

ANNUAL REPORT OF THE
BOARD OF REGENTS OF
**THE SMITHSONIAN
INSTITUTION**

SHOWING THE
OPERATIONS, EXPENDITURES, AND
CONDITION OF THE INSTITUTION
FOR THE YEAR ENDED JUNE 30

1940



(Publication 3606)

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1941

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National Zoological Park.—A new restaurant building was begun during the year under an allotment of \$90,000 from the P. W. A. It is expected to be completed during the fall of 1940. Other improvements included the construction of 9 new paddocks for various animals; a series of waterfowl ponds; an enclosure for lizards, snakes, crocodilians, and turtles; construction of 9,000 feet of curbing and 2,050 square feet of walks; and extensive planting of trees and shrubs in newly developed areas. Dr. Mann directed the Smithsonian-Firestone Expedition to Liberia, bringing back nearly 200 animals for the collections, including many rare forms. Malcolm Davis brought back a number of animals from India, including an Indian rhinoceros, the first to be shown at the Zoo. He also accompanied Admiral Byrd's Antarctic Expedition, bringing back a number of penguins for exhibition at the Zoo. Visitors for the year totaled 2,129,600, including classes from 628 different schools from 21 States and the District of Columbia. Of particular interest among the many gifts of the year were a pair of black bears from the Pennsylvania Game Commission, obtained through Carl La Barre, of Portland, Pa.; three Finsches' tree kangaroos from Richard Archbold, of the American Museum of Natural History, New York; a pair of yak from the Department of Mines and Resources, Dominion of Canada, through Hoyes Lloyd; and a group of pheasants from Carlo Zeimet, of Washington, D. C. There were 55 mammals born, 28 birds hatched, and 22 reptiles born or hatched during the year. The total number of animals in the collection was 2,550, representing 762 different species. The Zoo's greatest need is for three new buildings to replace antiquated structures now in use.

Astrophysical Observatory.—The work of the Observatory in studying the radiation of the sun has been continued during the year at Washington and at the three observing stations at Tyrone, N. Mex., Table Mountain, Calif., and Montezuma, Chile. Work has been continued throughout the year on the complete revision of all results on the solar constant of radiation from all stations and from 1923 to the present time. Many small inconsistencies requiring extensive study made progress slow in preparing final tables of mean values of the solar constant. It is now hoped to publish these tables as volume 6 of the *Annals of the Observatory* during the coming year. Mathematical investigations at Harvard and at the Massachusetts Institute of Technology tend to confirm the reality of periodicities in solar variation as found by Dr. Abbot. Six lectures on his studies of solar radiation were given by Dr. Abbot at the Harvard College Observatory, and the first four are in course of publication in the *Bulletin of the American Meteorological Society*. Dr. H. Arctowski, eminent meteorologist of Poland, who was in Washington when his

SMITHSONIAN-FIRESTONE EXPEDITION—continued

<i>Scientific name</i>	<i>Common name</i>	<i>Number</i>
<i>Bitis nasicornis</i>	Rhinoceros viper.....	8
<i>Bitis gabonica</i>	Gaboon viper.....	3
<i>Osteolaemus tetraspis</i>	Broad-nosed crocodile.....	1
<i>Atheris chlorechis</i>	West African tree viper.....	1
<i>Pelusios derbianus</i>	Turtle.....	3
<i>Atilax pluto</i>	West African water civet.....	2
<i>Perodicticus potto</i>	Potto.....	1
<i>Cricetomys gambianus</i>	Gambia pouched rat.....	4
<i>Pan satyrus</i>	Chimpanzee.....	2
<i>Cercocebus fuliginosus</i>	Sooty mangabey.....	4
<i>Stephanoaetus coronatus</i>	Crowned hawk eagle.....	1
<i>Kaupifalco monogrammicus</i>	Northern lizard-buzzard.....	2
<i>Astur tachiro macroscelides</i>	West African goshawk.....	1
<i>Milvus migrans parasitus</i>	African yellow-billed kite.....	1
<i>Tympanistria tympanistria fraseri</i>	Tambourine dove.....	6
<i>Columba guinea</i>	Triangular spotted pigeon.....	1
<i>Streptopelia semitorquata</i>	African red-eyed dove.....	2
<i>Ceratogymna elata</i>	Yellow-casqued hornbill.....	1
<i>Achatina achatina</i>	Giant land snail.....	14

SOUTHERN ASIATIC EXPEDITION

On July 8, 1939, Malcolm Davis returned from Calcutta, India, where he had gone to bring back the first Indian rhinoceros that this institution had ever had. This was collected for the Park by the Government of Assam, British India, through the interested offices of the United States Consul General, Dr. J. C. White. It arrived in Washington in perfect condition and may be considered one of the "stars" of the collection. Mr. Davis took with him a few North American animals which were turned over to zoos in the East; in return he received a number of interesting specimens. In Calcutta he was given friendly assistance by Sir David Ezra, the noted bird fancier. A complete list of the specimens obtained on this trip follows:

SOUTHERN ASIATIC EXPEDITION

<i>Scientific name</i>	<i>Common name</i>	<i>Number</i>
<i>Rhinoceros unicornis</i>	Great Indian one-horned rhinoceros.....	1
<i>Macaca sinica</i>	Toque or bonnet monkey.....	3
<i>Macaca mulatta</i>	Golden rhesus.....	2
<i>Presbytis entellus pallipes</i>	Ceylon gray langur.....	4
<i>Presbytis senex nestor</i>	Western purple-faced monkey.....	2
<i>Ratufa macroura dandolena</i>	Grizzled giant squirrel.....	2
<i>Felis chaus</i>	Jungle cat.....	1
<i>Viverricula indica rasse</i>	Small civet.....	1
<i>Alectoris graeca</i>	Chukar partridge.....	12
<i>Gallus lafayetti</i>	Ceylonese jungle fowl.....	2

PURCHASES

One of the most important purchases for some time was a Great Indian one-horned rhinoceros obtained from the Forest Department, Government of Assam, India. This was received through the cooperation of United States Consul General J. C. White, Calcutta, India. Other specimens acquired by purchase were four black swans, two Flinders Island wombats, and a South American bush dog. An important lot of South American animals were purchased by Malcolm Davis on the west coast of South America. These were mainly obtained through the kindness and cooperation of Dr. Edwyn P. Reed, of Valparaiso, Chile. A list of the purchases follows:

PURCHASES		
Scientific name	Common name	Number
<i>Pipa americana</i>	Surinam toad	6
<i>Chenopsis atrata</i>	Black swan	4
<i>Vombatula ursinus</i>	Flinders Island wombat	2
<i>Pithecia monacha</i>	Saki monkey	2
<i>Callicebus cuprea</i>	Beautiful cebus	1
<i>Aotus trivirgatus</i>	Douroucoulis or owl monkey	5
<i>Puntius partipentazona</i>	Red-finned barb	10
<i>Pantodon buchholzi</i>	Butterfly fish	4
<i>Monocirrhus polyacanthus</i>	Leaf fish	4
<i>Tapirus terrestris</i>	South American tapir	1
<i>Icticyon venaticus</i>	Bush dog	1
<i>Epimachus fastuosus</i>	Sickle-billed bird of paradise	1
<i>Parotia sefilata</i>	Six-plumed bird of paradise	1
<i>Acrocodia indica</i>	Asiatic tapir	1
<i>Charina bottae</i>	Rubber boa	1
<i>Calyptocephalus gayi</i>	Gay's frog	8
<i>Micrurus fulvius</i>	Coral snake	1

REMOVALS

DEATHS

Major losses during the year included an emperor penguin, crab-eating seal, Siberian tiger, bush dog, Kodiak brown bear, Kidder's brown bear, and a young chimpanzee. As in the past, all specimens of scientific value that died during the year were sent to the National Museum.

ANIMALS IN COLLECTION THAT HAD NOT PREVIOUSLY BEEN EXHIBITED

MAMMALS

Scientific name	Common name
<i>Atilax pluto</i>	West African water civet.
<i>Callicebus cuprea</i>	Red titi monkey.
<i>Dendrolagus inustus finschi</i>	Finsches' tree kangaroo.
<i>Felis chaus</i>	Jungle cat.
<i>Lobodon carcinophaga</i>	Crab-eating seal.
<i>Rhinoceros unicornis</i>	Great Indian one-horned rhinoceros.
<i>Viverricula indica rasse</i>	Small civet.