Mammal Collections in the Western Hemisphere

A Survey and Directory of Existing Collections

Mark S. Hafner, William L. Gannon, Jorge Salazar-Bravo, and Sergio Ticul Alvarez-Castañeda



American Society of Mammalogists

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Mammal Collections in the Western Hemisphere

INTRODUCTION AND HISTORICAL PERSPECTIVE

Throughout its history, the American Society of Mammalogists (ASM) has undertaken periodic assessments of the location, size, composition, and curatorial status of collections of Recent mammals in North America. The first such report, authored by A. Brazier Howell (1923) and published in the *Journal of Mammalogy*, appeared just 4 years after the ASM was founded. Howell (1923:113) stated two principal reasons for conducting his survey of mammal collections:

"The larger museums are relatively sufficient unto themselves as regards research material; but the smaller ones, as well as unattached individuals, are often handicapped by their inability to secure, either by purchase or loan, specimens which they may badly need for investigations. The primary purpose in compiling this list is to indicate possible sources from which such material may be obtained. Another effect which it is hoped the appearance of this list will have is the stimulation of the interest of the small collector, the beginner and the amateur. Few will undervalue the importance of gaining recruits for the study of mammalogy..."

With help from E. W. Nelson of the Bureau of Biological Survey, Howell (1923) identified 37 public and 40 private collections in North America. At that time, almost one-half of all mammal specimens in North America (defined as the United States and Canada) were housed in the United States National Museum of Natural History in Washington, D. C. (by comparison, the United States National Museum of Natural History presently holds ca. 15% of all specimens from North America).

More than 2 decades after Howell's (1923) publication, results of the second survey of collections appeared in the *Journal of Mammalogy* (Doutt et al., 1945). The authors of this report (J. Kenneth Doutt, A. B. Howell, and W. B. Davis) stated the following reasons for conducting their survey (Doutt et al., 1945:231):

"In preparing the list we have followed Howell's [1923] original plan to make it a roster of mammal collectors, as well as collections, and we hope that its effect may be to stimulate interest in the science of mammalogy, especially among young collectors."

By 1945, the mammal-collection resource had expanded to include 297 collections (Fig. 1), most of which contained <500 specimens. Although there was a pronounced trend away from private collections (52% were private collections in 1923, compared with 38% in 1945), the bulk of the mammalian material was still contained in a few, large collections. For example, the United States National Museum of Natural History still held ca. 25% of all mammal specimens in North America. Although Doutt et al. (1945) attempted to include Latin American collections in their survey, they received no replies from Mexican or Central American colleagues, and only a single response from South America (Escuela Agricola in El Vergel, Angol, Chile). Thus, the Doutt et al. (1945) report, like its predecessor (Howell, 1923), was restricted to the United States and Canada.

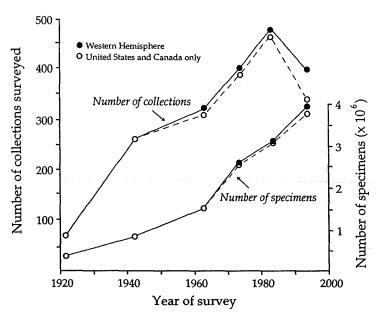


FIG. 1.—Historical trends in number of mammal collections and number of specimens in the collections (1922-1996).

The third survey of mammal collections in North America was conducted by Sydney Anderson, J. Kenneth Doutt, and James S. Findley in 1961 (published in the *Journal of Mammalogy* in 1963). By 1960, the ASM was well established as a professional organization, so the goals of the collection survey shifted somewhat from recruitment of new mammalogists to use of collections and documentation of the history of the discipline (Anderson et al., 1963:473):

"It is hoped that the information here compiled will aid students of mammals in using the collections and will, together with the prior surveys, help document the history of North American mammalogy."

The Anderson et al. (1963) report was based on information from 307 collections in the United States and Canada. The trend away from private, or personal, collections continued (only 14% of the collections were considered private in 1963), as did the trend toward decentralization of the resource (for example, by 1963, the United States National Museum of Natural History contained <20% of all specimens in North America). Two Latin American collections were listed in the Anderson et al. (1963) report (Museo Nacional in San José, Costa Rica and Instituto de Biología in Mexico City), and the authors noted that they had information from 12 collections on other continents.

Jerry R. Choate and Hugh H. Genoways conducted the fourth survey of North American mammal collections on behalf of the ASM in 1973. Their report, published in the *Journal of Mammalogy* in 1975, was part of a larger ASM effort (funded, in part, by the National Science Foundation) to plan for future use and protection of systematic resources in mammalogy. The report included information on 388 collections, only 36 of which (9%) were privately held. The time period covered by the Choate and Genoways report (1963-1973) witnessed rapid growth in number of mammal collections in North

America and record growth in terms of number of specimens in those collections (Fig. 1). Again, only two Latin American collections were included in the 1975 listing, both from Mexico.

In 1981, Hugh H. Genoways and Duane A. Schlitter conducted the first worldwide survey of collections of mammals (exclusive of Canada and the United States). This report listed 321 collections from 76 countries, which together held ca. 80% of all mammal specimens outside of the United States and Canada. Importantly, the Genoways and Schlitter (1981) report included the most comprehensive list of Latin American collections to date (51 collections from 14 countries). This list of Latin American collections served as the starting point for the current survey of Central and South American collections.

Mammal collections in North America were again surveyed in 1983 by Terry L. Yates, William R. Barber, and David M. Armstrong. Their report, published as a supplement to Volume 68 of the *Journal of Mammalogy* (1987), contained information on 474 collections, five of which were from Latin America (one from Costa Rica and four from Mexico), and one from the Caribbean (Jamaica). Part of the mission of the Yates et al. (1987:1) survey was to "accumulate data in an electronic database that would allow for ready revision in future years." Unfortunately, the relatively primitive computer technology available in the early 1980s rendered the Yates et al. electronic database of little use in the present survey. However, the Yates et al. (1987) survey was the first to solicit information about computerization of mammal collections in North America, a trend that has increased rapidly over the past decade.

THE PRESENT SURVEY

Purpose.—This survey was designed to: 1) provide a comprehensive directory of collections of Recent mammals in the Western Hemisphere; 2) document the nature and extent of the holdings of these collections; 3) assess current curatorial practices, including those related to information retrieval; 4) compare current data with those reported in previous surveys to identify long-term trends; 5) assess the overall "health" of the resource, and use this information, plus long-term trends, to forecast the probable future of this resource over the next decade. The results of the survey will be available both in hard copy (this publication) and electronically (the ASM home page address is http://wkuweb1.wku.edu/%7easm/). It is anticipated that all aspects of future collection surveys, including solicitation of information and distribution of results, will be conducted via the Internet.

Scope.—The present survey contains information gathered between December 1994 and December 1995, with numerous updates to June 1996. Initially, the survey was designed to include only North American collections (i.e., Canada, Mexico, and the United States). However, several members of the Systematic Collections committee had direct research connections and collaborators in Central and South America and were aware of the growing number of collections of mammals that existed south of Mexico. After considerable discussion, the survey team decided that it was now time to expand the survey to include all of the Americas (in keeping with our Society's name: American Society of Mammalogists) and that future accreditation of Latin American collections required that they, first, be located and, second, be recognized formally as part of the mammal-collection resource base of the Western Hemisphere. Accordingly, at its 75th-

anniversary meeting in Washington, D. C. (June 1994), the ASM Board of Directors voted to expand the survey to cover all of the Western Hemisphere. Although the coverage of collections in the current report, especially collections in South America, certainly is not exhaustive, we hope that our effort to identify Latin American resources in mammalogy will encourage curators of collections not on the list to contact a member of the survey team so that the next collection survey will be even more comprehensive. Further, we recommend that the next decennial survey of mammal collections, scheduled for 2007, expand to include worldwide coverage. The pioneering global survey by Genoways and Schlitter (1981), plus continued advances in worldwide communication capabilities, should facilitate the work of the next survey team.

Survey questionnaire.—A nine-page questionnaire (a copy of which can be obtained from any of the authors) was sent to all collections listed in Yates et al. (1987) and all Latin American collections listed in Genoways and Schlitter (1981). The questionnaire was modified from that used by Yates et al. (1987) to include additional and updated questions about curatorial practices, collection computerization, and collection accreditation. The questionnaire was available in both English and Spanish.

Response.—In total, 276 of 464 questionnaires mailed to Canadian and United States collections were returned (59% return rate), and 62 of 184 questionnaires mailed to Latin American collections were returned (34% return rate). The high rate of return for Canadian and United States collections was due largely to the efforts of members of the ASM Systematic Collections Committee, each of whom made numerous follow-up contacts to encourage collection curators to return their questionnaires. Of the 51 collections in North America containing ≥10,000 specimens in 1983, all but one responded to the present survey.

The survey team is aware of several Latin American collections that did not respond to the survey, despite repeated attempts by the survey team to solicit a response. The names and addresses of these collections (data from Genoways and Schlitter, 1981; and Péfaur, 1987) are listed in Appendix I. It is hoped that these collections will be included in the next collection survey. Information about several of the Latin American collections was obtained directly from the Sociedad Argentina para el Estudio de los Mamíferos and the Asociación Mexicana de Mastozoología, A. C. We appreciate the assistance of our sister societies in Latin America.

Several collections that were listed as separate collections in previous surveys are now part of other collections. A list of collections that have been integrated into other collections since 1983 is given in Appendix II.

Number and geographic distribution of collections.—Overall, 391 collections are included in this report, of which 329 are from Canada and the United States, and 62 are from Mexico, Central America, and South America (Fig. 2). This represents an apparent 18% reduction in total number of North American collections during the past decade (Fig. 1). This reduction, however, is likely an artifact caused by inclusion of a large number of defunct collections in the Yates et al. (1987) list. For example, in the present report, no collections are listed that reported "no specimens," and collections that failed to respond both to this survey and to the previous survey were considered defunct and dropped from the list (importantly, no collection was dropped without repeated attempts to contact the collection curator by telephone and mail). Thus, the 1987 list, which

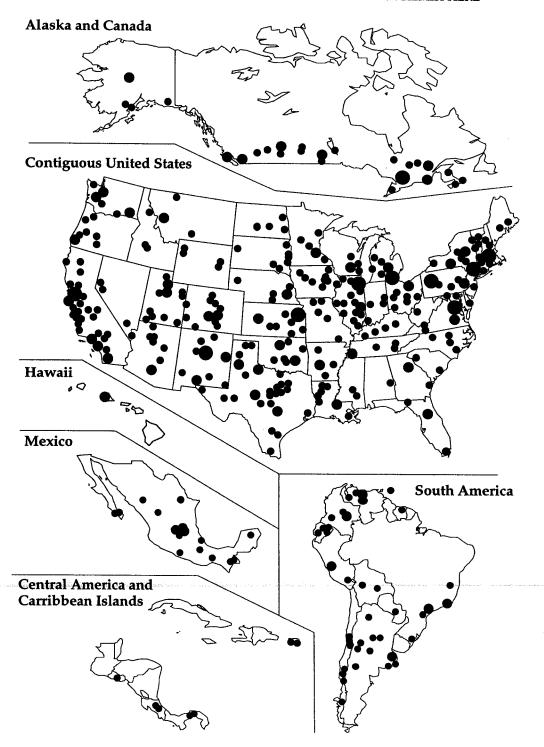


FIG. 2.—Location of mammal collections in the Western Hemisphere. Small dots represent collections with <10,000 specimens, medium dots show collections with 10,000-100,000 specimens, and large dots show location of collections with >100,000 specimens. Maps are drawn to different scales.

included a record 474 collections, may have been an over-estimate of the total number of actual collections of Recent mammals in North America. Nevertheless, it is clear that the long-term trend toward increase in number of mammal collections has either slowed or reversed (Fig. 1). If we assume that the Choate and Genoways (1975) survey also was a slight over-estimate of the number of collections, then it appears that growth of new collections has leveled-off at ca. 350 collections in North America (Canada, United States, and Mexico). Sixty-nine of the 345 North American collections included in the present list responded to the previous survey (Yates et al., 1987), but did not respond to the present survey, despite repeated attempts to contact collection curators by telephone and mail. Although these collections are included in the present directory, it is likely that many of them no longer exist as separate collections. Data reported for these collections were taken directly from Yates et al. (1987).

Number of specimens and their distribution.—The 391 collections included in this report contain a total of 4,194,305 specimens, of which 264,327 (6%) are presently uncatalogued. Collections in Canada and the United States contain a total of 3,806,557 specimens, which is a record number of specimens (Fig. 1), and represents a 21% increase in collection holdings during the past decade. This rate of growth contrasts sharply with the 57% rate of growth observed between 1963 and 1973 (Choate and Genoways, 1975) and the 24% rate of growth between 1973 and 1983 (Yates et al., 1987). However, in terms of absolute number of specimens, the decrease in rate of growth is less dramatic: ca. 900,000 specimens were added to United States and Canadian collections of mammals during 1963-1973 (90,000/year), 600,000 specimens were added during 1973-1983 (60,000/year), and 670,000 during 1983-1995 (56,000/year).

Of the 340 collections in Canada, United States, and Mexico for which size of collection is known, 150 (44%) contain <1,000 specimens, 132 (39%) contain 1,000-10,000 specimens, 49 (14%) contain 10,000-100,000 specimens, and 9 (3%) contain >100,000 specimens. Despite lack of growth in terms of overall number of collections during the past decade, the number of collections with \geq 10,000 specimens has increased from 51 (Yates et al., 1987) to 58 collections at present. Most of these larger collections are located in the United States, where they are fairly evenly distributed throughout the nation (Fig. 2).

The 20 largest collections in the Western Hemisphere (Table 1) together contain 61% of all mammal specimens in the Western Hemisphere. The 10 largest collections, all of which are located in North America, together hold a total of 49.4% of North American specimens. This is a slight decrease compared to the 1987 value (53.1%), and is well below the 1975 value (57.1%). These data indicate that the reduced rate of growth in terms of number of collections in North America (Fig. 1) is not being accompanied by a "clumping" of specimens into the larger collections. In fact, the largest collection in the Western Hemisphere, the United States National Museum of Natural History, presently contains proportionally fewer specimens (15% of all specimens in North America) than it did in 1983 (17.5%) and 1973 (18.7%).

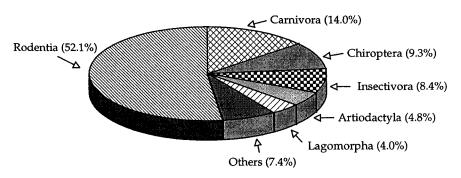
Taxonomic and geographic representation.—More than one-half (52.1%) of all specimens contained in collections of mammals in the Western Hemisphere are representatives of the order Rodentia (Fig. 3). This taxonomic bias was expected, considering that rodents are common, easy to collect and prepare, and relatively inexpensive to store because of their small size. Members of the orders Carnivora (14%), Chiroptera (9.3%), and Insectivora (8.4%) are fairly common in collections, as are

TABLE 1.—Specimen holdings in the 20 largest mammal collections in the Western Hemisphere.

Collection	Number of specimens 1995	Number of specimens 1975	Mean growth per year 1975-1995	Number of holotypes 1975/1995
1. United States National Museum of Natural				
History (USNM)	585,000	475,000	5,500	3,000/3,336
2. American Museum of Natural History (AMNH		240,000	1,874	950/1,062
3. University of California, Berkeley, Museum of	•	.,	,	,,,,,,,,
Vertebrate Zoology (MVZ)	187,500	144,000	2,175	330/357
4. Field Museum (FMNH)	156,400	110,000	2,283	484/414
5. University of Kansas, Museum of Natural		•	ř	•
History (KU)	156,000	132,000	1,200	118/129
6. University of Michigan, Museum of		-		•
Zoology (UMMZ)	138,517	111,800	1,336	122/122
7. University of New Mexico, Museum of				
Southwestern Biology (MSB)	116,000	35,000	4,050	1/5ª
8. Carnegie Museum of Natural History (CM)	113,994	55,000	2,950	30/31
9. Royal Ontario Museum (ROM)	100,000	68,360	1,582	8/13
10. Natural History Museum of Los Angeles				
County (LACM)	97,000	43,000	2,700	22/22
11. Museu Nacional, Rio de Janeiro, Brazil (MN)	90,000			/b
12. Harvard University, Museum of Comparative				
Zoology (MCZ)	72,000	69,000	150	315/322
13. The Museum, Texas Tech University (TTU)	70,000	23,000	2,350	6/13
14. University of Illinois, Museum of Natural				
History (UIMNH)	61,063	48,701	618	20/20
15. Texas A&M University, Texas Cooperative				
Wildlife Collection (TCWC)	56,500	27,000	1,475	39/39
16. Canadian Museum of Nature (CMN)	53,000	42,500	525	61/58
17. The Science Museum of Minnesota (SMM)	45,513°	10,000	1 <i>,7</i> 75	0/0
18. University of Washington, Burke Memorial				
Washington State Museum (UWBM)	40,000	7,400	1,630	0/1
19. Escuela Nacional de Ciencias Biologicas (ENCE				/3
20. Louisiana State University, Museum of Natural Science (LSUMZ)	37,945	18,518	971	23/23

^a MSB also holds 73 symbiotypes (host specimens from which a parasite holotype is collected—see Frey et al., 1992).

^c SMM specimens are not catalogued

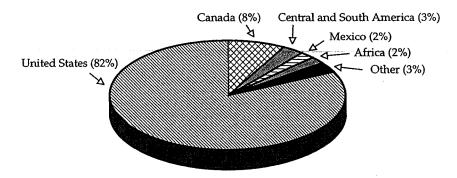


 $FIG.\ 3. \\ -Taxonomic\ representation\ of\ mammal\ specimens\ in\ collections\ of\ the\ Western\ Hemisphere.$

^b MN contains several holotype specimens (number not specified)

artiodactyls (4.8%) and lagomorphs (4%). Other orders are only poorly represented, especially when viewed as a percentage of the total number of specimens in all collections. It should be noted, however, that certain collections have outstanding holdings of specimens in orders not listed above; these special holdings are usually mentioned in the individual listing for that collection (see Directory of Collections).

About 82% of all specimens in collections were collected in the United States (Fig. 4). Only 8% of the specimens are from Canada, 3% are from Central and South America, and 2% are from Mexico.



 $\label{Fig.4.} Fig.~4. \\ \hbox{\it ---Geographic representation of mammal specimens in collections of the} \\ Westen~Hemisphere.$

Special preparations and ancillary collections.—A large number of respondents reported that their collections contain special preparations, including fluid-preserved specimens, cleared-and-stained specimens, taxidermy mounts, parasites, specimens of known age, and specimens of domestic mammals. Significant holdings of special preparations are listed in the individual entries in the collection directory. Despite the fact that fewer individual specimens were added to collections during the past decade than in previous decades (Fig. 1), the total number of special preparations in collections increased dramatically since the previous survey (Table 2). In particular, collections of frozen tissues and mammalian parasites experienced explosive growth during the past decade. Of special concern is the growing number of taxidermy specimens (including trophy heads) accumulating in mammal collections in the Western Hemisphere. Although these specimens are valuable (in many cases, irreplaceable) and certainly are useful for exhibit purposes, they are expensive to store because of their large size, and they have limited research and teaching value. During the next decade, collection managers will need to grapple with the issue of how best to preserve and use taxidermy specimens.

Certain kinds of ancillary data, such as photographs and tape recordings of mammals, are not maintained routinely in most mammal collections. For example, only 21% of collections in the United States reported that they maintain photographs of specimens, and only 12% maintain photographs of habitats. Photomicrographs (3%), tape recordings (3%), motion pictures and videos (8%), and X-ray photographs (6%) are even rarer in collections of mammals in the United States. In some instances (e.g., tape recordings, tissues, and parasites), these materials routinely are deposited in specialty collections not associated directly with the traditional mammal collection (Gannon and Foster, 1996); hence, these materials exist, but are no longer reported in the survey response from the mammal collection.

TABLE 2.—Special preparations contained in mammal collections in the Western Hemisphere.

		The state of the s			
Special preparation	Number of specimens reported (this survey)	Number of specimens reported (1987 survey)	Net growth		
Fluid-preserved specimens	651,644	226,472	188% increase		
Cleared-and-stained specime	ens 2,997	326	819% increase		
Frozen tissues	473,614	21,300	2,123% increase		
Taxidermy specimens	30,093	5,243	474% increase		
Mammalian parasites	24,943	1,242	1,908% increase		
Domestic mammals	6,132	3,531	74% increase		
Specimens of known age	39,051	11,715	233% increase		

Frozen-tissue collections.—Increased use of molecular techniques has stimulated dramatic growth of frozen-tissue collections during the past decade (Dessauer et al., 1996; Table 2). Mammal collections in the Western Hemisphere currently maintain frozen tissues representing ca. 474,000 individual mammals. Nearly all of these tissue specimens are represented by traditional voucher specimens, which means that ca. 11% of all specimens in the traditional collections are represented by frozen tissues. Significant holdings of frozen tissues are mentioned in the individual listings in the collection directory. Especially large holdings of frozen tissues are contained in the following collections: MSB (85,000 specimens), TTU (70,000), UAM (17,000), CM (14,000), FMNH (10,000), MVZ (10,000), ROM (8,300), and LSUMZ (5,300). A worldwide directory of frozen-tissue collections is available in Dessauer et al. (1996).

Holotypes.—Mammal collections in the Western Hemisphere hold a total of 6,625 holotype specimens that are dispersed among 52 collections. North American collections currently hold 6,508 holotypes, which represents a 5% increase in number of holotypes since the last survey (Yates et al., 1987). About 51% of all holotype specimens in North America are contained in the USNM collection (down from 53% in 1987), and 90% of all holotypes in the Western Hemisphere are contained in the 20 largest collections (Table 1). Appendix III lists published catalogues of holotype specimens of mammals, and Appendix IV lists general publication series associated directly or indirectly with collections of mammals.

Use of collections.—When asked to identify the major purpose of their collection, 44% of the respondents listed teaching and education and 43% listed research as the primary goal of their collection (Fig. 5a). In nearly all instances, those who listed research as the primary goal of their collection, listed teaching and education as the secondary goal. When asked how their collections actually were used in a typical year, a larger percentage of respondents (58%) reported heavy emphasis on teaching and education, and only 26% reported that the major use of their collection was for research purposes (Fig. 5b).

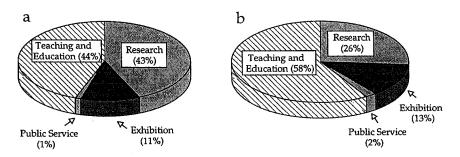


FIG. 5.—a) Primary goals of North American collections of mammals. b) Actual use of the collections.

Sources of support.—Nearly all collections surveyed reported multiple sources of support (Fig. 6). More than one-half (58%) of all mammal collections in the United States are supported directly by state government or, more commonly, through state-supported colleges and universities. A large number of collections depend on private donations, endowments, and federal or state grants and contracts for additional support. Although comparative data were not available from the previous survey, our impression is that sources of support have remained fairly constant during the past decade. The close association of many collections with colleges and universities underscores the immense educational value of this resource.

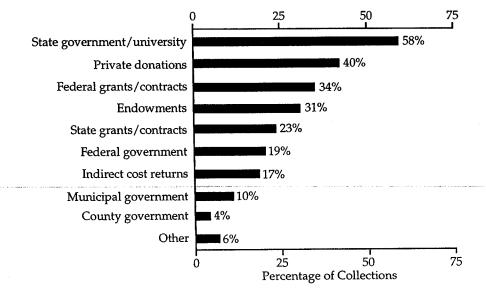


FIG. 6.—Sources of support for collections of mammals in the United States. The category "other" includes membership dues, gift shop revenues, admission charges, and similar sources of income. Percentages total >100% because most collections are supported by multiple sources.

Personnel.—Table 3 provides an overview of current support personnel in collections of mammals in the United States. About one-half of the collections are headed by a full- or part-time curator, most of whom are paid for their duties. One-quarter of the collections employ collection managers, nearly all of whom are paid for their work. About one-third of the collections employ paid hourly workers (usually students), and roughly the same percentage of collections rely on part-time volunteer labor. Other support positions are relatively uncommon in collections in the United States (Table 3). Although similar data were not reported for the previous survey (Yates et al., 1987), our impression is that persons with the formal title "curator" are becoming less common in mammal collections in the United States, whereas an increasing number of persons are being employed as collection managers. The potential ramifications of this trend are discussed by Cato (1991) and in the section of this report titled "Health of the resource."

TABLE 3.—Support personnel in collections in the United States.

Pe	rcentage of colle		
Position	Full time	Part time	Percentage paid
Curator	29	36	76
Assistant/Associate Curator	4	6	79
Collection Manager	17	9	95
Curatorial Assistant	2	12	8
Technician	5	9	97
Research Assistant	2	6	72
Graduate Student	3	18	51
Preparator	2	11	72
Hourly worker	2	30	94
Secretarial/Clerical	4	8	96
Conservator	· 1	1	100
Registrar	4	1	100
Volunteer	1	32	0

Curatorial standards and policies.—About 68% of all North American collections have standardized curatorial practices and policies. This value is unchanged from that reported in 1983 (Yates et al., 1987). However, in nearly two-thirds (66%) of these collections, curatorial practices and policies are now available in written form. This is a dramatic and welcome increase since the last survey, when only 32% of the collections reported that they had written policy documents.

Increased use of molecular techniques has caused an increase in requests for tissue samples taken directly from study skins (Engstrom et al., in press). Although the size of the tissue sample is typically small, this practice results in permanent damage to the skin. Consequently, curators should be judicious in granting permission for consumptive sampling of specimens in their care. Currently, only 14% of North American collections have written policies pertaining to consumptive sampling of their specimens. The ASM Systematic Collections committee has produced a document titled "Recommended policy for consumptive sampling of mammal specimens," which can be modified for use in all collections that currently lack a written policy in this important area.

Original field notes and collectors' catalogues are maintained routinely in ca. 60% of North American collections (up from 55% in 1983), and nearly one-half of the collections (43%) maintain files of scientific collecting permits and related documents. This value (43%) is considerably larger than that reported in 1983 (31%), suggesting that collection managers are becoming increasingly aware of the importance of legal documentation of materials in their collections.

Catalogues.—About 80% of all North American collections maintain some form of collection catalogue. The percentage of North American collections maintaining written catalogues of their holdings has changed little since the previous collection survey (Yates et al., 1987). Presently, 67% of the collections maintain written numeric catalogues, 43% have written accession catalogues, 38% maintain written taxonomic catalogues, and 27% have written geographic catalogues.

An increasing number of collections have produced (or are in the process of producing) electronic (computerized) catalogues of their collection holdings (see following section on collection computerization). For example, 39% of collections in North America have computerized numeric catalogues, 30% have computerized taxonomic catalogues, 23% have computerized accession catalogues, and 21% have computerized geographic catalogues.

Only 61% of North American collections that maintain catalogues (whether written or computerized) also maintain some form of back-up system in the event of loss of the original catalogue or computer file. As more and more collections develop computerized catalogues, the frequency of back-up systems also should increase because of the ease of duplicating computer files.

Computerization.—Exactly one-half of all collections in Canada and the United States are computerized to some extent (up from 34% in 1983), and 37% of Latin American collections are wholly or partially computerized. Of the collections using computers for database management, 27% are completely computerized (i.e., all specimens are entered into the database) and 43% are at least one-half computerized. More than 30 different software applications are used to manage mammal-collection databases on a variety of computer platforms (e.g., DOS, Macintosh®, UNIX). About 40% of the computerized collections use 80486 IBM® (or IBM clone) computers running either dBase® or spreadsheet-type software (e.g., Lotus®, Excel®, or Paradox®). Some collections reported that they have migrated (or plan to migrate) to a UNIX-based system. It appears that most collections are using a standard language (SQL), which is important if the future trend in mammalogy is toward a unified system of collection databases accessible on one network, such as the World Wide Web (WWW). Use of Microsoft® applications has increased dramatically since the previous collection survey (Yates et al., 1987). It appears that many of the more active collections with large databases intend to migrate to more complex and encompassing applications (e.g., Oracle®), which allow use of a single database with simultaneous access by collection staff, collection users, and remote (WWW) users, all with limited (read only) access, but immediate database updates.

Protection of collections.—Table 4 lists the percentage of North American collections that are protected against various kinds of potential damage to specimens. As is obvious from Table 4, there has been a dramatic increase since 1983 in the percentage of collections protected against all listed sources of damage. Despite the generally high level

of protection against the more common kinds of damage to specimens (e.g., fire and insect damage), only 13% of the collections have written disaster plans.

TABLE 4.—Percen	tage of North American collections protected against various kinds of potential
damage to specimens.	Previous survey results are from Yates et al. (1987).

Potential source of damage	Percentage of co		
	This survey (1995)	Previous survey (1983)	Net change
Fire	83	21	+62%
Temperature fluctuation	58	16	+42%
Humidity fluctuation	43	13	+30%
Water damage	42	16	+26%
Theft and vandalism	80	22	+58%
Animal (insect) pests	88	24	+64%
Mold and mildew	36	(not asked)	

About 75% of all collections reported that they routinely monitor for presence of insects or insect damage. Use of chemical fumigants to protect against insect damage has declined from 63% of the collections in 1983 to 47% in 1995. In contrast, use of Integrated Pest Management practices (Albert and Albert, 1989) has increased from 18% of the collections in 1983 to 51% in 1995. Integrated Pest Management (IPM) is a program that minimizes use of pesticides for insect control. This approach targets the root of museum pest problems by concentrating on exclusion of pests from the premises altogether. IPM procedures are simple, cost effective, and a safe means of long-term control of pest infestations. Most IPM programs use the following protocol: 1) inspect for presence of pests; 2) deploy non-chemical control measures (usually sticky traps); 3) evaluate results; 4) if necessary, deploy chemical measures in a carefully specified manner; 5) re-evaluate results; 6) establish an ongoing monitoring program.

Respondents who use chemicals for pest control reported that they use of a wide variety of chemical fumigants, including ethylene dichloride, arsenic, ammonia vapor, carbon disulfide, carbon tetrachloride, carbon dioxide gas, paradichlorobenzene (moth balls and crystals), pyrethrins, vapona, and others. Many reported that they use a combination of chemical fumigants. Other forms of pest management included professional treatment of the collection area (or the entire building), freezing of incoming and outgoing specimens, and use of various kinds of "bug traps" (e.g., "bug zappers" and sticky traps).

Loans.—About 75% of collections in Canada and the United States and 39% of Latin American collections reported that they processed loans of mammal specimens in the 2 years prior to the survey (1993-1994). This value is considerably larger than that reported in the previous survey (Yates et al., 1987), when only 30% of North American collections reported loan activity. Although many more collections in Canada and the United States were involved in loan activity during 1993-1994, the actual number of loans was smaller (2,899 loans in 1993-1994, versus 3,828 loans in 1982-1983). Thus, the average number of loans per collection (considering only those collections that reported loan activity) was much smaller in 1993-1994 (11 loans/collection) than in 1982-1983 (26.4 loans/collection). The total number of specimens loaned by North American collections during 1993-1994

(37,181 specimens) was also lower than the total number of specimens loaned in 1982-1983 (ca. 48,000 specimens). Not surprisingly, most of the loan activity during 1993-1994 (81% of loans and 83% of specimens loaned) was concentrated in the 59 collections with holdings of >10,000 specimens.

Accreditation.—The ASM Systematic Collections committee is responsible for inspecting and accrediting collections of Recent mammals. The standards used to evaluate those collections are given in Appendix V. These standards were established to protect the collection resource, and the accreditation process was established to assist administrators of collections to meet the standards. Ideally, voucher specimens generated by researchers should be deposited only in accredited collections, where they will be curated properly and made available to the scientific community. Another advantage of accreditation is that the process, itself, can be influential in promoting the status of the collection under review, especially within one's own institution. Often, simple corrective measures recommended by the accreditation team can lead to vast improvements in operation of the collection and specimen care.

In 1995, the ASM Systematic Collections Committee announced a new accreditation procedure (termed "Initial Accreditation") through which Latin American collections could receive preliminary accreditation without a site visit by a member of the Systematic Collections Committee. This procedure was designed to circumvent the costs and logistical problems usually involved in site visits so as to accelerate the pace at which Latin American collections are accredited. Also, international recognition of a collection often assists the collection in terms of greater institutional support. Finally, recognition of Latin American collections makes them more visible for research use, both in the sense of specimen loans and deposition of voucher specimens. Procedures for Initial Accreditation differ from those for regular accreditation and are detailed in the *Journal of Mammalogy* (76:1302-1303, 1995).

Currently, there are 64 accredited collections (Appendix VI), and 60 additional collections have requested accreditation. Although this long waiting list will keep the Systematic Collections Committee busy well into the future, it is unfortunate that the remaining 264 collections have not expressed interest in accreditation. The administrators of all mammal collections, regardless of the size or location of the collection, should be aware of the many advantages of ASM accreditation, and all should attempt to meet or exceed the basic curatorial standards deemed acceptable by the ASM for proper long-term storage of specimens.

HEALTH OF THE RESOURCE

Our close examination of the survey data, coupled with verbal and written responses from people in charge of collections, leave us with the impression that mammal collections in the Western Hemisphere generally are in good health. This is not to say that all collections are in good condition, or that there is not room for improvement in most collections. However, the survey revealed several positive signs—plus a few causes for concern—about the future of mammal collections in the Western Hemisphere.

As discussed earlier, the apparent decline in number of collections (Fig. 1) is most likely an artifact of different survey methods in this and prior surveys. However, it is

clear that new mammal collections are not appearing as rapidly as they did in the past, which we interpret as normal saturation (i.e., there are a limited number of institutions that can and will support collections), rather than decline of the resource base. Merger of several small and potentially vulnerable collections into a single larger collection, and donation of small collections to larger institutions also has contributed to this reduction in number of individual collections. However, these consolidations have strengthened the resource by safeguarding a larger number of specimens in secure repositories.

The questionnaire asked survey respondents if they expected any changes in their collection during the next 10 years. About one-half responded "no." Of those who responded "yes," ca. 80% gave generally optimistic responses about the future, and 20% gave neutral or negative responses. Included in the neutral responses were 8% of the respondents who stated that their collections probably would be merged with other small collections to form a larger unit, or that their collections would be donated to another institution. Most of the negative responses (5% of all respondents) came from curators who were retiring and were concerned about the future of their collections. In most instances, there was no guarantee that the curator would be replaced with a collection-oriented person. Finally, a small percentage of the respondents (3%) reported that their collection was in a state of decline.

Of the optimistic responses, 32% reported plans for general improvement of their facility, and 22% reported plans for a new building. An additional 16% indicated plans to hire a new curator or other collection personnel, and 14% said that activity in their collection was on the upswing. Finally, 7% of the respondents reported that increased funds for collection activities were either confirmed or anticipated in the next 10 years.

Although persons with the formal title of "curator" seem to be less common in collections than in previous decades, there has been a definite increase in the number of persons with the title "collection manager." We see this as a positive trend for mammal collections because essentially all collection managers have hands-on duties in their collections, whereas many curators have only administrative responsibility over their collection. Collection managers tend to have fewer duties outside of their curatorial obligations, which means that they have time to keep abreast of modern collection-management techniques, including Integrated Pest Management. This may explain the dramatic increase in use of IPM during the past 10 years, as well as the general increase in all other kinds of collection protection (Table 4).

During the next decade, we recommend that the ASM Systematic Collections committee take the following steps to further safeguard this important resource. First, we recommend that the committee contact those curators who indicated that their collections are at risk, and develop a plan to protect (or transfer) specimens in these collections. Second, we recommend that the committee increase its accreditation activities, and encourage more Latin American collections to use the Initial Accreditation procedure described above. Third, we recommend that the committee consider how best to handle the increasing number of taxidermy specimens in mammal collections. A carefully considered recommendation from the ASM would be extremely helpful to the many curators faced with growing numbers of taxidermy mounts in their care. Finally, we recommend that the committee work with collection curators to reduce or eliminate duplicated collection acronyms (see Appendix VII). Unique collection acronyms will help maintain order and consistency in the taxonomic literature pertaining to mammals.

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Directory of Collections of Mammals in the Western Hemisphere

ARGENTINA

Instituto Argentino de Investigaciónes de las Zonas Aridas (IADIZA-CM)

Colección Mastozoológica
Unidad de Zoología y Ecología Animal
Casilla de Correo 507,
Casill

5500 Mendoza, Argentina E-mail:Rojeda@planet.losandes.com.arg

5,000 specimens; especially rodents and xenarthrans from the Monte Biome and the Argentinean

Patagonia; additional contacts: Virgilio Roig (ntcrycit@arcriba.edu.ar) and Ana M. Scollo

Museo Argentino de Ciencias Naturales "Bernandino Rivadavia" (MACN)

Colección de Mamíferos
Contact: Martha J. Piantanida
Avenida Aprel Callardo 470
Vaice: 54-1-9826595

Avenida Angel Gallardo 470 Voice: 54-1-9826595 Casilla de Correo 220, suc. 5 FAX: 54-1-9824494

1405 Buenos Aires, Argentina E-mail: postmaster@mastoz.edu.ar

20,566 specimens; primarily mammals of Argentina, however other South American countries also are represented; additional contact: Olga Vaccaro

Museo de Ciencias Naturales y Antropológicas "Prof. Juan C. Moyano" (MJCM)

Colección de Mamíferos Contact: Kett Bohm de Saurina Plaza de la Independencia

5500 Mendoza, Argentina 597 specimens; primarily mammals from northcentral Argentina

Museo de Ciencias Naturales y Antropológicas "Prof. A. Serrano" (CMCNA)

Colección Mastozoológica Contact: Juana Maria Barzanti

Avenida Rivadavia 462 3100 Entre Rios, Argentina

210 specimens; exclusively mammals from Argentina

Museo Florentino Ameghino, Colección de Mastozoología (MFA-ZV-M)

Sección Zoología de Vertebrados Contact: Edelvita Fioramonti Primera Junta 2859 - Primer Piso Voice and FAX: 54-42-523843

3000 Santa Fé, Argentina

615 specimens; primarily mammals of Argentina; additional contact: Carlos Virasoro

Museo de Mar del Plata (MMP)

Mastozoología Contact: Orlando A. Scaglia

Avenida Libertad 3000, Plaza España

Mar del Plata

7600 Buenos Aires, Argentina

3,000 specimens; mainly mammals of Argentina, but also from Uruguay and Brazil

Museo de La Plata (MLP)

Colección de Mamíferos

Departamento Científico, Zoología Vertebrados

Departamento Científico, Zoología Vertebrados Voice: 54-21-257744

Museo de La Plata FAX: 54-21-257527

Paseo del Bosque E-mail: museo@isis.unlp.edu.ar 1900 La Plata, Argentina

Contact: Diego Verzi

2,000 specimens; mostly xenarthrans and rodents from the Pampean and Patagonian regions of

Argentina; additional contact: Carlos Galliari (cailo@ilpla.edu.ar)

Museo Provincial de Historia Natural de La Pampa (RVP)

Colección de Mamíferos Pellegrini 180, Santa Rosa 6300 La Pampa, Argentina Contact: Sergio Tiranti Voice: 54-95-422693

220 specimens; mostly rodents from the Province of La Pampa in westcentral Argentina; collection contains several chromosome slides

Universidad Nacional de Rio Cuarto, Colección de Mamíferos (CUNRC)

Estafeta Postal 9 Rio Cuarto

Contact: Jaime J. Polop Voice: 54-586-33859 FAX: 54-586-45980

5800 Córdoba, Argentina

2,100 specimens; mostly rodents from central Argentina

E-mail: jpolop@unrccc.edu.ar

Universidad Nacional de Tucumán, Colección de Mamíferos Lillo (CML)

Facultad de Ciencias Naturales e Instituto Miguel Lillo Universidad Nacional de Tucumán

Contact: Rubén Barquez Voice: 54-81-210944

Miguel Lillo 205

FAX: 54-81-210944

4000 Tucumán, Argentina

6,268 specimens; primarily mammals of northern Argentina; other Latin American countries also are represented

BOLIVIA

Colección Boliviana de Fauna (CBF)

Mastozoología Calle 26, Cota-Cota Casilla de Correo 8706 La Paz, Bolivia

Contact: Teresa Tarifa S. Voice: 591-2-795364 FAX: 591-2-770876 E-mail: ttarifa@cbf.bo

3,765 specimens; exclusively mammals of Bolivia; additional contact: Nuria Bernal (e-mail: nbernal@cbf.bo); collection includes specimens formerly housed at the Museo Nacional de Historia Natural de Bolivia and the Colección de Vertebrados, Instituto de Ecología, Universidad Mayor de San Andrés

Museo de Historia Natural "Noel Kempff Mercado" (MNK)

Sección de Mastozoología Avenida Irala 565 Casilla de Correo 702

Contact: Pamela Rebolledo Voice and FAX: 591-3-366574 E-mail: museo-nk@uagrm.bo

Santa Cruz de la Sierra, Bolivia

2,000 specimens; collection emphasizes mammals of Santa Cruz Department; additional contact: Aida Torrico

BRAZIL.

Museu de Biologia Mello Leitão (MBML)

29.650 Santa Teresa Espiritu Santo, Brasil Contact: Sergio Lucena Mendes Voice and FAX: 55-27-259-1182

2,100 specimens; emphasis on small mammals of Brazil; additional contact: Devanir Loss

Museu de Ciências Naturais (MCN)

Coleção de Mastozoologia

Fundação Zoobotânica do Rio Grande do Sul

Avenida Salvador França 1427

90.690 Porto Alegre

Rio Grande do Sul, Brasil

2,962 specimens; emphasis on mammals of the states of Rio Grande do Sul and Ceará; additional contact: Cesar Jaeger Drehmer

Museu de Historia Natural "Capão de Imbuia" (MHNCI)

Seção de Mastozoologia

Rua Benedito Conceição 407

82.810-080 Curitiba

Parana, Brasil

3,000 specimens; collection emphasizes rodents and bats of the state of Parana; additional contact:

Michel Miretzki

Universidade Federal do Rio de Janeiro, Museu Nacional (MN)

Coleção de Mamiferos

Museo Nacional

Universidade Federal do Rio de Janeiro

Quinta de Boa Vista, 20.940-040

Rio de Janeiro, Brasil

90,000 specimens; collection includes several holotypes; emphasis on Brazilian mammals, especially

rodents and primates; additional contact: Joao Alves de Oliveira (jaoliv@omega.lncc.br)

Universidade de Sao Paulo, Museu de Zoologia (MZUSP)

Seção de Mamiferos

Caixa Postal 7172, 01064-970

São Paulo, Brasil

28,300 specimens; collection emphasizes Brazilian species

Contact: Heraldo A. Britski Voice: 55-11-274-2455

Contact: Jorge Ferigolo

Contact: Vanessa Guerra Persson

Contact: Luiz Flamarion de Oliveira

E-mail: LFBOMN@omega.lncc.br

Voice: 55-51-336-1511

FAX: 55-51-336-1778

FAX: 55-11-274-3690

Voice: 55-21-264-8262

FAX: 55-21-254-4320

CANADA

ALBERTA

Banff Park Museum (BNP)

Banff Park Museum Collection

93 Banff Avenue

P.O. Box 900

Banff, Alberta T0L 0C0, Canada

Contact: Maureen Peniuk

Voice: 403-762-1557 or 762-1558

FAX: 403-762-3380

E-mail: hsmanager@pksbnp.dots.doe.ca

118 specimens; primarily taxidermy mounts; regional emphasis (Rocky Mountains National Park); additional contact: Michael Gair (voice: 403-762-1573; e-mail: collections@pksbnp.dots.doe.ca)

Provincial Museum of Alberta (PMA)

12845 - 102 Avenue

Edmonton, Alberta T5N 0M6, Canada

Contact: Harold N. Bryant

Voice: 403-453-9186

FAX: 403-454-6629

11,074 specimens; regional emphasis (Alberta); additional contacts: Maggie Ballantyne and Margot Brunn (voice: 403-453-9191 and 403-453-9169); ACCREDITED BY ASM (1985)

University of Alberta, Museum of Zoology (UAMZ)

Mammal Collection University of Alberta

Edmonton, Alberta T6G 2E9, Canada

8,000 specimens at last report (Yates et al., 1987); ACCREDITED BY ASM (1985)

BRITISH COLUMBIA

Kelowna Museum (KM)

Mammal Collection

470 Queensway

Kelowna, British Columbia V1Y 6S7, Canada

750 specimens; includes former Dun-Waters Collection

Contact: Dan Bruce Voice: 604-763-2417 FAX: 604-763-5722

Royal British Columbia Museum (RBCM)

(formerly British Columbia Provincial Museum, BCPM)

675 Belleville Street

Victoria, British Columbia V8V 1X4, Canada

Contact: David Nagorsen

Voice: 604-387-2933 FAX: 604-387-5360

E-mail: dnagorsen@rbml01.rbcm. gov.bc.ca

Contact: (did not respond to survey)

18,500 specimens; collection includes 24 holotypes; regional emphasis (British Columbia); additional contact: Angela Beltane (voice: 604-387-2926; e-mail: ebeltane@rbml01.rbcm.gov.bc.ca); ACCREDITED BY ASM (1976)

University of British Columbia, Cowan Vertebrate Museum (UBC)

Department of Zoology

University of British Columbia

Vancouver, British Columbia V6T 1Z4, Canada

20,000 specimens; ACCREDITED BY ASM (1975)

Contact: Richard Cannings

Voice: 604-822-4665 FAX: 604-822-2416

E-mail: vetmus@bcu.ubc.ca

MANITOBA

Manitoba Museum of Man and Nature (MMMN)

190 Rupert Avenue

Winnipeg, Manitoba R3B 0N2, Canada

Contact: Jack Dubois/R. Puttenham

Voice: 204-988-0659 FAX: 204-942-3679

19,000 specimens; regional emphasis; includes former collections of Delta Waterfowl Research Station, Atomic Energy of Canada Limited, Whiteshell Nuclear Research Establishment (WNRE), and University of Manitoba Zoological Museum (UMAN, part); additional contact: Janis Klapecki (voice: 204-988-0620)

Riding Mountain National Park (RMNP)

Wasagaming, Manitoba R0J 2H0, Canada

Collection size not reported; local emphasis

Contact: Head, Resource Management

Voice: 204-848-7222 FAX: 204-848-2866

University of Manitoba, Zoological Collection (UMAN)

Department of Zoology University of Manitoba

Winnipeg, Manitoba R3T 2N2, Canada

Contact: William O. Pruitt, Jr.

Voice: 204-474-9683 FAX: 204-275-6352

E-mail: pruitt@bldgduff.lan1.umanitoba.ca

300 specimens; used for teaching only; all scientific specimens were donated to the Manitoba Museum of Man and Nature (MMMN)

NEW BRUNSWICK

New Brunswick Museum (NBM)

277 Douglas Avenue

Saint John, New Brunswick E2K 1E5, Canada

Contact: Donald F. McAlpine

Voice: 506-643-2345 FAX: 506-643-2360

6,000 specimens; regional emphasis (New Brunswick); good cetacean holdings; includes former N. Rae Brown Collection (NRBC)

NOVA SCOTIA

Acadia University, Wildlife Museum (AUW)

Department of Biology Acadia University

Wolfville, Nova Scotia BOP 1X0, Canada

Contact: Michael J. Dadswell

Voice: 902-542-2201 FAX: 902-542-3466

E-mail: dadswel@acadiau.ca 2,100 specimens; former collection acronym: AUM; additional contact: Ian MacDonald

Nova Scotia Museum of Natural History (NSM)

1747 Summer Street

Halifax, Nova Scotia B3H 3A6, Canada

1,980 specimens; additional contact: Alex Wilson

Contact: Frederick Scott Voice: 902-424-7370 FAX: 902-424-0560

E-mail: can-nsmz@immedia.ca

ONTARIO

Algonquin Park Museum (APM)

(formerly Algonquin Provincial Park, APP) Algonquin Park Visitor Center Ministry of Natural Resources, Box 219 Whitney, Ontario K0J 2M0, Canada

354 specimens at last report (Yates et al., 1987); local emphasis (Algonquin Park); additional contact:

Ron Tozer (e-mail: tozerrr@epo.gov.on.ca)

Contact: Dan Strickland Voice: 613-637-2828 FAX: 613-637-2138

E-mail: strickdd@epo.gov.on.ca

Canadian Museum of Nature (CMN)

(formerly National Museum of Natural Sciences, NMC)

Mammal Collection P. O. Box 3443 Station "D"

Ottawa, Ontario K1P 6P4, Canada

ACCREDITED BY ASM (1975 and 1987)

Contact: Darlene Balkwill Voice: 613-952-0827 FAX: 613-954-6439

E-mail: dbalkwill@mus-nature.ca 53,000 specimens; collection includes 58 holotypes; significant holdings of Canadian species, Nearctic species, and North Atlantic cetaceans; includes former Wistar Institute Collection (part), C. H. Buckner Collection, Leo Jobin Collection, Arthur Martel Collection, and the collection of the Arctic Biological Station; additional contact: David Campbell (voice: 613-954-4949; e-mail: dcampbell@mus-nature.ca);

Carleton University, Museum of Zoology (CUMZ)

Department of Biology Carleton University 1125 Colonel By Drive Ottawa, Ontario K1S 5B6, Canada 12,000 specimens; includes Donald A. Smith Collection

Contact: Donald A. Smith Voice: 613-788-2600 FAX: 613-788-4497

Ministry of Natural Resources (MNR)

Wildlife Resources P. O. Box 5000 Maple, Ontario L6A 1S9, Canada Contact: Ed Addison Voice: 905-832-7124 FAX: 905-832-7149

E-mail: addisoed@epo.gov.on.ca

2,419 specimens; primarily skeletal material of carnivores of Ontario

Rondeau Provincial Park (RPPMC)

Rural Route 1 Morpeth, Ontario NOP 1X0, Canada

150 specimens; regional emphasis (southern Ontario)

Contact: Pamela Burns Voice: 519-674-1768 FAX: 519-674-1755

Royal Ontario Museum (ROM)

Department of Mammalogy 100 Queen's Park Toronto, Ontario M5S 2C6, Canada Contact: Mark D. Engstrom Voice: 416-586-5769 FAX: 416-586-5863 E-mail: marke@rom.on.ca

100,000 specimens; collection includes 13 holotypes; significant holdings of mammals of Ontario and the northern Neotropics; comprehensive, worldwide collection of bats; frozen-tissue collection (8,300 specimens); includes former collections of O. J. Barton, J. G. Williams, R. G. Lanning, R. Mumford, and R. Brooman; additional contact: Judith L. Eger (voice: 416-586-5767; e-mail: judithe@rom.on.ca); ACCREDITED BY ASM (1975 and 1995)

University of Guelph (UGDZ)

Department of Zoology University of Guelph Guelph, Ontario N1G 2W1, Canada 2,086 specimens; regional emphasis

Contact: E. Graham Nancekivell

Voice: 519-824-4120 FAX: 519-767-1656

OUEBEC

McGill University, Redpath Museum (RM)

859 Sherbrooke Street West

Montreal, Quebec H3A 2K6, Canada

4,000 specimens; collection emphasizes small mammals of Quebec

Contact: Delise Alison

Voice: 514-398-4092; FAX: 514-398-3185

Université Laval, Collection de Vertébrés (CVUL)

(formerly Musee Prorancher, MP) Department of Biology Laval University Sainte-Foy, Quebec G1K 7P4, Canada 3,900 specimens, regional emphasis

Contact: Jean-Marie Perron

Voice: 418-656-2497 FAX: 418-656-7925

SASKATCHEWAN

Royal Saskatchewan Museum (RSM)

(formerly Saskatchewan Museum of Natural History, SMNH) Contact: David Baron 2340 Albert Street

Regina, Saskatchewan S4P 3V7, Canada

3,200 specimens; regional emphasis (mammals of Saskatchewan)

Voice: 306-787-2814 FAX: 306-787-2645

University of Regina (USRC)

Biology Department University of Regina

Regina, Saskatchewan S45 0A2, Canada

250 specimens at last report (Yates et al., 1987); collection used for teaching only

Contact: D. M. Secoy. Voice: 306-585-4231 FAX: 306-585-4894

CHILE

Museo de Historia Natural de Concepción (MHNC)

Colección Mastozoológica

Maipú 2359

Casilla de Correo 1054

Concepción, Chile

123 specimens, mostly taxidermy displays

Contact: Juan Franklin Troncoso Voice and FAX: 56-41-310932

Museo de Historia Natural de Valparaiso (MHNV)

Colección de Mamíferos

Condell 1546

Casilla 3208 Correo 3 Valparaiso, Chile

1,270 specimens; mostly rodents and lagomorphs of Chile

Contact: Sergio Zunino Tapia

Voice: 56-32-257441 FAX: 56-32-213375

Museo Nacional de Historia Natural (MNHN)

Sección Zoología

Casilla 787

Santiago de Chile, Chile

1,633 specimens; collection includes 18 holotypes; exclusively Chilean mammals

Contact: Jose Yañez Voice: 56-2-6814095 FAX: 56-2-6817182

Voice: 56-63-221469

Universidad Austral de Chile, Instituto de Ecología y Evolución (IEEUACH)

Colección de Mamíferos

Casilla 567

Universidad Austral de Chile

Valdivia, Chile

5,940 specimens; mostly rodents from central and southern Chile; chromosomal preparations (1,500) and frozen tissues (500)

FAX: 56-63-221344

Contact: Milton H. Gallardo

E-mail: mgallard@valdivia.uca.uach.cl

Universidad de Chile, Laboratorio de Citogenética de Mamíferos (LCM)

Departamento de Biología y Genética

Facultad de Medicina

Universidad de Chile

Independencia 1027, Casilla 6556, Medicina Norte Santiago 7, Chile

preparations (several hundred); additional contact: Laura Walker

Contact: Angel Spotorno

Voice: 56-2-6786469 FAX: 56-2-7373158

E-mail: aspotorn@med.uchile.cl

1,900 specimens; collection emphasizes Chilean rodents; frozen tissues (100); chromosomal

Universidad de Concepción, Museo de Zoología (MZUC)

Departamento de Zoología

Facultad de Ciencias Naturales y Oceanográficas

Universidad de Concepción

Casilla 2407

Contact: Viviane Jerez Voice: 56-41-204965 FAX: 56-41-2448805

E-mail: mzuc@halcon.dpi.udec.cl

Concepción, Chile

1,100 specimens; exclusively mammals of Chile; a new Museum of Natural Sciences will house this collection in 1997 (street address probably will change); additional contact: José Artigas (voice: 56-41-204152; e-mail: jartigas@halcon.dpi.udec.cl)

Universidad de Magallanes, Instituto de la Patagonia (CZIP)

Colección Zoológica Sala "Enrique Ibar Sierra" Universidad de Magallanes Intituto de la Patagonia

Casilla 113-D, Punta Arena, Chile

1,259 specimens; mostly rodents from southern Chile

Contact: Claudio Venegas Voice: 56-61-217173 FAX: 56-61-212973

Contact: Alberto Cadena

Voice: 571-268-4336 FAX: 571-268-2485

Voice: 571-286-0601

E-mail: cvenegas@aoniken.fc.umag.cl

COLOMBIA

Instituto de Ciencias Naturales, Museo de Historia Natural (ICN)

Colección de Mamíferos Museo de Historia Natural Apartado 7495

Santa Fé de Bogotá, Colombia

15,400 specimens; mostly small mammals of Colombia; additional contact: Cecilia Ramirez

La Unidad de Investigación "Federico Medem"-Inderena (IND-M) Contact: Hernando Chirivi Gallego

Colección Mastozoológica Apartado Aéreo 13458

Santa Fé de Bogotá, Colombia

FAX: 571-243-1850 7,250 specimens; collection includes two holotypes; collection is now part of the Instituto de Investigaciones Biologicas "Alexander von Humboldt" (Ministerio del Medio Ambiente); the address probably will change

Universidad del Valle, Colección de Mamíferos (UV)

Departamento de Biología Universidad del Valle Apartado Aereo 25360

Cali, Colombia

Contact: Michael Alberico Voice: 572-339-3243 AX: 572-339-2440

E-mail: alberico@biologia.univalle.edu.co

9,500 specimens; exclusively Colombian mammals, especially rodents, bats, and marsupials

COSTA RICA

Museo Nacional de Costa Rica (MNCR)

Colección de Mastozoología Departamento de Historia Natural

Apartado 749 San José, Costa Rica

300 specimens; collection emphasizes Costa Rican mammals; some old specimens with historic value

Universidad de Costa Rica, Museo de Zoología (MZUCR)

Colección de Mamíferos Escuela de Biología Universidad de Costa Rica San José, Costa Rica

2,050 specimens; exclusively Costa Rican mammals

Contact: José Manuel Mora

Contact: Bernal Rodriguez H.

E-mail: rherrera@cariari.ucr.ac.cr

Voice: 506-207-5544 FAX: 506-207-4216

E-mail: immora@cariari.ucr.ac.cr

ECUADOR

Escuela Politécnica Nacional (EPN)

Colección de Vertebrados

Calle Ladrón de Guevara e Isabel La Católica

Apartado 17-01-2759

Quito, Ecuador

Contact: Luis Albuja Voice: 593-2-507153

FAX: 593-2-567848 E-mail: lalbuja@mail.epn.edu.ec

Contact: Windsor Aguirre

Contact: Igor Castro R. Voice: 593-2-449825

Contact: Luis Coloma

E-mail: lcoloma@puce.edu.ec

Contact: Azalea de Granados

Voice: 593-2-529250

FAX: 593-2-567117

FAX: 593-2-504-356

4,000 specimens, exclusively Ecuadorian mammals; some specimens are of special historical value

Museo de Ciencias Naturales, Colección "Gustavo Orcés" (MUGM)

Sección de Mastozoología

Museo de Ciencias Naturales

Casilla 5404

Guayaguil, Ecuador

150 specimens; exclusively Ecuadorian mammals

Museo Ecuatoriano de Ciencias Naturales (MECN)

Colección de Mastozoología

Rumipamba 341 y Avenida de Los Shyris

Parque "La Carolina"

Quito, Ecuador

Casilla 8976, suc. 7 E-mail: museocn@jsacha.ecx.ec

665 specimens; exclusively Ecuadorian mammals; >70% are bats

Pontifica Universidad Católica del Ecuador, Museo de Zoología-Mamíferos (QCAZ)

Departamento de Ciencias Biológicas

Pontifica Universidad Católica del Ecuador

Avenida 12 de Octubre (entre Patria y Veintemilla)

Apartado 17-01-2184

Quito, Ecuador

1,300 specimens, mostly Ecuadorian mammals; collection address may change within the next 2 years

EL SALVADOR

Museo de Historia Natural de El Salvador (MHNES*)

Colección de Mastozoología

Calle Los Viveros (final), Colonia Nicaragua

Parque "Saburo Hirao"

San Salvador, El Salvador

720 specimens; mostly mammals of El Salvador (*Tentative acronym assigned by the authors)

MEXICO

Centro Interdisciplinario de Estudios, Colección Mastozoológica (OAXM)

Apartado Postal 24-3, Oaxaca

Oaxaca, México

Contact: Emma Cisneros

Voice: 52-951-70610 FAX: 52-951-70400

750 specimens; mostly rodents of Oaxaca; additional contact: Carlos Bonilla

Centro de Investigaciones Biológicas del Noroeste (CIB)

Colección de Mamíferos Contact: Patricia Cortez Calva

Km 17.5 Carretera al Norte Voice: 52-112-53633 Apartado Postal 128 FAX: 52-112-53625

La Paz, Baja California Sur 23000, México E-mail: pcortes@cibnor.conacyt.mx 1,100 specimens; mostly mammals of northwestern Mexico; frozen tissues (530 specimens); additional

contact: Sergio Ticul Alvarez-Castañeda (sticul@cibnor.conacyt.mx)

El Colegio de la Frontera Sur (ECOSUR)

Carretera Panamericana y Periférico Sur

Apartado Postal 63

29290 San Cristobal de las Casas

Chiapas, México

230 specimens; mostly local species; collection probably will merge with those of Instituto de Historia

Natural del Gobierno de Chiapas (IHN), and therefore may change location

Escuela Nacional de Ciencias Biológicas (ENCB)

Colección de Mamíferos

Instituto Politécnico Nacional

Plan de Ayala esquina prolongación Carpio

México, Distrito Federal 11340, México

38,400 specimens; exclusively Mexican mammals; additional contact: Juan Carlos Lopez Vidal

Instituto de Ciencias y Artes de Chiapas, Museo Zoológico (MZ-ICACH)

Calzada Samuel León Brindis 151

Tuxtla Gutierrez, Chiapas 029000, México

760 specimens; collection emphasizes local species

Contact: Matias Martinez

Contact: Ticul Alvarez

FAX: 52-5-3963503

Voice: 52-5-7296000, extension 62421

Contact: Dario Navarrete Voice and FAX: 52-967-81884

Voice: 52-961-21437 FAX: 52-961-21957

Instituto Nacional de la Pesca (PNICMM-INP)

Colección Osteológica, Programa Nacional de Investigación

y Conservación de Mamíferos Marinos Centro Regional de Investigación Pesquera de La Paz

Km 1 Carretera a Pichilingüe

La Paz, Baia California Sur, México

70 specimens; exclusively marine mammals from the Pacific Ocean

Contact: Hector Perez Cortés Voice: 52-112-52623

FAX: 52-112-30122

Instituto Politécnico Nacional, Colección Científica de Fauna Silvestre (CRD)

Centro Interdisciplinario de Investigación

Instituto Politécnico Nacional

Unidad Durango, Zarco 106

Vicente Guerrero, Durango 34890, México

950 specimens; exclusively mammals from the state of Durango

Investigaciones Biológicas de la Universidad Veracruzana (IIBUV)

Colección Mastozoológica

km 2.5 en la Carretera Xalapa-Veracruz

Apartado Postal 294

Xalapa, Veracruz 91190, México

2,350 specimens; mostly rodents and bats from the state of Veracruz

Contact: Alvar Gonzalez Christen

Voice and FAX: 52-125-7575

Contact: Raul Muñiz Martínez

Voice and FAX: 52-186-50265

Universidad Autónoma de Aguascalientes (CZUAA)

Colección de Zoología

Avenida Universidad, Edificio 27 "A"

Aguascalientes, México

595 specimens; collection emphasizes regional mammals

Contact: Gilfredo de La Riva

Voice: 52-491-23345 AX: 52-491-43222

Universidad Autónoma Metropolitana, Unidad Iztapalapa (UAMI)

Colección de Mamíferos

Contact: José Ramirez Pulido Voice: 52-5-7244692

Avenida Michoacán y Calzada Purísima

FAX: 52-5-7244688

Colonia Vicentina, México, Distrito Federal 04390, México

E-mail: jrp@xanum.uam.mx

13,197 specimens; mostly mammals of central Mexico; additional contact: Alondra Castro Campillo (e-mail: acc@xanum.uam.mx)

Universidad Autónoma de Tamaulipas, Instituto de Ecología y Alimentos (CM-IEA)

Colección de Mamíferos

Universidad Autónoma de Tamaulipas

13 Boulevard Adolfo Lopez Mateos 928 Ciudad Victoria, Tamaulipas, México 300 specimens; mostly local mammals

Contact: Leonardo Corral Perez

Contact: Silvia Hernandez

Voice and FAX: 52-99-234009

Voice: 52-131-62721 FAX: 52-131-64289

Universidad Autónoma de Yucatán, Facultad de Medicina Veterinaria y Zootecnia (UAY*)

Colección de Mamíferos

Universidad Autónoma de Yucatán

Km 15.5 de la Carretera Mérida-Xmatkuil

Apartado Postal 4-116 Itzimná

Mérida, Yucatán, México

220 specimens; collection emphasizes mammals from the state of Yucatán (*Tentative acronym assigned by the authors)

Universidad de Michoacán (CM-UMSNH)

Colección de Mastozoología

Facultad de Biología

Ciudad Universitaria, Edificio "B" (Planta alta)

Morelia, Michoacán

2,300 specimens; collection emphasizes local mammals

Contact: Arturo Nuñez Garduño

Voice: 52-43-161766

Universidad Nacional Autónoma de Baja California Sur (UABCS)

Colección de Mamíferos

Museo de Historia Nacional

Km 5.5 Carretera al Sur

La Paz, Baja California Sur 23000, México

Contact: Emelio Brajau

Voice: 52-112-12801, extension 133

FAX: 52-112-12477

100 specimens; exclusively mammals from the state of Baja California Sur

Universidad Nacional Autónoma de México, Facultad de Ciencias (FCMM)

Colección de Mamíferos Marinos

Universidad Nacional Autónoma de Mexico

Apartado Postal 70-572

Contact: Luis Medrano

Voice: 52-5-6224913; FAX: 52-5-6224828 E-mail: lmg@hp.fciencias.unam.mx

México, Distrito Federal 04510, México

250 specimens; exclusively marine mammals; additional contact: Mario Salinas Z.

Universidad Nacional Autónoma de México, Instituto de Biología (IBUNAM)

Colección Nacional de Mamíferos

Departamento de Zoología Apartado Postal 70-153

México, Distrito Federal 04510, México

Contact: Fernando Cervantes

Voice: 52-5-6225706 FAX: 52-5-5500164

E-mail: fac@servidor.unam.mx 37,830 specimens; collection includes 11 holotypes; mostly Mexican mammals; frozen tissues (660

specimens); additional contact: Yolanda Hortelano; ACCREDITED BY ASM (1975 and 1983)

NETHERLANDS ANTILLES

Christoffel Park Museum (CPM)

Carmabi Foundation Piscaderabaai

P. O. Box 2090

Curação, Netherland Antilles

Contact: Leon P. J. J. Pors Voice: 599-9-624242

FAX: 599-9-627680

41 specimens; mostly deer; additional contact: Adolphe O. Debrot

PANAMA

Instituto Nacional de Cultura, Museo de Ciencias Naturales (INC*)

Colección de Mamíferos Nacionales y Extranjeros

Voice: 507-250-645 FAX: 507-250-646

Contact: Victor Tejera N.

Contact: Nuria Esquivel de Barillas

Instituto Nacional de Cultura

Apartado 662 Panama 1, Panama

the authors)

86 specimens; collection used primarily for educational purposes (*Tentative acronym assigned by

Universidad de Panama, Museo de Vertebrados (CM-MVUP) Colección de Mamíferos Departamento de Zoología

Facultad de Ciencias Naturales y Exactas

Apartado 6-2842 El Dorado, Panama

1,000 specimens; emphasis on small mammals of Panama

PARAGUAY

Museo Nacional de Historia Natural del Paraguay (MNHNP)

Ministerio de Agricultura y Ganaderia Sucursal 19-Campus Ciudad Universitaria-Central XI, Paraguay

2,260 specimens; exclusively mammals of Paraguay

Contact: Isabel Gamarra de Fox

Voice: 595-258-5208 FAX: 595-249-5568

PERU

Universidad Nacional de San Agustin, Museo de Historia Natural (MUSA) Contact: Horacio Zeballos

Avenida Aleidas Carreon Apartado Postal 1430

Arequipa, Peru

440 specimens; primarily mammals of southwestern Peru

Universidad Nacional de San Marcos, Museo de Historia Natural (MUSM)

Avenida Arenales 1256

Apartado 140434

Lima-14, Peru

Contact: Victor Pacheco Voice: 511-471-0117

E-mail: vpacheco@musm.edu.pe

12,000 specimens; collection emphasizes Peruvian mammals; tissues preserved in alcohol (350 specimens); additional contact: Elena Vivar (vivar@musm.edu.pe)

SURINAME

National Zoological Collection of Suriname (NZCS)

University of Suriname

P. O. Box 9212

Paramaribo, Suriname

Contact: Paul. E. Ouboter

Contact: Savitree Rattan

Voice: 597-465558, extension 318

FAX: 597-462291

390 specimens; mostly bats and rodents from Suriname; additional contact: Shamita A. Shadew

TRINIDAD AND TOBAGO

University of the West Indies (UWI*)

Department of Zoology University of the West Indies Saint Augustine, Trinidad Trinidad and Tobago

102 specimens; collection emphasizes regional mammals (*Tentative acronym assigned by authors)

UNITED STATES

ALABAMA

Auburn University Museum (AUM)

Department of Zoology and Wildlife Science 331 Funchess Hall

Auburn University, AL 36849-5414

Contact: Trov L. Best Voice: 334-844-9260 FAX: 334-844-9234

E-mail: besttro@mail.auburn.edu

1,500 specimens; primarily mammals of Alabama; former collection acronym: AU

University of South Alabama, Vertebrate Natural History Collection (USANHC)

Department of Biology University of South Alabama

Mobile, AL 36688

Contact: David H. Nelson Voice: 334-460-6331

FAX: 334-460-7357

989 specimens; fluid-preserved material (500 specimens); collection emphasizes local species; former collection acronym: USA

ALASKA

Alaska Department of Fish and Game (AFGMC)

333 Raspberry Road Anchorage, AK 99503 1,200 specimens; exclusively mammals of Alaska Contact: Donald G. Calkins Voice: 907-267-2403

Glacier Bay National Park and Preserve Museum (GBNM)

P. O. Box 140 Gustavus, AK 99826-0140 Contact: Mary Beth Moss Voice: 907-697-2230 FAX: 907-697-2654

96 specimens; collection emphasizes local species (Glacier Bay National Park and Preserve)

Pratt Museum (PM)

3779 Bartlett Street Homer, AK 99603 Contact: Elizabeth A. Webb Voice: 907-235-6077

FAX: 907-235-2764

530 specimens; skeletal material of whales; exclusively mammals from southcentral Alaska

University of Alaska Museum (UAM)

Mammal Collection 907 Yukon Drive University of Alaska Fairbanks, AK 99775-6960 Contact: Joseph A. Cook Voice: 907-474-6946 FAX: 907-474-5469

Fairbanks, AK 99775-6960 E-mail: ffjac@aurora.alaska.edu 38,000 specimens; includes collection formerly listed as Naval Arctic Research Laboratory (NARL); emphasis on mammals of Arctic and subarctic regions; phocine seals; frozen tissues (17,000 specimens); additional contact: Gordon Jarrell (voice: 907-474-6947; FAX: 907-474-5469; e-mail: fnghj@aurora.alaska.edu; ACCREDITED BY ASM (1975 and 1983)

ARIZONA

Arizona State University, Mammal Collection (ASUMC)

Department of Zoology Arizona State University Tempe, AZ 85287-1501 Contact: Michael E. Douglas Voice: 520-965-3571

FAX: 520-965-2519

E-mail: abmed@asuvm.inre.asu.edu

7,100 specimens; exclusively specimens from the United States

Grand Canyon National Park Museum Collection (GRCAMC)

(formerly Grand Canyon National Park Study

Collection, GRCASC) P. O. Box 129 Contact: Carolyn Richard Voice: 520-638-7769 FAX: 520-638-7797

Grand Canyon, AZ 86023-0129

900 specimens; collection emphasizes mammals of Grand Canyon National Park; additional contacts:

Colleen Hyde and Kim Besom

Museum of Northern Arizona (MNA)

Route 4, Box 720 Flagstaff, AZ 86001 Contact: Michael Morales Voice: 520-774-5211 FAX: 520-779-1527

4,214 specimens; regional emphasis (Grand Canyon and Colorado Plateau); additional contact: Deb Hill (voice: 602-774-5211, extension 228; FAX: 602-779-1527)

Northern Arizona University, Museum of Vertebrates (NAUVM)

Department of Biological Sciences Northern Arizona University Flagstaff, AZ 86011-5640 Contact: Gary C. Bateman Voice: 520-523-7237 FAX: 520-523-7500

E-mail: gcb@nauvax.ucc.nau.edu

o Mexican and African bats: former

4,627 specimens; emphasis on small mammals of Arizona; also, Mexican and African bats; former collection acronym: NAU

Petrified Forest National Park (PFSS)

Petrified Forest, AZ 86028

100 specimens; collection emphasizes local species

Contact: David DeWitt Voice: 520-524-6228

FAX: 520-524-3567

Southwestern Research Station (SWRS)

American Museum of Natural History

P.O. Box G

Portal, AZ 85632

239 specimens; collection emphasizes local species

Contact: Wade C. Sherbrooke Voice and FAX: 520-558-2396

University of Arizona, Collection of Mammals (UA)

Department of Ecology and Evolutionary Biology

Tucson, AZ 85721

Contact: Michael Nachman University of Arizona Voice: 520-621-1303

27,683 specimens; collection emphasizes regional species, with particular strength in bats; additional contact: Yar Petryszyn (voice: 602-621-7291); ACCREDITED BY ASM (1975 and 1982)

Walnut Canyon National Monument (WACA)

Walnut Canyon Road Flagstaff, AZ 86004

62 specimens; collection emphasizes local species

Contact: J. L. DeYoung Voice: 520-556-7040

FAX: 520-556-7071

ARKANSAS

Arkansas State University, Collection of Recent Mammals (ASUMZ)

Department of Biological Sciences Arkansas State University

State University, AR 72467-0599

Contact: V. Rick McDaniel Voice: 501-972-3082

FAX: 501-972-2638

E-mail: vrmcdanl@quapaw.astate.edu 32,000 specimens; regional emphasis, with strengths in bats, insectivores, rodents, and carnivores;

ACCREDITED BY ASM (1976)

Henderson State University, Museum of Zoology (HSUMZ)

Department of Biology

Henderson State University Arkadelphia, AR 71999

419 specimens; collection emphasizes local species

Contact: Renn Tumlison Voice: 501-230-5152

E-mail: tumlison@holly.hsu.edu

Contact: Nancy G. McCartney

University of Arkansas, Museum Zoological Collections (UAMZC)

(formerly University of Arkansas Department of

Zoology, UADZ)

University Museum

University of Arkansas

Fayetteville, AR 72701

Voice: 501-575-3456 FAX: 501-575-3846

E-mail: nmccartn@saturn.uark.edu

2,650 specimens; collection emphasizes regional species (primarily mammals of Arkansas)

University of Arkansas at Little Rock, Vertebrate Collection (UALRVC)

Department of Biology

University of Arkansas at Little Rock

Little Rock, AR 72204

Contact: Gary A. Heidt Voice: 501-569-3511

FAX: 501-569-3271

E-mail: gaheidt@ualr.edu

6,200 specimens; local emphasis, with strengths in Dasypus, Mephitis, and Peromyscus; ACCREDITED BY ASM (1977)

CALIFORNIA

California Academy of Sciences (CAS)

Department of Ornithology and Mammalogy

California Academy of Sciences Golden Gate Park

San Francisco, CA 94118

Contact: Karen Cebra Voice: 415-750-7177 FAX: 415-750-7346

Contact: V. L. Holland

Voice: 805-756-2789

E-mail: kcebra@calacademy.org

Contact: (did not respond to survey)

Contact: Raymond J. Barnett

Voice: 916-898-5356

Contact: C. Kronberg

Voice: 209-278-2696

23,953 specimens; includes the former Stanford University Collection; additional contact: Luis Baptista

(voice: 415-750-7178; e-mail: lbaptista@calacademy.org); ACCREDITED BY ASM (1975)

California Polytechnic State University, San Luis Obispo (CPSU)

Aryan I. Roest Mammal Collection Biological Sciences Department

California Polytechnic State University

San Luis Obispo, CA 93407

2,616 specimens; collection emphasizes local and regional species

California State Polytechnic University, Pomona (CSPUP)

Biological Sciences Department

California State Polytechnic University

Pomona, CA 91768

976 specimens at last report (Yates et al., 1987)

California State University, Chico, Vertebrate Museum (CSUC)

Biology Department

California State University

Chico, CA 95929

5,198 specimens; collection emphasizes mammals of northern California

California State University, Fresno (CSUF)

Department of Biology California State University

Fresno, CA 93740-0073

FAX: 209-278-7139 3,900 specimens; local emphasis, with strengths in Dipodomys and Thomomys

California State University, Long Beach (CSULB)

Department of Biological Sciences California State University

Long Beach, CA 90840-3702

Contact: David G. Huckaby Voice: 310-985-4869 FAX: 310-985-8878

E-mail: dhuckaby@csulb.edu

11,959 specimens; regional emphasis, including Mexico; additional contact: Anne Staskewicz (voice:

310-985-4883); ACCREDITED BY ASM (1979, 1980)

California State University, Northridge (CSUN)

Department of Biology California State University Northridge, CA 91330

1,380 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

California State University, Turlock (CSCS)

Department of Biological Sciences California State University

Turlock, CA 95380

1,000 specimens at last report (Yates et al., 1987)

Death Valley National Park (DEVA)

Museum Collection, Furnace Creek

National Park Service P. O. Box 579

Death Valley, CA 92328

368 specimens; collection emphasizes local mammals (Death Valley)

Diablo Valley College Museum (DVCM)

Diablo Valley College

Pleasant Hill, CA 94523

455 specimens; additional contact: Jerry Underwood

Humboldt State University (HSU)

Vertebrate Museum

Department of Biological Sciences

Humboldt State University

Arcata, CA 95521

Contact: Timothy E. Lawlor

Voice: 707-826-4410

FAX: 707-826-3201

E-mail: lawlort@axe.humboldt.edu

Contact: (did not respond to survey)

E-mail: blair_davenport@nps.gov

Contact: Audrey Maher Kamprath

Contact: Blair Davenport

Voice: 619-786-2331

FAX: 619-786-3283

7,200 specimens; collection emphasizes local species, plus mammals of the Great Basin; strong in marine mammals; frozen tissues (1,000 specimens); ACCREDITED BY ASM (1984)

Lassen Volcanic National Park (LAVO)

P.O. Box 100

Mineral, CA 96063

Contact: Scott Isaacson

Voice: 916-595-4444 FAX: 916-595-3262

35 specimens; collection emphasizes local species; former collection acronym: LVNP

Monterey Peninsula College, Life Science Museum (MPC)

Monterey Peninsula College

Monterey, CA 93953

71 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

Natural History Museum of Los Angeles County (LACM)

Section of Birds and Mammals

Natural History Museum of Los Angeles County

900 Exposition Boulevard

Los Angeles, CA 90007

Contact: John E. Heyning Voice: 213-763-3404

FAX: 213-746-2999

E-mail: heying@mizar.usc.edu

97,000 specimens; collection includes 22 holotypes; noteworthy holdings of mammals of California, Costa Rica, and Africa; marine mammals; frozen tissues (2,500 specimens); includes collections formerly held by Western Foundation of Vertebrate Biology, California Institute of Technology (part),

and University of Southern California; additional contact: Tom Lewis (voice: 213-585-3553);

ACCREDITED BY ASM (1978)

Occidental College, Moore Laboratory of Zoology (MLZ)

Occidental College 1600 Campus Road Los Angeles, CA 90041 Contact: John C. Hafner Voice: 213-259-2673 FAX: 213-259-2887 E-mail: hafner@oxy.edu

1,737 specimens; strong Mexican holdings; includes former private collections of R. T. Moore and W. W. Brown; additional contact: James R. Northern (voice: 213-259-2659; e-mail: northern@oxy.edu)

Pacific Grove Museum of Natural History (PGMNH)

165 Forest Avenue

Pacific Grove, CA 93950

202 specimens; exclusively mammals of the United States

Contact: P. M. Finnegan Voice: 408-648-3116

Pacific Union College, Museum of Natural History (PUCMNH)

Pacific Union College Angwin, CA 95408

1,000 specimens at last report (Yates et al., 1987)

Point Reyes National Seashore (PORE)

Superintendent Point Reyes National Seashore Point Reyes Station, CA 94956 Contact: John A. Dell'Osso Voice: 415-663-8522 FAX: 415-663-8132

E-mail: pore_interp@nps.gov

Contact: (did not respond to survey)

121 specimens; local emphasis (Point Reyes National Seashore); former collection acronym: PRNS

San Bernardino County Museum (SBCM)

Biological Science Division 2024 Orange Tree Lane Redlands, CA 92374-2850 Contact: Robert McKernan Voice: 909-798-8570 FAX 909-798-8585

7,670 specimens; emphasis on deserts and coastal plain of the southwestern United States; frozen tissue collection (1,000 specimens); contains former private collection of Harry Coombs

San Diego Natural History Museum (SDNHM)

Department of Birds and Mammals P. O. Box 1390

San Diego, CA 92112

Contact: Philip Unitt Voice: 619-232-3821 FAX: 619-232-0248

22,430 specimens; collection includes 89 holotypes; emphasis on Baja California, southern California, Oregon, Arizona, and Sonora; strong in marine mammals; contains former private collections of L. M. Huey and S. G. Jewett; ACCREDITED BY ASM (1975)

San Diego State University (SDSU)

Department of Biology San Diego State University San Diego, CA 92182 Contact: J. David Archibald Voice: 619-594-6917 FAX: 619-594-5676

2,000 specimens; emphasis on local species and exotic zoo specimens; additional contact: Beverley Anderson-Abbs (voice: 619-594-4769; e-mail: banderso@sunstroke.sdsu.edu)

San Jose State University, Museum of Birds and Mammals (MBM)

Department of Biological Sciences San Jose State University San Jose, CA 95192-0100

Contact: John O. Matson Voice: 408-924-4891 FAX: 408-924-4840

3,735 specimens; emphasis on local species; strong in marine mammals; contains collection formerly managed by the United States Geological Survey

E-mail: matson@biomail.sjsu.edu

Santa Barbara Museum of Natural History (SBMNH)

Mammal Collection Santa Barbara Museum of Natural History 2559 Puesta Del Sol

Contact: Charles D. Woodhouse

Voice: 805-682-4711 FAX: 805-569-3170

Santa Barbara, CA 93105

E-mail: vertzoo@rain.org

9,650 specimens; collection includes 24 holotypes; emphasis on mammals of central California; contains former private collection of Jack C. Von Bloeker, Jr. (part); additional contact: Paul W. Collins (voice: 805-682-4711, extension 321); ACCREDITED BY ASM (1986)

United States Forest Service, San Joaquin Experimental Range (SJER)

Coursegold, CA 93614

Contact: (did not respond to survey)

360 specimens at last report (Yates et al., 1987)

University of California, Berkeley, Museum of Vertebrate Zoology (MVZ)

3101 Valley Life Sciences Building University of California Berkeley, CA 94720

Contact: James L. Patton Voice: 510-642-3567 FAX: 510-643-8238

E-mail: patton@uclink.berkeley.edu

187,500 specimens; emphasis on mammals of California, western United States, Alaska, British Columbia, Mexico, El Salvador, Peru, Argentina, Australia, and New Guinea; frozen-tissue collection (10,000 specimens); contains former private collections of M. M. Greene, M. Hildebrand, and D. R. Dickey (El Salvador material only); additional contacts: Barbara R. Stein (e-mail: bstein@garnet. berkeley.edu), Eileen Lacey (email: ealacey@violet.berkeley.edu) and, for tissues, Carla Cicero (e-mail: carla@ucbcmsa.berkeley.edu); ACCREDITED BY ASM (1975)

University of California, Davis, Museum of Wildlife and Fisheries Biology (MWFB)

University of California Davis, CA 95616

Contact: Ronald E. Cole Voice: 916-752-0364 FAX: 916-752-4154

E-mail: recole@ucdavis.edu 6,000 specimens; contains collections formerly managed by University of California, Davis, Department of Zoology and University of California, Irvine

University of California, Hastings Natural History Reservation (HNHR)

38601 East Carmel Valley Road Carmel Valley, CA 93924

Contact: Mark R. Stromberg Voice: 408-659-2664

FAX: 408-659-3649

300 specimens; exclusively mammals of California

E-mail: stromber@violet.berkeley.edu

University of California, Los Angeles, Dickey Collection (UCLA)

Department of Biology

405 Hilgard

University of California

Los Angeles, CA 90024-1606

Contact: W. J. Hillenius Voice: 310-825-1282

FAX: 310-206-3987

E-mail: hillenius@biology.lifesci.ucla.edu

21,188 specimens; collection includes 48 holotypes; contains former private collections of D. R. Dickey, A. J. Van Rossem, A. B. Howell, and Loye Miller, and the former collection of the California Institute

of Technology (part)

University of California, Santa Barbara, Santa Barbara Vertebrate Museum (UCSB)

University of California Santa Barbara, CA 93106

Contact: (did not respond to survey)

2,500 specimens at last report (Yates et al., 1987); ACCREDITED BY ASM (1986)

The Yosemite Museum (YNP)

National Park Service

P. O. Box 577

Yosemite, CA 95389

Contact: David M Forgang Voice: 209-372-0282

E-mail: david_forgang@nps.gov

800 specimens; local emphasis (Yosemite region); additional contact: Barbara Beroza (voice: 209-372-

0297; e-mail: barbara_beroza@nps.gov)

COLORADO

Adams State College Collection (ASCC)

Department of Biology Adams State College Alamosa, CO 81101

72 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

Colorado National Monument (COLM)

National Park Service

Fruita, CO 81521

Contact: Laurie Lee Voice: 303-858-3617 FAX: 303-858-0372

105 specimens; local emphasis (Colorado National Monument); additional contact: Patrick Perrotti

(voice: 303-858-3617; FAX: 303-858-0372)

Colorado State University, Mammalogy Teaching Collection (CSUTC)

Department of Biology Colorado State University Fort Collins, CO 80523

715 specimens; local emphasis

Contact: Bruce A. Wunder

Voice: 303-491-5949 FAX: 303-491-0649

E-mail: bwunder@lamar.colostate.edu

Denver Museum of Natural History (DMNH)

2001 Colorado Boulevard Denver, CO 80205-5798

Contact: Cheri A. Jones Voice: 303-370-6354 FAX: 303-331-6492 E-mail: cajones@csn.net

8,800 specimens; collection includes nine holotypes; emphasis on mammals of Colorado, with many specimens collected before 1960; additional contact: William G. Alther (voice: 303-370-8321); ACCREDITED BY ASM (1989)

Dinosaur National Monument (DINO)

Box 101

Dinosaur, CO 81610

50 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

Fort Lewis College (FLC)

Department of Biology Fort Lewis College

Durango, CO 81301-3999 240 specimens; local emphasis Contact: Joseph C. Ortega

Great Sand Dunes National Monument (GSDNM)

11500 Highway 150

Mosca, CO 81146

Contact: Sue Judis Voice: 719-378-2312 FAX: 719-378-2594

30 specimens; local emphasis; additional contact: William E. Wellman

Rocky Mountain Biological Laboratory (RMBL)

Box 519

Crested Butte, CO 81224

400 specimens; local emphasis

Contact: Susan Lohr Voice: 303-349-7231

FAX: 303-349-7231

E-mail: rmbl_dir@wsc.colorado.edu

Rocky Mountain National Park (ROMO)

Estes Park, CO 80517

Contact: James A. Mack Voice: 303-586-1220 FAX: 303-586-1310

585 specimens; local emphasis; additional contact: Vernon C. Betts (voice: 303-586-1257); former collection acronym: RMNP

University of Colorado Museum (UCM)

Zoological Collections (Mammals)

Campus Box 315 University of Colorado

Boulder, CO 80309

Contact: Shi-Kuei Wu Voice: 303-492-7359

FAX: 303-492-5105

E-mail: skwu@spot.colorado.edu 18,373 specimens; collection includes one holotype; regional emphasis (Rocky Mountains); contains former private collections of E. R. Warren and D. A. Spencer; additional contact: Rosanne Humphrey

(voice: 303-492-0276; e-mail: humphrey@spot.colorado.edu); ACCREDITED BY ASM (1975)

University of Northern Colorado (UNC-B*)

Vertebrate Collections-Biology Department of Biological Sciences University of Northern Colorado

Greeley, CO 80639

Contact: James P. Fitzgerald Voice: 303-351-2923 FAX: 303-351-1085

1,560 specimens; local emphasis, primarily rodents and bats; (*acronym modified by authors; former acronym: UNC-BIOLOGY)

CONNECTICUT

University of Connecticut (UCONN)

Mammal Research Collection
Department of Ecology and Evolutionary Biology

University of Connecticut

Storrs, CT 06269-3043 E-mail: dubos@uconnvm.uconn.edu 22,000 specimens; emphasis on mammals of New England and Paraguay; additional contact: Kurt

Schwenk (voice: 203-486-0351); ACCREDITED BY ASM (1975 and 1983)

Yale University, Peabody Museum of Natural History (YPM)

Section of Mammals

Peabody Museum of Natural History

Yale University

170 Whitney Avenue

New Haven, CT 06511

9,500 specimens; contains Marsh osteological material, Morden African expedition, primate osteological specimens, and Baker Coahuila mammals; additional contact: Fred C. Sibley (voice: 203-432-5159; e-mail: fred.sibley@yale.edu)

DELAWARE

Delaware Museum of Natural History (DMNH)

P. O. Box 3937

Greenville, DE 19807

9,000 specimens; strong Philippine holdings

Contact: Gene K. Hess

Contact: Robert E. Dubos

Contact: Elisabeth S. Vrba

Voice: 203-432-5008

FAX: 203-432-9816

Voice: 203-486-4457

FAX: 203-486-6364

Voice: 302-658-9111 FAX: 302-658-2610

University of Delaware (UDEL)

Department of Entomology and Applied Ecology

University of Delaware

Newark, DE 19717-1303

Contact: Roland R. Roth Voice: 302-831-1300

FAX: 302-831-3651

E-mail: roland.roth@mvs.udel.edu

400 specimens; collection emphasizes mid-Atlantic region of the United States

DISTRICT OF COLUMBIA

United States National Museum of Natural History (USNM)

Division of Mammals

Smithsonian Institution and Biological Resources Division of the United States Geological Survey

10th and Constitution Avenue, N.W.

Washington, D. C. 20560

Contact: Richard W. Thorington, Jr.

Voice: 202-357-2150

FAX: 202-786-2979

E-mail: mnhvz049@sivm.si.edu

Nathington, D. C. 2000 585,000 specimens; collection includes 3,336 holotypes; worldwide representation with many historically important series; marine-mammal collection; frozen-tissue collection (2,500 specimens); additional contacts: Alfred L. Gardner (voice: 202-357-2876; FAX: 202-357-1932); Linda K. Gordon (voice: 202-786-2495; e-mail: mnhvz034@sivm.si.edu); Charles W. Potter (voice: 202-786-2497; e-mail: mnhvz022@sivm.si.edu); Robert D. Fisher (voice: 202-357-1865; e-mail: mnhvz032@sivm.si.edu); ACCREDITED BY ASM (1975, 1977, and 1979)

FLORIDA

Everglades National Park (ENP)

40001 State Road 9336 Homestead, FL 33034-6733 50 specimens at last report (Yates et al., 1987) Contact: (did not respond to survey)

Florida State University Museum (FSUM)

Department of Biological Science Florida State University Tallahassee, FL 32306

Contact: Frances C. James Voice: 904-644-3700 FAX: 904-644-9829 E-mail: james@bio.fsu.edu

Contact: Charles A. Woods

Voice: 904-392-6561

FAX: 904-392-8508

670 specimens; local emphasis; former collection acronym: FSU

University of Florida, Florida Museum of Natural History (UF)

Department of Natural Sciences Florida Museum of Natural History University of Florida

Gainesville, FL 32611

E-mail: cawoods@flmnh.ufl.edu 28,613 specimens; important regional collection, including cetaceans and Florida panthers; additional contact: Laurie Wilkins (voice: 904-392-6764; FAX: 904-846-0287; e-mail: lauriew@flmnh.ufl.edu);

former collection acronym: FSM; ACCREDITED BY ASM (1975 and 1983)

GEORGIA

Savannah Science Museum (SSM)

4405 Paulsen Street Savannah, GA 31405

7 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

University of Georgia, Museum of Natural History (UGAMNH)

Museum of Natural History University of Georgia Athens, GA 30602-1882

Contact: Joshua Laerm Voice: 706-542-1663 FAX: 706-542-3920

E-mail: laerm@museum.ent.uga.edu 18,083 specimens; emphasis on mammals of the southeastern United States; includes former Georgia State University Collection; additional contact: Elizabeth McGhee (voice: 706-542-3940; e-mail: emcghee@ museum.ent.uga.edu); ACCREDITED BY ASM (1985)

HAWAII

Bernice P. Bishop Museum (BPBM)

1525 Bernice Street P.O. Box 19000-A

Honolulu, HI 96817-0916

Contact: Scott Miller FAX: 808-847-8252;

E-mail: scottm@bishop.bishop.hawaii.org 15,532 specimens; collection includes 11 holotypes; important series from Solomon Islands and Papua New Guinea; additional contact: Carla Kishinami (voice: 808-848-4198; e-mail: carlak@bishop.bishop.

hawaii.org); ACCREDITED BY ASM (1975 and 1986)

IDAHO

Albertson College of Idaho, Orma J. Smith Museum of Natural History (CIMNH)

Albertson College of Idaho 2112 Cleveland Boulevard Caldwell, ID 83605

Contact: Eric Yensen Voice: 208-459-5335 FAX: 208-454-2077

E-mail: eyensen@stimpy.acofi.edu

1,110 specimens; good series of Spermophilus; frozen-tissue collection (50 specimens)

Idaho Fish and Game (IFGD)

Wildlife Health Laboratory 16569 South 10th Avenue Caldwell, ID 83605 733 specimens; local emphasis

Contact: Iulia Mulholland Voice: 208-327-7070 FAX: 208-454-7667

University of Idaho, Bird and Mammal Museum (UIDA)

University of Idaho Moscow, ID 83843

Contact: Donald R. Johnson Voice: 208-885-6583 FAX: 208-885-7905

3,700 specimens; exclusively taxidermy mounts; features specimens from remote sites in Idaho

ILLINOIS

Burpee Museum of Natural History (BMNHC)

737 and 813 North Main Street

Contact: Barbara C. Williams Voice: 815-965-3132

Rockford, IL 61103

681 specimens; local emphasis; additional contact: Michael Henderson (voice: 815-965-3132)

Chicago Academy of Sciences (CHAS)

2001 North Clark Street Chicago, IL 60614

Contact: Ron Vasile Voice: 312-549-0606 FAX: 312-549-5199

5,056 specimens; collection includes two holotypes; includes former Northwestern University Collection; additional contact: Mary Hennen (voice: 312-549-0606, extension 2037; e-mail: hennen@fmnh785.fmnh.org); ACCREDITED BY ASM (1989)

Eastern Illinois University (EIU)

Zoology Department Eastern Illinois University Charleston, IL 61920

1.050 specimens; regional emphasis (Illinois)

Contact: Thomas A. Nelson

Voice: 217-581-2500 FAX: 217-581-2722 E-mail: cftan@eiu.edu

The Field Museum (FMNH)

(formerly Field Museum of Natural History)

Division of Mammals The Field Museum

Roosevelt Road at Lake Shore Drive

Chicago, IL 60605

Contacts: L. R. Heaney/B. D. Patterson

Voice: 312-922-9410 FAX: 312-663-5397

E-mail: heaney@fmppr.fmnh.org or patterso@fmppr.fmnh.org

156,400 specimens; collection includes 416 holotypes; significant holdings of primates and mammals of Chile, Peru, Philippines, East and Central Africa, Egypt, Iran, and Afghanistan; frozen-tissue collection (10,000 specimens); includes former B. J. Hayward Collection, Milwaukee Public Museum Collection of African mammals, and Princeton Biology Department Collection; additional contact: William T. Stanley (voice: extension 491; e-mail: stanley@fmppr.fmnh.org); ACCREDITED BY ASM (1975 and 1983)

Illinois Natural History Survey (INHS)

607 East Peabody Drive Champaign, IL 61820

Contact: Lawrence M. Page Voice: 217-333-6846 FAX: 217-333-4949

960 specimens; regional emphasis (Illinois); additional contact: Kevin S. Cummings (voice: 217-333-1623; e-mail: cummings@ux1.cso.uiuc.edu)

Illinois State Museum (ISM)

Spring and Edwards Streets Springfield, IL 62706

4,000 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

Illinois State University (ISU)

Department of Biological Sciences

Illinois State University Normal, IL 61790-4120

1,060 specimens; regional emphasis (Illinois)

Contact: Angelo Capparella

Voice: 309-438-5124 FAX: 309-438-3722

E-mail: apcappar@ilstu.edu

Rockford College (RCMC)

Department of Biology

Rockford College Rockford, IL 61101

200 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

Contact: George A. Feldhamer

Voice: 618-453-4115

FAX: 618-453-4110

Southern Illinois University (SIUCM)

Mammal Collection

Department of Zoology, Mailcode 6501

Southern Illinois University

Carbondale, IL 62901

E-mail: feldhamer@qm.c-zoo.siu.edu 6,980 specimens; emphasis on mammals of Illinois, western Kentucky, and western Tennessee; includes former collection of the Cooperative Wildlife Research Laboratory at Southern Illinois

University (CWRL)

Southern Illinois University, Edwardsville (SIUE)

Department of Zoology Southern Illinois University

Edwardsville, IL 62025 1,300 specimens at last report (Yates et al., 1987) Contact: (did not respond to survey)

University of Illinois, Museum of Natural History (UIMNH)

University of Illinois

Urbana, IL 61801

Contact: Douglas Brewer Voice: 217-333-2517

61,063 specimens; collection includes 20 holotypes; contains former W. W. Goodpaster and Edward Taylor Collections; additional contacts: Ann Hutflies or Steven D. Sroka (voice: 217-333-3906);

ACCREDITED BY ASM (1975 and 1985)

United States Army, Construction Engineering Research Laboratories, Biological **Inventory Collection (CERL/BIC)**

Box 4005

Champaign, IL 61820

500 specimens at last report (Yates et al., 1987)

Contact: William D. Severinghaus Voice: 217-352-6511, extension 420

Western Illinois University, Museum of Natural History (WIU)

Department of Biological Sciences Western Illinois University

Macomb, IL 61455

1,345 specimens; local emphasis

Contact: Jeanette A. Thomas Voice: 309-298-1546

FAX: 309-298-2270

E-mail: mfjat@uxa.ecn.bgu.edu

INDIANA

Ball State University, Mammal Collection (BSUMC)

Biology Department Ball State University Muncie, IN 47306

300 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

Earlham College, Joseph Moore Museum (JMM)

Natural History Collection Joseph Moore Museum Earlham College Richmond, IN 47374

4,248 specimens; local emphasis; additional contact: William H. Buskirk

Contact: John B. Iverson Voice: 317-983-1405 FAX: 317-983-1497

E-mail: johni@earlham.edu

Indiana State University (ISUVC)

Department of Life Sciences Indiana State University Terre Haute, IN 47809 6,398 specimens; local emphasis Contact: John O. Whitaker, Jr. Voice: 812-237-2383

University of Southern Indiana (USI)

(formerly Indiana State University, Evansville, ISUE) Department of Biology University of Southern Indiana Evansville, IN 47712 203 specimens; local emphasis

Contact: James H. Bandoli Voice: 812-464-1792 FAX: 812-464-1960

E-mail: jhbandol.ucs@smtp.usi.edu

IOWA

Buena Vista College (BVC)

Biology Department Buena Vista College Storm Lake, IA 50588 660 specimens at last report (Yates et al., 1987) Contact: Richard P. Lampe

Central College (CUI)

Biology Department Central College

Pella, IA 50219

Contact: H. P. Whidden Voice: 515-628-5147 FAX: 515-628-5316

E-mail: whiddenh@central.edu 550 specimens; collection emphasizes mammals of Iowa; Yucatan bats; several hundred specimens

transferred to University of Iowa, Museum of Natural History (IOWA)

Luther College, Sherman A. Hoslett Museum of Natural History (SHMC)

Department of Biology Luther College Decorah, IA 52101-1045 Contact: Tex A. Sordahl Voice: 319-387-1553 FAX: 319-387-1080 E-mail: sordahlt@luther.edu

1,595 specimens; mammals of northeastern Iowa and the upper-midwestern United States

Putnam Museum of History and Natural Science (PM)

1717 West 12th Street Davenport, IA 52804

Contact: Janice A. Hall Voice: 319-324-1934 FAX: 319-324-6638

575 specimens; local emphasis; additional contact: Scott Roller

Sanford Museum Collections (SM)

117 East Willow Cherokee, IA 51012

Size of collection not reported in Yates et al. (1987)

Contact: (did not respond to survey)

State Historical Society of Iowa (ISNHC)

(formerly Iowa State Natural History Collection)

East 6th and Locust Des Moines, IA 50319 85 specimens; local emphasis Contact: William M. Johnson

Voice: 515-281-5627 FAX: 515-282-0502

University of Iowa, Museum of Natural History (IOWA)

University of Iowa Iowa City, IA 52242

Contact: George D. Schrimper

Voice: 319-335-0481

2,455 specimens; regional emphasis (Iowa); includes W. T. Hornaday Australian marsupials plus several hundred specimens transferred from Central College, Pella, IA (CUI); additional contact: Holmes Semken, Geology Department, University of Iowa (voice: 319-335-1830)

University of Northern Iowa, Nixon Wilson Collection (NWC)

Department of Biology

University of Northern Iowa

Cedar Falls, IA 50614

340 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

University of Northern Iowa (UNI)

Department of Biology University of Northern Iowa Cedar Falls, IA 50614 40 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

KANSAS

Emporia State University, Schmidt Museum of Natural History (SMNH)

Emporia State University Emporia, KS 66801

Contact: Dwight Moore Voice: 316-341-5611 FAX: 316-341-6055

900 specimens; local emphasis

E-mail: mooredwi@esumail.emporia.edu

Fort Hays State University, Sternberg Museum of Natural History (MHP)

Collection of Mammals Fort Hays State University Hays, KS 67601 Contact: J. Ř. Choate Voice: 913-628-5664 FAX: 913-628-4046

E-mail: bijc@fhsuvm.fhsu.edu

35,000 specimens; collection includes one holotype; large series of Great Plains mammals; combined collections of the Sternberg Museum, former Museum of the High Plains, and part of the C. A. Ely Collection; ACCREDITED BY ASM (1975 and 1980)

Friends University, Fellow-Reeve Museum of History and Science (FRM)

Friends University Contact: Philip Nagley 2100 University Voice: 316-292-5594 Wichita, KS 67213 FAX: 316-263-1092

31 specimens; taxidermy mounts; material collected by Quaker missionaries (United States, Canada,

and Africa)

Pratt Education Center and Aquarium (PECA)

(formerly Kansas Forestry, Fish and Game

Commission, KFFGC)

Kansas Department of Wildlife and Parks

512 S.E. 25th Avenue Pratt, KS 67124-8174

128 specimens; primarily taxidermy mounts; additional contact: Steve Stockhouse

Kansas State University (KSU)

Teaching Collection Division of Biology Kansas State University

Manhattan, KS 66506-4901

E-mail: dwkaufma@lter-konza.konza.ksu.edu

500 specimens; primarily material from the United States; collection used for teaching

Pittsburg State University (PSUMC)

Biology Department Pittsburg State University Pittsburg, KS 66762

1,200 specimens at last report (Yates et al., 1987)

Southwestern College, Natural History Museum (SCNHM)

Southwestern College 100 College Street Winfield, KS 67156-2499

Contact: Max Thompson Voice: 316-221-8273 FAX: 316-221-8382 E-mail: maxt@jinx.sckans.edu

Contact: Roland Stein

Contact: Donald W. Kaufman

Contact: (did not respond to survey)

Voice: 316-672-5911

FAX: 316-672-6020

Voice: 913-532-6622

FAX: 913-532-6653

2.100 specimens; emphasis on southcentral Kansas; small collections from Australia, Africa, Mexico

University of Kansas, Museum of Natural History (KU)

Division of Mammals University of Kansas Lawrence, KS 66045-2454 Contact: Robert M. Timm Voice: 913-864-4180 FAX: 913-864-5335

E-mail: btimm@falcon.cc.ukans.edu

156,000 specimens; collection includes 129 holotypes; important series from the Great Plains, western United States, Mexico, and Central America; frozen-tissue collection (500 specimens); contains former collections of the Kansas City Museum, the Ralph Ellis Collection, the Albert Schwartz Collection, and the University of Miami, Coral Gables Collection; additional contact: Thor Holmes (voice: 913-864-3047); ACCREDITED BY ASM (1975 and 1987)

Wichita State University (WSBC)

Department of Biological Sciences Wichita State University Wichita, KS 67208-1595 200 specimens

Contact: D. A. Distler Voice: 316-689-3113

KENTUCKY

Eastern Kentucky University (EKU)

Biology Department Eastern Kentucky University Richmond, KY 40475

925 specimens at last report (Yates et al., 1987)

Contact: Charles L. Elliott Voice: 606-622-1531 FAX: 606-622-1020

Murray State University (MSUMC)

Department of Biological Sciences Murray State University Murray, KY 42071

Contact: Robert A. Martin Voice: 502-762-6754 FAX: 502-764-4887

E-mail: a46713f@msumusic.bitnet

700 specimens; local emphasis, with synoptic series from eastern United States

University of Kentucky (UKEN)

Vertebrate Natural History Collection Thomas Hunt Morgan School of Biological Sciences University of Kentucky

Lexington, KY 40506 5,346 specimens at last report (Yates et al., 1987) Contact: (did not respond to survey)

Western Kentucky State University (WKSU)

Bowling Green, KY 42101

100 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

LOUISIANA

Centenary College Vertebrate Collection (CCVC)

(formerly Centenary College Collection, CCC)

Contact: A. Bradley McPherson Biology Department Voice: 318-869-5209 Centenary College FAX: 318-869-5211

Shreveport, LA 71104 E-mail: bmcphers@beta.centenary.edu

1,450 specimens; about one-half of the collection is Latin American material

Louisiana State University, Museum of Natural Science (LSUMZ)

119 Foster Hall Contact: Mark S. Hafner Louisiana State University Voice: 504-388-3083 Baton Rouge, LA 70803-3216 FAX: 504-388-3075

E-mail: namark@unix1.sncc.lsu.edu

37,945 specimens; collection includes 23 holotypes; collection emphasizes mammals from southcentral United States, Mexico, Central America, and South America; frozen-tissue collection (5,300 specimens); contains former collection of the University of Southwestern Louisiana (USLBM); additional contact: Steven Cardiff; ACCREDITED BY ASM (1975 and 1989)

Louisiana Tech University (LTU)

Zoology Vertebrate Research Collection Department of Zoology Louisiana Tech University Ruston, LA 71272 2,588 specimens at last report (Yates et al., 1987) Contact: (did not respond to survey)

Northeast Louisiana University, Museum of Zoology (NLU)

Department of Biology Northeast Louisiana University

Monroe, LA 71209

1,100 specimens; local emphasis; former collection acronym: NELU

Northwestern State University of Louisiana (NSUL)

Department of Biology

Northwestern State University of Louisiana

Natchitoches, LA 71201

1,740 specimens at last report (Yates et al., 1987)

Southeastern Lousiana University, Vertebrate Museum (SLU)

Department of Biological Sciences Southeastern Louisiana University Hammond, LA 70402-0814

534 specimens; local emphasis

Contact: Philip C. Stouffer

Contact: (did not respond to survey)

Contact: Neil H. Douglas

Voice: 318-342-1799

Voice: 504-549-2191 FAX: 504-549-3851

E-mail: fbi02251@selu.edu

Tulane University, Museum of Natural History (TU)

F. Edward Hebert Research Center

Tulane University Belle Chasse, LA 70037

Contact: Henry L. Bart, Jr. Voice: 504-394-1711 FAX: 504-394-5045

E-mail: piscine@mailhost.tcs.tulane.edu

7,807 specimens; additional contacts: Michael S. Taylor, (same address as above); Craig S. Hood (Department of Biological Sciences, Loyola University, New Orleans, LA 70118; voice: 504-865-2288; email: chood@beta.loyno.edu)

MAINE

University of Maine, Farmington (UMF)

Department of Biology University of Maine Farmington, ME 04938

2,000 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

University of Maine (UMO)

Department of Wildlife Ecology

University of Maine

Orono, ME 04469

Contact: Thomas P. Hodgman

Voice: 207-581-2876 FAX: 207-581-2858

E-mail: hodgman@apollo.umnfa.

maine.edu

1,532 specimens; local emphasis; good series of coyote, fisher, and marten skulls

MARYLAND

Frostburg State University, Mammal Collection (FSUMC)

(formerly Appalachian Environmental Laboratory, AEL)

Department of Biology Frostburg State University

Frostburg, MD 21532-1099

2,164 specimens; regional emphasis

Contact: Ronald E. Barry Voice: 301-689-4167

FAX: 301-689-4737

E-mail: rbarry@fre.fsu.umd.edu

Patuxent Wildlife Research Center (PWRC)

Laurel, MD 20708

300 specimens; local emphasis, plus synoptic collection

Contact: M. C. Perry Voice: 301-497-5622 FAX: 301-497-5624

MASSACHUSETTS

Amherst College, Pratt Museum of Natural History (PMNH)

Neontology Collection Amherst College Amherst, MA 01002

Contact: Linda L. Thomas Voice: 413-542-2165 FAX: 413-542-2713

E-mail: llthomas@amherst.edu

500 specimens; additional contact: Margery C. Coombs (voice: 413-542-2710; e-mail: mcc@

bio.umass.edu)

Boston University (BUTC)

Biology Department Teaching Collection Boston University 2 Cummington Street, Boston, MA 02215 300 specimens at last report (Yates et al., 1987) Contact: (did not respond to survey)

Harvard University, Museum of Comparative Zoology (MCZ)

Mammal Department Harvard University Cambridge, MA 02138 Contact: A. W. Crompton Voice: 617-495-3202 FAX: 617-495-5667

E-mail: a_crompton@harvard.edu 72,000 specimens; collection includes 322 holotypes; important collection of primates, including material from southeastern Asia, Africa, and South America; historically important North American series; contains former collections of O. Bangs, R. S. Palmer, M. Copeland, Kirk, and Grandidier; additional contact: Maria E. Rutzmoser (voice: 617-495-2469; e-mail: m_e_rutz@mcz.harvard.edu); ACCREDITED BY ASM (1975)

Massachusetts Division of Fisheries and Wildlife (MDFW)

Field Headquarters 1 Rabbit Hill Road Westborough, MA 01581

Contact: James E. Cardoza Voice: 508-792-7270 FAX: 508-792-7275

115 specimens; regional emphasis (Massachusetts)

Northeastern University Vertebrate Collection (NUVC)

Center for Vertebrate Studies Department of Biology Northeastern University Contact: Gwilym S. Jones Voice: 617-373-4027 FAX: 617-373-3724

Boston, MA 02115 E-mail: g.jones@nunet.neu.edu 29,433 specimens; New England emphasis; large series of Globicephala melaena, Canis latrans, and

Martes pennanti

Peabody Essex Museum (PMS)

Natural History Department

East India Square Salem, MA 01970 Contact: Jane M. Winchell

Voice: 508-745-1876, extension 3127

FAX: 508-744-6776

295 specimens: local emphasis (Essex Co., Massachusetts); additional contact: Christine Jones

Springfield Science Museum (SSM)

236 State Street

Springfield, MA 01103 650 specimens; local emphasis

Contact: David J. Stier Voice: 413-733-1194 FAX: 413-739-8785

University of Massachusetts, Museum of Zoology (UMA)

Department of Biology

University of Massachusetts Amherst, MA 01003-0027

4,465 specimens; good series of rodents and bats

Contact: Curator of collection

Voice: 413-545-3565 FAX: 413-545-1696

Westfield State College, Museum and Herbarium (WSC)

The Museum and Herbarium Westfield State College Westfield, MA 01086 Contact: David A. Lovejoy Voice: 413-572-5307 FAX: 413-562-3613

E-mail: d_lovejoy@owl.wsc.mass.edu 1,601 specimens; local emphasis, especially Peromyscus; contains former David A. Lovejoy Collection

(DALC)

MICHIGAN

Central Michigan University, Center for Cultural and Natural History (CCNH)

Central Michigan University Mt. Pleasant, MI 48859

2,711 specimens; local emphasis

Contact: Lynn Fauver Voice: 517-774-3829 FAX: 517-774-3542

E-mail: l.fauver@cmuvm.csv.cmich.edu

Cranbrook Institute of Science (CIS)

Box 801 1221 North Woodward Avenue Bloomfield Hills, MI 48303-0801

304 specimens; collection used for exhibition

Contact: Carole S. DeFord Voice: 810-645-3214 FAX: 810-645-3050

E-mail: aa634@detroit.freenet.org

Eastern Michigan University, T. L. Hankinson Vertebrate Museum (EMU)

Department of Biology

Eastern Michigan University Ypsilanti, MI 48197

600 specimens; local emphasis

Contact: Allen Kurta

E-mail: bio_kurta@emuvax.emich.edu

Hope College (HCMZ)

Department of Biology

Hope College Holland, MI 49422-9000

328 specimens; local emphasis

Contact: Kathy Winnett-Murray

Voice: 616-395-7719

E-mail: winnetmurray@hope.cit.

hope.edu

Lake Superior State College (LSSC)

Biology Department Lake Superior State College Sault Sainte Marie, MI 49783 300 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

Michigan State University Museum (MSU)

Mammalogy Division Michigan State University East Lansing, MI 48824-1045

Contact: A. Christopher Carmichael

Voice: 517-353-6624 FAX: 517-432-2846

E-mail: ccarmchl@museum.cl.msu.edu

37,132 specimens; emphasis on mammals of Great Lakes region, Mexico (particularly Zacatecas, Oaxaca, and Durango), and South America; good series of Saguinus; additional contact: Laura Abraczinskas (voice: 517-355-1290; e-mail: laura@museum.cl.msu.edu); ACCREDITED BY ASM (1975 and 1985)

Public Museum of Grand Rapids (GRPM)

(formerly Grand Rapids Public Museum) 54 Jefferson SE

Grand Rapids, MI 49503

310 specimens; regional emphasis; additional contact: Marilyn Merdzinski

Contact: Bryan Kwapil Voice: 616-456-3891 FAX: 616-456-3926

University of Michigan, Museum of Zoology (UMMZ)

University of Michigan Ann Arbor, MI 48109 Contact: Philip Myers Voice: 313-764-0456 FAX: 313-763-4080

E-mail: pmyers@umich.edu

138,517 specimens; collection includes 122 holotypes; good holdings of Mexican species, Philippine bats, and mammals of Paraguay, Costa Rica, and Panama; contains Lee R. Dice Collection of Peromyscus, former Frederick H. Test Collection (FHTC), and University of Michigan Department of Zoology Collection (UMDZ); frozen-tissue collection (1,000 specimens); additional contact: Priscilla Tucker; ACCREDITED BY ASM (1975 and 1987)

Wayne State University, Museum of Natural History (WSUMNH)

Department of Biological Sciences Wayne State University Detroit, MI 48202

Detroit, MI 48202

1,352 specimens (reported in Yates et al., 1987)

Contact: Jeheskel (Hezy) Shoshani

Voice: 313-577-2873 FAX: 313-577-6891

MINNESOTA

Bemidji State University, Vertebrate Collections (BSCVC)

Department of Biology Bemidji State University Bemidji, MN 56601 2,536 specimens; local emphasis Contact: Elizabeth Rave Voice: 218-755-2785 FAX: 218-755-4107

Saint John's University, Biology Collections (SJUBC)

Department of Biology Saint John's University Collegeville, MN 56321-3000 500 specimens; local emphasis

Contact: Norman L. Ford Voice: 612-363-3172

The Science Museum of Minnesota (SMM)

Biological Collections 30 East 10th Street St. Paul, MN 55101 Contact: Frederick J. Jannett, Jr.

Voice: 612-221-9429 FAX: 612-221-4777

45,513 specimens; regional emphasis (Minnesota); contains the F. J. Jannett Collection; additional contacts: Lori Leirdahl (voice: 612-221-9435), Gretchen Anderson (voice: 612-221-4764); collection is not catalogued

University of Minnesota, Duluth (UMD)

Department of Biology University of Minnesota Duluth, MN 55812

1,150 specimens; local emphasis (northern Minnesota)

Contact: Donald Christian

University of Minnesota, James Ford Bell Museum of Natural History (MMNH)

Mammal Collection 100 Ecology Building 1987 Upper Buford Circle University of Minnesota

St. Paul, MN 55108

Voice: 612-624-6293 FAX: 612-624-6777 E-mail: ecbirney@ecology.umn.edu

Contact: Elmer C. Birney

17,302 specimens; collection emphasizes mammals of Minnesota, Philippine historical materials, Mexican bats and rodents, Patagonian rodents and marsupials; frozen-tissue collection (50 specimens); contains former University of Minnesota Wildlife Collection (UMDFW); ACCREDITED BY ASM (1975)

MISSISSIPPI

Mississippi Museum of Natural Science (MMNS)

111 North Jefferson Jackson, MS 39202

6,850 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

Mississippi State University, Zoological Collections (MSUZ)

Department of Biological Sciences

Box GY

Mississippi State, MS 39762

Contact: Jerome A. Jackson Voice: 601-325-7568

FAX: 601-325-7939

750 specimens; local emphasis; former collection acronym: MISSU

MISSOURI

Central Missouri State University (CMSU)

Biology Department Central Missouri State University Warrensburg, MO 64093 2,181 specimens; local emphasis

Contact: Laura J. McLellan Voice: 816-543-8785 FAX: 816-543-8006

E-mail: mclellan@cmsuvmb.cmsu.edu

Gaylord Memorial Laboratory Museum (GML)

Route 1, Box 185 Puxico, MO 63960

100 specimens; local emphasis

Contact: Leigh Fredrickson

Northwest Missouri State University (NWMSU)

Department of Biology Northwest Missouri State University Maryville, MO 64468-6001 2,000 specimens

Contact: David A. Easterla

Truman State University (NEMSU)

(formerly Northeast Missouri State University)

Division of Science Truman State University Kirksville, MO 63501

2,900 specimens; regional emphasis (Missouri)

Contact: L. Scott Ellis Voice: 816-785-4621 FAX: 816-785-4045

E-mail: sellis@truman.edu

University of Missouri, Museum of Zoology (MUMZ)

112 Stephens Hall University of Missouri, Columbia

Columbia, MO 65211

3,791 specimens; regional emphasis (Missouri)

Contact: Mary J. Ratnaswamy

Voice: 573-882-9424 FAX: 573-884-5070

E-mail: mary_ratnaswamy@ muccmail.missouri.edu

MONTANA

Glacier National Park, Glacier Collection (GLAC)

West Glacier, MT 59936

250 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

Montana State University (MSUB)

Montana Department of Fish, Wildlife and Parks

Wildlife Laboratory Montana State University

Bozeman, MT 59717

Contact: Keith E. Aune Voice: 406-994-6357 FAX: 406-994-4090

7,100 specimens; regional emphasis; good series of Montana brown bears; frozen-tissue collection (400 specimens); additional contact: Phillip Schladwieler

University of Montana, Zoological Museum (UMZM)

(formerly University of Montana Bird and Mammal

Museum, UMZ)

Division of Biological Sciences

University of Montana

Missoula, MT 59801

Contact: David L. Dyer Voice: 406-243-4743 FAX: 406-243-4184

12,350 specimens; contains John and Frank Craighead Grizzly Bear Collection; Chinese and Russian mammals; good collection of carnivore and skeletal material; ACCREDITED BY ASM (1975 and 1985)

NEBRASKA

Chadron State College, Collection of Vertebrates (CSCCV)

Chadron State College 1000 Main Street Chadron, NE 69337

Contact: Jay Dee Druecker Voice: 308-432-6278 FAX: 308-432-6434

E-mail: jdruecker@cscl.csc.edu

3,500 specimens; local emphasis; planning underway to transfer most specimens to the University of Nebraska, Lincoln (UNSM) in the near future; former collection acronym: CSC

Hastings College, Collection of Vertebrates (HCCV)

Department of Biology Hastings College Hastings, NE 68901

Contact: Dallas E. Wilhelm, Jr. Voice: 402-461-7382

FAX: 402-463-3002 E-mail: dwilhelm@hastings.edu

550 specimens; collection contains a few specimens transferred from Hastings Museum (HM)

Hastings Museum (HM)

1330 North Burlington Hastings, NE 68901

264 specimens; exclusively taxidermy mounts

Contact: Burton Nelson Voice: 402-461-2399 FAX: 402-461-2379

Kearney State University, Vertebrate Museum (VMKSC)

Biology Department

Kearney State University Kearney, NE 68849-0531

3.647 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

University of Nebraska State Museum (UNSM)

Division of Zoology

University of Nebraska, Lincoln

Lincoln, NE 68588-0514

Contact: Patricia W. Freeman

Voice: 402-472-6606

FAX: 402-472-8949

E-mail: pfreeman@unlinfo.unl.edu

11,400 specimens; large series of regional species; specimens of historical importance; contains the Edson Fichter Collection and part of the University of Nebraska, Omaha Collection; additional contact: Thomas E. Labedz (voice: 402-472-8366; e-mail: tlabedz@unlinfo.unl.edu); ACCREDITED BY ASM (1975)

University of Nebraska at Omaha (UNO)

Department of Biology

University of Nebraska at Omaha

Omaha, NE 68182-0040

610 specimens; local emphasis

Contact: Kenneth N. Geluso

Voice: 402-554-2840

E-mail: kngeluso@cwis.unomaha.edu

NEVADA

Lake Mead National Recreation Area (LAME)

601 Nevada Highway Boulder City, NV 89005

Voice: 702-293-8959

Contact: Leslie Peterson

FAX: 702-293-8936

145 specimens; local emphasis (record of species in area prior to inundation of Lake Mead)

Nevada State Museum (NSMC)

Capitol Complex

Carson City, NV 89710

Contact: Ann Pinzl Voice: 702-687-4810

FAX: 702-687-4168

1,426 specimens; regional emphasis (Nevada); former collection acronym: NSM

Nevada State Museum and Historical Society (NSMHS)

700 Twin Lakes Drive Las Vegas, NV 89107

Contact: George T. Austin Voice: 702-486-5205

FAX: 702-486-5172

7,600 specimens; regional emphasis; contains former collections of the University of Nevada, Las Vegas (UNLV) and the J. R. Alcorn Collection (JRAC)

University of Nevada, Museum of Biology (UNEVR)

Department of Biology/314 University of Nevada Reno, NV 89557

1,770 specimens; local emphasis

Contact: Stephen H. Jenkins

Voice: 702-784-6188 FAX: 702-784-1302

E-mail: jenkins@scs.unr.edu

NEW HAMPSHIRE

University of New Hampshire (UNH)

Department of Zoology University of New Hampshire Durham, NH 03824

750 specimens; regional emphasis (New Hampshire)

Contact: Michelle Scott Voice: 603-862-2100

NEW JERSEY

Trailside Nature and Science Center (TNSC)

Division of Parks and Recreation 452 New Providence Road Mountainside, NJ 07092

136 specimens; exclusively taxidermy mounts

Contact: Hollace Hoffman

Voice: 908-789-3670

NEW MEXICO

Carlsbad Caverns National Park (CACA)

National Park Service 3225 National Parks Highway

Carlsbad, NM 88220

Contact: Jeff Denny Voice: 505-785-2232 FAX: 505-785-2133

600 specimens; local emphasis; additional contact: Celia Gomez; former collection acronym: CCNP

Eastern New Mexico University, Natural History Museum (ENMUNHM)

Eastern New Mexico University

Portales, NM 88130

Contact: A. L. Gennaro Voice: 505-562-2723 FAX: 505-562-2192

E-mail: gennaroa@email.enmu.edu

10,300 specimens; emphasis on eastern New Mexico, south of the Canadian River

New Mexico Environment Department (NMED)

(formerly New Mexico Environmental Improvement Agency, NMEIA)

Vector Control Program 1190 St. Francis Drive P. O. Box 26110

Contact: Ted L. Brown Voice: 505-474-4410 FAX: 505-473-3477

Santa Fe, NM 87505

160 specimens; primarily rodents involved in plague zoonotic cycle in New Mexico; additional contact: Pamela J. Reynolds, 1191 5th Street, Suite 204, Santa Fe, NM 87505

New Mexico Museum of Natural History (NMMNH)

1801 Mountain Road NW Albuquerque, NM 87104

Contact: David I. Hafner Voice: 505-841-2825 FAX: 505-841-2866

E-mail: hafner@darwin.nmmnh-abq.

mus.nm.us

2,500 specimens; frozen-tissue collection (2,000 specimens); excellent series of Nearctic Ochotonidae; additional contact: Jacquelyn G. McConachie (e-mail: jackie@darwin.nmmnh-abq.mus.nm.us); home page: http://www.aps.edu/htmlpages/nmmnh.html; ACCREDITED BY ASM (1994)

New Mexico State University (NMSU)

Department of Biology New Mexico State University Las Cruces, NM 88003

12,045 specimens at last report (Yates et al., 1987); ACCREDITED BY ASM (1977)

Philmont Scout Ranch, Seton Memorial Library (SETON)

Cimarron, NM 87714

Contact: Stephen Zimmer

Voice: 505-376-2281

Contact: Peter Houde

900 specimens; specimens collected by naturalist Ernest Thompson Seton between 1880-1930

University of New Mexico, Museum of Southwestern Biology (MSB)

Department of Biology University of New Mexico Albuquerque, NM 87131 Contact: Terry L. Yates Voice: 505-277-3838 FAX: 505-277-0304

E-mail: tyates@sevilleta.unm.edu

116,000 specimens; collection includes five holotypes, 73 symbiotypes, and one species color standard; collection emphasizes mammals of the southwestern United States, Mexico, Bolivia, Japan, and Central Africa; frozen-tissue collection (85,000 specimens); contains the Biological Surveys Collection, Fort Collins (BS/FC); additional contacts: Michael A. Bogan (voice: 505-766-3903; e-mail: mbogan@unm.edu), William L. Gannon (voice: 505-277-5340; e-mail: wgannon@unm.edu), Cindy A. Ramotnik (voice: 505-766-2811; e-mail: ramotnik@unm.edu); ACCREDITED BY ASM (1975, 1984, and 1987)

Western New Mexico University (WNMU)

Biology Collection Western New Mexico University Silver City, NM 88062 4,000 specimens at last report (Yates et al., 1987) Contact: Randy D. Jennings

White Sands National Monument (WSNM)

P. O. Box 458 Alamogordo, NM 88310 50 specimens at last report (Yates et al., 1987) Contact: (did not respond to survey)

NEW YORK

American Museum of Natural History (AMNH)

Central Park West at 79th Street New York, NY 10024-5192 Contact: Ross D. E. MacPhee Voice: 212-769-5480

FAX: 212-769-5495 E-mail: macphee@amnh.org

277,480 specimens; collection includes 1,062 holotypes; contains many historically important series, plus many specimens collected in the late 19th and early 20th centuries; contains the Bluntchli Embryological Collection; additional contact: Bryn J. Mader (voice: 212-769-5475; e-mail: mader@amnh.org); ACCREDITED BY ASM (1975 and 1978)

Brooklyn Children's Museum (BCM)

145 Brooklyn Avenue Brooklyn, NY 11213 Contact: Nancy Paine Voice: 718-472-5188 FAX: 718-472-5189

80 specimens; exclusively taxidermy mounts; additional contact: Beth Alberty (voice: 718-472-4289)

Buffalo Society of Natural Sciences (BSNS)

Buffalo Museum of Science 1020 Humboldt Parkway Buffalo, NY 14211-1293

Contact: Arthur R. Clark Voice: 716-896-5200 FAX: 716-897-6723 2,158 specimens; primarily local species; contains the former J. J. Reedy Collection (Niagara

University)

Cornell University, Vertebrate Collections (CUVC)

Section of Ecology and Systematics Cornell University Corson Hall

Ithaca, NY 14853-2701

17,500 specimens; frozen-tissue collection (200 specimens); additional contact: Charles M. Dardia (e-

Contact: Kevin J. McGowan Voice: 607-257-8135 FAX: 607-255-8088

E-mail: kjmz@cornell.edu

mail: cmd7@cornell.edu); former collection acronym: CU; ACCREDITED BY ASM (1975)

Mohonk Preserve, Inc. (MP)

(formerly Mohonk Museum, MM) Daniel Smiley Research Center 1000 Mountain Rest Road New Platz, NY 12561 200 specimens; local emphasis

Contact: Paul C. Huth Voice: 914-255-5969

New York State Museum (NYSM)

Mammal Collection, Biological Survey 3140 Cultural Education Center

Albany, NY 12230

Contact: David W. Steadman

Voice: 518-474-5800 FAX: 518-473-8496

11,200 specimens; regional emphasis (New York); large series of complete skeletons of small mammals; contains collection formerly at St. Bonaventure University (STBU); additional contact: Joseph Bopp (voice: 518-486-2025); ACCREDITED BY ASM (1975)

State University of New York at Oneonta (SUNYO)

Biology Department State University of New York-Oneonta Oneonta, NY 13820

300 specimens; regional emphasis

Contact: Robert Phillips Voice: 607-436-3344 FAX: 607-436-3646

E-mail: phill:rr@snyoneva.cc.

oneonta.edu

State University of New York, Roosevelt Wildlife Collection (RWC)

College of Environmental Science and Forestry State University of New York

1 Forestry Drive

Syracuse, NY 13210

Contact: Ronald J. Giegerich

Voice: 315-470-6763 FAX: 315-470-6934

2,900 specimens; local emphasis; additional contact: Larry W. VanDruff (voice: 315-470-6803)

The University at Albany (SUCEA)

Department of Biological Sciences State University of New York Albany, NY 12222

300 specimens; regional emphasis (upstate New York)

Contact: Margaret M. Stewart

Voice: 518-442-4348 FAX: 518-442-4767

NORTH CAROLINA

North Carolina State Museum of Natural Sciences (NCSM)

Mammal Collection 102 North Salisbury Street Raleigh, NC 27603

Contact: Mary Kay Clark Voice: 919-733-7450 FAX: 919-733-1573

8,300 specimens; regional emphasis (North Carolina and southeastern United States); major repository for manatees; specimens from late 1800s; good collection of marine mammals; additional contact: Jeff Beane

North Carolina State University (NCS)

Department of Zoology North Carolina State University Raleigh, NC 27695-7617 4,150 specimens; regional emphasis Contact: Roger A. Powell Voice: 919-515-4561 FAX: 919-515-5327 E-mail: newf@ncsu.edu

University of North Carolina at Wilmington (UNCW)

Vertebrate Collections

Department of Biological Sciences

University of North Carolina at Wilmington

Wilmington, NC 28403-3297

Contact: W. David Webster

Voice: 910-395-3756 FAX: 910-350-4066

E-mail: webste@vxc.ocis.uncwil.edu 4,200 specimens; regional emphasis (North Carolina); frozen-tissue collection (25 specimens; Sorex)

Wake Forest University, Vertebrate Collection (WFUVC)

Department of Biology Wake Forest University Winston-Salem, NC 27109 400 specimens at last report (Yates et al., 1987) Contact: (did not respond to survey)

NORTH DAKOTA

North Dakota Heritage Center (SHSND)

State Historical Society of North Dakota 612 East Boulevard Avenue Bismarck, ND 58505-0830

Contact: C. L. Dill Voice: 701-328-2666 FAX: 701-328-3710

196 specimens; primarily taxidermy mounts for exhibit; additional contact: Mark J. Halvorson

North Dakota State University (NDSU)

Department of Zoology North Dakota State University Fargo, ND 58105-5517 2,900 specimens; local emphasis Contact: William J. Bleier Voice: 701-231-8421 FAX: 701-231-7149 E-mail: bleier@ndsuvml

Northern Prairie Science Center (NPSC)

(formerly Northern Prairie Wildlife Research Center, NPWRC) National Biological Survey 8711 37 Street, SE Jamestown, ND 58401

50 specimens; regional emphasis (northern Great Plains)

Contact: Ron Kirby Voice: 701-252-5363 FAX: 701-252-4217

E-mail: kirbyr@mail.fws.gov

University of North Dakota, Vertebrate Museum (UND)

Department of Biology Contact: Robert W. Seabloom

University of North Dakota Voice: 701-777-4676
Grand Forks, ND 58202 FAX: 701-777-2623

2,500 specimens at last report (Yates et al., 1987) E-mail: rseabloo@badlands.nodak.edu

OHIO

Cincinnati Museum of Natural History (CMNH)

Frederick and Amey Geier Collections and Research Center Contact: Robert S. Kennedy 1720 Gilbert Avenue Voice: 513-345-8510

 1720 Gilbert Avenue
 Voice: 513-345-8510

 Cincinnati, OH 45202-1401
 FAX: 513-345-8501

3,300 specimens; mammals of the Ohio Valley; Philippine mammals; frozen-tissue collection (800

specimens); contains collection formerly at the University of Cincinnati (UCIN)

Cleveland Museum of Natural History (CMNH)

1 Wade Oval Drive Contact: Timothy O. Matson University Circle Voice: 216-231-4600 Cleveland, OH 44106 FAX: 216-231-5919

15,100 specimens; ACCREDITED BY ASM (1994)

Dayton Museum of Natural History (DMNH 1)

Biology Collections Contact: Gary A. Coovert Voice: 513-275-7431, extension 14

Dayton, OH 45414 FAX: 513-275-5811 2,008 specimens; local emphasis

Miami University (MU)

Hefner Zoology Museum
Contact: Paul M. Daniel
Department of Zoology
Voice: 513-529-4617
Miami University
FAX: 513-529-6900

Oxford, OH 45056 E-mail: daniel@msmail.muohio.edu 677 specimens; local emphasis

Ohio Historical Society, Natural History Synoptic Collection (HCNHSC)

1982 Velma Avenue Contact: Carl Albrecht
Columbus, OH 43211-2497 Voice: 614-297-2609
FAX: 614-297-2411

700 specimens; additional contact: Robert Glotzhober (voice: 614-297-2633)

Ohio State University, Museum of Biological Diversity (OSUMZ)

1315 Kinnear Road Contact: John M. Condit
Ohio State University Voice: 614-292-0543
Columbus, OH 43212-1192 FAX: 614-292-7774

E-mail: jcondit@magnus.acs.

4,050 specimens; regional emphasis ohio-state.edu

Ohio University, Vertebrate Collection (OUVC)

Department of Biological Sciences

Contact: Scott M. Moody
Ohio University (Irvine 042)

Athens, OH 45701-2979

Contact: Scott M. Moody
Voice: 614-593-2360

FAX: 614-593-0300

E-mail: moody@ouvaxa.cats.ohiou.edu

1,220 specimens; regional emphasis (southeastern Ohio); frozen-tissue collection (500 specimens)

OKLAHOMA

Cameron University, Museum of Zoology (CUMZ)

Biology Department Cameron University Lawton, OK 73505

Contact: Jack D. Tyler Voice: 405-581-2349 FAX: 405-581-2421

1,200 specimens; regional emphasis (southeastern Oklahoma and Black Mesa area of Oklahoma)

East Central University (ECENT)

Department of Biology East Central University Ada, OK 74820-6899 Contact: Larry L. Choate Voice: 405-332-8000, extension 499 FAX: 405-332-4616

E-mail: lchoate@mailclerk.ecok.edu

Contact: (did not respond to survey)

Contact: (did not respond to survey)

490 specimens; local emphasis; former collection acronym: ECUM

Northeastern State University, Biological Collections (NSU)

Science Building Northeastern State University

Tahlequah, OK 74464

1,200 specimens at last report (Yates et al., 1987)

Oklahoma Baptist University, Webster Natural History Museum (WNHM)

500 West University

Oklahoma Baptist University

Shawnee, OK 74801

Stillwater, OK 74078

400 specimens at last report (Yates et al., 1987)

Oklahoma State University, Collection of Vertebrates (OSU)

Department of Zoology
Oklahoma State University

Contact: Anthony A. Echelle Voice: 405-744-9681 FAX: 405-744-7824

12,893 specimens; collection includes one holotype; frozen-tissue collection (2,479 specimens); contains former collection of Wichita Mountains National Wildlife Refuge (WMWR); additional contacts: Geffery Luttrell and Jim Shaw (voice: 405-744-9675; e-mail: shawjh@okway.okstate.edu)

University of Central Oklahoma, Collection of Vertebrates (UCOCV)

(formerly Central State University, CSUO)

Biology Department

University of Central Oklahoma

Edmond, OK 73034

3,600 specimens; local emphasis

Contact: William Caire

Voice: 405-341-2980, extension 2722

FAX: 405-330-3824

University of Oklahoma, Oklahoma Museum of Natural History (OMNH)

University of Oklahoma 1335 Asp Avenue Norman, OK 73019-0606 Contact: Michael A. Mares Voice: 405-325-4712 FAX: 405-325-7699

32,000 specimens; special strengths in mammals of Oklahoma, Mexico, and South America; additional contact: Janet K. Braun; former collection acronym: OU; ACCREDITED BY ASM (1975 and 1982)

OREGON

Crater Lake National Park Museum Collection (CLNP)

P. O. Box 7

Contact: Mary Benterou

Crater Lake, OR 97604

Voice: 503-594-2211, extension 406

FAX: 503-594-2299

330 specimens; local emphasis (Crater Lake National Park and vicinity)

Eastern Oregon State College, Vertebrate Museum (EOSCVM)

Badgley Hall

Eastern Oregon State College

1410 L Avenue

La Grande, OR 97850-2899

Contact: Burr J. Betts Voice: 503-962-3330 FAX: 503-962-3873

E-mail: bbetts@eosc.osshe.edu

749 specimens; regional emphasis (northeastern Oregon); former collection acronym: EOSC

Oregon State University, Department of Fisheries and Wildlife Mammal Collection (OSUFW)

Oregon State University Corvallis, OR 97331-3803 Contact: Bruce Coblentz Voice: 503-737-1959 FAX: 503-737-3590

E-mail: coblentb@ccmail.orst.edu

11,000 specimens; regional emphasis; contains former Alex Walker Collection; additional contact: Douglas Markle (voice: 503-737-1970; e-mail: markled@ccmail.orst.edu); ACCREDITED BY ASM (1975 and 1979)

Portland State University, Collection of Vertebrates (PSU)

Department of Biology

Portland State University

Portland, OR 97207

2,600 specimens at last report (Yates et al., 1987)

Southern Oregon State College, Museum of Vertebrate Natural History (SOSCMVNH)

Department of Biology

Southern Oregon State College

Ashland, OR 97520

2,575 specimens; regional emphasis

Contact: Stephen P. Cross Voice: 503-552-6749

Contact: Richard Forbes

FAX: 503-552-6415

E-mail: scross@shasta.sosc.osshe.edu

Contact: (did not respond to survey)

University of Oregon, Museum of Natural History (UOMNH)

1224 University of Oregon

Eugene, OR 97403-1224

Contact: Don E. Dumond Voice: 503-346-5101

FAX: 503-346-5122

3,000 specimens; contains collection of Peromyscus flat skins formerly in the Department of Zoology, University of Oregon; additional contact: Pamela Endzweig (voice: 503-346-5120; e-mail: endzweig@ oregon.uoregon.edu)

Willamette University (WUME)

Department of Biology Willamette University 900 State Street

Salem, OR 97301

Number of specimens not reported in prior survey (Yates et al., 1987)

PENNSYLVANIA

Academy of Natural Sciences of Philadelphia (ANSP)

Department of Vertebrate Biology 1900 Benjamin Franklin Parkway Philadelphia, PA 19103-1195

Contact: Curator of Mammals Voice: 215-299-1078

FAX: 215-299-1078

23,000 specimens; collection includes 195 holotypes; contains historically important series; large mammals of Tibet; African bovids; Neotropical carnivores and primates; includes Wistar Institute and S. N. Rhoads Collections; additional contact: Ted Daeschler (voice: 215-299-1133; e-mail: daeschler@say.acnatsci.org)

Carnegie Museum of Natural History (CM)

Edward O'Neil Research Center 5800 Baum Boulevard Pittsburgh, PA 15206-3706 Contact: Duane A. Schlitter Voice: 412-665-2613 FAX: 412-665-2751

E-mail: schlitterd@clpgh.org
113,994 specimens; collection includes 31 holotypes; contains many historically important series; large
holdings of mammals from northeastern United States, eastern Arctic, Africa, Suriname, and Brazil;
includes former Wayne H. Davis Collection; frozen-tissue collection (14,000 specimens); additional
contact: Suzanne B. McLaren (voice: 412-665-2615; e-mail: mclarens@clpgh.org); ACCREDITED BY
ASM (1975 and 1984)

Pennsylvania State University (PSU)

School of Forest Resources Bird and Mammal Collection Pennsylvania State University University Park, PA 16802 Contact: Richard H. Yahner Voice: 814-863-3201

FAX: 814-865-3725

E-mail: rhy@psuvm. psu.edu

2,027 specimens; primarily taxidermy mounts; regional emphasis (Pennsylvania); additional contact: Carolyn G. Mahan (voice: 814-865-1132; e-mail: cgm2@psuvm.psu.edu)

Reading Public Museum (RPM)

500 Museum Road Reading, PA 19611-1425 3,377 specimens; collection includes one holotype Contact: Michael A. Feyers Voice: 610-320-8290 FAX: 610-371-5632

Shippensburg University, Vertebrate Museum (SUVM)

1871 Old Main Drive Shippensburg University Shippensburg, PA 17257 Contact: Gordon L. Kirkland, Jr. Voice: 717-532-1407 FAX: 717-530-4009 E-mail: glkirk@ark.ship.edu

26,500 specimens; important collections from Adirondack Mountains (New York), Pennsylvania, West Virginia, Utah, and Virginia; good series of soricids; additional contact: James A. Hart (voice: 717-532-1145); ACCREDITED BY ASM (1977 and 1987)

State Museum of Pennsylvania (WPMM)

William Penn Memorial Building P. O. Box 1026 Harrisburg, PA 17108-1026 1,088 specimens; regional emphasis (Pennsylvania) Contact: Albert G. Mehring Voice: 717-783-9901 FAX: 717-783-1073 Wagner Free Institute of Science (WFIS)

Museum of the Wagner Free Institute of Science

1700 West Montgomery Avenue Philadelphia, PA 19121-3227

Contact: Eugene A. Bolt, Jr.

Voice: 215-763-6529 FAX: 215-763-1299

E-mail: eaboltir@dolphin.upenn.edu

200 specimens; the Joseph Leidy "Systematics Collection" (1889) is a National Historic Landmark

PUERTO RICO

University of Puerto Rico (PRICO)

Department of Biology University of Puerto Rico Mayaguez, PR 00708

206 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

University of Puerto Rico, Caribbean Primate Research Center Museum (CPRC)

Medical Sciences Campus University of Puerto Rico San Juan, PR 00936-5067

Contact: Jean Turnquist Voice: 809-753-8656 FAX: 809-767-0788

3,100 specimens; exclusively primates; skeletons of Macaca mulatta from Cayo Santiago; includes Cayo Santiago skeleton collection from Northwestern University; additional contact: Nancy Hong

RHODE ISLAND

Roger Williams Park Museum of Natural History (RWPM)

(formerly Park Museum, PMRI) Roger Williams Park Providence, RI 02905

200 specimens; local emphasis

Contact: Marilyn R. Massaro

Voice: 401-785-9451 FAX: 401-941-5920

University of Rhode Island, Mammal Collection (URIMC)

Department of Natural Resources Science

University of Rhode Island

Kingston, RI 02881

1,469 specimens; regional emphasis (Rhode Island)

Contact: Peter August Voice: 401-792-4794 FAX: 401-792-4561

Contact: Stanlee Miller

Voice: 803-656-3456

E-mail: pete@edcserv.edc.uri.edu

Contact: (did not respond to survey)

SOUTH CAROLINA

Charleston Museum (CHM)

121 Rutledge Avenue

Charleston, SC 29401

1,425 specimens (including three holotypes) at last report (Yates et al., 1987)

Clemson University, Vertebrate Collections (CUSC)

132 Long Hall

Clemson University

Clemson, SC 29634-1903

FAX: 803-656-0435

2,653 specimens; local emphasis; ACCREDITED BY ASM (1986)

SOUTH DAKOTA

Henry Brockhouse Collection (HBC)

2304 West Madison Sioux Falls, SD 57102

55 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

Pettigrew Museum (PMSD)

Sioux Falls, SD 57102

30 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

Siouxland Heritage Museum (SHM)

200 West 6th Street

Sioux Falls, SD 57102 125 specimens at last report (Yates et al., 1987) Contact: (did not respond to survey)

W. H. Over State Museum (USDAK)

414 East Clark Street

Vermillion, SD 57069

100 specimens; exclusively taxidermy mounts; local emphasis

Contact: Cleo Kosters Voice: 605-677-5228

South Dakota State University (SDAKS)

Mammalogy Teaching Collection
Department of Biology and Microbiology
South Dakota State University

Brookings, SD 57007

1,850 specimens; primarily taxidermy mounts; local emphasis

Contact: Keith Morrill Voice: 605-688-4555

University of South Dakota (USD)

Natural History Collection Department of Biology Vermillion, SD 57069 Contact: Curator of Mammals Voice: 605-677-6567

FAX: 605-677-6557

1,565 specimens; regional emphasis (South Dakota); frozen-tissue collection (300 specimens)

N. R. Whitney Collection (NRWC)

633 South Berry Pines Road Rapid City, SD 57702 310 specimens; local emphasis Contact: Nathaniel R. Whitney

Voice: 605-343-2401

Wind Cave National Park (WICA)

Route 1, Box 190-WCNP Hot Springs, SD 57747 70 specimens; local emphasis Contact: Ron Terry Voice: 605-745-4600 FAX: 605-745-4207

TENNESSEE

Great Smoky Mountains National Park (GRSM)

107 Park Headquarters Road Gatlinburg, TN 37738 Contact: Kathleen L. Manscill

Voice: 615-436-1295 FAX: 615-436-1220

500 specimens; local emphasis (mammals of Great Smoky Mountains National Park)

Tennessee Wildlife Resources Agency (TWRA)

Ellington Agricultural Center P. O. Box 40747

Nashville, TN 37204

Size of collection not reported; exclusively taxidermy mounts

Contact: Dave Woodward

Voice: 615-781-6502 FAX: 615-741-4606

University of Memphis, Mammal Collection (UM)

Department of Biology University of Memphis

Memphis, TN 38152

18,000 specimens; ACCREDITED BY ASM (1976)

Contact: Michael L. Kennedy

Voice: 901-678-2581

University of Tennessee, Museum of Zoology (UTMZ)

Department of Zoology University of Tennessee

Knoxville, TN 37916

650 specimens; frozen-tissue collection (size not reported); additional contact: Greg Anderson (voice:

Contact: Gary McCracken

Voice: 615-974-6041 FAX: 615-974-0978

615-974-6188; e-mail: ganderso@utkvx.bitnet)

TEXAS

Abilene Christian University, Natural History Collection (ACUNHC)

Department of Biology Abilene Christian University

Abilene, TX 79699

Contact: Thomas E. Lee, Jr.

Voice: 915-674-2574 FAX: 915-674-2009

E-mail: leet@nicanor.acu.edu

220 specimens; local emphasis; frozen-tissue collection (150 specimens)

Angelo State Natural History Collection (ASNHC)

Department of Biology Angelo State University San Angelo, TX 76909

Contact: Robert C. Dowler Voice: 915-942-2189

FAX: 915-942-2229

E-mail: robert.dowler@mailserv.

angelo.edu

9,400 specimens; good holdings of specimens from westcentral Texas and Yucatan Peninsula, Mexico; frozen-tissue collection (1,400 specimens); former acronym: ASVRC; ACCREDITED BY ASM (1992)

Austin College (ACTC)

Department of Biology Austin College Sherman, TX 75090

275 specimens; local emphasis

Contact: Steven Goldsmith

Voice: 903-813-2204

E-mail: sgoldsmith@ausing.edu

Baylor University, Strecker Museum (SM)

George W. Carroll Mammal Collection **Baylor University** Waco, TX 76798 1,400 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

Dallas Museum of Natural History (DMNH)

3535 Grand Avenue (Fair Park) Dallas, TX 75226

Contact: Alex W. Barker Voice: 214-421-3466 FAX: 214-428-4356

E-mail: abarker@sun.cis.smu.edu

580 specimens; primarily taxidermy mounts; regional emphasis; includes Herb Klein Collection of trophy mounts and collection formerly at Southern Methodist University (SMU); additional contact:

Gail Manning (voice: 214-421-3466, extension 232); ACCREDITED BY ASM (1980)

Davis Mountains State Park (DMSP)

Davis Mountains State Park Interpretive Center

Box 786

Fort Davis, TX 79734

30 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

Fort Worth Museum of Science and History (FWMSH)

Fort Worth Museum of Science and History Collections

1501 Montgomery Street Fort Worth, TX 76107

2,100 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

Hardin-Simmons University, Collection of Vertebrates (HSUCV)

Department of Biology Drawer N. HSU Station

Voice: 915-670-1502 FAX: 915-670-1390 Hardin-Simmons University E-mail: alandwer@aol.com Abilene, TX 79698

331 specimens; regional emphasis (primarily Taylor, Jones, and Callahan counties, Texas); former

collection acronym: HSIMU

Midwestern State University (MWSU)

Collection of Recent Mammals Department of Biology Midwestern State University Wichita Falls, TX 76308

20,020 specimens; regional emphasis (primarily Trans-Pecos, Panhandle, and northcentral regions of

Texas); ACCREDITED BY ASM (1975 and 1988)

Contact: Frederick B. Stangl, Jr.

Contact: Allan J. Landwer

Voice: 817-689-4408 FAX: 817-689-4442

E-mail: stanglf@nexus.mwsu.edu

Pan American University, Mammal Collection (PAUMC)

Department of Biology Pan American University Edinburg, TX 78539

750 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

Panhandle-Plains Historical Museum (PPHM)

Natural History Collections Box 967, WT Station Canyon, TX 79016 225 specimens at last report (Yates et al., 1987) Contact: A. J. Taylor Voice: 806-656-2259

Sam Houston State University, Vertebrate Natural History Collection (SHSU)

Department of Biological Sciences Sam Houston State University Huntsville, TX 77341

650 specimens; local emphasis

Contact: Monte Thies Voice: 409-294-3746 FAX: 409-294-3822

E-mail: bio_mlt@shsu.edu

Sul Ross State University (SRSU)

Vertebrate Collection Department of Biology Sul Ross State University Alpine, TX 79832

2,797 specimens; regional emphasis

Contact: Curator of Mammals

Voice: 915-837-8112 FAX: 915-837-8046

Tarleton State University, Tarleton State Collection (TSC)

Department of Biological Science Tarleton State University

1,000 specimens at last report (Yates et al., 1987)

Contact: Philip D. Sudman Voice: 817-968-9154

FAX: 817-968-9157

E-mail: sudman@vms.tarleton.edu

Texas A&I University, Texas A&I Collections (TAIU)

Texas A&I University

Stephenville, TX 76402

Box 158

Kingsville, TX 78363

1,200 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

Texas A&M University, Texas Cooperative Wildlife Collection (TCWC)

Department of Wildlife and Fisheries Sciences

Texas A&M University

College Station, TX 77843

Contact: Rodney L. Honeycutt

Voice: 409-847-9462 FAX: 409-845-4096

E-mail: rhoneycutt@tamu.edu
56,500 specimens; collection includes 39 holotypes; major emphases in mammals of Texas, Mexico,
and Central America; frozen-tissue collection (5,000 specimens); includes former collection of
University of North Texas (NTSU—formerly North Texas State University); additional contact:
George D. Baumgardner (voice: 409-845-5783; FAX: 409-845-5786; e-mail: g-baumgardner@tamu.edu);
ACCREDITED BY ASM (1975 and 1984)

Texas Tech University, Museum of Texas Tech University (TTU)

Natural Science Research Laboratory

Texas Tech University

Box 43191

Lubbock, TX 79409-3191

Contact: Robert J. Baker

Voice: 806-742-2485 FAX: 806-742-1136

E-mail: bjrjb@ttacs.ttu.edu

70,000 specimens; collection includes 13 holotypes; noteworthy holdings of southwestern rodents and Neotropical bats; Chernobyl specimens; frozen-tissue collection (50,000 specimens); additional contact: Richard Monk (voice: 806-742-2486); home page: www.nsrl.ttu.edu; ACCREDITED BY ASM (1975 and 1983)

Texas Wesleyan College, Museum of Zoology (TWC)

Texas Wesleyan College Fort Worth, TX 76105

429 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

University of Mary Hardin-Baylor (UMHB)

Collection of Mammals Department of Biology

University of Mary Hardin-Baylor

Belton, TX 76513

415 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

University of Texas at Arlington (UTA)

Collection of Vertebrates Department of Biology University of Texas

Arlington, TX 76019

Contact: J. A. Campbell Voice: 817-273-2406 FAX: 817-273-2855

E-mail: campbell@albert.uta.edu

2,500 specimens; regional emphasis; former collection acronym: UTACV

University of Texas at Austin, Laboratory of Physical Anthropology (UTLPA)

Department of Anthropology University of Texas

Austin, TX 78712-1086

Contact: Liza Shapiro Voice: 512-471-7533 FAX: 512-471-6535

E-mail: liza.shapiro@mail.utexas.edu

270 specimens; important skeleton collection of Papio; additional contacts: Claud Bramblett and John

Kappelman (voice: 512-471-4206)

University of Texas at Austin, Texas Natural History Collection (TNHC)

University of Texas 2400 Trinity Street Austin, TX 78705

Contact: Carol K. Malcolm Voice: 512-471-8845 FAX: 512-471-9775

E-mail: cmalcolm@utxvms.cc.utexas.edu

8,000 specimens; regional emphasis (Texas); ACCREDITED BY ASM (1976)

University of Texas at Austin, Vertebrate Paleontology Lab (TMM)

J. J. Pickle Research Campus

University of Texas Austin, TX 78712

Contact: Ernest Lundelius Voice: 512-471-6087

FAX: 512-471-5973

E-mail: mcwinans@bongo.cc.utexas.edu

7,200 specimens; emphasis on skeletal material; regional emphasis (Texas); Australian marsupials; additional contact: Melissa C. Winans

University of Texas at El Paso, Centennial Museum (UTEP)

Mammal Division

Laboratory for Environmental Biology

University of Texas

El Paso, TX 79968-0519

Contact: Arthur H. Harris

Voice: 915-747-6985 or 747-6835 FAX: 915-747-5808

E-mail: ai01%utep@utepvm.ep.utep.edu

8,407 specimens; emphasis on mammals of southwestern United States; ACCREDITED BY ASM (1977)

Wayland University (WU)

Llano Estacado Museum Plainview, TX 79072

1,125 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

Welder Wildlife Foundation (WWF)

P. O. Box 1400 Sinton, TX 78387

1,060 specimens; regional emphasis (southern Texas)

Contact: Selma Glasscock Voice: 512-364-2643 FAX: 512-364-2650

West Texas A&M University Natural History Collection (WTSU)

Department of Biology and Geosciences

West Texas A&M University

Canyon, TX 79016

2,498 specimens; regional emphasis (Texas Panhandle)

Contact: Kathleen Blair Voice: 806-656-2568 FAX: 806-656-2928

E-mail: kblair@wtamu.edu

Witte Memorial Museum (WMM)

San Antonio Museum Association P. O. Box 2601

San Antonio, TX 78299

273 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

UTAH

Brigham Young University, Monte L. Bean Life Science Museum (BYU)

Brigham Young University Provo, UT 84602-0200 Contact: Duke S. Rogers Voice: 801-378-5491 FAX: 801-378-3733 E-mail: rogersd@acd1.byu

15,500 specimens; collection emphasizes mammals of Utah and Nevada (especially Nevada test site); includes collection formerly at Utah State University (USU); frozen-tissue collection (2,800 specimens); additional contact: H. Duane Smith (e-mail: duane@museum.byu.edu); ACCREDITED BY

ASM (1991)

Bryce Canyon National Park (BCNP)

National Park Service Museum Collections Bryce Canyon, UT 84717

150 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

Cedar Breaks National Monument (CBNM)

Biological Collections P. O. Box 749

Cedar City, UT 84720

25 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

Dinosaur Natural History Museum (DNHM)

Natural History Collections 235 East Main

Vernal, UT 84078

155 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

Dixie College, Natural History Museum (DIX)

Natural Sciences Dixie College St. George, UT 84770

785 specimens; local emphasis

Contact: Andrew H. Barnum

Voice: 801-652-7771

E-mail: barnum@cc.dixie.edu

National Park Service (NBNM)

Arches National Park, Canyonlands National Park, and

Natural Bridges National Monument Collections

Southeast Utah Group

2282 S. West Resource Boulevard

Moab, UT 84532-8000

128 specimens; local emphasis (within National Park boundaries); additional contact: Nancy Coulam

Timpanogos Cave National Monument (TCNM)

RR 3, Box 200

American Fork, UT 84003

Contact: Rodney D. Horrocks

Contact: Vicki B. Webster

FAX: 801-259-8628

Voice: 801-259-3911, extension 2136

Voice: 801-756-5239 FAX: 801-756-5661

18 specimens; local emphasis (within National Monument boundaries)

University of Utah, Utah Museum of Natural History (UMNH)

University of Utah Salt Lake City, UT 84112 Contact: Eric A. Rickart Voice: 801-581-6927 FAX: 801-585-3684

E-mail: rickart@geode.umnh.utah.edu

29,400 specimens; collection includes 40 holotypes; emphasis on intermountain west, particularly Utah; includes former Environmental Laboratory and Dugway Proving Grounds collections; former collection acronym: UU; ACCREDITED BY ASM (1975 and 1993)

Utah Field House of Natural History State Park (UFHNH)

235 East Main

Vernal, UT 84078

Contact: Sue Ann Bilbey Voice: 801-789-3799

Contact: Samuel I. Zeveloff

FAX: 801-789-4883

150 specimens; local emphasis; additional contact: Alden H. Hamblin

Weber State University, Bird and Mammal Collection (WSU)

(formerly Weber State College, WEBSC)

Department of Zoology Weber State University

Ogden, UT 84408-2505

Voice: 801-626-6655 FAX: 801-626-7445

E-mail: szevelof@scinet.weber.edu

2,042 specimens; local emphasis; additional contact: Ron Meyers (voice: 801-626-6170)

Zion National Park (ZNP)

Zion National Park Museum Collection

Springdale, UT 84767-1099 230 specimens; local emphasis

Contact: Denny Davies Voice: 801-772-3256 FAX: 801-772-3426

VERMONT

Fairbanks Museum and Planetarium Collection (FMPC)

Main and Prospect Streets St. Johnsbury, VT 05819 Contact: Howard B. Reed, Jr.

Voice: 802-748-2372 FAX: 802-748-3347

250 specimens; emphasis on New England species; historically important series of taxidermy mounts; includes Hood Museum and Franklin Fairbanks collections; additional contact: Stephen H. Amos; former collection acronym: FMNS

Lyndon State College, Mammal Collection (VSC-L)

Department of Science Contact: Donald H. Miller

Lyndon State College Voice: 802-626-9371, extension 246 Lyndonville, VT 05851 E-mail: millerd@queen.lsc.vsc.edu

350 specimens; exclusively taxidermy mounts (with skulls); local emphasis

Montshire Museum of Science (MMS)

P. O. Box 770

Contact: Joan Waltermire Norwich, VT 05055 Voice: 802-649-2200 FAX: 802-649-3637

E-mail: linda.levin@valley.net

Contact: John Campbell

Contact: John F. Pagels

Voice: 804-828-1562

FAX: 804-828-0503

Voice: 802-759-2398

Size of collection not reported (collection currently in storage)

University of Vermont, Zadock Thompson Natural History Collections (ZTNH)

Department of Zoology Contact: C. William Kilpatrick

University of Vermont Voice: 802-656-0453 Burlington, VT 05405-0086 FAX: 802-656-2914

E-mail: wkilpatr@moose.uvm.edu 9,000 specimens; frozen-tissue collection (7,500 specimens); includes Harold B. Hitchcock Collection

and Monshire Museum Collection (part); former acronym: UVMZ

Vermont Fish and Wildlife Department (VFWD)

Addison Collection Dead Creek Refuge

RD 1, Box 1175 Vergennes, VT 05491

225 specimens; local emphasis; additional contact: Tom Myers (voice: 802-878-1564; FAX: 802-879-3871)

VIRGINIA

Virginia Commonwealth University (VCU)

Mammal Collection Department of Biology Virginia Commonwealth University

Richmond, VA 23284-2012

11,600 specimens; local emphasis (small mammals of the mid-Atlantic region)

Virginia Museum of Natural History (VMNH)

1001 Douglas Avenue Martinsville, VA 24112 Contact: Nancy D. Moncrief

Voice: 540-666-8614 FAX: 540-632-6487

E-mail: moncrief@amazon.evsc.virginia.edu

Contact: (did not respond to survey)

1,584 specimens; frozen-tissue collection (1,000 specimens)

Virginia Polytechnic University, Mammal Museum (VPIMM)

Virginia Polytechnic Institute and State University

Biology Department Blacksburg, VA 24061

600 specimens at last report (Yates et al., 1987)

WASHINGTON

National Marine Mammal Laboratory (NMML)

Osteological Collection 7600 Sand Point Way NE Seattle, WA 98115 Contact: Bob DeLong Voice: 206-526-4038 FAX: 206-526-6615

E-mail: delong@afsc.noaa.gov

1,709 specimens; collection emphasizes marine mammals of the northern Pacific; includes the former John G. Sinclair Collection; additional contact: James R. Thomason (voice: 206-526-6681; FAX: 206-526-6615; e-mail: thomason@afsc.noaa.gov); former collection acronym: NMFS

Olympic National Park (ONP)

600 East Park Avenue Port Angeles, WA 98362 Contact: Susan Schultz Voice: 360-452-4501

100 specimens, regional emphasis (Olympic Peninsula, Washington)

University of Puget Sound, James R. Slater Museum of Natural History (PSM)

University of Puget Sound Tacoma, WA 98416-0360 Contact: Dennis R. Paulson Voice: 206-756-3798 E-mail: dpaulson@ups.edu

28,000 specimens; collection includes two holotypes; regional emphasis (northwestern United States); repository for Canis rufus specimens; additional contact: Gary W. Shugart (voice: 206-756-3356; e-mail: gshugart@ups.edu); ACCREDITED BY ASM (1975)

University of Washington, Thomas Burke Memorial Washington State Museum (UWBM)

DB-10, University of Washington

Contact: G. J. Kenagy Voice: 206-616-1781 FAX: 206-685-3039

Seattle, WA 98195

E-mail: kenagy@u.washington.edu

40,000 specimens; collection includes one holotype; emphasis on northwestern North America; includes former E. S. Booth Collection (BC) and Walla Walla College Collection (WWC); frozen-tissue collection (1,500 specimens); additional contact: John Rozdilsky (voice: 206-685-7417; e-mail: jrozdil@u.washington.edu); former collection acronym: UW-WSM; ACCREDITED BY ASM (1975)

Washington Game Department (WGD)

600 North Capitol Way Olympia, WA 98501 200 specimens at last report (Yates et al., 1987) Contact: (did not respond to survey)

Washington State University, Charles R. Conner Museum (CRCM)

Washington State University Pullman, WA 99164-4236 Contact: Richard E. Johnson Voice: 509-335-1977 or 335-3553

FAX: 509-335-3517

32,500 specimens; collection emphasizes northwestern North America; includes former Irven O. Buss Collection (IOBC); additional contact: Kevin Pullen (voice: 509-335-3515); ACCREDITED BY ASM (1977)

Whitman College (WCW)

Biology Department Whitman College Walla Walla, WA 99362 2,750 specimens; regional emphasis Contact: Charles M. Drabek Voice: 509-527-5227 FAX: 509-527-5904

E-mail: in%"drabek@whitman.edu

WEST VIRGINIA

Marshall University, West Virginia Mammal Survey (WVMS)

N. B. Green Vertebrate Collections Department of Biological Sciences

Marshall University Huntington, WV 25755

6,424 specimens; regional emphasis (West Virginia)

Contact: Mary Etta Hight

Voice: 304-696-6692 FAX: 304-696-3243

E-mail: hight@marshall.edu

WISCONSIN

Jay S. Haft Collection (JSHC)

Department of Anatomy Medical College of Wisconsin

561 North 15th Street, Milwakee, WI 53233

200 specimens at last report (Yates et al., 1987)

Milwaukee, WI 53201

625 specimens at last report (Yates et al., 1987)

University of Wisconsin, Milwaukee, Department of Anthropology (UWMA) University of Wisconsin Contact: (did not respond to survey)

University of Wisconsin, Milwaukee, Department of Biological Sciences (UWMIL)

University of Wisconsin Milwaukee, WI 53201

Contact: Donna Van Wynesburghe

Contact: (did not respond to survey)

Voice: 414-229-4214

50 specimens; local emphasis; additional contact: Keith Chipman (voice: 414-229-4558)

University of Wisconsin, Stevens Point, Museum of Natural History (UWSP)

Mammal Collection

University of Wisconsin Stevens Point, WI 54481 Contact: Charles A. Long

Voice: 715-346-2455

8,200 specimens; regional emphasis (Wisconsin); PROVISIONALLY ACCREDITED BY ASM (1994)

University of Wisconsin, Zoological Museum (UWZM)

250 North Mills Street

University of Wisconsin

Madison, WI 53706

Contact: Frank A. Iwen

Voice: 608-262-3766 or 262-3159

FAX: 608-262-5395

E-mail: uwzmiwen@macc.wisc.edu

24,000 specimens; collection includes one holotype; many historically important series; placentae and fetal material; frozen-tissue collection (2,500 specimens); includes former W. B. Quay Collection, Harland W. Mossman Collection, and Milton College Collection; additional contact: E. Elizabeth Pillaert (e-mail: pillaert@macc.wisc.edu); former collection acronym: UWZ; ACCREDITED BY ASM (1975 and 1983)

WYOMING

Casper College (CCW)

Biology Department Casper College Casper, WY 82601

700 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

Grand Teton National Park (GTNP)

Box 67

Moose, WY 83012

24 specimens at last report (Yates et al., 1987)

Contact: (did not respond to survey)

Contact: (did_not_respond_to_survey)____

Teton Science School (TSSMC)

Murie Museum P. O. Box 68 Kellv. WY 83011

Contact: John McLaughlin Voice: 307-733-4765 FAX: 307-739-9388

Contact: Belkis Rivas

Contact: Iavier Sanchez

Voice and FAX: 58-4-383-8264

Voice: 582-782-8711

FAX: 582-793-7493

3,100 specimens; historically important collections of Olaus and Adolph Murie

Werner Wildlife Museum (WWM)

Mammal-Collection

405 East 15th Street Casper, WY 82061

250 specimens at last report (Yates et al., 1987)

VENEZUELA

Colección de Mastozoológia (MHNLS)

Edificio Fundación La Salle Avenida Boyaca Mariperez Apartado 1930

Caracas 1010-A, Venezuela

11,000 specimens; collection includes 12 holotypes of Venezuelan mammals

Museo de la Estación Biológica de Rancho Grande (EBRG)

MARNR-PROFAUNA

Apartado 184 Maraca y 2101-A

Estado Aragua, Venezuela

20,000 specimens; mostly Venezuelan mammals; additional contact: Francisco Bisbal

Universidad Central de Venezuela (MBUCV)

Museo de Biología Apartado 47058

Caracas 1041-A, Venezuela

Contact: Roger Perez Hernandez

Voice: 58-2-662-7895

E-mail: rperez@dino.conicit.ve

5,264 specimens; collection emphasizes Venezuelan mammals; additional contact: Carmen Ferrira

Universidad de Los Andes (CVULA)

Colección de Vertebrados Facultad de Ciencias, La Hechicera

Universidad de Los Andes

Merida 5101, Venezuela

Contact: P. Soriano M. Voice: 58-74-401305 FAX: 58-74-401280

E-mail: soriano@ciens.ula.ve

8.500 specimens; mostly bats and rodents from eastern Venezuela; additional contacts: Jaime Pefaur (pefaur@ciens.ula.ve) and Jesus Molinari (molinari@ciens.ula.ve)

APPENDIX I

LATIN AMERICAN COLLECTIONS THAT DID NOT RESPOND TO THIS SURVEY

Latin American collections known (or presumed) to exist for which no survey response was received. We invite the persons responsible for these collections to contact the chair of the ASM Systematic Collections Committee so that their collections will be included in the next listing.

ARGENTINA

Centro Nacional Patagónico (CNP), 28 de Julio 28, 9120 Puerto Madryn, Chubut, Argentina

Colección de Mamíferos de Elio Massoia y Flia (CEMF), Avenida Angel Gallardo 470, Casilla de Correo 220, 1405 Buenos Aires, Argentina

Museo de Ciencias Naturales y Centro de Investigación, Instituto del Profesorado "Antonio R. de Montoya," San Luis 384, 3300 Posadas, Misiones, Argentina

Museo de Historia Natural de San Rafael, San Rafael, Mendoza, Argentina

Museo de la Patagonia, Colección mastozoológica, 8400 San Carlos de Bariloche, Río Negro, Argentina

Museo de Ciencias Naturales "Juan Forester," 3384 Monte Carlo, Misiones, Argentina

Museo de Ciencias Naturales, Universidad Nacional de Salta, 4400 Salta, Argentina

Museo de Ciencias Naturales de Azul (MCNA), Olavarria 369, 7300 Azul, Buenos Aires, Argentina

BELIZE

Belize College of Arts, Science and Technology (BELCAST), Belize City, Belize

BOLIVIA

Museo de Historia Natural "Dr. Mario Deheza N." (MHNMD), Universidad Mayor de San Francisco Xavier, Casilla 212, Sucre, Bolivia

BRAZII

Coleção Adriano L. Peracchi, Insituto de Biologia, Universidad Rural, 23460 Seropédica, Rio de Janeiro, Brasil

Coleção Deoclécio Guerra (DG), Departemento Biologia, Universidad Federal de Pernambuco, Cidade Universitaria, 50000 Recife, Pernambuco, Brasil

Coleção Privado de Estanislau Kostka Pinto de Silveira, c/o Maria Consuelo P. da Silveira, Rua Evaristo da Veiga, 45/302 Cinelândia, 20,000 Rio de Janeiro, Brasil

Departamento dos Mamiferos Aquaticas, Instituto Nacional de Pesquisas da Amazônia, 69000 Manaus, Amazonas, Brasil

Museu "Ângelo Moreira da Costa Lima," Avenida Feliciano Coelho 1509, 68900 Macapá, Amapá, Brasil

Museu Paraense "Emílio Goeldi" (MPEG), Caixa Postal 399, 66.040 Belém, Pará, Brasil

Universidade Estadual de Campinas (ZUEC), Zoologia, Caixa Postal 1170, Campinas 13100, São Paulo, São Paulo, Brasil

APPENDIX I .- Continued.

- Universidade Estadual Paulista (UNESP), Departamento de Zoologia, Instituto de Biociéncias, 1500100 São José do Rio Preto, São Paulo, Brasil
- Museu de Historia Natural, Mastozoologia, Bosque de Jequitibas, 13.100 Campinas, São Paulo, Brasil
- Universidad Federal de Paraiba, Departamento Biologia, Campus Universitario, 58000 João Pessoa, Paraiba, Brasil
- Universidade do Vale do Rio dos Sinos, Museu de Zoologia da UNISINOS, Avenida Unisinos 950, Caixa Postal 275, 93.000 São Leopoldo, Rio Grande do Sul, Brasil

COLOMBIA

- Museo de Ciencias Naturales del Colegio de San José, Apartado Aereo 1180, Medellín, Antioquia, Colombia
- Museo Departamental de Historia Natural, Mastozoología, Apartado Aereo 5621, Cali, Colombia
- Museo del Instituto de La Salle, Calle 11, Numero 1-69, Apartado Aereo 27389, Santa Fé de Bogotá, Colombia
- Universidad Industrial de Santander (UIS), Museo de Historia Natural, Escuela de Biología, Apartado Aéreo 678, Bucaramanga, Colombia

CUBA

Museo y Biblioteca de Zoología, Calle 42, Numero 3307, Mariano 13, La Habana, Cuba

Museo "Felipe Poey," Capitolio Nacional, Calle 25 entre "J" e "I," Vedado, La Habana, Cuba

DOMINICAN REPUBLIC

Museo Nacional de Historia Natural, Departamento de Zoología, Plaza de la Cultura "Cesar Nicolás Penson," Santo Domingo, República Dominicana

ECUADOR

Instituto Nacional "Mejía," Avenida América, Quito, Ecuador

- Museo de Ciencias Naturales "Colegio Maldonado," 1ra Constituyente, entre Larrea y España, Riobamba, Ecuador
- Museo de Historia Natural "Escuela Politécnica del Litoral," Escuela de Ciencias Naturales, Escuela Politécnica del Litoral, Guayaquil, Ecuador
- Museo de Historia Natural-Galapagos, Puerto Baquerizo Moreno, San Cristobal, Galápagos, Ecuador
- Universidad de Guayaquil, Museo de Ciencias Naturales, Facultad de Ciencias Naturales, Casilla 471, Guayaquil, Ecuador
- Universidad "Luis Vargas Torres," Museo de Ciencias Naturales "Luis Vargas Torres," Escuela de Ciencias Naturales, Esmeraldas, Ecuador

APPENDIX I .- Continued.

GUATEMALA

Museo Nacional de Historia Natural, Mastozoología, 6a Calle, 7-30, Zona 13, Apartado Postal 987, Ciudad Guatemala, Guatemala

Universidad del Valle, Departamento de Biología, Apartado Postal 82, Ciudad Guatemala, Guatemala

GUYANA

The Guyana Museum and Zoo, North Road, Georgetown, Guyana

University of Guyana, Center for the Study of Biodiversity, Georgetown, Guyana

HAITI

Institut de Sauvegarde du Patrimoine National (ISPAN), 77 Chemin des Dalles, B. P. 2484, Port-au-Prince, Haiti

HONDURAS

Museo Animal, Departamento de Vida Silvestre, Dirección General de Recursos Naturales Renovables, Tegucigalpa, Honduras

JAMAICA

The Institute of Jamaica, Science Museum, Natural History Division, Kingston, Jamaica

MEXICO

Centro Intercultural para el estudio de Desiertos y Océanos (CEDO), Apartado Postal 53, Puerto Peñasco, Sonora 83550, México

- Colección del Instituto Nacional de Antropología e Historia (PH), Subdirección de Servicios Académicos, Laboratorio de Paleomastozoología, Moneda 16, Colonia Centro, México, Distrito Federal 06060, México
- Instituto Tecnológico de Estudios Superiores de Monterrey Unidad Guaymas (ITESM), Colección de Mastozoología, Apartado Postal 484 Guaymas, Sonora 85400, México
- Universidad Autónoma del Estado de Morelos (UAEM), Colección de Mamíferos del Centro de Investigaciones Biológicas, Avenida Universidad 1001, Colonia Chamila, Cuernavaca, Morelos 66210, México
- Universidad Autónoma de Puebla (UAP), Escuela de Biología, 4 Sur 104, Centro Puebla, Puebla 72000, México
- Universidad de Guadalajara (LNLJ), Colección de Mamíferos, Instituto Manantlán de Ecología y Conservación de la Biodiversidad, Departamento de Ecología y Recursos Naturales, Nicolás Bravo 66, El Gurullo, Jalisco 48740, México
- Universidad Nacional Autónoma de México, Facultad de Ciencias, (FC-UNAM), Colección de Mamíferos de la Facultad de Ciencias, Apartado Postal 70-399, México, Distrito Federal 04510, México

APPENDIX I .- Continued.

NICARAGUA

Universidad Nacional Autónoma de Nicaragua, Escuela de Biología, Departamento de Zoología, León, Nicaragua

Museo de Zoología, Instituto Nicaragüense de Recursos Naturales y del Ambiente, Km. 12.5, Carreterra Norte, Apartado 5123, Managua, Nicaragua

PARAGUAY

Museo de Historia Natural, Vivero Forestal, Entidad Binacional Itaipu, Casilla de Correo 381, Ciudad del Este, Hernanderias, Paraguay

PERU

Instituto del Mar del Perú, Esquina Gamarra y General Valle, Casilla Postal 22, Callao, Perú
Universidad Nacional de la Amazonia Peruana, Museo de Zoología, Apartado 496, Iquitos, Perú
Universidad Nacional de Cusco, Departamento de Zoología, Casilla Postal 423, Cusco, Perú
Universidad Nacional de Trujillo, Departamento de Zoología, San Martin 380, Trujillo, Perú
Universidad "Ricardo Palma," Laboratorio de Zoología, Facultad de Ciencias Biológicas, Apartado 797, Lima 18, Perú

URUGUAY

Insituto de Biología, Sección Zoología Vertebrados (ZVC), Facultad de Humanidades y Ciencias, Universidad de la República, Tristán Narvaja 1674, Montevideo 11200, Uruguay

Laboratorio de Evolución, Facultad de Ciencias. Tristán Narvaja 1674, Montevideo 11200, Uruguay

Museo Nacional de Historia Natural, Buenos Aires 562, Casilla de Correo 399, Montevideo, Uruguay

Museo "Damaso Antonio Larranaga," República de Chile 4215, Montevideo, Uruguay

VENEZUELA

Instituto de Investigaciones Veterinarias (IIV), Sección de Rabia, Apartado 70, Maracay 300, Estado Aragua, Venezuela

Museo de Ciencias Naturales (MCN), Universidad Simón Bolivar, Apartado Postal 80659, Caracas 1080-A, Venezuela

Museo del Instituto de Zoología Agrícola, Universidad Central de Venezuela, Maracay, Venezuela

Universidad de Zulia, Centro de Investigaciones Biológicas, Facultad de Humanidades, Apartado Postal 526, Maracaibo, Estado Zulia, Venezuela

APPENDIX II

COLLECTIONS THAT HAVE BEEN INCORPORATED INTO OTHER COLLECTIONS

This list includes only those transfers not listed in the previous survey report (Yates et al., 1987).

Collection transferred	Repository
BRITISH COLUMBIA	
Dun-Waters Collection	Kelowna Museum (KM)
MANITOBA	
Delta Waterfowl Research Station	Manitoba Museum of Man and Nature (MMMN)
University of Manitoba Collection (part)	Manitoba Museum of Man and Nature (MMMN)
ONTARIO	
Wistar Institute Collection (part)	Canadian Museum of Nature (CMN)
C. H. Buckner Collection	Canadian Museum of Nature (CMN)
Arctic Biological Station Collection	Canadian Museum of Nature (CMN)
O. J. Barton Collection	Royal Ontario Museum (ROM)
J. G. Williams Collection	Royal Ontario Museum (ROM)
R. G. Lanning Collection R. Brooman Collection	Royal Ontario Museum (ROM)
K. Disonan Conection	Royal Ontario Museum (ROM)
CALIFORNIA	
Harry Coombs Collection	San Bernardino County Museum (SBCM)
L. M. Huey Collection	San Diego Natural History Museum (SDNHM)
S. G. Jewett Collection	San Diego Natural History Museum (SDNHM)
United States Geological Survey Collection	San Jose State University (MBM)
Jack C. VonBloeker, Jr. Collection (part) M. Hildebrand Collection	Santa Barbara Museum of Natural History (SBMNH)
D. R. Dickey Collection (part)	University of California, Berkeley (MVZ) University of California, Berkeley (MVZ)
University of California, Irvine Collection	University of California, Davis (MWFB)
	(4.2.4.2.)
CONNECTICUT	3/ 1 TI 1 4 (2002.0)
Marsh Osteological Collection Morden African Collection	Yale University (YPM)
Morden Affican Collection	Yale University (YPM)
FLORIDA	
Albert Schwartz Collection	University of Kansas (KU)
University of Miami, Coral Gables Collection	University of Kansas (KU)
ILLINOIS	
Northwestern University Collection	Chicago Academy of Sciences (CHAS)
B. J. Hayward Collection	Field Museum (FMNH)
W. W. Goodpaster Collection	University of Illinois (UIMNH)
Edward Taylor Collection	University of Illinois (UIMNH)
Southern Illinois University, Cooperative	
Wildlife Research Laboratory (CWRL)	Southern Illinois University (SIUCM)
IOWA	
W. T. Hornaday Australian Collection	University of Iowa (IOWA)
Central College, Pella, IA Collection (part)	University of Iowa (IOWA)
KANSAS	
C. A. Ely Collection (part)	Fort Hays State University, Sternberg Museum (MHP)
	Fort Hays State University, Sternberg Museum (MHP)
Ralph Ellis Collection	University of Kansas (KU)

Collection transferred	Repository
LOUISIANA University of Southwestern Louisiana	Louisiana State University (LSUMZ)
MASSACHUSETTS David A. Lovejoy Collection	Westfield State College (WSC)
MICHIGAN Lee R. Dice <i>Peromyscus</i> Collection	University of Michigan (UMMZ)
MINNESOTA F. J. Jannett Collection	The Science Museum of Minnesota (SMM)
MISSOURI Kansas City Museum Collection	University of Kansas (KU)
NEBRASKA Edson Fichter Collection University of Nebraska, Omaha Collection	University of Nebraska State Museum (UNSM) University of Nebraska State Museum (UNSM)
NEVADA J. R. Alcorn Collection	Nevada State Museum and Historical Society (NSMHS)
NEW MEXICO Biological Surveys Collection, Fort Collins, CO	University of New Mexico (MSB)
NEW YORK Bluntchli Embryological Collection J. J. Reedy Collection (Niagara University) St. Bonaventure University Collection	American Museum of Natural History (AMNH) Buffalo Society of Natural Sciences (BSNS) New York State Museum (NYSM)
OHIO University of Cincinnati Collection Wayne H. Davis Collection	Cincinnati Museum of Natural History (CMNH) Carnegie Museum of Natural History (CM)
PUERTO RICO Northwestern University Collection (part)	University of Puerto Rico (CPRC)
TEXAS Herb Klein Collection Southern Methodist University Collection University of North Texas Collection	Dallas Museum of Natural History (DMNH) Dallas Museum of Natural History (DMNH) Texas A&M University (TCWC)
UTAH Utah State University Collection Environmental Laboratory Collection	Brigham Young University (BYU) University of Utah (UMNH)
VERMONT Hood Museum Collection Franklin Fairbanks Collection Monshire Museum Collection (part)	Fairbanks Museum and Planetarium (FMPC) Fairbanks Museum and Planetarium (FMPC) University of Vermont (ZTNH)
WASHINGTON John G. Sinclair Collection Walla Walla College Collection Irven O. Buss Collection	National Marine Mammal Laboratory (NMML) University of Washington (UWBM) Washington State University (CRCM)
WISCONSIN Milton College Collection	University of Wisconsin (UWZM)

APPENDIX III

BIBLIOGRAPHY OF CATALOGUES OF TYPE SPECIMENS IN COLLECTIONS OF MAMMALS IN THE WESTERN HEMISPHERE

- ALLEN, G. M. 1931. Type specimens of mammals in the Museum of Comparative Zoology. Bulletin of the Museum of Comparative Zoology, 71:229-289.
- AVILA PIRES, F. D. 1968. Tipos de mamíferos recentes do Museu Nacional, Rio de Janeiro. Arquivos do Museu Nacional, 53:161-191.
- BOND, S. I. 1969. Type specimens of mammals in the San Diego Natural History Museum. Transactions of the San Diego Society of Natural History, 15:252-263.
- CSUTI, B. 1980. Type specimens of Recent mammals in the Museum of Vertebrate Zoology, University of California, Berkeley. University of California Publications in Zoology, 114:1-75.
- DOUTT, J. K. 1934. List of the types of mammals in the Carnegie Museum. Annals of the Carnegie Museum, 22:317-321.
- GOODWIN, G. G. 1953. Catalogue of type specimens of Recent mammals in the American Museum of Natural History. Bulletin of the American Museum of Natural History, 102:207-412.
- GREEN, G. D., and A. E. PEDEN. 1992. Type specimens of animals and plants in the collection of the Royal British Columbia Museum. Royal British Columbia Museum, Victoria, 28 pp.
- HAFNER, M. S. 1993. Mammalogical type specimens in the Museum of Natural Science, Louisiana State University. Occasional Papers of the Museum of Natural Science, Louisiana State University, 67:1-12.
- HOOPER, E. T. 1977. Type specimens of Recent mammals in the Museum of Zoology, University of Michigan. Occasional Papers of the Museum of Zoology, University of Michigan, 680:1-22.
- HUMPHREY, S. R. 1974. Recent mammals. P. 120, in Catalog of type specimens in the Department of Natural Sciences, Florida State Museum (C. R. Gilbert, ed.). Bulletin of the Florida State Museum, Biological Science, 18:101-120.
- JONES, C. A. 1994. Type specimens of mammals in The Denver Museum of Natural History. Proceedings of the Denver Museum of Natural History, 6:1-4.
- JONES, J. K., Jr., and H. H. GENOWAYS. 1969. Holotypes of Recent mammals in the Museum of Natural History, University of Kansas. Miscellaneous Publications of the University of Kansas Museum of Natural History, 51:129-146.
- JONES, J. K., Jr., R. S. HOFFMANN, and S. K. KORTLUCKE. 1984. Holotypes of Recent mammals in the Museum of Natural History, University of Kansas, 1969-1982. Occasional Papers of the University of Kansas Museum of Natural History, 112:1-5.
- KOOPMAN, K. F. 1973. Catalogue of type specimens of Recent mammals in the Academy of Natural Sciences of Philadelphia. Proceedings of the Academy of Natural Sciences of Philadelphia, 128:1-24.
- LAWRENCE, M. A. 1993. Catalog of Recent mammal types in the American Museum of Natural History. Bulletin of the American Museum of Natural History, 217:1-200.
- MAYER, W. V. 1949. Catalogue of type specimens of mammals in the Natural History Museum of Stanford University. Proceedings of the California Zoology Club, 1:29-32.
- OCHOA, G. J. 1989. Revisión de los ejemplares tipo de mamíferos recientes en colecciónes venezolanas. Biollania, 6:1-13.
- POOLE, A. J., and V. S. SCHANTZ. 1942. Catalog of the type specimens of mammals in the United States National Museum, including the Biological Surveys Collection. Bulletin of the United States National Museum, 173:1-705
- RICKART, E. A. 1987. Type specimens of Recent mammals in the Utah Museum of Natural History, University of Utah. The Great Basin Naturalist, 47:620-624.
- SANBORN, C. C. 1947. Catalogue of type specimens of mammals in the Chicago Natural History Museum. Fieldiana: Zoology, 32:209-293.
- SCHMIDLY, D. J. and J. K. JONES, Jr. 1984. Holotypes of Recent mammals in Texas natural history collections. Occasional Papers, The Museum, Texas Tech University, 92:1-13.
- YOUNGMAN, P. M. 1972. Type specimens of mammals in the National Museum of Natural Sciences, Ottawa. National Museum of Natural Sciences Publications in Zoology, 7:1-7.

APPENDIX IV

PUBLICATION SERIES ASSOCIATED WITH COLLECTIONS OF MAMMALS

Title of publication	Museum acronym
Acta Biológica Venezuelica	MBUCV
Acta Zoologica Lilloana	CML
American Museum Novitates	AMNH
Anales del Instituto de Biología	UNAM
Andrés Posada Arango	IND-M
Annals of Carnegie Museum	CM
Annals of Iowa	ISNHC
Arquivos do Museu Nacional	MN
Biological Field Station	SUNYO
Biological Papers of the University of Alaska	UAM
Bishop Museum Bulletins in Zoology	BPBM
Boletín, Museo de Historia Natural, Universidad Nacional de San Agustin	MUSA
Boletín del Museo Nacional Historia Natural	MNHN
Boletín del Museo Nacional Historia Natural del Paraguay	MNHNP
Boletín do Museo de Biologia Mello Leitão	MBML
Brenesia del Museo Nacional de Costa Rica	MNCR
Brimleyana, Occasional Papers of the North Carolina Biological Survey	NCSM
Bulletin of Carnegie Museum	CM
Bulletin of Chicago Academy of Sciences Bulletin of the American Museum of Natural History	CHAS
Bulletin of the Buffalo Society of Natural Sciences	AMNH BSNS
	DMNH
Bulletin of the Dallas Museum of Natural History Bulletin of the University of Naturals State Museum	UNSM
Bulletin of the University of Nebraska State Museum Caldasia	ICN
Comunicaciones Contributions in Science	MFA-ZV-M
Contributions in Science	LACM
Discovery Magazine	YPM
Field Guide Series	NVM
Fieldiana: Zoology	FMNH
Florida Museum Bulletin	UF
Great Basin Naturalist	BYU
Great Basin Naturalist Memoirs	BYU
Illinois Natural History Survey Bulletin	INHS
Knoxjonesia (previously Occasional Papers, The Museum, Texas Tech Univers	
Life Sciences Contributions	ROM
Lozania	ICN
Massachusetts Division of Fisheries and Wildlife Research Bulletin	MDFW
Memoirs of the Virginia Museum of Natural History	VMNH
Memoria-Natura	MHNLS
Miscellaneous Publications of the Rocky Mountain Biological Laboratory	RMBL
Miscellaneous Publications, Museum of Natural History, University of Kansa	
Miscellaneous Publications of the Museum of Zoology, University of Michiga	
Museum Bulletin	SBMNH
Museum Chatter	FRMHS
Museum Notes	UNSM
Museum of Natural History Bulletin	UOMNH
Museum Reports	UWSP PMA
National History Occasional Papers	
Natural History	AMNH
Natural History Contributions	RSM
Natural History Inventory of Colorado	UCM

Title of publication	Museum acronym
Natural Science Notes	MP
New Brunswick Museum Monograph Series	NBM
New Brunswick Museum Publications in Natural Science	NBM
Nemouria	DMNH
New York State Museum Bulletin	NYSM
Newsletter	BMNH
Newsletters	FMPC
Noticiero Mensual del Museo Nacional de Historia Natural	MNHN
Occasional Papers of the Bishop Museum	BPBM
Occasional Papers, Museo Argentino de Ciencias Naturales	
Occasional Papers of the Museum of Natural History	KU
Occasional Papers of the Museum of Natural Science	LSUMZ
Occasional Papers of the North Carolina Biological Survey	NCSM
Occasional Papers of the Oklahoma Museum of Natural History	OMNH
Occasional Papers, The Museum of Southwestern Biology	MSB
Occasional Papers, Tulane University Museum of Natural History	TU
Occasional Papers, Utah Museum of Natural History	UMNH
Pacific Discovery Magazine	CAS
Peepers	NVM
Postilla	YPM
Proceedings of San Diego Society of Natural History	SDNHM
Proceedings of the Academy of Natural Sciences of Philadelphia	ANSP
Proceedings of the Denver Museum of Natural History	DMNH
Publicacion Avulsos, Museu Nacional, Rio de Janeiro	MN
Publicacion Ocasional del Museo Nacional de Historia Natural	MNHN
Publications of the Wagner Free Institute of Science	WFIS
Research Reports	MP
Revista Politécnica, serie Biología	EPN
San Bernardino County Museum, Museum Quarterly	SBCM
Special Publications of the Northeastern University Vertebrate Collection	NUVC
Special Publications of Carnegie Museum	CM
Special Publications, The Museum of Southwestern Biology	MSB
Stinapa	CPM
Thomas Jefferson Press	NEMSU
Transactions of the Wagner Free Institute of Science	WFIS
Trianea	IND-M
Tulane Studies in Zoology	TU

APPENDIX V

BASIC CURATORIAL STANDARDS FOR SYSTEMATIC COLLECTIONS OF MAMMALS

(as established by the ASM Systematic Collections Committee and published in the Journal of Mammalogy, 59:911-914, 1978)

- 1. Collections should be administered by non-profit or private institutions unless an individual or profit-making organization is willing to establish a perpetual trust returning a reasonable perspecimen, per-year maintenance cost for the collection.
- 2. A collection must have at least one professional mammalogist who is directly responsible for it.
- 3. Collections must be housed in buildings that provide adequate protection from fire, water, dust, excessive heat or light, and other physical hazards. We recommend that important permanent records (such as catalogues and field notes) be kept in a fireproof or fire retardant safe or its equivalent.
- 4. Specimens must be stored in insect, dust, and light-proof containers.
- 5. Specimens must be periodically inspected and fumigated in accordance with federal regulations which stipulate the kinds of fumigants that can be used for this purpose (Williams et al., Special Publication, Carnegie Museum of Natural History, 4:54-56, 1977).
- 6. Specimens must be prepared in a manner that insures their utility. It is particularly critical that osteological materials be properly prepared. The use of dermestid beetles and their larvae in cleaning small skulls and other osteological materials is strongly recommended, but dermestid colonies should be located so to prevent infestation of the collection proper.
- 7. Specimens must be arranged according to a specific plan that is recorded and, preferably, posted.
- 8. Field notes and ancillary data must be preserved as a part of the permanent record for each specimen.
- 9. Data on specimen labels, in field notes, in the permanent catalogues, and wherever else data are recorded in the collection must be accurate.
- 10. A permanent catalogue of all specimens in the collection must be maintained. The catalogue must include at least the minimal data recommended by the American Society of Mammalogists' Committee on Information Retrieval: catalogue number; genus; species; sex; country, continent, or ocean of capture; state or province of capture; method of preparation; date of capture. Implementation of electronic data-processing techniques to facilitate management of specimens and data is recommended. Also, it is recommended that collections maintain catalogues of individual accessions, in addition to those of individual specimens, to facilitate keeping records of collecting permits, field notes, and other information ancillary to the specimens.
- 11. The collection must be accessible to all qualified users.
- 12. Accessibility to collections by unqualified persons must be restricted. We recommend the formation of separate teaching collections for use in basic courses, and the restriction of catalogued specimens for research purposes.
- 13. Loans with other institutions must be handled in a professional manner. Specimens sent on loan should be properly packaged in accordance with federal regulations (Williams et al., Special Publication, Carnegie Museum of Natural History, 4:62-68, 1977).

- 14. Type specimens must be identified as such, stored in cases marked accordingly, and made accessible to qualified scientists. They should not be sent on loan. Type specimens should be deposited only in institutions wherein the specimens will receive the perpetual care they require.
- 15. Evidence should be furnished that the institution intends to continue support of the collection at least at a level necessary to maintain these standards. Should institutional priorities be changed at some future time, the institution should express a willingness to transfer the collection to another public institution that will insure its perpetual maintenance.
- 16. Acquisition and possession of specimens of mammals must accord with federal and state regulations pertaining thereto. Assurance of adherence to such regulations will be sought when a collection is considered for inclusion on the list of collections that meet minimal standards.
- 17. The status of a collection may be reviewed at any time at the request of the institution or the discretion of the ASM Committee on Systematic Collections. Curators should strive to cooperate in the review process.

APPENDIX VI

MAMMAL COLLECTIONS ACCREDITED BY THE AMERICAN SOCIETY OF MAMMALOGISTS

The collections on this list meet or exceed the basic curatorial standards established by the ASM Systematic Collections Committee (Appendix V). Collections are listed alphabetically by country, then province or state. Date of accreditation (and reaccreditation) are indicated.

Collection name and acronym	Year of accreditation	Province or state
		
CANADA Provincial Museum of Alberta (PMA)	1985	Alberta
University of Alberta, Museum of Zoology (UAMZ)	1985	Alberta
Royal British Columbia Museum (RBCM)	1976	British Columbia
University of British Columbia, Cowan Vertebrate Museum (UBC)	1975	British Columbia
Canadian Museum of Nature (CMN)	1975, 1987	Ontario
Royal Ontario Museum (ROM)	1975, 1995	Ontario
MEXICO		
Universidad Nacional Autónoma de México, Instituto de		
Biología (IBUNAM)	1975, 1983	Distrito Federal
	-,	
UNITED STATES		
University of Alaska Museum (UAM)	1975, 1983	Alaska
University of Arizona, Collection of Mammals (UA)	1975, 1982	Arizona
Arkansas State University, Collection of Recent Mammals (ASUMZ)		Arkansas
University of Arkansas at Little Rock (UALRVC)	1977	Arkansas
California Academy of Sciences (CAS)	1975	California
California State University, Long Beach (CSULB)	1979, 1980	California
Humboldt State University (HSU)	1984	California
Natural History Museum of Los Angeles County (LACM)	1978	California
San Diego Natural History Museum (SDNHM)	1975	California
Santa Barbara Museum of Natural History (SBMNH)	1986	California
University of California, Berkeley, Museum of Vertebrate Zoology (N	1986	California
University of California, Santa Barbara (UCSB) Denver Museum of Natural History (DMNH)	1989	California Colorado
University of Colorado Museum (UCM)	1975	Colorado
University of Connecticut, Mammal Research Collection (UCONN)	1975, 1983	Connecticut
	1975, 1977, 1979	
University of Florida, Florida Museum of Natural History (FSM)	1975, 1983	Florida
University of Georgia, Museum of Natural History (UGAMNH)	1985	Georgia
Bernice P. Bishop Museum (BPBM)	1975, 1986	Hawaii
Chicago Academy of Science (CHAS)	1989	Illinois
Field Museum (FMNH)	1975, 1983	Illinois
University of Illinois, Museum of Natural History (UIMNH)	1975, 1985	Illinois
Fort Hays State University, Sternberg Museum (MHP)	1975, 1980	Kansas
University of Kansas, Museum of Natural History (KU)	1975, 1987	Kansas
Louisiana State University, Museum of Natural Science (LSUMZ)	1975, 1989	Louisiana
Harvard University, Museum of Comparative Zoology (MCZ)	1975	Massachusetts
Michigan State University Museum (MSU)	1975, 1985	Michigan
University of Michigan, Museum of Zoology (UMMZ)	1975, 1987	Michigan
University of Minnesota, Bell Museum of Natural History (MMNH)	1975	Minnesota
University of Montana, Zoological Museum (UMZM)	1975, 1985	Montana
University of Nebraska State Museum (UNSM)	1975	Nebraska
New Mexico Museum of Natural History (NMMNH)	1994	New Mexico
New Mexico State University, Department of Biology (NMSU)	1977	New Mexico
University of New Mexico, Museum of Southwestern Biology (MSB) 1975, 1984, 1987	New Mexico

Collection name and acronym	Year of accreditation	Province or state
American Museum of Natural History (AMNH)	1975, 1978	New York
Cornell University, Vertebrate Collections (CUVC)	1975	New York
New York State Museum (NYSM)	1975	New York
Cleveland Museum of Natural History (CMNH)	1994	Ohio
University of Oklahoma, Oklahoma Museum of Natural		
History (OMNH)	1975, 1982	Oklahoma
Oregon State University (OSUFW)	1975, 1979	Oregon
Carnegie Museum of Natural History (CM)	1975, 1984	Pennsylvania
Shippensburg University, Vertebrate Museum (SUVM)	1977, 1987	Pennsylvania
Clemson University, Vertebrate Collections (CUSC)	1986	South Carolina
University of Memphis (UM)	1976	Tennesee
Angelo State University, Natural History Collection (ASNHC)	1992	Texas
Dallas Museum of Natural History (DMNH)	1980	Texas
Midwestern State University (MWSU)	1975, 1988	Texas
The Museum of Texas Tech University (TTU)	1975, 1983	Texas
Texas A&M University, Texas Cooperative Wildlife Collection (TCW)	C) 1975, 1984	Texas
University of Texas at El Paso, Centennial Museum (UTEP)	1977	Texas
University of Texas at Austin, Texas Natural History Collection (TNH		Texas
Brigham Young University, Monte L. Bean Life Science Museum (BY	U) 1991	Utah
University of Utah, Utah Museum of Natural History (UMNH)	1975, 1993	Utah
University of Puget Sound, James R. Slater Museum of		
Natural History (PSM)	1975	Washington
University of Washington, Thomas Burke Memorial Washington		
State Museum (UWBM)	1975	Washington
Washington State University, Charles R. Conner Museum (CRCM)	1977	Washington
	1994 (provisional)	Wisconsin
University of Wisconsin, Zoological Museum (UWZM)	1975, 1983	Wisconsin

APPENDIX VII

ALPHABETICAL INDEX OF COLLECTION ACRONYMS

Asterisks denote acronyms assigned (or modified) by the authors, and daggers denote duplicated acronyms.

Acronym	Collection name	Page
ACTC	Austin College	63
ACUNHC	Abilene Christian University, Natural History Collection	63
AFGMC	Alaska Department of Fish and Game	29
AMNH	American Museum of Natural History	54
ANSP	Academy of Natural Sciences of Philadelphia	60
APM	Algonquin Park Museum	21
ASCC	Adams State College Collection	36
ASNHC	Angelo State Natural History Collection	63
ASUMC	Arizona State University, Mammal Collection	30
ASUMZ	Arkansas State University, Collection of Recent Mammals	31
AUM	Auburn University Museum	29
AUW	Acadia University, Wildlife Museum	21
BCM	Brooklyn Children's Museum	54
BCNP	Bryce Canyon National Park	67
BMNHC	Burpee Museum of Natural History	40
BNP	Banff Park Museum	19
BPBM	Bernice P. Bishop Museum	39
BSCVC	Bemidji State University, Vertebrate Collections	49
BSNS	Buffalo Society of Natural Sciences	55
BSUMC	Ball State University, Mammal Collection	42
BUTC	Boston University	47
BVC	Buena Vista College	42
BYU	Brigham Young University, Monte L. Bean Life Science Museum	67
CACA	Carlsbad Caverns National Park	53
CAS	California Academy of Sciences	32
CBF	Colección Boliviana de Fauna	18
CBNM	Cedar Breaks National Monument	67
CCNH	Central Michigan University, Center for Cultural and Natural History	48
CCVC	Centenary College, Vertebrate Collection	45
CCW	Casper College	71
CERL/BIC	United States Army, Biological Inventory Collection	4 1
CHAS	Chicago Academy of Sciences	40
CHM	Charleston Museum	61
CIB	Centro de Investigaciones Biológicas del Noroeste (Mexico)	26
CIMNH	Albertson College of Idaho, Orma J. Smith Museum of Natural History	39
CIS	Cranbrook Institute of Science	48
CLNP	Crater Lake National Park Museum Collection	59
CM	Carnegie Museum of Natural History	60
CM-IEA	Universidad Autónoma de Tamaulipas (Mexico)	27
CM-MVUP	Universidad de Panama, Museo de Vertebrados	28
CM-UMSNH	Universidad de Michoacán (Mexico)	27
CMCNA	Museo de Ciencias Naturales y Antropológicas "Prof. A. Serrano"	17
CML	Universidad Nacional de Tucumán, Colección de Mamíferos Lillo (Argentina)	18
CMN	Canadian Museum of Nature	21

Acronym	Collection name	Page
CMNH [†]	Cincinnati Museum of Natural History	5 <i>7</i>
CMNH [†]	Cleveland Museum of Natural History	57
CMSU	Central Missouri State University	50
COLM	Colorado National Monument	36
CPM	Christoffel Park Museum	28
CPRC	University of Puerto Rico, Caribbean Primate Research Center Museum	61
CPSU	California Polytechnic State University, San Luis Obispo	32
CRCM	Washington State University, Charles R. Conner Museum	70
CRD	Instituto Politécnico Nacional, Colección Científica de Fauna Silvestre (Mexico)	
CSCCV	Chadron State College, Collection of Vertebrates	51
CSCS	California State University, Turlock	33_
CSPUP	California State Polytechnic University, Pomona	32
CSUC	California State University, Chico, Vertebrate Museum	32
CSUF	California State University, Fresno	32
CSULB	California State University, Long Beach	32
CSUN	California State University, Northridge	32
CSUTC	Colorado State University, Mammalogy Teaching Collection	36
CUI	Central College	42
CUMZ [†]	Cameron University, Museum of Zoology	58
CUMZ [†]	Carleton University, Museum of Zoology	21
CUNRC	Universidad Nacional de Rio Cuarto, Colección de Mamíferos (Argentina)	18
CUSC	Clemson University, Vertebrate Collections	61
CUVC	Cornell University, Vertebrate Collections	55
CVUL	Université Laval, Collection de Vertébrés	22
CVULA	Universidad de Los Andes (Venezuela)	72
CZIP	Universidad de Magallanes, Instituto de la Patagonia (Chile)	24
CZUAA	Universidad Autónoma de Aguascalientes (Mexico)	27
DEVA	Death Valley National Park	33
DINO	Dinosaur National Monument	37
DIX	Dixie College, Natural History Museum	67
DMNH [†]	Dallas Museum of Natural History	64
DMNH [†]	Delaware Museum of Natural History	38
DMNH [†]	Denver Museum of Natural History	36
DMNH 1	Dayton Museum of Natural History	57
DMSP	Davis Mountains State Park	64
DNHM	Dinosaur Natural History Museum	67
DVCM	Diablo Valley College Museum	33
EBRG	Museo de la Estación Biologica de Rancho Grande (Venezuela)	72
ECENT	East Central University	58
ECOSUR	El Colegio de la Frontera Sur (Mexico)	26
EIU	Eastern Illinois University	40
EKU	Eastern Kentucky University	45
EMU	Eastern Michigan University, T. L. Hankinson Vertebrate Museum	48
ENCB	Escuela Nacional de Ciencias Biologicas (Mexico)	26
ENMUNHM	Eastern New Mexico University, Natural History Museum	53
ENP	Everglades National Park	38
EOSCVM	Eastern Oregon State College, Vertebrate Museum	59
EPN	Escuela Politécnica Nacional (Ecuador)	25
FCMM	Universidad Nacional Autónoma de México, Facultad de Ciencias	27

Acronym	Collection name	Page
FLC	Fort Lewis College	37
FMNH	The Field Museum	40
FMPC	Fairbanks Museum and Planetarium Collection	68
FRM	Friends University, Fellow-Reeve Museum of History and Science	44
FSUM	Florida State University Museum	39
FSUMC	Frostburg State University, Mammal Collection	46
FWMSH	Fort Worth Museum of Science & History	64
GBNM	Glacier Bay National Park and Preserve Museum	30
GLAC	Glacier National Park, Glacier Collection	51
GML	Gaylord Memorial Laboratory Museum	50
GRCAMC		30
GRPM	Public Museum of Grand Rapids	49
GRSM	Great Smoky Mountains National Park	62
GSDNM	Great Sand Dunes National Monument	37
GTNP	Grand Teton National Park	72
HBC	Henry Brockhouse Collection	62
HCCV	Hastings College, Collection of Vertebrates	51
HCMZ	Hope College	48
HCNHSC	Ohio Historical Society, Natural History Synoptic Collection	57
HM	Hastings Museum	52
HNHR	University of California, Hastings Natural History Reservation	35
HSU	Humboldt State University	33
HSUCV	Hardin-Simmons University, Collection of Vertebrates	64
HSUMZ	Henderson State University, Museum of Zoology	31
IADIZA-CM	Instituto Argentino de Investigaciónes de las Zonas Aridas	1 <i>7</i>
IBUNAM	Universidad Nacional Autónoma de México, Instituto de Biología	28
ICN	Instituto de Ciencias Naturales, Museo de Historia Natural (Colombia)	24
IEEUACH	Universidad Austral de Chile, Instituto de Ecología y Evolución	23
IFGD	Idaho Fish and Game	40
IIBUV	Investigaciones Biológicas de la Universidad Veracruzana (Mexico)	26
IND-M	La Unidad de Investigación "Federico Medem"-Inderena (Colombia)	24
INC*	Instituto Nacional de Cultura, Museo de Ciencias Naturales (Panama)	28
INHS	Illinois Natural History Survey	40
IOWA	University of Iowa, Museum of Natural History	43
ISM	Illinois State Museum	41
ISNHC	State Historical Society of Iowa	43
ISU	Illinois State University	41
ISUVC	Indiana State University	42
JMM	Earlham College, Joseph Moore Museum	42
JSHC	Jay S. Haft Collection	71
KM	Kelowna Museum	20
KSU	Kansas State University	44
KU	University of Kansas, Museum of Natural History	44
LACM	Natural History Museum of Los Angeles County	33
LAME	Lake Mead National Recreation Area	52
LAVO LCM	Lassen Volcanic National Park	33
LSSC	Universidad de Chile, Laboratorio de Citogenética de Mamíferos Lake Superior State College	23 48
LUGG	Lake Jupenior State Contege	40

Acronym	Collection name	Page
LSUMZ	Louisiana State University, Museum of Natural Science	45
LTU	Louisiana Tech University	45
MACN	Museo Argentino de Ciencias Naturales "Bernandino Rivadavia"	17
MBM	San Jose State University, Museum of Birds and Mammals	35
MBML	Museu de Biologia Mello Leitão (Brazil)	18
MBUCV	Universidad Central de Venezuela	72
MCN	Museu de Ciências Naturais (Brazil)	19
MCZ	Harvard University, Museum of Comparative Zoology	47
MDFW	Massachusetts Division of Fisheries and Wildlife	47
MECN	Museo Ecuatoriano de Ciencias Naturales (Ecuador)	25
MFA-ZV-M	Museo Florentino Ameghino, Colección de Mastozoología (Argentina)	17
MHNC	Museo de Historia Natural de Concepción (Chile)	23
MHNCI	Museu de Historia Natural "Capão de Imbuia" (Brazil)	19
MHNES*	Museo de Historia Natural de El Salvador	25
MHNLS	Colección de Mastozoología (Venezuela)	72
MHNV	Museo de Historia Natural de Valparaiso (Chile)	23
MHP	Fort Hays State University, Sternberg Museum of Natural History	43
MJCM	Museo de Ciencias Naturales y Antropológicas "Prof. Juan C.	-10
ivij Civi	Moyano" (Argentina)	17
MLP	Museo de La Plata (Argentina)	17
MLZ	Occidental College, Moore Laboratory of Zoology	34
MMMN	Manitoba Museum of Man and Nature	20
MMNH	University of Minnesota, James Ford Bell Museum of Natural History	50
MMNS	Mississippi Museum of Natural Science	50
MMP	Museo de Mar del Plata (Argentina)	1 7
MMS	Montshire Museum of Science	69
MN	Universidade Federal do Rio de Janeiro, Museu Nacional (Brazil)	19
MNA	Museum of Northern Arizona	30
MNCR	Museo Nacional de Costa Rica	24
MNHN	Museo Nacional de Historia Natural (Chile)	23
MNHNP		28
MNK	Museo Nacional de Historia Natural del Paraguay Museo de Historia Natural "Noel kempff Mercado" (Bolivia)	18
MNR	Ministry of Natural Resources	22
MP	Mohonk Preserve, Inc.	55
MPC	Monterey Peninsula College, Life Science Museum	33
MSB	University of New Mexico, Museum of Southwestern Biology	54
MSU	Michigan State University Museum	49
MSUB	Montana State University	51
MSUMC	Murray State University	45
MSUZ	Mississippi State University, Zoological Collections	50
MU	Miami University	57
MUGM	Museo de Ciencias Naturales, Colección "Gustavo Orcés" (Ecuador)	25
MUMZ	University of Missouri, Museum of Zoology	51
MUSA	Universidad Nacional de San Agustin, Museo de Historia Natural (Peru)	28
MUSM	Universidad Nacional de San Marcos, Museo de Historia Natural (Peru)	29
MVZ	University of California, Berkeley, Museum of Vertebrate Zoology	35
	University of California, Davis, Museum of Wildlife and Fisheries Biology	35
MWFB		64
MWSU	Midwestern State University Leating to de Chippes Musee Zeológico (Mexico)	26
MZ-ICACH	Instituto de Ciencias y Artes de Chiapas, Museo Zoológico (Mexico)	40

Acronym	Collection name	Page
MZUC	Universidad de Concepción, Museo de Zoología (Chile)	23
	Universidad de Costa Rica, Museo de Zoología	24
	Universidade de Sao Paul, Museu de Zoologia (Brazil)	19
	Northern Arizona University, Museum of Vertebrates	30
	New Brunswick Museum	21
NBNM	National Park Service	68
	North Carolina State University	56
NCSM	North Carolina State Museum of Natural Sciences	56
NDSU	North Dakota State University	56
NEMSU	Truman State University	51
NLU	Northeast Louisiana University, Museum of Zoology	46
NMED	New Mexico Environment Department	53
NMML	National Marine Mammal Laboratory	70
NMMNH	New Mexico Museum of Natural History	53
NMSU	New Mexico State University	54
NPSC	Northern Prairie Science Center	56
NRWC	N. R. Whitney Collection	62
NSM	Nova Scotia Museum of Natural History	21
NSMC	Nevada State Museum	52
NSMHS	Nevada State Museum and Historical Society	52
NSU	Northeastern State University, Biological Collections	58
NSUL	Northwestern State University of Louisiana	46
NUVC	Northeastern University, Vertebrate Collection	47
NWC ·	University of Northern Iowa, Nixon Wilson Collection	43
NWMSU	Northwest Missouri State University	50
NYSM	New York State Museum	55
NZCS	National Zoological Collection of Suriname	29
OAXM	Centro Interdisciplinario de Estudios, Colección Mastozoológica (Mexico)	25
OMNH	University of Oklahoma, Oklahoma Museum of Natural History	58
ONP	Olympic National Park	70
OSU	Oklahoma State University, Collection of Vertebrates	58
OSUFW	Oregon State University, Department of Fisheries and Wildlife Mammal	
000111	Collection	59
OSUMZ	Ohio State University, Museum of Biological Diversity	57
OUVC	Ohio University, Vertebrate Collection	57
PAUMC	Pan American University, Mammal Collection	64
PECA	Pratt Education Center and Aquarium	44
PFSS	Petrified Forest National Park	31
PGMNH	Pacific Grove Museum of Natural History	34
PM [†]	Practi Museum	30
PM [†]	Putnam Museum of History and Natural Science	43
PMA	Provincial Museum of Alberta	19
PMNH	Amherst College, Pratt Museum of Natural History	47
PMS	Peabody Essex Museum	47
PMSD	Pettigrew Museum	62
	Instituto Nacional de la Pesca (Mexico)	26
PORE	Point Reyes National Seashore	34
PPHM	Panhandle-Plains Historical Museum	64
PRICO	University of Puerto Rico	61

Acronym	Collection name	Page
PSM	University of Puget Sound, James R. Slater Museum of Natural History	70
PSU [†]	Pennsylvania State University	60
PSU [†]	Portland State University, Collection of Vertebrates	59
PSUMC	Pittsburg State University	44
PUCMNH	Pacific Union College, Museum of Natural History	34
PWRC	Patuxent Wildlife Research Center	47
QCAZ	Pontifica Universidad Católica del Ecuador, Museo de Zoología-Mamíferos	25
RBCM	Royal British Columbia Museum	20
RCMC	Rockford College	41
RM	McGill University, Redpath Museum	22
RMBL	Rocky Mountain Biological Laboratory	37
RMNP	Riding Mountain National Park	20
ROM	Royal Ontario Museum	22
ROMO	Rocky Mountain National Park	37
RPM	Reading Public Museum	60
RPPMC	Rondeau Provincial Park	22
RSM	Royal Saskatchewan Museum	22
RVP	Museo Provincial de Historia Natural de La Pampa (Argentina)	18
RWC	State University of New York, Roosevelt Wildlife Collection	55
RWPM	Roger Williams Park Museum of Natural History	61
SBCM	San Bernardino County Museum	34
SBMNH	Santa Barbara Museum of Natural History	35
SCNHM	Southwestern College, Natural History Museum	44
SDAKS	South Dakota State University	62
SDNHM	San Diego Natural History Museum	34
SDSU	San Diego State University	34
SETON	Philmont Scout Ranch, Seton Memorial Library	5 4
SHM	Siouxland Heritage Museum	62
SHMC	Luther College, Sherman A. Hoslett Museum of Natural History	42
SHSND	North Dakota Heritage Center	56
SHSU	Sam Houston State University, Vertebrate Natural History Collection	65
SIUCM	Southern Illinois University	41
SIUE	Southern Illinois University, Edwardsville	41
SJER	United States Forest Service, San Joaquin Experimental Range	35
SJUBC	Saint John's University, Biology Collections	49
SLU	Southeastern Lousiana University, Vertebrate Museum	46
SM [†]	Baylor University, Strecker Museum	63
SM [†]	Sanford Museum Collections	43
SMM	The Science Museum of Minnesota	49
SMNH	Emporia State University, Schmidt Museum of Natural History	43
SOSCMVNH	Southern Oregon State College, Museum of Vertebrate Natural History	59
SRSU	Sul Ross State University	65
SSM [†]	Savannah Science Museum	39
SSM [†]	Springfield Science Museum	48
SUCEA	The University at Albany	55
SUNYO	State University of New York at Oneonta	55
SUVM	Shippensburg University, Vertebrate Museum	60
SWRS	Southwestern Research Station	31
TAIU	Texas A&I University, Texas A&I Collections	65
TCNM	Timpanogos Cave National Monument	68
TCWC	Texas A&M University, Texas Cooperative Wildlife Collection	65

TMM University of Texas at Austin, Vertebrate Paleontology Lab Children University of Texas at Austin, Texas Natural History Collection Children Children Canada Ca	Acronym	Collection name	Page
TNHC University of Texas at Austin, Texas Natural History Collection TNSC Trailside Nature and Science Center TSSMC Teton Science School TTU Texas Tech University, Tarleton State Collection TTU Texas Tech University, Museum of Texas Tech University TTU Tulane University, Museum of Texas Tech University TWC Texas Wesleyan College, Museum of Zoology TWRA Tennessee Wildlife Resources Agency UA University of Arizona, Collection of Mammals UABCS University of Arizona, Collection of Mammals UABCS University of Arizona, Collection of Mammals UAMU University of Arkansas at Little Rock, Vertebrate Collection UAMU University of Arkansas at Little Rock, Vertebrate Collection UAMU University of Alakansas at Little Rock, Vertebrate Collection UAMI University of Alakansas at Little Rock, Vertebrate Collection UAMI University of Alakansas, Museum of Zoology UAMZC University of Alakansas, Museum Zoological Collections UAY* University of Alakansas, Museum Zoological Collections UAY* University of Patriansa, Museum Zoological Collections UCLA University of Editional, Los Angeles, Dickey Collection UCLA University of Colorado Museum UCONN University of Central Oklahoma, Collection of Vertebrates UCONN University of Central Oklahoma, Collection of Vertebrates UCONN University of California, Santa Barbara, Santa Barbara Vertebrate Museum UCONN University of Florida, Florida Museum of Natural History UGAMNH University of Guelph University of Guelph University of Guelph University of Guelph University of Massachusetts, Museum of Natural History UMA University of Massachusetts, Museum of Natural History UMA University of Manseoum Of Natural History UNIVEROUNCERT Of Manseoum Of Mamore Administration Office Administratio	TMM	University of Texas at Austin Vertebrate Paleontology Lab	66
TNSC Trailside Nature and Science Center TSC Tarleton State University, Tarleton State Collection TSSMC Teton Science School TTU Texas Tech University, Museum of Texas Tech University TU Tulane University, Museum of Natural History 46 TWC Texas Wesleyan College, Museum of Zoology 65 TWRA Tennessee Wildliffe Resources Agency 63 UA University of Arizona, Collection of Mammals UABCS Universidad Nacional Autónoma de Baja California Sur (Mexico) 71 UALRVC University of Arkansas at Little Rock, Vertebrate Collection 31 UAMU University of Alaska Museum UAMI University of Alaska Museum UAMI University of Alaskas Museum UAY University of Alaskas Museum of Zoology UAMZ University of Alberta, Museum of Zoology UAMZ University of Arkansas, Museum Zoological Collections UAY University of Arkansas, Museum Zoological Collections UAY University of Selection of Vertebrate Museum UCA University of British Columbia, Cowan Vertebrate Museum UCA University of Colorado Museum UCOCV University of Colorado Museum UCOCV University of Comecticut UCON University of Comecticut UCON University of Comecticut UCON University of Comecticut University of Comecticut UCON University of Comecticut UCODI University of Comecticut University of Malical Museum of Natural History 38 UFHNH University of Georgia, Museum of Natural History 39 UFHNH University of Malical Museum of Natural History 39 UGDZ University of Malical Museum of Natural History 39 UGDZ University of Memphis, Mammal Collection 30 UMA University of Montana, Zoological Collection 30 UMA University of Montana, Zoological Museum 31 UNIVERS University of North Carolina at Wilmington University of Northern Colorado UNCW Univer		University of Texas at Austin Texas Natural History Collection	
TSC Tarleton State University, Tarleton State Collection 75SMC Teton Science School 77C TTU Texas Tech University, Museum of Texas Tech University 65 TU Tulane University, Museum of Natural History 65 TU Tulane University, Museum of Natural History 65 TWR 76C Texas Wesleyan College, Museum of Zoology 65 TWRA 76C Texas Wesleyan College, Museum of Zoology 65 TWRA 76C TEXAS Wesleyan College, Museum of Zoology 65 TWRA 76C TEXAS WESLEY OF AIR AND TO THE AIR THE			
TSSMC Teton Science School TTU Texas Tech University, Museum of Texas Tech University 65 TU Tulane University, Museum of Natural History 46 TWC Texas Wesleyan College, Museum of Zoology 65 TWRA Tennessee Wildlife Resources Agency 63 UA University of Arizona, Collection of Mammals 31 UABCS Universidad Nacional Autonoma de Baja California Sur (Mexico) 27 UALRVC University of Arkansas at Little Rock, Vertebrate Collection 31 UAMU University of Arkansas at Little Rock, Vertebrate Collection 33 UAMU University of Arkansas at Little Rock, Vertebrate Collection 33 UAMU University of Arkansas, Museum Zoological Collections 27 UAMZ University of Arkansas, Museum Zoological Collections 27 UAMZ University of Arkansas, Museum Zoological Collections 27 UAY* University of Arkansas, Museum Zoological Collections 36 UAY* University of Ritish Columbia, Cowan Vertebrate Museum 27 UCLA University of California, Los Angeles, Dickey Collection 36 UCM University of Colorado Museum 37 UCOCV University of Connecticut 38 UCONN University of Connecticut 38 UCSB University of Connecticut 38 UCSB University of Collavare 38 UCSB University of Delavare 38 UFHNH Utah Field House of Natural History 39 UFHNH Utah Field House of Natural History 39 UGDZ University of Georgia, Museum of Natural History 39 UGDZ University of Gelph University of Manuseum of Natural History 39 UMAN University of Massachusetts, Museum of Zoology 48 UMAN University of Massachusetts, Museum of Zoology 48 UMAN University of Minnesota, Duluth University of Minnesota, D			
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