

A Checklist of Parasites and Commensals Reported for the Chimpanzee (*Pan*)*

BETTY JUNE MYERS and ROBERT E. KUNTZ

Southwest Foundation for Research and Education

The use of common names for animals in general and nonhuman primates in particular has plagued scientists for decades, and even today we have experienced investigators who ascribe unusual conditions or exotic diseases to an 'ape' or in a 'monkey.' Even the chimpanzee, which seemingly has rather pronounced and recognizable features, has suffered from the unfortunate misuse of generalized terms, and we are still uncertain about information associated with some of the first reports of parasites from this host. It has been surmised that the chimpanzee may have been familiar to the early Egyptians, and an appraisal of MCDERMOTT's (1938) work on apes in Greek literature suggests that some of the animals referred to in the early history of Greece may in fact have been chimpanzees. A critical search of biological and related literature reveals that a number of nonhuman primates, including the chimpanzee and the baboon, have fairly colorful and illustrious backgrounds and histories. The reader is referred to the recent historical review by HILL (1969a) which provides ample coverage on the recognition of the chimpanzee in the different eras from several centuries B.C. to the present time. Currently, considerable attention is being given to the many facets in the biology of the chimpanzee (BOURNE, 1970a, b, c, in press), a primate which is somewhat limited in numbers and moderately restricted in geographical distribution.

The preparation of a checklist of the commensals and parasites known for the chimpanzee constitutes another step toward a better understanding of the biological profile of a nonhuman primate which has figured prominently in biological and biomedical research in recent years. It is the third in a series (MYERS & KUNTZ, 1965; KUNTZ & MYERS, 1969a) from this laboratory.

Difficulty in procurement plus the high cost for chimpanzees has discouraged extensive surveillance of these mammals for parasites and, as might be expected with an animal that tends to isolate itself from man, there have been few examinations of chimpanzees in the wild. Many of the reports on the parasites of *Pan* have been incidental to other studies or constitute a part of routine baseline type investigations associated with the use of these animals for varied biological and biomedical research. An examination of sick animals, supported by post mortem reports from zoological gardens, of course have contributed to the parasitological literature on this host. As expected, the chimpanzee does not have as extensive a parasitic fauna as recognized

*This work supported in part by U.S.P.H.S. Grants Nos. RR05519, RR00451, and AI08207.

for the African baboon, *Papio cynocephalus* (MYERS & KUNTZ, 1965), a primate which occupies a much broader range of habitats throughout the greater part of the African continent.

By contrast, the chimpanzee, represented by *Pan troglodytes verus* (SCHWARZ, 1934); the masked or pale-faced chimpanzee, *Pan t. troglodytes* (BLUMENBACH, 1779); the black-faced chimpanzee or 'Tschiego,' *Pan t. schweinfurthi* (GIGLIOLI, 1872); the eastern or long-haired chimpanzee, and *Pan paniscus* (SCHWARZ, 1929), the pigmy chimpanzee, is found in a moderately restricted band which extends from Sierra Leone in West Africa through French Guinea into Central and limited parts of East Africa (HILL, 1969b). To this group, HILL (1969b) has recently added *Pan t. koolokamba* (DUCHAILLUS, 1850), the Koolokamba or gorilla-like chimpanzee from Gabon. Chimpanzees occur in tropical rain forests, savannahs, hill country, and upland forest to an altitude of 10,000' (NAPIER & NAPIER, 1967).

Regardless of taxonomic schemes involving the species of chimpanzees, it may be assumed that their eating habits, in general, are similar. These primates are primarily vegetarians feeding upon seeds, leaves, bark, and a wide variety of fruits. A study of stomach contents, and especially field observations in the past few years, have indicated, however, that the chimpanzee, not unlike many other vertebrates, prefers variety in its diet. It is now a recognized fact that while there may be accidental ingestion of small arthropods, worms, molluscs, etc., these animals by choice seek out and eat a wide assortment of arthropods as well as birds, bird eggs, small mammals, and probably other vertebrates that come within grasp of a hungry individual. With the chimpanzee as with man and other vertebrates, there are certain aspects of parasitism which are dependent upon and directly associated with eating habits and food preferences. It is quite obvious that the diet of *Pan* is sufficiently inclusive to allow transmission and maintenance of a fairly extensive parasitic fauna in habitats where infections are present.

The chimpanzee, similar to some of the other nonhuman primates, probably avoids open waters but has short periods of contact with some type of water in order to satisfy its basic requirements. However, the fact that these primates have been found naturally infected with schistosomes (HSÜ & HSÜ, 1968a; DE PAOLI, 1965) indicates that on occasion they must wade in schistosome infested waters. Needless to say, *Schistosoma* infection could be acquired by a host drinking water in which infected molluscs and cercariae occur.

The social and peripatetic tendencies of *Pan* vary from one geographic area to another as well as from one group to another in the same area at different times. In contrast to earlier beliefs, it is now realized that the chimpanzee is not an entirely arboreal mammal but spends much of its time on the ground, frequently traveling from one location to another. This obviously brings the chimpanzee into contact with biological situations which enhance parasitism, i.e. contact with soil and vegetation which may be contaminated with eggs and larvae of human or lower vertebrate parasites. Furthermore, movement of individuals or groups increases the chances for arthropod diseases as a result of wandering in and out of varied habitat situations. Socially, the chimpanzee gathers in small to medium size groups, thus increasing the potential for transmission of parasites which may be passed as egg or larval stages,

i.e. food contamination, accidental ingestion, etc. from one individual to another. While certain of these features may be taken for granted, they do play a role in parasite transmission potentials and actual maintenance of parasite cycles in given communities.

Even though the chimpanzee has been on exhibit in Europe for several centuries, i.e. since 1698, and the animal has been observed by numerous biologists, the first record of a parasite from this host dates back only to 1880 when STUDER reported on the occurrence of a large tapeworm from the intestine (later described by BLANCHARD (1891) as *Bertia studeri* (now recognized as *Bertiella studeri*)). LEIDY, in 1891, reported *Ascaris lumbricoides*, *Trichocephalus dispar* (now recognized as *Trichuris trichiura*) and a new filaria, *Filaria primana* from *Simia satyrus* (now recognized as *Pan troglodytes*). The chimpanzee at that time was widely recognized as *Simia satyrus*, but LEIDY referred to dissection of "an Orang, *Simia satyrus*" from which parasites were obtained. Although it is possible that LEIDY was dealing with a chimpanzee, this is a prominent example of how careless host designations tend to burden and confuse parasitological literature associated with the nonhuman primates, a weakness which should be corrected in present day nonhuman primate parasitology (KUNTZ, 1970).

In 1929 STILES and HASSALL compiled an extensive listing of commensals and parasites reported from a wide range of primates, including the chimpanzee. While useful, this checklist is confusing in some respects since the authors, in an attempt to present a complete host-parasite compilation up to that time, used information which could not be checked against original records. As with host-parasite checklists which have been prepared by different authors, it was necessary for them to include a number of listings for hosts of questionable taxonomic status. RUCH (1959) brought together a vast accumulation of information and literature relating to the diseases of laboratory primates. This work has served as a general guide for investigators and veterinarians concerned with the health and parasitological aspects of the biology of nonhuman primates. It includes considerable information on the commensals and parasites known for the chimpanzee. Later, YAMASHITA (1963), concerned with the ecological relationships of parasites and primates, presented a listing of helminths from a number of nonhuman primates. YAMASHITA indicated that *Pan troglodytes* hosted 32 species of nematodes, a single acanthocephalan and 1 cestode. Four nematodes were noted for *Pan paniscus*.

Much of the information on the parasites of chimpanzees has come from scattered or miscellaneous studies based on observations of a few parasites from limited numbers of animals as well as from compilations prepared in support of broad scope treatises on various aspects of the biology of the chimpanzee and other nonhuman primates, e.g. BRAY, 1964; CHITWOOD, 1970; FIENNES, 1967; HEALY (Pers. Comm.); REWELL, 1969, and others. There have been some reports relating specifically to parasites or host-parasite conditions of this host, e.g. nematodes—AUGUSTINE, 1939; BLACKLOCK & ADLER, 1922a; DESPORTES, 1945; ESSBACH, 1949; SCHEIDEGGER & KREIS, 1934; TROSIER et al., 1928 a, b; TROSIER & DESCHIENS, 1930, and WEINBERG, 1906 a, b; cestodes—CRAM, 1928; protozoa—BRAY, 1964 and REWELL, 1969, and trematodes—DE PAOLI, 1965 and HSÜ & HSÜ, 1968a. A few others have dealt with small to medium size groups of chimpanzees after varying periods in captivity, e.g.

JESSEE et al., 1970; KUNTZ & MYERS, 1969b; REARDON & RININGER, 1968, and VAN RIPER et al., 1966.

The format for presentation of commensals and parasites of the chimpanzee has been somewhat modified from that employed for checklists for the baboon (MYERS & KUNTZ, 1965) and the Taiwan macaque (KUNTZ & MYERS, 1969a). It is hoped that this simplification will result in more efficient use of information available. Each category of parasites is preceded by an alphabetical listing which allows for immediate location of a species, if recorded previously from the chimpanzee. This is followed by a synoptic arrangement or classification of parasites and commensals. Since there is no one taxonomic system which satisfies all disciplines or taxonomists in the broad field of parasitology, it seems prudent to follow a scheme in a work that is easily available. We have followed, *in general*, the taxonomic scheme found in the latest edition of CRAIG and FAUST's "Clinical Parasitology" (FAUST et al., 1970). When necessary, families or other categories not given in FAUST et al. (1970) have been introduced to accommodate parasites listed for the chimpanzee but which normally would not occur in a synoptic listing of parasites for man. References to each species of commensals and parasites are indicated by an alphabetical listing of authors and the dates of their work.

Protozoa: Protozoology, R. R. KUDO, 1966; Malaria Parasites and Other Hemosporidia, P. C. C. GARNHAM 1966, and Protozoology (Vols. I and II), C. M. WENYON, 1965.

Acanthocephala: Systema Helminthum (Vol. V), Acanthocephala, S. YAMAGUTI, 1963.

Cestoidea: Systema Helminthum (Vol. II), The Cestodes of Vertebrates, S. YAMAGUTI, 1959.

Nematoda: Systema Helminthum (Vol. III), The Nematodes of Vertebrates (Parts 1 and 2), S. YAMAGUTI, 1961.

Trematoda: Systema Helminthum (Vol. I) The Digenetic Trematodes of Vertebrates (Parts 1 and 2), S. YAMAGUTI, 1959.

Most of the references to parasites of chimpanzees and based upon materials and records relating to *Pan troglodytes* and its subspecies. It is only natural that there are limited references for the pigmy chimpanzee, *Pan paniscus*, since it was not recognized until 1929. Parasites for this host are listed separately.

In the interest of presenting a fairly complete and useful checklist, it is necessary to make reference to other review type papers or monographs in which an author has studied parasites from a few or even many nonhuman primates. As an example, we have cited TRAVASSOS and VOGELSANG (1932) as being a record for *Oesophagostomum* in the chimpanzee. This obviously is not an original observation but represents a comparative study or an accumulation of data and information in which it was necessary or appropriate to list *Oesophagostomum*.

We have made no attempt to pass judgment on synonymies or the names of hosts and parasites of questionable status, although an indication of the gravity of this situation in the literature is recognized in the examples above where reference is made to "an Orang, *Simia satyrus*" (an obvious mistake) and to *Trichocephalus dispar* (the old discarded name for *Trichuris trichiura*). There is a general tendency for compilers

to copy and repeat host-parasite records without checking or verifying source or authority for the work. We have attempted to verify included listings. In some cases in which information is uncertain or appears to be erroneous, we have so indicated with a question mark (?). It is difficult to compile a complete listing of the parasites of any animal since there are records concealed by incomplete or misleading publication titles, records may occur in poorly recognized journals with limited circulation, or in languages which elude the searcher. It is believed, however, that the present host-parasite list includes the majority of references likely to be needed or employed by students of parasitology, the veterinarian, or biomedical researchers.

As already indicated, compilation of host-parasite records depends upon a rather exhausting search of the literature on subjects pertaining to parasitology as well as to many which make only indirect reference to the parasites of the chimpanzee. The Index-Catalogue of Medical and Veterinary Zoology, distributed by the Beltsville (Md.) Parasitological Laboratory, has served as an essential and basic support to the present authors in a study of the parasites of nonhuman primates. It should be realized that the Index-Catalogue and the National Parasite Collection serve as a source of pertinent information on all aspects of parasitology. This publication, and the laboratory from which it originated, have been serving parasitologists of the world since 1892, when initiated by Dr. ALBERT HASSALL. Many parasitologists, however, do not fully appreciate the usefulness of these facilities and publications.

Attention should be called to the different publications which have emanated from the Beltsville Parasitological Laboratory. Bibliographic information is provided in the form of author and subject listings, the latter grouped by categories of parasites (cestodes, nematodes, trematodes, etc.) hosts, diseases, etc. Through the years supplements have been prepared to keep active parasitologists informed. The usefulness of the Index-Catalogue and the National Parasitological Laboratory as tools to students (academic and research oriented) in the field of parasitology may be appreciated by those who examine an historical account and explanation of services by the late WILLARD W. BECKLUND (1969a,b). The Index-Catalogue provides the parasitologist, regardless of specific interests, a source of information which has been made available by those dedicated to its preparation. Its use is highly recommended.

GUIDE TO COMMENSAL AND PARASITE LISTINGS

	Page
PROTOZOA	438
Intestinal Protozoa	439
Blood Protozoa	442
Somatic Protozoa.....	444
HELMINTHS	444
Acanthocephala.....	444, 446
Cestoda	447
Platyhelminthes	447
Trematoda.....	454
Somatic and Encysted Helminths	455
Helminths in Blood.....	455

ARTHROPODA (External, Respiratory, and Somatic)	455
Commensals and Parasites of <i>Pan paniscus</i>	456
REFERENCES	457

PROTOZOA

a. Intestinal and Somatic Parasitic Protozoa and Commensals

- Balantidium coli* (MALMSTEN, 1857) STEIN, 1863
Balantidium minutum SCHAUDINN, 1899
Balantidium sp.
Chilomastix mesnili (WENYON, 1910) ALEXEIEFF, 1912
Dientamoeba fragilis JEPPI & DOBELL, 1918
Endolimax kueneni BRUG 1920
Endolimax nana (WENYON & O'CONNOR, 1917) BRUG, 1918
Endolimax sp.
Entamoeba chattoni SWELLENGREBEL, 1914
Entamoeba coli (GRASSI, 1879) CASAGRANDE & BARBAGALLO, 1895
Entamoeba gingivalis (GROS, 1849) BRUMPT, 1913
Entamoeba hartmanni VON PROWAZEK, 1912
Entamoeba histolytica SCHAUDINN, 1903
Entamoeba nutalli CASTELLANI, 1908
Entamoeba pitheci VON PROWAZEK, 1912
Entamoeba polecki VON PROWAZEK, 1912
Entamoeba sp.
Enteromonas hominis da FONSECA, 1915
Giardia lamblia STILES, 1915
Giardia sp.
Hexamita sp.
Iodamoeba bütschlii (VON PROWAZEK, 1912) DOBELL, 1919
Iodamoeba williamsi VON PROWAZEK, 1911
Iodamoeba sp.
Isospora sp.
Retortomanas intestinalis (WENYON & O'CONNOR, 1917) WENRICH, 1932
Retortomanas sp.
Toxoplasma sp.
Trichomonas anthropopitheci DESCHIENS, 1927
Trichomonas hominis (DAVAINE, 1860) LEUCKART, 1879
Trichomonas tenax (O. F. MÜLLER, 1773) DOBELL, 1939
Trichomonas sp.
Trogloodytella abrassarti BRUMPT & JOYEUX, 1912
Trogloodytella abrassarti acuminata REICHENOW, 1917
Trogloodytella sp.

b. Blood Parasites

- Plasmodium (Laverania) falciparum* (WELCH, 1897)
Plasmodium (Laverania) reichenowi SLUITER, SWELLENGREBEL, & IHLE, 1922
Plasmodium kochi (LAVERAN, 1899)
Plasmodium (Plasmodium) malariae (GRASSI & FELETTI, 1892)
Plasmodium (Plasmodium) ovale STEPHENS, 1922
Plasmodium (Plasmodium) schwetzi BRUMPT, 1939
Plasmodium (Plasmodium) vivax (GRASSI & FELETTI, 1890)
Plasmodium rodhaini BRUMPT, 1939

Theileria sp.

Trypanosoma brucei PLIMMER & BRADFORD, 1899

Trypanosoma gambiense DUTTON, 1902

?*Trypanosoma lewisi* var. *primatum* REICHENOW, 1917

Trypanosoma rhodesiense STEPHENS & FANTHAM, 1910

Trypanosoma sp.

INTESTINAL PROTOZOA

Class: Zoomastigophorea

Family: Bodonidae

Retortamonas GRASSI, 1879

Retortamonas intestinalis (WENYON & O'CONNOR, 1917) WENRICH, 1932

BRAY, 1964

LEVINE, 1970*¹⁾

REWELL, 1969*

Retortamonas sp.

HEGNER, 1934a

REWELL, 1969*

Family: Tetramitidae

Enteromonas da FONSECA, 1915

Enteromonas hominis da FONSECA, 1915

BRAY, 1964

LEVINE, 1970*

REWELL, 1969*

Family: Hexamitidae

Giardia KUNTLER, 1882

Giardia lamblia STILES, 1915

KUNTZ & MYERS, 1969b

LEVINE, 1970*

RJPSTRA, 1967

Giardia sp.

HEGNER, 1933, 1934a

PORTER, 1953

REWELL, 1969*

Hexamita DUJARDIN, 1841

Hexamita sp.

HEGNER, 1934a

Family: Chilomastigidae

Chilomastix ALEXEIEFF, 1910

Chilomastix mesnili (WENYON, 1910) ALEXEIEFF, 1912

BRAY, 1964

DESCHIENS, 1926, 1927

HEGNER & CHU, 1930

KUNTZ & MYERS, 1969b

LEVINE, 1970*

MACKINNON & DIBB, 1938

REWELL, 1969*

RJPSTRA, 1967

1) An asterisk (*) is used to indicate that this author has cited an earlier study in which the parasite may have been described, discussed, or merely mentioned. It is not the original reference to the parasite.

Chilomastix sp.

REARDON & RININGER, 1968

Family: Trichomonadidae

Trichomonas DONNÉ, 1837*Trichomonas anthropopitheci* DESCHIENS, 1927

DESCHIENS, 1927

Trichomonas hominis (DAVAINE, 1860) LEUCKART, 1879

BRAY, 1964

KUNTZ & MYERS, 1969b

REWELL, 1969*

Trichomonas tenax (O. F. MÜLLER, 1773) DOBELL, 1939

BRAY, 1964

REWELL, 1969*

Trichomonas sp.

HEGNER, 1934a

PORTER, 1953

REARDON & RININGER, 1968

REWELL, 1969*

RIJSTRA, 1967

Class: Rhizopodea

Order: Amoebida

Family: Endamoebidae

Dientamoeba JEPPE & DOBELL, 1918*Dientamoeba fragilis* JEPPE & DOBELL, 1918

REWELL, 1969*

Endolimax KUENEN & SWELLENGREBEL, 1917*Endolimax kueneni* BRUG, 1920

STABLER, 1945

Endolimax nana (WENYON & O'CONNOR, 1917) BRUG, 1918

BRAY, 1964

MACKINNON & DIBB, 1938

REWELL, 1969*

RIJSTRA, 1967

Endolimax sp.

DESCHIENS, 1927

HEGNER, 1934a

HEGNER & CHU, 1930*

REWELL, 1969*

Entamoeba CASAGRANDE & BARBAGALLO, 1895*Entamoeba chattoni* SWELLENGREBEL, 1914

HUMMER et al., 1969a*

Entamoeba coli (GRASSI, 1879) CASAGRANDE & BARBAGALLO, 1895

BRAY, 1964

DESCHIENS, 1927

HEGNER, 1934a

HUMMER et al., 1969a*

KUNTZ & MYERS, 1969b

MACKINNON & DIBB, 1938

PORTER, 1953

REARDON & RININGER, 1968

REWELL, 1969*

Entamoeba gingivalis (GROS, 1849) BRUMPT, 1913

BRAY, 1964

REWELL, 1969*

Entambeba hartmanni VON PROWAZEK, 1912

RIJPSTRA, 1967

Entamoeba histolytica SCHAUDINN, 1903

BENSON et al., 1954

BRAY, 1964

DESCHIENS, 1927

FREMMING et al., 1955

HEGNER, 1934a

HEGNER & SCHUMAKER, 1928

KUNTZ & MYERS, 1969b

MACKINNON & DIBB, 1938

MILLER & BRAY, 1966

MCGAUGHEY et al., 1953

PORTER, 1953

REARDON and RININGER, 1968

REWELL, 1969*

RIJPSTRA, 1967

SULDEY, 1924

Entamoeba nutalli CASTELLANI, 1908

MELLO, 1923

Entamoeba pitheci VON PROWAZEK, 1912

MELLO, 1923

Entamoeba polecki VON PROWAZEK, 1912

KUNTZ & MYERS, 1969b

Entamoeba sp.

DESCHIENS, 1927

HUMMER et al., 1969a*

KUNTZ & MYERS, 1969b

REARDON & RININGER, 1968

Iodamoeba DOBELL, 1919

Iodamoeba bütschlii (VON PROWAZEK, 1912) DOBELL, 1919

BRAY, 1964

REWELL, 1969*

Iodamoeba williamsi VON PROWAZEK, 1911

RIJPSTRA, 1967

Iodamoeba sp.

HEGNER, 1933, 1934a

HEGNER & SCHUMAKER, 1928

REWELL, 1969*

Class: Telosporea

Order: Eimeriidea

Family: Eimeriidae

Isospora AIMÉ SCHNEIDER, 1881

Isospora sp.

RIJPSTRA, 1967

Class: Ciliatea

Balantidium CLAPARÈDE & LACHMANN, 1858

Balantidium coli (MALMSTEN, 1857) STEIN, 1862

BLAIR, 1912

BRAY, 1964

CHRISTELLER, 1922

HEGNER, 1934b

KIRBY, 1928

KNAUFF, 1935*

KUNTZ & MYERS, 1969b
 MOORMAN, 1941
 REWELL, 1969*
 RIJPSA, 1967
 SADUN et al., 1970a
 SHARMA & BOURNE, 1963, 1964a, b
 ZIEMAN, 1925

Balantidium minutum SCHAUDINN, 1899

REWELL, 1969*

Balantidium sp.

ATCHLEY, 1934
 BENSON et al., 1954
 HEGNER, 1933, 1934b
 LEFROU & MICHARD, 1957
 NELSON, 1932a, b, 1934, 1935
 PORTER, 1953
 REWELL, 1969*
 THOMSON, 1929

Order: Oligotrichida

Troglodytella BRUMPT and JOYEUX, 1912

Troglodytella abrassarti BRUMPT & JOYEUX, 1912

BRAY, 1964
 BRUMPT & JOYEUX, 1912
 CURASSON, 1929
 HEGNER, 1934a
 HUMMER et al., 1969a*
 KIRBY, 1928
 KUNTZ & MYERS, 1969b
 NELSON, 1932a, b, 1934
 REICHENOW, 1917, 1920b
 REWELL, 1969*
 SWEZEY, 1932, 1934, 1935

Troglodytella abrassarti acuminata REICHENOW, 1917

HEGNER, 1934a
 RIJPSA, 1967

Troglodytella sp.

HEGNER, 1934a
 LEFROU & MICHARD, 1957
 NELSON, 1932a, b
 REWELL, 1969*

BLOOD PROTOZOA

Class: Zoomastigophorea

Family: Trypanosomatidae

Trypanosoma GRUBY, 1843

Trypanosoma brucei PLIMMER & BRADFORD, 1899

BAKER, 1962, 1968, 1970 (Experimental)
 DUKE, 1924a, b
 GODFREY & KILLICK-KENDRICK, 1967

Trypanosoma gambiense DUTTON, 1902

GODFREY & KILLICK-KENDRICK, 1967
 LUCASSE, 1964
 THOMAS & LINTON, 1904

Trypanosoma lewisi var. *primatum* REICHENOW, 1917

BRAY, 1964

REICHENOW, 1917

Trypanosoma rhodesiense STEPHENS & FANTHAM, 1910

BAKER, 1962, 1968, 1970 (Experimental)

GODFREY & KILLICK-KENDRICK, 1967

Trypanosoma sp.

DUKE, 1924a, b (Experimental)

HEGNER, 1928*

ZIEMANN, 1902

Class: Telosporea

Family: Plasmodiidae

Plasmodium MARCHIAFAVA & CELLI, 1885

Plasmodium (Laverania) falciparum (WELCH, 1897)

BRAY, 1960a (Experimental)

BRAY et al., 1959a, (Experimental)

BRUCE-CHWATT et al., 1970 (Experimental)

CORRADETTI, 1963 (Experimental)

FOGEL et al., 1966 (Experimental)

HICKMAN, 1969 (Experimental)

HICKMAN et al., 1966 (Experimental)

RODHAIN & JARDIN, 1964 (Experimental)

RODHAIN & MUYLLE, 1939b (Experimental)

RUDZINSKA, 1965 (Experimental)

SADUN & GORE, 1968 (Experimental)

SADUN et al., 1966 (Experimental)

Plasmodium falciparum forms

ADLER, 1923

BLACKLOCK & ADLER, 1922b

LEFROU & MARTIGNOLES, 1954

REICHENOW, 1920b

Plasmodium kochi (LAVERAN, 1899)

LUEHE, 1900

MESNIL & ROUBAUD, 1917 (Experimental)

Plasmodium (Laverania) reichenowi SLUITER, SWELLENGREBEL & IHLE, 1920

BLACKLOCK & ADLER, 1922b, 1924*

BRAY, 1957a, b, 1958a, 1959a, b, 1963a*, 1964*, 1969*

BRAY & GUNDERS, 1962, 1963b (Experimental)

CONTACOS & COATNEY, 1963

GARNHAM, 1966*

GARNHAM et al, 1956

HELD, 1969

PEEL & RODHAIN, 1946b

REICHENOW, 1920a

RODHAIN, 1939a, b

RODHAIN & LASSMAN, 1944

SCHWETZ, 1934

SLUITER et al., 1922

Plasmodium (Plasmodium) malariae (GRASSI & FELETTI, 1892)

BRAY, 1959b, 1960b (Experimental), 1963a, b, * 1964*, 1969*

BRAY et al., 1963a (Experimental)

BRUCE-CHWATT, 1965*, 1968*

DESCHIENS & BENEX, 1966 (Experimental)

GARNHAM, 1966* (Experimental)

- HICKMAN, 1969 (Experimental)
 LUPASCU et al., 1967
 REICHENOW, 1920a, b
 RODHAIN, 1940, 1948 (Experimental)
 RODHAIN & DELLAERT, 1943
Plasmodium (Plasmodium) ovale STEPHENS, 1922
 BRAY, 1957c, 1959b, 1967, 1969* (Experimental)
 BRAY et al., 1963a (Experimental)
 GARNHAM, 1966*
 RUDZINSKA, 1965 (Experimental)
Plasmodium (Plasmodium) schwetzi BRUMPT, 1939
 BLACKLOCK & ADLER, 1922b, 1924
 BRAY 1958b, c, 1959b, 1963a, 1964*, 1965, 1969*
 BRUMPT, 1939*
 CONTACOS & COATNEY, 1963
 CONTACOS et al., 1970
 COLLINS et al., 1969
 GARNHAM, 1966*
 HELD, 1969
 REICHENOW, 1920a
 RODHAIN, 1939a, b, 1955a, 1956a, b
 RODHAIN & DELLAERT, 1955a, b (arthropod vector) (Experimental)
 RODHAIN & LASSMAN, 1940a, b (arthropod vector), 1944 (Experimental)
 RODHAIN & MUYLLE, 1939a
 RUDZINSKA, 1965 (Experimental)
 SCHWETZ, 1934
Plasmodium (Plasmodium) vivax (GRASSI & FELETTI, 1890)
 BRAY, 1957d, 1958c, 1965
 BRUCE-CHWATT et al., 1970
 GARNHAM et al., 1955
 MESNIL & ROUBAUD, 1917, 1920 (Experimental)
 RODHAIN 1939a, 1956b (Experimental)
Plasmodium rodhaini BRUMPT, 1939
 GEIMAN, 1964*
 RODHAIN, 1940
 Family: Babesiidae
Theileria BETTENCOURT, FRANÇA, & BORGES
 BRAY & GARNHAM, 1961 (Experimental - Splenectomized)
 GARNHAM & BRAY, 1959 (Experimental - Splenectomized)

SOMATIC PROTOZOA

- Class: Toxoplasmea BIOCCA, 1957
Toxoplasma NICOLLE & MANCEAUX, 1909
 VON HIGENFELD, 1965
 JACOBS, 1956
 KOPCIOWSKA & NICOLAU, 1938

HELMINTHS

Acanthocephala

- Moniliformis moniliformis* (BREMSER in RUD., 1819) TRAVASSOS, 1915
Moniliformis sp.

Prosthenorchis spirula (OLFERS in RUD., 1819) TRAVASSOS, 1915

Cestoda

Bertiella mucronata (MEYNER, 1895) STILES & HASSALL, 1902

Bertiella studeri (BLANCHARD, 1891) STILES & HASSALL, 1902

Bertiella sp.

Taenia - *Cysticercus*

Nematoda

Ancylostoma duodenale (DUBINI, 1843) CREPLIN, 1845

Ancylostoma sp.

Ascaris lumbricoides LINNAEUS, 1758

Ascaris sp.

Buckleyenterobius sp.

Capillaria hepatica (BANCROFT, 1893) TRAVASSOS, 1915

Capillaria sp.

Chitwoodspirura serrata (VON LINSTOW, 1907) CHABAUD, 1958

Chitwoodspirura sp.

Dipetalonema perstans (MANSON, 1892)

Dipetalonema rodhaini PEEL & CHARDOME, 1947

Dipetalonema streptocerca (MACFIE & CORSON, 1927) PEEL & CHARDOME, 1946 (pro parte)

Dipetalonema vanhoofi PEEL & CHARDOME, 1946

Dipetalonema sp.

Dirofilaria immitis (LEIDY, 1856)

Dirofilaria sp.

Enterobius anthropopitheci (GEDOELST, 1916)

Enterobius bipapillatus (GEDOELST, 1916)

Enterobius foecundus (VON LINSTOW, 1879)

Enterobius vermicularis (LINNAEUS, 1758)

Enterobius vermicularis microbulbus

Enterobius sp.

Filaria perstans MANSON, 1891

Filaria primana LEIDY, 1891

Filaria transversata VON LINSTOW, 1907

Filaria sp.

Hookworm

Hyostrongylus sp.

Libyostrongylus sp.

Loa loa (GUYOT, 1778) STILES, 1905

Microfilaria binucleata PEEL & CHARDOME, 1946

Microfilaria perstans PEEL & CHARDOME, 1946

Microfilaria rodhaini PEEL & CHARDOME, 1946

Microfilaria streptocerca MACFIE & CORSON, 1922

Necator africanus LOOSS, 1911

Necator americanus (STILES, 1902) STILES, 1903

Necator congolensis GEDOELST, 1916

Necator exilidens LOOSS, 1912

Necator sp.

Nematodirus weinbergi RAILLIET & HENRY, 1909

Nematodirus sp.

Oesophagostomum apiostomum (WILLACH, 1891) RAILLIET & HENRY, 1905

Oesophagostomum bifurcum (CREPLIN, 1849) RAILLIET & HENRY, 1912

Oesophagostomum blanchardi RAILLIET & HENRY, 1912

Oesophagostomum brumpti RAILLIET & HENRY, 1905

- Oesophagostomum dentigerum* RAILLIET & HENRY, 1906
Oesophagostomum polydentatum (SCHEIDEGGER & KREIS, 1934)
Oesophagostomum stephanostomum STOSSICH, 1904
Oesophagostomum sp.
Onchocerca volvulus (LEUCKART, 1893) RAILLIET & HENRY, 1910
Oxyuris sp.
Parascaris lumbricoides
Paraloe anthropopithecii RODHAIN & VAN DEN BERGHE, 1939
Paroesophagostomum polydentatum SCHEIDEGGER & KREIS, 1934
Physaloptera (-*Abbreviata*) sp.
Pithecostrongylus alatus (RAILLIET & HENRY, 1909) LIUBIMOV, 1930
Pithecostrongylus satyri LIUBIMOV, 1930
Probstmayria vesiculata
Probstmayria sp.
Setaria transversata (VON LINSTOW, 1907) RAILLIET & HENRY, 1911
Streptopharagus sp.
Strongyloides fülleborni VON LINSTOW, 1905
Strongyloides intestinalis (BAVAY, 1877)
Strongyloides stercoralis (BAVAY, 1876) STILES & HASSALL, 1902
Strongyloides sp.
Strongylus simiae
Ternidens deminutus (RAILLIET & HENRY, 1905) RAILLIET & HENRY, 1909
Ternidens sp.
Thelastoma sp.
Trichuris trichiura (LINNAEUS, 1771) STILES, 1901
Trichuris sp.
Trypanoxyuris sp.

Trematoda

- Concinnum brumpti* (RAILLIET, HENRY, & JOYEUX, 1912)
Concinnum sp.
Dicrocoelium lanceatum STILES & HASSALL, 1898
Dicrocoelium sp.
Schistosoma haematobium (BILHARZ, 1852) WEINLAND, 1858
Schistosoma japonicum KATSURADA, 1904
Schistosoma mansoni SAMBON, 1907

ACANTHOCEPHALA

Order: Giganthorhynchidea

Family: Oligacanthorhynchidae

- Prosthenorchis* TRAVASSOS, 1915
Prosthenorchis spirula (OLFERS *in* RUD., 1819) TRAVASSOS, 1915
 CHANDLER, 1953
 TAKOS & THOMAS, 1958
 VAN THEIL & BRUSS, 1945

Family: Moniliformidae

- Moniliformis* TRAVASSOS, 1915
Moniliformis moniliformis (BREMSE *in* RUD., 1819) TRAVASSOS, 1915
 BAYLIS, 1929
Moniliformis sp.
 DUNN, 1966*

CESTODA

Class: Cestoidea

Subclass: Cestoda

Order: Cyclophyllidea

Family: Anoplocephalidae

Anoplocephala BLANCHARD, 1848

DUNN, 1966*

Bertiella STILES & HASSALL, 1902*Bertiella mucronata* (MEYNER, 1895) STILES & HASSALL, 1902

CRAM, 1928

PÉREZ VIGUERAS, 1935*

Bertiella studeri (BLANCHARD, 1891) STILES & HASSALL, 1902

BLANCHARD, 1891, 1913

CHANDLER, 1925*

DE ALESSANDRO et al., 1963*

MEGGITT, 1927*

MYERS, 1972

STUNKARD, 1940*

STUNKARD et al., 1964

YAMASHITA, 1963*

Bertiella sp.

HUMMER et al., 1969*

KUNTZ & MYERS, 1969* (fecal)

PORTER, 1953

RIJPSTRA, 1967 (fecal)

SCHMID, 1937 (fecal)

Family: Taeniidae

Taenia LINNAEUS, 1758 *Cysticercus*

KUNTZ & MYERS, 1969

MYERS, 1972*

NEMATODA

Class: Aphasmidia

Family: Trichinellidae

Capillaria ZEDER, 1800*Capillaria hepatica* (BANCROFT, 1893) TRAVASSOS, 1915

SADUN et al., 1970b

YAMASHITA, 1963*

Capillaria sp.

DUNN, 1966*

TROISSIER et al., 1928a, b

YAMASHITA, 1963*

Trichuris ROEDERER, 1761*Trichuris trichiura* (LINNAEUS, 1771) STILES, 1901

LANG, 1962

SWIERSTRA et al., 1959 (fecal)

Trichuris sp.

BENSON et al., 1954

DUNN, 1966*

HAMERTON, 1933 (fecal)

JESSEE et al., 1970 (fecal)

KUNTZ & MYERS, 1969b (fecal)

MORTELMANS & VERCRUYSE, 1963 (fecal)
 PILLERS, 1924
 PORTER, 1946, 1953 (fecal)
 REARDON & RININGER, 1968 (fecal)
 VAN RIPER et al., 1966 (fecal)
 SANDGROUND, 1930
 WEINBERG, 1907

Class: Phasmodia

Order: Rhabditida

Family: Strongyloididae

Strongyloides GRASSI, 1879

Strongyloides fülleborni VON LINSTOW, 1905

CHANDLER, 1925b*

DESORTES, 1945*

VAN DURME, 1902

FAUST, 1933*

FAUST & KAGY, 1933*

VON LINSTOW, 1905

LITTLE, 1966

SULDEY, 1924

SWEZEY & ATCHLEY, 1934

WEINBERG & ROMANOVITCH, 1908

YAMASHITA, 1963*

Strongyloides intestinalis (BAVAY, 1876)

STRONG & SHATTUCK, 1930

Strongyloides stercoralis (BAVAY, 1876) STILES & HASSALL, 1902

DESORTES, 1945*

HAMAYA & NIGI, 1963

LANG, 1962

URBAIN & NOUVEL, 1944

YAMASHITA, 1963*

Strongyloides sp.

AUGUSTINE, 1940

BENSON et al., 1954

BLACKLOCK & ADLER, 1922a

DUNN, 1966*

ECKERT, 1963 (fecal)

ESSBACH, 1949

GOODEY, 1926

JESSEE et al., 1970 (fecal)

LEFROU & MICHARD, 1957

LIEBGOTT, 1962

MORTELMANS & VERCRUYSE, 1963 (fecal)

NOUVEL et al., 1968

REARDON & RININGER, 1968 (fecal)

RIIPSTRA, 1967 (fecal)

VAN RIPER et al., 1966 (fecal)

SADUN et al., 1970a

SCHMID, 1937

WEINBERG & ROMANOVITCH, 1908 (fecal)

Family: Strongylidae

Oesophagostomum MOLIN, 1861

Oesophagostomum apiostomum (WILLACH, 1891) RAILLIET & HENRY, 1905

LEIPER, 1934, 1938

- Oesophagostomum bifurcum* (CREPLIN, 1849) RAILLIET & HENRY, 1912
 JOYEUX et al., 1928
 SWIERSTRA et al., 1959 (fecal)
 TRAVASSOS & VOGELSANG, 1931, 1932
 YAMASHITA, 1963*
 ZWART, 1959
- Oesophagostomum blanchardi* RAILLIET & HENRY, 1912
 YAMASHITA, 1963*
- Oesophagostomum brumpti* RAILLIET & HENRY, 1905
 HENRY & JOYEUX, 1920
 JOYEUX et al., 1928
 SCHMID, 1937
 TRAVASSOS & VOGELSANG, 1932
- Oesophagostomum dentigerum* RAILLIET & HENRY, 1906
 RAILLIET & HENRY, 1906
 TRAVASSOS & VOGELSANG, 1932
 YAMASHITA, 1963*
- Oesophagostomum polydentatum* (SCHEIDEGGER & KREIS, 1934)
 YAMASHITA, 1963*
- Oesophagostomum stephanostomum* STOSSICH, 1904
 KUNTZ & MYERS, 1969b
 RAILLIET & HENRY, 1906
 ROUSSELOT & PELLISSIER, 1952
 SCHMID, 1937
 STRONG & SHATTUCK, 1930*
 SWIERSTRA et al., 1959 (fecal)
 TRAVASSOS & VOGELSANG, 1932
 VUYLESTKE, 1956
 YAMASHITA, 1963*
 ZWART, 1959
- Oesophagostomum* sp.
 BENSON et al., 1954
 DUNN, 1966*
 KUNTZ & MYERS, 1969b (fecal)
 MORTELMANS & VERCRUYSE, 1963 (fecal)
 PORTER, 1946, 1953 (fecal)
 REARDON & RININGER, 1970 (fecal)
 VON RIPER et al., 1966 (fecal)
 WEINBERG, 1906a, b, 1907, 1909
- Paroesophagostomum* SCHEIDEGGER & KREIS, 1934
Paroesophagostomum polydentatum SCHEIDEGGER & KREIS, 1934
 SCHEIDEGGER & KREIS, 1934
 YAMASHITA, 1963*
- Strongylus* MUELLER, 1780
Strongylus simiae
 DUNN, 1966*
 YAMASHITA, 1963*
- Ternidens* RAILLIET & HENRY, 1909
Ternidens deminutus (RAILLIET & HENRY, 1905) RAILLIET & HENRY, 1909
 SCHMID, 1937
 YAMASHITA, 1963*
- Ternidens* sp.
 AMBERSON & SCHWARZ, 1952
 DUNN, 1966*

SCHMID, 1937

Family: Ancylostomatidae

Ancylostoma (DUBINI, 1843) CREPLIN, 1845

Ancylostoma duodenale (DUBINI, 1843) CREPLIN, 1845

YAMASHITA, 1963*

Ancylostoma sp.

BENSON et al., 1954

DUNN, 1966*

MILLER, 1968 (Experimental)

MORTELMANS & VERCRUYSE, 1963a

THIENPONT et al., 1967

Hookworm

Anonymous, 1903

ECKERT, 1963 (fecal)

FREMMING et al., 1955 (fecal)

HAMERTON, 1933 (fecal)

KUNTZ & MYERS, 1969b (fecal)

RIJPSTRA, 1967 (fecal)

Necator STILES, 1903

Necator africanus LOOSS, 1911

LOOSS, 1911

YAMASHITA, 1963*

Necator americanus (STILES, 1902) STILES, 1903

HAMERTON, 1933

HUMMER et al., 1969a, b

KUNTZ & MYERS, 1969b

VON LINSTOW, 1903

ORIHÉL, 1970

RIOPELLE & DAUMY, 1962

STAM, 1960

STRONG & SHATTUCK, 1930*

Necator congolensis GEDOELST, 1916

HAMERTON, 1933

STAM, 1960

YAMASHITA, 1963*

Necator exilidens LOOSS, 1912

HAMERTON, 1933

Necator sp.

DUNN, 1966*

PORTER, 1946, 1953 (fecal)

SCHMID, 1937

Family: Trichostrongylidae

Hyostrongylus HALL, 1921

Hyostrongylus sp.

MILL, 1930

Libyostrongylus LANE, 1923

Libyostrongylus sp.

DUNN, 1966*

Nematodirus RANSOM, 1907

Nematodirus weinbergi RAILLIET & HENRY, 1909

PORTER, 1953*

RAILLIET & HENRY, 1909, 1912*

TRAVASSOS, 1937*

YAMASHITA, 1963*

- Nematodirus* sp.
 DUNN, 1966*
 PORTER, 1953 (fecal)
- Pithecostrongylus* LIUBIMOV, 1930
Pithecostrongylus alatus (RAILLIET & HENRY, 1909) LIUBIMOV, 1930
 YAMASHITA, 1963*
Pithecostrongylus satyri LIUBIMOV, 1930
 LIUBIMOV, 1931
 YAMASHITA, 1963*
- Trichostrongylus* LOOSS, 1905
Trichostrongylus colubriformis (GILES, 1892) LOOSS, 1905
 YAMASHITA, 1963*
Trichostrongylus sp.
 KUNTZ & MYERS, 1969b (fecal)
 RIJPSRA, 1967 (fecal)
- Family: Oxyuridae
Buckleyenterobius SANDOSHAM, 1950
Buckleyenterobius sp.
 KUNTZ & MYERS, 1969b
- Enterobius* LEACH in BAIRD, 1853
Enterobius anthropopithecii (GEDOELST, 1916)
 CAMERON, 1929*
 GEDOELST, 1916
 KUNTZ & MYERS, 1969b
 REARDON & RININGER, 1968
 REINISCH, 1940
 SANDOSHAM, 1950
 TROISIER & DESCHIENS, 1930
- Enterobius bipapillatus* (GEDOELST, 1916)
 GEDOELST, 1916
 SCHEIDEGGER & KREIS, 1934
 YAMASHITA, 1963*
- Enterobius foecundus* (VON LINSTOW, 1879)
 VON LINSTOW, 1879
 YAMASHITA, 1963*
- Enterobius vermicularis* (LINNAEUS, 1758)
 CHRISTENSEN, 1964
 REWELL, 1948
 SANDOSHAM, 1950
 SWIERSTRA et al., 1959 (fecal)
 TEUSCHER & STÜNZI, 1956 (fecal)
 YAMASHITA, 1963*
- Enterobius vermicularis microbulbus*
 YAMASHITA, 1963*
 YAMASHITA & KONNO, 1957
- Enterobius* sp.
 DUMAS, 1953*
 DUNN, 1966*
 KUNTZ & MYERS, 1969b (fecal)
 MOORMAN, 1941
 PORTER, 1946, 1953 (fecal)
 REARDON & RININGER, 1968 (fecal)
 RIJPSRA, 1967 (fecal)
- Oxyuris*

- Oxyuris* sp.
 PILLERS, 1924
 SADUN et al., 1970b
- Probstmayria* RANSOM, 1907
Probstmayria vesiculata
 VUYLSTKE, 1956
- Probstmayria* sp.
 DUNN, 1966
- Thelastoma* LEIDY, 1849
Thelastoma sp.
 REINISCH, 1940
- Trypanoxyuris* VEVERS, 1923
Trypanoxyuris sp.
 KUNTZ & MYERS, 1969b
- Family: Ascarididae
- Ascaris* LINNAEUS, 1758
Ascaris lumbricoides LINNAEUS, 1758
 AUGUSTINE, 1939
 HAMAYA & NIGI, 1963
 ORIHIL, 1970
 PILLERS, 1924
 RAILLIET & HENRY, 1906
 REARDON & RININGER, 1968
 RIOPELLE & DAUMY, 1962
 SHIPLEY, 1905
 STAM, 1960
 THORNTON, 1924
- Ascaris* sp.
 BENSON et al., 1954
 DUNN, 1966*
 HAMERTON, 1933 (fecal)
 HUMMER et al., 1969a*
 KUNTZ & MYERS, 1969b
 MORTELMANS & VERCRUYSE, 1963 (fecal)
 REICHENOW, 1917
 RIJPSTRA, 1967 (fecal)
- Parascaris* YORKE & MAPLESTONE, 1926
 ?*Parascaris lumbricoides*
 PRUSKI & KORDA, 1958
 YAMASHITA, 1968
- Order: Spirurida
- Family: Spiruridae
- Chitwoodspirura* CHABAUD & ROUSSELOT, 1956
Chitwoodspirura serrata (VON LINSTOW, 1907) CHABAUD, 1958
 VON LINSTOW, 1907
 YAMASHITA, 1963*
- Chitwoodspirura* sp.
 DUNN, 1966*
- Streptoharagus* BLANC, 1912
Streptoharagus sp.
 CHITWOOD, 1970
 JESSEE et al., 1970
- Family: Physalopteridae
- Physaloptera* RUD., 1819

Physaloptera sp.

MYERS (unpublished)

Family: Dipetalonematidae

Dipetalonema DIESING, 1861*Dipetalonema perstans* (MANSON, 1891)

YAMASHITA, 1963*

ZIEMANN, 1902

Dipetalonema rodhaini PEEL & CHARDOME, 1947

PEEL & CHARDOME, 1946a

WEBBER, 1955

YAMASHITA, 1963*

Dipetalonema streptocerca (MACFIE & CORSON, 1927) PEEL & CHARDOME, 1946

VAN DEN BERGHE et al., 1964

PEEL & CHARDOME, 1946a, b

YAMASHITA, 1963*

Dipetalonema vanhoofi PEEL & CHARDOME, 1946

VAN DEN BERGHE et al., 1964

CHABAUD, 1952*

CHABAUD & ROUSSELOT, 1956*

PEEL & CHARDOME, 1946a, b

RODHAIN, 1950, 1955b

ROUSSELOT, R., 1955b*

YAMASHITA, 1963*

Dipetalonema sp.

DUNN, 1966*

Dirofilaria RAILLIET & HENRY, 1911? *Dirofilaria immitis* (LEIDY, 1856)

YAMASHITA, 1963*

Dirofilaria sp.

DUNN, 1966*

Filaria MUELLER, 1879*Filaria perstans* MANSON, 1891

RODENWALDT, 1908

Filaria primana LEIDY, 1891

WEBBER, 1955

Filaria transversata VON LINSTOW, 1907

VON LINSTOW, 1907

WEBBER, 1955

Filaria sp.

GRIGOROWA & NESTURKH, 1930, 1931

Loa STILES, 1905? *Loa loa* (GUYOT, 1778) STILES, 1905

DUNN, 1966*

YAMASHITA, 1963*

*Microfilaria**Microfilaria binucleata* PEEL & CHARDOME, 1946

VAN DEN BERGHE et al., 1964

PEEL & CHARDOME, 1946b

YAMASHITA, 1963*

Microfilaria perstans PEEL & CHARDOME, 1946

GRIGOROWA & NESTURKH, 1930, 1931

PEEL & CHARDOME, 1946a, b

REICHENOW, 1917

TORRES, 1931

- YAMASHITA, 1963*
- Microfilaria rodhaini* PEEL & CHARDOME, 1946
PEEL & CHARDOME, 1946a, b
RODHAINI, 1946
- Microfilaria streptocerca* PEEL & CHARDOME, 1946
PEEL & CHARDOME, 1946b
RODHAINI, 1946
- Onchocera* DIESING, 1841
- Onchocerca volvulus* (LEUCKART, 1893) RAILLIET & HENRY, 1910
DUKE, 1962, 1968 (Experimental)
DUKE et al., 1967 (Experimental)
NEUMANN et al., 1964
- Paraloe* RODHAIN & VAN DEN BERGHE, 1939
- Paraloe anthropitheci* RODHAIN & VAN DEN BERGHE, 1939
RODHAIN & VAN DEN BERGHE, 1939
- ?*Setaria transversata* (VON LINSTOW, 1907) RAILLIET & HENRY, 1911
DUNN, 1966*
YAMASHITA, 1963*

PLATYHELMINTHES

Class: Trematoda

Subclass: Digenea

Family: Dicrocoeliidae

Concinnum BHALERAO, 1936

Concinnum brumpti (RAILLIET, HENRY, & JOYEUX, 1912)

COSGROVE, 1966*

DOLLFUS, 1955*

KUNTZ, 1972

NICOLL, 1927*

RAILLIET et al., 1912

STUNKARD & GOSS, 1950

Concinnum sp.

DUNN, 1966*

Dicrocoelium DUJARDIN, 1845

Dicrocoelium lanceatum STILES & HASSALL, 1898

VAN DEN BERGHE & DENECKE, 1938

COSGROVE, 1966*

KUNTZ, 1972

Dicrocoelium sp.

DUNN, 1966*

Family: Schistosomatidae

Schistosoma WEINLAND, 1858

Schistosoma haematobium (BILHARZ, 1852) WEINLAND, 1858

DE PAOLI, 1965

ERICKSON et al., 1971*

KUNTZ, 1972*

KUNTZ et al., 1971

SADUN & GORE, 1970 (Experimental)

SADUN et al., 1970b (Experimental)

VOGEL, 1967 (Experimental)

Schistosoma japonicum KATSURADA, 1904

Hsü & Hsü, 1968a, b, 1969 (Experimental)

Schistosoma mansoni SAMBON, 1907

Hsü & Hsü, 1968a
 KUNTZ, 1972*
 VON LICHTENBERG & SADUN, 1968 (Experimental)
 RIJPSMA, 1967
 SADUN et al., 1966, 1970a (Experimental)
 SADUN & GORE, 1970

SOMATIC AND ENCYSTED HELMINTHS

Somatic Cestodes

(See Cestode-Taeniidae)

Somatic Nematodes

(See Nematode-Dipetalonematidae)

HELMINTHS IN BLOOD

(See Somatic and Encysted Helminths)

ARTHROPODS

a. External

Pangotillalges pani FAIN, 1962
Pediculus schaeffi FAHRENHOLZ, 1910
Pediculus simiae EWING, 1932
Pediculus sp.
Pthirus pubis LINNEAUS
Sarcoptes sp.

b. Respiratory

Pneumonyssus duttoni NEWSTEAD & TODD, 1906
Pneumonyssus longus FAIN
Pneumonyssus oudemansi BÖHM & SUPPERER
Pneumonyssus pangorella

c. Somatic

Armillifer armillatus (WYMAN, 1845) (Larval Stage)
Pentastoma (Larval Stage)
Porocephalus sp. (Larval Stage)

Class: Arachnida

Order: Acari

Family: Sarcoptidae

Sarcoptes LATREILLE, 1802
 PILLERS, 1921

Family: Psoroptidae

Pangorillalges FAIN, 1962
Pangorillalges pani FAIN, 1962
 FAIN, 1962, 1963*

Family: Halarachinidae

Pneumonyssus longus FAIN, 1957
 FAIN, 1957, 1959, 1961
 FAIN et al., 1958*
 HULL, 1970
 ZUMPT, 1961

Pneumonyssus oudemansi BÖHM & SUPPERER

BÖHM & SUPPERER, 1955

FAIN, 1957, 1959

FAIN et al., 1958*

HULL, 1970

Pneumonyssus pangorella

FAIN, 1957, 1959

Class: Pentastomida

Family: Porocephalidae

Armillifer SAMBON, 1922*Armillifer armillatus* (WYMAN, 1845) SAMBON, 1922 (larval stage)

HEYMONS, 1935

HEYMONS & VITZTHUM, 1935

SAMBON, 1922

WEINBERG, 1906c

ZUMPT, 1961

Porocephalus HUMBOLDT, 1811*Porocephalus* sp. (larval stage)

HEYMONS, 1935

WEINBERG, 1906c

Pentastoma (larval stage)

SADUN et al., 1970a

Class: Insecta

Order: Anoplura

Family: Pediculidae

*Pediculus**Pediculus schaeffi* FAHRENHOLZ, 1910

BENOIT, 1961*

VAN EYNDHOVEN, 1955

FAHRENHOLZ, 1910a, b, 1912, 1941

FERRIS, 1916, 1935*

FERRIS & STOJANOVICH, 1951*

FREUND, 1926a, b

KIM & EMERSON, 1968

KUHN, 1967*

Pediculus simiae EWING, 1932

EWING, 1932, 1933*

JOHNSON, 1958

Pediculus sp.

KELLOGG, 1913

KUHN & LUDWIG, 1967a, b, 1968

Pthirus pubis LINNAEUS, 1758

BEDFORD, 1936*

FAHRENHOLZ, 1941

COMMENSALS AND PARASITES OF PAN PANISCUS

Intestinal helminths

Ascaris lumbricoides LINNAEUS, 1758

STAM, 1960 (fecal)

Necator americanus (STILES, 1902) STILES, 1903

STAM, 1960 (fecal)

Somatic/Blood helminths

Dipetalonema rodhaini PEEL & CHARDOME, 1947

WEBBER, 1955

- Dipetalonema streptocerca* PEEL & CHARDOME, 1946
PEEL & CHARDOME, 1946a, b, 1947
Dipetalonema vanhoofi PEEL & CHARDOME, 1946
PEEL & CHARDOME, 1946a, b, 1947
Microfilaria streptocara PEEL & CHARDOME, 1946
PEEL & CHARDOME, 1946a, b, 1947

Arthropods

External

- Pediculus shaeffi* FAHRENHOLZ, 1910
BENOIT, 1961
Sarcoptes scabiei
FAIN, 1963

Somatic

- Pangorillalges pani* FAIN, 1962
FAIN, 1963
Pneumonyssus duttoni NEWSTEAD & TODD
FAIN, 1957
Pneumonyssus longus FAIN
FAIN, 1959
ZUMPT, 1961
Pneumonyssus oudemansi BÖHM & SUPPERER
FAIN, 1957

REFERENCES

In presenting the references we have followed the form and listings as given in the Index Catalogue of Medical and Veterinary Zoology. The sequence of parts, sections, volumes, although inconsistent with current practices for some journals and publications, have been given as listed. The Index Catalogue of Medical and Veterinary Zoology (United States Department of Agriculture) Parts 1 through 18 inclusive is available through the United States Government Printing Office-Superintendent of Documents, Washington, D. C. The abbreviations enclosed in parentheses following the reference indicates the libraries from which the publications may be obtained.

Abbreviations for Libraries:

- (Baw) — Baltimore, Md. William H. Welch Medical Library. (Johns Hopkins University School of Medicine and School of Hygiene and Public Health)
(Im) — Ithaca, New York, Cornell University, New York State College of Agriculture, Albert R. Mann Library
(Lib. Doss) — Library of Miss MILDRED A. DOSS, Animal Disease and Parasite Research Division, Beltsville, Maryland
(Lib. McIntosh) — Library of Dr. ALLEN McINTOSH, Animal Disease and Parasite Research Division, Beltsville, Maryland
(Lib. Zool. Div.) — Library of the Zoological Division, United States Bureau of Animal Industry, Washington, D. C.
(Wa) — (Ransom Coll.) Washington, D. C. United States Department of Agriculture Library. Collection of the library of the late BRAYTON HOWARD RANSOM. (Reprints from this collection are filed in Lib. Animal Parasite Lab.)
(Wc) — Washington, D. C., Library of Congress
(Wg) — Washington, D. C. United States Geological Survey Library, Department of the Interior
(Wm) — Washington, D. C. National Library of Medicine. Formerly Army Medical Library
(Ws) — Washington, D. C. Smithsonian Institution Library

- ADLER, S., 1923. Malaria in chimpanzees in Sierra Leone. *Ann. Trop. Med. & Parasitol.*, 17(1):13-18. (Wa, Wm)
- AMBERSON, J. M. & E. SCHWARZ, 1952. *Ternidens deminutus* RAILLIET and HENRY, a parasite of man and primates. *Ann. Trop. Med. & Parasitol.*, 46(3):227-237. (Wa)
- Anonymous, 1930. The American hookworm in chimpanzees. *Am. Med.*, 6:611.
- ATCHLEY, F. O., 1934. *Balantidium* of the chimpanzee in a white rat. *Proc. Helminth. Soc. Washington*, 1:23. (Wa)
- AUGUSTINE, D. L., 1939. Observations on some ascarids from a chimpanzee (*Pan troglodytes*) with experimental studies on the susceptibility of monkeys (*Macaca mulatta*) to infection with the human and pig *Ascaris*. *Am. J. Hyg.*, 30(1) Sect. D., 29-33. (Wa)
- , 1940. Experimental studies on the validity of species in the genus *Strongyloides*. *Am. J. Hyg.*, 32(1) Sect. D., 24-32. (Wa)
- BAKER, J. R., 1962. Infection of the chimpanzee (*Pan troglodytes verus*) with *Trypanosoma rhodesiense* and *T. brucei*. *Ann. Trop. Med. & Parasitol.*, 56(2):216-217. (Wa)
- , 1968. Experimental infections with *Trypanosoma brucei* and *T. rhodesiense* in chimpanzees. *Tr. Roy. Trop. Med. & Hyg.*, 62(1):138.
- , 1970. Lesions in central nervous system of a chimpanzee infected with *Trypanosoma rhodesiense*. *Tr. Roy. Soc. Trop. Med. & Hyg.*, 64(1):14.
- BAYLIS, H. A., 1929. *A Manual of Helminthology, Medical and Veterinary*, William Wood, London, 303 pp. (Wa)
- BEDFORD, G. A. H., 1936. A synoptic check-list and host-list of the ectoparasites found on South African mammalia, aves, and reptiles. Supplement No. 1. *Onderspoort J. Vet. Sc. & Animal Indust.*, 7(1):69-110. (Wa)
- BECKLUND, W. W., 1969a. The Index Catalogue of Medical and Veterinary Zoology at the Beltsville Parasitological Laboratory. *J. Parasitol.*, 55:381-385.
- , 1969b. The national parasite collection at the Beltsville Parasitological Laboratory. *J. Parasitol.*, 55:372-375.
- BENOIT, P. L. G., 1961. Anaploures du Centre Africain. *Rev. Zool. et Botan. Africaines*, 63(3-4):231-241. (Wa)
- BENSON, R. E., D. B. FREMMING, & R. J. YOUNG, 1954. Care and management of chimpanzees at the radiological laboratory of the University of Texas and the United States Air Force. *Proc. 5. Ann. Meet. Animal Care Panel*, pp. 27-36. (Wm)
- VAN DEN BERGHE, L., M. CHARDOME, & E. PEEL, 1964. The filarial parasites of the eastern gorilla in the Congo. *J. Helminth.*, 38(3-4):349-368. (Wa)
- & K. DENECKE, 1938. *Dicrocoelium dendriticum* (*Fasciola lanceolata*) chez l'homme et les singes au Congo belge. *Ann. Soc. Belge Méd. Trop.*, 18(3):509-514 (Wa)
- BLACKLOCK, B. & S. ADLER, 1922a. The pathological effects produced by *Strongyloides* in a chimpanzee. *Ann. Trop. Med. & Parasitol.*, 16(3):283-290. (Wa, Wm)
- & ———, 1922b. A parasite resembling *Plasmodium falciparum* in a chimpanzee. *Ann. Trop. Med. & Parasitol.*, 16(1):99-106. (Wa, Wm)
- & ———, 1924. A malaria parasite of the chimpanzee. *Ann. Trop. Med. & Parasitol.*, 18(1):1-2. (Wa)
- BLAIR, W. R., 1912. Some common affections of the respiratory and digestive organs among primates. *Zoologica N. Y.*, 1:175-186.
- BLANCHARD, R. A. E., 1891. Sur les helminthes des primates anthropoïdes. (Première Note—Cestodes). *Mém. Soc. Zool. France*, 4(1-2):186-196. (Wa, Ws)
- BLANCHARD, R., 1913. *Bertiella satyri* de l'orang-outang, est aussi parasite de l'homme. *Bull Acad. Méd. Paris an.*, 77, 3 s 69(14):286-296. (Wm)
- BÖHM, L. K. & R. SUPPERER, 1955. Zwei neue Lungenmilben aus Menschenaffen, *Pneumonyssus oudemansi* und *Pneumonyssus vitzhumi* (Acarina, Halarachnidae). *Oesterr. Zool. Ztschr.*, 6(1-2):11-29. (Wa)
- BOURNE, G. H. (Ed.), 1970a. *The Chimpanzee. Vol. 1. Anatomy, Behavior, and Diseases of Chimpanzees*. University Park Press, Baltimore, 478 pp.

- (Ed.), 1970b. *The Chimpanzee. Vol. 2. Physiology, Behavior, Serology, and Diseases of Chimpanzees*. University Park Press, Baltimore, 427 pp.
- (Ed.), 1970c. *The Chimpanzee. Vol. 3, Immunology, Infections, Hormones, Anatomy, and Behavior of Chimpanzees*. University Park Press, Baltimore, 412 pp.
- (Ed.) (in press). *The Chimpanzee. Vol. 4. Behavior, Growth, and Pathology of Chimpanzees*. University Park Press, Baltimore, 450 pp.
- (Ed.) (in press). *The Chimpanzee. Vol. 5. Anatomy, Microanatomy, Reproduction, and Restraint of Chimpanzees*. University Park Press, Baltimore, 470 pp.
- BRAY, R. S., 1957a. Studies on malaria in chimpanzees. I. The erythrocytic forms of *Plasmodium reichenowi*. *J. Parasitol.*, 42(6):588–592. (Wa)
- , 1957b. Studies on malaria in chimpanzees. III. Gametogony of *Plasmodium reichenowi*. *Ann. Soc. Belge Méd. Trop.*, 37(2):169–174. (Wm)
- BRAY, R. S., 1957c. Studies on malaria in chimpanzees. IV. *Plasmodium ovale*. *Am. J. Trop. Med. & Hyg.*, 6:638–645. (Wa)
- , 1957d. Studies on malaria in chimpanzees. II. *Plasmodium vivax*. (Symposium on helminthic infections as the cause of disability and disease.) *Am. J. Trop. Med. & Hyg.*, 6(3):514–520. (Wa)
- , 1958a. Studies on malaria in chimpanzees. VI. *Laverania falciparum*. *Am. J. Trop. Med. & Hyg.*, 7(1):20–24. (Wa)
- , 1958b. Studies on malaria in chimpanzees. V. The sporogonous cycle and mosquito transmission of *Plasmodium vivax schwetzi*. *J. Parasitol.*, 44(1):46–51. (Wa)
- , 1958c. The susceptibility of Liberians to the Madagascar strain of *Plasmodium vivax*. *J. Parasitol.*, 44(4):371–373. (Wa)
- , 1959a. Some observations on the genus *Laverania*. *Ann. Rep. Research Activities Liberian Inst. Am. Foundation Trop. Med.*, (1958) p. 15.
- , 1959b. Studies on malaria in chimpanzees. VII. The use of the chimpanzee in medical research. *Proc. 6. Int. Congr. Trop. Med. & Malar.*, 7:82–85.
- , 1960a. Observations on the cytology and morphology of the mammalian malaria parasites. I. A process of apparent plasmotomy in the pre-erythrocytic phase of *Laverania falciparum*. *Riv. Parassitol.*, 21(4):267–276. (Wa)
- , 1960b. Studies on malaria in chimpanzees. VIII. The experimental transmission and pre-erythrocytic phase of *Plasmodium malariae*, with a note on the host-range of the parasite. *Am. J. Trop. Med. & Hyg.*, 9(4):455–465. (Wa)
- , 1963a. Malaria infections in primates and their importance to man. *Ergebn. Mikrobiologie Immunitäts Forschung Exp. Therap.*, 36:168–213.
- , 1963b. The malaria parasites of anthropoid apes. *J. Parasitol.*, 49(6):888–891. (Wa)
- , 1964. A checklist of the parasitic protozoa of West Africa with some notes on their classification. *Bull. Inst. Fr. Afr. Noire*, 26(1):238–315.
- , 1965. Malaria, monkeys and man. *Advancement Sc.*, 22(95):25–28. (Wa)
- , 1967. The origin of relapses in human and simian malaria infections. *J. Faculty Med.*, (9) 1:1–6.
- , 1969. Malaria in chimpanzees. In: *The Chimpanzee, Vol. 1. Anatomy, Behavior, and Diseases of Chimpanzees*, G. H. BOURNE, (ed.), University Park Press, Baltimore, pp. 413–422.
- , R. W. BURGESS, & J. R. BAKER, 1963. Studies on malaria in chimpanzees. X. The presumed second generation of the tissue phase of *Plasmodium ovale*. *Am. J. Trop. Med. & Hyg.*, 12(1):1–12. (Wa)
- , ———, R. M. FOX, & M. J. MILLER, 1959. Effect of pyrimethamine upon sporogony and pre-erthrocytic schizogony of *Laverania falciparum*. *Bull. World Health Organ.*, 21(2): 233–238. (Wa)
- & P. C. C. GARNHAM, 1961. Failure to infect splenectomized primates with *Theileria parva*. *J. Parasitol.*, 47:538.
- & A. E. GUNDERS, 1962. Studies on malaria in chimpanzees. IX. The distribution of

- the pre-erythrocytic forms of *Laverania falcipara*. *Am. J. Trop. Med. & Hyg.*, 11(4): 437-439. (Wa)
- & ———, 1963. Studies on malaria in chimpanzees. XI. The early forms of the pre-erythrocytic phase of *Laverania falcipara*. *Am. J. Trop. Med. & Hyg.*, 12(1):13-18. (Wa)
- BRUCE-CHWATT, L. J., 1965. Paleogenesis and paleo-epidemiology of primate malaria. *Bull. World Health Organ.*, 32(3):363-387. (Wa)
- , 1968. Malaria zoonosis in relation to malaria eradication. *Trop. & Geogr. Med.*, 20(1):50-87. (Wa)
- , P. C. C. GARNHAM, P. C. SHUTE, & C. C. DRAPER, 1970. Induced double infections with *Plasmodium vivax* and *Plasmodium falciparum* in a splenectomized chimpanzee. *Tr. Roy. Soc. Trop. Med. & Hyg.* 64(1):2.
- BRUMPT, E., 1939. Les parasites du paludisme des chimpanzés. *Compt. Rend. Soc. Biol. Paris*, 130(9):837-840. (Wa)
- & CH. JOYEUX, 1912. Sur un infusoire nouveau parasite du chimpanzé *Troglodytella abrossarti* n.g. n.sp. *Bull. Soc. Path. Exot.*, 5(7):499-503. (Wa)
- CAMERON, T. W. M., 1929. The species of *Enterobius* Leach, in primates. *J. Helminth.*, 7(3):161-182. (Wa)
- CHABAUD, A. G., 1952. Le genre *Dipetalonema* DIESING 1861; essai de classification. *Ann. Parasitol.*, 27(1-3):250-285. (Wa)
- & R. ROUSSELOT, 1956. Sur quelques filaires d'Afrique équatoriale. *Ann. Parasitol.*, 31(1-2):53-98. (Wa)
- CHANDLER, A. C., 1925a. New records of *Bertiella satyri* (cestoda) in man and apes. *Parasitology*, 17(4):421-425. (Wa)
- , 1925b. The species of *Strongyloides* (nematoda). *Parasitology*, 17(4):426-433. (Wa)
- , 1953. An outbreak of *Prosthenorchis* (Acanthocephala) infection in primates in the Houston zoological garden, and a report of this parasite in *Nasua narica* in Mexico. *J. Parasitol.*, 39(3):226 (Wa)
- CHITWOOD, M. B., 1970. Comparative relationships of some parasites of man and Old and New World subhuman primates. *Lab. Animal Care*, 20(2):389-394.
- CHRISTELLER, E., 1922. Über die Balantidienruhr bei den Schimpansen des Berliner zoologischen Gartens. *Virchow's Arch. Path. Anat.*, 238 (3):396-422. (Wa)
- CHRISTENSEN, L. T., 1964. Chimp and owners share worm infestations. *Vet. Med.*, 59(8): 801-803. (Wa)
- COLLINS, W. E., T. C. ORIHEL, P. G. CONTACOS, M. H. JETER, & L. S. GELL, 1969. Some observations on the sporogonic cycle of *Plasmodium schwetzi*, *P. vivax*, and *P. ovale* in five species of *Anopheles*. *J. Protozool.*, 16(4):589-596.
- CONTACOS, P. G. & G. R. COATNEY, 1963. Experimental adaptation of simian malaras to abnormal hosts. *J. Parasitol.*, 49(6):912-918. (Wa)
- , ———, T. C. ORIHEL, W. E. COLLINS, W. CHEN, & M. H. JETER, 1970. Transmission of *Plasmodium schwetzi* from the chimpanzee to man by mosquito bite. *Am. J. Trop. Med. & Hyg.*, 19(2):190-195.
- CORRADETTI, A., 1963. Necessità di nuove basi per la distinzione di specie e ceppi in speciazione nei plasmodi degli uccelli. (English summary). *Parassitologia*, 5(1):29-38. (Wa)
- COSGROVE, G. E., 1966. The trematodes of laboratory primates. *Lab. Animal Care*, 16(1): 23-39. (Wa)
- CRAM, E. B., 1928. A species of the cestode genus *Bertiella* in man and the chimpanzee in Cuba. *Am. J. Trop. Med. & Hyg.*, 8(4):339-344. (Wa)
- CURASSON, G., 1929. *Troglodytella abrossarti* infusoire pathogène du chimpanzé. *Ann. Parasitol.*, 7(6):466-468. (Wa)
- D'ALESSANDRO, B. A., P. C. BEAVER, & R. M. PALLARES, 1963. *Bertiella* infection in man in Paraguay. *Am. J. Trop. Med. & Hyg.*, 12(2):193-198. (Wa)
- DE PAOLI, A., 1965. *Schistosoma haematobium* in the chimpanzee—a natural infection. *Am. J. Trop. Med. & Hyg.*, 14(4):561-565. (Wa)

- DESCHIEENS, R., 1926. *Chilomastix* sp. observé chez le chimpanzé (*Anthropithecus troglodytes*) et chez le macaque (*Macacus sinicus*). *Bull. Soc. Path. Exot.*, 19(9):794-798. (Wa)
- , 1927. Sur les protozoaires intestinaux des singes. *Bull. Soc. Path. Exot.*, 20(1): 19-23. (Wa)
- & J. BÉNEX, 1966. Immunité naturelle, prémunition et immunité résiduelle dans le paludisme. *Bull. Soc. Path. Exot.*, 59:570-585.
- DESPORTES, C., 1945. Sur *Strongyloides stercoralis* (BAVAY, 1876) et sur les *Strongyloides* de primates. *Ann. Parasitol.*, (1944-1945) 20(3-4):160-190. (Wm)
- DOLLFUS, R. PH., 1955. Variété apparemment génotypique de *Concinnum brumpti* (A. RAILLIET, A. HENRY, CH. JOYEUX, 1912) chez un chimpanzé. *Bull. Soc. Path. Exot.*, 47(6):826-833, 1954. (Wa)
- DUKE, B. O. L., 1962. Experimental transmission of *Onchocera volvulus* from man to a chimpanzee. (Abstract of report before Lab. Meet., Mar. 15). *Tr. Roy. Soc. Trop. Med. & Hyg.*, 56(4): 271. (Wa)
- , 1968. Experiment on the chemoprophylaxis of *Onchocerca volvulus* infection. *Bull. World Health Organ.*, 39(2):179-186.
- , P. J. MOORE, & J. R. DELEON, 1967. *Onchocerca-Simulium* complexes. V. The intake and subsequent fate of microfilariae of a Guatemalan strain of *Onchocerca volvulus* in forest and sudan savanna forms of West African *Simulium damnosum*. *Ann. Trop. Med. & Parasitol.*, 61(3):332-337.
- DUKE, H. L., 1924a. Further observations on the effects of direct transmission on trypanosomes. *Parasitology*, 16(3):251-254. (Wa)
- , 1924b. Polymorphic trypanosomes of the *T. brucei* group recovered from the Mwanza sleeping sickness area. *Ann. Trop. Med. & Parasitol.* 18(4):415-435. (Wa)
- DUMAS, J., 1953. *Les Animaux de Laboratoire*. Edition Médicales Flammarion, Paris, 179 pp.
- DUNN, F. L., 1966. Patterns of parasitism in primates. Phylogenetic and ecological interpretation with particular reference to Hominoidea. *Folia primat.*, 4:329-345.
- ECKERT, J., 1963. Versuche zur Anwendung von Thiabendazole als Anthelminthikum bei Zootieren. *Kleintier-Praxis*, 8(2):34-40. (Wa)
- ERICKSON, D. G., E. H. SADUN, H. L. LUCIA, F. VON LICHTENBERG, & A. W. CHEEVER, 1971. Schistosomiasis haematobia: Infection in five species of primates. *Exper. Parasitol.*, 29(1):126-137.
- ESSBACH, H., 1949. Strongyloidose beim Schimpansen. *Beitr. Pathol. Anat.*, 110:319-345.
- EWING, H. E., 1932. A new sucking louse from the chimpanzee. *Proc. Biol. Soc. Wash.*, 45:117-118. (Wa)
- , 1933. The taxonomy of the anopluran genus *Pediculus* Linnaeus. *Proc. Biol. Soc. Wash.*, 46:167-174. (Wa)
- VAN EYNDHOVEN, G. L., 1955. *Pediculus schäffi* (sic) on chimpanzee in the Netherlands (Anopl.). *Entom. Ber., Amsterdam*, 15(17):398-400. (Wa)
- FAHRENHOLZ, H., 1910a. Neue Läuse. 1. Jahressb. Niedersächs. Zool. Ver. Hannover, (1909) 57-75. (Wa Wg)
- , 1910b. Diagnosen neuer Anopluren. *Zool. Anz. Leipzig*, 35(23):714-715. (Wa)
- , 1912. Beiträge zur Kenntnis der Anopluren. 2.-4. Jahressb. Niedersächs. Zool. Ver., Hannover (1910-1912) Abhandl. 1-60. (Wa, Wg)
- , 1941. Eine neue Laus des Schimpansen. *Zischr. Parasitenk., Berlin*, 12(2):107-119. (Wa)
- FAIN, A., 1957. L'acariase pulmonaire chez le chimpanzé et le gorille par des acariens du genre *Pneumonyssus* Banks. *Rev. Zool. et Botan. Africaines*, 56(3-4):234-242. (Wa)
- , 1959. Les acariens du genre *Pneumonyssus* Banks parasites endopulmonaires des singes au Congo belge (Halarachnidae: Mesostigmata). *Ann. Parasitol.*, 34(1-2):126-148. (Wa)
- , 1961. *Pneumonyssus duttoni* Newstead et Todd (1906) est une espèce composite.

- Description des deux espèces du complexe (duttoni) (Mesostigmata: Halarachnidae). *Rev. Zool. et Botan. Africaines*, 63(3-4):213-226. (Wa)
- , 1962. *Pangorillalges pani* g.n., sp.n., acarien psorique du chimpanzé (Psoralgidae-Sarcoptiformes). *Rev. Zool. et Botan. Africaines*, 66(3-4):283-290. (Wa)
- , 1963. Les acariens producteurs de gale chez les lemuriens et les singes avec une étude des Psoroptidae (Sarcoptiformes). *Bull. Inst. Roy. Sc. Nat. Belgique*, 39(32):125 pp. (Wa)
- , G. MIGNOLET, & Y. BEREZNAVY, 1958. L'acariase des voies respiratoires chez les singes du Zoo d'Anvers. *Bull. Soc. Roy. Zool., Anvers* (9):15-19. (Wa)
- FAUST, E. C., 1933. Experimental studies on human and primate species of *Strongyloides*. II. The development of *Strongyloides* in the experimental host. *Am. J. Hyg.*, 18(1):114-132. (Wa)
- & E. S. KAGY, 1933. Experimental studies on human and primate species of *Strongyloides*. I. The variability and instability of types. *Am. J. Trop. Med.*, 13(1):47-65. (Wa)
- , P. F. RUSSELL, & R. C. JUNG, 1970. *Craig and Faust's Clinical Parasitology* (8th Edition). Lea and Febiger, Philadelphia, 890 pp.
- FERRIS, G. F., 1916. A catalogue and host list of the Anoplura. *Proc. Calif. Acad. Sc.*, 4 s. 6(6):129-213. (Wa)
- , 1935. Contributions toward a monograph of the sucking lice. Part VIII (Conclusions). *Stanford Univ. Publications Univ. Ser. Biol. Sc.*, 2(8):529-634. (Wa)
- & C. J. STOJANOVICH, 1951. The sucking lice. *Mem. Pacific Coast. Entom. Soc.*, 1, 320 pp. (Wa)
- FIENNES, R., 1967. *Zoonoses of Primates*. Cornell Univ. Press, Ithaca, 190 pp.
- FOGEL, J., C. E. SHIELDS, & A. E. VON DOENHOFF, JR., 1966. The osmotic fragility of erythrocytes in experimental malaria. *Am. J. Trop. Med. & Hyg.*, 15(3):269-275. (Wa)
- FREMMING, B. D., F. S. VOGEL, R. E. BENSON, & R. J. YOUNG, 1955. A fatal case of amebiasis with liver abscesses and ulcerative colitis in a chimpanzee. *J. Am. Vet. Med. Ass.*, 126 (938):406-407. (Wa)
- FREUND, L., 1926a. Menschen- und Affenläuse. *Lotos, Prag.*, 74(1-4):75-77. (Wa)
- , 1926b. Laeusestudien. 6. Menschen- und Affenläuse. *Prag. Arch. Tiermed. u. Vergleich. Path.*, Teil A 6(1):113-122. (Wa)
- GARNHAM, P. C. C., 1966. *Malaria Parasites and Other Haemosporidia*. Blackwell Scientific Publ., Oxford, 114 pp.
- & R. S. BRAY, 1959. The susceptibility of higher primates to piroplasms. *J. Protozool.*, 6(1):352-353.
- , R. LAINSON, & A. E. GUNDERS, 1956. Some observations on malaria parasites in chimpanzees with particular references to the persistence of *Plasmodium reichenowi* and *Plasmodium vivax*. *Ann. Soc. Belge Méd. Trop.*, 36(6):811-820. (Wm)
- GEDOELST, L., 1916. Notes sur la faune parasitaire du Congo Belge. *Rev. Zool. Africaine*, 5(1):1-90. (Wa)
- GEIMAN, Q. M., 1964. Shigellosis, amebiasis, and simian malaria. *Lab. Animal Care*, 14(5):441-454. (Wa)
- GODFREY, D. C. & R. KILLICK-KENDRICK, 1967. Cyclically transmitted infections of *Trypanosoma brucei*, *T. rhodesiense* and *T. gambiense* in chimpanzees. *Tr. Roy. Soc. Trop. Med. & Hyg.*, 61(6):781-791. (Wa)
- GOODEY, T., 1926. Observations on *Strongyloides fülleborni* von Linstow, 1905, with some remarks on the genus *Strongyloides*. *J. Helminth.*, 4(2):75-86. (Wa)
- GRIGOROVA, O. P. & M. NESTURKH, 1930. Filariose bei jungen Schimpansen. *Ztschr. Parasitenk.*, 2(5):616-628. (Wa)
- & ———, 1931. Filariosis in young chimpanzee. (Russian text). *Trudy Dina-mike Razvit.*, 6:197-211, English summary, 210-211. (Wa)
- HAMERTON, A. E., 1933. Report on deaths occurring in the Society's gardens during the year 1932. *Proc. Zool. Soc. London*, (2):451-482. (Wa)

- HAYAMA, S. & H. NIGI, 1963. Investigation of helminth parasites in Japan Monkey Centre during 1959–1961. *Primates*, 4(1):97–112.
- HEALY, G. (Personal communication)
- HEGNER, R., 1928. The evolutionary significance of the protozoan parasites of monkeys and man. *Quart. Rev. Biol.*, 3(2):225–244. (Wa)
- , 1933. Protozoa from intestine of chimpanzees. (Program 9. Ann. Meet. Am. Soc. Parasitol., Boston, Dec. 28–30). *J. Parasitol.*, 20(2):143. (Wa)
- , 1934a. Intestinal protozoa of chimpanzees. *Am. J. Hyg.*, 19(2):480–501. (Wa)
- , 1934b. Specificity in the genus *Balantidium* based on size and shape of body and macronucleus, with descriptions of six new species. *Am. J. Hyg.*, 19(1):38–67. (Wa)
- HEGNER, R. W. & H. J. CHU, 1930. A comparative study of the intestinal protozoa of wild monkeys and man. *Am. J. Hyg.*, 12(1):62–108. (Wa)
- HEGNER, R. & E. SCHUMAKER, 1928. Some intestinal amoebae and flagellates from the chimpanzee, three-toed sloth, sheep and guinea-pig. *J. Parasitol.*, 15(1):31–37. (Wa)
- HELD, J. R., 1969. Primate malaria. In: *Exp. Med. and Surgery in Primates.*, E. I. GOLDSMITH, & J. MOOR-JANKOWSKI (eds.), Annals N. Y. Acad. Sc., (1):587–593.
- HENRY, A. & CH. JOYEUX, 1920. Contribution à la faune helminthologique de la Haute-Guinée française. *Bull. Soc. Path. Exot.*, 13(3):176–182. (Wa)
- HEYMONS, R., 1935. Pentastomida. Bronn's Klass. u. Ordnung. Tierreichs 5 (Abt. 4) Buch 1, Lief. 1, pp. 1–160; Lief. 2, pp. 161–268. (Wa)
- & G. H. VITZTHUM, 1935. Beiträge zur Systematik der Pentastomiden. *Ztschr. Parasitenk.*, 81(1):1–103. (Wa)
- HICKMAN, R. L., 1969. The use of subhuman primates for experimental studies of human malaria. *Mil. Med.*, 134(10):741–756.
- , W. S. GOCHENOUR, J. D. MARSHALL, & N. B. GUILLOUD, 1966. Drug resistant *Plasmodium falciparum* in the chimpanzee. *Mil. Med.*, 131:(Suppl. 3) 935–943.
- HILGENFELD, M., 1965. Toxoplasmosis bei Zootieren. *Zool. Garten, n.F.*, 30(5):262–270. (Wa)
- HILL, W. C. O., 1969a. The discovery of the chimpanzee. In: *The Chimpanzee, Vol. 1. Anatomy, Behavior, and Diseases of Chimpanzees*, G. H. BOURNE (ed.), University Park Press, Baltimore, p. 1–22.
- , 1969b. The nomenclature, taxonomy, and distribution of chimpanzees. In: *The Chimpanzee, Vol. 1, Anatomy, Behavior, and Diseases of Chimpanzees*, G. H. BOURNE (ed.), University Park Press, Baltimore, pp. 22–46.
- HSÜ, H. F. & S. Y. LI HSÜ, 1969. Histopathological lesions of rhesus monkey and chimpanzee infected with *Schistosoma japonicum*. *Ztschr. Tropenmed. u. Parasitol.*, 20:184–205.
- & ———, 1968a. A chimpanzee naturally infected with *Schistosoma mansoni*; its resistance against challenge infection with *Schistosoma japonicum*. *Tr. Roy. Soc. Trop. Med. & Hyg.*, 62(6):901–902.
- & ———, 1968b. The strain complex of *Schistosoma japonicum* in Taiwan China. *Ztschr. Tropenmed. u. Parasitol.*, 19:43–59.
- HULL, W. B., 1970. Respiratory mite parasites in nonhuman primates. *Lab. Anim. Care*, 20(2):402–406.
- HUMMER, R., H. C. MAY, & W. F. KNIGHT, 1969a. Observations during the first year of operation of a chimpanzee breeding colony. *Ztschr. Vers.*, 11:207–221.
- HUMMER, R. L., H. C. MAY, & W. F. KNIGHT, 1969b. Observations during the first year of breeding operation of a chimpanzee colony. *Proc. 2. Int. Congr. Primat., Atlanta, Ga., Vol. 2*, pp. 1–8, Karger, Basel/New York.
- JACOBS, L., 1956. Propagation, morphology, and biology of toxoplasmosis. *Ann. N. Y. Acad. Sc.*, 64(2):154–179. (Wa)
- JESSEE, M. T., P. W. SCHILLING, & J. A. STUNKARD, 1970. Identification of intestinal helminth eggs in Old World primates. *Lab. Anim. Care*, 20(1):83–87.
- JOHNSON, P. T., 1958. Type specimens of lice (Order Anoplura) in the United States National Museum. *Proc. U. S. Nat. Mus.*, 108(3393):39–49. (Wa)
- JOYEUX, CH., E. GENDRE, & J. G. BAER, 1928. Recherches sur les helminthes de l'Afrique

- occidentale française. (Collection de la Société de pathologie exotique Monographie II). 120 pp., Paris.
- KELLOGG, N. L., 1913. Ecto-parasites of monkeys, apes and man. *Science*, n.s. (982) 38:601–602. (Wa)
- KIM, K. C. & K. C. EMERSON, 1968. Descriptions of two species of Pediculidae (Anoplura) from great apes (Primates, Pongidae). *J. Parasitol.*, 54(4):690–695.
- KIRBY, H., JR., 1928. Notes on some parasites from chimpanzees. *Proc. Soc. Exper. Biol. & Med.*, 25(8):698–700. (Wa)
- KNAUFF, G., 1935. Studien über *Balantidium coli*. *Ztschr. Parasitenk.*, 8(2):139–182. (Wa)
- KOPCIOWSKA, L. & S. NICOLAU, 1938. Toxoplasmose spontanée du chimpanzé. *Compt. Rend. Soc. Biol., Paris*, 129(25):179–181. (Wa)
- KUDO, R. R., 1966. Protozoology (5th Edition). G. C. Thomas, Springfield, Ill., 1174 pp. (Wa)
- KUHN, H. J., 1967. Parasites and the phylogeny of the Catarrhine primates. In: *Taxonomy and Phylogeny of Old World Primates with References to the Origin of Man; Proceedings of a Round Table Held in Turin, Italy on 3rd–6th June 1967 at the Institute of Anthropology and Centre of Primatology, University of Turin* (Italy). Organized by BRUNETTO CHIARELLI. pp. 187–195. Torino, Casa editrice libraria Rosenberg and Sellier, 1968.
- & H. W. LUDWIG, 1967a. Die Affenlaeuse der Gattung *Pedicinus*. *Ztschr. Zool. Syst. Evolutionsforsch.*, 5(2):144–256.
- & ———, 1967b. Die Affenlaeuse der Gattung *Pedicinus*, Teil II. Kurze Uebersicht ueber die Wirte der Pedicinidae. *Ztschr. Zool. Syst. Evolutionsforsch.*, 5(3):257–297.
- & ———, 1968. Zahl, Vorkommen und Verbreitung der Anoplura. *Ztschr. Parasitenk.*, 31:254–265.
- KUNTZ, R. E., 1970. Introduction and concept for a nonhuman primate parasite workshop. *Lab. Anim. Care*, 20(2):324–328.
- Trematode parasites of nonhuman primates. In: *Pathology of Simian Primates*, Pt. II: 104–121, R. FIENNES (ed.), S. Karger, Basel/New York
- & B. J. MYERS, 1969a. A checklist of parasites and commensals reported for the Taiwan macaque (*Macaca cyclopis* SWINHOE, 1862). *Primates*, 10(1):71–80.
- & ———, 1969b. Parasites, protozoa, commensals and helminths of chimpanzees imported from the Republic of the Congo. *Proc. 2nd. Int. Cong. Primat.*, 3:184–190.
- , ———, T. C. HUANG, & J. A. MOORE, in press. Use of nonhuman primates in experimental schistosomiasis haematobia. *Proc. 3rd Int. Congr. Primat.*
- LANG, E., 1962. Erfahrungen mit neuen Anthelminthica bei Wildtieren. *Nord. Vet.-Med.* 14, Suppl. 1. (Proc. 4. Internat. Symposium Dis. Zoo-Animals (Copenhagen, May 27–30)) pp. 272–278. (Wa)
- LEBOEUF, A. & J. RINGENBACH, 1910. Sur quelques hémotozoaires du Congo (trypanosomes, microfilaires, leucocytozoaire). *Ann. Inst. Pasteur, Paris*, 24(12):945–954. (Wa)
- LEFROU, G. & J. MARTIGNOLES, 1954. Contribution à l'étude des *Plasmodium* des chimpanzés. Inoculation de *Pl. falciparum* humain au chimpanzé. *Bull. Soc. Path. Exot.*, 47(6):895–903. (Wa)
- & V. MICHARD, 1957. Étude sur les causes de mortalité des chimpanzé en captivité à l'Institut Pasteur de Kindia (1950–1956) (English summary). *Ann. Inst. Pasteur, Paris*, 93(4):502–516. (Wa)
- LEIDY, J., 1891. Notices of entozoa. *Proc. Acad. Nat. Sc. Phila.* 42, 3s 20(3), Oct–Dec., 1890, pp. 410–418. (Wc)
- LEIPER, R. T., 1934. Quarterly list of provisional identifications. (In: Report on the deaths occurring in the Society's gardens during the year 1933, A. E. HAMERTON). *Proc. Zool. Soc. London*, pt. 2, 418–419. (Wa)
- , 1938. Diagnosis of species of helminths. (In: Report on the deaths occurring in the Society's gardens during the year 1937, A. E. HAMERTON). *Proc. Zool. Soc. London*, s.B. 108(3): 523–525. (Wa)
- LEVINE, N. D., 1970. Protozoan parasites of nonhuman primates as zoonotic agents. *Lab. Anim. Care*, 20(2):377–382.

- VON LICHTENBERG, F. & E. H. SADUN, 1968. Experimental production of bilharzial pipe-stem fibrosis in the chimpanzee. *Exper. Parasitol.*, 22(2):264–278.
- LIEBEGOTT, G., 1962. Pericarditis verminosa (*Strongyloides*) beim Schimpansen. *Virchow's Arch. Path. Anat.*, 335(3):211–225. (Wa)
- VON LINSTOW, O. F., 1879. Helminthologische Untersuchungen. *Jahresh. Ver. Vaterl. Naturk. Württemberg*, 35:313–342. (Wm, Wc)
- , 1903. Helminthologische Beobachtungen. *Centrabl. Bakteriolog.*, 1 Abt. Orig. 34(6): 526–531. (Wa, Wm)
- , 1905. Helminthologische Beobachtungen. *Arch. Mikr. Anat.*, 66(3):355–366. (Wm)
- , 1907. Nematoden aus dem Königlichen Zoologischen Museum in Berlin. *Mitt. Zool. Mus. Berlin*, 3(3):251–259. (Wa)
- LITTLE, M. D., 1966. Comparative morphology of six species of *Strongyloides* (Nematoda) and a redefinition of the genus. *J. Parasitol.*, 52(1):69–84.
- LIUBIMOV, M. P., 1931. Skrjabin's method of complete helminthological examination in the Moscow Zoopark. (Russian text). *Vet. Spetsialist Sotsial. Stroike*, (23–24):39–42.
- LOOSS, A., 1911. The anatomy and life history of *Agchylostoma duodenale* Dub. A monograph. Pt. II. The development in the free state. *Rec. Egypt Govt. School Med.*, 4:159–613. (Wa, Wm)
- LUCASSE, C., 1964. Fluorescent antibody test as applied to cerebrospinal fluid in human sleeping sickness. (English summary). *Bull. Soc. Path. Exot.*, 57(2):283–292. (Wa)
- LUEHE, M. F. L., 1900. Ergebnisse der neueren Sporozoenforschung. Zusammenfassende Darstellung mit besonderer Berücksichtigung der Malariaparasiten und ihrer nächsten Verwandten. *Centralbl. Bakteriolog.*, 1. Abt., V. 27 (10–11), 23 März, pp. 367–384, figs. 1–9; (12–13), 31 März, pp. 436–460, figs. 1–9; V. 28 (6–7), 22 Aug., pp. 205–209; (8–9), 4 Sept., pp. 258–264, figs. 1–6; (10–11), 20 Sept., pp. 316–324, figs 7–10; (12–13), 6 Oct., pp. 384–392. (Wa, Wm)
- LUPASCU, GH., P. CONSTANTINESCU, E. NEGULICI, P. C. C. GARNHAM, R. S. BRAY, R. KILLICK-KENDRICK, P. G. SHUTE, & M. MARYON, 1967. The late primary exo-erythrocytic stages of *Plasmodium malariae*. *Tr. Roy. Soc. Trop. Med. & Hyg.*, 61(4):482–489.
- MC GAUGHEY, C. A., E. E. SCHMID, T. VELAUDAPILLAI, & A. N. WEINMAN, 1953. *Salmonella typhimurium* in young elephants and chimpanzees. *Vet. Rec.*, 65(28):431–432.
- MCDERMOTT, W. C., 1938. *The Ape in Antiquity*. The Johns Hopkins Press, Baltimore, 338 pp.
- MACKINNON, D. L. & M. J. DIBB, 1938. Report on intestinal protozoa of some mammals in the Zoological gardens at Regent's Park. *Proc. Zool. Soc. London*, s.B., 108(2):323–345. (Wa)
- MEGGITT, F. J., 1927. Report on a collection of Cestoda, mainly from Egypt. I. Families Anoplocephalidae, Davaineidae. *Parasitology*, 19(3):314–327. (Wa)
- MELLO, U., 1923. L'amebiasi nei primati. *Ann. Ig.*, 33(8):533–552. (Wa)
- MESNIL, F. & E. ROUBAUD, 1917. Sur la sensibilité du chimpanzé au paludisme humain. *Compt. Rend. Acad. Sc., Paris*, 165(1):39–41. (Wa)
- & ———, 1920. Essais d'inoculation du paludisme au chimpanzé. *Ann. Inst. Pasteur, Paris*, 34(7):466–480. (Wa)
- MILL, J., 1930. Erfahrungen mit Piperazinpärat Piavetrin Bernburg als Anthelminthum bei Zootieren. *Zool. Garten*, 30:247–253.
- MILLER, M. J. & R. S. BRAY, 1966. *Entamoeba histolytica* infections in the chimpanzee (*Pan satyrus*). *J. Parasitol.*, 52(2):386–388.
- MILLER, T. A., 1968. Pathogenesis and immunity in hookworm infection. *Tr. Roy. Soc. Trop. Med. & Hyg.*, 62(4):473–489.
- MOORMAN, A. E., 1941. *Balantidium coli* and pinworm in a chimpanzee. *J. Parasitol.*, 27(4) Part 1, p. 366. (Wa)
- MORTELMANS, J. & J. VERCRUYSE, 1963. La dithiazanine son emploi chez des chimpanzés à face pale (*Pan schweinfurthii* (Gigl.)) au Zoo d'Anvers. *Bull. Soc. Roy. Zool. Anvers*, 31:51–58. (Wa)

- MYERS, B. J. (in press). Echinococcosis, coenurus, cysticercosis, sparganosis, etc. In: *Pathology of Simian Primates*, Pt. II: 124–143, R. N. FIENNES, S. (ed.), Karger Basel/New York
- & R. E. KUNTZ, 1965. A checklist of parasites reported for the baboon. *Primates*, 6(2):137–194.
- NAPIER, J. R. & P. H. NAPIER, 1967. *A Handbook of Living Primates*. Academic Press, London/New York, 456 pp.
- NELSON, E. C., 1932a. Observations on two ciliates, a species of *Balantidium* and a species of *Troglodytella* from the chimpanzee. *J. Parasitol.*, 18(4):307–308. (Wa)
- , 1932b. The cultivation of a species of *Troglodytella*, a large ciliate, from the chimpanzee. *Science*, n.s. (1942) 75:317–318. (Wa)
- , 1934. Observations and experiments on conjugation of the *Balantidium* from the chimpanzee. *Am. J. Hyg.*, 20(1):106–134. (Wa)
- , 1935. Cultivation and cross-infection experiments with balantidia from pig, chimpanzee, guinea-pig and *Macacus rhesus*. *Am. J. Hyg.*, 22(1):26–43. (Wa)
- NEUMANN, E., C. LUCASSE, & A. E. GUNDERS, 1964. Experimental onchocercal ocular lesions in the chimpanzee. *Am. J. Ophthalmol.*, 57:217–227.
- NICOLL, W., 1927. A reference list of the trematode parasites of man and primates. *Parasitology*, 19(3):338–351. (Wa)
- NOUVEL, J., G. CHAUVIER, & L. STRAZIELLE, 1968. Rapport sur la mortalité et la natalité enregistrées a la ménagerie du Jardin des plantes pendant l'année 1966. *Bull. Mus. Nat. Hist. Nat., Paris*, 39(4):632–646. (Wa)
- ORIHIEL, T. C., 1970. The helminth parasites of nonhuman primates and man. *Lab. Anim. Care*, 20(2):395–401.
- PEEL, E. & M. CHARDOME, 1946. Sur des filaridés de chimpanzés (*Pan paniscus*) et (*Pan satyrus*), au Congo belge. *Ann. Soc. Belge Méd. Trop.*, 26(3):117–156. (Baw)
- & J. RODHAIN, 1946. Contribution à l'étude des Plasmodiums des anthropoïdes africains. La schizogonie du *Plasmodium reichenowi* dans le sang périphérique. *Ann. Soc. Belge Méd. Trop.*, 26:341–347.
- & M. CHARDOME, 1947. Note complémentaire sur des filaridés de chimpanzés *Pan paniscus* et *Pan satyrus* au Congo belge. *Ann. Soc. Belge Méd. Trop.*, 27(2):241–250. (Wm)
- PÉREZ VIGUERAS, I., 1935. Notas sobre la fauna parasitologica de Cuba. *Mem. Soc. Cubana Hist. Nat.*, 9(1):45–49; (2):59–66. (Wa)
- PILLERS, A. W. N., 1921. Sarcoptic scabies (or itch) in chimpanzee. *Vet. J.*, (555) 77(9):329–333. (Wa)
- , 1924. *Ascaris lumbricoides* causing fatal lesions in a chimpanzee. *Ann. Trop. Med. & Parasitol.*, 18(1):101–102. (Wa)
- PORTER, A., 1946. Report of the honorary parasitologist for 1944. *Proc. Zool. Soc. London*, 115(3–4): 384–386. (Wa)
- , 1953. Report of the honorary parasitologist for the year 1952. *Proc. Zool. Soc. London*, 123(2):253–257. (Wa)
- PRUSKI, S. & P. KORDA, 1958. Stosowanie "antivermin" przy glistnicy u szympansa. (The use of "antivermin" in ascariasis of chimpanzees) *Medycyna Wet.*, 14(7):420–422. (Wa)
- RAILLIET, A. & A. HENRY, 1906. Sur les oesophagostomes des primates. *Compt. Rend. Soc. Biol. Paris*, 60(9):448–450. (Wa, Wm, Wc)
- & ———, 1909. Sur la classification des Strongylidae: I. Metastrongylinae. *Compt. Rend. Soc. Biol. Paris*, 66(2):85–88. (Wa)
- & ———, 1912. Observations sur les strongylidés du genre *Nematodirus*. *Bull. Soc. Path. Exot.*, 5(1):35–39. (Wa)
- , ——— & CH. JOYEUX, 1912. Sur deux trématodes de primates. *Bull. Soc. Path. Exot.*, 5(10):833–837. (Wa)
- REARDON, L. V. & B. F. RININGER, 1968. A survey of parasites in laboratory primates. *Lab. Anim. Care*, 18(5):577–580.

- REICHENOW, E., 1917. Parásitos de la sangre y del intestino de los monos antropomorfos africanos. *Bol. R. Soc. Españ. Hist. Nat.*, 17(5):312–332. (Wc)
- , 1920a. Ueber das Vorkommen der Malariaparasiten des Menschen bei den afrikanischen Menschenaffen. *Centralbl. Bakteriolog.*, 1 Abt. Orig., 85(3):207–216. (Wa)
- , 1920b. Den Wiederkaüer-Infusorien verwandte Formen aus Gorilla und Schimpanse. *Arch. Protistenk.*, 41:1–33. (Wa)
- REINISCH, M., 1940. Coprologiai vizsgálatok a székesfövärosi állatkerti állatok parasitász fertözötttségének kiderítésére. (Coprologic examination for animal parasites in the zoological garden in Budapest). *Közlem. az Oszsehas. Elet- és Körtan Köréböl*, 27(7): 272–284. (Wa)
- REWELL, R. E., 1948. Diseases of tropical origin in captive wild animals. *Tr. Roy. Soc. Trop. Med. & Hyg.*, 42:17–36. (Wa)
- , 1969. Intestinal infections. In: *The Chimpanzee*, G. BOURNE (ed.), Karger, Basel/New York, Vol. 1, pp. 425–458.
- RIJPSTRA, A. C., 1967. Sporocysts of *Isospora* sp. in a chimpanzee (*Pan troglodytes*, L.). *Proc. Kon. Ned. Akad. Wetensch. Ser. C. Biol. Med. Sci.*, 70(3): 395–401.
- RIOPELLE, A. J. & O. J. DAUMY, 1962. Care of chimpanzees for radiation studies. *Proc. Int. Symp. on Bone Marrow Therapy and Chemical Protection in Irradiated Primates*, pp. 205–227.
- VAN RIPER, D. C., P. W. DAY, J. FINEG, & J. R. PRINE, 1966. Intestinal parasites of recently imported chimpanzees. *Lab. Anim. Care*, 16(4): 360–363.
- RODENWALDT, E., 1908. *Filaria perstans* beim Schimpansen. *Arch. Schiffs u. Tropen-hyg.*, 12(16): 545–546. (Wm)
- RODHAIN, J., 1939a. La réceptivité du chimpanzé *Pan satyrus* au *Plasmodium vivax* humain. *Compt. Rend. Soc. Biol., Paris*, 132(23): 69–70. (Wa)
- , 1939b. Les plasmodiums des anthropoïdes de l'Afrique centrale et leurs relations avec les plasmodium humains. *Ann. Soc. Belge Méd. Trop.*, 19(4): 563–572. (Wa)
- , 1940. Les plasmodium des anthropoïdes de l'Afrique Centrale et leurs relations avec les plasmodium humains. Réceptivité de l'homme au *Plasmodium malariae* (*Plasmodium rodhaini* BRUMPT) du chimpanzé. *Compt. Rend. Soc. Biol., Paris*, 133(2):276–277. (Wa)
- , 1946. Corollaire à l'étude de E. PEEL et M. CHARDOME sur les filaridés de chimpanzéz au Congo belge. *Ann. Soc. Belge Méd. Trop.*, 26(3): 157–160. (Wa)
- , 1948. Contribution à l'étude des Plasmodiums des anthropoïdes africains. Transmission du *Plasmodium malariae* de l'homme au chimpanzé. *Ann. Soc. Belge Méd. Trop.*, 28(1): 39–49. (Wm)
- , 1950. Recent advances in the field of filariasis and filaria worms. *Doc. Neerland. et Indonesica Morb. Trop.*, 2(2):130–132. (Wa)
- , 1955a. Contribution à l'étude de *Plasmodium schwetzi*, E. BRUMPT. *Ann. Soc. Méd. Trop.*, 35(1): 69–72. (Wm)
- , 1955b. Au sujet de la localisation de *Dipetalonema vanhooffi* chez les chimpanzéz E. PEEL et M. CHARDOME. *Bull. Soc. Path. Exot.*, 48(5): 672–677. (Wa)
- , 1956a. Paradoxical behaviour of *Plasmodium vivax* in the chimpanzee. *Tr. Roy. Soc. Trop. Med. & Hyg.*, 50(3):287–293. (Wa)
- , 1956b. Les formes préérythrocytaires du *Plasmodium vivax* chez le chimpanzé. *Ann. Soc. Belge Méd. Trop.*, 36(1): 99–103. (Wm)
- & L. VAN DEN BERGHE, 1939. *Paraloea anthropopitheci* genre et espèce nouveaux de Filarioidea chez le chimpanzé du Congo belge. *Ann. Soc. Belge Méd. Trop.*, 19(3): 445–452. (Wa)
- & R. DELLAERT, 1943. Étude d'une première souche isolée de l'anthropoïde *Pan satyrus verus*. *Ann. Soc. Belge Méd. Trop.*, 23(1):19–46. (Wm)
- & ———, 1955a. Contribution à l'étude de *Plasmodium schwetzi* E. BRUMPT. (2me. note) Transmission du *Plasmodium schwetzi* à l'homme. (Note préliminaire) (Dutch summary). *Ann. Soc. Belge Méd. Trop.*, 35(1):73–76. (Wm)

- & ———, 1955b. Contribution à l'étude de *Pl. schwetzi* E. BRUMPT (3me note). L'infection à *Plasmodium schwetzi* chez l'homme. *Ann. Soc. Belge Méd. Trop.*, 35(6): 757-775. (Wa)
- & J. JARDIN, 1964. La transmission du *Plasmodium falciparum* au chimpanzé splénectomisé. *Ann. Soc. Belge Méd. Trop.*, 44(3): 531-536.
- & P. LASSMAN, 1940a. Le cycle schizogonique du *Plasmodium schwetzi* et l'évolution de ce parasite chez *Anopheles maculipennis* var. *atroparvus*. *Ann. Soc. Belge Méd. Trop.*, 20(2): 179-186. (Wm)
- & ———, 1940b. Le comportement de *Plasmodium schwetzi* (Brumpt) du chimpanzé vis-à-vis des réticulocytes. *Ann. Soc. Belge Méd. Trop.*, 20(1): 83-90. (Wa)
- & ———, 1944. Le comportement en culture suivant la méthode du Bass des plasmodiums de chimpanzé. *Ann. Soc. Belge Méd. Trop.*, 24(3):131-145. (Wm)
- & G. MUYLLE, 1939a. Sur la spécificité des *Plasmodium* des anthropoïdes de l'Afrique Centrale. *Compt. Rend. Soc. Biol., Paris*, 127(14):1467-1468.
- & ———, 1939b. Sur la spécificité des *Plasmodium* des anthropoïdes de l'Afrique Centrale. *Compt. Rend. Soc. Biol., Paris*, 131(15):114-117. (Wa)
- ROUSSELOT, R., 1955. Pathologie des anthropoïdes (3e note). Sur la localisation et l'incidence réelles de *Dipetalonema vanhoofi* PEEL et CHARDOME 1946. *Bull. Soc. Path. Exot.*, 48(1): 59-61. (Wa)
- & A. PELLISSIER, 1952. Pathologie du gorille. *Bull. Soc. Path. Exot.*, 45(4): 565-574. (Wa)
- RUCH, T. C., 1959. *Diseases of Laboratory Primates*. W. B. Saunders Co., Philadelphia/London, 600 pp. (Wc, Wa)
- RUDZINSKA, M. A., 1956. Pinocytotic uptake and digestion of hemoglobin in malaria parasites. *J. Protozool.*, 12: 563-576.
- SADUN, E. H. & R. W. GORE, 1968. Mass diagnostic test using *Plasmodium falciparum* and chimpanzee erythrocytic lysate. *Exper. Parasitol.*, 23(2): 277-285.
- & ———, 1970. *Schistosoma mansoni* and *S. haematobium*: Homocytotropic reagin-like antibodies in infections of man and experimental animals. *Exper. Parasitol.*, 28(3): 435-449.
- , R. L. HICKMAN, B. T. WELLDE, A. P. MOON, & I. O. K. EDEZO, 1966. Active and passive immunisation of chimpanzees infected with West African and Southeast Asian strains of *Plasmodium falciparum*. *Mil. Med.*, 131: (Suppl.) 1, 250
- , F. VON LICHTENBERG, A. W. CHEEVER, & D. G. ERICKSON, 1970a. Schistosomiasis *mansoni* in the chimpanzee. The natural history of chronic infections after single and multiple exposures. *Am. J. Trop. Med. & Hyg.*, 19(2): 258-277.
- , ———, ———, & R. L. HICKMAN, 1970b. Experimental infection with *Schistosoma haematobium* in chimpanzees. *Am. J. Trop. Med. & Hyg.*, 19(3):427-458.
- SAMBON, L. W., 1922. A synopsis of the family Linguatulidae. *J. Trop. Med. & Hyg.*, 25(12): 188-206; (24): 391-428. (Wa)
- SANDGROUND, J. H., 1930. Studies on the life-history of *Ternidens deminutus* a nematode parasite of man, with observations on its incidence in certain regions of southern Africa. *Ann. Trop. Med. & Parasitol.*, 5(2): 147-184. (Wa)
- SANDOSHAM, A. A., 1950. On *Enterobius vermicularis* (LINNAEUS, 1758) and some related species from primates and rodents. *J. Helminth.*, 24(4): 171-204. (Wa)
- SCHEIDEGGER, S. & H. A. KREIS, 1934. Ueber Helminthiasis beim Schimpansen. *Ztschr. Parasitenk.*, 7(1): 44-60. (Wa)
- SCHMIDT, F., 1937. Parasiten als Todesurasche bei Zootieren. *Deutsche Tierärztl. Wehnschr.*, 45(50): 797-798. (Wa)
- SCHMIDT, R. E. & J. R. PRINE, 1970. Severe enterobiasis in a chimpanzee. *Pathol. Vet.*, 1: 56-57.
- SCHWETZ, J., 1934. Contribution à l'étude des parasites malarieux des singes supérieurs africains. *Riv. Malariol.*, 9(2): 143-147. (Wa)

- SHARMA, N. N. & G. H. BOURNE, 1963. Histochemical studies on the distribution of oxidative enzymes in *Balantidium coli* from chimpanzees. *Acta Anat.*, 55: 112–123.
- & ———, 1964a. Histochemical studies on the distribution of monoamine oxidase, simple esterase and glucose-6-phosphatase in *Balantidium coli* from chimpanzees. *Acta Histochem.*, 17:293–301.
- & ———, 1964b. Histochemical studies on the distribution of phosphatases in *Balantidium coli* from chimpanzees. *Cellule*, 64(2): 204–212.
- SHIPLEY, A. E., 1905. Notes on ento-parasites from the Zoological Gardens, London, and elsewhere. *Proc. zool. Soc. London*, 1(2): 248–253. (Wa, Ws)
- SLUITER, C. P., N. H. SWELLENGREBEL, & J. E. IHLE, 1922. *De Dierlijke Parasieten van den Mensch en van Onze Huisdieren*, 3 Ed. 575 pp. Amsterdam. (Wa)
- STABLER, R. M., 1945. Ingestion processes on *Iodamoeba* (Protozoa). *J. Parasitol.*, 31(1): 79–81. (Wa)
- STAM, A. B., 1960. Un cas mortel d'ascaridiose (*Ascaris lumbricoides* L.) chez le chimpanzé nain (*Pan paniscus* SCHWARZ). *Ann. Parasitol.*, 35(4): 675. (Wa)
- STILES, C. W. & A. HASSALL, 1929. Key-catalogue of parasites reported for primates (monkeys and lemurs) with their possible public health importance... and key-catalogue of primates for which parasites are reported, by C. W. STILES and MABELLE ORLEMAN NOLAN. *Bull.* (152), *Hyg. Lab., U. S. Pub. Health Serv.*, pp. 409–601. (Wa)
- STRONG, R. P. & G. C. SHATTUCK, 1930. Medical and pathological investigations in Liberia and the Belgian Congo. *Contrib. Dept. Trop. Med. & Inst. Trop. Biol. & Med.* (Harvard Univ.) (5), 1: 210–461. (Wa)
- STUDER, T., 1880. Demonstration eines Bandwurms aus dem Chimpanzé. *Mitt. Naturf. Gesellsch. Bern.*, pp. 10–11. (Wa, Wm, Wc)
- STUNKARD, H. W., 1940. The morphology and life history of the cestode, *Bertiella studeri*. *Am. J. Trop. Med. & Hyg.*, 20(2): 305–333. (Wa)
- & L. J. GOSS, 1950. *Eurytrema brumpti* RAILLIET, HENRY & JOYEUX, 1912 (Trematoda: Dicrocoeliidae) from the pancreas and liver of African anthropoid apes. *J. Parasitol.*, 36(6) Sec. 1: 574–581. (Wa)
- , T. KOIVASTIK, & G. R. HEALY, 1964. Infection of a child in Minnesota by *Bertiella studeri*. (Cestoda: Anoplocephalidae). *Am. J. Trop. Med. & Hyg.*, 13(3): 402–409. (Wa)
- SULDEY, E. W., 1924. Dysenterie ambiénne spontanée chez le chimpanzé (*Troglodytes niger*). *Bull. Soc. Path. Exot.*, 17(9): 771–773. (Wa)
- SWEZEY, W. W., 1932. The transition of *Troglodytella abrossarti* and *Troglodytella abrossarti acuminata*, intestinal ciliates of the chimpanzee, from one type to the other. *J. Parasitol.*, 19(1): 12–16. (Wa)
- , 1934. Cytology of *Troglodytella abrossarti*, an intestinal ciliate of the chimpanzee. *J. Morphol.*, 56(3): 621–635. (Wa)
- , 1935. Cultivation of *Troglodytella abrossarti*, a parasitic ciliate of the chimpanzee. *J. Parasitol.*, 21(1): 10–17. (Wa)
- & F. O. ATCHLEY, 1934. Ingestion of eggs and larvae of *Strongyloides* by intestinal ciliates. *J. Parasitol.*, 20(5):313. (Wa)
- SWIERSTRA, D., J. JANSSEN, JR., & E. VAN DEN BROEK, 1959. Parasites of zoo-animals in the Netherlands. *Tijdschr. Diergeneesk.*, 84(22): 1301–1305. (Wa)
- TAKOS, M. J. & L. J. THOMAS, 1958. The pathology and pathogenesis of fatal infections due to an acanthocephalid parasite of marmoset monkeys. *Am. J. Trop. Med. & Hyg.*, 7(1): 90–94. (Wa)
- TEUSCHER, VON E. & H. STÜNZI, 1956. Ueber parasitologische Kotuntersuchungen bei Säugetieren des Zoologischen Gartens Zürich. *Acta Trop.*, 13(3): 262–269. (Wa)
- VAN THIEL, P. H. & C. J. E. WIEGAND BRUSS, 1945. Présence de *Prosthenorchis spirula* chez les chimpanzés. Son rôle pathogène et son développement dans *Blattella germanica*. *Ann. Parasitol.*, (1944–1945) 20(5–6): 304–320. (Wm)
- THIENPONT, D., J. MORTELMANS, & J. VERCURYSSE, 1964. Le traitement de la trichuriose et de la capillariose d'animaux tenus en captivité. *Tijdschr. Diergeneesk.*, 89, Suppl. 1

- (Proc. 5 Internat. Symp. Dis. Zoo-animals, Amsterdam, Apr. 21–25, 1963) pp. 115–120. (Wa)
- _____, _____, _____, P. KRAGERUKA, B. VAN PUYENBROECK, & R. VAN BRABANT, 1967. Anthelmintic activity of Tetramisole in zoo animals. In: *Sonderdruck aus Verhandlungsbericht des IX. Internationalen Symposiums über die Erkrankungen der Zootiere*, Prag 1967 Akademie-Verlag, Berlin, pp. 197–199.
- THOMAS, H. W. & S. F. LINTON, 1904. A comparison of the animal reactions of the trypanosomes of Uganda and Congo Free State sleeping sickness with those of *Trypanosoma gambiense* (Dutton). *Lancet, London* (4211), 166 v. 1 (20): 1337–1340. (Wa, Wm, Wc)
- THOMSON, J. G., 1929. Protozoal parasites. *Proc. Roy. Soc. Trop. Med.*, 22(6): 826–827. (Wa)
- THORNTON, H., 1924. The relationship between the ascarids of man, pig and chimpanzee. *Ann. Trop. Med. & Parasitol.*, 18(1): 99–100. (Wa)
- TORRES, O., 1931. *Microfilaria perstans* e sua frecuencia nos chimpanzes. (Actas Cong. Internac. Biol. Montevideo (Oct. 7–12, 1930). *Arch. Soc. Biol. Montevideo*, Suppl. 5: 1232–1236. (Wa)
- TRAVASSOS, L. P., 1937. Revisão da familia Trichostrongylidae Leiper, 1912. *Monogr. Inst. Oswaldo Cruz*, (1) 512 pp. (Lib. Zool. Div.)
- TRAVASSOS, L. P. & E. G. VOGELSANG, 1931. Sobre un novo *Oesophagostomum* de primatas (*Oe. zukowskyi* n.sp.) *Bol. Biol. Rio de Janeiro*, (18): 24–27. (Wa)
- _____ & _____, 1932. Pesquisas helminthologicas realizadas em Hamburgo. X. Contribuição ao conhecimento das especies de *Oesophagostomum* dos primatas. *Mem. Inst. Oswaldo Cruz*, 26(3): 251–328. (Wa)
- TROISIER, J. & R. E. A. DESCHIENS, 1930. Deux cas d'oxyurose chez le chimpanzé traversée de la paroi intestinale jusqu'au péritoine. *Ann. Parasitol.*, 8(5): 562–565. (Wa)
- _____, _____, H. LIMOUSIN, & M. J. DELORME, 1928a. L'infestation du chimpanzé par un nématode du genre *Hépaticola*. *Bull. Soc. Path. Exot.*, 21(3): 221–222. (Wa)
- _____, _____, & _____, 1928b. L'infestations du chimpanzé par un nématode du genre *Hépaticola*. *Ann. Inst. Pasteur Paris*, 42(7):827–840. (Wa)
- URBAIN, A. & J. NOUVEL, 1944. Petite enzootie de strongyloïdose observée sur des singes supérieurs: Gibbons à favoris blancs (*Hylobates concolor leucogenis* Ogilby) et chimpanzés (*Pan troglodydes* (sic) L.). *Bull. Acad. Vet. France*, 17: 337–341. (Wm)
- VAN DURME, P., 1902. Quelques notes sur les embryons de *Strongyloides intestinalis* et leur pénétration par la peau. *Thompson Yates Lab. Rep.* 4, Pt. 2, 471–474. (Wa, Wm)
- VOGEL, H., 1967. Experimentelle infektionen mit *Schistosoma haematobium* an Mangaben und Schimpansen. *Ann. Soc. Belge Méd. Trop.*, 47(1): 107–116.
- VUYLESTKE, A., 1956. Note sur quelques nématodes parasites avec description de neuf espèces nouvelles. *Rev. Zool. et Botan. Africaines*, 53 (3–4): 441–477. (Wa)
- WARD, R. A., L. C. RUTLEDGE, & R. L. HICKMAN, 1969. Cyclical transmission of Chesson vivax malaria in subhuman primates. *Nature, London*, 224: 1126–1127.
- WEBBER, W. A. F., 1955. The filarial parasites of primates: A review. I. *Dirofilaria* and *Dipetalonema*. *Ann. Trop. Med. & Parasitol.*, 49 (2): 123–141. (Wa)
- WEINBERG, M., 1906a. Appendicite et vers intestinaux chez le chimpanzé. *Compt. Rend. Soc. Biol. Path. Pairs*, 60(14): 661–662. (Wa)
- _____, 1906b. Kystes vermineux du gros intestin chez le chimpanzé et les singes inférieurs. *Compt. Rend. Soc. Biol. Paris*, 60(9): 446–449. (Wa, Wm, Wc)
- _____, 1906c. Nodules à pentastomes dans la paroi intestinale du chimpanzé. *Bull. et Mem. Soc. Anat. Paris*, 81(7): 534. (Wm)
- _____, 1907. Du rôle des helminthes, des larves d'helminthes et des larves dans la transmission des microbes pathogènes. *Ann. Inst. Pasteur, Paris*, 21(6): 417–442; (7): 533–561. (Wa, Wm)
- _____, 1909. Oesophagostomose des anthropoides et des singes inférieurs. *Arch. Parasitol.*, 13(2): 161–203. (Wa, Wm, Wc)
- _____ & M. ROMANOVITCH, 1908. Helminthiase de l'intestin grêle du chimpanzé et des singes inférieurs. *Bull. Soc. Path. Exot.*, 1(3): 181–186. (Wm)

- WENYON, C. M., 1965. *Protozoology; A Manual for Medical Men, Veterinarians and Zoologists*. Hafner Publishing Company, New York. V. 1, 778 pp.; V. 2, 779–1563. (Wa)
- YAMAGUTI, S., 1959. *Systema Helminthum, Vol. I. The Digenetic Trematodes of Vertebrates*. Part I, pp. 1–979, Part II, pp. 980–1575. John Wiley & Son, New York/London. (Lib. Doss)
- , 1959. *Systema Helminthum, Vol. II. The Cestodes of Vertebrates*. 860 pp. John Wiley & Son, New York/London. (Lib. Doss)
- , 1962. *Systema Helminthum, Vol. III. The Nematodes of Vertebrates*. Part I, pp. 1–679; Part II, pp. 681–1261. John Wiley & Son, New York/London. (Lib. McIntosh)
- , 1963. *Systema Helminthum, Vol. V. Acanthocephala*. pp. 1–423 John Wiley & Son, New York/London.
- YAMASHITA, J., 1963. Ecological relationships between parasites and primates. I. Helminth parasites and primates. *Primates*, 4(1):1–97.
- & S. KONNO, 1957. On *Enterobius vermicularis microbulbus* subsp. nov. from a chimpanzee. *Japan J. Vet. Research*, 5(3):83–85. (Wa)
- ZIEMANN, H. R. P., 1902. Ueber das Vorkommen von *Filaria perstans* und von Trypanosomen beim Chimpanse. *Arch. Schiffs- u. Tropen-Hyg.*, 6(10): 362. (Wm)
- , 1906. Malaria. *Handb. Tropenkrankh.*, (Mense) 3: 269–557 (Wa, Wm)
- , 1925. Einige Bemerkungen zur *Balantidium-coli*-Infektion bei Menschen und Schimpansen (Beiheft 1), *Arch. Schiffs- u. Tropen-Hyg.*, 29: 434–448. (Wa)
- ZUMPT, F., 1961. The arthropod parasites of vertebrates in Africa south of the Sahara (Ethiopian Region). Vol. 1 (Chelicerata). *Publications South African Instit. Med. Research*, 9: 1–457. (Im, Wa)
- ZWART, P., 1959. Overzicht van onderzoeken van uit dierentuinen en volieres afkomstige inzendingen over de periode van 1-10-56 tot 31-12-57. (A report on death occurring in the Netherland's zoos and aviaries during the period 1-10-56 to 31-12-57). *Tijdschr. Diergeneesk.*, 84(14): 759–766. (Wa)

Acknowledgements. The authors wish to acknowledge the help and assistance provided by Dr. S. S. KALTER, Director, Division of Microbiology and Infectious Diseases, Southwest Foundation for Research and Education (SFRE), who has provided general support for studies of the parasites of nonhuman primates, and the following persons who have kindly checked parasite listings for completeness: Dr. K. C. EMERSON, Arlington, Virginia and Dr. K. E. CHUNG, Frost Entomological Museum, University of Pennsylvania, Philadelphia for lice; Capt. WILLIAM B. HULL, MSC, USN, Officer-in-Charge, Disease Vector Control Center, U. S. Naval Air Station, Jacksonville, Florida, for lung mites; Dr. HARRY HOOGSTRAAL, Head, Department of Medical Zoology, U. S. Naval Medical Research Unit No. 3, Cairo, United Arab Republic, for ticks, and Dr. J. TEAGUE SELF, Department of Zoology, University of Oklahoma, Norman, for the Pentastoma, and the cooperative support of Dr. A. O. FOSTER, Director, and his staff at the Beltsville Parasitological Laboratory, United States Department of Agriculture, Beltsville, Maryland.

—Received June 30, 1971; Accepted December 18, 1972.

Authors' Address: BETTY JUNE MYERS and ROBERT E. KUNTZ, *Division of Microbiology and Infectious and Education, 7480 West Commerce St., San Antonio, Texas 78284, U.S.A.*