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*Contents Synopsis
of Cincinnati Exhibit
from this Dep't.*

*Curators Reports
1887-88
Living Animals*

REPORT OF THE DEPARTMENT OF LIVING ANIMALS.

By W. T. Hornaday. Curator.

From the date of the plan of organization of the National Museum it has been the intention of its founders that it should eventually include a Department of Vivaria, to afford materials for the prosecution of scientific studies, as well as for general educational purposes. The organization of the present Department of Living Animals was hastened, and finally precipitated, by the imperative needs of the taxidermic force for living models to be studied daily in connection with work on the series of family groups of American mammals begun last year for the display of mounted mammals. The experiment of keeping live animals for this purpose in the taxidermic laboratory had proven expensive, and in many ways unsatisfactory. Inasmuch as it had been determined to spare no effort which should be as nearly perfect as possible, it was deemed necessary to form a small collection of living animals for purposes of study, and, if practicable, to also

arrange for its exhibition to the public.

In pursuance with this determination the chief taxidermist was directed to accompany Fish Commission Car No. 1. Mr. J. Frank Ellis, Messenger, on its autumn trip to the Pacific coast, for the purpose of collecting and bringing back as many specimens of mammals as could be secured by gift, or purchased at nominal prices. This trip occupied a month, from October 8th. to November 9th., during which Car No. 1, visited St. Paul, Minn; Fargo and Mandan, Dakota; Helena, Montana; Tacoma, Washington Territory; Portland, Oregon; Salt Lake City, Utah, and Cheyenne, Wyoming. At all of these points living specimens were acquired both by gift and purchase, until the total number of acquisitions amounted to seventeen. The following were the objects, which formed the nucleus of the present collection of living animals:

Vulpes fulvus fulvus, Red Fox.

Gift of O. V. Davis, Mandan, Dakota.

Ursus americanus cinnamomum, Cinnamon Bear.

Purchased at Helena, Montana.

Cariacus virginianus, White-tailed Deer.

Purchased at Helena, Montana.

Cynomys ludovicianus, Prairie-dog.

Gift of Carl Steinmetz, Helena, Montana.

Cariacus columbianus, Columbian Black-tailed Deer.

Purchased at Media, Washington Ter.

Vulpes fulvus decussatus, Cross Fox.

Gift of John Melville, Portland, Oregon.

Cariacus macrotis, Mule Deer.

Purchased at Mountain Home, Idaho.

Taxidea americana, (2) Badger.

Gift of Dr. C. W. Higgins, Salt Lake City.

Vulpes fulvus fulvus, Red Fox.

Gift of Dr. C. W. Higgins, Salt Lake City.

Aquila chrysaetus, Golden Eagle.

Gift of Dr. C. W. Higgins, Salt Lake City.

Lynx maculatus, Spotted Lynx.

Purchased of Dr. C. W. Higgins, Salt Lake City.

Cynomys ludovicianus, (4) Prairie Dog.

Purchased at Cheyenne, Wyoming Ter.

This collection filled up all the available space in the car on its return trip, and the transportation of so many large objects was only possible through the disinterested courtesy and untiring cooperation of Mr. Ellis, and his assistant, Mr. R. S. Johnson.

Upon the arrival of this collection at the Museum, it was decided to assign space for it in one end of a temporary wooden structure that had just

been erected on the south side of the eastern wing of the Smithsonian, of materials from the old demolished New Orleans Annex building. Its dimensions were twenty-five by one-hundred-and six feet. This rough building was fitted up with heating apparatus, a number of temporary cages were made, the collection duly installed, and opened to the public on December 31, 1887. It immediately became quite popular with the public. Many valuable gifts were offered, and accepted, and a number of desirable small objects which were offered to the Institution at nominal prices were purchased and added to the collection. Among the earliest gifts were an unusually large and fine Jaguar, from Mr. J. W. Riddle, of Eagle Pass, Texas, and two black bears from Mr. J. J. E. Lindberg, of El Paso, Texas.

By the end of January the collection had increased to a total of 58 specimens of mammals and birds, many of which were rare and valuable. It was found that the collection demanded the constant attention of an experienced keeper, not only for the proper care and feeding of the animals, but

also to protect them from annoyance at the hands of a certain class of visitors. Accordingly on Feb. 1, Mr. N. R. Wood was engaged to do duty in the above capacity.

During the months of February and March the collection nearly doubled in point of numbers, and rendered it absolutely necessary to occupy the whole of the building in which it was temporarily installed. A bear pit was built for the black bears at the western end, a large cage was built in the centre for the cinnamon bear, and besides it a still larger cage, with several compartments, was constructed to accommodate the large birds of prey, - eagles, owls, and vultures. As gifts were received, temporary cages were hastily constructed for their accommodation, and every effort was made to make the best showing possible under the circumstances.

With the rapid increase in the size and value of the collection came an increase in the amount of labor and attention it absolutely required. But for the valuable and indefatigable service which had been voluntarily entered upon, chiefly as a

personal favor, by Mr. W. C. Wooden, in addition to his duties as Assistant Engineer, the department of living animals would have suffered very serious embarrassment, and the curator gladly acknowledges the value and gratifying nature of the services thus rendered from February to the close of the fiscal year.

In the month of April, a fine pair of buffaloes a bull four years of age and a three-year-old cow, then on a cattle ranch in Nebraska, - were purchased by Mr. E. G. Blackford, of New York, and presented to the National Museum as the nucleus of a small herd. This very valuable gift was gladly accepted, and Mr. Joseph Palmer was despatched to North Platte Nebraska, to take charge of the animals, and bring them safely to Washington. This difficult task was accomplished with gratifying success and economy, and the two highly prized specimens reached the Institution in fine condition on May 10. In anticipation of their wants, and to provide good accommodations for the four deer then in the collection, a small barn with several yards around it had been

constructed on the south end of the ellipse lying in the angle between the Smithsonian and the National Museum buildings. While this structure is by no means conspicuous or unpleasing in design, the building and yards attached afford ample and highly satisfactory accommodations, not only for the buffaloes and deer already occupying them, but they can also receive a very considerable number of each in addition without being crowded. The barn affords dry quarters for the animals during rainy weather, cool shade during hot weather, a suitable outfit for feeding, and also storage room for feed.

On May 12th. the chief taxidermist was appointed Curator of the Department of Living Animals.

Review of Accessions.

The accession statistics of the department afford an interesting index of the interest manifested in it on the part of the general public. In the beginning it was predicted that one-half the specimens necessary for the various collections would be offered as gifts. The following is a statement of the whole number of living animals acquired from Oct. 8, 1887, to June 30, 1888, and the manner of their acquisition.

Mammals,

Received as gifts	42
Purchased	32
Total	<hr/> 74

Birds,

Received as gifts	56
Purchased	5
Bred in menagerie	11
Total	<hr/> 72

Reptiles,

Received as gifts	25
Purchased	1
Total,	<u>26</u>

Number of species represented,

Mammals	30
Birds	28
Reptiles	10
Total	<u>68</u>

Total number of specimens	172
Number received as gifts	123
Number purchased	38

It is worthy of note that of all the specimens not bred in the menagerie, more than three times as many were received by gift as it was necessary to purchase. Furthermore, of the 123 specimens received by presentation, about three-fourths were offered voluntarily, and without either suggestion or personal solicitation from the curator. The actual cash value of all the gifts is at least six times that of all the specimens purchased.

In addition to the gifts mentioned in the list already given, the most noteworthy mammals are the following: A fine pair of American Bison, from Mr. E. G. Blackford, New York; a very large male Jaguar, from Mr. J. W. Riddle, Eagle Pass, Texas; two black bears from Mr. J. J. E. Lindberg, El Paso, Texas; a male Virginian Deer, from Capt. R. L. Hoxie, Montgomery, Alabama, and a female of the same species from Dr. P. Glennan, Washington, D. C.; two black bear cubs from Mr. J. S. Miller, Commissioner of Internal Revenue, Washington; a coyote from Mr. F. D. Nowell, North Platte, Nebraska; a gray wolf from Mr. C. A. Dole, Glendive, Montana; a grivet monkey from Mr. L. Moxley, Washington, and an exceedingly interesting Mexican Spider Monkey (Ateles vellerosus) from Mr. C. H. Townsend, U. S. Fish Commission Steamer Albatross; a gray fox from Mr. Geo. E. Brown, Alexandria, Va.

Of the many rare and interesting birds presented, it is impossible to mention here the names of even the most valuable objects, but a complete list of all gifts will be found appended to this report.

Among the specimens purchased the most interesting were a puma from Ft. Keogh, and a "silver-tip" grizzly bear cub from Billings, Montana; a fine black bear from South Carolina, received from Dr. G. B. Manigault in exchange, and the deer and spotted lynxes mentioned in the list of specimens which were procured on the trip to the Pacific coast. During the month of June a beginning was made toward the formation of a collection of living reptiles, but since nothing worthy of mention was accomplished until after June 30, the record of the work done properly belongs to the next report.

Among the small and more common species of mammals and birds, there have been several deaths, but the only loss of any importance during the eight months was that of the two Spotted lynxes, (Lynx maculatus), obtained in Salt Lake City. During the early part of the winter, before the heating apparatus was in satisfactory order, the female of the pair died of pneumonia; and the male succumbed a few days later to uraemic poisoning. Owing to the flimsy nature of some of our temporary cages,

several opossums and two woodchucks escaped, and, still more to be regretted, six quails and a pair of gambel's partridges were killed in one night by rats, with which the menagerie building is still completely infested, in spite of the great numbers that have been caught, killed and fed to the birds of prey.

Routine Work.

The daily care which the animals in the collection demanded in proper feeding and thorough cleaning, has required the undivided attention of the two keepers mentioned above, with daily assistance from a laborer. Quite a number of the birds and mammals are young, and all such require to be fed from three to five times daily, on food specially adapted to their respective wants. With the exception of the reptiles, each species in the entire collection has been labeled, and although in the beginning the curator made a determined effort to exhibit with each mammalian species a map showing its geographical distribution, the rapid increase

in the size and importance of the collection overwhelmed him with more imperative duties, and it was found impossible to carry out that plan at present. During the last four months of the fiscal year, only four specimens were purchased, and it required diligent exertions to provide proper accommodations for the gifts that came in from day to day. Notwithstanding the disadvantages the department labors under by reason of the temporary nature of nearly all of its appointments, the crowded condition of the building, and the small size of most of the cages, the healthy condition of the animals and the general cleanliness of the establishment attest the energy and vigilance of the keepers, Messrs. Wood and Weedon.

As a measure of economy in the matter of feed, several tons of fine clover hay have been saved from the haying operations conducted on the Smithsonian grounds by the Department of Public Buildings and Grounds, and stacked near the carp ponds, for future use in feeding our ruminants. The saving thus effected will not fall far short of \$150. During

the entire grass-cutting season the buffaloes and deer have been fed chiefly on fresh grass from the grounds.

Transportation.

Inasmuch as the ordinary rules of the Express Companies require payment for certain classes of live animals at from two to four times the amount of ordinary rates, Mr. S. C. Brown, Registrar of the National Museum, undertook to secure certain concessions from various Express Companies, north and south. After considerable correspondence, the Adams Express Company refused to make any concession whatever, thereby reserving its right to charge from one to four rates on live animals, as it sees fit, which in many cases is a prohibitive tariff. The United States Express Co. (now including also Baltimore and Ohio Co.) was more generous, and in view of the laudable nature of the object in view, and the fact that the collections will always be free to the public, the general manager of that company has authorized all its agents to ship live animals

of all kinds to this Institution at one ordinary merchandise rate. This generous concession will be of great value to us in building up the collection of living animals, and all collectors and correspondents who may desire to forward specimens to us are requested to ship by the United States Express Co. (or the E. and O.) in preference to the Adams or the Southern Ex. Co.

Researches.

Up to date no researches worthy of mention have been made, the attention of the curator having been fully occupied in duties of a practical nature. The growth of the young bears in the collection, which now contains examples of three species, has been watched with interest with a view to obtaining some exact date throwing light on the relations borne by the black bear, cinnamon and grizzly to each other. The position of the cinnamon bear being involved in considerable doubt, it is very desirable to study the development of the three species under favorable conditions.

The most important result accomplished thus far by our collection of Living Animals has been in emphasizing the great need of a national zoological garden, established in the City of Washington. The many hundreds of eager visitors who daily crowd our menagerie building to the point of positive discomfort, and the numerous gifts which come to us unsought, have led Senator J. E. Beck to introduce in the U. S. Senate a bill "for the establishment of a zoological park in the District of Columbia, for the advancement of science, and the instruction and recreation of the people", and appropriating therefor, as an initial appropriation, the sum of \$200,000. By direction of the Secretary of the Smithsonian Institution, and the Assistant Secretary, in charge of the National Museum, and also in pursuance of the desire of Senator Beck, the Curator has exerted his utmost efforts to help bring about the consummation of that much-desired and highly laudable end.

Literary Work.

A very noticable portion of the time of the curator has been taken up by certain investigations, and the preparation of various reports that have been called for by the Secretary and the Assistant Secretary, and prepared accordingly, for publication or otherwise. The following have been submitted:-

A brief report on the results of the Smithsonian Expedition for American Bison.

A full report of the same, with a map.

A report of investigations made in regard to the protection of game in the Yellowstone National Park, illustrated by a specially prepared map.

A plan, with estimates of cost, for a National Zoological Garden, to be located in the District of Columbia.

A paper on the Extermination of the American Bison, with maps and illustrations, (not quite completed during the year.)

Exhibit at Cincinnati Exposition.

In order to call the attention of the public to the fact that several important species of North American mammals have already been exterminated by man, and many others are rapidly going the same way, the Curator prepared during the month of June a special exhibit to illustrate the extermination of American quadrupeds. This exhibit was composed of the following features:-

A series of mounted specimens of such mammals as already have been exterminated, and others that are rapidly approaching extinction. The species represented were as follows;- American bison, West Indian seal, California elephant seal, walrus, moose, elk, mountain goat, mountain sheep, antelope and beaver.

A series of paintings and photographic pictures of large size, illustrating the methods by which the American bison has been exterminated.

A series of specimens and a large oil painting showing what remains to-day of the bison,- skeletons bleaching on the western prairies.

A series of raw buffalo skins as representing the objects for which the bison was exterminated.

A collection of modern weapons of destruction, including examples of nearly all American sporting rifles.

A lot of 70 skins of the rare and little known Rocky Mountain Goat which were taken by pot-hunters and sold in Denver at 50cts. each.

This exhibit occupied 800 square feet of floor space.

Recommendations.

At present the most serious drawback under which the Department labors is the lack of space in the Menagerie building for the proper comfort of the visitors who daily visit the collection. For weeks in succession the daily throng has been so great as to make it a matter of difficulty to pass through the building, or even to perform necessary work in connection with the care of the animals. It has several times been estimated that between 2000 and 3000 visitors have viewed the collection in that small and rudely constructed building in a single day.

At first the ragamuffin element threatened to completely crowd out all other visitors, and it became necessary to station a watchman in the building to compel the small-boy element to depart after a reasonable time. The character of the visitors in daily attendance is in the highest degree complimentary to the experiment of opening this collection to the public, and causes a constant regret that it is impracticable, if not also impossible, to provide

ample room for the comfort of visitors and also to have all the appointments of the collection of the highest order of excellence even now.

As yet Mr. W. C. Weeden is still on the rolls of the Institution as an assistant engineer, and liable to be detached from service in this department at any time. It is earnestly hoped by the curator that Mr. Weeden, whose continuous services are imperatively needed in the menagerie, may be transferred to this department, and regularly appointed as a keeper.

List of Accessions to the Department of Living
Animals from Oct 8, 1887 to June 30, 1888.

MAMMALS.

Gifts

- Buffalo. (2) (*Bison americanus*.)
E. G. Blackford, New York.
- Virginia Deer. (*Cariacus virginianus*)
Dr. P. Glennan, Washington, D. C.
- Virginia Deer. (*Cariacus virginianus*)
Capt. R. L. Hoxie, Montgomery, Alabama.
- Jaguar. (*Felis onca*)
J. W. Riddle, Eagle Pass, Texas.
- Black Bear. (2) (*Ursus americanus*)
J. J. E. Lindberg, El Paso, Texas.
- Grivet Monkey. (*Cercopithecus enгыthithea*)
L. Moxley, Washington, D. C.
- Red Fox (*Vulpes fulvus fulvus*)
O. V. Davis, Mandan, Dakota.
- Gross Fox (*Vulpes ful. decussatus*)
John Melville, Portland, Oregon
- Red Fox (*Vulpes fulvus fulvus*)
Dr. C. W. Higgins, Salt Lake City.
- Gray Fox (*Urocyon virginianus*)
Geo. E. Brown, Alexandria, Va.
- Coyote (*Canis lutrans*)
Fred. D. Nowell, North Platte, Nebraska.
- Prairie Dog (*Cynomys ludovicianus*)
Carl Steinmetz, Helena, Montana.
- Badger (2) (*Taxidea americana*)
Dr. C. W. Higgins, Salt Lake City.
- Gray Squirrel (*Sciurus carolinensis*)
Fred C. Ohm, Washington, D. C.
- Opossum (*Didelphys virginianus*)
Dr. C. Hart Merriam, Washington, D. C.
- Opossum (*Didelphys virginianus*)
J. O. Boggs, Washington, D. C.
- Opossum (*Didelphys virginianus*)
W. J. Yaste, Bureau of Ethnology, Washington, D. C.

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- Jaguar. (*Felis onca*)
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J. J. E. Lindberg, El Paso, Texas.
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O. V. Davis, Mandan, Dakota.
- Cross Fox (*Vulpes ful. decussatus*)
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- Opossum (*Didelphys virginianus*)
Dr. C. Hart Merriam, Washington, D. C.
- Opossum (*Didelphys virginianus*)
J. O. Boggs, Washington, D. C.
- Opossum (*Didelphys virginianus*)
W. J. Yaste, Bureau of Ethnology, Washington, D. C.

- S. Gray Squirrel (3) (*Sciurus carolinensis*
carolinensis)
Joseph Palmer, Arlington, Va.
Ferret (2) (*Putorius furo*)
Louis Schmid, Washington, D. C.
Cavy, Guinea-Pig (2) (*Cavia aperia*)
G. H. H. Moore, U. S. Fish Commission.
Opossum (*Didelphys virginianus*)
Eppa Hanton Coumbe, Washington, D. C.
White Rat (*Mus rattus*)
Master Clinton Thorne, Washington, D. C.
Raccoon (*Procyon lotor*)
Geo. Boulding, Washington, D. C.
Opossum (*Didelphys virginianus*)
Clifford U. Smith, Washington, D. C.
Tame Hare (*Lepus vulgaris*)
Jos. Mace, Smith. Inst. Washington, D. C.
Tame Hare (*Lepus vulgaris*)
Louis A. Schmid, Washington, D. C.
Woodcock (*Philohela minor*)
W. F. Johnson, Bladensburg, Md.
Red Squirrel (*Sciurus hudsonius*)
Orlando G. Wales, Washington, D. C.
Opossum (*Didelphys virginianus*)
W. H. Babcock, Washington, D. C.
Grey Squirrel (*Sciurus carolinensis*)
R. H. G. Bouis, Washington, D. C.
Fox Squirrel (*Sciurus niger cinereus*)
H. E. Hinman, Cleveland, Ohio.
Chipmunk (2) (*Tamias striatus*)
Alex. Mc. Veigh Miller, Alderson, W. Va.
Porcupine (*Erethizon dorsatus*)
Pettit & Dripps, Washington, D. C.
Woodchucks (3) (*Arctomys monax*)
T. L. Ostrander, Wells, N. Y.

Purchased.

- White-Tailed Deer (*Cariacus virginianus*)
At Helena, Montana
Columbian Black-Tailed Deer (*Cariacus columbianus*)
R. C. Hewitt, Media, W. T.

- Mule Deer (*Cariacus macrotis*)
 Dr. C. A. Gay, Lewiston, Idaho.
- Spotted Lynx (2) (*Lynx maculatus*)
 Dr. C. W. Higgins, Salt Lake City
- Panther (*Felis concolor*)
 Capt. Henry Romeyn, Ft. Keogh, Montana
- Cinnamon Bear (*Ursus americanus cinnamomum*)
 From Helena, Montana
- Grizzly Bear, Cub. (*Ursus horribilis*)
 R. T. Allen, Billings, Montana.
- Gray Fox (*Urocyon virginianus virginianus*)
 From Macon, Ga.
- Prairie Dog (4) (*Cynomys ludovicianus*)
 Geo. L. Taylor, Cheyenne, Wyoming.
- Raccoon (2) (*Procyon lotor*)
 From Macon, Ga., and Jacksonville, Fla.
- Opossum (*Didelphys virginianus*)
 From Atlanta, Ga.
- Gray Squirrel (2) (*Sciurus carolinensis*)
 From Prince George Co., Md.
- Flying Squirrel (2) (*Sciuropterus volucella volucella*)
 From Prince George Co., Md. la
- Flying Squirrel (7) (*Sciuropterus volucella vol*)
 From Prince George Co., Md.
- Opossum (*Didelphys virginianus*)
 Dr. W. T. Owsley, Glasgow, Ky.
- Opossum (*Didelphys virginianus*)
 Geo. F. Pollock, Washington, D. C.
- Woodchuck 2 (*Arctomys monax*)
 L. D. Terrell, U. S. Fish Commission.

By Exchange.

- Carolina Black Bear (*Ursus americanus*)
 Dr. G. E. Manigault, Charleston, S. C.

Bred.

- Tame Hare (4) (*Lepus vulgaris*)

BIRDS

Gifts

- Golden Eagle (*Aquila chrysaetos*)
Dr. C. W. Higgins, Salt Lake City
- Golden Eagle (*Aquila chrysaetos*)
President Cleveland, Executive Mansion
- Bald Eagle (*Haliaeetus leucocephalus*)
Col. Shutt, Va.
- Gt. Blue Heron (2) (*Ardea herodias*)
U. S. Fish Commission, Havre de Grace, Md.
- Turkey Vulture (2) (*Cathartes aura.*)
G. L. Machenheimer, Forest Glen, Md.
- Macaw (*Ara macao*)
Alfred W. Cochran of Alabama.
- Rough-Legged Hawk (*Archibutes sancti-johannis*)
Vinal Edwards, Wood's Holl, Mass.
- Red-Tailed Hawk (*Buteo borealis*)
R. H. Boswell, Washington, D. C.
- Cooper's Hawk (*Accipiter Cooperi*)
John J. Sellner, Prince George Co. Md.
- Sparrow Hawk (*Falco sparverius*)
John W. Reed, Gaithersburg, Md.
- Red-Tailed Hawk (*Buteo borealis*)
Miss Lizzie Kuehling, Fairfax Co., Va.
- Sparrow Hawk (*Falco sparverius*)
Alfred Heitmuller, Brightwood Road, D. C.
- Red-Tailed Hawk (*Buteo borealis*)
G. L. Machenheimer, Forest Glen, Md.
- Barred Owl (*Strix nebulosa*)
From Jacksonville, Fla.
- Screech Owl (*megascops asio*)
J. E. Brown, Washington, D. C.
- Gt. Horned Owl (*Bubo virginianus*)
Mr. Robt. Ridgway, U. S. National Museum
- Screech Owl (*Megascops asio*)
August Gedz, Washington, D. C.
- Barn Owl (*Strix flammea*)
Walter H. Stoutenburg, Washington Insane Asylum
- Long-Eared Owl (*Asio wilsonianus*)
W. S. Anderson, Washington, D. C.

- Barred Owl (2) (*Strix nebulosa*)
 Geo. A. Riker, Alexandria, Va.
- Screech Owl (4) (*Megascops asio*)
 C. Edgar Uber, Falls Church, Va.
- Screech Owl (*Megascops asio*)
 Mr. Alfred Ray, Forest Glen, Md.
- Gt. Horned Owl (*Bubo virginianus*)
 Dr. J. Schneck, Mt. Carmel, Ill.
- Barred Owl (2) (*Strix nebulosa*)
 Mrs. J. B. Eustis, Washington, D. C.
- Loon (*Colymbus torquatus*)
 Chas. B. Gant, Washington, D. C.
- Crow (*Corvus americanus*)
 Nelson R. Wood, National Museum.
- Crow (*Corvus americanus*)
 Jos. Palmer, U. S. N. M.
- Gambel's Partridge (2) (*Callipepla gambeli*)
 Louis Schmid, Washington, D. C.
- Bob-White C (*Colinus virginianus*)
 Jas. W. Walker, Washington, D. C.
- Va. Quail (9) (*Colinus virginianus*)
- Red Crossbill (*Loxia curvirostra*)
 Dr. Fisher, Dept. of Agriculture.
- Red Crossbill (2) (*Loxia curvirostra*)

Purchased.

- Turkey Vulture (3) (*Cathartes aura*)
 G. L. Machenheimer, Forest Glen, Md.
- Cooper's Hawk (*Accipiter cooperi*)
 Washington Market.

Deposited

- Homing Pigeon (2) (*Columba livia*)
 N. R. Wood, National Museum.
- Quail (2) (*Colinus virginianus*)
 N. R. Wood, National Museum.
- Ring Doves (2) (*Columba sp.*)
 N. R. Wood, National Museum.

- Australian Grass Parroquet (2) (*Melopsittacus undu-*
 N. R. Wood, National Museum. *latus*)
 Black Fantailed Pigeon (2) (*Columba sp.*)
 W. C. Weeden, National Museum.
 Common Pigeon (2) (*Columba sp.*)
 W. C. Weeden, National Museum.
 Ground Dove (2) (*Columbigallina passerina*)
 N. R. Wood, National Museum.
 Homing Pigeon (4) (*Columba livia*)
 N. R. Wood, National Museum.

R E P T I L E S

Gifts.

- Box Tortoise (*Cistudo carolina*)
 Alex. McVeigh Miller, Alderson, Va.
 Gray Monitor (2) (*Varanus griseus*)
 W. A. Conklin, Central Park Menagerie, N. Y.
 Three-toed Box Tortoise (2) (*Terrapene triunguis*)
 Robt T. Hill, U.S. Geological Survey.
 Collard Lizard (*Crotaphytus collaris*)
 Department of Reptiles, National Museum.
 Banded Rattlesnake (3) (*Crotalus horridus*)
 Department of Reptiles, National Museum
 Scarlet King Snake (*Ophibolus doliiatus doliiatus*)
 W. C. Weeden, National Museum.
 Black Snake (2) (*Bascanium constrictor*)
 Joseph Palmer, National Museum.
 Garter Snake (*Eutaenia sirtalis sirtalis*)
 William Palmer, National Museum.
 Garter Snake (*Eutaenia sirtalis sirtalis*)
 Miss Gertrude Johnson, Washington, D. C.
 Blowing Viper (*Heterodon platyrhinus platyrhinus*)
 Dr. E. S. Rheem, National Museum.
 Water Moccasin (5) (*Tropidonotus sipedon sipedon*)
 W. C. Weeden, National Museum.
 Garter Snake (5) *Eutaenia sirtalis sirtalis*)
 W. C. Weeden, National Museum.

Purchased

- Box Tortoise (*Cistudo carolina*)
 Dr. W. T. Owsley, Glasgow, Ky.

Report on Collecting Trip of W.T. Hornaday,
to Washington Territory, etc., Oct-Nov 1887.
SMITHSONIAN INSTITUTION

Nota

6242

SPENCER F. BAIRD, Secretary

S. P. LANGLEY, Assistant Secretary,
in charge of Exchanges, Publications and Library

G. BROWN GOODE, Assistant Secretary,
in charge of U. S. National Museum

UNITED STATES NATIONAL MUSEUM

Not for publication.

Washington, Nov 17, 1887.

A. S. Upper.

Prof G. Brown Goode.

Assistant Secretary, Smithsonian Institution

in charge of the National Museum.

Sir;

I have the honor to report that in accordance with your instructions, I have made a collecting trip to and through Dakota, Montana, Idaho, Washington Territory, Oregon and Utah on Fish Car No 1, Mr J. Frank Ellis in charge. The car left Washington on Oct 8th and returned Nov 8th, having traveled in all over 7000 miles.

In the course of the work of distributing fish the car made brief stops at St Paul, Fargo, Dak., Mandan and Helena, Montana, Tacoma, Wash. Ter., Portland, Oregon,

Curation
Repts file
Living Animals
W.T. Hornaday
1887.

Abstract
furnished by Mr
Hornaday for 1888 report

WVC

Not a duplicate in box 4
RIS - for report

Mountain Home, Idaho, and Salt Lake City.

At all these points I busied myself with the business of my trip, viz; in making the acquaintance of hunters, taxidermists and collectors, gaining from them as much detailed information as possible in regard to the abundance or scarcity of the more prominent or well-known species of Western mammals, and when found desirable, arrangements were made, tentatively, for the supply of such specimens, both living and dead, of such species as we most urgently require.

An effort was made to secure on the spot a certain number of desirable living animals, for purposes of study, and to form the nucleus of a scientific menagerie, and no opportunity, or seeming opportunity, was neglected to purchase desirable animals at reasonable prices. A few skins and other objects were also purchased, for

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special reasons in each case which seemed to make their acquisition desirable.

The principal results of the trip may be briefly summarized as follows:-

Collected.

10 ^{living} mammals were secured by purchase, as per enclosed list.
 7 " " " " " gift " " " "
 1 " bird " " " " " " " "
 3 dry mammals skins were purchased, " " " "
 1 pr elk antlers " " " " "
 3 " antlers, elk and deer " secured by gift " " " "
 1 specimen gold-bearing ore " " " " "
 1 Valuable photograph, of live Mountain Goat, was purchased.

Arranged for, to be Collected,

Families, male, female and young, living, and also in skins of

Mountain Goat.

Mountain Sheep.

Grizzly Bear.

Black Bear.

Cinnamon Bear.

Lynx, 2 species.

Wolverine.

Badger.

Grey Wolf.

Deer. (Mule).

Fox.

Porcupine.

and others.

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The following definite standing offers were made to the persons named:—

To Geo T. Paritt, Fargo, Dak. \$50. for the preserved skins,

(fit for mounting) of an entire family of Grey Wolves, male, female, & litter of young.

To the same, \$50. for a young moose, alive, in good health.

To O.V. Davis, Mandan, Dak. \$50 for a pair of antelope. ♂ & ♀

alive & in good health. Also, \$50 for a pair ♂ & ♀ of panther cubs, any size, alive.

This offer was made to others as well.

To J. M. Hagar, Mountain Home, Idaho. \$30 for a ♀ "Silver Tip" Grizzly and 2 cubs, mountable skins.

Various persons were authorized to receive and forward to us at our expense any gifts of live animals that might be offered. In case great bargains are offered in rare live animals, we are to be communicated with by telegraph, at our expense.

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Mr Q. V. Davis, of Mandan, Dak. who has excellent opportunities for procuring many living animals at very small expense was requested to act as a sort of unofficial agent for us, and he consented to do so. In general, correspondents were instructed that whenever any living animal was offered for sale of such a nature ~~and~~ and at such a price as to make it seem to ~~them~~ ^{it seem}, desirable for us to purchase, we are to be advised of the circumstances, and our instructions waited for.

Inquiries in Montana, of thoroughly reliable and well informed persons brought to light the startling fact that hunters ^{are} living near the southern and eastern limits of the Yellowstone Park for the express purpose of killing the game that wanders or can be driven out of the Park limits, and by whose efforts the number of buffalo now left alive in the Park has been

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very greatly reduced. While it was confidently believed that the Park contained between 100 and 125 head of buffalo, & that the number was increasing, the best informed authorities declare their belief that there are not over 25 head remaining. I have precise information as to how a number of head have been killed out of the original herd, and it is believed by the hunters themselves that the herd is now so nearly exterminated that it will not pay to watch for them after this winter. I may add that in Helena I saw the heads, & mounted and unmounted, of five of our cherished Park buffaloes, and know the circumstances under which the animals were slain.

I shall presently lay before you a brief statement bearing on this point, and others of kindred interest.

Unless the Government will enclose the Park by a wire fence 8 feet high, the buffaloes, at

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least, are doomed to certain and swift destruction.

I enclose herewith a list of the objects collected on the trip. Counting four recent additions to the Vivarium we have now in our care 21 mammals and birds, alive, to be catalogued, labeled, acknowledged, fed, doctored when sick and provided with suitable quarters for shelter and exhibition. The specimens are attracting crowds of visitors, and beyond doubt the collection will rapidly be increased. Inasmuch as the services of a duly authorized Curator seem to be urgently called for for this very interesting department, I would respectfully call attention here to my application for an appointment to that office, which I had the honor to address to you on June 25, of the present year.

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In conclusion I desire to state that during the entire trip Mr J. Frank Ellis, who had charge of the car was untiring in his efforts to further the objects on which I was sent, and did everything possible to provide comfortable accommodations for the live animals, quite regardless of his own convenience. But for this hearty cooperation on his part it would have been impossible to bring back so many live specimens.

I have further to report that Mr R. S. Johnson, Assistant Messenger rendered me invaluable assistance throughout in the care and management of the animals, and also in collecting for me in Helena a valuable lot of ground-work materials when I was otherwise engaged and could not attend to that work in person. I would suggest that Mr

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Johnston evinces unusually good judgment in the care of live animals, and with proper encouragement Mr Ellis and he can be of very great service to us hereafter in the matter of collecting, ~~live animals~~. By transporting live animals in the empty fish cars on their return trips, and thus saving express charges, a fine collection can be built up at very light expense.

The skins and other mammalian objects mentioned in the accompanying list I will, according to custom, turn over to the ~~Academy~~ Registrar for the Curator of Mammals. In regard to the live specimens, I would suggest the necessity of starting a new catalogue for them.

Respectfully submitted,

W. J. Hornaday,

Ch. Taxidermist,

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List of Live Animals and other
Objects collected by W. T. Hornaday on trip to
Washington Territory. Oct & Nov 8, 1887.

Object	How obtained.	Of whom obtained.	Locality.	Character.
<i>Cariacus macrotis</i> , ♀.	Purchased	Dr C. A. Gay	Mt. Home, Idaho	Alive
<i>Cariacus columbianus</i> , ♂.	"	J. K. Hewett,	Wash. Ter.	"
<i>Cariacus virginianus</i> , ♂.	"		Helena, Montana,	"
<i>Cynomys ludovicianus</i> , ♂.	Gift	Carl Steinemetz,	" " "	"
" " ♂.	Purchased.	Geo L. Taylor.	Cheyenne, Wyo.	"
" " ?	"	" " "	" "	"
" " ?	"	" " "	" "	"
" " ?	"	" " "	" "	"
<i>Sciurus carolinensis</i> ♂.	Gift.	Frank B. Olm.	Washington, D.C.	"
<i>Ursus cinamomeus</i> , ♂	Purchased		Helena, Mont.	
<i>Taxidea americana</i> , ♂.	Gift	Dr C. W. Higgins.	Salt Lake City.	"
" " ♂.	"	" " " "	" " "	"
<i>Vulpes fulvus</i> , ♂.	"	O. V. Davis.	Mandan, Dak.	"
" " ♂.	"	Dr C. W. Higgins.	Salt Lake City.	"
<i>Vulpes fulvus decoratus</i> , ♂.	"	John Melville.	Portland, Or.	{ From the "Yukon" River Alaska.
<i>Lynx maculatus</i> , ♂.	Purchased	Dr C. W. Higgins.	Salt Lake City.	
" " ♀.	"	" " " "	" " "	"
<i>Aquila chrysaetos</i> , ♂?	Gift.	" " " "	" " "	"
<i>Cervus canadensis</i> , antlers.	Purchased.		Portland, Oregon	velvet. Antlers in
" " "	Gift	L. B. Wells.	Helena, Montana	Antler, ab.
" " "	"	Geo L. Taylor.	Cheyenne, Wyo.	Antlers, ab.
<i>Antilocapra americana</i> , Pur.		J. D. Allen	Mandan, Dak.	yg. Skin.
" " "	"	" " " "	" "	" "
<i>Cariacus macrotis</i> , ♂.	Gift.	Dr C. A. Gay,	Lewiston, Idaho	Antlers, in
<i>Ursus horribilis</i> , yg	Pur.	J. M. Hager.	Mt Home, "	dry skin, velvet.
1 sp. Gold bearing ore.	Gift.	Dr C. A. Gay,	Lewiston, Idaho	

OVER.

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*Special Mem: - All these gifts remain to be
officially acknowledged, & credited.*

Explorations. - In October 1887 it was decided to establish immediately in connection with the National Museum a Department of Living Animals, chiefly for the purpose of affording materials for study in connection with certain lines of work then being prosecuted in the museum. It was decided that hereafter all gifts of living animals which might be offered to the Museum should be accepted, cared for in the best manner possible, and exhibited with due credit to the donors. It was also decided that whenever it was found ^{study} advisable to purchase a living wild animal for ^{study} purposes at a nominal price, it might be done. In accordance with this determination, Mr W. T. Hornaday was directed by the Assistant Secretary of the Smithsonian Institution, who was at that time U. S. Fish Commissioner, to make a collecting trip on Fish Car No. 1, to and through Dakota, Montana, Idaho, Washington Territory, Oregon and Utah, in the interest the new department of living animals which it was proposed to establish.

Mr Hornaday left Washington ^{on} Oct 8, on Car No 1. Mr J. Frank Ellis, messenger, and proceeded westward. In the course of

Copy used in 87-88 report

the work of distributing fish. the car made brief stops at St Paul; Fargo, Dakota; Mandan and Helena, Montana; Tacoma, Washington Territory; Portland, Oregon; Mountain Home, Idaho, and Salt Lake City, Utah. As soon as it became known at those points that the National Museum was ready to accept gifts of live animals, quite a number were presented, and others of desirable kinds were purchased at nominal prices. The most important of the animals collected and brought to Washington by Mr Hornaday were the following; 1 Columbian Black-tailed Deer (Cariaacus columbianus), 1 Mule Deer (Cariaacus macrotis), 1 White-tailed Deer (C. virginianus), 1 Cinnamon Bear, (Ursus cinnamomum), 2 Badgers (Taxidea americana), 2 Red Foxes (Vulpes fulvus fulvus), 1 Cross Fox (Vulpes fulvus decussatus) 2 Spotted Lynxes (Lynx maculatus), 5 "Prairie Dogs" (Cynomys ludovicianus), and a Golden Eagle (Aquila chrysaetus). All of these animals were brought back in the fish car, a task which involved infinite labor and care. The trip, on the whole, was ^a highly successful one, and the relations established with western hunters and collectors ~~are~~ ^{are} certain to prove of value to the museum. The Car returned to Washington on Nov 8, having travelled over 7000 miles.

Curator's Reports file
Living Animals
SMITHSONIAN INSTITUTION Aug. 1888.

W. Hornaday

S. P. LANGLEY, Secretary

G. BROWN GOODE, Assistant Secretary,
in charge of U. S. National Museum

UNITED STATES NATIONAL MUSEUM

Washington, Sept 1, 1888

Prof G. Brown Goode.
Assistant Secretary
in charge of the National Museum.

Sir:-

I have the honor to submit the following report for the Collection of Living Animals for the Month of August:-

The accessions during the month amounted to a total of 16 specimens, representing 11 species, 5 of which were new to the collection. All these accessions were received as gifts. The most valuable specimen was a fine young gray wolf, (Canis lupus griseo-albus), from Mr C. A. Dole, of Glendive, Montana. I enclose a complete list of accessions for the month.

Owing to the pressure of business in connection with the plan for a Zoological Park, combined with work on my paper on the Extirpation of the Bison, I have been compelled to forego the attention to the menagerie that I would otherwise have gladly devoted to it. There are many improvements to be made at the earliest possible moment.

Respectfully submitted,

W. Hornaday, Curator.

List of Living Animals Received during August, 1888.

Number	Name	How obtained	From whom received.
2	Alligators. <i>A. mississippiensis.</i>	Gift.	A. Zeus Schindler. U.S.N.M.
1	Gray Wolf. <i>Canis lupus griseo-albus</i>	✓ "	C. A. Dole. Glendive. Montana.
1	Mink. <i>Putorius vison</i>	✓ "	Allie Langille. Knowles. Md.
1	Snapping Turtle. <i>Chelydra serpentina</i>	✓ "	Dr G. Baur. Yale College.
2	<i>Heterodon platysternus</i> . Blowing Viper.	✓ "	A. M ^c V. Miller. Alderson. Va
2	<i>Falco sparverius</i> . Sparrow Hawks.	✓ "	Dr Theo J. Reed. Great Falls. Montana.
1	Gray Squirrel. <i>Sciurus car. car.</i>	✓ "	Arthur Avery. Washington, D.C.
1	Bat. <i>Atalapha cinerea.</i>	✓ "	Prof. W. H. Dall. U.S.N.M.
2	White Rats. <i>Mus sp.</i>	✓ "	Celeste Moritz. Washington, D.C.
1	<i>Putorius vison</i> Mink.	✓ "	Edward M. Dulin. Langley. Va.
1	Box Tortoise. <i>Testudo carolina</i>	✓ "	Howard Tabler. Seabrook. Md.
1	Wood-chuck. <i>Arctomys monax.</i>	✓ "	William Gordon. 330 4 $\frac{1}{2}$ St. Washington.

W. H. Hornaday.

Annual
Report

Curator's Report
Living Animals

~~1887~~ 1887-1888

REPORT OF THE DEPARTMENT OF LIVING ANIMALS.

By W. T. Hornaday. Curator.

From the date of the plan of organization of the National Museum it has been the intention of its founders that it should eventually include a Department of Vivaria, to afford materials for the prosecution of scientific studies, as well as for general educational purposes. The organization of the present Department of Living Animals was hastened, and finally precipitated, by the imperative needs of the taxidermic force for living models to be studied daily in connection with work on the series of family groups of American mammals begun last year for the display of mounted mammals. The experiment of keeping live animals for this purpose in the taxidermic laboratory had proven expensive, and in many ways unsatisfactory. In as much as it had been determined to spare no effort in the endeavor to produce a series of mounted groups which should be as nearly perfect as possible, it was deemed necessary to form a small collection of living animals for purposes of study, and, if practicable, to also arrange for its exhibi-

tion to the public.

In pursuance with this determination the chief taxidermist was directed to accompany Fish Commission Car No.1. Mr. J. Frank Ellis, Messenger, on its autumn trip to the Pacific coast, for the purpose of collecting and bringing back as many specimens of mammals as could be secured by gift, or purchased at nominal prices. This trip occupied a month, from October 8th. to November 9th., during which Car No. 1, visited St. Paul, Minn; Fargo and Mandan, Dakota; Helena, Montana; Tacoma, Washington Territory; Portland, Oregon; Salt Lake City, Utah, and Cheyenne, Wyoming. At all of these points living specimens were acquired both by gift and purchase, until the total number of acquisitions amounted to seventeen. The following were the objects, which formed the nucleus of the present *collection* ~~Department~~ of *Living animals*:

Vulpes fulvus fulvus, Red Fox.

Gift of O.V. Davis, Mandan, Dakota.

Ursus americanus cinnamomum, Cinnamon Bear.

Purchased at Helena, Montana.

Cariacus virginianus, White-tailed Deer.

Purchased at Helena, Montana.

Cynomys ludovicianus, Prairie-dog.

Gift of Carl Steinmetz, Helena, Montana.

Cariacus columbianus, Columbian Black-tailed Deer,

Purchased at Media, Washington, Ter.

Vulpes fulvus decussatus, Cross Fox.

Gift of John Melville, Portland, Oregon.

Cariacus macrotis, Mule Deer.

Purchased at Mountain Home, Idaho.

Taxidea americana, (2) Badger.

Gift of Dr. C.W.Higgins, Salt Lake City.

Vulpes fulvus fulvus, Red Fox.

Gift of Dr. C.W.Higgins, Salt Lake City.

Aquila chrysaetus, Golden Eagle.

Gift of Dr. C.W.Higgins, Salt Lake City.

Lynx maculatus, Spotted Lynx.

Purchased of Dr. C.W.Higgins, Salt Lake C

Cynomys ludovicianus, (4) Prairie Dog.

Purchased at Cheyenne, Wyoming Ter.

This collection filled up all the available space in the car on its return trip, and the transportation of so many large objects was only possible through the disinterested courtesy and untiring cooperation of Mr. Ellis, and his assistant, Mr. R. S. Johnson.

Upon the arrival of this collection at the Museum, it was decided to assign space for it in one end of a temporary wooden structure that had just been erected on the south side of the eastern wing of the Smithsonian, ~~with~~ of materials from the old demolished New Orleans Annex building. Its dimensions were twenty-five by one-hundred-and-six feet. This rough building was fitted up with heating apparatus, a number of temporary cages were made, the collection duly installed, and opened to the public on

December 31, 1887. It ^{7.2.} immediately became quite popular with the public. Many valuable gifts were offered, and accepted, and a number of desirable small objects which were offered to the Institution at nominal prices were purchased and added to the collection. Among the earliest gifts were an unusually large and fine Jaguar, from Mr. J.W. Riddle, of Eagle Pass, Texas, and two black bears from Mr. J.J. E. Lindberg, of El Paso, Texas.

By the end of January the collection had increased to a total of 58 specimens of mammals and birds, many of which were rare and valuable. It was found that the collection demanded the constant attention of an experienced keeper, not only for the proper care and feeding of the animals, but also to protect them from annoyance at the hands of a certain class of visitors. Accordingly on Feb. 1, Mr. N. R. Wood was engaged to do duty in the above capacity.

During the months of February and March the collection nearly doubled in point of numbers, and rendered it absolutely necessary to occupy the whole of the building in which it was temporarily installed. A bear pit was built for the black bears at the western end, ^a and large cage was

built in the centre for the cinnamon bear, and besides it a still larger cage, with several compartments, was constructed to accomodate the ^{large} birds of prey, — eagles, owls, and vultures. As gifts were received, temporary cages were hastily constructed for their accommodation, and every effort was made to make the best showing possible under the circumstances.

With the rapid increase in the size and value of the collection came an increase in the amount of labor and attention it absolutely required. But for the ^{valuable} ~~value~~ and indefatigable service which had been voluntarily entered upon, chiefly as a personal favor, by Mr. W.C. Weeden, in addition to his duties as Assistant Engineer, the department of living animals would have suffered very serious embarrassment, and the curator gladly acknowledges the value and gratifying nature of the services thus rendered *from February ~~down~~ to the close of the fiscal year.*

II In the month of April, a fine pair of buffaloes, a bull four years of age and a three-year-old cow, then on a cattle ranch in Nebraska, [^] were purchased by Mr. E. G. Blackford, of New York, and presented to the National Museum as the nucleus of a small herd. This very valuable gift was

gladly accepted, and Mr. Joseph Palmer was despatched to North Platte, Nebraska, to take charge of the animals, and bring them safely to Washington. This difficult task was accomplished with gratifying success and economy, and the two highly prized specimens reached the Institution in fine condition on May 10. In anticipation of their wants, and to provide good accommodations for the four deer then in the collection, a small barn with several yards around it had been constructed on the south end of the ellipse lying in the angle between the Smithsonian and the National Museum buildings. While ⁱⁿ this structure is by no means conspicuous or displeasing design, the building and ~~connecting~~ yards attached afford ample and highly satisfactory accommodations, not only for the buffaloes and deer already occupying them, but they can also receive a very considerable number of each in addition without being crowded. The barn affords dry quarters for the animals during rainy weather, ^{cool} ~~cool~~ shade during hot weather, a suitable outfit for feeding, and also storage room for feed.

On May 12th. the chief taxidermist was appointed ^{the department of} Curator of living animals.

7

Review of Accessions.

The accession statistics of the department afford an interesting index of the interest manifested in it on the part of the general public. In the beginning it was predicted that one-half the specimens necessary for the various collections would be offered as gifts. The following is a statement of the whole number of living animals acquired from Oct. 8, 1887, to June 30, 1888, and the manner of their acquisition.

Mammals,

Received as gifts.	42
Purchased.	32

Total.	74

Birds,

Received as gifts.	56
Purchased.	5
Bred in menagerie.	11

Total--	72

Reptiles,

Received as gifts.	16 25
Purchased.	1

Total,	17 26

Number of species represented,

Mammals - - - - - 30

Birds - - - - - 28

Reptiles - - - - - 10

Total - - - - - 68

Total number of specimens. 172

Number received as gifts. 123.

Number purchased. 38

It is worthy of note that of all the specimens not bred in the menagerie, ~~precisely~~ ^{more than} three times as many were received by gift as it was necessary to purchase. Furthermore, of the ¹²³ ~~114~~ specimens received by presentation, ~~fully two-thirds~~ ^{about three-fourths} were offered voluntarily, and without either suggestion or personal solicitation from the curator. The actual cash value of all the gifts is at least six times that of all the specimens purchased.

mentioned

In addition to the gifts, in the list already given, the most noteworthy mammals are the following: A fine pair of American Bison, from Mr. E. G. Blackford, New York; a very large male Jaguar, from Mr. J. W. Riddle, Eagle Pass, Texas; two black bears from Mr. J. J. E. Lindberg, El Paso, Texas;

a male Virginian Deer, from Capt. R.L. Hoxie, Montgomery, Alabama, and a female of the same species from Dr. P. Glennan, Washington, D.C.; two black bear cubs from Mr. J.S. Miller, Commissioner of Internal Revenue, Washington; a coyote from Mr. F.D. Nowell, North Platte, Nebraska; a gray wolf from Mr. C. A. Dole, Glendive, Montana; a grivet monkey from Mr. L. Moxley, Washington, and an exceedingly interesting Mexican Spider Monkey (Ateles vellerosus) from Mr. C.H. Townsend, U.S. Fish Commission Steamer Albatross; a gray fox from Mr. Geo. E. Brown, Alexandria, Va.

Of the many rare and interesting birds presented, it is impossible to mention here the names of even the most valuable objects, but a complete list of all gifts will be found appended to this report.

Among the specimens purchased the most ^{interesting} were a puma from Ft. Keogh, and a "silver-tip" grizzly bear cub from Billings, Montana; a fine black bear from South Carolina, received, from Dr. G.E. Manigault in exchange, and the deer and spotted lynxes mentioned in the list of specimens which were procured on the trip to the Pacific coast.

During the month of June a ^{beginning} ~~start~~ was made toward the

formation of a collection of living reptiles, but since nothing worthy of mention was accomplished until after June 30, the record of the work done properly belongs to the next report.

Among the small and more common species of mammals and birds, there have been several deaths, but the only loss of any importance during the eight months was that of the two Spotted lynxes, (Lynx maculatus), obtained in Salt Lake City. During the early part of the winter, before the heating apparatus was in satisfactory order, the female of the pair died of pneumonia; and the male succumbed a few days later to uraemic poisoning. Owing to the flimsy nature of some of our temporary cages, several opossums and two woodchucks escaped, and, still more to be regretted, six quails and a pair of gambel's partridges were killed in one night by rats, with which the menagerie building is still completely infested, in spite of the great numbers that have been caught, killed and fed to the birds of prey.

Routine Work.

The daily care which the animals in the collection demanded in proper feeding and thorough cleaning, has re-

quired the undivided attention of the two keepers mentioned above, with daily assistance from a laborer. Quite a number of the birds and mammals are young, and all such require to be fed from three to five times daily, on food specially adapted to their respective wants. With the exception of the reptiles, each species in the entire collection has been labeled, and although in the beginning the curator made a determined effort to exhibit with each mammalian species a map showing its geographical distribution, the rapid increase in the size and importance of the collection overwhelmed him with more imperative duties, and it was found impossible to carry out that plan at present. During the last four months of the fiscal year, only four specimens were purchased, and it required diligent exertions to provide proper accommodations for the gifts that came in from day to day. Notwithstanding the disadvantages the department labors under by reason of the temporary nature of nearly all of its appointments, the crowded condition of the building, and the small size of most of the cages, the healthy condition of the animals and the general cleanliness of the establishment attest

the energy and vigilance of the keepers, Messrs. Wood and Weeden.

As a measure of economy in the matter of feed, several tons of fine clover hay have been saved from the haying operations conducted on the Smithsonian grounds by the Department of Public Buildings and Grounds, and stacked near the carp ponds, for future use in feeding our ruminants. The saving thus effected will not fall far short of \$150. During the entire grass-cutting season the buffaloes and deer have been fed chiefly on fresh grass from the grounds.

Transportation.

Inasmuch as the ordinary rules of the Express Companies require payment for certain classes of live animals at from two to four times the amount of ordinary rates, Mr. S.C. Brown, Registrar of the ^{National Museum} ~~Institution~~, undertook to secure certain concessions from various Express Companies, north and south. After considerable correspondence, the Adams Express Company refused to make any concession whatever, thereby reserving its right to charge from one to four rates on live animals, as it sees fit, which in many

cases ^{is} ~~is~~ a prohibitive tariff. The United States Express Co. (now including also Baltimore and Ohio Co.) was more generous, and in view of the laudable nature of the object in view, and the fact that the collections will always be free to the public, the ^{General} manager of that company

has authorized all its agents to ship live animals of all kinds to this Institution at one ordinary merchandise rate. This generous concession will be of great value to us in building up the collection of living animals, and all collectors and correspondents who may desire to forward specimens to us are requested to ship by the United States Express Co. (or the B. and O.) in preference to the Adams or the Southern Ex. Co.

Researches.

Up to date no researches worthy of mention have been made, the attention of the curator having been fully occupied in duties of a practical nature. The growth of the young bears in the collection, which now contains examples of three species, has been watched with interest with a view to obtaining some exact date throwing light on the relations borne by the black bear, cinnamon and grizzly to

each other. The position of the cinnamon bear being involved in considerable doubt, it is very desirable to study the developement of the three species under favorable conditions.

The most important result accomplished thus far by our collection of Living Animals has been in ~~emphasizing~~ the great ^{need} ~~desirability~~ of a national zoological garden, established in the City of Washington. The many hundreds of eager visitors who daily crowd our menagerie building to the point of positive discomfort, and the numerous gifts which come to us unsought, have led Senator J.B. Beck to introduce in the U. S. Senate a bill "for the establishment of a zoological park in the District of Columbia, for the advancement of science, and the instruction and recreation of the people," and appropriating therefor, as an initial appropriation, the sum of \$200,000. By direction of the Secretary of the Smithsonian Institution, and the Assistant Secretary, in charge of the National Museum, and also in pursuance of the desire of Senator Beck, the Curator has exerted his utmost efforts to help ~~to~~ bring about the consummation of that much-desired and highly laudable end.

Literary Work.

A very noticable portion of the time of the curator has been taken up by certain investigations, and the preparation of various reports that have been called for by the Secretary and the Assistant Secretary, and prepared accordingly, for publication or otherwise. *The following have been submitted:-*

A brief report on the results of the Smithsonian

Expedition for American Bison.

A full report of the same, with a map.

A report of investigations made in regard to the

protection of game in the Yellowstone National

~~~~~ Park, illustrated by a specially prepared map.

A plan, with estimates of cost, for a National Zoological

Garden, to be located in the District of Columbia.

A paper on the Extermination of the American Bison, with maps and illustrations, (not quite completed during the year.)

Exhibit at Cincinnati Exposition.

In order to call the attention of the public to the

fact that several important species of North American mammals have already been exterminated by man, and many others are rapidly going the same way, the ~~curator of Living Animals~~ prepared during the month of June a special exhibit to illustrate the extermination of American quadrupeds. This exhibit was composed of the following features:-

A series of mounted specimens of such mammals as already have been exterminated, and others that are rapidly approaching extinction. The species represented were as follows;- American bison, West Indian seal, California elephant seal, walrus, moose, elk, mountain goat, mountain sheep, antelope and beaver.

II A series of paintings and photographic pictures of large size, illustrating the methods by which the American bison has been exterminated.

A series of specimens and a large oil painting showing what remains today of the bison, -- skeletons bleaching on the western prairies.

A series of raw buffalo skins as representing the objects for which the bison was exterminated.

A collection of modern weapons of destruction, including examples of nearly all American sporting rifles.

A lot of 70 skins of the rare and little known Rocky Mountain *goat* which were taken by pot-hunters and sold in Denver at 50cts. each.

This exhibit occupied 800 square feet of floor space.



Recommendations.

At present the most serious drawback under which the Department labors is the lack of space in the Menagerie building for the proper comfort of the visitors who daily visit the collection. For weeks in succession the daily throng has been ~~so~~ great as to make it a matter of difficulty to pass through the building, or even to perform ~~the~~ necessary work in connection with the care of the animals. It has several times been estimated that between 2000 and 3000 visitors have viewed the collection in that small and rudely -constructed building in a single day.

¶ At first the ragamuffin element threatened to completely crowd out ^{all other} ~~visitors of the more intelligent and refined class,~~ and it became necessary to station a watchman in the building to compel the small-boy element to depart after a reasonable time. The character of the visitors in daily attendance is in the highest degree complimentary to the experiment of opening this collection to the public, and causes a constant regret that it is impracticable, ^{to provide ample room for the comfort of visitors and also} if not also impossible, ^{to} have all the appointments of the collection of the highest order of excellence even now.

As yet Mr. W.C. Weeden is still on the rolls of the Institution as an assistant engineer, and liable to be detached from service in this department at any time. It is earnestly hoped by the curator that Mr. Weeden, whose continuous services are imperatively needed in the menagerie, may be transferred to this department, and regularly appointed as a keeper.

List of Accessions to the Department
of Living Animals from Oct 8. 1887 to
June 30. 1888,

M A M M A L S.

Gifts.

- ✓ BUFFALO. (2) (*Bison americanus*.)
 E. G. Blackford, New York.
- ✓ VIRGINIA DEER. (*Cariacus virginianus*)
 Dr. P. Glennan, Washington, D.C.
- ✓ VIRGINIA DEER. (*Cariacus virginianus*)
 Capt. R. L. Hoxie, Montgomery, Alabama.
- ✓ JAGUAR. (*Felis onca*.)
 J. W. Riddle, Eagle Pass, Texas.
- ✓ BLACK BEAR. (2) (*Ursus americanus*.)
 J. J. E. Lindberg, El Paso, Texas.
- ✓ GRIVET MONKEY. (*Cercopithecus enythis*.)
 L. Moxley, Washington, D.C.
- ✓ RED FOX. (*Vulpes fulvus fulvus*.)
 O. V. Davis, Mandan, Dakota.
- ✓ CROSS FOX. (*Vulpes ful. decussatus*.)
 John Melville, Portland, Oregon
- ✓ RED FOX. (*Vulpes fulvus fulvus*.)
 Dr. C. W. Higgins, Salt Lake City.
- ✓ GRAY FOX. (*Urocyon virginianus*.)
 Geo. E. Brown, Alexandria, Va.
- ✓ COYOTE. (*Canis lutraⁿs*)
 Fred. ~~E.~~ D. Nowell, North Platte, Nebraska
- ✓ ~~WESTERN~~ PRAIRIE DOG. (*Cynomys columbianus*)
 Carl Steinmetz, Helena, Montana.
- ✓ BADGER. (2) (*Taxidea americana*)
 Dr. C. W. Higgins, Salt Lake City.
- ✓ GREY SQUIRREL. (*Sciurus carolinensis*.)
 Fred. C. Ohm, Washington, D.C.
- ✓ OPOSSUM. (*Didelphys virginianus*.)
 Dr. C. Hart Merriam, Washington, D.C.
- ✓ OPOSSUM. (*Didelphys virginianus*.)
 J. O. Boggs, Washington, D.C.
- ✓ OPOSSUM. (*Didelphys virginianus*.)
 W. J. Yaste, Bureau of Ethnology. Washington, D.C.

- ✓ S. GRAY SQUIRREL. (3) (*Sciurus carolinensis carolinensis*.)
Joseph Palmer, Arlington, Va.
- ✓ FERRET. (2) (*Putorius furo*.)
Louis Schmid, Washington, D.C.
- ✓ CAVY. GUINEA-PIG. (2) (*Cavia aperia* (~~or eobaya?~~))
G. H. H. Moore, U. S. Fish Commission.
- ✓ OPOSSUM. (*Didelphys virginianus*.)
Eppa Hunton Coumbe, Washington, D.C.
- ✓ WHITE RAT. (*Mus rattus*.)
Master Clinton Thorne. *Washington, D.C.*
- ✓ RACCOON. (*Procyon lotor*.)
Geo. Boulding, Washington, D.C.
- ✓ OPOSSUM. (*Didelphys virginianus*.)
Clifford ~~SU~~ Smith, Washington, D.C.
- ✓ TAME HARE. (*Lepus vulgaris*.)
Jos. Mace, Smith, Inst. *Washington, D.C.*
- ✓ TAME HARE. (*Lepus vulgaris*.)
Louis A. Schmid, Washington, D.C.
- ✓ WOODCOCK, (*Philohela minor*)
W. F. Johnson, Bladensburg, Md.
- ✓ RED SQUIRREL. (*Sciurus hudsonius*.)
~~Mr.~~ Orlando G. Wales, Washington, D.C.
- ✓ OPOSSUM. (*Didelphys virginianus*.)
W. H. Babcock, Washington, D.C.
- ✓ GREY SQUIRREL. (*Sciurus carolinensis*.)
R. H. G. Bouis, Washington, D.C.
- ✓ FOX SQUIRREL. (*Sciurus niger cinereus*.)
H. E. Hinman, Cleveland, Ohio.
- ✓ CHIPMUNK. (2) (*Tamias striatus*.)
Alex. Mc. Veigh Miller, Alderson, W. Va.
- ✓ PORCUPINE. (*Erithizon dorsatus*)
Pettit & Dripps, Washington, D.C.
- ✓ WOODCHUCKS. (3) (*Arctomys monax*.)
T. L. Ostrander, Wells, N.Y.

Purchased.

WHITE-TAILED DEER. (*Cariacus virginianus*.)

at ~~From~~ Helena, Montana.

- COLUMBIAN BLACK-TAILED DEER. (*Cariacus columbianus*)
R. C. Hewitt, Media, W.T.
- MULE DEER. (*Cariacus macrotis*)
Dr. C. A. Gay, Lewiston, Idaho.
- SPOTTED LYNX. (2) (*Lynx maculatus*.)
Dr. C. W. Higgins, Salt Lake City.
- PANTHER. (*Felis concolor*.)
Capt. Henry Romeyn, Ft. Keogh, Montana.
- CINNAMON BEAR. (*Ursus americanus cinnamomum*.)
From Helena, Montana.
- GRIZZLY BEAR, Cub. (*Ursus horribilis*.)
R. T. Allen, Billings, Montana.
- GRAY FOX. (*Urocyon virginianus virginianus*.)
From Macon, Ga.
- ~~WESTERN~~ PRAIRIE DOG. (4) (*Cynomys ludovicianus*.)
Geo. L. Taylor, Cheyenne, Wyoming.
- RACCOON. (2) (*Procyon lotor*.)
From Macon, Ga., and Jacksonville, Fla.
- OPOSSUM. (*Didelphys virginianus*.)
From Atlanta, Ga.
- GRAY SQUIRREL. (2) (*Sciurus carolinensis*.)
From Prince George Co., Md.
- FLYING SQUIRREL. (2) (*Sciuropterus volucella volucella*.)
From Prince George Co., Md.
- FLYING SQUIRREL. (7) (*Sciuropterus volucella vol.*)
From Prince George Co., Md.
- OPOSSUM. (*Didelphys virginianus*.)
Dr. W. T. Owsley, Glasgow, Ky,
- OPOSSUM, (*Didelphys virginianus*.)
Geo. F. Pollock, Washington, D.C.
- WOODCHUCK. 2 (*Arctomys monax*.)
L. D. Terrell, U. S. Fish Commission.
- By Exchange.
- CAROLINA BLACK BEAR. (*Ursus americanus*.)
Dr. G. E. Manigault, Charleston, S.C.
- Bred.
- TAME HARE. (4) (*Lepus vulgaris*.)

B I R D S.

Gifts.

- ✓ GOLDEN EAGLE. (*Aquila chrysaetus*.)
Dr. C. W. Higgins, Salt Lake City.
- ✓ BALD EAGLE. (*Haliaeetus leucocephalus*.)
Col. Shott, Va.
- ✓ GOLDEN EAGLE. (*Aquila chrysaetus*.)
President Cleveland, Executive Mansion.
- ✓ GT. BLUE HERON. (2) (*Ardea herodias*.)
U. S. Fish Commission, Havre de Grace, Md.
- ✓ TURKEY VULTURE. (2) (*Cathartes aura*.)
G. L. Machenheimer, Forest Glen, Md.
- ✓ MACAW. (*Ara macao*.)
Mr. Alfred W. Cochran of Alabama.
- ✓ ROUGH-LEGGED HAWK. (*Archibutes sancti-policianus*, *johannis*.)
Vinal Edwards, Wood's Holl, Mass.
- ✓ RED-TAILED HAWK. (*Buteo borealis*.)
Mr. R. H. Boswell, Washington, D.C.
- ✓ COOPER'S HAWK. (*Accipiter Cooperi*.)
John J. Sellner, Prince George Co., Md.
- ✓ SPARROW HAWK. (*Falco sparverius*.)
John W. Reed, Gaitherburg, Md.
- Red-tailed Hawk.
HAWK in the down. (*Buteo borealis*.)
Miss. Lizzie Kuehling, Fairfax Co., Va.
- ✓ SPARROW HAWK. (*Falco sparverius*.)
Alfred Heitmuller, Brightwood Road, D.C.
- ✓ RED-TAILED HAWK. (*Buteo borealis*.)
G. L. Machenheimer, Forest Glen, Md.
- ✓ ~~FLY~~ BARRED OWL. (*Strix nebulosa*)
From Jacksonville, Fla.
- ✓ SCREECH OWL. (^{*megascops*} ~~Scops~~ *asio*.)
J. E. Brown, Washington, D.C.
- ✓ GT. HORNE OWL. (*Bubo virginianus*.)
Mr. Robt. Ridgway. U.S. National Museum.
- ✓ SCREECH OWL. (*Megascops asio*.)
August Gedz, Washington, D.C.
- ✓ BARN OWL. (*Strix flammea*.)
Eusane
Water H. Stoutenburg, Washington Asylum.

- ✓ LONG-EARED OWL. (*Asio wilsonianus*.)
W. S. Anderson, Washington, D.C.
- ✓ BARRED OWL. (2) (*Strix nebulosa*.) ~~(Norton)~~
Geo. A. Ricker, Alexandria, Va.
- ✓ SCREECH OWL. (4) (*Megascops asio*.)
C. Edgar Uber, Falls Church, Va.
- ✓ SCREECH OWL. (*Megascops asio*.)
Mr. Alfred Ray, Forest Glen, Md.
- ✓ GT. HORNED OWL. (*Bubo virginianus*.)
Dr. J. Schneck, Mt. Carmel, Ill.
- ✓ BARRED OWL. (2) (*Strix nebulosa*.)
Mrs. J. B. Eustis, Washington, D.C.
- ✓ LOON. (*Colymbus torquatus*.)
Chas. B. Gant, Washington, D.C.
- ✓ CROW. (*Corvus americanus*.)
Nelson R. Wood. National Museum.
- ✓ CROW. (*Corvus americanus*.)
Jos. Palmer, U. S. N. M. ✓
- ✓ GAMBEL'S PARTRIDGE. (2) (*Callipepla gambeli*.)
Louis Schmid, Washington, D.C.
- ✓ BOB-WHITE. 6 (*Colinus virginianus*.)
Jas. W. Walker, Washington, D.C.
- ✓ VA. QUAIL. (9) (*Colinus virginianus*.)
(leave space for name)
- Red* ✓ ~~Am.~~ CROSSBILL. (*Loxia curvirostra minor*.)
Dr. Fisher, Dept. of Agriculture.
- Red* ✓ CROSSBILL. (2) (*Loxia curvirostra*.)

~~RED CROSSBILL. (*Loxia curvirostra*.)~~

(3)

Purchased.

TURKEY VULTURE. ~~(2)~~ (*Cathartes aura*.)
G. L. Machenheimer, Forest Glen, Md.

~~TURKEY VULTURE. (*Cathartes aura*.)~~
~~G. L. Machenheimer, Forest Glen, Md.~~

COOPER'S HAWK. (*Accipiter cooperi*.)
Washington Market.

Deposited.

✓ HOMING PIGEON. (2) (*Columba livia*.)
N. R. Wood, National Museum.

QUAIL. (2) (*Colinus virginianus*.)

N. R. Wood, National Museum.

RING DOVES. (2) (*Columba sp.*)

N. R. Wood, National Museum.

AUSTRALIAN GRASS PARROQUET. (2) (*Melopsittacus undulatus*.)

N. R. Wood, National Museum.

BLACK FANTAILED PIGEON. (2) (*Columba sp.*)

W. C. Weeden, National Museum.

COMMON PIGEON. (2) (*Columba sp.*)

W. C. Weeden, National Museum.

GROUND DOVE. (2) (*Columbigallina passerina*.)

N. R. Wood, National Museum.

HOMING PIGEON. (4) (*Columba livia*.)

N. R. Wood, National Museum.

R E P T I L E S.

Gifts.

BOX TORTOISE. (*Cistudo carolina*.)

Alex McVeigh Miller, Alderson, Va.

GRAY MONITOR. (2) (*Varanus griseus*.)

W. A. Conklin, Central Park Menagerie, N.Y.

THREE-TOED BOX TORTOISE. (2) (*Terrapene triunguis*.)

Robt. T. Hill, U.S. Geological Survey.

COLLARD LIZARD. (*Crotaphytus collaris*.)

Department of Reptiles, National Museum.

BANDED RATTLE SNAKE. (3) (*Crotalus horridus*.)

Department of Reptiles, National Museum.

SCARLET KING SNAKE. (*Ophibolus doliatus doliatus*.)

W. C. Weeden, National Museum.

BLACK SNAKE. (2) (*Bascanium constrictor*.)

Joseph Palmer, National Museum.

GARTER SNAKE. (*Eutaenia sirtalis sirtalis*.)

William Palmer, National Museum.

GARTER SNAKE. (*Eutaenia sirtalis sirtalis*.)

Miss. Gertrude Johnson, Washington, D.C.

BLOWING VIPER. (*Heterodon platyrhinus platyrhinus*.)

Mr. E. S. Rheem, National Museum.

✓WATER MOCCASIN. (5) (*Tropidonotus sipedon sipedon*.)
W.C. Weeden, National Museum.
✓GARTER SNAKE. (5) (*Eutaenia sirtalis sirtalis*.)
W.C. Weeden, National Museum.

Purchased.

BOX TORTOISE. (*Cistudo carolina*.)
Dr. W. T. Owsley, Glasgow, Ky.

Monthly Report of the Department of Living Animals.

SMITHSONIAN INSTITUTION

S. P. LANGLEY, Secretary

G. BROWN GOODE, Assistant Secretary,

in charge of U. S. National Museum

UNITED STATES NATIONAL MUSEUM

Curators Reports
Living Animals

Hornaday

Washington, Dec 1, 1888

Prof G. Brown Goode.

Assistant Secretary, etc.

Dear Sir:-

I have the honor to report that during the month of November a number of important improvements were made in the accommodations for the Living Animals. A frame addition was built on at the back of the Animal House, 14 x 30 feet, floored with flags, and heated by a base-burning stove. In this a pit was provided for the 12 Elephant tortoises, and they were put into it, where they appear to be thriving. The large cages containing the monkeys, alligators and terrapins were also placed in this room. Arrangements were made for keeping the air of the room well moistened.

The November rains soon made it necessary to put the ruminant yards in condition for the winter, and accordingly 100 cubic yards of gravel were purchased and spread over all the yards, to make them dry, and free from mud.

As far as it was possible to do it, the yards were ditched so that the water would run out of them.

Two partition fences were erected, on taking off a portion of the buffalo yard, for the Angora Goats, and the other divided one of the deer yards, to afford a small yard for the little Mountain sheep.

During the month three noteworthy accessions were received, one being a live Mountain Sheep, from Mr. W. Montana, the fourth specimen of that species ever held in captivity, so far as known. A lot of 12 Elephant Tortoises from the Galapagos Islands were received from the Fish Commission, and 4 Angora Goats were sent by the Messrs Parsons, of Natural Bridge, ~~At~~ Virginia.

The usual list of accessions during the month is enclosed.

Very respectfully submitted,
W. J. Hornaday,

List of Accessions of Living Animals during November. 1888.

No	Sci. name.	Com. name.	Condition	From whom obt.	Address.
2	Columba ?	Swallow Pigeons.	Dep.	W. C. Weeden.	U. S. N. M. ✓
2	"	Drummer "	"	" " "	" " ✓
2	"	R. & B. Swallow Pigeons.	"	" " "	" " ✓
2	"	White Nun.	"	H. R. Wood.	" " ✓
1	Ara macao.	Macaw.	Gift.	Judge W. M. Merrick.	Wash. D. C. ✓
12	Testudo elephantopus.	El. Tortoises.	Dep.	U. S. F. C.	✓
1	Ovis montana.	Mt. Sheep.	Purch.	G. B. Grinnell.	N. Y. City. ✓
4	Capra hircus ang.	Angora Goats.	Gift.	Mrs. Grace + Maud Parsons.	Natural Bridge, Va. ✓
1	Asio accipitrinus.	Sh. eared Owl.	"	Sam'l Shipley.	Wash. D. C. ✓
1	Zamelodia ludov.	Rose-br. Grosbeak.	"	J. H. Davison.	Lockport, N. Y. ✓
2	Cygnus atratus eggs .	Bl. Swan.	"	W. A. Carklin.	N. Y. City. ✓
3	Megascops asio.	Screech Owl.	"	E. B. Cones.	Wash. D. C. ✓
33					

Curator Nehors
Living Animals
July 1, 1886

LIST OF ACCESSIONS
to the
DEPARTMENT OF LIVING ANIMALS
During July 1888.

Number	Name	Locality.	How obtained	From whom obtained.
1	<i>Haliaeetus leucocephalus</i>	Shamrock. Va.	Gift.	Accession 20880 Master Thos. H. Tolson, Jr.
2	<i>Ursus americanus</i>	West Virginia.	"	Accession 20881 Mr J. S. Miller. (Wash. D.C.)
1	<i>Ateles vellerosus</i> .	Honduras.	Deposit.	Accession 20927 Mr C. H. Townsend.
2	<i>Lepus sylvaticus sylv.</i>	Dist. of Columbia.	Gift.	Accession 20899. Acquired in Wash. D.C. Miss Dizzie Rudd. (City)
1	<i>Crotaphytus collaris</i> .	D. Texas.	"	Dept of Reptiles. U. S. N. M.
4	<i>Crotalus cerastes</i> .	Arizona.	"	Accession 20935 Dr J. L. Mortman.
4	<i>Lepus sylvat. sylvat.</i>	Fairfax Co. Va.	"	Accession 20940 Mr C. Edgar Uber.
2	<i>Chrysomys picta</i> .	New Haven. Conn.	"	Accession 20846 Dr G. Baur.
4	<i>Amyda mutica</i> .	Marietta. Ohio.	"	Accession 20946 "
2	<i>Chelopus inculptus</i> .	New Haven. Conn.	"	Accession 20946 "
2	<i>Alligator mississippiensis</i> .	Florida.	"	Accession 20969 Louis Schmidt & Son. (City)
25	10 Species		All gifts.	
				W. M. Hornaday.

20946

21032

[Handwritten signature]

SMITHSONIAN INSTITUTION

S. P. LANGLEY, Secretary

G. BROWN GOODE, Assistant Secretary,
in charge of U. S. National Museum

UNITED STATES NATIONAL MUSEUM

Dep. file
Living Animals
Hornaday

Washington, August 6, 1888

Prof. G. Brown Goode,

Acting Secretary, Smithsonian Institution.

Sir:-

I have the honor to submit the following report for the Collection of Living Animals for the month of July.

The accessions during the month amounted to 25 specimens, representing 10 species, 7 of which were new to the collection. All were gifts excepting one, which was a deposit, but likely to remain during life. I enclose a complete list of accessions for the month. The most interesting of ^{the} specimens received is the Mexican Spider Monkey (Ateles vellerosus), deposited by Mr. Townsend, which is a constant source of wonder to all visitors who are not already familiar with prehensile-tailed monkeys.

The two black bear cubs presented by Mr. J. S. Miller have been provided with very ample and comfortable quarters in the large hexagonal cage formerly occupied by the cinnamon bear. A fine white-headed eagle was received from Master Thomas H. Tolson, of Shamrock, Va. The

eagles need an out-door cage, and it is my desire to provide one for them as soon as practicable.

During the month a beginning was made toward the formation of a collection of reptiles. A number of interesting specimens were secured by gift, and for 12 days a carpenter was employed in fitting up accommodations for them. It is intended to increase this collection as fast as accommodations will permit. A complete wire top was put on the old cinnamon bear cage, and steps and a platform were put in to add to the comfort of the black bear cubs.

The pit occupied by the black bears was opened at the back, and a yard was fitted up so that the three bears could have free access to it during the daytime. This has proven of great benefit to these animals in several ways.

The deaths in the collection were confined to the small and common species. All the large mammals and birds are in excellent health, and all the young specimens are growing rapidly. The menagerie building is becoming somewhat crowded with cages, but the visitors seem inclined to cheerfully overlook all discomforts so long as they are permitted to view the collection. The attendance has fallen off considerably on account of the hot weather.

At the beginning of the month a complete set of clean labels were framed and put up. A number of temporary labels were printed on the type writer and put up, pending the printing of standard labels.

During the month a complete relief model of the site of the proposed Zoological Park was made, and sent to the Capitol for the use of Senator Beck and others. A very considerable amount of work was done during the month in connection with Senator Beck's plan for a national collection of live animals.

After the completion of work on the Exhibit to illustrate the Extermination of American Animals, which occupied considerable time, to the detriment of the menagerie, work was immediately renewed on my paper on the "Extermination of the Am. Bison" for the Museum Report. This was continued until the receipt of an urgent letter from Senator Beck.

The usual amount of correspondence and routine work has been attended to.

Respectfully submitted,

W. J. Hornaday.

Curator of Living Animals.

Curator's Report

Living Animals

September 88

UNITED STATES NATIONAL MUSEUM

UNDER DIRECTION OF

THE SMITHSONIAN INSTITUTION

WASHINGTON

Oct 1, 1888.

Prof G. Brown Goode.

Assistant Secretary.

In charge National Museum.

Dear Sir:-

I have the honor to submit the following report of the collection of Living Animals for the month of September.

The most important work accomplished during the month was in connection with the plan for the proposed Zoological Park. The vote on the amendment was taken in the House of Representatives on Sept 12. In the debate, the amendment was supported very ably and earnestly by Messrs Nelson, Foran, Henderson (Iowa) and Baker (New York). but the amendment was defeated by a majority of 20 votes.

From Sept 14 to 28 the curator was absent on leave.

The accessions during the month were but six in number, the most valuable being a Capucine monkey (Cebus hypoleucus).

During the month a number of valuable American mammals were offered for sale, among

which were a caribou in Maine, two young
Moose in Minnesota, three Florida manattles
in New York and two antelopes in Montana.
It is greatly to be regretted that we are not
prepared to purchase such desirable animals
at the very low prices at which they were offered.

I enclose the usual list of accessions for
the month.

Yours very respectfully,

W. J. Hornaday,

Curator of Living Animals.

List of Accessions during September, 1888.

No	Name	Locality	How obtained	From whom obtained.
214	<i>Leebis hypoleucus</i>	Central Amer.	Gift.	Mrs H. D. Cooke, Jr. Georgetown, D.C.
215	<i>Bassaris astuta</i>	Texas	"	E. M. Hasbrouck. Brownwood, Texas.
216	<i>Pandion. hal. car.</i>	Potomac River	"	T. J. Biggins. Washington, D.C.
217	<i>Sciurus hypposyrphus</i>	Yucatan.	Purchase.	C. Z. Hunt. Washington, D.C.
218	<i>Cynomys ludovic.</i>	Nebraska.	Gift.	Lowell C. Williams. Washington, D.C. ✓
219	" "	"	"	" " " " " " " " ✓

UNITED STATES NATIONAL MUSEUM

UNDER DIRECTION OF

THE SMITHSONIAN INSTITUTION

WASHINGTON

C

Cuvier's Reports Living Animals
UNITED STATES NATIONAL MUSEUM W. D. Hornaday
UNDER DIRECTION OF
THE SMITHSONIAN INSTITUTION

WASHINGTON Nov 1. 1888.

Professor G. Brown Goode.
Assistant Secretary.
In charge National Museum.

Dear Sir:-

I have the honor to submit the following report of the Collection of Living Animals for the month of October.

The accessions for the month were twelve in number, the most noteworthy being three elk, an adult female and two young males, which were deposited until next spring by the Hon. W. F. Cody. Mr Cody's agent, Mr Lew. Parker, offered to deposit with us the entire herd of 18 buffaloes belonging to the Wild West Show, with a man to take care of them, until next spring, but on account of the expense the Secretary was obliged to decline the offer. The three elk and one mounted specimen of the almost unknown "zacataci", or "Mexican bison", are offered to the Museum for \$300. and I earnestly hope that the elks, at least, may be purchased. They are a very important addition to the collection. During the month one valuable animal was

lost by death. Our gray wolf (C. lupus griseo-albus) died of a combination of diseases brought on by confinement, which emphasizes our need for some larger cages.

The U. S. Fish Commissioner having determined to deposit in our collection the elephant tortoises collected in the Galapagos Islands by the Albatross, a room 14 x 30 feet was built as an addition to the animal house to receive these specimens, and other tropical animals which require a more even temperature than it is possible to maintain in the main building at night during cold weather. This room has been provided with a base-burning coal stove, and with its aid the temperature can be properly regulated.

The tortoises have not been formally received from the custody of Mr North, for the reason that we are not yet ready to accommodate them.

The usual monthly list of accessions is enclosed.

Respectfully submitted

W. J. Hornaday.

Curator of Living Animals.

List of Accessions for October 1888.

No.	Name	Locality	How obtained	From whom obtained.
220	Alligator miss.	Fla.	Gift.	Mrs John W. Hall, Washington, D.C.
221	Cycloplus aestivus.	Virginia	"	W. Palmer, Nat. Museum.
222	Didelphys virg.	"	"	Geo. B. Startenweather, Washington, D.C.
223	Erethizon dorsatus	?	"	Gerstenberg + Reuter. " "
224	Procyon lotor.	Very Ohio	"	L. J. Childs, Fairfield, Ohio.
225	Bomasa umbellus.	Virginia	"	C. Edgar Uber, Charlottesville, Va.
226	Maraca amer.	Potomac River	"	J. Bolden, Washington, D.C.
227	Cervus Canadensis ♀	Wyoming	Deposit.	Hon. W. F. Cody, North Platte, Nebraska.
228	" " ♂	"	"	" " " " " " "
229	" " ♂	"	"	" " " " " " "
230	Procyon lotor.	Virginia	Oct 27 Gift.	Miss Georgie Sutton, Westmoreland Co. Va. ✓
231	White Rats (2)		Oct 31 "	James Burke, Washington, D.C. ✓

SMITHSONIAN INSTITUTION

S. P. LANGLEY, Secretary

G. BROWN GOODE, Assistant Secretary,

in charge of U. S. National Museum

UNITED STATES NATIONAL MUSEUM

Washington, , 188⁸