c.

9. *Daphinia dorsalis*. Antens unequally bifid, shorter than the body, branched one sided anterior, body oval, acute at both ends, whitish, with a brown streak on the back, eye black.—Obs. My genus *Daphinia* is the *Daphnia* of Latreille, which name was too much alike *Daphne*, an anterior genus. This species is common in the sea on the shores of Long-Island, &c. The whole length is less than one line.

10. *Cymothoa pallida*. Pale cinereous above, with two longitudinal whitish streaks, the three last segments of the abdomen broader, the three last pair of legs double the length of the others, body elliptic, head attenuated obtuse.—Obs. It lives by suction on the gills of Fishes, Shads, Herrings, Perches, Minnows, &c. Observed by Messrs. Clemens and Torrey, near New-York: length half an inch, white beneath, tail broad and flat, appendages not much longer.

Note. I am partly acquainted with many other new species of the Genera *Cancer*, *Inachus*, *Portunus*, *Ocypoda*, *Astacus*, *Palmon*, *Squilla*, *Idotea*, &c.:

but it must be hoped they will be fully described by Mr. Say ; if they are not, I shall endeavour to bring them to light. I recommend particularly to him and other observers, two species of fresh water Crabs, (probably of the genus *Grapus*,) inhabiting the interior of our continent, which are certainly new, one of them was discovered in 1816 by Mr. Debar near Sandyhill, but the specimens were mislaid : likewise the fresh water Lobsters and Shrimps of the great lakes, the Ohio, the Mississippi, &c. I believe that there are at least two species, perhaps three, blended under the name of *Lemulus polyphemus*.

New-York, 10th October, 1817.

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10. *First decade of undescribed American Plants, or Synopsis of new species, from the United States.*

Within two years I have discovered, or observed again, in the States of New-York, Pennsylvania, and New-Jersey, nearly one hundred new species of plants, undescribed in the late Flora of North America, by Pursh, or noticed under false names ; and several others have been communicated to me by my botanical friends. In order to make them known, and to secure our claims to their discovery, I mean to publish them gradually in the synoptical shape, which I have adopted, and I offer herewith their first decade.

1. *Acnida salicifolia*. Stem upright branched solid angular upwards, branches erect ; leaves narrow-lanceolate mucronate, and on long petiols : spikes leafy and interrupted at the base, glomerules many-flowered, capsuls unequal, commonly with five unequal sides, angles obtuse and warty.—Obs. It grows on Long-Island and in New-Jersey, on the sea shores, near marshes and ditches ; it blossoms in September and October : height two or three feet, capsuls blackish purple, very slightly granular. Annual. Intermediary between *A. cannabina* and *U. rusocarpa*, but distinct from both.

2. *Arabis rotundifolia*. Stem upright, hispid below, leaves rounded thick, semle entire hispid, the radical obovate spatulate obtuse, stem leaves approximate nearly ternated ovate round subacute : petals obcordate, double the length of the calix, siliques linear oblong, compressed, erect.—Obs. A very small annual plant, from one to three inches high, which only lasts a few months ; it blossoms in March and April, grows in New-Jersey, near Cambden and Hobo-

ken. It produces a few white flowers, the fruits are smooth, and shaped as in the *Draba arabisans* and *D. hispidula*, which must evidently belong to this genus ; it has also some affinity with *Arabis reptans*.

3. *Arabis parviflora*. (*A. thaliana* Pursh, Bart, &c. not Lin.) Entirely hispid, stem upright, branched upwards ; leaves entire acute sub-trinervated, the radical petiolate oblong, the stem-ones oblong-lanceolate sessile : petals narrow notched, scarcely longer than the calix, siliques upright smooth, nearly cylindrical.—Obs. Annual, common in sandy soils in Pennsylvania, New-Jersey, and New-York ; it blossoms in April and May : totally different from the *A. thaliana* of Europe, which I know well, and for which it has been mistaken. Flowers white, very small, calix hispid, upper leaves ciliated.

4. *Arabis mollis*. Stem upright, leaves sessile lanceolate acute, hairy, with remote teeth : flowers on long raceme and long peduncles, calix hispid, petals cuneate obtuse, entire, longer than the calix, siliques drooping sickle shaped compressed.—Obs. This species has perhaps been overlooked, being taken for a variety of the *A. canadensis* or *A. falcata*, of which it has the habit and the fruit, but it differs widely by the leaves, which are not smooth nor hastated. It is more scarce, and grows in rocky woods on the Highlands, the Catskill mountains, and near Athens, Hudson, Fishkill, &c. Mr. Torrey has found it also on the Island of New-York ; it blossoms in June and July. The stem rises without branches, from one to three feet, the leaves are thin and soft. Perennial. It varies with smooth and hairy stem, sometimes branched, and a variety has oblong leaves. The flowers have the glands as in *A. alpina*.

5. *Lemna dimidiata*. Dimidiated nearly reniform notched, 2-6 furrowed, 3-7 lobed, lobes unequal ; the middle one larger obcordate, underneath many rooted and dark purple as well as the upper margin.—Obs. A very distinct species, found in the Spring, in the shady ponds of Long-Island. Diameter three to eight lines, solitary or aggregated, but not adhering, roots scaly linear compressed and acute.

6. *Celtis canina*. Arborescent, little branches angular, dotted ; leaves ovate acuminate unequally uncinat-serrate trinervate, base acute, entire, unequal, above wrinkled smooth, nerved beneath with pubescent axils : drupes red globu-

lar solitary on axillar peduncles, longer than the petiols.—Obs. A small tree from twelve to twenty-five feet high, growing on the margin of rivers, at Fish-kill, Newburgh, and near New-York; vulgar name Dog's cherry; it blossoms in April and May, the branches are spreading, and covered with glandular dots.

7. *Celtis maritima*. Frutescent, little branches round tortuose and pubescent, leaves ovate acuminate trinerved rough, with large equal serratures, base nearly cordate unequal, petiols and nerves pubescent.—Obs. A small crooked shrub three or four feet high, growing on the downs of the sea shore in Long-Island: it blossoms in May, the branches are cinereous and slightly dotted.

8. *Copodium oxynemum*. Stem creeping branched, leaves embricate scattered oblique incurved linear-subulate flat entire awned, awns long filiform flexuose.—Obs. Differing from *annotinum* (*Lycopodium* L. too similar to *Lycopus*) by the entire scattered leaves, &c. Found with Mr. Knevels on the Catskill mountains: we did not find it in blossom.

9. *Turritis oblongata*. Hispid below, radical leaves oblong cuneate sessile, nearly obtuse toothed, stem leaves semi-amplexicaule oblong acute, nearly entire; raceme elongated, petals scarcely notched, siliques very long, straight, compressed.—Obs. Next to *T. ovata* of Pursh: common on the banks of the Hudson near Newburgh; blossoms in May and June. Annual.

10. *Turritis lyrata*. Smooth, stem straited very simple; radical leaves spreading lyrate obtuse, and with obtuse teeth, stem leaves erect sessile acute, the lower ones oblong with acute teeth, the upper ones lanceolate entire; peduncles shorter than the flowers, petals entire, siliques narrow, compressed, and sickle shaped.—Obs. Annual. A very distinct species, found in blossom in June, at the foot of the Catskill mountains, in woods.



#### 11. Descriptions of seven new genera of North American Quadrupeds.

The following new genera are extracted from my *North American Mastology*, or Natural History of the Quadrupeds, and Cetaceous Animals of N. A. which contains about two hundred and twenty species, nearly one hundred of which are new, or undescribed in methodical works. The new species will be described in another essay.

1. *Mazama*. (Order Stereoplia.) Eight front teeth in the lower jaw, none in the

upper, no canine teeth, grinders truncated; head with solid, simple, straight, round, and permanent horns, uncovered by a skin; neck and legs not very long, cloven hoof, tail short.—Obs. This genus differs from the genus *Cervus*, by having simple permanent horns, from the genus *Giraffa*, by not having a skin over the horns, nor a long neck, and from the genus *Gazella*, by its horns not being hollow, it belongs to the family *Ruminalia*, sub family *Stereoceria* next to the genus *Giraffa*. It appears to be peculiar to America, and it contains many species which had been taken for Deer, Sheep, or Antelopes:—Three or four species are found in North America; but the three following are the best known as yet.—

1. *Mazama tema* Raf. Fallow brown above, white underneath, horns cylindrical, straight, and smooth.—Obs. This is the *Temamazame* of Mexico, it differs from the *M. pita* by being smaller, darker above, whiter below, and with larger horns.

2. *Mazama dorsata* Raf. Entirely white and woolly, a mane along the neck and the back, horns conical subulate, acute, slightly curved backwards, base rough.—Obs. This animal has been called *Ovis montana*, by Ord, but the genus *Ovis*, or rather *Aries*, has hollow and flat horns: this species, with the following, and the *Mazama puda*, will form a particular subgenus, (or perhaps genus,) which I shall call *Oreamnos*, distinguished by the horns slightly curved backwards or outwards, often rough or annulated, and long hair, besides living in mountains: if the horns should prove hollow, it will have much affinity with the genus *Rupicapra*.

3. *Mazama sericea*. Raf. Entirely white, with long silky hairs; no mane: horns conical obtuse, slightly curved backwards, and annulated.—Obs. This is the *Rupicapra americana* of Blainville; but he has not ascertained the horns to be hollow.

II. DIPLOSTOMA. (Order Gliria.) Mouth double, the exterior formed by two large pouches, connivent anteriorly with two long jutting and furrowed front teeth above and beneath, and reaching to the collar bone, the interior mouth with a round opening and sixteen grinders, four on each side of each jaw: body cylindrical, no tail, no ears, eyes covered by the fur; four toes to all the feet.—Obs. The generic name means double mouth, it has much likeness with the genus *Spalax*, but differs by having pouches, only four toes, &c. it belongs to the family *Cricetia*, and differs from all

the genera of that family by the double mouth, want of tail, ears, &c. It contains probably several species; but only two are known as yet, and they have been discovered and ascertained by Mr. Bradbury: they both are found in the Missouri Territory, they burrow under ground and live on roots; they are called *Gauffre* by the French settlers.

1. *Diplostoma fusca*. Raf. Entirely brown, length twelve inches.

2. *Diplostoma alba*. Raf. Entirely white, length six inches.

III. **GEOMYS.** (Order Gliiria.) Feet short, all with five toes and nails, those of the forefeet very long: mouth as in the genus *Cricetus*, and with exterior pouches, tail round and naked.—Obs. The generic name means Earth-rat; it has the appearance of a mole; but the characters of the family *Cricetia*, and it only differs from the genus *Cricetus* by having the tail of a rat and the feet of a mole: the animals belonging to this new genus burrow like the rest of the family, and live on roots: two species are known already.

1. *Geomys pinetis*. Raf. Murine colour, tail entirely naked, shorter than the body.—Obs. This animal has been called Georgia Hamster, by Milledge, Mitchill, Anderson, Mease, &c. It lives in Georgia, in the region of Pines, where it raises little mounds, size of a rat.

2. *Geomys cinerea*. Raf. Ash colour, tail very short, nearly naked.—Obs. It was called *Mus bursorius* or Ash coloured Rat by Dr. Mease: it has very large pouches, and in size is larger than the foregoing.

IV. **CYNOMYS.** (Order Gliiria.) Mouth with pouches, teeth as in *Sciurus*, all the feet with five toes and nails, the two outer toes shorter, the two inner toes of the forefeet long, with sharp nails, tail distich as in *Sciurus*.—Obs. This genus, whose name means Dog-rat, belongs also to the family *Cricetia*, next to the genus *Tenotus*, (the ground squirrels,) from which it differs by the shape and number of toes, besides living in society and not having the striped back.

1. *Cynomys socialis*. Raf. Brick red, grey underneath, tail one fourth of total length.—Obs. We are indebted to Capts. Lewis and Clarke for the discovery of this interesting animal, which they call in their travels the Barking Squirrel. It lives in the plains of the Missouri, in large subterraneous villages, and several in each burrow, they bark like small dogs, and live on roots and grass. Its whole length is seventeen inches; it is

rather clumsy, with a large head and breast, short legs, &c. they often sit on their hind legs as dogs.

2. *Cynomys? grisea*. Raf. Entirely gray, tail one third of total length.—Obs. Capts. Lewis and Clarke who describe also this animal, do not say if it has pouches; I have united it to this genus, for the great similarity with the foregoing; but if it has none, it may rather belong to the following genus. Its manners are similar to those of the foregoing; but its villages are smaller; it does not bark, and makes instead a whistling noise; it has a fine fur and long nails: It is found also on the Missouri, and is called *Petit-chien* by the Canadians.

V. **ANISONYX.** (Order Gliiria.) Teeth as in *Sciurus*, no pouches, five toes and nails to all the feet, the two inner toes of the forefeet very short, and with blunt nails, the three others long, and with sharp nails: tail distich as in *Sciurus*.—Obs. It differs from the genera *Arctomys*, and *Sciurus*, by the number and shape of its toes; whence its generic name, which means unequal nails: It belongs to the family *Myoxia*.

1. *Anisonyx brachiura*. Raf. Brown grey above, slightly speckled with redish white, light brick-red beneath, tail oval, one seventh of total length, redish brown above, iron grey beneath, marginated with white.—Obs. The Burrowing Squirrel of Capts. Lewis and Clarke: they live in society on the plains of the Columbia, in burrows and villages, their burrows have several openings round a mound on which they keep a watch; when any one approaches they make a shrill whistling sound: they feed on the roots of grass. Total length seventeen inches.

2. *Anisonyx? rufa*. Raf. Fur long, silky, entirely redish brown, ears short, pointed with short hair.—Obs. This animal called Sewewell by Capts. Lewis and Clarke, is of a doubtful genus, since they only saw the fur of it; it burrows and runs on trees like the ground squirrels; length eighteen inches, found in the neighbourhood of the Columbia river.

VI. **MYNOMES.** (Order Gliiria.) Teeth as in *Ondatra*, five toes and nails to all the feet, inner toes very short: tail hairy, depressed or flat.—Obs. It belongs to the family **TIBERIA**: it differs from the genus *Ondatra* by having a tail not scaly, and depressed instead of compressed, and also from the genus *Lemmus* by this last character: the name means Pasture-mouse.

1. *Mynomes pratensis*. Raf. Dark



brown, hoary underneath, chin and feet white, ears shorter than the fur, tail one-fifth of total length, linear obtuse.—Obs. We are indebted to Wilson for the knowledge of this animal, he has described it and figured it in his *Ornithology*, Vol. 6. p. 59. tab. 50. fig. 3. under the name of Meadow-mouse. It lives near Philadelphia, &c. in meadows and even in salt marshes, where it burrows in all directions, and even perforates the embankments, it swims and dives well, feeds on roots and bulbs of plants: it has the appearance of the *Ondatra zibethicus* or Musk-rat; but is only five inches long altogether, it has small eyes, a thick fur and a blunt nose. Many hawks and owls prey on it.

VII. *LYNX*. (Order Ferea.) Six equal front teeth to each jaw, canine teeth strong, three grinders on each side of each jaw, with sharp denticulated edges: head rounded; five toes to the forefeet, four to the hind feet, connected by a loose skin, and with sharp retractible nails: tail thick truncated, not reaching the knees, no purse under it; long ears often tufted.—Obs. This extensive and beautiful genus had been blended by Linneus, and the other authors, with the genus *Felis*, or only considered as a sub-genus by some modern zoologist; but this last genus differs by having four grinders on each side of each jaw, a long tail, and shorter ears. I had established this genus ever since 1814 in my *Analysis of Nature*, and ever since 1812 had prepared a monography of it, in which I noticed as many as fifteen species, although only four or five had been described by methodical writers. I have since increased that number to twenty-four species, by collecting and comparing the accounts of travellers and naturalists; of these, two species are from Europe, four at least from Asia, five from Africa, three from South America, and nearly ten from North America. They shall be all described in my new mono-

graphy of this genus, and I shall merely give at present the definitions of some, best known, from this continent. Their vulgar names are Catamount, Mountain-cat, Wild-cat, *Loocervia*, &c.

1. *Lynx canadensis*. Raf. (*Felis canadensis* Geoffroy.) Ears bearded, white inside; fallow outside; fur grayish with fallow dots, head with some black lines, whitish unspotted underneath.—Obs. In Canada, Labrador, &c. Small size.

2. *Lynx montanus*. Raf. Ears beardless, black outside, with a white spot, fallow inside; fur grayish and unspotted above, whitish with brown dots underneath, tail grayish.—Obs. On the Highlands of New-York, the Catskill and Peru mountains, the Alleghany, &c. Length from three to four feet, larger than the foregoing.

3. *Lynx rufus*. Raf. (*Felis rufa* Gmelin.) Ears bearded; fur fallow dotted brown; tail white underneath and at the top, striped of black above.—Obs. In the woods of New-York, Pennsylvania, Ohio, &c. Size of a large cat.

4. *Lynx floridanus*. Raf. Ears beardless, fur greyish, sides varied with yellowish brown spots and black waved streaks.—Obs. Small size as the foregoing, lives in Florida, Georgia, and Louisiana. This is the Lynx or Wild cat of Bartram.

5. *Lynx fasciatus* Raf. Ears bearded, black outside; fur reddish brown above, with blackish stripes and dots, white underneath with black dots; tail very short, white, with a black tip.—Obs. Found by Capts. Lewis and Clarke on the North-West Coast, where many other unnoticed species dwell likewise, of a large size, and with a beautiful thick fur.

6. *Lynx aureus*. Raf. Ears beardless; fur bright yellow with black and white dots, pale yellow and unspotted underneath, tail very short.—Obs. Small size, observed by Leraÿe; lives on the plains of the Missouri, and perhaps elsewhere.