

LABORATORY PRIMATE NEWSLETTER

Volume 1, Number 3

July, 1962

Edited by  
Allan M. Schrier  
and  
Judith E. Schrier

Psychology Department  
Brown University  
Providence 12, Rhode Island

POLICY STATEMENT  
(Revised March 1962)

The primary purpose of the Newsletter is to provide information on maintenance and procurement of non-human primates for laboratory studies. A secondary purpose is dissemination of general information about the world of primate research. Examples of the kind of practical information that would be useful are as follows: new drugs, novel aspects of cage design, new products, evaluations of various products, references to or short summaries of articles, off-beat or other, of general interest, experiences in connection with the procurement of monkeys. The Newsletter will also publish offers to exchange monkeys (for example, older monkeys for young or infant monkeys) and requests for monkeys with special characteristics (for example, good breeders or pregnant females). If someone has a special problem, he might want to request help through the Newsletter.

As a rule, only research articles or summaries which have some practical implications or which provide general information likely to be of interest to investigators in a variety of areas of primate research will be accepted for inclusion in the Newsletter. Descriptions of current research projects will also be welcome. It should be kept in mind that the Newsletter is not a formal publication and that it is not likely to be obtainable in libraries. Therefore, citation of Newsletter notes or articles in publications is not recommended.

Information for the Newsletter will be welcome from anyone in any research area who is using monkeys. The Newsletter will appear quarterly and will continue so long as people are interested enough to contribute items of information. The mailing list is open to anyone expressing an interest. There is no subscription charge.

All correspondence concerning the Newsletter should be addressed to:

Allan M. Schrier  
Psychology Department  
Brown University  
Providence 12, Rhode Island

Acknowledgement

Financial support for the Newsletter is provided by the Psychology Department, Brown University.

## EDITORS' NOTES

After six months experience, we have decided that the most feasible publication schedule for the Newsletter is quarterly. Beginning with this issue the Newsletter will appear at three-month intervals--in January, April, July and October.

The response to the original announcement of the Newsletter and to the first two issues was far more enthusiastic than we expected. Everyone seems to feel that a newsletter of this type in the primate area is greatly needed. However, unsolicited contributions, even in the form of notes scribbled on postal cards, have been few and far between. We are particularly disappointed in the lack of contributions of the type labelled "Laboratory Notes" in the first issue and in this one. Apparently people are willing and anxious to be helped, but are not willing to put themselves out to help others.

Several persons have suggested that the Newsletter provide information about the primate research centers going up in various places in the United States under grants from the U. S. Public Health Service. Details on these centers will be included in future issues. However, we might mention now that the first of these centers has been completed and is now in operation. This is the Oregon Regional Primate Research Center in Beaverton, Ore. (just outside of Portland) under the direction of Donald E. Pickering. Funds have already been committed for primate research centers to be located in or near Seattle, Washington (University of Washington, Director: T. C. Ruch); Madison, Wisconsin (University of Wisconsin, Director: Harry F. Harlow); New Orleans, Louisiana; Emory University, Georgia; and Boston, Massachusetts. In addition a national primate conditioning center will be located on the Davis campus of the University of California.

## CONTENTS

Editors' Notes.....	iii
Recent Articles.....	1
Request for Information.....	2
Mammals in Captivity - Primate Longevity.....	3
Laboratory Notes.....	14
Newspaper Clippings.....	15
Additions to Mailing List.....	17
Address Changes .....	19

## RECENT ARTICLES

### Disease symptoms and treatment

Internal parasitism of monkeys. Heuschele, W. P. (San Diego Zoological Society, San Diego, California) J. Amer. Vet. Med. Assoc., 1961, 139, 911-912.

This paper describes cases of monkeys parasitized by Armillifer armillatus. This is a tongue worm and arthropod of the class Pentastomida.

Intestinal fluke in a monkey. Hartman, H. A. Amer. J. Vet. Res., 1961, 91, 1123-1126.

### General on care and treatment

Colony husbandry of the monkey. Marais, P., Bouley, G., and di Franco, E. (University of Montreal, Montreal, Canada) Can. J. Comp. Med. Vet. Sci., 1961, 25, 291-295.

Husbandry practices for the quarantining and conditioning of sub-human primates. Gay, W. I. (Animal Hospital Section, Laboratory Aids Branch, National Institutes of Health, Bethesda 14, Maryland)

Laboratory animals III. Recommended minimum standards for shipment of laboratory primates. Publication 971, National Academy of Sciences--National Research Council, Washington, D. C., 1962.

Monkey restraint methods. Harrington, Daniel D. (Michigan State University, East Lansing, Mich.) M. S. U. Vet., 1961, 22, 6-10.

### Physiology

The electrocardiogram and vectocardiogram of normal Macaca mulatta in dorsal-supine, right-lateral, left-lateral, and sitting positions. Robinson, F. R., and Hamlin, R. L. (Aerospace Medical Research Laboratories, Wright-Patterson Air Force Base, Ohio) ASD Tech Report 61-738, Dec., 1961.

### Equipment

A net designed for capturing caged monkeys. Gay, W. I. (Animal Hospital Section, Laboratory Aids Branch, National Institutes of Health, Bethesda 14, Maryland) Proc. Anim. Care Panel, 1960, 10, 75-78.

A urinofecal separator for monkeys. Robbins, R. C., and Gavan, J. A. (University of Florida, Gainesville, Fla., and Medical Coll. of

S. Carolina, Charleston, S. C.) Proc. Anim. Care Panel, 1962, 12, 15-18.

Paper describes a metabolism cage designed specifically for rhesus monkeys of all sizes.

### General

A study of bacterial contamination in commercially prepared animal feeds and bedding. Williams, Jr., F. P., and Habermann, R. T. (Pied Piper Farms, Inc., Newark, Del., and National Institutes of Health, Bethesda 14, Maryland) Proc. Anim. Care Panel, 1962, 12, 11-14.

An experiment is reported which shows that animal feed and bedding are possible sources of salmonellosis in animal colonies.

\*

\*

\*

### REQUEST FOR INFORMATION

I am interested in corresponding with any individuals working in the general field of biochemistry or hematology of the neonatal period of the monkey. My own interest in this area is concerned with neonatal jaundice and kernicterus in newborn rhesus monkeys.

Dr. Richard Behrman, Mr. Andrew Warshaw and I have recently made some observations at the N.I.H. Laboratory of Perinatal Physiology in San Juan, Puerto Rico on the course of neonatal hyperbilirubinemia in monkeys. I have not been able to find any previous studies on this point and would, of course, be interested in hearing of any unpublished studies.

Jerold F. Lucey, M. D.  
Associate Professor of Pediatrics  
University of Vermont  
College of Medicine  
Burlington, Vermont

## MAMMALS IN CAPTIVITY - PRIMATE LONGEVITY

By

Sfc Marvin L. Jones  
USAR Center, Louisiana Hall  
Ft. Myer, Arlington 8, Virginia

The last definitive work on the longevity of animals in captivity appeared over thirty years ago. This was the comprehensive "Contributions to the Duration of Life in Vertebrates" by Stanley Flower. Since that time very little has been published except a few scattered articles on specific animals in the zoological garden and laboratory.

Conditions in zoological gardens have changed in many respects since the 1930's, which have been reflected in the general betterment of animal longevity. Increased attention to animal hygiene, improvements in nutrition, and advanced methods of transportation are examples of the many factors that are involved in this change. One very specific example of increased longevity has been the Gorilla. At the time of Mr. Flower's paper, the maximum record for this form was seven years, and that had been set by a specimen in a German zoo, back at the turn of the century. Today over 44 Gorillas in captivity throughout the world have passed their seventh year of captive life, one having lived over 30 years in the Philadelphia Zoo died in 1961.

Basic research for the data herein presented has been taken from the research and writing project "Mammals in Captivity", which was initiated about ten years ago, by the writer, while he was stationed with the US Army in Europe. At this time the opportunity presented itself to thoroughly examine all the records of the London Zoo, and what material still remained in the ruined cities of Europe. In 1957 the project received the official sponsorship of the Zoological Society of Philadelphia, and based partly on information disseminated the writer was made a Scientific Fellow of the Zoological Society of London in 1959. In the years that have followed the project has made a slow but steady path, with financial assistance of many American Zoological Societies. At this point, the project today has both longevity and exhibition records on some 2200 species and subspecies of Mammal life, over 350 being members of the order of Primates.

Listed below are all forms of Primate life which the writer has either a longevity or exhibition record. As far as longevity are concerned, an attempt has always been made to refrain from using such records that are submitted with the comment "We have had a Green Monkey 20 years" or "The animal arrived in 1890 and died in 1910", unless such can be proved beyond all question. Emphasis is given to records in which exact date of arrival and either death or sale can be given or obtained.

Generic names follow the 5th draft to the project "Genera of Recent Mammals" by Ernest P. Walker, with the exception of Miopithecus, both the writer and Dr. W. C. Osman-Hill regarding this to be a different type of guenon and not in the genus Cercopithecus. Specific names are those of reliable authors, indicated in the bibliography.

Animals are given by scientific name, describer, American vernacular name in most cases, and the maximum longevity record known to the writer expressed in years and months, with the name of the particular city in which the zoo is located that had the animal. An asterisk (\*) after this indicates the animal was still living 1 February 1962. In those few instances where the writer has been unable to secure a longevity record, the city is mentioned and the year in which the animal has been reported as having been exhibited therein.

#### TUPAIIDAE

	<u>YR</u>	<u>MO</u>	<u>CITY</u>
<i>Tupaia glis glis</i> Diard Common Tree Shrew	2	6	Frankfurt
<i>Tupaia g. berlangeri</i> Wagner Burmese Tree Shrew	1	2	London
<i>Tupaia g. ferruginea</i> Raffles Malayan Tree Shrew	1	4	London
<i>Tupaia g. siaca</i> Lyon	0	9	Washington
<i>Tupaia montana baluensis</i> Lyon Kina Balu Tree Shrew	0	7	San Diego
<i>Tupaia tana</i>	2	4	London
<i>Anathana ellioti</i> Waterhouse Madras Tree Shrew	1876		Calcutta
<i>Urogale everetti</i> Thomas Mindanao Tree Shrew	5	11	New York

#### LEMURIIDAE

<i>Hapalemur griseus</i> (Link) Grey Gentle Lemur	12	1	London
<i>Hapalemur simus</i> JE Gray Reed Gentle Lemur	0	6	London
<i>Lemur catta</i> Linnaeus Ring-tailed Lemur	18	11	Giza
<i>Lemur fulvus fulvus</i> E Geoffroy Brown Lemur	20	0	Buffalo
<i>Lemur f. albifrons</i> E Geoffroy White-fronted Lemur	11	4	Philadelphia
<i>Lemur f. collaris</i> E Geoffroy Collared Lemur	1828		London
<i>Lemur f. flavifrons</i> (Je Gray) Yellow-fronted Lemur	0	4	London
<i>Lemur f. mayottensis</i> Schlegel	1878		London
<i>Lemur f. rufus</i> Bennett Red-fronted Lemur	25	5	Giza
<i>Lemur macaco</i> Linnaeus Black Lemur	27	1	London
<i>Lemur mongoz mongoz</i> Linnaeus Mongoose Lemur	25	4	Philadelphia
<i>Lemur m. coronatus</i> JE Gray Crowned Lemur	17	5	Giza
<i>Lemur variegatus variegatus</i> Kerr Ruffled Lemur	13	3	Rotterdam
<i>Lemur v. editorum</i> Hill Black-collared Ruffed Lemur	1960		Basel
<i>Lemur v. ruber</i> E Geoffroy Red Ruffed Lemur	1821		Paris
<i>Lepilemur mustelinus</i> I Geoffroy Sportive Lemur	0	3	Philadelphia
<i>Cheirogaleus major major</i> E Geoffroy Large Dwarf Lemur	1	11	London
<i>Cheirogaleus m. crossleyi</i> Grandidier Crossley's D L	8	8	London
<i>Microcebus coqueralli</i> (Grandidier) Coquerall's Mouse Lemur	15	5	London
<i>Microcebus murinus murinus</i> (Miller) Lesser Mouse Lemur	6	11	London
<i>Microcebus m. smithi</i> (JE Gray) Smith's Mouse Lemur	1	2	London
<i>Phaner furcifer</i> (Blainville) Fork-crowned Lemur	1908		Berlin



PRIMATE LONGEVITY-Continued

INDRIDAE

Avahi laniger (Gmelin)	Avahi	1889	London
Propithecus diadema	Bennett Diademed Sifaka	12 days	London
Propithecus verreauxi verreauxi	Grandidier Verreaux's S	1900	Breslau
Propithecus v. coronatus	Milne Edwards Crowned Sifaka	1905	Berlin
Propithecus v. coquerali (Milne Edwards)	Coquerai's S	20 days	London
Propithecus v. deckeni	Peters van den Decken's Sifaka	1952	Tananarive

DAUBENTONIDAE

Daubentonia madagascariensis (Gmelin) Aye-Aye

LORISIDAE

Loris tardigradus tardigradus (Linnaeus)	Slender Loris	7	0	New York
Loris t. grandis	Hill & Phillips Highlands Loris	2	1	London
Loris t. nordicus	Hill North Ceylonese Loris	0	11	London
Nycticebus coucang coucang (Boddaert)	Malay Slow Loris	11	10	New York
Nycticebus coucang bengalensis (Fischer)	Bengal Loris	12	8	New York
Nycticebus coucang borneanus	Lyon Bornean Loris	1954		London
Nycticebus coucang cinereus	Milne-Edwards Siamese Loris	1900		Berlin
Nycticebus coucang c. x c. cinereus	Hybrid Loris	10	4	New York
Nycticebus coucang javanicus	Geoffroy Javan Loris	0	4*	San Diego
Nycticebus coucang tenasserimensis	Tickell Tenasserim L	1	4	London
Nycticebus pygmaeus	Bonhote Laotian Pigmy Loris	1958		Prague
Arctocebus calabariensis (JA Smith)	Angwantibo	4	6	Berlin
Perodicticus potto potto (Mueller)	Common or Bosman's P	6	4	Philadelphia
Perodicticus p. edwardsi	Bouvier Edward's Potto	4	3*	New York
Perodicticus p. ibeanus	Thomas Congo Potto	8	11	New York
Galago crassicaudatus crassicaudatus	E Geoffroy Grand G	14	0	New York
Galago c. agisymbanus (Coquerai)	Zanzibar Grand Galago	1900		Berlin
Galago c. argentatus	Lonnberg Victoria Grand Galago	2	5	London
Galago c. garnetti (Ogilby)	Garnett's Galago	11	4	London
Galago c. kikuyuensis	Lonnberg Kikuyu Galago	6	5*	London
Galago c. lasiotis	Peters Thick-tailed Galago	10	0*	London
Galago c. monteiri (JE Gray)	Monteiro's Galago	7	2	London
Galago c. panganiensis (Matschie)	Pangani Galago	1	8	Washington
Galago senegalensis senegalensis	E Geoffroy Senegal G	3	3	London
Galago s. albipes	Dollman Mt. Elgon Galago	0	1	London
Galago s. braccatus	Elliot Highland's Galago	7	0	Berlin
Galago s. maholi	A Smith Maholi Galago	10	5	London
Galago s. zanzibaricus	Matschie Zanzibar Lesser G	1909		Berlin
Galago alleni	Waterhouse Allen's Galago	5	2	London
Galago demidovii demidovii	Fischer Demidoff's Galago	2	10	Washington
Galago d. phasma	Cabrera & Ruxton Spectral Galago	0	8	New York
Euoticus elegantulus elegantulus (LeConte)	Needle-clawed G	1947		Antwerp
Euoticus e. pallidus (Gray)	Nigerian Needle-clawed Galago	1900		Berlin

PRIMATE LONGEVITY - Continued

TARSIIDAE

*Tarsius syrichta carbonarius* Heude Mindanao Tarsier 11 10 Philadelphia

CEBIIDAE

*Aotus trivirgatus trivirgatus* (Humboldt) Common Dourocouli 11 7 London  
*Aotus t. azarae* (Humboldt) Azara's Dourocouli 0 10 Washington  
*Aotus t. griseimembra* Elliot Central American Dourocouli 0 8 San Diego  
*Aotus t. vociferans* (Spix) Noisy Dourocouli 7 1 New York  
*Callicebus brunneus* (Wagner) Brownish Titi 1881 London  
*Callicebus cinerascens* (Spix) 1936 Frankfurt  
*Callicebus cupreus cupreus* (Spix) Red Titi 4 2 New York  
*Callicebus c. caligatus* (Wagner) Chestnut-rumped Titi 1912 Hamburg  
*Callicebus c. leucometropa* (Cabrera) White-fronted Titi 1 0 London  
*Callicebus melanochir* (Kuhl) Black-handed Titi 1883 London  
*Callicebus moloch moloch* (Hoffmannsegg) Moloch Titi 0 10 London  
*Callicebus m. hoffmannsi* Thomas Hoffmann's Titi 1956 Antwerp  
*Callicebus nigrifrons* (Spix) Black-fronted Titi 1882 London  
*Callicebus personatus* (Geoffroy) Masked Titi 1881 London  
*Callicebus torquatus* Hoffmannsegg Collared Titi 1901 London  
*Cacajao calvus* (I Geoffroy) Bald Uakari 3 2\* New York  
*Cacajao melanocephalus* (Humboldt) Black-headed Uakari 0 2 Washington  
*Cacajao rubicundus* (I Geoffroy & Deville) Red Uakari 8 9 Philadelphia  
*Pithecia pithecia pithecia* (Linnaeus) White-headed Saki 4 10 New York  
*Pithecia p. chrysocephala* (Geoffroy) Golden-headed Saki 13 8 San Diego  
*Pithecia monachus* (Geoffroy) Humboldt's Saki 7 1 Philadelphia  
*Chiropotes albinasus* (I Geoffroy & Deville) White-nosed Saki 0 11 Philadelphia  
*Chiropotes satanas satanas* (Hoffmann) Black Saki 15 0 San Diego  
*Chiropotes s. chiropotes* (Humboldt) Red-backed Saki 3 3 New York  
*Alouatta belzebug* (Linnaeus) Howler Monkey 1904 London  
*Alouatta caraya* (Humboldt) Black Howler Monkey 0 4 New York  
*Alouatta guariba* (Humboldt) Ursine Howler Monkey 0 5 Washington  
*Alouatta seniculus* (Linnaeus) Red Howler Monkey 3 4 New York  
*Alouatta villosa villosa* (Gray) Guatemala Howler Monkey 1934 Vienna  
*Alouatta v. acquatorialis* Fest Equatorial Howler Monkey 3 9 New York  
*Alouatta v. palliata* (Gray) Mantled Howler Monkey 2 9 San Diego  
*Cebus albifrons albifrons* (Humboldt) White-throated Capuchin 12 11 Rotterdam  
*Cebus a. hypoleucos* (Humboldt) 1900 Berlin  
*Cebus a. unicolor* Spix Slender Capuchin 11 7 Rotterdam  
*Cebus a. versicolor* Pucheran Varied Capuchin 1888 London  
*Cebus apella apella* (Linnaeus) Hooded Capuchin 30 0\* Zurich  
*Cebus a. libidinosus* Spix 1848 Antwerp  
*Cebus a. macrocephalus* Spix Large-headed Capuchin 14 11 San Diego  
*Cebus a. margaritae* Hollister 4 6 Washington

PRIMATE LONGEVITY - Continued

<i>Cebus a. nigrinus</i> (Goldfuss) Black Tufted Capuchin	1	1	Philadelphia
<i>Cebus a. pallidus</i> Gray	2	11*	London
<i>Cebus a. paraguayanus</i> Fischer	34	0*	San Diego
<i>Cebus a. robustus</i> Kuhl	1898		Antwerp
<i>Cebus a. vellerosus</i> I Geoffroy Thick-furred Capuchin	1845		Paris
<i>Cebus a. xanthosternos</i> Wied Variegated Capuchin	1845		Paris
<i>Cebus capucinus</i> (Linnaeus) White-fronted Capuchin	29	1	Pretoria
<i>Cebus nigrivittatus nigrivittatus</i> Wagner Weeper Capuchin	1949		San Diego
<i>Cebus n. apiculatus</i> (Elliot)	4	8	Philadelphia
<i>Saimiri sciurea sciurea</i> (Linnaeus) South American Squirrel M.	6	4	Philadelphia
<i>Saimiri s. maderiae</i> Cruz Lima	1946		San Diego
<i>Saimiri s. ustus</i> (I Geoffroy)	1831		London
<i>Saimiri orstedii</i> (Reinhardt) Central American Squirrel Monkey	2	8	Washington
<i>Ateles belzebuth belzebuth</i> E Geoffroy Marimonda Spider M.	3	9	London
<i>Ateles b. hybridus</i> I Geoffroy Brown Spider Monkey	5	3*	Philadelphia
<i>Ateles b. marginatus</i> E Geoffroy White-fronted Spider M.	7	9	London
<i>Ateles Geoffroyi geoffroyi</i> Kuhl Geoffroy's Spider Monkey	18	4	Philadelphia
<i>Ateles g. grisescens</i> Gray Panama Spider Monkey	4	0	New York
<i>Ateles g. ornatus</i> Gray Ornate Spider Monkey	1	2*	London
<i>Ateles g. panamensis</i> Goldman Red Spider Monkey	1950		San Diego
<i>Ateles g. pan Schlegel</i> Schlegel's Spider Monkey	2	6	New York
<i>Ateles g. vellerosus</i> Gray Mexican Spider Monkey	5	9	Washington
<i>Ateles g. yucatanensis</i> Kellogg & Goldman Yucatan Spider M.	1950		San Diego
<i>Ateles fusciceps robustus</i> JA Allen Colombian Black S M	1953		Washington
<i>Ateles paniscus paniscus</i> (Linnaeus) Red-faced Black Spider M	8	10	Philadelphia
<i>Ateles p. chamek</i> (Humboldt) Black-faced Black Spider Monkey	1895		Washington
<i>Ateles rufiventer</i> Sclater Red-bellied Spider Monkey	0	8	Philadelphia
<i>Brachyteles arachnoides</i> (Geoffroy) Woolly Spider Monkey	1	8	Breslau
<i>Lagothrix cana cana</i> (Geoffroy) Smoky Woolly Monkey	8	0	Philadelphia
<i>Lagothrix c. lugens</i> (Elliot) Weeping Woolly Monkey	4	3	New York
<i>Lagothrix c. olivacea</i> (Spix) Reddish Woolly Monkey	0	4	Washington
<i>Lagothrix c. poeppigi</i> Schinz Brown Woolly Monkey	6	5	San Diego
<i>Callimico goeldi</i> (Thomas) Callimico	2	4*	New York
<i>Callithrix argentata</i> (Linnaeus) Black-tailed White Marmoset	8	9	New York
<i>Callithrix chrysoleuca</i> (Wagner) Yellow-legged Marmoset	0	4	Washington
<i>Callithrix flaviceps</i> (Thomas) Buff-headed Marmoset	2	5	London
<i>Callithrix jacchus</i> (Linnaeus) Common Marmoset	5	5	Philadelphia
<i>Callithrix pencillata</i> (Geoffroy) Black-eared Marmoset	1	6	Washington
<i>Callithrix santaremensis</i> (Matschie) Santarem Marmoset	0	3	London
<i>Cebuella pygmaea pygmaea</i> (Spix) Pigmy Marmoset	4	10	New York
<i>Cebuella p. niveiventris</i> Lonnberg	1961		Prague
<i>Saguinus fuscicollis</i> (Spix) Brown-headed Tamarin	2	7	New York
<i>Saguinus graellsii</i> (Espada) Rio Negro Tamarin	5	8	New York
<i>Saguinus illigeri</i> (Pucheran) Red-mantled Tamarin	1	7	London
<i>Saguinus imperator</i> (Goeldi) Imperial Tamarin	7	0	New York

## PRIMATE LONGEVITY - Continued

<i>Saguinus labiatus</i> (Geoffroy) Red-bellied White-lipped Tamarin	1899	London
<i>Saguinus lagonatus</i> (Espada) Gold-mantled Tamarin	5 9	New York
<i>Saguinus melanoleucus</i> (Ribeiro) Black-faced Tamarin	1936	Frankfurt
<i>Saguinus midas</i> (Linnaeus) Red-handed Tamarin	5 10	New York
<i>Saguinus mystax</i> (Spix) Moustached Tamarin	0 7	Washington
<i>Saguinus nigricollis</i> (Spix) Black and Red Tamarin	2 1	Washington
<i>Saguinus pileatus</i> (L Geoffroy & Deville) Crowned Tamarin	0 9	London
<i>Saguinus tamarin</i> (Link) Negro Tamarin	1838	London
<i>Saguinus weddelli</i> (Deville) Deville's Tamarin	7 6	San Diego
<i>Saguinus geoffroyi</i> (Pucheran) Geoffroy's Marmoset	7 8	San Diego
<i>Saguinus oedipus</i> (Linnaeus) Cotton-top Marmoset	7 2	New York
<i>Saguinus bicolor</i> (Spix) Pied Marmoset	8 2	New York
<i>Saguinus leucopus</i> (Guenther) White-footed Marmoset	5 8	New York
<i>Saguinus martinsi</i> (Thomas) Martin's Marmoset	9 10	New York
<i>Leontideus chrysomelas</i> Kuhl Golden-headed Marmoset	1869	London
<i>Leontideus rosalia</i> (Linnaeus) Golden Marmoset	10 4	New York

CERCOPITHECIDAE

<i>Macaca assamensis assamensis</i> (McClelland) Assam Macaque	6 0	Calcutta
<i>Macaca a. pelops</i> Hodgson	1 3	London
<i>Macaca cyclopsis</i> Swinhoe Formosan Rock Macaque	2 7	Washington
<i>Macaca irus irus</i> (F Cuvier) Kra Monkey	15 5	New York
<i>Macaca l. aurea</i> Geoffroy Tenasserim Macaque	1931	Prague
<i>Macaca l. mordax</i> Thomas and Wroughton Java Macaque	11 7	Washington
<i>Macaca l. philippensis</i>	4 5	Washington
<i>Macaca mulatta mulatta</i> (Zimmermann) Rhesus Macaque	19 6	Philadelphia
<i>Macaca m. sanctijohannis</i> (Swinhoe) South China Macaque	1868	London
<i>Macaca m. lasiotis</i> Gray Chinese Macaque	21 6	Washington
<i>Macaca m. memahoni</i> Pocock Afghan Macaque	1959	Prague
<i>Macaca m. tcheliensis</i> Milne-Edwards Tcheli Macaque	17 7	London
<i>Macaca fuscata fuscata</i> Blyth Japanese Macaque	19 6	London
" " " " " "	19 3	San Diego
<i>Macaca f. Yakui</i> Kuroda Yakushima Island Macaque	1 9*	New York
<i>Macaca nemestrina nemestrina</i> (Linnaeus) Pig-tailed Macaque	26 4	Milwaukee
<i>Macaca n. leonina</i> Blyth Burmese Pig-tailed Macaque	12 5	Washington
<i>Macaca radiata</i> (E Geoffrey) Bonnet Macaque	18 9	Philadelphia
<i>Macaca sinica sinica</i> (Linnaeus) Toque Macaque	29 4	Colombo
<i>Macaca s. aurifrons</i> Pocock	1961	Prague
<i>Macaca silenus</i> (Linnaeus) Lion-tailed Macaque	17 7	Philadelphia
<i>Macaca speciosa speciosa</i> F Cuvier Brown Stump-tailed M.	19 8*	Washington
<i>Macaca s. arctoides</i> L Geoffroy	1839	London
<i>Macaca s. melli</i> Matschie Vietnam Macaque	1960	East Berlin
<i>Macaca s. melanota</i> Ogilby	1958	Prague
<i>Macaca s. rufescens</i> Anderson	1889	Melbourne
<i>Macaca sylvana</i> (Linnaeus) Barbary Macaque	21 5	Philadelphia
<i>Macaca thibetana</i> Milne-Edwards Tibetan Stump-tailed M.	1914	Berlin

PRIMATE LONGEVITY - Continued

<i>Cynomacaca maurus</i> (F Cuvier) Moor Macaque	28	1	Philadelphia
<i>Cynomacaca hecki</i> (Matschie) Heck's Black Macaque	9	0	Breslau
<i>Cynomacaca ochreatus ochreatus</i> (Ogilby) Grey-armed Macaque	1870		London
<i>Cynomacaca o. brunnescens</i> (Matschie)	1877		Rotterdam
<i>Cynomacaca tonkeana</i> AB Meyer Tonkean Black Macaque	1935		San Diego
<i>Cynopithecus niger</i> (Desmarest) Celebes Black Ape	16	7	San Diego
<i>Cercocebus albigena albigena</i> (Gray) Grey-checked Mangabey	16	9*	New York
<i>Cercocebus a. johnstoni</i> (Lydekker) Johnston's Mangabey	12	7*	New York
<i>Cercocebus aterrimus aterrimus</i> (Oudemans) Black Crested M.	16	6*	Washington
<i>Cercocebus a. Opdenboschi</i> Schouteden Black-cheeked Black M.	7	8*	Washington
<i>Cercocebus galeritus galeritus</i> Peters	1928		Hagenbeck
<i>Cercocebus g. agilis</i> Riviere Olive Mangabey	8	5*	Washington
<i>Cercocebus g. chrysogaster</i> Lydekker Golden-bellied Mangabey	8	5*	Washington
<i>Cercocebus torquatus torquatus</i> (Kerr) Cherry-crowned Mangabey	20	4	London
<i>Cercocebus t. atys</i> (Audebert) Sooty Mangabey	20	9	Washington
<i>Cercocebus t. lunulatus</i> (Terrinck) White-crowned Mangabey	12	0	Philadelphia
<i>Chaeropithecus cynocephalus cynocephalus</i> (Linnaeus) Yellow B	28	8	New York
<i>Chaeropithecus c. strepitus</i> (Elliot) Nyasaland Baboon	1933		Budapest
<i>Chaeropithecus doguera doguera</i> (Pucheran) Doguera or Olive B	25	2	San Diego
<i>Chaeropithecus d. anubis</i> (Fischer) Atbara or Anubis Baboon	26	4*	Norristown
<i>Chaeropithecus d. heuglini</i> (Matschie)	1909		Giza
<i>Chaeropithecus d. ibeanus</i> (Thomas) East African Baboon	12	11	London
<i>Chaeropithecus d. neumanni</i> (Matschie)	1953		Leopoldville
<i>Chaeropithecus papie</i> (Desmarest) Guinea or Sphinx Baboon	5	2	Washington
<i>Chaeropithecus ursinus ursinus</i> (Wagner) Chacma Baboon	25	9	Pretoria
<i>Chaeropithecus u. rhodesiae</i> (Haagner)	27	7	Philadelphia
<i>Chaeropithecus u. ruacana</i> (Shortridge) Damara Baboon	7	10	Philadelphia
<i>Comopithecus hamadryas</i> (Linnaeus) Sacred or Hamadryas Baboon	29	10	Calgary
<i>Mandrillus leucophaeus</i> (F Cuvier) Drill	28	6*	Milwaukee
<i>Mandrillus poensis</i> Zukowsky Fernando Po Drill	1922		Hagenbeck
<i>Mandrillus sphinx</i> (Linnaeus) Mandrill	27	3	Washington
<i>Mandrillus tessmanni</i> Matschie & Zukowsky	1917		Hagenbeck
<i>Mandrillus zenkeri</i> Matschie & Zukowsky Fernando Po Mandrill	1928		Hagenbeck
<i>Theropithecus gelada</i> (Rueppell)	10	5*	Philadelphia
<i>Miopithecus talapoin talapoin</i> (Schreber) Talapoin Monkey	17	7	Amsterdam
<i>Miopithecus t. ansorgei</i> (Pocock) Angola Talapoin	22	3*	Philadelphia
<i>Miopithecus t. vleeschouwersi</i> Poll Congo Talapoin	3	0	Munich
<i>Cercopithecus aethiops aethiops</i> (Linnaeus) Grivet Monkey	17	7	Giza
<i>Cercopithecus a. hilgerti</i> Neumann Abyssinian Vervet Monkey	9	2	London
<i>Cercopithecus a. tantalus</i> Ogilby Tantalus Monkey	10	4	London
<i>Cercopithecus pygerythrus pygerythrus</i> (F Cuvier) Black-chinned Vervet Monkey	22	10	Washington
<i>Cercopithecus p. centralis</i> O Neumann Black-faced Vervet M	1911		London
<i>Cercopithecus p. synosurus</i> (Scopoli) Malbrouck Monkey	6	1	London
<i>Cercopithecus p. johnstoni</i> Pocock East African Vervet M	4	4	Berlin
<i>Cercopithecus p. rufoviridis</i> I Geoffroy Reddish-green M	1842		Paris

PRIMATE LONGEVITY - Continued

<i>Cercopithecus</i> <i>sabaeus</i> (Linnaeus) Green Monkey	22	10	Washington
<i>Cercopithecus</i> <i>mitis mitis</i> Wolf Pluto Monkey	15	11	London
<i>Cercopithecus</i> <i>m. albogularis</i> (Sykes) Syke's Monkey	12	7	Washington
<i>Cercopithecus</i> <i>m. albotorquatus</i> Pousargues White-collared M	1895		London
<i>Cercopithecus</i> <i>m. doggetti</i> Pocock	1932		Antwerp
<i>Cercopithecus</i> <i>m. erythrarchus</i> Peters Mozambique Monkey	14	6	Philadelphia
<i>Cercopithecus</i> <i>m. kandti</i> Matschie Congo Red Monkey	10	3	Rotterdam
<i>Cercopithecus</i> <i>m. kobonotensis</i> Lonnberg Lonnberg's Monkey	3	5	London
<i>Cercopithecus</i> <i>m. kolbi</i> O Neumann Mt Kenya Monkey	11	1	Philadelphia
<i>Cercopithecus</i> <i>m. labiatus</i> I Geoffroy Samango Monkey	1	3	Washington
<i>Cercopithecus</i> <i>m. moloneyi</i> Sclater Moloney's Monkey	0	7	Philadelphia
<i>Cercopithecus</i> <i>m. momoides</i> I Geoffroy	1900		Berlin
<i>Cercopithecus</i> <i>m. stuhlmanni</i> Matschie Stuhlmann's Monkey	12	11	Philadelphia
<i>Cercopithecus</i> <i>m. maesi</i> Lonnberg Kautu Monkey	1950		Prague
<i>Cercopithecus</i> <i>mona</i> Schreber Mona Monkey	22	5	Rotterdam
" " " " "	22	3	Philadelphia
<i>Cercopithecus</i> <i>campbelli campbelli</i> Waterhouse Campbell's M	11	5*	New York
<i>Cercopithecus</i> <i>c. lowei</i> Thomas Lowe's Monkey	4	6	London
<i>Cercopithecus</i> <i>wolfi</i> Meyer	10	3	London
<i>Cercopithecus</i> <i>pogonias pogonias</i> Bennett Yellow-bellied M	1	8	London
<i>Cercopithecus</i> <i>p. grayi</i> Fraser Gray's Monkey	3	5	London
<i>Cercopithecus</i> <i>p. nigripes</i> DuChaillu Black-footed Monkey	1904		London
<i>Cercopithecus</i> <i>l'hoesti</i> Sclater L'Hoest's Monkey	12	7*	New York
<i>Cercopithecus</i> <i>pruessi</i> Matschie Fernando Po Monkey	19	4*	Washington
<i>Cercopithecus</i> <i>hamlyni</i> Pocock Hamlyn's Owl-faced Monkey	12	7*	New York
<i>Cercopithecus</i> <i>neglectus</i> Schlegel deBrazza Monkey	20	7	Washington
<i>Cercopithecus</i> <i>diana diana</i> (Linnaeus) Diana Monkey	16	2	London
<i>Cercopithecus</i> <i>d. roloway</i> (Schreber) Roloway Monkey	30	8*	Washington
<i>Cercopithecus</i> <i>nictitans nictitans</i> (Linnaeus) Hocheur Monkey	12	10	London
<i>Cercopithecus</i> <i>n. signatus</i> Jentink Jentink's White-nosed M	6	0	London
<i>Cercopithecus</i> <i>n. martini</i> Waterhouse Martin's White-nosed M	12	10	London
<i>Cercopithecus</i> <i>petaurista petaurista</i> (Schreber) Lesser W-n M	20	10	Washington
<i>Cercopithecus</i> <i>p. buettikoferi</i> Jentink Buttikofer's W-n M	15	11	San Diego
<i>Cercopithecus</i> <i>ascanius ascanius</i> (Audebert)			
Congo Black-checked White-nosed Monkey	12	7*	New York
<i>Cercopithecus</i> <i>a. schmidti</i> Matschie Schmidt's White-nosed M	16	3*	London
<i>Cercopithecus</i> <i>whitesidei</i> Thomas Yellow-nosed Monkey	1911		Antwerp
<i>Cercopithecus</i> <i>erythrotis</i> Waterhouse Red-eared Monkey	14	2	New York
<i>Cercopithecus</i> <i>sclateri</i> Pocock Sclater's Spot-nosed Monkey	6	0	London
<i>Cercopithecus</i> <i>cephus</i> (Linnaeus) Moustached Monkey	13	2	Washington
<i>Cercopithecus</i> <i>erythrogaster</i> Gray Red-bellied Monkey	12	7	Paris
<i>Allenopithecus</i> <i>nigroviridis</i> Pocock Allen's Swamp Monkey	8	8*	San Diego
<i>Erythrocebus</i> <i>patas patas</i> (Schreber) Red Monkey	20	2	Philadelphia
<i>Erythrocebus</i> <i>p. baumstarki</i> Matschie	1929		Hagenbeck
<i>Erythrocebus</i> <i>p. pyrrhonotus</i> (Hemprich & Ehrenburg) Nisnas' M	19	1	Giza

PRIMATE LONGEVITY - Continued

<i>Presbytis aygula aygula</i> (Linnaeus) Mitred Langur	1879	London
<i>Presbytis a. thomasi</i>	0 2	New York
<i>Presbytis cristatus cristatus</i> (Raffles) Silvered Leaf M	11 8	San Diego
<i>Presbytis c. germaini</i> (Milne-Edwards) Germain's L M	4 5	San Diego
<i>Presbytis entellus entellus</i> (Dufresne) Entellus Langur	10 7	San Diego
<i>Presbytis e. priam</i> (Blyth) Ceylonese Entellus Langur	1 1	Washington
<i>Presbytis e. schistaceus</i> (Hodgson) Himalayan Langur	1 5	New York
<i>Presbytis e. thersites</i> Blyth	1956	Colombo
<i>Presbytis francoisi laotum</i> (Thomas) Laos Langur	3 days	San Diego
<i>Presbytis frontatus</i> (Mueller) White-fronted Langur	1883	Melbourne
<i>Presbytis johni</i>	2 7*	San Diego
<i>Presbytis melalophos melalophos</i> (Raffles) Black-crested L	5 0*	Colo. Springs
<i>Presbytis m. robinsoni</i> (Thomas) Robinson's Langur	0 4	London
<i>Presbytis obscura obscura</i> (Reid) Dusky Langur	2 3	Philadelphia
<i>Presbytis o. barbei</i> Blyth Barbe's Dusky Langur	1 3	Philadelphia
<i>Presbytis o. flavicauda</i> (Elliot)	7 2	San Diego
<i>Presbytis o. ruhei</i> Knottnerus-Meyer Southern Siamese L	1933	Hannover
<i>Presbytis phayrei</i> Blyth Phayre's Langur	5 8*	Washington
<i>Presbytis pileatus</i> (Blyth) Capped Langur	7 7	London
<i>Presbytis senex senex</i> (Erxleben) Purple-faced Langur	1 7	Washington
<i>Presbytis s. monticola</i> Kelaart	1956	Colombo
<i>Presbytis s. nestor</i> (Bennett)	3 4	Washington
<i>Presbytis s. vetulus</i> (Erxleben)	1877	Rotterdam
<i>Pygathrix nemaeus nemaeus</i> (Linnaeus) Douc	0 4	London
<i>Pygathrix n. nigripes</i> (Milne-Edwards)	1882	Rotterdam
<i>Rhinopithecus roxellanae</i> (Milne-Edwards) Golden Snub-nosed M	0 1	London
<i>Nasalis larvatus</i> Wurmb Proboscis Monkey	4 0	San Diego
<i>Colobus polykomos polykomos</i> (Zimmermann) King Colobus	6 3	Washington
<i>Colobus p. dollmani</i> Schwarz Dollman's Colobus	2 8	Philadelphia
<i>Colobus p. vellerosus</i> I Geoffroy West African Colobus	0 9	Washington
<i>Colobus satanas</i> Waterhouse Black Colobus	1862	Amsterdam
<i>Colobus abyssinicus abyssinicus</i> (Oken) Abyssinian Colobus	3 11	London
<i>Colobus a. caudatus</i> Thomas Kilimanjaro Colobus	6 3	Washington
<i>Colobus a. gallarum</i> Neumann	1919	Giza
<i>Colobus a. kikuyuensis</i> Lonnberg Kikuyu Colobus	21 3*	San Diego
<i>Colobus a. matschiei</i> Neumann	1906	London
<i>Colobus a. occidentalis</i> (Rochebrune) Western Colobus	3 7	London
<i>Colobus a. uellensis</i> Matschie Uele Colobus	12 7*	New York
<i>Colobus angolensis angolensis</i> Sclater Angola Colobus	12 7*	New York
<i>Colobus a. palliatus</i> Peters	1930	Berlin
<i>Colobus badius badius</i> (Kerr) Bay or Red Colobus	12 days	London
<i>Colobus b. ellioti</i> Dollman	2 0	New York
<i>Colobus b. rufomitratu</i> s Peters Congo Red Colobus	0 1	San Diego
<i>Colobus b. temmincki</i> (Kuhl)	21 days	London
<i>Colobus kirki</i> (Gray) Olive Colobus	1912	Antwerp

PRIMATE LONGEVITY - Continued

PONGIDAE

Hylobates agilis	F Cuvier	Dark-handed Gibbon	13	2	Washington
Hylobates concolor	concolor (Harlan)	Concolor Gibbon	19	0	London
Hylobates c. hainanus	Thomas	Hainan Island Gibbon	4	3	Philadelphia
Hylobates c. leucogenys	Ogilby	White-cheeked Gibbon	9	3	London
Hylobates hoolock	(Harlan)	Hoolock Gibbon	21	10	Washington
Hylobates lar	(Linnaeus)	White-handed Gibbon	31	6	Philadelphia
Hylobates moloch	moloch (Audebert)	Javan or Grey Gibbon	20	7*	New York
Hylobates m. abboti	Kloss	West Bornean Gibbon	2	5	London
Hylobates m. cinereus	(Latreille)	Silver Gibbon	1912		Antwerp
Hylobates m. funereus	Geoffroy	North Bornean Gibbon	1954		London
Hylobates m. muelleri	Martin	Diamond-vested Gibbon	6	0	Frankfurt
Hylobates pileatus	Gray	Black-capped Gibbon	7	2	Copenhagen
Symphalangus syndactylus	syndactylus (Raffles)	Sumatra Siamang	16	2	Washington
Symphalangus s. continentis	Thomas	Malayan Siamang	1898		London
Pongo phygmaeus	(Linnaeus)	Orang Utan	30	8*	Philadelphia
Pan troglodytes	troglodytes (Blumenbach)	Chimpanzee	37	8*	Philadelphia
"	"	"	37	7*	Chicago
Pan t. schweinfurthi	(Giglioli)	Schweinfurth's Chimpanzee	11	0*	New York
Pan paniscus	Schwarz		6	0*	Frankfurt
Gorilla gorilla	gorilla (Savage & Wyman)	Lowland Gorilla	33	5	Philadelphia
"	"	"	26	1*	Philadelphia
Gorilla g. beringei	Matschie	Mountain Gorilla	12	7*	New York
"	"	"	12	3	San Diego

ZOOS MENTIONED IN THE LIST

Zoological Gardens, AMSTERDAM, Holland  
 Zoological Gardens, ANTWERP, Belgium  
 Zoological Gardens, BASEL, Switzerland  
 Zoological Gardens, BERLIN-WEST, Germany  
 Zoo Park, BERLIN-FRIEDRICHSFEIDE (EAST), Germany  
 Zoological Gardens, BRESLAU, Germany (now called Wroclaw, Poland)  
 Zoological Gardens, BUFFALO, New York, USA  
 Zoological Gardens, Alipore, CALCUTTA, India  
 Zoological Gardens, CALGARY, Alberta, Canada  
 Zoological Gardens, Lincoln Park, CHICAGO, Illinois, USA  
 Zoological Gardens, Dehiwala, COLOMBO, Ceylon  
 Cheyenne Mt. Zoo, COLORADO SPRINGS, Colorado, USA  
 Zoological Park, COPENHAGEN, Denmark  
 Zoological Gardens, FRANKFURT ON THE MAIN, Germany  
 Government Zoological Gardens, GIZA, Cairo, Egypt, UAR  
 Hagenbeck's Tierpark, HAMBURG-STELLINGEN, Germany  
 Zoological Gardens, HAMBURG, Germany (closed 1931)



PRIMATE LONGEVITY - Continued

Zoological Gardens, LONDON, England  
Zoological Gardens, MELBOURNE, Australia  
Zoological Gardens, MILWAUKEE, Wisconsin, USA  
Zoological Park, Bronx Park, NEW YORK CITY, New York, USA  
Zoo, Elmwood Park, Norristown, Pennsylvania, USA  
Jardin des Plantes, PARIS, France  
Zoological Gardens, PHILADELPHIA, Pennsylvania, USA  
Zoological Gardens, PRAGUE, Czechoslovakia  
National Zoological Gardens, PRETORIA, Union of South Africa  
Zoological Gardens, ROTTERDAM, Holland (both old and new zoos)  
Zoological Gardens, SAN DIEGO, California, USA  
Zoo, TANANARIVE, Malagasy Republic (Madagascar)  
Tiergarten Schonbrunn, VIENNA, Austria  
National Zoological Park, WASHINGTON, D. C., USA  
Zoological Gardens, ZURICH, Switzerland

REFERENCES

- Allen, G. M. A checklist of African mammals. Bull. Mus. Comp. Zool., LXXXIII, Cambridge, 1939.
- Cabrere, A. Catalogo de los mamiferos America del sur, Buenos Aires, 1957.
- Chasen, F. N. A handlist of Malayan mammals. Bull. Raffles Mus., No. 15, Singapore, 1940.
- Hill, W. C. O. Primates. Comparative anatomy and taxonomy. 1. Strepsirhini. 2. Haplorhini: Tarsioides 3. Pithecoidea. Platyrrhini (families Hapalidae and Calimiconidae). 4. Cebidae. Part A. New York: Interscience Publishers, Inc., 1953, 1955, 1957, 1960.
- Von Beottjcher, Hans. Die Halbaffen und Koboldmakis, Wittenberg, 1958.
- Ellerman, J. R., and Morrison-Scott, T. C. S. Checklist of Palearctic and Indian mammals. London: British Museum, 1951.
- Hufer, H., and Schwarz. Primatologica, Basel: Karger, 1959.

## LABORATORY NOTES

### Travel Inducer

Described below is a home-made inducer apparatus which we have found helpful for training new monkeys to leave their home cages. The apparatus is easy to construct and operate, but perhaps cannot be used with all types of cages. Two rectangular pieces of plywood or masonite are hinged together. The width of both pieces should permit them to slide under the cage door on top of the cage floor. The length of the first piece should be just slightly less than the height from the cage floor to the roof. The length of the second piece should be such that it will extend approximately 6" in front of the cage (for maneuvering purposes) when the entire apparatus has been inserted inside. Two ropes are attached to the front corners of the first piece, and the other ends of these ropes are brought out through the upper front part of the cage. Once the animal has been forced to stand upon the inserted apparatus (or hang on to the cage above it), then the front piece is slowly raised to a vertical position and the entire apparatus moved toward the front of the cage. The transport cage is attached and the small door is opened. After varying amounts of pressure and struggle, the animal will prefer the transport cage to the restricted freedom on the living cage. Experience to date with four naive rhesus monkeys has indicated that approximately two to four trials with this apparatus is sufficient to insure consistent voluntary entry into the transport cage. The success of the technique is aided by the fact that there follow indoctrination periods in the behavioral test apparatus with special feeding of preferred types of food.

Charles W. Hill, Dept. of Psychology  
George Washington University, Washington, D. C.

## NEWSPAPER CLIPPINGS

### A SCIENTIST LINKS GORILLA AND MAN

By John A. Osmundsen - A new picture of the family tree that has borne monkeys, apes and man emerged recently from a series of scientific reports.

One scientist, an immunochemist from Wayne State University College of Medicine in Detroit, reported findings that would put chimpanzees and gorillas in the same family as man. Up to now, the two apes have been thought to occupy a family of their own. Another scientist, a geologist from Yale University, revealed the discovery of what he believes to be a hitherto missing link in the evolutionary development of the higher primates. And two scientists from the Johns Hopkins University questioned the validity of the estimated age of what is believed to be the oldest member of the human race known to science.

The findings were presented at a meeting of the New York Academy of Sciences on "The Relatives of Man" and in an article in the April 27 number of Science, a journal of the American Association for the Advancement of Science.

The Wayne immunochemist who believes that "man must take the chimpanzee and the gorilla into his nest" as one colleague put it, is Dr. Morris Goodman. He based his contention that man and the two apes were a lot closer genetically than had been thought on comparisons of their blood proteins and those of other primates. How closely different animals are related depends upon their genetic make-up. Blood proteins reflect the genetic make-up of an organism because they are the products of the genes. Thus, even a single blood protein tells something about the evolutionary history of an organism and can be used as an index of relationships. Dr. Goodman used two analytical methods to study the relationships among the great apes and man. His results were compatible with his new idea of how they should be reclassified.

Up to now, the gibbons have been classed in the family Hylobatidae. The other Asiatic ape, the orangutang, has been grouped with the two African apes, the chimpanzee and gorilla, in the family Pongidae. Man was classed by himself in the family Hominidae. Repeated comparisons of their blood proteins, however, distinguished the chimpanzee from the orangutang and the gibbon but not from the gorilla or man. In addition, Dr. Goodman found evidence that the separation of the lines of the African apes was probably fairly ancient. That is, the chimpanzee and gorilla may have just as long a separation as chimpanzee and man, he said. "It may be a clue in attempting to trace the phylogeny (evolutionary development) of man," Dr. Goodman noted, "that his closest living relatives, the African apes, are far more terrestrial in their mode of life than the Asiatic apes, which are strictly arboreal."

In another report, Dr. Elwyn L. Simons of Yale told of finding the lower jaw of a squirrel-sized animal that appears to have lived

35,000,000 to 40,000,000 years ago and may eventually prove to be in or near the ancestry of the monkeys. He has tentatively named the newly discovered fossil "Oligopithecus," after the Oligocene epoch in which the animal lived and the suffix, "pithecus," meaning monkey. Dr. Simons said that the jaw with its tiny teeth was "one of the most primitive dentitions of a member of the higher primates (to which man as well as the monkeys and apes belong) ever discovered." The find, he said, should enable scientists to reconstruct the family tree of primates more accurately than has been done so far.

The fossil jaw was discovered during a Yale paleontological expedition to the Fayum badlands about sixty miles southwest of Cairo between Dec. 1, 1961, and Jan. 24 of this year. The Tertiary period of Africa, which begins with the Oligocene beds of Egypt, holds particular fascination for paleontologists interested in the history of man. They believe it to have been the place and time when important branchings in the primate family tree took place.

As Dr. Simons explained it in an interview following the presentation of his paper, three main types of primate seem to have appeared by the early Oligocene in Egypt: "Oligopithecus," another squirrel-sized animal called Apidium, and a larger beast known as Propithecus. As "Oligopithecus" may have given rise to the monkeys, Propithecus was probably a forerunner of the apes and man (whose lines had probably not yet separated at the time this ancestor lived), and Apidium the forerunner of Oreopithecus, which has been thought to have been a direct-line ancestor of man. Dr. Simons, who found fossil jaws and teeth of Apidium in the same deposits that contained "Oligopithecus," said his new find cast doubt on the possibility that Oreopithecus was a direct human ancestor. Oreopithecus is the "abominable coalman" whose 10,000,000-year-old remains were found some years ago in Tuscany, Italy.

The estimated age of the earliest known member of the human race, however, was called into question by Dr. William L. Straus, Jr. and Charles B. Hunt of the Johns Hopkins. The fossil in question, called Zinjanthropus, was discovered in Olduvai Gorge, Tanganyika, early last year by Dr. and Mrs. Louis S. B. Leakey of Coryndon Memorial Museum, Nairobi, Kenya. First estimated to be "more than 600,000 years" old, the fossil was later dated according to the ages of the layers of rock that encased it by Drs. Jack F. Evernden and G. H. Curtis of the University of California and found to be 1,750,000 years old.

In their Science article, the two scientists asserted that some of the Olduvai Gorge dates were inconsistent and that this suggested that some --or all-- might be inaccurate. "Until further tests determine which materials give dependable dates, we do not know which dates are accurate," they wrote, (and) "until this is learned, the indicated ages must be taken cum grano salis."

The New York Times, 6 May 1962

ADDITIONS TO MAILING LIST

Dr. Anton M. Allen  
Comparative Pathol. Sect.  
Laboratory Aids Branch  
Div. of Research Services  
National Insts of Health  
Bethesda 14, Maryland

Dr. Stewart Altman  
Dept. of Zoology  
University of Alberta  
Edmonton, Alberta

Dr. D. W. van Bekkum  
Radiobiological Institute  
Lange Kleiweg  
Rijswijk Z. H.,  
Netherlands

Dr. Irwin S. Bernstein  
Yerkes Laboratories of  
Primate Biology  
Orange Park, Florida

Dr. J. Bressler  
Biology Dept.  
Brown University  
Providence 12, Rhode Island

Dr. N. R. Brewer  
Central Animal Quarters  
University of Chicago  
951 East 58th St.  
Chicago 37, Illinois

Dr. George M. Briggs  
Dept. Nutrition & Home Econ  
College of Agriculture  
Agricultural Exper. Station  
University of California  
Berkeley 4, California

C. M. Burnett  
Research Division,  
Miami Valley Lab.  
The Procter & Gamble Co.  
P. O. Box 39175  
Cincinnati 39, Ohio

Dr. Robert G. Carlson  
Animal Procurement Section  
Dept. of Pathology  
The Upjohn Co.  
Kalamazoo, Michigan

Dr. Thomas B. Clarkson  
Vivarium  
Bowman Gray School of Med.  
Wake Forest College  
Winston-Salem 7, N. C.

Dr. Alan A. Creamer  
Research Laboratories  
Merck, Sharp & Dohme  
West Point, Pennsylvania

Dr. Marvin F. Daley  
Dept. of Psychology  
Texas Technological College  
Lubbock, Texas

Dr. Irven DeVore  
Dept. of Anthropology  
University of California  
Berkeley 4, California

Dr. Vincenzo Di Carlo  
Galesburg State Res. Hosp.  
Galesburg, Illinois

Dr. Donovan E. Fleming  
Neurophysiological Labs  
Veterans Admin. Hospital  
Salt Lake City 13, Utah

Dr. Mark H. Friedman  
Memorial Center  
444 East 68th Street  
New York 21, New York

Dr. Leo Ganz  
Psychology Dept.  
Brown University  
Providence 12, Rhode Island

William I. Gay  
Animal Hospital Section  
Laboratory Aids Branch  
Div. of Research Services  
National Insts of Health  
Bethesda 14, Maryland

Dr. C. G. Gross  
Psychology Section  
Mass. Inst. of Technology  
Cambridge 39, Massachusetts

Prof. Dr. Bernard Grzimek  
Zoologischer Gartens  
Alfred Brehm Platz  
Frankfurt am Main  
West Germany

Richard Guttmacher  
Bionetics Res. Labs, Inc.  
205 West Jefferson St.  
P. O. Box 26  
Falls Church, Virginia

Dr. J. A. Gylys  
Warner-Lambert Res. Inst.  
Division of Basic Sciences  
Morris Plains, New Jersey

Dr. Donald B. Hachel  
Pathology Dept.  
School of Medicine  
Duke University  
Durham, North Carolina

Mr. F. C. Hall  
2933 Madison Road  
Cincinnati 9, Ohio

Dr. C. L. Hamilton  
Veterans Admin. Hospital  
Coatsville, Pennsylvania

Dr. F. Eugene Harrington  
Dept. Obstetrics & Gynecol  
School of Medicine  
Vanderbilt University  
Nashville, Tennessee

Berton F. Hill  
Inst. Lab. Animal Resources  
Div. Biology & Agriculture  
National Acad. of Sciences  
2101 Constitution Ave.  
Washington 25, D. C.

Dr. Lisbeth M. Kraft  
Public Health Res. Inst.  
of the City of New York  
Otisville Branch  
Otisville, New York

Dr. Bryan W. Robinson  
Section on Neuropsychology  
Bldg. 9, Rm. 126  
Nat. Inst. of Mental Health  
Bethesda 14, Maryland

Dr. Williamina A. Himwich  
Dept. of Mental Health  
Galesburg State Res. Hosp.  
Galesburg, Illinois

1/Lt. Carol Max Lang  
Dept. of Laboratory Animals  
Walter Reed Army Inst of Res  
Walter Reed Army Med Center  
Washington 12, D. C.

Dr. R. Roncalli  
Agricultural Research Dept.  
Hoffmann-La Roche, Inc.  
Nutley 10, New Jersey

Dr. Claude R. Hitchcock  
Minneapolis Gen. Hospital  
Research Foundation, Inc.  
619 South 5th St.  
Minneapolis 15, Minnesota

Dr. E. J. Lazar  
Headquarters  
Pine Bluff Arsenal  
Arsenal, Arkansas

Miss D. Scribbans  
Laboratory Animals Centre  
M. R. C. Laboratories  
Woodmansterne Road  
Carshalton, Surrey  
England

J.A.R. van Hooff biol. drs.  
Lab. voor Vergelij. Fysiol.  
Rijksuniversiteit Utrecht  
Utrecht, Netherlands

Dr. W. B. Lemmon  
Faculty Exchange  
Norman, Oklahoma

AMD(MRAT-Aerospace Med Lib)  
Wright Patterson AFB, Ohio

Dr. Ronald T. Hopwood  
Inst. Lab. Animal Resources  
Div. Biology & Agriculture  
National Acad. of Sciences  
2101 Constitution Ave.  
Washington 25, D. C.

Dr. Leo L. Lieberman  
75 Boston Post Road  
Waterford, Connecticut

Dr. J. Harold Severaid  
Sacramento State College  
6000 Jay St.  
Sacramento 19, California

Caroline Jarvis  
Zoological Soc. of London  
Regent's Park, London, N.W. 1  
England

Dr. Ann Lodge  
Section on Neuropsychology  
Bldg. 9  
Nat. Inst. of Mental Health  
Bethesda 14, Maryland

Mrs. Margaret Shetler  
Oregon Primate Res.Center  
P. O. Box 366  
Beaverton, Oregon

Dr. Michael Kaplan  
Exper. Psychology Lab.  
Creedmoor State Hospital  
Queens Village 27, New York

Dr. Leon S. Otis  
Dept. of Behavioral Sci.  
Stanford Research Institute  
Menlo Park, California

Dr. H. A. Shiffer  
Shiffer Scientific Found.  
448 N. Ave. 56 (4th Wing)  
Los Angeles 42, California

Dr. Sylvan J. Kaplan  
Psychology Dept.  
Texas Technological College  
Lubbock, Texas

Dr. Carl Pfaffman  
Psychology Dept.  
Brown University  
Providence 12, Rhode Island

C. W. Shilling Auditory  
Research Center, Inc.  
348 Long Hill Road  
Groton, Connecticut

Dr. Roy Kinard  
Comparative Pathol. Section  
Laboratory Aids Branch  
Div. of Research Services  
National Insts of Health  
Bethesda 14, Maryland

Ronald T. Reuther  
Cleveland Zoological Soc.  
Cleveland 9, Ohio

Dr. S. D. Singh  
Dept. of Psychology  
Punjab University  
Chandigarh, India

Dr. Philip I. Sperling  
Neuropsych. & Psychophys.  
Research Branch  
US Army Med Res & Dev Comm  
Surgeon General's Office  
Washington 25, D. C.

Charles A. Spezia  
Space & Infor. Systems Div.  
North American Aviation  
12214 Lakewood Blvd.  
Downey, California

Lt. Louis Spiera, MSC  
821 Commonwealth  
Waukegan, Illinois

Dr. James H. Steele  
Communicable Disease Center  
U. S. Public Health Service  
Atlanta 22, Georgia

Dr. Paschal N. Strong, Jr.  
Psychology Dept.  
Texas Technological College  
Lubbock, Texas

Dr. M. Robert Vaupel  
Dept. of Anatomy  
School of Medicine  
Tulane University  
New Orleans 18, La.

Dr. Irvin H. Wagman  
Biomechanics Laboratory  
Univ of Calif School of Med  
San Francisco Med. Center  
San Francisco 22, Calif.

Mr. Ernest P. Walker  
3016 Tilden St., N. W.  
Washington, D. C.

Dr. R. J. Ward  
Research & Development Labs  
Reckitt & Sons Ltd.  
P. O. Box 78  
Hull, England

Mr. Richard W. Westervelt  
130 Nassau St.  
Princeton, New Jersey

Dr. Lawrence R. Wharton, Jr.  
803 Cathedral St.  
Baltimore 1, Maryland

#### ADDRESS CHANGES

Dr. Robert E. Edwards  
Psychophys. Service Center  
6917 Arlington Road  
Bethesda 14, Maryland

Dr. Walter Wilson  
Biology Dept.  
Brown University  
Providence 12, R.I.

Dr. W. W. Winters  
Space Biology Laboratory  
Brain Research Institute  
U. of Calif. Med. Center  
Los Angeles 24, Calif.

Dr. James F. Wright  
National Zoological Park  
Washington 9, D. C.

Dr. W. A. Young  
Dept. Recreation & Parks  
305 City Hall  
Los Angeles 12, Calif.

Mr. Herbert Zwickel  
Public Health Res. Inst.  
of the City of N. Y.  
Otisville Branch  
Otisville, New York

Dr. Earl Usdin  
PPI, Michael Pese Hosp.  
29th St. and Ellis Ave.  
Chicago 16, Illinois