Codes for Natural History Collections in Ichthyology and Herpetology

Mark Henry Sabaj

Assembled here is a reasonably complete list of annotated codes for historical and modern natural history collections associated with lost and extant specimens of fossil and Recent fishes, amphibians, and reptiles. A total of 3,845 codes are anchored to about 2,064 distinct collections and/or institutions in 155 countries. At least 633 of those collections are exclusively paleontological or include fossil specimens. The list is primarily derived from the scientific literature and may serve as a resource for plainly citing specimens in publications and for linking such citations to records in online databases.

Well-curated natural history specimens physically document the distribution of living organisms in space and time. They are essential for taxa to be fully conceived, formally named, and firmly supported or refuted from one generation to the next. As such, they secure taxonomy to the scientific method by allowing one to iteratively test and refine hypotheses of phylogenetic relatedness.

Thus, it is no surprise that taxonomists and museum staff devote a significant part of their career to collecting, curating, and carefully documenting natural history specimens and their custodial institutions (e.g., Pietsch and Anderson, 1997; Del Moral-Flores et al., 2016; Beck, 2018; Beck and Joger, 2018). As a result, we know the oldest museum specimens of amphibians and reptiles are attributable to the Italian polymath Ulisse Aldrovandi (1522–1605) and remain preserved in the Palazzo Poggi Museum in Bologna (Bauer et al., 2013). The holotype of *Atlantochelys mortoni*, a giant Cretaceous sea turtle, is limited to the proximal half of the right humerus (ANSP 9234) described by Louis Agassiz in 1849, but includes the distal half (NSJM GP23363) unearthed as much as two centuries later (Parris et al., 2014). And, Dr. William Alexander Hammond did not collect the holotype of Edward Drinker Cope’s *Salmo stomias* during the U.S. Army expedition from Fort Riley, Kansas, to Fort Bridger, Wyoming in 1857 (as was commonly held for over 150 years), but during his station near Santa Fe, New Mexico from 1849–1852, rendering Cope’s species a junior synonym of *Oncorhynchus clarkii virginalis* (Girard, 1856) and the Greenback Cutthroat Trout native to the South Platte River, Colorado, scientifically nameless (Metcalf et al., 2012; Sabaj, 2013).

The objective of this paper is to present a comprehensive, but by no means exhaustive, list of annotated codes associated with natural history specimens of fossil and Recent fishes, amphibians, and reptiles. This list is intended to tie together the long and sometimes complex history of applying codes to such specimens, and to serve as a resource for plainly citing such specimens in publications and online databases.

MATERIALS AND METHODS

The current list was seeded in 2010 with codes from three sources: Leviton et al. (1985), Leviton and Gibbs (1988), and the online Guide to Fish Collections in the Catalog of Fishes (Fricke and Eschmeyer, 2010). The first version of the list (v1) was made available online via the American Society of Ichthyologists and Herpetologists (ASIH) website on 5 October 2010. It was replaced with revised versions on 8 November 2010 (v2), 23 February 2012 (v3), 28 June 2013 (v4), 22 September 2014 (v5), 16 August 2016 (v6.5), and 1 April 2019 (v7.1). Over that time, the list was significantly expanded and improved via personal communications with the collections community and the incorporation of other extensive lists available for fishes (e.g., Poss and Collette, 1995), amphibians (Frost, 2020), and reptiles (Wallach et al., 2014). Other important sources included catalogs of type specimens (e.g., Gilbert, 1998; Böhme, 2010) and natural history collections themselves (e.g., Roselaar, 2003; Del Moral-Flores et al., 2016; Beck, 2018; Beck and Joger, 2018). Publications were accessed via the Biodiversity Heritage Library, ResearchGate, and other freely available online sources. Efforts were made to coordinate the current list with additional databases that include or manage data on natural history specimens, such as The Reptile Database (Uetz et al., 2020), VertNet, and Integrated Digitized Biocollections (iDigBio). Unlike the lists assembled by Leviton et al. (1985) and Leviton and Gibbs (1988), the current one benefitted immeasurably from email, the internet, and the Google search engine.

The codes are divided among two lists: Appendix 1 and a Supplemental Appendix (see Data Accessibility). Appendix 1 lists 2,064 commonly used or otherwise preferred institution codes sorted first by country, then state (or close equivalent), then alphabetically by code. The code prioritized here serves as anchor information relevant to its origin and application, as well as synonymous codes. When multiple codes have been used to cite specimens at a particular institution, priority generally was given to the one 1) confirmed via personal correspondences with institutional staff or otherwise knowledgeable colleagues, 2) cited in type catalogs published by institutional staff, 3) cited in other publications co-authored by institutional staff, 4) cited by outside authors with a preference towards younger and taxonomically oriented publications. Thus, the current list focuses on codes as they appear in published papers. Those may differ from codes used to database specimens in a particular collection, aggregate specimen records across collections, or link specimen records to other databases.

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Not all institutions were contacted and not all type catalogs were consulted for the current list, but such efforts were made for large institutions with complex histories and numerous synonyms. Codes cited for privately held collections are included. Leviton et al. (1985) deliberately omitted private collections to avoid any sign of legitimation. Private collections appear in the current list merely for completeness, and their inclusion here should not be mistaken for encouragement or legitimacy. The current list also includes a number of historically important, but defunct collections.

Each institution code in Appendix 1 is followed by the full name of the institution and city. Many entries include various annotations in this order:

**Also known as.**—Alternative name currently in use for institution.

**Formerly.**—Names historically associated with institution.

**Includes.**—Collections/specimens incorporated into institution from other sources.

**Note.**—Comments on the institution and its collections including date of establishment, history, institutional affiliations and related collections, and current status when known.

**In error as.**—Code(s) wrongly attributed to institution in print publications.

**Obsolete as.**—Codes discouraged from use based on their association with former institutional names or on explicit correspondence with institutional staff (not included are codes associated with a former institutional name, but explicitly retained by staff for consistency).

**Current as.**—Code most commonly (or recently) associated with institution or otherwise explicitly codified by institutional staff; replaced by Assigned here for a collection cited in the literature without a code, and thereby receiving a tentative code in this paper.

**Also as.**—Other codes currently used for institution.

**See also.**—Closely associated collections often held by the same institution, but administered separately (e.g., fossils in “Museum of Geology” vs. Recent specimens in “Museum of Zoology”).

The second list, the Supplemental Appendix (see Data Accessibility), is an alphabetical index of all 3,845 codes found during the current search. As such, it highlights cases where the same code has been applied to different institutions. The Supplemental Appendix provides extra columns that include the sources for each code, a bibliography of those sources (1,816 total), and a list of 331 personal correspondents from 2006 to present.

**RESULTS**

Codes for natural history collections are conceived and expressed in an extraordinary number of ways (Table 1). Codes are generally derived from one or a combination of sources including: specimen preparation (e.g., fossil vs. Recent), collector (for privately held specimens), collection, institution, meta-institution, para-institution, former institution, taxonomic group, and geology (e.g., fossils). The code or combination of codes is generally followed by a catalog number unique to the particular collection. In print publications, the code(s) and catalog number may be confluent or variably set apart by a space or punctuations (e.g., period, dash, slash, etc.).

That said, most codes have two components, an institution code and a collection code, that may or may not be confluent. For example, collections at the University of Kansas (KU) Biodiversity Institute are now cited as KUH (herps), KUI (fishes), KUIT (fish tissues), and KUVP (vertebrate fossils). Specimens at the Naturhistoriska riksmuseet are divided between the Department of Zoology (NRM) and Department of Paleontology (NRM-PZ), and the latter is subdivided by taxonomic codes into NRM-PZ C (fossil Cyclostomata), NRM-PZ P (fossil Pisces), NRM-PZ B (fossil Batrachia), and NRM-PZ R (fossil Reptilia; S. Kullander, pers. comm., 2010; E. Åhlander, pers. comm., 2020).

A single institution does not always employ the same institution code for all constituent collections, especially for fossil vs. Recent specimens. Hence, the University of California, Berkeley, uses MVZ for the Museum of Vertebrate Zoology and UCMP for the Museum of Paleontology. The Academy of Natural Sciences of Philadelphia employs ANSP for specimens in the zoological collections and diatom herbarium, but PH (Philadelphia Herbarium) for botanical specimens. Institution codes also may differ between modern and historical collections extant within a single institution. Hence, MRSN applies to modern collections at the Museo Regionale di Scienze Naturali di Torino, whereas MACUT and MZUT are used for Università di Torino historical collections associated with Museo di Anatomia Comparata and Museo di Zoologia, respectively (Andreone and Gavetti, 2010).

Alternatively, the institution code may be annotated to distinguish modern from historical collections. Hence, collections at the Martin-Luther-Universität Halle-Wittenberg may be cited as MLUH for modern specimens or MLUH (IZH) for historical specimens associated with its predecessor, Institut für Zoologie, Halle (E. Steinheimer, pers. comm., 2018). Annotated institution codes also may be used to distinguish native holdings from those received from external sources (i.e., other institutions or private collectors). Hence, specimens from the historical collections of Stanford University (SU) now housed at the California Academy of Sciences (CAS) may be cited as SU (institution code) or CAS-SU (annotated institution code).

Finally, some institutions are part of a more inclusive meta-institution that may or may not be expressed in the institution code. Examples of meta-institutions include the Zoological Society of India (ZSI) with ZSI-ANRC (or ZSI/ANRC) used to cite specimens in collections of the Andaman and Nicobar Regional Center, one of many different ZSI regional centers that maintain natural history collections. Another example is National Academy of Sciences of Ukraine (NASU), with which collections of the I. I. Schmalhausen Institute of Zoology (SIZK) and National Museum of Natural History (NMNHU) are both associated. Additional examples of meta-institutions are large universities with collections separated between the main campus and satellite campuses and/or field stations. In such cases, a collection (vs. institution) code may be used to cite specimens. Universidad Nacional Autónoma de México (UNAM) provides a complex example. Specimens associated with the main campus in México City are cited as CNAR (herps in Coleción Nacional de Anfibios y Reptiles), CNPE-IBUNAM (fishes in Colección Nacional de Peces), IGM (fossils in Colección Nacional de Paleontología, Instituto de Geología), and IGM-CMR (Colec-
<table>
<thead>
<tr>
<th>Published citation of specimen(s) [underscores added here]</th>
<th>Source of code or component of code underscored in column 1</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Administrative</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SNSB—BSPG AS VI 504</td>
<td>Meta-institution, Bayerische Staatsammlung für Paläontologie und Geologie, part of Staatliche Naturwissenschaftliche Sammlungen Bayerns, München [Munich], Germany</td>
<td>Maxwell and López-Arbarello, 2018</td>
</tr>
<tr>
<td>ANSP 182322</td>
<td>Institution with custody and ownership, The Academy of Natural Sciences of Philadelphia, USA</td>
<td>Canvalho et al., 2017</td>
</tr>
<tr>
<td>ANSP 187723 (NPS_UPDE 2153)</td>
<td>Institution with custody (Institution with ownership), National Park Service, Department of the Interior (Upper Delaware Scenic and Recreational River), USA</td>
<td>Sabaj, 2020 (this study)</td>
</tr>
<tr>
<td>CSBD F1702/AUM 44721</td>
<td>Para-institution (dual accession), specimen accessioned at both the Center for the Study of Biological Diversity, University of Guaya and Auburn University Museum of Natural History, USA</td>
<td>Tan et al., 2016</td>
</tr>
<tr>
<td>FACEN 0012</td>
<td>Faculty, Facultad Ciencias Exactas y Naturales, Universidad Nacional de Catamarca, Catamarca, Argentina</td>
<td>Fernández and Andreoli Bize, 2015</td>
</tr>
<tr>
<td>FBGN-SAU_F1612sb-186</td>
<td>Department, Aquatic Bioresource Research Laboratory, Department of Fisheries Biology and Genetics, Faculty of Fisheries and Aquaculture, Sher-e-Bangla Agricultural University, Dhaka, Bangladesh</td>
<td>Habib et al., 2019</td>
</tr>
<tr>
<td>LBP</td>
<td>Laboratory, Laboratório de Biologia e Genética de Peixes, Departamento de Morfologia, Universidade Estadual Paulista “Júlio de Mesquita Filho”, Campus de Botucatu, Brazil</td>
<td>Ochoa et al., 2020</td>
</tr>
<tr>
<td><strong>Taxonomic or Geological</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KUJ 22082</td>
<td>Collection, University of Kansas Ichthyology collection, Lawrence, USA</td>
<td>Schultz and González-Rodríguez, 2016</td>
</tr>
<tr>
<td>MMM—CI-E</td>
<td>Public Exhibition, Museo Marino de Margarita (colección ictiológica-exhibición), Boca del Río, Isla Margarita, Venezuela</td>
<td>Cervigón, 2016</td>
</tr>
<tr>
<td>CAR 187</td>
<td>Collector, Private collection of Carlos A. Ardila Rodríguez, Barranquilla, Colombia</td>
<td>Netto-Ferreira et al., 2011</td>
</tr>
<tr>
<td>JME ETT 365</td>
<td>Geological Setting, fossil from the Upper Jurassic of Ettling deposited at the Jura-Museum Eichstätt, Germany</td>
<td>Schultz and Arata, 2013</td>
</tr>
<tr>
<td><strong>Specimen Preparation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RMNH.PISC.D 1543</td>
<td>Preservation type, Naturalis Biodiversity Center, Leiden, The Netherlands; dry fish specimen</td>
<td>Han et al., 2017</td>
</tr>
<tr>
<td>MNRI 41520 [MNRI 8664-8666]</td>
<td>Tissue sample, Museu Nacional, Universidade Federal do Rio de Janeiro, Brazil; tissues from three ichthyological specimens cataloged as MNRI 41520</td>
<td>Moreira et al., 2016</td>
</tr>
<tr>
<td>GSDNA1</td>
<td>DNA extract, Galleria di Storia Naturale di Casalina, Italy; DNA extract from holotype of Esox flavidax cataloged as GS1</td>
<td>Lucentini et al., 2011; Chakrabarty et al., 2013</td>
</tr>
<tr>
<td><strong>Geographic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NHMUK</td>
<td>Country (or Sovereign State), Natural History Museum, London, England, United Kingdom</td>
<td>O’Leary et al., 2019</td>
</tr>
<tr>
<td>IEPA</td>
<td>State (or equivalent), Instituto de Pesquisas Científicas e Tecnológicas do Estado do Amapá, Macapá, Brazil</td>
<td>Andrade et al., 2018</td>
</tr>
<tr>
<td>AMS IB.6315</td>
<td>City, Australian Museum, Sydney, Australia</td>
<td>McGrouther, 2006</td>
</tr>
<tr>
<td><strong>Collaborative</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUSEPJ PB/EB/09/2016</td>
<td>Survey, Museum of the Zonal Base, Fishery Survey of India, Port Blair, Andaman Islands</td>
<td>Shirke et al., 2017</td>
</tr>
<tr>
<td>PMOL-SGP A0100-1</td>
<td>Project, Sino-German Cooperation Project fossils housed at the Paleontology Museum of Liaoning (PMOL) and to be integrated into the municipal museum of Shanshan, Xinjiang Autonomous Province, China</td>
<td>Rabi et al., 2013</td>
</tr>
</tbody>
</table>
ción de Material Reciente del Museo de Geología). Fish specimens associated with the UNAM campus in Sisal may be cited as CIRR UMDI, Colección Ichtiológica Regional de Referencia, Unidad Multidisciplinaria de Docencia e Investigación (Gallardo-Torres et al., 2016).

A special case of a meta-institution is the National Park Service (NPS) in the U.S. Department of the Interior. Natural history specimens collected on lands administered by the National Park Service are the property of NPS, but may be deposited on loan at non-NPS repositories that meet federal requirements. The non-NPS repository generally assigns its own institution/collection code and catalog number (e.g., ANSP 187723) with a cross-reference to the corresponding NPS collection and catalog number (e.g., NPS UPDE 2153, Upper Delaware Scenic and Recreational River NPS unit). In publications, both the NPS and non-NPS repository catalog numbers should be cited, as in: ANSP 187723 [NPS UPDE 2153] (Lauren Finn Hauptman, pers. comm., 2016).

Codes may change as institutions and collections are subject to various forms of rebranding, takeover, and merger (Schindel et al., 2016; Sharma et al., 2018). Omitted from such scenarios are small-scale transfers between institutions. Curators have long exchanged natural history specimens, and those received are generally cited and/or cataloged using “ex,” as in ANSP 203158 (ex. ZUEC 11694). The “ex” notation also is commonly used when specimen(s) are transferred from one lot to another within a particular collection, such as ANSP 203169 (ex. 185074) for the holotype of *Trachydoras gephardt* cited in Sabaj and Arce (2017).

Rebranding is often associated with institutional reorganization and new affiliations, especially when new administrators measure success by renaming levels of administration. Even “trademark” codes (Schindel et al., 2016) are vulnerable. In 2011, for example, NMNH replaced BMNH as the official code for the Natural History Museum in London (ex-British Museum of Natural History). Mergers and takeovers often accompany the demise of institutional interest in natural history collections. Large-scale transfers are generally well documented for collections of historical importance, especially in Europe, but invariably include the loss or misplacement of specimens. University collections are among the most difficult to track since colleges, departments, labs, and field stations may hold separate collections. Any university that has employed a particularly conscientious taxonomist is likely to have a natural history collection of sorts. Such collections may thrive under faculty who do collections-based research involving students (Humphrey, 1992). If a university collection, however, fails to reach a certain threshold of size and importance, they become highly vulnerable to neglect with changes in institutional priorities and staff. Many orphaned collections are adopted whole or in part by institutions with greater resources. But, some are simply shuttered and eventually discarded.

**DISCUSSION**

Museum and collection codes are born of catalogs, checklists, and monographs, nurtured by printed indices, and fledged via online databases. Botanists mounted the first coordinated effort to standardize such codes by establishing the *Index Herbariorum* in 1935 (Lansjouw and Stafleu, 1952). The *Index Herbariorum* is an active global registry of botanical institutions and collections, and maintains a list of 4,175 codes of which 3,324 pertain to active herbaria (Thiers, 2020). Entomologists assembled taxon-specific lists for Coleoptera (Arnett and Samuelson, 1969) and insects with an emphasis on Lepidoptera (Heppner and Lamas, 1982). Those were eventually integrated and expanded into a list of insect and spider collections of the world (Arnett et al., 1993) that is currently maintained and updated by Neal Evenhuis at the Bernice Pauahi Bishop Museum (Evenhuis, 2020). Among vertebrates, lists of codes were assembled first for collections of amphibians and reptiles (Duellman et al., 1978; Leviton et al., 1980), and later expanded to include fishes (Leviton et al., 1985) and revised (Leviton and Gibbs, 1988). The list of codes for fish collections passed through subsequent iterations via type catalogs in print (Eschmeyer, 1998; Ferraris, 2007) and online (Fricke and Eschmeyer, 2020). Though taxonomically siloed, such lists have proven invaluable for communities of biologists to efficiently locate and cite specimens in their research and publications.

The electronic capture of collections data in the late 1970s and 1980s (Wiley and Peterson, 2004) and subsequent rise of the internet prompted the museum community to develop open standards for the exchange and aggregation of such data. In 1985, the Taxonomic Databases Working Group (TDWG) was founded to address the needs for natural history specimens. Renamed Biodiversity Information Standards (with the TDWG code retained), this non-profit organization eventually released a set of standards for sharing biodiversity information (Darwin Core Task Group, 2009). The Darwin Core includes four record-level fields (or properties) for parsing data related to the specimen repository: dwc:institutionID, dwc:collectionID, dwc:collectionCode, and dwc:collectionCode. The two “ID” fields are essentially unique identifiers (e.g., LSIDs) created and used by data aggregators. The two “Code” fields are created and used by the institutions and collections that curate the specimen data. A fifth Darwin Core field, dwc:catalogNumber, serves to identify the specimen (or lot) and is presumably unique within a particular collection. Strung together, the institution code, collection code, and catalog number constitute the Darwin Core Triplet. The Darwin Core Triplet has become a de facto globally unique identifier (GUID) for specimen records despite its shortcomings as such, and the most widely deployed identifier scheme for aggregating data on specimens across natural history collections (Guralnick et al., 2014; Schindel et al., 2016).

For linking genetic sequence records to museum voucher specimens, GenBank established and maintains a BioCollections Database (Sharma et al., 2018) that appends a three-letter country code to the Darwin Core Triplet to distinguish institutions with the same code (i.e., dwc:institutionCode). The country codes are supplemented by two-letter state codes when necessary. For example, the BioCollections institution code for University of Alaska, Museum of the North is UAM vs. UAM<USA-AR> for University of Arkansas at Monticello and UAM<ESP> for Universidad Autonoma De Madrid culture collection of cyanobacteria. Although users are asked to provide information on the voucher specimen when submitting sequences to GenBank, many do not provide enough data to establish reliable links to the BioCollections Database (Sharma et al., 2018).

A variety of ongoing initiatives rely on institution and collection codes to aggregate digitized data on natural history
specimens at a variety of scales (Nelson and Ellis, 2018) roughly separable into: 1) global, 2) regional, 3) taxonomic (e.g., online type catalogs), 4) fossil, 5) institutional, and 6) “niche.” The two largest initiatives are the Global Biodiversity Information Facility (GBIF) established in 2001 and the Integrated Digitized Biocollections (iDigBio) established ten years later. The latter (iDigBio) is the central coordinating unit for digitization efforts funded by the U.S. National Science Foundation’s Advancing Digitization of Biodiversity Collections (ADBC) program (Thiers et al., 2019), and the largest U.S. network for sharing specimen data with GBIF. The U.S. Geological Survey’s Biodiversity Information Serv ing Our Nation (BISON) also serves as a regional aggregator (U.S. node) for contributing records to GBIF.

More focused efforts (e.g., regional to “niche”) may capture or curate specimen records more reliably and/or include collections outside of the GBIF and iDigBio networks. Regional examples of specimen-based aggregators include the Atlas of Living Australia, Mexico’s National Commission for the Knowledge and Use of Biodiversity (CONABIO), Brazil’s speciesLink, China’s National Specimen Information Infrastructure (NSII), and SYNTHESYS+, a newly funded project within the European Distributed System of Scientific Collections (DiSSCo).

Taxonomic databases generally focus on records for type specimens and often employ the most up-to-date classification schemes. Type catalogs must contend with historical specimens cited for defunct collections, and often generate modern codes for such cases. Examples of taxonomic databases include WoRMS, the World Register of Marine Species (Horton et al., 2018), and associated World Porifera Database (Van Soest et al., 2018), the Freshwater Mussels (Unionoida) of the World (MUSElP; Graf and Cummings, 2018), Shark-references.com (Pollerspöck and Straube, 2020), Eschmeyer’s Catalog of Fishes (Fricke et al., 2020), Amphibian Species of the World (Frost, 2020), and the Reptile Database (Uetz et al., 2019, 2020). The Paleobiology Database (PBDB) founded by John Alroy and Charles Marshall in 2000 curates 157,370 specimen records as of 1 January 2019 with about 75–80% of those records tied to museums. At large institutions, specimen records often remain taxonomically siloed in separate databases for each collection. Noteworthy exceptions are the Muséum national d’Histoire naturelle in Paris and the Smithsonian Institution’s online Collections Search Center. Large institutions struggling to aggregate specimen records in situ may find it easier do so ex situ by having their collections separately contribute records to global aggregators such as GBIF and iDigBio. A variety of “niche” databases exist online with the Fishes of Mainland Southeast Asia (Kano et al., 2013) as a keen example. All of the aforementioned online databases maintain digital indices of museum and collection codes descended from earlier printed lists.

Institution and collection codes have proliferated in recent decades, due in part to the establishment of new collections in species-rich parts of the world and an increase in the number of journals and online databases that publish on biodiversity. Online registries for natural history collections exist at a variety of scales, although some have gone offline in recent years. At the national level, a noteworthy (and active) example is the Catálogo de las colecciones mexicanas (CONABIO, 2018) which includes 751 Mexican collections with holdings ranging from germplasm and bacteria to mammals and fossils. Since 2001, the Instituto de Investigación de Recursos Biológicos Alexander von Humboldt has maintained the Registro Único Nacional de Colecciones Biológicas (RNC), a detailed registry of biological collections in Colombia. The Zentralregister botanischer und zoologischer Forschungssammlungen (ZEFOD) once provided a wealth of online information for German natural history collections (Weber, 2018), but its web-presence, as such, has disappeared.

The Global Registry for Biodiversity Repositories (GRBio) assembled one of the largest lists of institution and collection codes (Table 2). GRBio was developed by the Consortium for the Barcode of Life (CBOL, 2004–2011) to help link voucher specimens to DNA barcodes in GenBank (Schindel et al., 2016). GRBio incorporated data from CBOL, the U.S. National Center for Biotechnology Information (NCBI), Index Herbariorum (IH), and the Biodiversity Collections Index (BCI, now offline). GRBio was released by CBOL in June 2013 and its management was transferred to Scientific Collections International (GRSciColl) in December 2013. In 2018, the website for GRBio/GRSciColl was hacked and went offline. The data it once managed were dumped on 29 May 2018 and remain available online at DOI: 10.5281/zenodo.1285615. Their abandoned list (grbio_institutions_05_29_18.csv) included 7,097 institution and collection codes. Those data have since been migrated into a newly updated Global Registry of Scientific Collections (GRSciColl) hosted by the Global Biodiversity Information Facility (GBIF, 2018, 2019; Hobern et al., 2020). The new GRSciColl is a comprehensive, community-curated clearinghouse of data on scientific collections in natural history as well as those in other disciplines such as anthropology, archaeology, and biomedicine. GRSciColl’s online registry lists 5,263 collection codes linked to 8,037 institution codes as of 19 May 2020. GBIF uses GRSciColl to help provide valuable data on the natural history collections (i.e., “publishers”) that contribute specimen records to their database (e.g., 1,985 publishers from 1,606 institutions as of 19 May 2020). iDigBio also maintains data on natural history collections contributing records to their database with 1,621 “Recordsets” (individual collections) as of 19 May 2020. For a comparison of well-established indices to institution and collection codes, see Table 2.

The standardization of codes is challenged in part by the lack of a clear ontology for the description of natural history holdings at the collection level. In 2008, the Biodiversity Information Standards (TDWG) community drafted data standards for describing all types of natural history collections including mixed ones resulting from expeditions and voyages of discovery (NCD, 2008). This effort is currently maintained by TDWG’s Collection Descriptions Interest Group, which intends to deliver a metadata standard for natural history collections in 2020 (CD, 2019; Hobern et al., 2020). Such standards are necessary to facilitate the discovery, management, and attribution of collections relative to the specimen-level records they curate and provide.

From a bioinformatics point of view, stable institution and collection codes are essential to accurately and efficiently share data on natural history specimens (Schindel et al., 2016; Hobern et al., 2020). Such codes facilitate online type catalogs, aggregators of specimen-based records, and derivative databases that link natural history specimens to genomic information (e.g., GenBank; International Barcode of Life,
Table 2. Comparison of established indices to codes for natural history collections.

<table>
<thead>
<tr>
<th>Title</th>
<th>Maintained or published by</th>
<th>Total codes</th>
<th>Distinct institutions or collections</th>
<th>Synonymous codes</th>
<th>Codes publicly available for download</th>
<th>Annotation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Global Registry of Scientific Collections (GRSciColl)</td>
<td>Global Biodiversity Information Facility (GBIF)</td>
<td>8037</td>
<td>8037</td>
<td>NA</td>
<td>Yes (copy &amp; paste)</td>
<td>as of 19 May 2020; includes herbaria, museums, zoos, botanical gardens, biobanks, among others</td>
</tr>
<tr>
<td>BioCollections Database</td>
<td>US National Center for Biotechnology Information (NCBI; see Sharma et al., 2018)</td>
<td>7421</td>
<td>7421</td>
<td>NA</td>
<td>Yes (FTP: Unique_institution_codes.txt)</td>
<td>as of 9 May 2020; biorepositories (museums, herbaria, culture collections, etc.) linked to sequence records in GenBank</td>
</tr>
<tr>
<td>Global Registry for Biodiversity Repositories (GRBio)</td>
<td>Scientific Collections International (GRSciColl)</td>
<td>7097</td>
<td>7097</td>
<td>NA</td>
<td>Yes (CSV file)</td>
<td>orphaned 29 May 2018, but data migrated to GBIF/GRSciColl in 2019</td>
</tr>
<tr>
<td>Index Herbariorum</td>
<td>B. Thiers, New York Botanical Garden’s Virtual Herbarium</td>
<td>4175</td>
<td>4175</td>
<td>NA</td>
<td>Yes (CSV file)</td>
<td>as of 15 Dec 2019; 3324 codes pertain to active herbaria</td>
</tr>
<tr>
<td>Codes for natural history collections in ichthyology and herpetology</td>
<td>Sabaj, 2020 (this study)</td>
<td>3845</td>
<td>2064*</td>
<td>1781</td>
<td>Yes (Excel file)</td>
<td>*includes defunct institutions/collections</td>
</tr>
<tr>
<td>The Insect and Spider Collections of the World Website</td>
<td>N.L. Evenhuis, The Bernice Pauahi Bishop Museum</td>
<td>1872</td>
<td>1528</td>
<td>342</td>
<td>Yes (copy &amp; paste)</td>
<td>as of 16 Mar 2020</td>
</tr>
<tr>
<td>A Guide to Fish Collections in the Catalog of Fishes</td>
<td>R. Fricke and W.N. Eschmeyer, 2020</td>
<td>1122</td>
<td>?</td>
<td>?</td>
<td>No</td>
<td>as of 16 Mar 2020; includes synonymous codes</td>
</tr>
<tr>
<td>World Porifera Database (WPD) &amp; World Register of Marine Species (WoRMS)</td>
<td>R.W.M. Van Soest et al, 2018 (WPD) &amp; WoRMS Editorial Board, 2018</td>
<td>714</td>
<td>~700</td>
<td>~14</td>
<td>No</td>
<td>based on subset of GRSciColl plus additional codes cited in papers (Bart Vanhoorne, pers. comm., 2018)</td>
</tr>
<tr>
<td>Standard Symbolic Codes for Institutional Resource Collections in Herpetology and Ichthyology</td>
<td>A.E. Leviton et al., 1985</td>
<td>690</td>
<td>518</td>
<td>172*</td>
<td>No (printed)</td>
<td>*listed as “Rejected Symbolic Codes”</td>
</tr>
<tr>
<td>Catálogo de las colecciones mexicanas</td>
<td>CONABIO</td>
<td>541</td>
<td>541</td>
<td>NA</td>
<td>Yes (copy &amp; paste)</td>
<td>as of 15 May 2020; *institution codes span 751 Mexican collections from germplasm to mammals</td>
</tr>
<tr>
<td>speciesLink</td>
<td>D. Canhos, Centro de Referência em Informação Ambiental (CRIA)</td>
<td>~308*</td>
<td>~308*</td>
<td>NA</td>
<td>Yes (copy &amp; paste)</td>
<td>as of 19 May 2020; *institution codes span ~520 collections mostly in Brazil</td>
</tr>
<tr>
<td>An inventory of major European bird collections</td>
<td>C.S. Roselaar, 2003</td>
<td>164</td>
<td>152</td>
<td>12</td>
<td>No (printed)</td>
<td>list includes details on collections, holdings and staff; online version maintained and updated by NHMUK</td>
</tr>
<tr>
<td>VertNet</td>
<td>VertNet Team</td>
<td>125*</td>
<td>125*</td>
<td>NA</td>
<td>Yes (copy &amp; paste)</td>
<td>as of 19 May 2020; *institution codes span 312 data resources and 398 collections</td>
</tr>
</tbody>
</table>
Sabaj—Codes for ichthyology and herpetology collections

iBOL and media records such as 3D images (e.g., MorphoSource). Stable codes also allow for comparative studies and surveys of collections’ growth, strengths, and value to science and society (e.g., Funk, 2017; Singer et al., 2018). Future directions for the assembly and use of natural history collections in research and education, such as the Extended Specimen Network (Schindel and Cook, 2018; Lendemer et al., 2019), will need a stable index of codes and, at a finer scale, persistent identifiers for the specimens themselves to improve the interoperability of associated data (Güntsch et al., 2017). GBIF’s new online global registry of scientific collections (GRSciColl) will certainly stabilize codes within the bioinformatics community. Taxonomists and systematists, however, often reference the codes in long-standing indices compiled for their particular group, or simply copy and paste a relevant subset of such indices from one paper to the next, substituting or creating new codes when needed. The current study provides context for the idiosyncratic origins, applications, and tenures of codes for natural history collections and institutions, and may help bridge the gap between those used in bioinformatics vs. the scientific literature.

Concluding remarks.—In the early days of Linnaean taxonomy, authors were relatively casual about citing the natural history specimens from which their conclusions were drawn. Left to later taxonomists was the complicated task of divining the basis and application of old scientific names. In the early days of molecular taxonomy, authors were similarly casual about clearly citing repositories for specimen vouchers (if extant), making it difficult, if not impossible, for others to verify their work. Faunal surveys and ecological studies do not always involve the preservation of specimens, but those that do often neglect to specify repositories in published results. Linnaean taxonomists today, especially paleontologists, are far more careful about clearly citing repositories for the specimens they studied. Practices among molecular taxonomists have improved, but still fall short on too many occasions. Ecologists remain the most negligent at citing specimen repositories, inviting criticisms that the taxonomic aspects of their work are irreproducible (Bortolus, 2008; Vink et al., 2012). The current list intends to encourage those who collect or employ natural history specimens in their research to carefully document not only the origin, but the final destination of such specimens.

Closing recommendations.—General advice for the creation and management of museum codes to promote their standardization and proper use.

1. Newly created or modified codes should include at least two components, an institution code and collection code. Ideally, the institution code should be listed first and globally unique among institutions holding natural history specimens. The collection code should be unique within its parent institution.

2. Institutions holding natural history specimens should clearly identify preferred codes for citing such specimens, especially via homepages, type catalogs, and other articles specifically related to their collections.

3. Published studies that use or yield natural history specimens should clearly identify the repository(ies) for such specimens either by name and physical location (preferred) or by reference to a well-established and readily available index of institution and collection codes.

4. Indices to institution and collection codes should include relevant sources such as personal communications with staff and primary literature (e.g., collection type catalogs).

5. Online databases that register institutions and collections and/or serve records or media based on natural history specimens should make their index of codes publicly available for download, especially in anticipation of going offline.

6. The so-called “Darwin Core Triplet” (concatenation of dwc:institutionCode, dwc:collectionCode and dwc:catalogNumber) is inadequate as a globally unique identifier. Efforts to create true globally unique identifiers for natural history collections should consider incorporating a fourth Darwin Core field, dwc:owner-InstitutionCode, to tie together collections with separate institution codes (e.g., Museum of Vertebrate Zoology and Museum of Paleontology) into a larger meta-institution (University of California, Berkeley).

DATA ACCESSIBILITY

An excel file containing all abbreviations and additional information on sources (bibliography and personal correspondences) is available at: https://asih.org/standard-symbolic-codes/about-symbolic-codes. Supplemental material is available at https://www.copeiajournal.org/ASIHCODONS2020.

ACKNOWLEDGMENTS

I express my sincerest thanks to all who responded to requests for information pertaining to the natural history collections in their care. For sharing information from particular databases and indices, special thanks to Jan K. Legind (GBIF), Shobha Sharma (NCBI), Peter Uetz (The Reptile Database), and Mark D. Uhen (PaleoDB). Effort supported in part by The Academy of Natural Sciences of Philadelphia, Drexel University and NSF DEB 0315963 (PI L. Page), DBI 1701714 (PI D. Blackburn), DBI 1701943 (PI M. Sabaj).

LITERATURE CITED


basipterygoid process in Mesozoic turtles. BMC Evolutionary Biology 12:203.


APPENDIX 1

Codes for natural history collections in ichthyology and herpetology. Codes are listed alphabetically by country, then state (where applicable), and assigned an index number (Supplemental Appendix; see Data Accessibility). Word, PDF, and Excel versions of this appendix are available as supplemental material (see Data Accessibility).

1. KUZM: Zoological Museum, Faculty of Science, Kabul University (KU), Kabul. Also known as: Kabul University Science Museum. Note: established by Clas Naumann, KU professor from 1970–1972, during which time herpetological specimens were shared with ZFMK; zoological museum destroyed during Taliban regime (1996–2001). Assigned here: KUZM. Afghanistan.


3. FSB/HAL: Faculté des Sciences Biologiques (FSB), Université des sciences et de la technologie Houari-Boumediene (USTHB), Bab Ezzouar. Also known as: University of Bab Ezzouar. Current as: FSB/HAL (fishes). See also: ZAR (fossils). Algeria.

4. UTL: University of Abou Bakr Belkaid [Abou Bakr Belkaid University of Tlemcen], Tlemcen. Current as: UTL (fossils, Laboratory). Algeria.

5. ZAR: Musée de la Faculté des Sciences de la Terre de la Géographie et de l’Aménagement du Territoire (FSTGAT), Université des sciences et de la technologie Houari-Boumediene (USTHB), Bab Ezzouar. Current as: ZAR (fossils from Zarzaitine Series). See also: FSB/HAL (fishes). Algeria.


<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. MD</td>
<td>Museo Regional del Dundo, Dundo, Chitato. <em>Also known as</em>: Museo del Dundo; Laboratorio de Biologia del Museo del Dundo; Dundo Museum. <em>Current as</em>: MD. Lunda Norte. Angola.</td>
</tr>
<tr>
<td>13. CENA</td>
<td>Centro Nacional de Investigaciones Iológicas, Buenos Aires. <em>Also as</em>: Colección Herpetológica, Instituto Nacional de Microbiología “Gustav G. Malbrán” (CENAI/CHINM, INM, IINM). <em>Note</em>: “iológicas” correct, derived from Greek word for venom; institution founded by Avelino Barrio and closed in 1979; herps (including types) transferred to MACN. Buenos Aires. Argentina.</td>
</tr>
<tr>
<td>29. MLP</td>
<td>Museo de La Plata, Facultad de Ciencias Naturales y Museo (FCNyM), Universidad Nacional de La Plata, La Plata. <em>Also known as</em>: Museo de Ciencias Naturales de La Plata (CHMLPA). <em>Formerly</em>: Museo Antropológico y Arqueológico de Buenos Aires based on collections donated by Francisco Pascasio Moreno. <em>Note</em>: fish collection in same building but separate from Asociación Ictiológica (AI) collection. <em>In error as</em>: IPLA (herps). <em>Obsolete as</em>: CHMLPA, MLP. <em>Current as</em>: MLP (fishes), MLP (fossils, División Paleontología de Vertebrados), MLP A (amphibians), MLP R (reptiles, for catalog numbers &gt;5000), MLP S. &amp; MLP JW. (lizards &amp; snakes, respectively, for catalog numbers &lt;5000), MLP DB (Diego Baldo herpetological collection). <em>Also as</em>: UNLP (amphibians). Buenos Aires. Argentina.</td>
</tr>
<tr>
<td>35. JAS-DC</td>
<td>José A. Socolo Diagnostic Collection (herps). <em>Current as</em>: JAS-DC (herps). <em>Also as</em>: CH-JAS (Colección Herpetológica de José A. Socolo). Chubut. Argentina.</td>
</tr>
<tr>
<td>Code</td>
<td>Institution</td>
</tr>
<tr>
<td>--------</td>
<td>-------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>38. AGM</td>
<td>Archivo Gráfico y Museo Histórico de San Francisco y la Región, San Francisco. Current as: AGM (fossils).</td>
</tr>
<tr>
<td>43. MHH</td>
<td>Museo Histórico Municipal de Arroyito, Arroyito. Current as: MHH (fossils).</td>
</tr>
<tr>
<td>44. MPH</td>
<td>Museo Municipal Punta Hermengo, Miramar. Current as: MPH (fossils).</td>
</tr>
<tr>
<td>46. UNRC-ZV</td>
<td>Colección Herpetológica de Zoológica Vertebrales, Departamento de Ciencias Naturales, Universidad Nacional de Río Cuarto, Córdoba. Obsolete as: DCN-UNRC, ZVUNRC, UNRC-DCN-ZV. Current as: UNRC-ZV.</td>
</tr>
<tr>
<td>50. CICYTTP</td>
<td>Centro de Investigaciones Científicas y Transferencia de Tecnología a la Producción, Diamante. Current as: CICYTTP-PV-P (fossil fishes). Also as: CICYTTPP (fossils).</td>
</tr>
<tr>
<td>53. RVP</td>
<td>Relevamiento de Vertebrados de La Pampa, Museo Provincial de Historia Natural, Santa Rosa. Formerly:</td>
</tr>
<tr>
<td>54. IADIZA</td>
<td>Instituto Argentino de Investigación de Zonas Áridas (CCT-Mendoza-CONICET), Mendoza. Current as: IADIZA. Also as: CH-IADIZA, IADIZA-CH (Colección Herpetológica).</td>
</tr>
<tr>
<td>55. IBAUNC</td>
<td>Instituto de Biología Animal, Universidad Nacional de Cuyo, Mendoza. Current as: IBAUNC (fishes, herps). Also as: IBA, IBA-UNC (herps).</td>
</tr>
<tr>
<td>56. JMC-DC</td>
<td>José Miguel Cei Diagnostic Collection, San Luis. Current as: JMC-DC (herps).</td>
</tr>
<tr>
<td>60. CHUMAN</td>
<td>Colección Herpetológica de la Universidad Nacional de Misiones, Posadas. Current as: CHUMAN (herps). See also: LGE. Misiones.</td>
</tr>
<tr>
<td>62. LGE</td>
<td>Laboratorio de Genética Evolutiva, Instituto de Biología Subtropical, Universidad Nacional de Misiones, Posadas. See also: CHUMAN. Misiones.</td>
</tr>
<tr>
<td>63. MCF</td>
<td>Museo “Carmen Funés”, Plaza Huincul. Also known as: Carmen Funés Municipal Museum. Current as: MCF-PVP (fossils).</td>
</tr>
<tr>
<td>64. MOZ</td>
<td>Museo Provincial de Ciencias Naturales “Prof. Dr. Juan A. Olsacher”, Zapala. Current as: MOZ (fossils). Also as: MOZP. Neuquén.</td>
</tr>
<tr>
<td>65. UNCo</td>
<td>Universidad Nacional del Comahue, Neuquén. Current as: UNCo-PH (Programa de Herpetología), MUCPv (fossils, Museo de Geología y Paleontología). Also as: MUC P, MUCP (fossils).</td>
</tr>
<tr>
<td>67. MCS</td>
<td>Museo Regional de Cinco Saltos, Cinco Saltos. Current as: MCS (fossils).</td>
</tr>
<tr>
<td>68. MML</td>
<td>Paleontología de Vertebrados, Museo Municipal de Lamarque, Lamarque. Also known as: Museo Paleontológico de Lamarque. Current as: MML-PV (fossils).</td>
</tr>
<tr>
<td>69. MPBAR</td>
<td>Museo Paleontológico de la Asociación Paleontológica Bariloche, San Carlos de Bariloche. Current as: MPBAR (fossils).</td>
</tr>
<tr>
<td>70. MPCA</td>
<td>Museo provincial de Cipolletti “Carlos Ameghino”, Cipolletti. Current as: MPCA-PV (fossils).</td>
</tr>
<tr>
<td>72. IBIGEO</td>
<td>Instituto de Bio y Geociencias del NOA, Rosario de Lerma. Note: established in 2009 as scientific research unit of Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET) and Universidad Nacio-</td>
</tr>
</tbody>
</table>

73. **MCN:** Museo de Ciencias Naturales, Universidad Nacional de Salta, Salta. *In error as:* MCM. *Current as:* MCN (fossils), MCNI (fishes), MCN-UNSa (herps, although MCN used on specimen tags). *Also as:* CNS-V (fossils). Salta. Argentina.

74. **UNSJ:** Universidad Nacional de San Juan, San Juan. *Includes:* Instituto y Museo de Ciencias Naturales (IMCN). *Current as:* PVSJ (fossils, División de Paleontología de Vertebrados), UNSJ (herps). *Also as:* IMCN-UNSJ (herps). San Juan. Argentina.


83. **ANU:** Australian National University, Canberra. *Includes:* Gagua Collection and fossils from Commonwealth Paleontological Collection (CPC). *Current as:* ANU V (fossils). Australian Capital Territory. Australia.


86. **AZM:** Private collection of Richard Wells, Katoomba. *Also known as:* Australian Zoological Museum. New South Wales. Australia.

87. **GNHNA:** Gallery of Natural History and Native Art, Medlow Bath. New South Wales. Australia.


89. **MAMU:** Macleay Museum, University of Sydney, Sydney. *Note:* fish type specimens and herps transferred to Australian Museum, Sydney (AMS). *Current as:* MAMU. *Also as:* MMS, MMUS, MU. *See also:* AMS. New South Wales. Australia.

90. **MQU:** Macquarie University, Department of Biological Sciences, North Ryde. New South Wales. Australia.

91. **NEW:** University of Newcastle, Newcastle. New South Wales. Australia.

92. **WOLL:** University of Wollongong, Wollongong. New South Wales. Australia.

93. **NTI:** Animal Industry Branch, Northern Territory Administration, Alice Springs. Northern Territory. Australia.


95. **NTM A/S:** Museum of Central Australia, Alice Springs. *Includes:* collections of Conservation Commission of the Northern Territory (CAWC). *Note:* fluid collections transferred to and re-cataloged at Museums and Art Galleries of the Northern Territory (NTM), Darwin. *Also as:* CAM (fishes), NTM-A/S (herps). Northern Territory. Australia.


98. **FBQ:** Fisheries Branch, Department of Primary Industries & Fisheries Queensland, Brisbane. Queensland. Australia.

99. **GRIF:** Griffith University, Brisbane. Queensland. Australia.


101. **QM:** Queensland Museum, Centre for Biodiversity, Brisbane. *Includes:* collections from Department of Harbours & Marine, Brisbane (DHMB); specimens from Queensland Amateur Fishing Clubs Association (AFAQ) and Queensland National Parks and Wildlife Service (QP); fossils from Geological Survey of Queensland (GSQ). *Obsolete as:* QMB. *Current as:* QM F (fossils), QM J (fishes), QM J (herps). *Also as:* QME, QMI, QMJ. Queensland. Australia.

102. **FLIN:** Flinders University, Adelaide. South Australia. Australia.

103. **SADME:** South Australian Department of Mines Fossil Collection, Adelaide. *Current as:* SADME (fossils). South Australia. Australia.

104. **SAMA:** South Australian Museum, Adelaide. *Current as:* SAMA. *Also as:* SAM (fossils). South Australia. Australia.

105. **CSIRO:** Commonwealth Scientific & Industrial Research Organisation, National Research Collections Australia, Australian National Fish Collection (ANFC), Hobart. *Includes:* fishes from Tasmanian Fisheries Development Authority, Hobart (TFDA) added in 1985. *Note:* collection formerly held ...


108. UTAS: University of Tasmania, Department of Geology Fossil Collection, Hobart. Current as: UTAS (fossils). Tasmania, Australia. 


112. UMP: University of Melbourne, Parkville, Melbourne. Current as: MUGD (fossils, Department of Geology and Mineralogy). Victoria, Australia. 

113. GS WA: Geological Survey of Western Australia, East Perth. Note: early fossil collection housed in Western Australian Museum (WAM) and separated from WAM collection by Irene Crespin ca. 1964. Current as: GS WA F (fossils). Western Australia, Australia. 

114. UWA: University of Western Australia, Crawley. Note: amphibian specimens transferred to Western Australian Museum (WAM); audio recordings of frogs curated by Centre of Excellence in Natural Resource Management, University of Western Australia, Albany Campus (CENRM). Current as: UWA (fossils, Edward de Courcy Clarke Earth Science Museum). Western Australia, Australia. 

115. WAM: Western Australian Museum, Welshpool, Perth. Includes: amphibian specimens from University of Western Australia, Crawley (UWA). Current as: WAM (fishes, herps, fossils). Also as: WAMG (fossils). Western Australia, Australia. 


119. OLL: Biologizeum, Oberösterreichisches Landesmuseum, Linz. Current as: OLL. Also as: BZL. Oberösterreich [Upper Austria]. Austria. 


122. Innsb: Institut für Geologie [Department of Geology], Universität Innsbruck [University of Innsbruck], Innsbruck. Current as: Innsb (fossils). Tyrol, Austria. 


124. GBA: Geologische Bundesanstalt [Geological Survey of Austria], Wien [Vienna]. Obsolete as: GBW. Current as: GBA (fossils). Also as: GBAW (fossils). Wien [Vienna], Austria. 

125. IPUW: Institut für Paläontologie, Universität Wien, Wien [Vienna]. Obsolete as: UWPI. Current as: IPUW (fossils), UNIVIE EMRG (ichthyological collection, Department of Palaeontology). Also as: PIUW (fossils). Also as: ZZPIUW (fossils). Also as: ZCUV (fishes, herps). Wien [Vienna], Austria. 

126. MV: Musei Caesarei Vindobonensis, Wien [Vienna]. Note: no longer extant. Wien [Vienna], Austria. 


128. ZCUV: Zoological Collection, Department für Theoretische Biologie, Universität Wien, Wien [Vienna]. Formerly: Institut für Zoologie. Current as: ZCUV (fishes, herps). Also as: IZUW, IUW. Also as: IPUW (fossils). Wien [Vienna], Austria. 

129. CBSI ZA: Caspian Biological Station, Institute of Zoology, Azerbaijan National Academy of Sciences, Baku. Obsolete as: CBS. Current as: CBSI ZA. Azerbaijan. 


132. BF RIRS: Bangladesh Fisheries Research Institute (BFRI), Riverine Station, Moishadi. Chandpur, Bangladesh. 

133. CU: University of Chittagong, Chittagong. Note: separate museums in Department of Zoology (DOZ, CU), Institute of Marine Sciences and Fisheries (IMSF; formerly Department of Marine Biology and Oceanography from 1971 to 1983) and Institute of Forestry and Environmental Sciences (IFES). Obsolete as: MMSF (fishes), CUZ (herps). Current as: CU preceded by catalog number (herps, Department of Zoology), CUMSF (fishes, Department of Marine Sciences), IFESCU (herps, Institute of Forestry and Environmental Sciences), IMFSCU (herps, Institute of Marine Sciences and Fisheries). Chittagong, Bangladesh. 

134. DU: Zoology Department, University of Dhaka, Dhaka [ex Dacca]. Current as: DU (fishes). Dhaka, Bangladesh. 

135. FBGN-SAU: Aquatic Bioresource Research Laboratory, Department of Fisheries Biology and Genetics, Faculty of Fisheries and Aquaculture, Sher-e-Bangla Agricultural University, Dhaka [ex Dacca]. Current as: FBGN-SA UF (fishes). Dhaka, Bangladesh. 

136. JUHG: Jahangimagar University Herpetological Group, Zoology Department, Jahangimagar University, Savar. Current as: JUHG (herps). Dhaka, Bangladesh. 


140. IRSNB: Institut royal des Sciences naturelles de Belgique [Koninklijk Belgisch Instituut voor Natuurwetenschappen (KBIN, KNMB), Royal Belgian Institute of Natural Sciences (RBINS)], Brussels. Formerly: Musée royal d’Histoire naturelle de Belgique (MRHN) [Koninklijk Natuurhistorisch Museum van België], created in 1846. Obsolete as: IRS CNB, ISBN, ISNB, ISNM,
KNMB, MRHN, RIB. **Current as:** IRSNB (fishes, herps, fossils). Also as: KBIN (sharks, herps, birds), RBINS (fossils). Brussels. Belgium.

**141. ZMULB:** Muséum de Zoologie et d’Anthropologie, Université Libre de Bruxelles. Brussels. Belgium.

**142. RMCA:** Royal Museum for Central Africa [Musée royal de l’Afrique centrale (MRAC), Koninklijk Museum voor Midden-Afrika (KMM)], Tervuren. **Also known as:** Tervuren Museum, AfricaMuseum. **Formerly:** Musée du Congo (1898–1908), Musée du Congo belge [Muséum van Belgisch Congo] (1908–1952), Musée royal du Congo belge [Koninklijk Museum van Belgisch Congo] (1952–1960). **Obsoleted as:** KMM, MRAC, MT, RG, RGMC, RMAC. **Current as:** RMCA (fishes, herps, fossils). Flemish Brabant. Belgium.

**143. MZULG:** Université de Liège, L’Aquarium “Dubuisson” et le Musée de Zoologie, Liège. Liège. Belgium.

**144. GAN:** S.G.A. Nago collection housed at University of Abomey-Calavi, Cotonou [Kutonu]. **Current as:** GAN (herps). Bénin.

**145. LHC:** Laboratoire d’Hydrobiologie et d’Aquaculture, Faculté des Sciences Agronomiques, Université d’Abomey Calavi, Cotonou [Kutonu]. **Current as:** BZS, BNHS. Bénin.

**146. BAMZ:** Bermuda Aquarium, Museum and Zoo, Bermuda Zoological Society, Flatts Village. **Formerly:** Bermuda Natural History Society. **Obsoleted as:** BZS, BNHS. **Current as:** BAMZ (fishes). Bermuda.

**147. CNR:** Laboratory Collection, College of Natural Resources, Royal University of Bhutan, Punakha. **Current as:** CNR (fishes). Punakha. Bhutan.

**148. CIRA-UTB:** Centro de Investigacion de Recursos Acuáticos, Universidad Técnica del Beni, Trinidad. **Current as:** CIRA-UTB (fishes). Beni. Bolivia.

**149. USFX:** Museo de Historia Natural, Universidad Mayor, Real y Pontificia de San Francisco Xavier de Chuquisaca [University of Saint Francis Xavier], Chuquisaca. Chuquisaca. Bolivia.

**150. MHNC:** Museo de Historia Natural Alcide d’Orbigny, Cochabamba [Chuquisaca]. **Includes:** fish collection assembled by Unidad de Limnología y Recursos Acuáticos, Universidad Mayor de San Simón (UMSS). **Current as:** MHNC, MHNCA (amphibians), MHNC-R (reptiles). Cochabamba. Bolivia.

**151. UMSS:** Universidad Mayor de San Simón, Cochabamba [Chuquisaca]. **Current as:** CBG (herps, Centro de Biodiversidad y Genética), UMSS (fishes). **Also as:** CBGR (herps). Cochabamba. Bolivia.

**152. CBF:** Colección Boliviana de Fauna, Museo Nacional de Historia Natural y Instituto de Ecología de la Universidad Mayor de San Andrés, La Paz. **Obsoleted as:** CBF. **Current as:** CBF (fishes, herps). La Paz. Bolivia.

**153. CIPA:** Museo de Historia Natural “Pedro Villalobos” (MHNPV), Centro de Investigación y Preservación de la Amazonía, Universidad Amazónica de Pando, Cobija. Nicolás Suárez. Bolivia.

**154. MNK:** Museo de Historia Natural Noel Kempff Mercado, Universidad Autónoma Gabriel René Moreno, Santa Cruz de La Sierra. **Obsoleted as:** MNK, NK, NKA. **Current as:** MNKP (fishes), MNKR (reptiles), MNKA (amphibians). Santa Cruz. Bolivia.

**155. YPFB:** Yacimientos Petrolíferos Fiscales Bolivianos paleontology collection, Centro de Tecnología Petrolera (CTP), Santa Cruz. **Note:** fossils specimens are the property of CTP (YPFB), but on loan to Muséum national d’Histoire naturelle, Paris (MNHN) for curation and study. **Current as:** YPFB Pal (fossils). Santa Cruz. Bolivia.

**156. MNPA:** Museo Nacional Paleontológico-Arqueológico, Tarija [San Bernardo de la Frontera de Taríax]. **Formerly:** Museo Universitario de Tarija (MUT). **Current as:** MNPA-V (fossil vertebrates). Tarija. Bolivia.

**157. ZMBH:** Zemaljski Muzej Bosne i Hercegovine [National Museum of Bosnia and Herzegovina], Sarajevo. **Current as:** ZMBH (fishes, herps), BHSP (fossils). Bosnia and Herzegovina.

**158. BNM:** Botswana National Museum, Gaborone. **Note:** uncataloged herp specimens cited using field numbers (e.g., KHH). **Current as:** BNM (herps). Botswana.

**159. SADC/GEF:** Southern African Development Community, Global Environment Facility, Gaborone. **Current as:** SADC/GEF (fishes). Botswana.

**160. UFAC:** Universidade Federal do Acre, Rio Branco. **Current as:** UFAC (fishes, fossils, campus Rio Branco). **See also:** UFACF (campus Floresta). Acre. Brazil.

**161. UFACF:** Universidade Federal do Acre, Campus da Floresta, Cruzeiro do Sul. **Current as:** UFACF (fishes, campus Floresta). **See also:** UFAC (campus Rio Branco). Acre. Brazil.

**162. MUFAL:** Museo de Historia Natural Federal de Alagoas, Maceió. **Current as:** MUFAL (herps), UFAL (fishes). Alagoas. Brazil.

**163. IEPA:** Instituto de Pesquisas Científicas e Tecnológicas do Estado do Amapá, Macapá. **Note:** mistakenly associated with “Instituto de Ensino Profissional da Amazônia” (Andrade et al., 2016:2). **Current as:** IEPA (fishes, herps). Amapá. Brazil.

**164. FMT:** Fundação de Medicina Tropical do Amazonas, Manaus. **Formerly:** Instituto de Medicina Tropical (IMTM). **Obsoleted as:** IMTM (herps). **Current as:** FMT (herps). Amazonas. Brazil.

**165. IDSM:** Instituto de Desenvolvimento Sustentável Mamirauá, Tefé. **Current as:** IDSM (fishes). Amazonas. Brazil.

**166. INPA:** Instituto Nacional de Pesquisas da Amazônia, Manaus. **Current as:** INPA-ICT (fishes), INPA-H (herps). Amazonas. Brazil.

**167. CHECOA:** Coleção Herpetológica de Referência do Centro de Ecologia e Conservação Ambiental, Universidade Católica do Salvador, Salvador. Bahia. Brazil.

**168. CIAVE:** Centro de Investigaciones de Animales Venenosos, Universidade Estadual de Feira de Santana (UEFS), Feira de Santana. See also: MZFS. Bahia. Brazil.

**169. CRVS:** Coleção de Referência do Vale do São Francisco, Universidade do Estado da Bahia, Campus VIII, Paulo Afonso. **Current as:** CRVS (fishes). Bahia. Brazil.

**170. CZGB:** Coleção Zoológica Gregório Bondar (CZGB), Comissão Executiva do Plano da Lavoura Cacaueira (CEPLAC). **Note:** collection transferred to MZUESC in 2012. **Current as:** CZGB (herps). **See also:** CZGES. Bahia. Brazil.

**171. MZFS:** Museu de Zoologia da Universidade Estadual de Feira de Santana (UEFS), Feira de Santana. **Note:** SUEFS (Sonoteca do Laboratório de Animais Peçonhentos e Herpetologia) used for sound recordings. **Obsoleted as:** LIUESFS (Laboratório de Ictiologia, Departamento de Ciências Biológicas), MZUESC, UEFS. **Current as:** MZFS (fishes, Divisão de Peixes), MZFS-DAR (herps, Divisão de Anfíbios e Répteis). **See also:** CIAVE. Bahia. Brazil.

**172. MZUESC:** Coleção Herpetológica do Museu de Zoologia da Universidade Estadual de Santa Cruz (UESC), Ilhéus. **Includes:** Coleção Zoológica Gregório Bondar (CZGB),
added in 2012. *Current as*: MZUESC (herps). See also: CZGB. Bahia. Brazil.


177. DNOCS: Departamento Nacional de Obras Contra as Secas, Pentecoste. *Note*: status of collection unknown, some fishes transferred to MZUSP. Ceará. Brazil.


179. UFU: Universidade Federal do Ceará, Fortaleza. *Obsoleto as*: LCM (Laboratório de Ciências do Mar). *Includes*: collections transferred from Grupo de Estudo de Elasmobrânquios do Ceará (ELCE, Chondrichthyes) and Departamento de Engenharia de Pesca (CIDEP-UFC, Coleção Ictiológica). *Current as*: DBUFC (Coleção Ictiológica do Departamento de Biologia, Campus do Pici), LABOMAR (Coleção Ictiológica do Instituto de Ciências do Mar), CHUFC (herps, Coleção Herpetológica do Departamento de Biologia e Núcleo Regional de Ofiológia [NUROF-UFC], Campus do Pici). Also as: UFC (herps), UFC A (amphibians). Ceará. Brazil.


181. UNB: Universidade de Brasília, Brasília. *Current as*: CIUNB (Coleção Ictiológica), CHUNB (Coleção Herpetológica), Distrito Federal. Brazil.

182. CZNC: Coleção Zoológica Norte Capixaba, Universidade Federal do Espírito Santo (UFES), São Mateus. *Note*: collection separate from UFES. *Current as*: CZNC (fishes). See also: UFES. Espírito Santo. Brazil.


185. ZUF: Centro de Estudos e Pesquisas Biológicas, Pontifícia Universidade Católica de Goiás, Goiânia. *Includes*: specimens from faunal rescues associated with Usina Hidrelétrica de Serra da Mesa (UHESM) and Usina Hidrelétrica de Corumbá (UHEC). *Current as*: ZUF (herps), UHESM & UHEC (herps housed at ZUF). Also as: PUC-GO (herps). Goiás. Brazil.


189. LILUNX: Laboratory of Ichthyology and Limnology, Universidade do Estado de Mato Grosso (UNEMAT), Campus de Nova Xavantina. *Current as*: LILUNX (fishes). Mato Grosso. Brazil.

190. UFMT: Coleção Zoológica de Vertebrados, Universidade Federal de Mato Grosso (UNEMAT), Campus de Nova Xavantina. *Current as*: UFMT (fishes, Coleção de Peixes), UFMT (herps), UFMT-R (reptiles). Mato Grosso. Brazil.


193. CICCMG: (see Addendum)


197. LGC: Laboratório de Genética da Conservação, Pontifícia Universidade Católica de Minas Gerais (PUC-MG), Belo Horizonte. *Current as*: LGC (fishes). See also: MCN. Minas Gerais. Brazil.

198. LVZ: Laboratório de Zoologia dos Vertebrados, Universidade Federal de Ouro Preto, Ouro Preto. *Current as*: LVZ (herps). Also as: LYZUFO (herps). Minas Gerais. Brazil.

199. MCN: Museu de Ciências Naturais, Pontifícia Universidade Católica de Minas Gerais (PUC-MG), Belo Horizonte. *Current as*: MCNJ (fossils), MCNJ (reptiles), MCL (fossils). See also: LGC. Minas Gerais. Brazil.


220.5. COPPE-UFRJ: (see Addendum)


225. LBRP: Laboratório de Biodiversidade de Recursos Pesqueiros, Universidade Federal do Rio de Janeiro. *Note: collection of marine fishes separate from main collection at UFRJ; current status unknown. See also: UFRJ. Rio de Janeiro. Brazil.

226. MNRS: Museu Nacional, Universidade Federal do Rio de Janeiro, Rio de Janeiro. *Includes: Adolpho Lutz Herpetological Collection (AL-MN, maintained separately), and Carlos Alberto Gonçalves da Cruz private collection (CAGC) assembled at Universidade Federal Rural do Rio de Janeiro (UFRJ). *Note: collection separate and distinct from Universidade Federal do Rio de Janeiro (UFRJ/Z/UFRJ); entomological, arachnid, mollusk and fossil collections stored at São Cristóvão Palace in Quinta da Boa Vista, Museu Nacional’s main building, were largely destroyed by fire on 2 Sep 2018. *Current as: MNRJ (fishes, herps), MNTI (fish tissue collection), MNLM (vertebrate DNA extract collection), MN (fossils). Also as: DGF (fossils, Departamento de Geologia e Paleontologia), MNURFJ (fossils). Rio de Janeiro. Brazil.


252. UFSC: Departamento de Ecologia e Zoologia (ECZ), Centro de Ciências Biológicas (CCB), Universidade Federal de Santa Catarina (UFSC), Florianópolis. Note: CAUSC was previously assigned to collections in Centro de Ciências Agrárias at UFSC and is presumably obsolete. Obsolete as: CAUSC. Current as: NEMAR (fishes, coleção Ictiológica de Referência do Núcleo de Estudos do Mar), CHUFSC (herps, Coleção Herpetológica). Santa Catarina. Brazil.


254. CFBH: Coleção Célio Fernando Baptista Haddad, Departamento de Zoologia, Instituto de Biociências, Universidade Estadual Paulista “Júlio de Mesquita Filho” (UNESP), Campus de Rio Claro. Current as: CFBH (amphibians). See also: LGP (fishes), MHE (fossils). São Paulo, Brazil.

255. CoBio: Coleção Biológica “Prof. Edmund F. Nonato” do Instituto Oceanográfico, Universidade de São Paulo, Cidade Universitária. Note: most specimens (mainly fish larvae and invertebrates) held prior to 2012 by the Instituto Oceanográfico and cited as IOUSP are now lost, including types of leptocephi described by Luiz Roberto Tommasi (1960). Obsolete as: IO, IOUSP. Current as: CoBio (uncataloged fish larvae and invertebrates). São Paulo. Brazil.

256. DZSJR: Universidade Estadual Paulista “Júlio de Mesquita Filho” (UNESP), Campus de São José do Rio Preto. Current as: DZSJR (fishes, herps, Departamento de Zoologia e Botânica), UR (fossils). São Paulo. Brazil.

257. EEBP: Estação Experimental de Biologia e Piscicultura
de Pirassununga, Ministério da Agricultura, Pirassununga. Note: established in 1942, EEBP became Centro de Pesquisa e Treinamento em Aquicultura in 1979 which was renamed Centro Nacional de Pesquisa de Peixes Tropicais in 1993, then Centro Nacional de Pesquisa e Conservação de Peixes Continentais (CEPTA) in 2000; CEPTA administered by Instituto Chico Mendes de Conservação da Biodiversidade (ICMBio) since 2007; EEBP fish collection assembled by Otto Schubart, Alcides Lourenço Gomes, Felisberto Pinto Monteiro, Manuel Pereira de Godoy and others mostly discarded in 1990s except for a few lots transferred under Godoy’s supervision to Museu de História Natural, Pirassununga (MHNP), at least 3 lots transferred to MZUSP in 1994, and 151 lots (19 with EEBP catalog numbers) now cataloged at LIRP. See also: AMA, MHNP, LIRP (Godoy fishes). São Paulo. Brazil.


261. LGP: Laboratório de Genética de Peixes, Departamento de Biologia, Instituto de Biociências, Universidade Estadual Paulista “Júlio de Mesquita Filho” (UNESP), Campus de Rio Claro. Current as: LGP (fishes). See also: CFBH (amphibians), MH (fossils). São Paulo. Brazil.


263. LISDEBE: Laboratório de Ictiologia Sistemática, Departamento de Ecologia e Biologia Evolutiva (DEBE), Universidade Federal de São Carlos, São Carlos. Current as: LISDEBE (fishes). São Paulo. Brazil.


265. MHE: Museu de Minerais e Rochas “Heinz Ebert”, Departamento de Petrologia e Metalogenia (DPM), Instituto de Geociências e Ciências Exatas (IGCE), Universidade Estadual Paulista “Júlio de Mesquita Filho” (UNESP), Campus de Rio Claro. Note: Museu de Paleontologia e Estratigrafia “Prof. Dr. Paulo Milton Barbosa Landim” (URC) is separate museum in Departamento em Geologia Aplicada (DGA), IGCE. Obsolete as: MMR/UFU. Current as: MHE (fossils, DPM), URC (fossils, DGA). See also: CFBH (amphibians), LGP (fishes). São Paulo. Brazil.

266. MHNP: Museu de História Natural, Pirassununga. Note: private museum and collection of Manuel Pereira de Godoy currently administered by Godoy family (no public access); includes some Godoy fishes formerly deposited at Estação Experimental de Biologia e Piscicultura de Pirassununga (EEBP) and potentially Assessoria para Meio Ambiente, ELETROSUL, Florianópolis (AMA). See also: AMA, EEBP, LIRP (Godoy fishes). São Paulo. Brazil.

287. MUBS: MacEwan University, Department of Biological Sciences, Edmonton. Formerly: Grant MacEwan University. Current as: MUBS. Alberta. Canada.


293. UBC: University of British Columbia, Cowan Vertebrate Museum [part of Beaty Biodiversity Museum], Vancouver. Also as: UBCBBM. British Columbia. Canada.


298. FOSJ: Fisheries and Oceans Canada, Newfoundland and Labrador Region, St. John's. Newfoundland. Canada.

299. MUDB: Memorial University, Department of Biology, St. John's. Newfoundland. Canada.


301. BIOUG: Centre for Biodiversity Genomics (CBG), University of Guelph, Guelph. Current as: BIOUG (fishes, herps). Ontario. Canada.


306. WLU: Wilfrid Laurier University, Department of Biology, Waterloo. Ontario. Canada.


313. CEPFL: Centre d’Etude Péchés, Service des eaux et forêts du Tchad, Fort-Lamy [now N’Djamena], Chad.


318. MZUC: Museo de Zoología de la Universidad de Concepción, Concepción. Formerly: Instituto de Zoología de la Universidad de Concepción (IZUC). Current as: MZUC (herps). Also as: IZUC, MZUC, MZUC-UCCC. See also: CPUC (fossils). Concepción. Chile.


324. LBUCH: Laboratorio de Biología, Universidad de Chile, Santiago. Note: lab closed ca. 1998 with specimens transferred to Museo Nacional de Historia Natural (MNHNC) and some fishes to University of Kansas (KU). Santiago. Chile.

325. LLFS-UCH: Laboratory of Limnology, Faculty of Sciences, Universidad de Chile, Santiago. Note: laboratory collection of fishes (Orestias) maintained by Irma Del Carmen Vila Pinto since 2003; some specimens transferred to Museo Nacional de Historia Natural, Santiago (MNHNC). Santiago. Chile.

326. MNHNC: Museo Nacional de Historia Natural, Santiago. Includes: fish collections from the Universidad de Chile, Santiago, including Departamento de Biología Celular y Genética (DBCG, DBCUCH, DBGUCH), Facultad de Ciencias Forestales (FFSUC) and Laboratorio de Biología (LBUCH). Current as: MNHNC (fishes, herps), SGO-PV
(fossils, Colección de Paleontología de Vertebrados, Área de Paleontología). Also as: MNHNCL, MNHNCH, MNHN-Stg. Santiago. Chile.


329. IZUA: Instituto de Zoología, Universidad Austral de Chile, Valdivia. Current as: IZUA. Valdivia. Chile.


331. EBMC: Estación de Biología Marina de Montemar, Universidad de Valparaíso, Viña del Mar, Valparaíso. Valparaíso. Chile.

332. MHNV: Museo de Historia Natural de Valparaíso, Valparaíso. Note: original museum founded by Eduardo de la Barra in 1878 and largely destroyed by earthquake and fire in 1906; remains of collection moved to Santiago and returned to Valparaíso in 1912. Current as: MHNV. Valparaíso. Chile.

333. AHU: School of Life Sciences, Anhui University, Hefei. Anhui. China.


344. FNU: Fujian Normal University, Department of Biology, Fuzhou. Fujian. China.

345. XFCFC: Jimei University, Fisheries College, Xiamen. Formerly: Xiamen Fisheries College. Fujian. China.

346. ZMUA: Zoological Museum, Department of Biology, College of Life Science, Xiamen University, Xiamen. Formerly: University of Amoy. Fujian. China.

347. DBLU: Department of Biology, Lanzhou University, Lanzhou. Gansu. China.


353. JNU: Department of Biology, Jinan [Ji-Nan] University, Guangzhou [Canton]. Current as: JNU (fossils). Also as: DBJU, JNH. Guangdong. China.


356. PRFRI: Pearl River Fisheries Research Institute, Chinese Academy of Fishery Sciences, Guangzhou [Canton]. Formerly: Fishery Experimental Station Canton (FESC). In error as: PRFRI. Obsolete as: FESC. Current as: PRFRI (fishes). Guangdong. China.

357. SCNU: South China Normal University, School of Life Science, Guangzhou [Canton]. Obsolete as: DBSCNU (Department of Biology), FCSCNU. Current as: SCNU. Guangdong. China.

358. SCSSFRI: South China Sea Fisheries Research Institute, Chinese Academy of Fishery Sciences, Guangzhou [Canton]. In error as: SCSSFRI. Current as: SCSSFRI. Guangdong. China.


363. GMU: Department of Biology, Guangxi Medical University, Nanning. Formerly: Guangxi Medical College (GMC). Obsolete as: GMC. Current as: GMU. Also as: GMXU and GXMU (amphibians). Guangxi. China.

364. GXSD: College of Life Sciences, Guangxi Normal University, Guillin. Also as: GXNU. Guangxi. China.


407. NRBAS: National Research Institute of Biology, Academia Sinica [Chinese Academy of Sciences], Nanjing. Formerly: Museum of the Biological Laboratory of the Science Society of China (SSCN), established in 1922. Also as: SSCN. Jiangsu. China.

408. JLU: Jilin University Museum, Changchun. Note: as of 2000, Jilin University is a merger of multiple universities including Changchun University of Science and Technology (CUST). Current as: JLU (fossils). Also as: CAD (Department of Paleontology and Stratigraphy, fossils), CUST (fossils associated with Changchun University of Science and Technology), RCPS CDA (Research Center of Paleontology and Stratigraphy). Jilin. China.

409. BPM: Beipiao Paleontological Museum, Beipiao. Also known as: Liaoning Paleontological Museum (LPM), but that name also applied to separate museum in Shenyang. Obsolete as: LPM. Current as: BPM (fossils). See also: PMOL. Liaoning. China.


412. DFI: Dalian Fisheries Institute, Dalian Maritime University, Dalian. Also known as: Liaoning Marine Fisheries Research Institute. Liaoning. China.


415. PMOL: Paleontological Museum of Liaoning, Shenyang. Also known as: Liaoning Paleontological Museum (LPM), but that name also applied to separate museum in Beipiao. Note: museum on campus of Shenyang Normal University. Obsolete as: LPM. Current as: PMOL (fossils), PMOL-SGP (fossils, Sino-German Cooperation Project). See also: BPM. Liaoning. China.


423. IZSN: Institute of Zoology, Shaanxi Normal University, Xi’an [Xian]. Current as: IZSN. Also as: DBSNU (Department of Biology), SNUIZ (fishes). Shaanxi [Shensi]. China.

424. IZS: Shaanxi Institute of Zoology, Xi’an [Xian]. Also known as: Northwest Institute of Endangered Zoological Species. Note: established in 1978 based on Shaanxi Institute of Biology and the SAS Survey Team for Qinling Biological Resources. Current as: IZSX. Also as: SIZ (herps). Shaanxi [Shensi]. China.

425. NAFU: Northwest Agriculture and Forestry University (NWAUF), Yangling. Note: established in 1999 via merger of seven institutions including Northwest Forestry College (NCF); much of historical herp collection, including holotype of Olgodon ninghsiaensis Yuan 1983, lost due to inactivity. Obsolete as: NCF. Current as: NAFU (herps). Shaanxi [Shensi]. China.


433. BDSS: Laboratory of the Biology Department, Shanghai Science Institute, Shanghai. Note: present status unknown. Shanghai. China.

434. DHFRI: Dong Hai [Donghai] Fishery Research Institute, Shanghai. Shanghai. China.

435. ECSFI: East China Sea Fisheries Research Institute, Chinese Academy of Fishery Science (CAPS), Shanghai. Shanghai. China.

436. FU: Fudan University, Department of Biology, Shanghai. In error as: Fujian University (Wallach et al., 2014; holotype of Trimeresurus tibetanus is from Fujan University). Also as: FDU (herps). Shanghai. China.


438. SNMH: Shanghai Natural History Museum, Jing’an, Shanghai. Note: established in 1956 based on collections from the Xujiahui Museum founded in 1868 (renamed Zhendan
Museum in 1933) and Shanghai Museum of the Asiatic Society founded in 1874; SNHM merged with Shanghai Science and Technology Museum in 2001. \textit{Current as:} SNHM. \textit{Also as:} SMNH, SMNHC. Shanghai, China.


440. CCCGS: Chengdu Institute of Geology and Mineral Resources (CIGMRC), Chengdu. \textit{Also known as:} Chengdu Center of China Geological Survey. \textit{Obsolete as:} CGS. \textit{Current as:} CCCGS (fossils). LPV (Luoping County Vertebrate fossil collection). Sichuan, China.

441. CIB: Chengdu Institute of Biology, Chinese Academy of Sciences [Academia Sinica], Chengdu. \textit{Formerly:} Sichuan Biological Research Institute (SBRI). \textit{Obsolete as:} CIS, SBR, SERI, SIBAC (Southwest Institute of Biology), ZS. \textit{Current as:} CIB. Sichuan, China.

442. CWNU: China West Normal University, Nanchong. \textit{Current as:} CWNU (herps). Sichuan, China.

443. NRIS: Natural Resource Institute of Sichuan Province, Chengdu. \textit{Current as:} NRIS (fishes). \textit{Also as:} MSINR, SPNRI (fishes). Sichuan, China.


445. SCUM: Sichuan University Museum, Chengdu. \textit{Formerly:} West China Union University Museum (WCUM). \textit{Obsolete as:} WCUM. \textit{Current as:} SCUM. Sichuan, China.

446. SICAU: Sichuan Agricultural University, Ya’an. \textit{Formerly:} Sichuan Agricultural College (1956–1985). \textit{Note:} SICAU with three campuses in Chengdu, Ya’an and Dujiangyan. \textit{Obsolete as:} SAUS. \textit{Current as:} SICAU (fishes, herps; Ya’an campus). \textit{Also as:} SAU (fishes; Ya’an campus). Sichuan, China.


450. NUMZ: NanKai University, College of Environmental Science and Engineering, Department of Environmental Science, Museum of Zoology, Tianjin. Tianjin, China.


453. FAQ: Fisheries Administration of Qujing, Qujing. Yunnan, China.

454. FAQB: Fisheries Administration of Qiubei, Qiubei. \textit{Current as:} FAQB (fishes). Yunnan, China.

455. HRA: Heilongtang Reservoir Administration, Shilin County. \textit{Also as:} RHLCY, RHS, HRSC, HRAS. Yunnan, China.


458. LDM: Lufeng Dinosaur Museum, Lufeng. \textit{Current as:} LDM-LCA (fossils from Lufeng County, Chuanjie Township, A’na Village), LGFT LDM (fossils associated with Bureau of Land and Resources of Lufeng County). Yunnan, China.

459. MSTFM: Middle School of the Third Factory Machinery, Luliang, Qujing. \textit{Also known as:} private collection of W.X. Li (Li). Yunnan, China.

460. QAMS: Qujing Aquatic Management Station, Qujing. \textit{Also as:} QYAMS. Yunnan, China.


462. YNUK: Yunnan Normal University, Biology Department, Kunming. \textit{Obsolete as:} YU. \textit{Current as:} YNUK. Yunnan, China.

463. YU: Yunnan University, Department of Biology, Kunming. \textit{Formerly:} Private University of the Eastern Land (1922–1934). \textit{Current as:} YU (herps). \textit{Also as:} MZYU. \textit{See also:} YNUK (separate institution). Yunnan, China.

464. HTC: Hangzhou Normal University, Hangzhou. Zhejiang, China.

465. LFZC: Laboratory of Fishes, Zhejiang Ocean University, Zhoushan [Chusan]. \textit{Formerly:} Zhejiang Fisheries College. Zhejiang, China.


467. ZU: Zhejiang University [Che Kiang University], Hangzhou. \textit{Includes:} three historical universities (Hangzhou University, Zhejiang Agricultural University and Zhejian Medical University) combined with Zhejiang University in 1998. \textit{Current as:} ZU (reptiles). \textit{Also as:} HU (amphibians). Zhejiang, China.


469. SINCHI: Instituto Amazónico de Investigaciones Científicas SINCHI, Leticia. \textit{Current as:} CIACOL (fishes, Colección Ictiológica de la Amazonia Colombiana), SINCHI-R (reptiles). \textit{Also as:} SINCHI-CIACOL (fishes). Amazonas, Colombia.

470. CIUA: Colección de Ictiología del Instituto de Biología de la Universidad de Antioquia, Medellín. \textit{Note:} collection separate from Museo Universitario, Universidad de Antioquia (MUA). \textit{Current as:} CIUA (fishes). \textit{See also:} MUA (fishes), MHUA (herps). Antioquia, Colombia.

471. CP-UCO: Colección de Peces, Universidad Católica de Oriente, Rionegro. \textit{Current as:} CP-UCO (fishes). Antioquia, Colombia.

472. CSJ: Colegio de San José, Museo de Historia Natural, Medellín. \textit{Note:} administered by Instituto Tecnológico Metropolitano (ITM), Biodiversidad y Recursos Naturales. \textit{Current as:} CSJ-I (fishes), CSJ-H (herps). \textit{Also as:} MHNCSJ (herps). Antioquia, Colombia.


474. MUA: Colección de Ciencias Naturales, Museo Universitario, Universidad de Antioquia (CIUA). \textit{Current as:} MUA (fishes). \textit{Also as:} MUA (fishes), MHUA (herps). Antioquia, Colombia.

476. CBBL: Colegio Bifi La Salle, Barranquilla. Note: small natural history collection assembled in the early to mid 1900s by Brothers of the De La Salle religious order; part of collection lost during transport to new building; current status unknown. Atlántico. Colombia.


478. CIP: Centro de Investigaciones Pesqueras, Instituto Nacional de Recursos Naturales Renovables y del Ambiente (INDERENA), Cartagena. Note: INDERENA is a government environmental agency created in 1968 and replaced by Ministerio del Medio Ambiente in 1993; CIP transferred to the Instituto Nacional de Pesca y Acuicultura (INPA) in 1990; status unknown, collections perhaps lost. See also: IND (Bogotá, Distrito Capital), Bolívar. Colombia.


481. IAvH: Instituto de Investigación de Recursos Biológicos Alexander von Humboldt, Villa de Leyva. Includes: amphibian collection from Instituto Nacional de Recursos Naturales Renovables y del Ambiente (IND-Am); freshwater fishes (including types of Corydoras) originally deposited at Museo del Mar (MM), Universidad de Bogotá Jorge Tadeo Lozano (UBJTL/UBJTLMM) and later transferred to INVEMAR (some apparently lost during transfers). Obsolete as: IAVH-F (fishes). Current as: IAVH-CB (Colecciones Biológicas), IAVH-CT (tissue collection), IAVH-P (fishes), IAVH-Am (amphibians), IAVH-R (reptiles). See also: INVEMAR. Boyacá. Colombia.


486. MHNU: Museo de Historia Natural de la Universidad de Cauca, Popayán. Obsolete as: UCP. Current as: MHNU (fishes), MHNU-Cr (Crocodylia), MHNU-Te (Testudinata), MHNU-Sa (Sauria), MHNU-Se (Serpentes). Cauca. Colombia.


496. MUD: Museo del Distrito Universitario Francisco José de Caldas, Bogotá. Distrito Capital. Colombia.

497. SGC: Museo Geológico José Royo y Gómez, Instituto de Investigaciones en Geociencias, Minería y Química, Servicio Geológico Colombiano [formerly INGEOMINAS], Bogotá. Also known as: Museo Geológico Colombiano; Geological Survey of Colombia. Formerly: Instituto Nacional de Investigaciones Geológicas Mineras (1968–1991). Obsolete as: ING, INIGM (fossils). Current as: SGC (fossils) followed by a variety of collection codes (e.g., DON, IGMP, IPN, MP, OB, RB, VL). Also as: DON (fossils), IGMP (fossil sharks), IPN-EAC, MGJR (fossil turtles). Distrito Capital. Colombia.


500. PSO-CZ: Museo de Historia Natural de la Universidad de Nariño, San Juan de Pasto. Nariño. Colombia.

501. CSJP: Colegio San José de Pamplona, Pamplona. Also as: SJP. Norte de Santander. Colombia.


052. MCG: Museo del Colegio San José de Guanentá, San Gil. Santander. Colombia.


057. CRH: Centre de Recherche en Hydrobiologie, Uvira [formerly in Zaïre]. *Current as:* CRH (fishes). *Also as:* CRHU. Sud-Kivu, Congo (DRC).


063. LHUC: Collection Laboratoire d’Hydrobiologie lagunaire, Abidjan. *Note:* collection cited by Daget (1965) and presumably associated with Université de Bouaké, formerly a campus of the University of Abidjan and renamed Université Félix Houphouët-Boigny in 2012. *See also:* UFHB. Côte d’Ivoire.

064. NG: Research Collection of N’Goran Germain Kounamé, Department of Biology and Animal Physiology, Jean Lorougnon Guédé University, Daloa. *Current as:* NG (herps). Côte d’Ivoire.


066. STPB: Collection de la Station de Recherches Piscicoles de Bouaké, Bouaké. *Note:* collection cited by Daget (1965) and presumably associated with Université de Bouaké, formerly a campus of the University of Abidjan; status unknown. *Assigned here:* STPB. Côte d’Ivoire.


070. CMRI: Centar za istraživanje mora, Institut Ruder Boskovic [Center for Marine Research, Rudjer Boskovic Institute], Rovinj. *Also known as:* Center for Marine Research Rovinj; Rovinj Marine Station. *Note:* established in 1891 as field station of Berlin Zoological Garden and Aquarium; original institute demolished and collections transferred to Italy during WWII with historical specimens extant at Stazione Idrobiologica, Chioggia. *Current as:* CMRI (fishes). *Also as:* CMRR (bryozoans). Istria. Croatia.


074. HDIB: Hrvatsko društvo za biološka istraživanja [Croatian Biological Research Society], Croatian Institute for Biodiversity, Zagreb. *Current as:* HDIB. Zagreb. Croatia.

075. PMF: Zoologjski zavod, Prirodoslovno-matematički fakultet, Sveučilišta u Zagrebu [Department of Zoology, Faculty of Science, University of Zagreb], Zagreb. *Obsoleto as:* ZU, ZZSZ. *Current as:* PMF (fishes). *Also as:* ZIUZ (fishes, herps). Zagreb. Croatia.

076. MHNCT: Museo de Historia Natural Carlos de la Torre y Huerta, Holguín. *Current as:* MHNCT. *Also as:* MHNH (herps). Holguín. Cuba.

077. ANC: Acuario Nacional de Cuba, La Habana [Havana]. *Includes:* fish collection from Centro de Colecciones Naturales Marinas (CCNMM), Instituto de Oceanología, Academia de Ciencias de Cuba, La Habana (IdO, IOH) transferred in 2005; fishes from Orlando H. Garrido (OHG). *Current as:* ANC (fishes,
Colección de peces, IDO (piscíneos, Instituto de Oceanología). La Habana. Cuba.


531. CZACC: Colecciones Zoológicas de la Academia de Ciencias de Cuba, Instituto de Ecología y Sistemática (IES), Ministerio de Ciencia, Tecnología y Medio Ambiente (CITMA). La Habana [Havana]. Includes: Charles T. Ramsden herpetological collection (CTR); herps from Orlando H. Garrido (OHG). Note: created in 1987 to house specimens formerly in Instituto de Zoología (IZ or IZAC) and its predecessor, Instituto de Biología (IB); IB & IZ specimens recataloged with new CZACC numbers. Current as: CZACC (herps). Also as: IES (herps), IZAC (piscíneos). La Habana. Cuba.

532. DZUH: Departamento de Zoología, Facultad de Ciencias Naturales y Exactas, Universidad de La Habana, La Habana [Havana]. See also: MFP. La Habana. Cuba.

533. MBZH: Museo y Biblioteca de Zoología, La Habana [Havana]. Note: current status unknown. La Habana. Cuba.

534. MFP: Museo de Historia Natural Felipé Poey. Universidad de La Habana, La Habana [Havana]. Also known as: Museo Felipe Poey. Formerly: Museo de Historia Natural de la Real y Pontificia Universidad de La Habana established in 1842. Obsolete as: UHMP (piscíneos). Current as: MFP (piscíneos, herps). See also: DZUH (Departamento de Zoología). La Habana. Cuba.


536. OHG: Private fish and herp collection of Orlando H. Garrido, La Habana [Havana]. Note: some herps deposited at CZACC and some fishes at ANC. La Habana. Cuba.

537. AFG: Private herp collection of Ansel Fong G. Note: some specimens deposited at BSC and MNHNCu. Santiago de Cuba. Cuba.


541. MZM: Moravské zemské muzeum [Moravian Museum], Brně [Bomo]. Also known as: Mahrische Landesmuseum. Obsolete as: LMB. Current as: MMB (piscíneos, herps), MZM Ge (fossils). Also as: MMB-Ge (fossils). Jihomoravský [South Moravian]. Czech Republic.


543. CHMHZ: Chůpáčův Měsíc Museum of Earth History, University of Karlova [Charles University], Praha [Prague]. Also known as: Chůpáčův museum historie Země. Includes: collection of Institute of Geology and Paleontology, Univerzita Karlova [Charles University]. Obsolete as: DP-FNSP, DPFPNSP (fossils, Department of Paleontology). Current as: CHMHZ (fossils). See also: CUP (Recent fishes, herps). Praha [Prague]. Czech Republic.


552. MBL: Marine Biological Laboratory, Kobenhavns Universitet [University of Copenhagen], Copenhagen. See also: NHMD. Denmark.


556. MHNNSD: Museo Nacional de Historia Natural Professor Eugenio de Jesús Marcano, Santo Domingo. Current as: MHNNSD (fishes, herps). Dominican Republic.


559. VCCDRS: Vertebrate Collection, Charles Darwin Research Station, Puerto Ayora, Santa Cruz. Also known as: museo de vertebrados. Current as: VCCDRS. Also as: CDRS, MVECCD (herps). Galápagos. Ecuador.

560. INHMT: Instituto de Nacional de Higiene y Medicina Tropical Leopoldo Izquieta Pérez, Guayaquil. Note:


568. AUZC: Al-Azhar University Zoological Collection, Department of Zoology, Faculty of Science, Al-Azhar University, Cairo. Note: smaller collections of fishes and other fauna associated with other Al-Azhar campuses (e.g., Asyut), but not part of AUZC. Current as: AUZC (herps). Egypt.


570. MBSH: Marine Biological Station Hurghada [Al-Ghardaqa], National Institute of Oceanography and Fisheries (NIOE), Hurghada [Al-Ghardaqa]. Egypt.

571. MUVF: Mansoura University Vertebrate Paleontology Center, Department of Geology, Mansoura. Current as: MUVF (fossils). Egypt.

572. ICMARES: Instituto de Ciencias del Mar y Linnmología, Universidad de El Salvador, San Salvador. Note: collections assembled in the 1950s and associated with the Instituto Tropical de Investigaciones Cientificas (ITIC) were neglected and eventually lost; current fish collection established ca. 2005. Current as: ICMARES (fishes). El Salvador.


574. MNCS: Department of Marine Biology and Fisheries, Mai-Nefhi College of Science, Eritrea Institute of Technology (EIT). Note: small collection of marine fishes lacking catalog numbers and staff. Assigned here: MNCS. Eritrea.


583. NHMT: Natural History Museum, Tórshavn. Faroe Islands (Denmark).

584. USPS: University of the South Pacific, Faculty of Science, Technology and Environment, School of Marine Studies, Suva. Obsolete as: USPS. Current as: SUVA H (herps). USPS (fishes). Fiji.

585. MZH: Finnish Museum of Natural History, Zoological Museum, University of Helsinki, Helsinki. Also as: ZMUH (birds). Finland.

586. UAZM: Ábo Akademi University, Zoological Museum, Turku. Finland.


591. MZUS: Musée Zoologique de la ville de Strasbourg, Université de Strasbourg, Strasbourg. Includes: natural history collections of Johann Hermann, (purchased in 1802) and Université Louis-Pasteur. Note: partially destroyed in 1943–1944 during WWII; Université de Strasbourg separated into three institutions including Université Louis-Pasteur (Strasbourg I) from 1970 to 2009. Also as: MZS Bas-Rhin. France.

598. LBG-UD: Laboratoire Biogéosciences, Université de Bourgogne [University of Burgundy], Dijon. Current as: LBG-UD (fossils). Côte-d’Or. France.
599. MMBR: Musée de la Marine, Brest. Finistère. France.
601. UAG: Université des Antilles [University of the French West Indies], Guadeloupe. Formerly: Centre Université Antilles-Guyane, Laboratoire de Biologie et Physiologie Animales. Guadeloupe. France.
605. BEV: Collection Biogéographie et Écologie des Vertébrés, Laboratoire de biogéographie et écologie des vertébrés, Montpellier. Note: collection established in 1967 and housed at Centre d’Écologie Fonctionnelle et Évolutive (CEFÉ) established in 1987 under the guardianship of Centre National de la Recherche Scientifique (CNRS), Université de Montpellier, Institut de Recherche pour le Développement (IRD) and École pratique des hautes études (EPHE) among others. Obsolete as: LBEV, LBUM (Laboratoire de Biogéographie, Université de Montpellier; presumably same as BEV collection). Current as: BEV (herps). Also as: EPHE (herps). See also: USTL. Hérault. France.
609. USTL: Université de Montpellier, Montpellier. Note: collections originally associated with Faculté des Sciences created in 1808 which became Université des sciences et techniques du Languedoc (USTL), administratively known as Université Montpellier 2, in 1968; Montpellier 1 & 2 universities began to merge in 2012 and the new Université de Montpellier was founded in 2015; historical collections partially destroyed in 1944 during World War II. Obsolete as: BRT, MM. Current as: USTL (fossils). Also as: IES-M (Institut des Sciences de l’Évolution, Université Montpellier 2), LG-FSM (Laboratoire de Géologie, fossiles), UM (fossils). See also: BEV. Hérault. France.
610. MS: Musée du Saveliénne, Savigné-sur-Lathan. Note: fossil specimens cited as year of registration (last three digits or all four), two-letter code for site and specimen number (e.g., 007-PM-295, 2012.VG.1). Current as: MS (general fossils), GM (fossils from La Guimardière), PM (fossils from Pelmer), VG (fossils from Vigneaux). Indre-et-Loire. France.
616. UCBL: Université Claude Bernard Lyon 1, paléontologie collection, Villeurbanne. Also known as: University of Lyon 1 (UL1). Note: includes fossils formerly in Faculté des Sciences de Lyon (FSL) at UCBL; collection distinct from musée des Confluences (MHNL). Obsolete as: CST (Centre des Sciences de la Terre), UL1. Current as: UCBL-FSL (fossils). Also as: CPS-UL, FSL (fossils). Lyon. France.
617. MAN: Muséum-Aquarium de Nancy, Institut de Zoologie, Université de Nancy, Nancy. Formerly: L’Ancienne Université, among others. Also as: MZN, MZUVN. Meurthe-et-Moselle. France.
618. MHNN: Muséum national d’Histoire naturelle, Paris. Includes: herp collection of M. Alexandre Westphal-Castelnau formerly at L’École nationale supérieure agronomique de Montpellier (ENSAM); collections from Laboratoire des Sciences Naturelles, Université-Indochinoise, Hanoi (LSNUI) and Office de la Recherche scientifique et Technique d’Outre-mer (ORSTOM). Obsolete as: MNHN. Current as: MNHN (fishes, herps), MNHN TGE (fossils, ensemble divisions from Morocco, Algeria and Mali), MNHN.F (fossils). Also as: MNHNP (amphibians, fossils), MNHN-ZA (osteological specimens of fishes, amphibians, reptiles). Paris. France.
620. PMC: Collection de paléontologie, Sorbonne Université. Note: Sorbonne Université established in 2018 via merger of Université Paris-Sorbonne and Université Pierre et Marie Curie (UPMC, Also known as Université Paris VI). Obsolete as: UPVI. Current as: PMC (fossils, Laboratoire de Paléontologie des Vertébrés, Université Pierre et Marie Curie). Paris. France.
622. MMB: Musée de la Mer, Biarritz. Also known as: Biarritz Aquarium. Pyrénées-Atlantiques. France.

623. MHN RUN: Muséum d’Histoire Naturelle de la Réunion, Saint-Denis, La Réunion. Obsolete as: URUN. Current as: MHN RUN (fishes). Also as: LEMUR (Laboratoire d’Écologie Marine, Université de La Réunion), MHNRUN (fishes). Réunion. France.


626. CJG: Private fish collection of Jacques Géry (1917–2007). Note: no longer extant; some specimens deposited at The Academy of Natural Sciences of Philadelphia (ANSP), Zoologische Staatsammlung München (ZSM), Museum d’histoire naturelle, Genève (MHNG [as GSC]). France.


628. MH: Museo Humphreidiani [Humphreidianis]. Note: cited in Hermann (1804), perhaps in reference to private collection of Humphrey Waldo Sibthorp and/or his son John Sibthorp. France.

629. ORSTOM: Institut de Recherche pour le Développement. Formerly: Office de la Recherche scientifique et Technique d’Outre-mer. Note: multiple collections including those in Nouméa, New Caledonia; Dakar, Senegal (IRD); Trinidad, Bolivia; some collections moved to Museum national d’Histoire naturelle, Paris (MHNH). France.


634. AMRS: Abkhazian Museum of Regional Studies, Sukhumi [Sokhumi]. Also known as: Abkhazian State Museum of Local Lore. Current as: AMRS (fossils). Georgia [Abkhazia].


636. CTL: Private fish collection of Thomas Litz, Attenweiler. Note: some specimens deposited at Museo Nacional de Historia Natural y Antropología, Montevideo (MUNHNA) and Zoologische Staatsammlung München (ZSM) with ZSM catalog numbers. Baden-Württemberg. Germany.


638. GPT: Eberhard Karls Universität Tübingen [University of Tübingen], Museum der Universität (MUT), Paläontologische Sammlung, Tübingen. Formerly: Institut für Geowissenschaften der Universität Tübingen. Obsolete as: TIMGP, UT. Current as: GPT (fossils). Also as: Pi (fossils, but mistakenly associated with Georg-August-Universität). See also: ZST (herps). Baden-Württemberg. Germany.


647. UFR: Albert-Ludwigs-Universität Freiburg [Albert Ludwigs University of Freiburg], Zoologische Sammlung, Freiburg im Breisgau. Baden-Württemberg. Germany.

648. ZMUH: Zoologisches Museum der Universität Heidelberg, Heidelberg. Note: founded as Zoologisches Cabinet in 1819 by Friedrich Tiedemann (1781–1861); some fishes transferred to SMF and SMNS. Current as: ZMUH (herps). Also as: ZIH (fishes, Zoologisches Institut). See also: GEOW (fossils). Baden-Württemberg. Germany.


650. BMMS: Bürgermeister-Müller-Museum, Solnhofen.
Current as: BMMS (fossils). Also as: BMM-S. Bayern [Bavaria]. Germany.


655. MOR: Mark-Oliver Rödel herpetological collection at Julius-Maximilians-Universität (JMU) [University of Würzburg], Würzburg. Current as: MOR (herps). See also: PIW (fossils). Bayern [Bavaria]. Germany.


658. NMA: Naturmuseum Augsburg, Augsburg. Current as: NMA (fossils). Also as: NMSA (Naturmuseum der Stadt Augsburg), Bayern [Bavaria]. Germany.


661. PIW: Institut für Paläontologie, Julius-Maximilians-Universität (JMU) [University of Würzburg], Würzburg. Current as: PIW (fossils). See also: MOR (herps). Bayern [Bavaria]. Germany.


664. ZPLMU: Zoologische Präparatesammlung der Ludwig-Maximilians-Universität München [Zoological objects collection of the Ludwig Maximilians University Munich]. Note: historically distinct from Zoologische Staatssammlung München (ZSM); “historic valuable material...imprudently discarded” during reorganization of the university in the 1970s (D. Schaller in Neumann 2011:235); bulk of remaining ZPLMU fish collection transferred to ZSM in 2004; only few historic anatomical specimens retained in ZPLMU Institute of Zoology. See also: ZSM. Bayern [Bavaria]. Germany.


666. ZSM/CMK: Private collection of Maurice Kottelat (CMK) at Zoologische Staatssammlung München (ZSM). Note: fishes published as ZSM/CMK were never intended for final deposition at ZSM and never part of ZSM collection. Obsolete as: ZSM/CMK (replaced by CMK). Bayern [Bavaria]. Germany.

667. ZSM/LIPI: Introduced by Maurice Kottelat (1990) to identify types to be temporarily stored at Zoologische Staatsammlung München (ZSM) for later exchange and final deposition in Indonesia; ZSM/LIPI material is not traceable at ZSM and was never transferred to LIPI, Bogor, but may be available at ZRC. Obsolete as: ZSM/LIPI (not referable to specimens at ZSM or LIPI). Bayern [Bavaria]. Germany.


673. ZMB: Museum für Naturkunde (MFN), Leibniz-Institut für Evolutions- und Biodiversitätsforschung an der Humboldt-Universität zu Berlin [Humboldt University of


698. CECT: Collection de l’École technique (Realschule) de Cologne, Köln [Cologne]. Note: collection cited by Jan &
Sordelli (1865); apparently no longer extant. Nordrhein-Westfalen [North Rhine-Westphalia]. Germany.


704. STIPB: Steinmann-Institut für Geologie, Mineralogie und Paläontologie [Steinmann Institute for Mineralogy, Geology and Palaeontology], Rheinische Friedrich-Wilhelms-Universität Bonn [University of Bonn], Bonn. Formerly: Institut für Paläontologie Bonn (IPB), Geologisch-Paläontologisches Institut Bonn (GPIBO) and Goldfuß Museum [Goldfuss Museum]; STIPB founded in 2007. Obsolete as: GPIBO, IPB, PIUB. Current as: STIPB (fossils). See also: SUB. Nordrhein-Westfalen [North Rhine-Westphalia]. Germany.

705. SUB: Rheinische Friedrich-Wilhelms-Universität Bonn [University of Bonn], Institut für Zoologie, Sammlung der Universität, Bonn. See also: STIPB (fossils). Nordrhein-Westfalen [North Rhine-Westphalia]. Germany.


710. NHMM: Naturhistorisches Museum Mainz, Mainz. Also known as: Landessammlung für Naturkunde Rheinland-Pfalz [State Collection of Natural History of Rhineland-Palatinate]. Note: major parts of historical collection assembled by Rheinische Naturforschende Gesellschaft (RNG) destroyed during British air raid in 1945. Current as: NHMM (fossils). Also as: MhMZ, NMM (fossils). Rheinland-Pfalz [Rhineland-Palatinate]. Germany.


715. FG: Schneider and Scholze collection, Department of Paleontology and Stratigraphy, Technische Universität Bergakademie Freiberg, Freiberg. Current as: FG (fossils). Also as: BAF FG (fossils). Sachsen [Saxony]. Germany.


724. ZIDTU: Institut für Zoologie, Technische Universität Dresden [Dresden Technical University], Dresden. Note: currently a teaching collection [Zoologische Lehrsammlung]. Sachsen [Saxony]. Germany.
ZMK: Museum für Naturkunde, Magdeburg. Also known as: Kulturhistorisches Museum Magdeburg; Magdeburger Museen (MM). Current as: ZMK (herps). Sachsen-Anhalt [Saxony-Anhalt], Germany.

277. MLUH: Martin-Luther-Universität Halle-Wittenberg, Zentralmagazin Naturwissenschaftlicher Sammlungen (ZNS), Halle (Saale). Formerly: Institut für Zoologie, Halle (IZH); Geiseltal Museum (GM). Note: Founded in 1769 as natural history cabinet by J.F.G. Goldhagen; MLU created in 1817 via merger of Universitäts-Wittenberg and Universität Halle; collections of Geiseltal Museum relocated to ZNS in 2009. Obsolete as: GM, MLU, ZIH, ZMUH, ZNS. Current as: MLUH (fishes, herps, fossils), MLUH (IZH-P), MLUH (IZH-A), MLUH (IZH-R) (historical specimens of fishes, amphibians & reptiles, respectively), MLUH (GMH) (Geiseltal fossils, Eocene), MLUH (Ifg) (other fossils, Geology Department), Sachsen-Anhalt [Saxony-Anhalt], Germany.


279. CAUK: Institut für Geowissenschaften der Christian-Albrechts-Universität (CAU) zu Kiel [University of Kiel], Kiel. Current as: CAUK (fossils). See also: ZMK. Schleswig-Holstein, Germany.


281. ZMK: Zoologische Museum der Christian-Albrechts-Universität (CAU) zu Kiel [University of Kiel], Kiel. Also known as: Zoologischen Museum Kiel. Note: closely associated with Helmholtz-Zentrum für Ozeanforschung Kiel (GEOMAR), successor to the Leibniz-Institut für Meereswissenschaften [Leibniz Institute for Marine Sciences], itself established in 2004 via merger of Institut für Meereskunde (IfM, IMUK) and Forschungszentrum für Marine Geowissenschaften (GEOMAR). Obsolete as: KIEL. Current as: ZMK. See also: CAUK (fossils). Schleswig-Holstein, Germany.


283. MJU: Museo Jenensis Universitatis, Jena. Note: no longer extant. Thüringen [Thuringia], Germany.


286. NME: Naturkundemuseum, Erfurt. Includes: fossils from quarry “Krähenhütte”, Bad Sulza. Current as: NME (fossils), NME R (reptiles). See also: HSBS. Thüringen [Thuringia], Germany.


289. JWM: Private collection of Johannes Peter Müller (1801–1858). Note: status unknown. Germany.


291. PWC: Private collection of Philipp Wagner. Note: herps transferred in part to Zoologisches Forschungsmuseum Alexander Koenig (ZFMK) and Zoologische Staatssammlung München (ZSM), Germany.

292. UOG: Zoology Department, University of Ghana, Legon, Accra Metropolis District. Obsolete as: UGA. Current as: UOG (cetaceans). Ghana.

293. AMPG: Athens Museum of Palaeontology and Geology, National and Kapodistrian University of Athens (UoA), Athens. Also known as: University of Athens. Current as: AMPG (fossils). See also: ZMUA (Zoological Museum). Attica, Greece.


296. ZMUA: Zoological Museum, National and Kapodistrian University of Athens (UoA), Athens. Also known as: University of Athens. Current as: ZMUA (mollusks & birds). Also as: MZUA. Attica, Greece.

297. ATEITh: Alexander Technological Educational Institute of Thessaloniki, Department of Fisheries and Aquaculture Technology, Nea Moudania. Current as: ATEITh (fishes). Central Macedonia, Greece.

298. AUTH: Aristotle University of Thessaloniki, Thessaloniki. Obsolete as: MZUTH (Museum of Zoology), ZMUT. Current as: AUTH (fishes & fossils). Also as: AUT (fossils), DZAUT and MDZAUT (fishes, Department of Zoology), LGPUT (Laboratory of Geology and Paleontology), LZUT (fishes, Laboratory of Zoology). Central Macedonia, Greece.


300. NHMCC: Natural History Museum of Crete, University of Crete, Heraklion [Irakleio]. Current as: NHMCC (herps). Crete, Greece.


755. UGM: University of Guam, College of Natural and Applied Sciences, Western Pacific Tropical Research Center (WPTRC), Mangilao. Also known as: Unibetsedát Guahan. Current as: UGM (fishes). Also as: UTIO-F (fishes). Guam.


758. CSBD: Center for the Study of Biological Diversity, University of Guyana, Georgetown. Note: some fish holotypes dual-accessioned at CSBD Auburn University Natural History Museum (AUM) for temporary storage at AUM. Obsolete as: HA or CSBD no. HA (herps), UG, CSBD/UG, UG/CSBD. Current as: CSBD, CSBD F (fishes). Guyana.


760. UNAH: Universidad Nacional Autónoma de Honduras, Museo de Historia Natural, Tegucigalpa. Current as: UNAH (herps). Honduras.

761. ELTE: Eötvös Loránd University, Biological and Paleontological Museum, Budapest. Formerly: Royal University of Pest (until 1873), University of Budapest (1873–1921), Royal Hungarian Pézmány Péter University (1921–1950). Note: some fossils donated to Hungarian Natural History Museum (HNHM). Current as: ELTE (fossils). Hungary.

762. GIH: Geological Institute of Hungary, Geological Museum, Budapest. Also known as: Magyar Állami Földtani Intézet (MAFI). Formerly: Royal Hungarian Geological Institute founded in 1869. Note: many fossils transferred to other institutions (HNHM, NHMK); merged into Magyar Földtani és Geofizikai Intézet (MFGI) in 2012. Current as: GIH (fossils). Also as: HGIM, MHGI, MNGL. See also: MFGI. Hungary.

763. HNHM: Magyar Természettudományi Múzeum [Hungarian Natural History Museum], Budapest. Also known as: Musei Nationalis Hungarici/Musée National Hongrois (MNH). Formerly: part of the Hungarian National Museum (HNM) or Magyar Nemzeti Múzeum. Includes: fossils donated from Geological Institute of Hungary (GIH) and Eötvös University (ELTE), Budapest. Note: collections destroyed in part by fire during Hungarian uprising in 1956. Obsolete as: HNM, MNH, MNSB, NHMB. Current as: HNHM (fishes, herps, fossils). Also as: MTM (fossils), PG-HNHM (Department of Paleontology and Geology). Hungary.


766. INIH: Icelandic Institute of Natural History, Gardabaer. Formerly: Icelandic Museum of Natural History (IMNH). Obsolete as: IMNH, NHMR. Current as: IINH. Iceland.


768. CIARI: Indian Council of Agricultural Research (ICAR), Central Island Agricultural Research Institute, Port Blair, Andaman Islands. Current as: CIARI/FF (freshwater fishes). See also: JPC. Andaman and Nicobar Islands. India.

769. JPC: Private collection of Jayasimhan Praveenraj, Fisheries Science Division, Central Island Agricultural Research Institute (CIARI), Port Blair, Andaman Islands. Current as: JPC (fishes). See also: CIARI. Andaman and Nicobar Islands. India.


771. PUMB: Museum of Department of Ocean Studies and Marine Biology, Pondicherry University, Port Blair Campus, Andaman Islands. Current as: PUMB (fishes). Andaman and Nicobar Islands. India.

772. ZSI-ANRC: Zoological survey of India, Andaman and Nicobar Regional Centre. Also as: ZSI/ANRC. Andaman and Nicobar Islands. India.

773. ZMAU: Zoology Museum, Department of Zoology, Andhra University, Visakhapatnam [Vizag, Waltair]. Also as: AU/DMLR (fishes, Department of Marine Living Resources), MDZAU (fishes), ZDAU (parasites). Andhra Pradesh. India.


778. ZSI-APRC: Zoological Survey of India, Arunachal Pradesh Regional Centre [formerly Field or Regional Station], Itanagar. Obsolete as: ZSI/APFS, APFS/ZSI, ZSI-APRS. Current as: ZSI-APRC. Also as: ZSI/APRC, ZSI/V/APRC/P (fishes). Arunachal Pradesh. India.


780. AVC: Zoology Department, Arya Vidyapeeth College, Tarun Nagar, Guwahati. Note: affiliated with Gauhati University. Current as: AVC (herps). Also as: AVCM (herps). Assam. India.

781. GUZM: Gauhati University Zoological Museum, Guwahati. Obsolete as: F/GUZ. Current as: GUZM. Also as: GUMF (Museum of Fishes), GUZ. Assam. India.


787. DAVK: Dayanand Anglo Vaidik Mahavidyalaya (DAV College), Civil Lines, Kanpur. India.


789. BUB: Museum of Department of Zoology, Bangalore University, Bengaluru [Bangalore]. Current as: BUB (herps). See also: CCB. Karnataka. India.

790. CCB: Central College of Bangalore Museum, Bengaluru [Bangalore]. Note: originally affiliated with University of Mysore which became Bangalore University in 1964. See also: BUB. Karnataka. India.

791. CES: Centre for Ecological Sciences, Indian Institute of Sciences (IISc), Bengaluru [Bangalore]. Current as: CES (herps). Also as: CESL (lizards). Karnataka. India.


793. GSI: Geological Society of India, Bengaluru [Bangalore]. Current as: GSI (fossils). See also: GSI (headquarters, Kolkata, West Bengal). Karnataka. India.

794. KUES: Kuvempu University, Department of Environmental Science, Shankaraghatta, Shimoga District. Current as: KUES (herps). Karnataka. India.

795. NCBS: National Centre for Biological Sciences, Bengaluru [Bangalore]. Current as: NCBS (herps). Karnataka. India.

796. CMFRI: Marine Biodiversity Museum, Central Marine Fisheries Research Institute, Kochi [Cochin]. Note: museum inaugurated in 2006, recognized as Designated National Repository (DNR) by Government of India in 2007; museum separate from older one in Mandapam, Tamil Nadu. Obsolete as: DNR GB (fishes), GB. Current as: CMFRI GA (cartilaginous fishes), CMFRI GB (bony fishes). Also as: CMFRI/PFD (fishes, Pelagic Fisheries Division), MBM. See also: MMMC (Mandapam, Tamil Nadu), NBFGR (genetic resources). Kerala. India.


799. CUSAT: Museum of the Department of Marine Biology, Microbiology and Biochemistry (DMMB), School of Marine Sciences, Cochin University of Science and Technology, Kochi [Cochin]. Formerly: University of Cochin. Current as: CUSAT (fishes). Kerala. India.

800. DABFKU: Department of Aquatic Biology and Fisheries, University of Kerala, Thiruvananthapuram [ex Trivandrum]. Obsolete as: DAB-UoK (fishes). Current as: DABFKU-FI (fishes). Kerala. India.

801. IFP: Museum of the Marine Research Laboratory of the Integrated Fisheries Project, Kochi [Cochin]. Note: descended from fishing centre established in Cochin in 1957 by Indo Norwegian Project; became IFP managed by Government of India in 1972 and renamed National Institute of Fisheries Post Harvest Technology and Training (NIFPHATT) in 2008; status of natural history collections unknown. See also: CMFRI. Kerala. India.

802. IISER-TVM: Indian Institute of Science Education and Research, Thiruvananthapuram [ex Trivandrum]. Note: IISER-TVM is abbreviation for institution, but VPC-GK used to cite gecko specimen in collection. Kerala. India.


804. KFRI: Kerala Forest Research Institute, Peechi. Kerala. India.

805. MESPC: Museum of M.E.S. Ponnani College [affiliated with Calicut University], Ponnani, Malappuram District. Note: museum cited as repository for fish type specimens but mistakenly associated with collection at Cochin University of Science and Technology (CUSAT); existence of fish collection at Ponnani College not confirmed. Assigned here: MESPC. Kerala. India.

806. NBFRG: Indian Council of Agricultural Research (ICAR), National Bureau of Fish Genetic Resources, Kochi Unit, CMFRI Campus, Kochi [Cochin]. Note: founded in 1983. Current as: NBFRG-CH (fish tissues). Also as: NBFRG CHN, NBFRG/LRT. See also: CMFRI. Kerala. India.


810. ZSI-WGRC: Zoological Survey of India, Western Ghats Regional Centre [formerly Station], Kozhikode [Calicut]. Also known as: Western Ghats Field Research Centre. Obsolete as: WGRS, ZSI/CLT [Calicut Station], ZSI/WGFRS (Field Research Station), ZSI/WGRS. Current as: ZSI-WGRC (fishes, herps). Also as: ZSIK (herps). Kerala. India.


813. BNHS: Bombay Natural History Society, Mumbai [Bombay]. Includes: specimens formerly deposited at Konkan field station museum, Ratnagiri. Note: unregistered fishes from old BNHS collection transferred to ZSI-WRC. Obsolete as: BNHS. Current as: BNHS (herps), BNHS A (amphibians), BNHS FW (fishes). Maharashtra. India.


816. NKGFM: Fish Genetics and Biotechnology Laboratory, Indian Council of Agricultural Research (ICAR), Central Institute of Fisheries Education, Mumbai [Bombay]. Current
as: NKGMF (fish specimens), VIZNK (tissue samples). Maharashtra. India.
818. ZSI-WRC: Zoological Survey of India, Western Regional Centre, [formerly Station], Pune. Includes: unregistered fishes from the old Bombay Natural History Society collection (BNHS) currently housed at ZSI-WRC, but not cataloged or registered into collection as of 2014. Obsolete as: ZSI-WRS. Current as: ZSI-WRC (fishes, herps). Also as: ZSIP, ZSI-WRC P/ (fishes). Maharashtra. India.
820. MUMF: Manipur University Museum of Fishes, Chancipur. Obsolete as: MUFM (fishes). Current as: MUMF (fishes). Also as: MUMF-Per 95 (W. Vishwanath personal collection), MUM (fishes, Manipur University Central Museum), RCMMF (fishes, Research Centre). Manipur. India.
822. FBLM: Fish Biology Lab Museum, Department of Zoology, North Eastern Hill University, Shillong. Current as: FBLM (fishes). Meghalaya. India.
824. MZMU: Departmental Museum of Zoology, Mizoram University, Aizawl. Current as: MZMU (herps). Also as: MZUMB (fishes, Mizoram University Biodiversity Museum). See also: PUCMF. Mizoram. India.
825. PUCMF: Pachhunga University College Museum of Fishes, Aizawl. Note: constituent college of Mizoram University, Aizawl. Current as: PUCMF (fishes). See also: MZMU. Mizoram. India.
826. KSC: Kohima Science College, Kohima. Also as: MA (amphibians). Nagaland. India.
828. SDBDU: University of Delhi, Department of Environmental Studies, Systematics Lab, Delhi. Current as: SDBDU (herps). New Delhi. India.
831. CASAU: Centre of Advanced Study in Marine Biology, Annamalai University, Parangipet. Formerly: Biological Station Reference Museum at Porto Novo (BSRM). Obsolete as: BSRM. Current as: CASAU. Tamil Nadu. India.
832. CSPT: Chennai Snake Park Trust, Chennai. Formerly: Madras Snake Park (MSP). Obsolete as: MSP. Current as: CSPT (herps), CSPT/L (lizards), CSPT/S (snakes). Tamil Nadu. India.
833. FCRM: Fisheries College Reference Museum, Tamil Nadu Veterinary and Animal Sciences University, Thoothukudi [Tuticorin]. Note: Fisheries College established in 1977 as constituent unit of Tamil Nadu Agricultural University at Thoothukudi; currently Fisheries College and Research Institute (FCRI). Tamil Nadu. India.
836. MMMC: Marine Biodiversity Museum of Mandapam Regional Centre, Central Marine Fisheries Research Institute (CMFRI), Mandapam, Ramanathapuram District. Formerly: Museum of the Regional Centre of Central Marine Fisheries Research Institute, Mandapam Camp. Note: established in 1947; CMFRI headquarters shifted from Mandapam to Kochi [Cochin] with second museum established in Kochi. Current as: MMMC. Also as: CMFRI F (fishes), FMRI (fishes). See also: CMFRI (Kochi [Cochin], Kerala). Tamil Nadu. India.
837. MSUMNH: Manonmaniam Sundaranar University Museum of Natural History, Sri Paramakalyani Centre for Environmental Sciences (SPKCES), Alwarkurichi. Current as: MSUMNH (fishes). Also as: SPKCES. Tamil Nadu. India.
838. SACON: Sālim Ali Centre for Ornithology and Natural History, Coimbatore [Kovai]. Tamil Nadu. India.
841. ZSI-SRC: Zoological Survey of India, Southern Regional Centre [formerly Station], Chennai. Also known as: Zoological Survey of India, Madras (ZSIM). Obsolete as: SRC-ZSI, SRS/ZSI, ZSI-SRS, ZSI/SRS, ZSIC, ZSIC. Current as: ZSI-SRC. Also as: ZSI/SRC. Tamil Nadu. India.
842. NHM.OU: National History Museum of Osmania University, Department of Zoology, College of Science, Osmania University, Hyderabad. Current as: NHM.OU.F (fishes), NHM.OU.AMPH (amphibians), NHM.OU.REP (reptiles). Telangana [ex Andhra Pradesh]. India.
844. COF-CAU: Natural History Referral Museum, College of Fisheries, Central Agriculture University (I), Lembucherra, Agartala. Current as: COF-CAU (fishes). Tripura. India.
845. DDUGU: Deen Dayal Upadhyay Gorakhpur University, Department of Zoology, Gorakhpur. Uttar Pradesh. India.
847. LUVP: Vertebrate Paleontology Laboratory, Geology Department, Lucknow University, Lucknow. Current as: LUVP (fossils). Also as: LUGD (fossil echinoderms), ULM. Uttar Pradesh. India.
848. SJF: St. John’s College, Agra. Note: herp collection no longer extant; later maintained by the Academy of Zoology, Khandari Road, Agra, but that institution appears to be defunct. Uttar Pradesh. India.


854. ZSI-NRC: Zoological Survey of India, Northern Regional Centre [formerly Station], Dehradun [Dehra Dun]. Obsolete as: NRS/ZSI, ZSI/NRS. Current as: ZSI-NRC. Also as: ZSI/NRC. Uttarakhand. India.


856. ASK: Museum of the Asiatic Society of Bengal (ASB), Kolkata [ex Calcutta]. Also known as: Oriental Museum of the Asiatic Society. Note: orginal natural history collection established ca. 1828, transferred to Indian Museum, Calcutta (IMC) in 1866 and then to Zoological Survey of India (ZSI) in 1916. Current as: ASK. West Bengal. India.


858. CIFE/KOL: Museum of Central Institute of Fisheries Education (CIFE), Indian Council for Agricultural Research (ICAR), Kolkata [ex Calcutta]. Current as: CIFE/KOL (fishes). West Bengal. India.


860. ISI: Indian Statistical Institute, Geological Studies Unit, Palaeontological collections, Kolkata [ex Calcutta]. Current as: ISI P (fossil fishes), ISIR (fossil reptiles). Also as: GSI/ISI (fossil fishes). West Bengal. India.

861. MCCM: Museum of the Calcutta Medical College, Kolkata [ex Calcutta]. Formerly: Medical College of Bengal, established in 1835. Note: status of natural history collections unknown; college closely associated with the Indian Museum in Calcutta (IMC, now ZSI) in late 1800s. Also as: MCCM. West Bengal. India.

862. NLK: Museum of the PG Department of Zoology, Raja N.L. Khan Women’s College, Midnapur. West Bengal. India.

863. UCDZ: University of Calcutta, Department of Zoology, Kolkata [ex Calcutta], West Bengal. India.


865. ZSI-MARC: Zoological Survey of India, Marine Aquarium and Regional Centre, Digha. Current as: ZSI-MARC. Also as: MARC/ZSI. West Bengal. India.


867. IBRC: Indonesian Biodiversity Research Center, Denpasar City. Note: opened in June 2010 as a collaboration between Udayana University, Diponegoro University, the State University of Papua, University of California Los Angeles and the Smithsonian Institution. Current as: IBRC (fishes). Bali. Indonesia.


870. ITB: School of Life Sciences and Technology, Institut Teknologi Bandung, Bandung. Note: some herp specimens (including types) to be transferred to MZB in Cibinong; abbreviations DTI or ITB.DTI used for herps collected by Djoko T. Iskandar. Current as: ITB (herps), PALITB (fossils). West Java. Indonesia.


873. UIMZ: Research Center for Climate Change, University of Indonesia, Kampus UI, Depok. Current as: UIMZ (herps). West Java. Indonesia.

874. RSI: Razi Vaccine and Serum Research Institute,
Hessarak, Karaj. Also known as: Razi State Institute; Razi Institute (RI). Note: reptile collection inaccessible after death of Mahmoud Latifi in 2005. Alborz. Iran.


878. ZMGU: Zoological Museum of Gorgan University of Agricultural Sciences and Natural Resources. Current as: ZMGU (herps). Also as: GUZM. Golestan. Iran.

879. GUC: Ichthyological Museum, Department of Fisheries Sciences, Faculty of Natural Resources, University of Guilan, Sowmeh Sara. Current as: GUC (fishes). Guilan. Iran.


888. FCFSK: Fish collection, Fish Department, University of Kurdistan, Sanandaj [Senneh]. Current as: FCFSK (fishes). Kurdistan. Iran.


892. SUHC: Hakim Sabzevari University (HSU), Herpetological Collection, Sabzevar. Formerly: branch of Tarbiat Moallem University (SUZM, TMUS), Tehran. Obsolete as: SUZM, TMUS. Current as: SUHC (herps). See also: ERP. Razavi Khorasan. Iran.


896. VMFC: Private fish collection of Vatandoust and Mousavi-Sabet, Tehran. Iran.

897. ZUTC: Zoological Museum, University of Tehran Collection, Tehran. Current as: ZUTC. Also as: TUZC. See also: IMNRF-UT (fishes). Tehran. Iran.

898. INHRCM: Iraq Natural History Research Center and Museum, University of Baghdad, Al-Waziriya, Baghdad. Formerly: Iraq Museum of Natural History (IMNH, IMNHB). Includes: collection assembled by A.D. Niazi and staff at the Natural History Museum of the University of Baghdad. Note: some fossils in INHRCM, others in Department of Earth Science (Geology), College of Science. Obsolete as: IMNH, IMNHB, IRAQ. Current as: INHRCM (herps, fossils). Iraq.

899. KMNH: Kurdistan Museum of Natural History, Salahaddin University, Erbil (SUE), Kurdistan. Current as: KMNH. Iraq.

900. UBI: University of Basrah, Marine Science Center, Basrah. Iraq.

901. NMI: National Museum of Ireland (Natural History), Dublin. Current as: NMI (fossils). Also as: NMING (fossils), NMINH (fishes, Natural History Division). Ireland.

902. TCD: Trinity College of Dublin, Geological and Zoological Museums. Includes: Huxley and Wright fossils (fishes and amphibians) that were moved to the National Museum of Ireland in 1959 and returned in 1994. Current as: TCD (fossils). Ireland.


904. TAU: Tel Aviv University Zoological Museum (TAU), part of Steinhardt Museum of Natural History (SMNH), Israel National Center for Biodiversity Studies, Tel Aviv. Obsolete as: TAUM, UTAI, ZMTAU. Current as: TAU (fishes, herps). Also as: SMNHTAU. Israel.


909. MZUB: Museo di Zoologia, Università di Bologna, Bologna. Includes: Collezione/Museo di Anatomia Comparsa (MACB) assembled by Antonio Alessandrini (1786–1861). Obsolete as: IBI. Current as: MZUB (fishes, herps). Also
as: MZ (two herp specimens attributable to Ulisse Aldrovandi collection). See also: MGGC (fossils), PP (herps). Bologna. Italy.

910. PP: Museo Ulisse Aldrovandi in the Palazzo Poggi, Bologna. Includes: part of Ulisse Aldrovandi (1522–1605) collection including world’s oldest herpetological museum specimens; fossils formerly held by Capellini Museum (MGGC). Current as: PP (herps). See also: MGGC (fossils), MZUB (fishes, herps). Bologna. Italy.


912. IZUCS: Collezione Zoologica, Dipartimento di Biologia Animale ed Ecologia, Università di Cagliari, Cagliari, Island of Sardinia. Obsolete as: MZUC. Current as: IZUCS. See also: MDLCA (fossils). Cagliari. Italy.


914. MSTC: Museo di Scienze della Terra, Università di Catania, Catania. Current as: MSTC (fossils). Catania. Italy.


920. IZUG: Dipartimento di Scienze della Terra, dell’Ambiente e della Vita (DISTAV), Università di Genova [University of Genoa], Genova [Genoa] Note: DISTAV derived from merger of multiple institutes and departments including Dipartimento del Territorio e delle sue Risorse (DTRG), Istituto di Scienze Ambientali Marine and Istituto di Zoologia. Current as: IZUG. Also as: DTRG (sharks). Genova [Genoa]. Italy.


924. IZA: Istituto di Zoologia, Università degli Studi dell’Aquila, L’Aquila. Note: status unknown; some specimens moved to Università di Napoli Federico II (CMSNF/MZN). L’Aquila. Italy.

925. CNHM: Museo di Storia naturale del Salento, Calimera. Also known as: Civic Museum of Natural History in Calimera. Current as: CNHM (fossils). Lecce. Italy.


928. ISPRA: Institute for Environmental Protection and Research, Laboratory of Milazzo ichthyological collection, Milazzo, Island of Sicily. Current as: ISPRA (fishes). Messina. Italy.


933. IPUM: Istituto Paleontologico Università di Modena e Reggio Emilia (UNIMORE), Dipartimento di Scienze Chimiche e Geologiche, UNIMORE, Modena. Current as: IPUM (fossils). See also: IZUM (herps). Modena. Italy.


935. CMSNF: Centro Musei delle Scienze Naturali e Fisiche, Università di Napoli Federico II, Napoli [Naples]. Formerly: Museo Zoologico della Regia Università degli Studi, founded in 1813; Regio Museo Zoologico (RMZ). Includes: fishes from Instituto di Zoologia, Università degli Studi dell’Aquila (IZA); herps from university gabinetto di anatomia comparata (GAC) and gabinetto di anatomia generale et patologica (GAGP). Obsolete as: MZUN, RMZ, UNZM. Current as: CMSNF (fossils), MZN (fishes & herps, Museo Zoologico). Napoli [Naples]. Italy.


937. MGP: Museo di Geologia e Paleontologia, Centro di
Ateneo per i Musei, Università degli Studi di Padova [University of Padua], Padova. Current as: MGP (fossils). Also as: MGP-PD (fossils). See also: MZP. Padova [Padua]. Italy.

938. MZP: Museo di Zoologia, Centro di Ateneo per i Musei, Università di Padova [Università degli Studi di Padova; University of Padua], Padova. Also known as: Museo di Zoologia di Padova. Includes: Gabinetto di Storia Naturale assembled by Antonio Vallisneri, Jr., and his father, Antonio Vallisneri, Sr.; Vallisneri collection donated to University of Padova ca. 1734. Obsolete as: IGB (Instituto Gabinetto), ZMUP. Current as: MZP (fishes). Also as: MZUP (arachnids). See also: MP (fossils). Padova [Padua]. Italy.


942. MSNPV: Museo di Storia Naturale, Università di Pavia, Pavia. Also known as: Museo di Pavia, Lombardy (MPI). Obsolete as: MCNPV, MZUP. Current as: MSNPV (fishes, herps, fossils). Pavia. Italy.


944. MCSNP: Museo Civico di Storia Naturale, Piacenza. Also known as: Museo di Storia Naturale. Assigned here: MCSNP. Piacenza. Italy.

945. MSNUP: Museo di Storia Naturale dell’Università di Pisa [Natural History Museum of the University of Pisa], Calci. Also known as: Museo di Storia Naturale del Territorio di Calci (MSNT), Museo di Storia Naturale di Pisa (MSNP). Obsolete as: MSNT, PUM. Current as: MSNUP (fossils). Also as: MSNP (invertebrates, fossils). Pisa. Italy.


952. MPUR: Museo Paleontologia Università Roma, Università degli Studi di Roma “La Sapienza” [Sapienza University of Rome], Roma [Rome]. Note: currently part of Museo Universitario di Scienze della Terra (MUST). Current as: MPUR (fossils). See also: MCZR (fishes, herps), MDBR (Dipartimento di Biologia Animale e dell’Uomo). Roma [Rome]. Italy.


955. DMMI: Dolomithos-Museum, Innichen [San Candido]. Also known as: DoloMythos—The Natural Heritage of Humanity Museum; Museo Dolomithos. Note: fossils cited according to locality, as in PZIF (fossils from Piz da Peres, Furkel Pass). Assigned here: DMMI (fossils). South Tyrol. Italy.


957. PZO: Museo di Scienze Naturali dell’Alto Adige [Museum of Natural Sciences of South Tyrol], Bolzano [Bozen]. Also known as: Natur-Museum Bozen (NMB), Naturmuseum Südtirol (NMS). Includes: fossils from Kühwiesenkopf (KUH or KÜH). Obsolete as: NMB, Current as: PZO (fossils). Also as: NMS (fossils). South Tyrol. Italy.

958. IAMC-CNR: Istituto per l’Ambiente Marino Costiero del Consiglio Nazionale delle Ricerche, Taranto. Taranto. Italy.


961. MDHC: Massimo Delfino Herpetological Collection, Dipartimento di Scienze della Terra, Università degli Studi di Torino [University of Turin], Torino [Turin]. Current as: MDHC (herps). See also: MRSN. Torino [Turin]. Italy.

962. MRSN: Museo Regionale di Scienze Naturali di Torino, Torino [Turin]. Includes: historical collections owned by Università degli Studi di Torino [University of Turin], but housed and managed by MRSN, specifically Museo di Zoologia (MZUT), Museo di Anatomia Comparata (MACUT) and Museo di Geologia e Paleontologia (MGPT-PU); recent collections assembled after MRSN established in 1978.
Obsolete as: IMZUT, MRSNT, MSNT, MSNTO, MUZT, PU. Current as: MRSN (modern collections), MACUT & MZUT (Università di Torino historical collections), MGPT-PU (fossils). See also: MDHC, Torino [Turin], Italy.


964. MCSNT: Museo Civico di Storia Naturale di Trieste [Civic Museum of Natural History of Trieste], Trieste. Obsolete as: MSCN, MCST (insects), MSNT (fossils). Current as: MCSNT. Trieste, Italy.


970. MCSNV: Museo Civico di Storia Naturale di Verona, Verona. Includes: Museo Zangheri della Romagna. Obsolete as: MCSN. Current as: MCSNV (fossils). Also as: MCVR (Lepidoptera), MSNV (Coleoptera), MSNVR (decapods). Verona, Italy.

971. MCV: Museo Naturalistico Archeologico, Musei Civici Vicenza, Vicenza. Current as: MCV (fossils). Vicenza, Italy.

972. FAT: Museo Illustriissimi Comitii Francisci Annibalis Turriani. Note: no longer extant; specimens apparently not at Museo Regionale di Scienze Naturali di Torino (MRSN) or Naturhistorisches Museum, Wien (NMW), Italy.


976. CBM: Natural History Museum and Institute, Chiba. Current as: CBM-ZF (fishes). See also: CMNH. Chiba, Japan.

977. CMNH: Fish Collection of Coastal Branch of Natural History Museum and Institute, Chiba, Yoshio. Note: located in Yoshio, separate from collection in Chiba city. Current as: CMNH-ZF (fishes). See also: CBM, Chiba, Japan.


979. EUB: Ehime University, Laboratory of Biology, Faculty of Science, Matsuyama. Ehime, Japan.


984. KMNH: Kitakyushu Museum of Natural History and Human History, Kitakyushu. Current as: KMNH (fishes), KMNH VP (Department of Vertebrate Paleontology). Fukuoka, Japan.

985. LFBKU: Kyushu University, Laboratory of Fishery Biology, Fukuoka. Formerly: Kyushu Imperial University. Fukuoka, Japan.


991. JSC: Japan Snake Center, Ota, Gunma, Japan.


993. IABHU: Institute for Amphibian Biology, Hiroshima University, Higashihiroshima. Current as: IABHU (amphibians). See also: ZIHU, Hiroshima, Japan.

994. ZIHU: Hiroshima University, Faculty of Science, Department of Biological Sciences [formerly Zoological Institute], Hiroshima. See also: IABHU (amphibians). Hiroshima, Japan.


1001. HUMZ: The Hokkaido University Museum, Sapporo, and Fisheries Science Center, Hakodate. Formerly: Hokkaido University, Marine Zoology Laboratory. Obsolete as: HUHM. Current as: HUMZ (fishes). See also: UHR (fossils). Hokkaido, Japan.


1011. TKD: University of Tsukuba, Tsukuba. Current as: EESUT (fossils, Graduate School of Life and Environmental Sciences), IBUT (Institute of Biological Sciences), IGUT, TKD (fossils, Institute of Geoscience). Ibaraki. Japan.


1013. FSKU: Kitasato University, School of Fisheries Sciences, Sanriku [now part of Ofunato], Kesen. Current as: FSKU (fishes). Iwate. Japan.


1019. BSKU: Kochi University, Department of Biological Science, Faculty of Science and Technology, Kochi. Formerly: Department of Natural Science, Faculty of Science until April 2017. Includes: material from USA Marine Biological Laboratory and Kochi University, Faculty of Agriculture (FAKOU). Obsolete as: FAKOU, ZIKU. Current as: BSKU (fishes). See also: KCU (fossils). Kochi. Japan.

1020. FAKU: Kyoto University Museum, Kyoto University, Yoshida (main campus), Sakyo. Formerly: Kyoto Imperial University (1897–1947). Note: FAKU established in 1947 by Kiyomatsu Matsubara (1907–1968) in the Faculty of Agriculture, Department of Fisheries, Maizuru campus; expanded to Yoshida campus upon relocation of Department of Fisheries in 1972 and continued at Maizuru campus in newly established Fisheries Research Station; Yoshida campus collection moved to Kyoto University Museum (KUM) in 2001 (FAKU 60000–99999, ≥200000 and FAKU P) which also houses specimens formerly at Kyoto University Seto Marine Biological Laboratory (SMBL) and Otsu Hydrobiological Station (OHS); Maizuru Fisheries Research Station, Aquatic Natural History Museum, houses other part of FAKU collection (FAKU 1000–59999 and 100000–199999 [ex FRSKU]) including some specimens formerly at MIKU. Obsolete as: FRSKU, KUM. Current as: FAKU (fishes). See also: KUHE (herps), KUZ (Department of Zoology), MIKU, SMLB. Kochi. Japan.


1025. KUHE: Kyoto University, Graduate School of Human and Environmental Studies. Current as: KUHE (herps). See also: FAKU (fishes), KUZ (Department of Zoology). Kyoto. Japan.

1026. KUZ: Kyoto University, Department of Zoology Museum, Kyoto. Current as: KUZ. Also as: KUZR. See also: FAKU (fishes), KUHE (herps). Kyoto. Japan.


1030. MUF: Division of Fisheries Science, Faculty of Agriculture, University of Miyazaki, Miyazaki. Obsolete as: FLMU (Fisheries Laboratory), MUDF. Current as: MUF (fishes). Miyazaki. Japan.


1032. FFNU: Faculty of Fisheries, Nagasaki University, Nagasaki. Obsolete as: FFNU. Current as: FFNU (fishes). Nagasaki. Japan.

1033. NUFES: Nagasaki University Fisheries Experimental Station, Nagasaki. Note: marine laboratory transferred from School of Medicine to Faculty of Fisheries in 1961; reorganized into Marine Research Institute in 1997; discontinued in 2005 with establishment of Institute for East China Sea Research in 2005; status of collections unknown. See also: FFNU. Nagasaki. Japan.


1036. NUSMB: Niigata University, Faculty of Science, Sado Marine Biological Station, Niigata. Niigata. Japan.


1039. OCF: Okinawa Churashima Foundation Research
Center, Kunigami. Includes: fish collection cataloged at the University of the Ryukyus by Mr. Tetsuo Yoshino first using the code URB and later URM, URM-P and URM-PL. Current as: OCF-P (fishes, although specimens formerly deposited at the University of the Ryukyus still cited as URM-P). See also: RUMF. Okinawa. Japan.


1041. RUMF: Ryukyu University Museum (Fujukan), Nishihara. Also known as: Museum of the University of the Ryukyus. Note: status of collections originally associated with Ryukyu University Department of Zoology (URB, URM) and College of Agriculture and Home Economics (URJ, 1954–1958) at RUMF not investigated. Obsolete as: MUR. Current as: RUMF-ZV (fishes, herps), RUMF-GF (fossils). See also: OCF (fishes). Okinawa. Japan.

1042. SMLVO: Subtropical Marine Laboratory, Iriomote Marine Research Centre [formerly Station], Tokai University, Iriomote Island. Okinawa. Japan.


1046. MIKU: Misaki Marine Biological Institute, Misaki-Koen. Note: founded in 1958, closed ca. 1970; collection included fishes from 1958 Amami (Kagoshima) Expedition by K. Matsubara; most specimens lost, some transferred to Kyoto University Museum and Maizuru Fisheries Research Station (FAKU). Collection distinct from Misaki Marine Biological Station of the University of Tokyo. See also: FAKU. Osaka. Japan.

1047. OKU: Osaka Kyoiku University, Department of Arts and Sciences, Division of Natural Sciences. Osaka. Japan.


1054. MSM: Marine Science Museum, Tokai University, Shimizu. Current as: MSM. Also as: MSMTU (crustaceans). See also: IORD, TMF, Shizuoka. Japan.


1056. TMFE: Elasmobranchii Collection, Department of Fisheries, Faculty of Marine Science and Technology, Tokai University, Shimizu, Shizuoka. Obsolete as: TUMF. Current as: TMFE (fishes). See also: IORD, MSM. Shizuoka. Japan.


1058. ABE: Private collection of Tokiharu Abe. Note: some fish types were housed at Tokyo fish market; collection to be transferred to The University Museum, University of Tokyo (ZUMT). Tokyo, Japan.


1064. ORIT: University of Tokyo, Ocean Research Institute, Tokyo. Note: most fish types now at The University Museum, University of Tokyo (ZUMT). Tokyo, Japan.

1065. THUg: Teikyo Heisei University, Tokyo. Obsolete as: TUF (Teikyo University of Technology). Current as: THUg (fossils). Tokyo, Japan.


1067. ZUMT: The University Museum, University of Tokyo, Tokyo. Formerly: Tokyo Imperial University (TIU, 1897–1947); University Storage Center for Research Materials (FUMT, 1966–1997). Includes: specimens formerly in the Fisheries Bureau of the Imperial Department of Agriculture and Commerce and most fish types from University of Tokyo Ocean Research Institute (ORIT). Obsolete as: FUMT (Department of Fisheries), MUT, TIU, UMUTZ, ZIUT, ZMUT. Current as: UMUT (fishes, herps). Tokyo, Japan.
University Museum and recataloged under FAKU. See also: FAKU. Wakayama. Japan.


1074. MSSA: Marine Science Station, Aqaba. Jordan.


1076. YU: Jordanian Natural History Museum, Al Yarmouk University, Irbid. Current as: YUPS (Paleontology-Selachii, Department of Earth and Environmental Sciences). Jordan.

1077. DBQA: Museum of Biology, Department of Biology and Biotechnology, Al-Farabi Kazakh National University, Almaty [formerly Alma-Ata and Verny]. Current as: DBQA (herps). Also as: KNU (fishes). Kazakhstan.


1084. LARRC: Living Aquatic Resources Research Centre, National Agriculture and Forestry Research Institute (NAFRI), Ministry of Agriculture and Forestry, Vientiane. Obsolete as: DFV (Division of Fisheries), LARRI. Current as: LARRC (fishes). Vientiane. Laos.


1086. NUOL: National University of Laos (NUoL), Zoological Collection, Vientiane. Current as: NUOL (fishes, herps). Also as: FES (mammals, Faculty of Environmental Sciences), Vientiane. Laos.


1090. UT: University of Tripoli [Al-Fateh University], Faculty of Science, Department of Geology, Palaeontological Collections, Tripoli. Note: some fossils temporarily held at Universit´e de Poitiers, France (UP); fossils housed at University of Tripoli sometimes cited by site only. Current as: UT (fossils), DT (fossils from Dur At-Talah site, Libya), ZT1 (fossils from Zallah 7 Incision locality, Libya). Libya.


1093. NHMT: Assaraya Alhamra Museum [The Red Castle or The Red Fort], Tripoli. Also known as: Assaray Al-hamra Museum; Libyan Museum of Natural History; Museo Libico di Storia Naturale. Note: Founded in 1919 during Italian occupation, renamed Classical Museum in 1930s, became The Libyan Museum in 1948 during British occupation; opened to public as Assaraya Alhamra Museum; vandalized 20 August 2011 during civil war; current status of collections unknown. Current as: NHMT (fossils). Libya.


1095. MNHNL: Nationalmusée fir Naturgeschicht [Musée national d’histoire naturelle, National Museum of Natural History], Luxembourg. Obsolete as: MNHNL, MNHNLU. Current as: MNHNL (fossils). Luxembourg.

1096. MMNHs: Macedonian Museum of Natural History, Skopje. Also as: MNHNS. Macedonia.


1098. CNRO: Centre National de Recherches Oceanographiques, Nosy-Be [Nossi-bé]. Madagascar.


1100. UADBA: Université d’Antananarivo, Département de Biologie Animale, Antananarivo [Tana], Obsolete as: ZIAU (Zoological Institute). Current as: UADBA (fishes, herps). Also as: UA and UAN (fossils). Madagascar.

1101. MFRL: Malawi Fisheries Research Unit, Ministry of Forestry, Fisheries and Environmental Affairs, Monkey Bay. Current as: MFRL. Also as: MU. Malawi.


1103: UMBC: University of Malawi, Bunda College of Agriculture, Lilongwe. Malawi.

1105. IMRKL: Institute of Medical Research, Kuala Lumpur, Kuala Lumpur, Malaysia.


1107. UMKL: University of Malaya, Institute of Biological Sciences, Museum of Zoology, Kuala Lumpur. Also as: BIRCUM. Kuala Lumpur, Malaysia.


1111. FRI: Fisheries Research Institute, Department of Fisheries Malaysia, Gelugor. Penang, Malaysia.

1112. USMHC: Universiti Sains Malaysia Herpetological Collection, School of Biological Sciences, Gelugor. Current as: USMHC (herps). Penang, Malaysia.

1113. FRC: Forest Research Centre, Sabah Forestry Department, Sepilok. Sabah, Malaysia.

1114. FPCI: Fisheries Research Centre [Pusat Penyelidikan Perikanan], Likas, Kota Kinabalu. Sabah, Malaysia.

1115. IPMB: Institut Penyelidikan Marin Borneo, Aquarium & Marine Museum of University Malaysia Sabah [Universiti Malaysia Sabah], Kota Kinabalu. Also known as: Borneo Marine Research Institute (BMRI). Obsolete as: BMRI. Current as: IPMB. Also as: UMSB (not confirmed). See also: ITBC. Sabah, Malaysia.

1116. ITBC: Institute for Tropical Biology and Conservation Zoological Collection [BORNEENSIS], Universiti Malaysia Sabah (UMS), Kota Kinabalu. Current as: ITBC. Also as: BORN (amphibians), UMSB (not confirmed). See also: IPMB. Sabah, Malaysia.

1117. MUS: Muzium Sabah [Sabah Museum], Jalan Murium, Kota Kinabalu. Also known as: Sabah State Museum (SSM). Formerly: North Borneo Museum, Sandakan. Obsolete as: SSM, SM, SSM. Current as: MUS (bony fishes, herps), SMEC (elasmobranchs) with registration no. for zoological specimens preceded by NH. Sabah, Malaysia.

1118. SP: Sabah Parks Natural History Museum [Kinaabalu Park Museum], Kinabalu Conservation Center at Kinabalu Park Headquarters. Obsolete as: SPM. Current as: SP (fishes, herps). Sabah, Malaysia.

1119. IPPS: Institut Penyelidikan Perikanan Sarawak [Fisheries Research Institute Sarawak (FRIS)], Kuching. Sarawak, Malaysia.


1121. SMK: Muzium Sejarah Semulajadi [Sarawak Natural History Museum], Kuching. Also as: SM. Sarawak, Malaysia.


1124. UKMHC: Universiti Kebangsaan Malaysia (UKM) Herpetological Collection, Bangi. Also known as: National University of Malaysia. Current as: UKMHC (herps). Also as: HC (herps). See also: LRCUKM (Langkawi Research Center). Selangor, Malaysia.

1125. UMT: South China Sea Biodiversity Museum at Institute of Oceanography, University Malaysia Terengganu, Kuala Terengganu. Current as: UMT (fishes). Terengganu, Malaysia.


1128. CBRG: Conservation Biology Research Group Laboratory, Department of Biology, University of Malta, Msida. Current as: CBRG/F. (fishes). Malta.


1130. NHM: Natural History Museum and Institute, Port Louis, Mauritius.

1131. UAA: Universidad Autónoma de Aguascalientes, Museo de Zoologia, Aguascalientes. Aguascalientes, Mexico.

1132. UABC: Universidad Autónoma de Baja California, Ensenada. Current as: CI-UABC (fishes), CMMEX (herps), CVUABC (vertebrates). Also as: UABC (fishes). Baja California, Mexico.


1134. CICIMAR: Colección Ictiológica del Centro Interdisciplinary de Ciencias Marines, Instituto Politécnico Nacional (IPN), La Paz. Current as: CICIMAR-CI (fishes, non-ichthyoplankton), CICIMAR (ichthyoplankton). Also as: CI, CI-CICIMAR. Baja California Sur, Mexico.

1135. UABCS: Museo de Historia Natural, Universidad Autónoma de Baja California Sur, La Paz. Current as: MHN-UABCS (fishes). Also as: MZUABCS (fishes). Baja California Sur, Mexico.


1140. CVCUACJ: Colección Científica de Vertebrados (CCV), Universidad Autónoma de Ciudad Juárez (UACJ). *Current as*: CVCUACJ (herps). Chihuahua, Mexico.


1142. CIDIR-DOG: Centro Interdisciplinario de Investigación para el Desarrollo Integral Regional (CIDIR), Unidad Durango, Durango. Durango, Mexico.


1145. ITAH: Instituto Tecnológico Agropecuario de Hidalgo, Huejutla de Reyes. Hidalgo, Mexico.

1146. COHERP-UAG: Universidad Autónoma de Guadalajara, Colección Herpetológica, Guadalajara. *Current as*: COHERP-UAG. *Also as*: UAG (herps). Jalisco, Mexico.

1147. IMECBIO: Universidad de Guadalajara, Instituto Manantlán de Ecología y Conservación de la Biodiversidad, Colección de Vertebrados. *Formerly*: Colección Zoológica del Laboratorio Natural Las Joyas de la Sierra de Manantlán. *Current as*: IMECBIO. *Also as*: LNJJ, Jalisco, Mexico.

1148. CNAR: Colección Nacional de Anfibios y Reptiles, Instituto de Biología, Universidad Nacional Autónoma de México (UNAM), Mexico City. *Includes*: herps from Dirección General de Fauna Silvestre Secretaría de Desarrollo Urbano y Ecología, Coyoacán (DGFSSEDUE), Escuela Nacional de Estudios Profesionales, Unidad Iztacala, Tlaltenpantla de Baz (ENEPI) and Museo Nacional de Historia Natural, Chapultepec (MNHN). *Obsolete as*: IBH, IBHUNAM, IBM. *Current as*: CNAR (herps). *See also*: MZFC. Mexico City, Mexico.

1149. CNPE-IBUNAM: Colección Nacional de Peces, Instituto de Biología, Universidad Nacional Autónoma de México (UNAM), Mexico City. *Includes*: fishes from Museo Nacional de Historia Natural, Chapultepec (MNHN) and Escuela Nacional de Estudios Profesionales, Unidad Iztacala, Tlaltenpantla de Baz (ENEPI). *Obsolete as*: CNP-IBUNAM, IBUNAM-CNPE, IBUNAM-CNPE, UNAM, UNAM-CNPE, UNAP-CNPE. *Current as*: CNPE-IBUNAM (preferred for citation in publications although IBUNAM currently used to catalog fishes). Mexico City, Mexico.


1151. ENEPZ: Museo Zoológico de la Escuela Nacional de Estudios Profesionales, Zaragoza, Campus II, Mexico City. Mexico City, Mexico.


1153. IGMM: Colección Nacional de Paleontología, Museo María del Carmen Perrilliat, Instituto de Geología, Universidad Nacional Autónoma de México (UNAM), México City. *Obsolete as*: IGMM-CMR (Recent fishes). *Current as*: IGMM (fossils), CMRC (fishes, Colección de Material Reciente para Comparación; *Also as*: CMR, UNAM (IGM-CMR)). Mexico City, Mexico.


1155. MNHN: Museo Nacional de Historia Natural, Chapultepec, México City. *Also known as*: Museo de Historia Natural de la Ciudad de México; currently Museo de Historia Natural y Cultura Ambiental. *Note*: various collections transferred to CNPE-IBUNAM (fishes) and CNAR (herps). Mexico City, Mexico.

1156. MZFC: Museo de Zoología “Alfonso L. Herrera”, Facultad de Ciencias, Universidad Nacional Autónoma de México (FC-UNAM), Mexico City. *Current as*: MZFC (herps). *Also as*: MZFC-HE (herps). *See also*: CNAR. Mexico City, Mexico.

1157. UBIPRO: Unidad de Biotecnología y Prototipos (UBIPRO), Facultad de Estudios Superiores (FES) Iztacala, Universidad Nacional Autónoma de México (UNAM), Tlaltenpantla de Baz. *Formerly*: Escuela Nacional de Estudios Profesionales, Unidad Iztacala (ENEPI). *Note*: historical collections associated with ENEPI transferred to CNAR (herps), CNPE-IBUNAM (fishes), other Mexican institutions (fishes in part) or destroyed (fishes in part). *Obsolete as*: CIFES-I, CPFESI (fishes). *Current as*: CIF (fishes, Colección Ictiológica, Laboratorio de Ictiología), LEUBIPRO (herps, Laboratorio de Ecología). *Also as*: CLAC-FESI (Laboratorio de Anatomía Comparada, Chondrichthyes and other marine fishes), UBIPRO (herps). *See also*: CNAR. Mexico City, Mexico.


1159. INIRENA: Instituto de Investigaciones sobre los Recursos Naturales, Universidad Michoacana de San Nicolás de Hidalgo, Morelia. *Current as*: INIRENA (herps). *Also as*: UMSNH. *See also*: CPUM (fishes). Michoacán, Mexico.

1160. UAEM: Centro de Investigaciones Biológicas, Universidad Autónoma Autónoma del Estado de Morelos (CIB-UAEM), Chamilpa, Cuernavaca. *Obsolete as*: EBUM. *Current as*: CICIB-UAEM (fishes, Colección Ictiológica “Dr. Edmundo Díaz Pardo”), CARUM (herps, colección de anfibios y reptiles). *Also as*: UAEM (fishes). Morelos, Mexico.

1161. FCT: Facultad de Ciencias de la Tierra, Universidad Autónoma de Nuevo León, campus Linares. *Current as*: FCT. *See also*: UANL. Nuevo León, Mexico.

1163. CIDOAX: Centro Interdisciplinario de Investigación para el Desarrollo Integral Regional (CIDIDIR), Universidad de Oaxaca, Instituto Politécnico Nacional (IPN), Santa Cruz Xoxocotlán. Obsolete as: CIDIDIR Oaxaca (fishes). Current as: CIDOAX (fishes). Also as: CPC-CIIDIR OAXACA (fishes, Colección de Peces Continentales), CRP-CIIDIR (fishes, Colección Regional de Peces). Oaxaca. Mexico.


1182. UMDI: Colección Ictiológica Regional de Referencia (CIRR), Unidad Multidisciplinaria de Docencia e Investigación (UMDI), Unidad Académica Sisal [Sisal Campus], Universidad Nacional Autónoma de México (UNAM), Sisal. Current as: CIIR UMDI (fishes). Yucatán. Mexico.

1183. GPMTSU: Geological and Paleontological Museum, Taras Shevchenko Transnistria State University, Tiraspol. Note: university descended from Institute for Public Education of Moldova founded in Tiraspol in 1930, although Tiraspol State University in Chişinău (TSU) is the legal successor of that institute. Obsolete as: SIPT (State Pedagogical Institute, Tiraspol). Current as: GPMTSU (fossils). Moldova.


1185. TSU: Tiraspol State University, Department of Geography, Chişinău [Kishinev, Kishinev]. Note: considered legal successor to Institute for Public Education of Moldova founded in Tiraspol in 1930 and renamed Moldovan Pedagogical Institute (1933–1939). Current as: TSU (fossils). Moldova.


1187. BIUB: Mongolian Academy of Sciences, Biological Institute, Ulaanbaatar [Ulan Bator]. Current as: BIUB (herps). Mongolia.

1188. MPC: Mongolian Paleontological Center, Institute of Paleontology and Geology, Mongolian Academy of Sciences, Ulaanbaatar [Ulan Bator]. Current as: MPC (fossils). Also as: GI DPS (fossils), IGM or MGI (Geological Institute), MPS. Mongolia.


1190. UMFS: Faculty of Natural Sciences and Mathematics, University of Montenegro [Univerzitet Crne Gore], Podgorica. Obsolete as: BIP (Biological Institute, Podgorica), BZB, BZT, FSUM (Faculty of Sciences). Current as: UMFS (fishes). Montenegro.


1198. EBM: Estação de Biologia Marítima da Inhaca, Faculdade de Ciências, Universidade Eduardo Mondlane, Inhaca Island. Current as: EMB. Also as: EBM. Mozambique.


1201. UEMM: Universidade Eduardo Mondlane, Museu de História Natural, Maputo [formerly Lourenço Marques]. Formerly: Museu Provincial, then Museu Dr. Alvaro de Castro. Also as: LMM (Lourenço Marques Museum), MHNMM. Mozambique.

1202. SEABRI: Laboratory of Aquatic Biodiversity Research Group, Southeast Asia Biodiversity Research Institute, Forest Research Institute (FRI), Yezin. Current as: SEABRI (fishes). Myanmar.

1203. ZMYU: Zoological Museum, Faculty of Arts and Sciences, Yangon University, Kamayut Township, Yangon. Formerly: University of Rangoon. Myanmar.


1207. CDZMTU: Tribhuvan University, Central Department of Zoology Museum, Kirtipur, Kathmandu. Obsolete as: ZICT (Zoological Institution Committee). Current as: CDZMTU (gastropods) Also as: TUK, TZC (fishes). See also: NHMTU. Nepal.


1211. ZMA: Zoologisch Museum, Universiteit van Amsterdam. Also known as: Zoological Museum Amsterdam. Note: collections officially part of Naturalis Biodiversity Center and relocated to RMNH, Leiden in 2012. See also: RMNH. North Holland. Netherlands.


1214. MG: Museo Laurentii Theodori Gronovii, Lugdunum Batavorum [Leiden]. Also known as: Museum Gronovium, Museo Lugdunensi Batavorum (MLB). Note: no longer extant; some fishes at NHMUK. South Holland. Netherlands.


1216. RMNH: Naturalis Biodiversity Center, Leiden. Note: established in 2013 as merger of Naturalis–Nationale Natuurhistorisch Museum (formerly Rijksmuseum van Natuurlijke Historie; RMNH, RNHL), Zoologisch Museum Universiteit van Amsterdam (ZMA), and branches of National Herbarium of the Netherlands, Leiden; RMNH/ RNHL preceded by Museum d’Histoire Naturelle Pays-Bas (MHNBP, MPB). Includes: collections from Universiteit Utrecht Zoological Museum (UZ). Obsolete as: NMNHL (National Museum for Natural History, Leiden), MHNBP, MPB, RNHL. Current as: RMNH or ZMA (i.e., original ZMA catalog numbers retained). Also as: NBC (fossils). South Holland. Netherlands.


1235. **UI**: University of Ibadan, Faculty of Science, Zoological Institute, Ibadan. *Also as*: ZM/UI. Nigeria.
1236. **CMIZASPRK**: Custody Museum, Institute of Zoology, Academy of Sciences, Pyongyang. *Also as*: MIZAS. North Korea.
1244. **SQU**: Sultan Qaboos University, Al Khoudh, Muscat. *Current as*: SQU (herps). Oman.
1250. **GCM**: Government College University, Department of Zoology, Lahore. *Also as*: GCMNH. Punjab. Pakistan.
1252. **PU**: University of the Punjab, Department of Zoology, Quaid-i-Azam Campus, Lahore. *Current as*: PUPC (fossils). Punjab. Pakistan.
1257. **UNACHI**: Universidad Autónoma de Chiriquí (UN-
ACHI), San José de David. Current as: MUPADI (fishes, Museo de Peces de Agua Dulce e Invertebrados), MHCH (herps, Museo Herpetologico de Chiriquí). Chiriquí. Panama.


1259. MVUP: Museo de Vertebrados, Universidad de Panamá, Panama City. Obsolete as: UP. Panamá. Panama.


1261. KFRS: Kanudi Fisheries Research Station, Konedobu. Note: associated with National Fisheries Authority (previously Department of Fisheries and Marine Resources), descended from Department of Primary Industry (DPI); station abandoned with some specimens transferred to University of Papua and New Guinea (UPNG). Also as: DPI, FO. Papua New Guinea.


1268. MSUNA: Museo de Zoología “Francisco Schade”, Facultad de Agrarias, Universidad Nacional de Asunción, San Lorenzo. See also: CZCEN. Central. Paraguay.


1277. MUSM: Museo de Historia Natural, Universidad Nacional Mayor de San Marcos, Lima. Also known as: Museo de Historia Natural “Javier Prado” (MHNJP). Obsolete as: MHNJP, MHNSM, UNMSM. Current as: MUSM (fishes, herps, fossils). Lima. Peru.


1283. AQDM: Aquaculture Division of Agriculture, Southeast Asian Fisheries Development Center (SEAFDEC), Tibaun, Panay Island. Iloilo. Philippines.


1289. UPMSI: Marine Science Institute, University of the Philippines Diliman, Quezon City. Also as: PIL (corals), PBRC (Philippine Biodiversity Resource Center, mollusks). Metro Manila. Philippines.

1290. SU-RBG: Rodolfo B. Gonzales Museum of Natural History, Biology Department, Silliman University, Dumagute City. Formerly: Silliman University Biology Museum (SUBM). Includes: marine herps (e.g., sea snakes) transferred from SULM. Obsolete as: SUBL, SUP. Current as: SU-RBG (fishes, herps). Also as: SURBG. See also: SUAKCREM, SULM. Negros Oriental. Philippines.

1291. SUAKCREM: Silliman University Angelo King Center for Research and Environmental Management, Dumagute. Note: limited collection of fishes and herps that may eventually be transferred to SU-RBG and SULM. Current as: SUAKCREM (fishes, herps). Negros Oriental. Philippines.

1292. SULM: Silliman University Marine Laboratories, Institute of Environmental and Marine Sciences, Dumagute. Also known as: Silliman University Fish Collection. Note:
established as university research facility in 1974 and renamed Dr. Angel C. Alcala Environment and Marine Science Laboratories in 2009; some fishes transferred to PNIM as types; marine herps transferred to SU-RBG. \textit{Current as: SUMFL MUR} (marine fishes). See also: SU-RBG, SUAKCREM. Negros Oriental, Philippines.


1294. \textbf{ISEA}: Muzeum Przyrodnicze Instytutu Systematyki i Ewolucji Zwierząt (ISEZ), Polskiej Akademii Nauk [Institute of Systematics and Evolution of Animals, Polish Academy of Sciences], Kraków [Cracow], \textit{Formerly:} Institute of Systematic and Experimental Zoology (ZZSZ) until 1989. \textit{Current as:} ISEA (entomology, birds), ZZSZ (fossils). Also as: ISEZ, ZZS, ZZSZ. Lesser Poland, Poland.

1295. \textbf{ZMJIU:} Muzeum Zoologiczne Uniwersytetu Jagiellońskiego [Zoological Museum of the Jagiellonian University], Kraków [Cracow]. \textit{Obsolete as:} KM (herps). \textit{Current as:} ZMJIU. Lesser Poland, Poland.

1296. \textbf{HTW:} Muzeum Geologiczne, Instytutu Nauk Geologicznych, Uniwersytet Wrocławski [Institute of Geological Sciences, University of Wrocław], Wrocław [Breslau]. Also known as: Henryk Teisseyre Geological Museum. \textit{Note:} holotype of \textit{Python eubois} attributed by Römer (1870) to mineralogical museum (ZPWM) is apparently lost. \textit{Current as:} HTW (fishes). See also: MNHUW (Recent fishes, herps), ZPAL (fossils). Mazovia, Poland.

1297. \textbf{IZPAN:} Muzeum i Instytut Zoologii, Polskiej Akademii Nauk [Museum and Institute of Zoology, Polish Academy of Sciences], Warszawa [Warsaw], \textit{Formerly:} Zoological Cabinet of predecessors to University of Warsaw including Royal University of Warsaw (1819–1831), Main School (1862–1869), and Imperial University of Warsaw (1869–1915); National Museum of Natural History, Zoology Department [Narodowe Muzeum Przyrodnicze, Dział Zoologiczny (NMPW)] (1919–2011); Polish State Museum of Natural History (1921–1929), renamed State Zoological Museum [Państwowe Muzeum Zoologiczne (PMZW)] in 1928; became part of the Zoological Institute of the Polish Academy of Sciences in 1952. \textit{Includes:} Muzeum Zoologiczne Branickich (MZBW); part of Zoologische Sammlung zu Stettin [Szczecin] (ZSS) salvaged in 1945. \textit{Obsolete as:} NMPW, PMZW, ZPPAN. \textit{Current as:} IZPAN. Also as: MIZ (birds), MZPW (birds). See also: ZPAL (fossils). Mazovia, Poland.

1298. \textbf{MEPAN:} Muzeum Ewolucji, Polskiej Akademii Nauk [Museum of Evolution, Polish Academy of Sciences], Warszawa [Warsaw]. \textit{Note:} public display part of both IZPAN and ZPAL; fluid-preserved fishes cited as MEPAN presumably at IZPAN. \textit{See also:} IZPAN (fishes, herps), ZPAL (fossils). Mazovia, Poland.


1302. \textbf{MZBW:} Muzeum Zoologiczne Branickich [Branick Zoological Museum], Warszawa [Warsaw]. \textit{Note:} established in 1887; after WWII, transferred to National Museum of Natural History (NMPW), now Museum and Institute of Zoology (IZPAN), Warsaw. See also: IZPAN. Mazovia, Poland.


1304. \textbf{ZPAL:} Instytut Paleobiologii, Polskiej Akademii Nauk [Institute of Paleobiology, Polish Academy of Sciences], Warszawa [Warsaw]. \textit{Note:} some fossils stored at Wrocław University, Institute of Environmental Biology, Department of Paleozoology [Zakład Paleozoologii] and cited as ZPALWr (Also as ZPALUWr, ZPUW, ZPW). \textit{Current as:} ZPAL (fossils). See also: IZPAN (fishes, herps). Mazovia, Poland.

1305. \textbf{HML:} Hel Marine Station [formerly Laboratory], Institute of Oceanography, University of Gdańsk [Stacja Morska Instytutu Oceanografii Uniwersytetu Gdańskiego], Hel. Also as: HEL. Pomeranian, Poland.


1307. \textbf{ZSS:} Zoologische Sammlung zu Stettin, Szczecin [Stettin]. \textit{Note:} collection damaged during WWII, remaining part transferred to IZPAN in 1945. West Pomeranian, Poland.


1309. \textbf{UAÇ:} Universidade dos Açores [University of the Azores], Departamento de Ciências Agrárias (DCA), Angra do Heroísmo, island of Terceira, and Departamento de Oceanografia e Pescas (DOP), Horta, island of Faial. \textit{Note:} fish specimens venerated separately at DOP and Anatomy Laboratory of DCA; DOP restructured in 2015, split between Faculdade de Ciências e Tecnologia and new Okeanos R&D center in Horta. \textit{Current as:} UAÇ-DC (fishes, Dept. Ciências Agrárias), UAÇ-DOP (fishes, Dept. Oceanografia e Pescas). \textit{Also as:} DOP/UA. Azores, Portugal.


1313. \textbf{IICT:} Instituto de Investigação Científica Tropical, Centro de Zoologia, Lisboa [Lisbon]. \textit{Formerly:} Junta de Investigações Científicas do Ultramar (JICU) ca. 1973–79.
Note: collections housed at MUHNAC, but remain independent. Obsolete as: CZL. Current as: IICT (herps, birds). Also as: CZ-IICT. See also: MUHNAC. Lisboa [Lisbon]. Portugal.


1315. MACL: Museum of the Academia das Ciências de Lisboa, Lisboa [Lisbon]. Also known as: Maynense Museum. Includes: remnants of historical collections at the Maynense Museum and Real Museu da Ajuda, Lisboa (e.g., Cretaceous fishes from Ceará, Brazil). Note: nearly all zoological and mineralogical material transferred to Museu de Escola Politécnica de Lisboa (now MUHNAC) in 1859. Assigned here: MACL. See also: MUHNAC. Lisboa [Lisbon]. Portugal.


1318. MUHNAC: Museu Nacional de História Natural e da Ciência, Universidade de Lisboa, Lisboa [Lisbon]. Also known as: Museu Bocage (MB) since 1904. Formerly: Museu de Escola Politécnica de Lisboa (1837–1911) which became Faculdade de Ciências da Universidade de Lisboa in 1911; Museu Nacional de História Natural (MNHN) de Lisboa (1926–2011). Includes: nearly all zoological material transferred from museum of Academia das Ciências de Lisboa (now MUHNAC) in 1859. Note: original collection destroyed by criminal fire 18 Mar 1978, but historical archives largely survived; IICT collections housed at MUHNAC, but remain independent; current Universidade de Lisboa established in 2012 as merger of former Universidade de Lisboa (est. 1911) and Universidade Técnica de Lisboa (established 1930). Obsolete as: BML, MB, MBL, MNHNUL. Current as: MUHNAC, MUHNAC/MB06 (cartilaginous fishes), MUHNAC/MB05 (bony fishes), MUHNAC/MB04 (amphibians), MUHNAC/MB03 (reptiles). See also: IICT, MACL. Lisboa [Lisbon]. Portugal.


1320. MNHN: Museu de História Natural do Funchal, Departamento de Ciência da Câmara Municipal do Funchal, Funchal. Formerly: Museu Regional da Madeira (1929–1933), Museu Municipal (História Natural) do Funchal. Also as: MFM, Madeira. Portugal.


1325. IACB: L’Institut d’Anatomie et de Chirurgie [Institut de Anatomy and Surgery], București [Bucharest]. Note: established in late 1800s in Faculty of Medicine at University of Bucharest; deposition of holotype of Glauco-eus algeriensis Jacquet, 1896 not confirmed here, but presumably originally associated with IACB; holotype also questionably associated with Institutul National de Cercetare-Dezvoltare pentru Stirte Biologice, Bucharest (INCDS) by Wallach et al. (2014). București [Bucharest]. Romania.


1331. UBB: Museum of Paleontology-Stratigraphy, Department of Geology, Universitatea Babeș-Bolyai [Babeș-Bolyai University], Cluj-Napoca. Note: established in 1959 via merger of Victor Babeș University (name adopted in 1948) and Bolyai University (name adopted in 1945); Victor Babeș University formerly known as Hungarian University of Cluj (1872–1881), Franz Joseph University.


1333. GIUI: Geological Institute, University of Iași, Iași [Jassy, lassy]. Also known as: Alexandru Ioan Cuza University. Current as: GIUI (fossils). Iași [Jassy, lassy], Romania.


1341. IORAS: P.P. Shirshov Institute of Oceanology, Russian Academy of Sciences, Moscow. Obsolete as: IOAN, IORAN, PPSIO. Current as: IORAS. Also as: IOM (fishes). Central Federal District. Russia.


1343. VNIRO: Russian Federal Research Institute of Fisheries and Oceanography, Moscow. Note: founded in 1933 via merger of State Oceanographic Institute (GOIN) and All-Russian Research Institute of Marine Fishery (VNIIMITKh). Current as: VNIRO (fishes). Central Federal District. Russia.

1344. ZMMU: Zoological Museum of Mikhail V. Lomonosov, Moscow State University. Formerly: Natural History Cabinet of Moscow Imperial University (1791–1930). Obsolete as: MGMU, MMSU, ZMM, ZMMGU, ZMMSU. Current as: ZMMU (fishes, herps). Central Federal District. Russia.


1357. ZMFESU: Zoological Museum of Far Eastern State
from Natural History Museum in Belgrade (NHMBEO); lizards collected by Vojislav Vasić in Afghanistan. Current as: IBISS (herps). See also: DPFMGB (fossils). Belgrade. Serbia.


1376. BIKU: Department [Institute] of Biology and Ecology, Faculty of Mathematics and Natural Sciences, University of Kragujevac, Kragujevac. Current as: BIKU (fossils). Also as: BIK (Biological Institute Kragujevac), FSUK (fossils, Faculty of Sciences). Šumadija. Serbia.

1377. ZRC: Lee Kong Chian Natural History Museum (LKCNHM), National University of Singapore. Formerly: Raffles Museum of Biodiversity Research (RMBR, 1998–2014) which housed the Zoological Reference Collection (ZRC) of the National Museum of Singapore (NMS, SNM; est. 1965), descended from the original Raffles Museum (established 1878). Includes: collections of the former National University of Singapore (NUS, USDZ) and Na- nyang University. Obsolete as: LKCNHM, NMS, NUS, RM, RMBR, SNM, USDZ, ZRCS. Current as: ZRC (fishes, herps). Singapore.

1378. CU: Comenius University, Bratislava. Current as: CU-RY (fishes), DE (herps, Department of Ecology), KGP (fossils, Department of Geology and Paleontology), PRIF UK (Prirodovedecká Fakulta [Faculty of Natural Sciences]), Slovak Academy of Sciences, Bratislava. Also as: LFHRB. Bratislava. Slovakia.


1381. LU: Univerza v Ljubljani [University of Ljublja- na], Ljubljana. Current as: LU (fishes). Also as: DBUL (Department of Biology), OBL (herps, Oddelek za Biologi- jo). Slovenia.


1386. JDV: Private collection of J.D. Visser, Jeffreys Bay. Also known as: JV. Eastern Cape. South Africa.


1388. PEM: Port Elizabeth Museum, Bayworld complex, Port Elizabeth. Note: founded in 1856. Includes: herp
collections from Albany Museum (AMG), Kaffarian Museum (KMK) and Cape Nature Conservation, Jonkershoek. Current as: PEM (herps), PEM R (reptiles). Eastern Cape. South Africa.


1393. WUM: University of the Witwatersrand, Johannesburg. See also: BP. Gauteng. South Africa.


1398. NMSA: KwaZulu-Natal Museum (KZN), Pietermaritzburg. Formerly: Natal Museum. Note: entire fish collection on permanent loan to SAIAB. Obsolete as: NM (although apparent on labels for ca. 8000 herp specimens), NMP. Current as: NMSA (all collections), NMSA HRP (herps). KwaZulu-Natal. South Africa.


1400. UKZN: University of KwaZulu-Natal, Durban. Note: formed in 2004 after merger of University of Natal (UND) and University of Durban-Westville (UDW); small vertebrate collection used mainly for teaching purposes (research specimens generally transferred to other museums). Also as: UND. KwaZulu-Natal. South Africa.


1408. PKU: Pukyong National University, Department of Marine Biology, Busan [formerly Pusan]. Current as: PKU (fishes). Busan. South Korea.


1410. KPE: Kyungpook National University, Daegu [Taegu]. Current as: BEKU (fishes, Department of Biology, Teacher's College), KPE (fossils, Earth Science Department). Daegu. South Korea.


1412. NSMK: National Science Museum of Korea, Daejeon. Includes: presumably some fishes from Korean Institute of Freshwater Biology (KIFB). Current as: NSMK. Also as: NSM. Daejeon. South Korea.

1413. KIOLK: Korean Institute for Ocean Life, Gapyeong. Note: listed among fish collections in Korea by Kim (2004), but no such institute found in Gapyeong, Gyeongsang. South Korea.

1414. FSU: Laboratory of Fisheries, Department of Ocean Science, College of Natural Sciences, Inha University, Incheon. Incheon. South Korea.


1417. SUBC: Seowon University, Department of Biology, Cheongju. Formerly: Cheongju College of Education or Cheongju Normal University, descended from Cheongju Women's Junior College founded in 1968; reorganized into Seowon College in 1998 and promoted to Seowon University in 1992. Obsolete as: BCU, BCUE (Cheongju Normal University), SUC. Current as: SUBC (fishes). North Chungcheong. South Korea.

1418. SLIC: Suk Laboratory Ichthyology Collection, Department of Life Sciences, Yeungnam University, Gyeongsan. Current as: SLIC (fishes). North Gyeongsang. South Korea.

1419. CNUC: Chonbuk National University, College of Natural Science, Jeonju [Chonju]. Obsolete as: CNU, CNUCK,
CUB, CUBK. *Current as*: CNUC (fishes). North Jeolla. South Korea.

1420. KNU: Kunsan National University, Gunsan [Kunsan]. *Current as*: BKNU (fishes, Department of Biology), KNUM (fishes, Department of Marine Living Resources). North Jeolla. South Korea.

1421. CGBR: Conservation Genome Resources Bank for Korean Wildlife, College of Veterinary Medicine, Seoul National University. *Current as*: CGBR. See also: SNU. Seoul. South Korea.


1425. SNU: Seoul National University, Seoul. *Formerly*: Keijö Imperial University (KIU), Kyŏngsŏng University or Kyongseong Imperial University. Note: historical collections, including fishes deposited by Tamezo Mori in the Laboratory of the Premedical Department, destroyed during Korean War (1950–1953). See also: CGBR. Seoul. South Korea.

1426. SUC: Soonchunhyang University, Collection of Department of Life Science and Biotechnology, Asan. *Current as*: SUC (fishes). South Chungcheong. South Korea.

1427. GSNU: Laboratory of Marine Bio Education & Research Center, College of Marine Science, Gyeongsang National University, Tongyeong Campus, Inpyeong-dong, Tongyeong [Tongyoung]. Note: laboratory apparently associated with Institute of Marine Industry. *Current as*: GSNU (fishes). South Gyeongsang, South Korea.

1428. JIFRE: Jinhae Inland Fisheries Research Institute, National Institute of Fisheries Science (NIFS), Changwon. Note: city of Jinhae merged into Changwon in 2010. See also: NIFS. South Gyeongsang. South Korea.


1437. CRBA: Universitat de Barcelona, Facultat de Biologia, Centre de Recursos de Biodiversitat Animal, Barcelona. *Includes*: Gabinete de Historia Natural de la Universidad de Barcelona established in 1847; zoological collections formerly held in Universitat de Barcelona Department of Biologia Animal (DBAUB; formerly Zoologia, DZV) and Institut de Recerca de la Biodiversitat (IRBio). *Current as*: CRBA (fishes, herps). Also as: DBAUB, UBMZ, DZV (herps). Barcelona. Spain.


1446. UAB: Universitat Autònova de Barcelona, Bellaterra, Cerdanyola del Vallès. Note: university distinct from Uni-


1452. MMO: Monestir de Montserrat, Monistrol de Montserrat. Also known as: Santa Maria de Montserrat Abbey. Current as: MMO (herps). Catalonia. Spain.


1461. ETSIM: Departamento de Zoología y entomología, Escuela Técnica Superior de Ingenieros de Montes [Universidad Politécnica de Madrid], Madrid. Also as: UPM. Madrid. Spain.


1467. UZA: Unidad de Zoología Aplicada, Madrid. Note: collections no longer extant; herp, bird and mammal collections donated to MNCN by the Comunidad Autónoma de Madrid (CAM). Madrid. Spain.


1472. LV: Instituto de Investigaciones Marínicas (IIM), Vigo. Formerly: Laboratorio de Vigo (LV) established in 1951 and associated with Instituto de Investigaciones Pesqueras de Barcelona; became independent as Instituto de Investigaciones Pesqueras de Vigo in 1978; renamed Instituto de Investigaciones Maríñas in 1986. See also: IEOV. Pontevedra. Spain.


1481. MTTE: Museo de las Tierras del Ebro, Amposta.
Tarragona. Spain.


1503. MAFR: Museum Adolphi Frederici Regis. Also known as: Museum Adolpho-Fridericianum; Museum principis (MP). Note: personal collections kept separately by King Adolf Fredrik (1710–1771) at Ulriksdal and his wife Queen Lovisa Ulrika (1720–1782) at Drottningholm, including type specimens of Carl Linnaeus (some donated to UUZM in 1745); collections united at Drottningholm in 1773 (Museum Drottningholmslens); generally, the king's collection (essentially specimens in alcohol) was transferred to Kungliga Vetenskapsakademien [Royal Swedish Academy of Sciences] (KVA) in 1801 and the queen’s collection was transferred to Uppsala Universitet (UUZM) in 1803; KVA collections formally transferred to Naturhistoriska riksmuseet (NRM) in 1848. Also as: MDR, MP. See also: NRM, UUZM. Sweden.


1506. MHN: Musée d’Histoire Naturelle de Fribourg, Université de Fribourg, Fribourg [Freiburg]. Current as:
MHNF (fossils). Fribourg. Switzerland.


1508. CMK: Private collection of Maurice Kottelat, Delémont [previously as Cornol]. Current as: CMK. See also: ZSM/CMK. Jura. Switzerland.


1510. EAWAG: Eidgenössische Anstalt für Wasserversorgung, Abwasserreinigung und Gewässerschutz [Swiss Federal Institute of Aquatic Science and Technology], Kastanienbaum. Lucerne. Switzerland.

1511. LCFM: Musée d’histoire naturelle, La Chaux-de-Fonds. Also as: MHNC, MHNCF. Neuchâtel. Switzerland.


1517. PIMUZ: Paläontologisches Institut und Museum der Universität Zürich, Zürich [Zurich]. Current as: PIMUZ (fossils). Also as: PIMUT (fossils). See also: ZMZ. Zürich. Switzerland.


1520. ZMZ: Zoologisches Museum der Universität Zürich, Zürich [Zurich]. Obsolete as: SH, ZMUZ. Current as: ZMZ. See also: PIMUZ (fossils). Zürich. Switzerland.


1522. NTHUB: National Tsing Hua University, Department of Life Science, Hsinchu. Hsinchu County. Taiwan.

1523. NSYU: National Sun Yat-sen University, Institute of Marine Biology, Kaohsiung. Current as: NSYU (fishes). Also as: NSYSU. Kaohsiung City. Taiwan.

1524. FRIP: Taiwan Fisheries Research Institute, Keelung City. Note: descended in part from Freshwater Aquaculture Experiment Station, Hsiashi and Marine Aquaculture Experiment Station, Taiwan. Obsolete as: TFRI (occupied in entomology by Taiwan Forestry Research Institute, Taipei). Current as: FRIP. See also: TFRI-SS. Keelung City. Taiwan.


1526. NTOU: National Taiwan Ocean University, College of Life Sciences, Institute of Marine Biology, Keelung City. Note: maintained separately from TOU-AE collection at same institution. Current as: NTTO P, NTOP (fishes). Keelung City. Taiwan.

1527. TOU-AE: National Taiwan Ocean University, Laboratory of Aquatic Ecology, Department of Aquaculture, Keelung City. Note: maintained separately from NTOU collection at same institution. Current as: TOU-AE (fishes). Keelung City. Taiwan.

1528. MTP: Fish Collection, Matsu [Mazu] Islands, LiENCHIANG [Lianjiang] County, Fujian Province. LiENCHIANG County. Taiwan.


1530. CUP: Catholic University Peking, New Taipei City [Xinbei]. Note: fossil herps incorporated into Field Museum of Natural History (FMNH PR), New Taipei City. Taiwan.


1533. NMNS: National Museum of Natural Science, Taichung. Includes: some herps from Tonghai [Tunghai] University (THUP), but apparently not type specimens (e.g., Takydromus hsuehshanensis). Current as: NMNS (herps, fossils), NMNSF (fishes). Taichung City. Taiwan.

1534. THUP: Tonghai [Tunghai] University, Science College, Department of Life Science, Systematics and Evolutionary Biology Laboratory [formerly Department of Zoology], Taichung City. Note: fishes transferred to National Museum of Marine Biology & Aquarium (NMMB) in 2004; disposition of herps unknown, although some non-type specimens deposited at National Museum of Natural Science (NMNS). Also as: TURL (herps). Taichung City. Taiwan.


1536. BSRT: Bureau of Scientific Researches of the Governor-General of Taiwan [Formosa], Taihoku [Taipei City]. Note: no longer extant; collection assembled by Masamitsu Oshima (1884–1965) who was also associated with the Bureau of Civil Engineering and later with the Museum of the Institute of Science, Government of Formosa (ISFM, ISM, MISGF); status of herps cited from “Bureau of Scientific Researches” by Oshima (1910) unknown except holotype of Psammodynastes compressus possibly extant at National Museum of Nature and Science, Tokyo (NSMT). See also: MST, NTM. Taipei City. Taiwan.

1537. MST: Medical School of the Governor-General of Taiwan [Formosa], Taihoku [Taipei City]. Note: established in 1899; renamed Medical College of the Governor-General of Taiwan in 1919 and Taihoku Medical College in 1922; status of herp collection cited by Oshima (1910) unknown. See also: BSRT, NTM. Taipei City. Taiwan.

1538. NTM: National Taiwan Museum, Zhongzheng
<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
<th>Location/Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>1539.</td>
<td>NTNADB:</td>
<td>National Taiwan Normal University, Department of Life Science.</td>
</tr>
<tr>
<td>1540.</td>
<td>NTM:</td>
<td>National Taiwan University Museums, Institute of Zoology, Taipei City.</td>
</tr>
<tr>
<td>1541.</td>
<td>TARI:</td>
<td>Taiwan Agricultural Research Institute, Taichung City.</td>
</tr>
<tr>
<td>1542.</td>
<td>TFRI-TT:</td>
<td>Taiwan Fisheries Research Institute, Taichung Branch museum.</td>
</tr>
<tr>
<td>1543.</td>
<td>EAMFRO:</td>
<td>East African Marine Fisheries Research Organization.</td>
</tr>
<tr>
<td>1544.</td>
<td>KMH:</td>
<td>Private collection of Kim M. Howell.</td>
</tr>
<tr>
<td>1545.</td>
<td>MUCE:</td>
<td>Mkwawa University College of Education, Department of Life Sciences, Iringa.</td>
</tr>
<tr>
<td>1548.</td>
<td>RRBP:</td>
<td>Rukwa Rift Basin Project.</td>
</tr>
<tr>
<td>1550.</td>
<td>SRI:</td>
<td>Serengeti Wildlife Research Centre, Serengeti National Park (SNP).</td>
</tr>
<tr>
<td>1551.</td>
<td>TAFIRI:</td>
<td>Tanzania Fisheries Research Institute, Mwanza Centre on Lake Victoria.</td>
</tr>
<tr>
<td>1552.</td>
<td>UDASM:</td>
<td>University of Dar es Salaam, Dar es Salaam.</td>
</tr>
<tr>
<td>1554.</td>
<td>CUMZ:</td>
<td>Chulalongkorn University, Museum of Zoology, Bangkok.</td>
</tr>
<tr>
<td>1555.</td>
<td>KUMF:</td>
<td>Kasetsart University, Faculty of Agriculture, Museum of Fisheries, Bangkok.</td>
</tr>
<tr>
<td>1556.</td>
<td>LBSWU:</td>
<td>Laboratory, Department of Biology, Srinakarinwirot University, Bangkok.</td>
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<tr>
<td>1557.</td>
<td>MFLB:</td>
<td>Marine Fisheries Laboratory, Department of Fisheries, Bangkok.</td>
</tr>
<tr>
<td>1558.</td>
<td>NIFI:</td>
<td>National Inland Fisheries Institute, Fish Taxonomy Division, Bangkok.</td>
</tr>
<tr>
<td>1559.</td>
<td>QSMI:</td>
<td>Queen Saovabha Memorial Institute, Thai Red Cross Society, Bangkok.</td>
</tr>
<tr>
<td>1560.</td>
<td>RLIKU:</td>
<td>Research Laboratory of Ichthyology, Kasetsart University, Bangkok.</td>
</tr>
<tr>
<td>1561.</td>
<td>TF:</td>
<td>Bureau of Fossils Research and Geological Museum, Department of Mineral Resources (DMR), Ministry of Natural Resources and Environment, Ratchawet, Bangkok. Also known as: Central Geological Museum, DMR Head Office. Formerly: Museum of Rocks and Minerals (1948–1976). Note: Department of Mineral Resources oversees several museums including Sirindhorn Museum (SM) and Phu Wiang Dinosaur Museum, Nai Muang, Khon Kaen. Current as: TF (fossils). Also as: PW (fossils). See also: SM.</td>
</tr>
<tr>
<td>1562.</td>
<td>TISTR:</td>
<td>Thailand Institute for Scientific and Technological Research, Ministry of Science and Technology, Bangkok.</td>
</tr>
<tr>
<td>1563.</td>
<td>ZMKU:</td>
<td>Zoological Museum Kasetsart University, Department of Zoology, Faculty of Science. Includes: questionably includes specimens cited as NRCT (National Research Council of Thailand), a government agency with headquarters on the university campus. Current as: ZMKU AM (amphibians), ZMKU R (reptiles). See also: KUMF, RLKU (both fishes).</td>
</tr>
<tr>
<td>1564.</td>
<td>MARNM:</td>
<td>Maejo Aquatic Resources Natural Museum, Maejo University, Nong Han.</td>
</tr>
<tr>
<td>1565.</td>
<td>SM:</td>
<td>Sirindhorn Museum, Sahat Sakhan. Also known as: Phu Kum Khao Dinosaur Museum; Sirindhorn Dinosaur Museum; Sahat Sakhan Dinosaur Research Centre, Department of Mineral Resources (DMR), Ministry of Natural Resources and Environment. Current as: SM (fossils). Also as: TF (Thai fossils generally held by Department of Mineral Resources with headquarters in Bangkok). See also: TF (fossils).</td>
</tr>
<tr>
<td>1566.</td>
<td>PRC:</td>
<td>Paleontological Research and Education</td>
</tr>
</tbody>
</table>


1574. PSUZC: Prince of Songkla University, Zoological Collection. Also known as: The Fifty Year Anniversary of Princess Maha Chakri Sirindhorn Natural History Museum. Current as: PSUZC-RT (Reptile Section). Songkhla. Thailand.


1577. CAREC: Caribbean Epidemiology Centre, Federation Park. Formerly: Trinidad Regional Virus Laboratory (TRVL). Current as: CAREC (herps). Trinidad. Trinidad & Tobago.

1578. CGM: Coast Guard Museum, Chaguaramas. Note: collections of fishes and marine invertebrates by staff. Current as: CGM (fishes). Trinidad. Trinidad & Tobago.


1587. HUIC: Hacettepe Üniversitesi [Hacettepe University], Faculty of Science, Department of Biology, Ichthyological Collection, Ankara. Current as: HUIC (fishes). See also: CGE. Ankara. Turkey.


1592. DUM: Dicle Üniversitesi, Fen Fakültesi, zooloji müzesi [Dicle University, Faculty of Science, Zoological Museum], Diyarbakır [Diyarbakır]. Diyarbakır [Diyarbakır]. Turkey.

1593. IFC-ESUF: Inland Fishes Collection, Eğdir'dir Su ürünleri Fakültesi [Faculty of Fisheries], Süleyman Demirel Üniversitesi [Süleyman Demirel University], Isparta. Current as: IFC-ESUF (fishes). See also: SCFK-SDU. Isparta. Turkey.

1594. SCFK-SDU: Private collection of Fahrettin Küçük, Eğdir'dir Su ürünleri Fakültesi [Faculty of Fisheries], Süleyman Demirel Üniversitesi [Süleyman Demirel University], Isparta. See also: IFC-ESUF. Isparta. Turkey.


1596. ESFM: Ege Üniversitesi, Su Ürünleri Fakültesi [Ege University, Faculty of Fisheries], Bornova, İzmir [İzmir]. Current as: ESFM or ESFM-PSI (inland water fish collection, Faculty of Fisheries). See also: ZDEU (herps). İzmir [İzmir]. Turkey.

1596.5. NHVUJC: (see Addendum)

1597. ZDEU: Sistematik Zooloji, Ege Üniversitesi [Zoology Department, Ege University], Bornova, İzmir [İzmir]. Note: museum founded in 1961. Obsolete as: SZE (herps). Current as: ZDEU (herps). See also: ESFM (inland water fish collection, Faculty of Fisheries). İzmir [İzmir]. Turkey.


1600. KZL: Department of Biology, Faculty of science,
Zoology, National Academy of Sciences of Ukraine (IZAN, and Paleontological departments were part of Institute of Zoology (IZAN) included Zoological and Zoological museum established in 1919; from 1939–1998, Current as: ZMZU. Chernihiv. Ukraine.


1610. ZMDU: Zoological Museum, Oles Honchar Dnipro National University, Dnipro [ex Dnipropetrovsk]. Also known as: Dnipropetrovsk State University. Current as: ZMDU. Dnipropetrovsk. Ukraine.


1613. MNKhU: Museum of Nature at V.N. Karazin Kharkiv National University [Karazin University], Kharkiv [Kharkov]. Includes: Zoological Cabinet of Imperial Kharkiv University (ZCikU). Obsolete as: KSU (Kharkov State University), MNKhU, MPKhU, ZCikU, ZDKU. Current as: MNKhU. Also as: MNKNU (herps). Kharkiv. Ukraine.


1619. ZMLG: Luhansk Taras Shevchenko National University, Starobilsk [ex Lugansk]. Also known as: University of Luhansk. Current as: ZMLG. Luhansk. Ukraine.


1624. ZMOU: Zoological Museum, I. Mechnikov Odessa National University, Odessa. Also known as: Brauer Zoological Museum (BZM). Obsolete as: ONUZM. Current as: ZMOU. Odessa. Ukraine.


1627. ZMTPU: Ternopil Volodymyr Hnatyuk National Pedagogical University, Ternopil. Current as: ZMTPU. Ternopil. Ukraine.


1634. ADIAS: Abu Dhabi Islands Archaeological Survey
<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
<th>Location</th>
<th>Type</th>
<th>Notes</th>
</tr>
</thead>
</table>
| 1637 | AGT | Alfred Gillett Trust Fossil Collection, Street, Somerset | United Kingdom | Current as: AGT (fossils). England. United Kingdom.
| 1639 | BMAG | Bristol Museum and Art Gallery, Bristol | United Kingdom | Current as: BMAG (fishes, fossils), CBMAG (herps). Also as: BRSMG (fossils), BCMAG (birds). England. United Kingdom.
| 1642 | BRUG | University of Bristol, Department of Earth Sciences, Bristol | United Kingdom | Current as: BRUSG (fossils). England. United Kingdom.
| 1647 | FPM | Museum of Natural History and Pathological Anatomy, Fort Pitt, Chatham | United Kingdom | Also known as: Natural History Museum of the Army Medical Department (Burton 1838). Note: human anatomical museum established in 1814, natural history specimens separated in 1829; cited as “Military medical Museum in Chatham” by Valenciennes (1839:47); museum relocated to Royal Army Medical Department (R.A.M.) at Royal Victoria Hospital in Netley ca. 1862 (no longer extant); some specimens (bearing R.A.M. labels) eventually transferred to NHMUK (see Carter & Dolan 1978). Also as: AMSC. England. United Kingdom.
| 1649 | HLM | Holophusicon: The Leverian Museum, London | United Kingdom | Note: natural history and ethnographic collection assembled by Ashton Lever (1729–1788); located first at Leicester House on Leicester Square (1775–1786), then Blackfriars Bridge where it was often known as the Museum Leverianum; auctioned in 1806 and purchased by several museums, including Naturhistorisches Museum, Wien (NMW). England. United Kingdom.
| 1651 | HMG | Haslar Medical Museum, Royal Naval Hospital, Gosport | United Kingdom | Note: collections transferred to Natural History Museum, London (NHMUK). England. United Kingdom.
| 1660 | MIWG | Dinosaur Isle Museum, Sandown, Isle of Wight | United Kingdom | Note: Britain Museum (Natural History). Includes: British Museum (Natural History). Current as: MIWG (fossils) or IWCMS (fossils) from 1994 onwards, Isle of Wight County Museums Service. England. United Kingdom.
| 1664 | OUM | Oxford University Museum of Natural History, Oxford | United Kingdom | England. United Kingdom.


1668. RNHG: Royal Naval Hospital Gillingham, Medical Museum, Chatham, London. Note: erroneously cited as repository for parallectotype of Carcharhinus falciformis (Müller & Henle 1839) which was originally deposited at Museum of Natural History and Pathological Anatomy, Fort Pitt, Chatham (FPM). England. United Kingdom.


1676. BELUM: The Ulster Museum, Department of Natural Sciences, Belfast, Northern Ireland. United Kingdom.


1693. DINARA: Dirección Nacional de Recursos Acuáticos, Montevideo. Formerly: Instituto Nacional de Pesca (INAPE). Note: antecedents include Instituto de Pesca, created in 1911 for scientific purposes, renamed Servicio de Oceanografía y Pesca under the Dirección de la Armada in 1933 and replaced by Industrias Loberas y Pesquerías del


1698. AMRL: Alabama Marine Resources Laboratory, Dauphin Island. Alabama. USA.

1699. AUM: Auburn University Museum of Natural History, Auburn. Formerly: Alabama Polytechnic Institute (API). Includes: fish holotypes dual-accessioned at AUM and Center for the Study of Biological Diversity, University of Guyana (CSBD) to be repatriated to Guyana. Obsolete as: API, AU, UAHMLC, UA. Current as: AUM (fishes), AUFT (fish tissues), AUMP (fossils, Museum of Paleontology). Alabama. USA.


1701. SHCIC: Spring Hill College Ichthyological Collection, Mobile. Alabama. USA.


1703. UNOAL: University of Northern Alabama, College of Arts and Sciences, Department of Biology, Florence. Alabama. USA.

1704. USA: University of South Alabama, College of Arts and Sciences, Department of Biological Sciences, Mobile. Alabama. USA.

1705. UWAZ: The University of West Alabama, Zoology Collection, Livingston, AL. Current as: UWAZ (fishes). Also as: UWA (fossils). Alabama. USA.

1706. ABL: Auke Bay Laboratory, Alaska Fisheries Science Center (AFSC), National Marine Fisheries Service (NMFS), Division of National Oceanic and Atmospheric Administration (NOAA). Formerly: Northwest and Alaska Fisheries Center (NWFSC), descended from Northwest Fisheries Science Center (NWFSC). Obsolete as: NWFSC. Also as: ABML. Alaska. USA.

1707. UAF: University of Alaska, Juneau. Alaska. USA.


1709. ASU: Arizona State University, School of Life Sciences, Tempe. Includes: one-third of fish collection from University of Nevada, Las Vegas (UNLV). Current as: ASU. Arizona. USA.


1711. UAZ: University of Arizona, Museum of Natural History, Tucson. Obsolete as: UA. Also as: UAZ (fishes, herps). UALP (fossils, Laboratory of Paleontology). Arizona. USA.

1712. ASUMZ: Arkansas State University Museum of Zoology, State University. Note: collections unified under Arkansas Center for Biodiversity Collections (ACBC) in 2016. Current as: ASUMZ (fishes, herps). Arkansas. USA.

1713. ATFC: Arkansas Tech University Fish Collection, Department of Biological Science, Russellville. Arkansas. USA.

1714. SAU: Southern Arkansas University, Department of Biology, Magnolia. Formerly: Southern State College. Arkansas. USA.

1715. UAFMC: University of Arkansas Collections Facility, Fayetteville. Obsolete as: ARK. Current as: UAFMC. Arkansas. USA.

1716. WCC: Westark Community College Fish Collection, Fort Smith. Arkansas. USA.

1717. AHF: Allan Hancock Foundation, University of Southern California. Note: Fish types transferred to LACM, non-type collection remains at AHF. California. USA.

1718. CAS: California Academy of Sciences, San Francisco. Includes: fish from Department of Zoology, University of California, Berkeley (UCB teaching collection) and University of Nevada, Las Vegas (two-thirds of UNLV collection); specimens from George Vanderbilt Foundation (CAS-GVF) and Indiana University, Bloomington (CAS-IU); Stanford University (SU) collections of fishes (CAS-SU), amphibians (CAS-SUA) and reptiles (CAS-SUR). Note: during computerization, 100000 added to each SU catalog number (e.g., SU 12345 databased as CAS 112345), but may be cited as SU 12345 or CAS-SU 112345. Current as: CAS (fishes, herps, fossils). Also as: SU (Stanford University collections). California. USA.

1719. CCBER: University of California, Santa Barbara (UCSB), Cheadle Center for Biodiversity and Ecological Restoration. Obsolete as: UCSB. Current as: CCBER. California. USA.

1720. CSF: California State University, Fullerton. Note: historical specimens largely transferred to Natural History Museum of Los Angeles County (LACM) in 1986. California. USA.

1721. CSLB: California State University, Long Beach. Note: historical specimens largely transferred to Natural History Museum of Los Angeles County (LACM) in 1980s. Also as: CSULB. California. USA.

1722. CSKU: California State Polytechnic University,
Pomona. California. USA.

1723. CSUC: California State University, Chico. Current as: CSUC. California. USA.

1724. CSUN: California State University, Northridge. Current as: CSUN (fishes, herps). Also as: REE-CSUN (Robert E. Espinoza herp collection). California. USA.

1725. HSU: Humboldt State University, Arcata. Current as: HSU (fishes), HSUVM (herps). California. USA.

1726. LACM: Natural History Museum of Los Angeles County, Los Angeles. Includes: fishes presently at California State University, Fullerton (CSF), California State University, Long Beach (CSLB) and University of California at Los Angeles (UCLA; part of collection also to SIO); herps from Costa Rica Expeditions of Jay Savage (CRE); fossils from California Institute of Technology, Los Angeles (CIT). Note: The Robert J. Lavenberg Fish Collection formally named in 1998. Obsolete as: LACMNH. Current as: LACM (fishes, herps, fossils). California. USA.

1727. LLU: Loma Linda University, Department of Earth and Biological Sciences, Loma Linda. Current as: LLU (fossils). California. USA.

1728. LSUHC: La Sierra University Herpetological Collection, Riverside. Current as: LSUHC (herps). California. USA.

1729. MLML: Moss Landing Marine Laboratories, Moss Landing. California. USA.

1730. MLZ: Occidental College, Moore Laboratory of Zoology, Los Angeles. Also as: OC. California. USA.

1731. MVZ: Museum of Vertebrate Zoology, University of California, Berkeley. Includes: specimens donated by Milton Hildebrand, University of California, Davis (UCD, now MWFB); University of Nevada, Las Vegas (UNLV) herp collection transferred in 2009. Note: part of Berkeley Natural History Museums consortium (BNHM); fish collection associated with Department of Zoology, University of California, Berkeley (UCB) transferred to California Academy of Sciences (CAS). Obsolete as: UCMZ. Current as: MVZ (fishes, herps). See also: UCMP (fossils). California. USA.

1732. MWFB: Museum of Wildlife and Fish Biology, University of California, Davis. Note: historical collections donated in part by Milton Hildebrand to MVZ. Obsolete as: UCD. Current as: MWFB (fishes). See also: MVZ. California. USA.

1733. NMFSLJ: National Marine Fisheries Service La Jolla Laboratory, Ichthyoplankton Collection, La Jolla. Current as: NMFSLJ (fishes) & SWFSC (bar coded fish lots). California. USA.


1735. SBCM: San Bernardino County Museum, Earth Science Division, Redlands. Current as: SBCM (herps & fossils). California. USA.

1736. SBMNH: Santa Barbara Museum of Natural History, Santa Barbara. Current as: SBMNH (herps). California. USA.

1737. SCNHM: Sierra College Natural History Museum, Rocklin. Current as: SCNHM VAF (fossils). California. USA.


1739. SDSU: San Diego State University Museum of Biodiversity, San Diego. Also as: REE-SDSU (Richard E. Etheridge herp skeletal collection). California. USA.

1740. SFSU: San Francisco State University, Vertebrate Museum, San Francisco. California. USA.

1741. SIO: Scripps Institution of Oceanography, Marine Vertebrate Collection, University of California San Diego, La Jolla. Includes: fishes (mostly marine) transferred from UCLA in 2014 (part of UCLA fish collection also to LACM). Note: catalog number composed of year of accession (2 digits) followed by serial number (e.g., SIO 07-169). In error as: STO. Current as: SIO. California. USA.

1742. SJSU: San Jose State University, Museum of Vertebrate Zoology, San Jose. California. USA.

1743. SSU: Museum of Ectothermic Vertebrates, California State University, Sacramento. Formerly: Sacramento State College Museum of Natural History (SSCMNH). Obsolete as: SSUS, SSCMNH. Current as: SSU. California. USA.

1744. UCLA: University of California at Los Angeles, Los Angeles. Note: fish collection largely transferred to Natural History Museum of Los Angeles County (LACM) and Scripps Institution of Oceanography (SIO). California. USA.

1745. UCMP: University of California Museum of Paleontology, Berkeley. Note: part of Berkeley Natural History Museums consortium (BNHM). Obsolete as: MVZ. Current as: UCMP (fossils). See also: MVZ (fishes, herps). California. USA.

1746. VC: Ventura College Fish Collection, Department of Biology, Ventura. California. USA.


1748. CSTC: Colorado State Teachers College, Greeley. Also known as: State Normal School of Colorado. Note: institution currently known as University of Northern Colorado; status of collections unknown. Colorado. USA.

1749. CSU: Colorado State University, Colorado Cooperative Fish and Wildlife Research Unit, Fort Collins. Note: fishes distributed to various regional museums in 1980s–90s such as LFL (Larval Fish Laboratory). Colorado. USA.


1752. LFL: Larval Fish Laboratory Collection, Department of Fish, Wildlife and Conservation Biology, Warner College of Natural Resources, Colorado State University, Fort Collins. Includes: fishes from Colorado Cooperative Fish and Wildlife Research Unit (CSU). Colorado. USA.


1754. UCM: University of Colorado Museum of Natural History, Boulder. Colorado. USA.

1755. UCONN: University of Connecticut, Biodiversity Research Collections, Storrs. Obsolete as: UCS. Current as: UCONN. Connecticut. USA.

1756. WUM: Wesleyan University Museum, Middletown. Connecticut. USA.

YPM HERA (amphibians), YPM HERR (reptiles), YPM VP (fossils). Connecticut. USA.

1758. USFC: United States Fish Commission. Note: established in 1871; reorganized as United States Bureau of Fisheries in 1903 which merged with the Bureau of Biological Survey to form the US Fish and Wildlife Service (USFWS) in 1940; Bureau of Commercial Fisheries transferred from USFWS to Department of Commerce and renamed National Marine Fisheries Service (NMFS) controlled by the National Oceanic and Atmospheric Administration in 1970; original USFC collections largely at US National Museum of Natural History (USNM). See also: USNM. District of Columbia. USA.

1759. USNM: Smithsonian Institution, National Museum of Natural History (NMNH), Washington. Formerly: Smithsonian Institution Museum (SIM), Department of Vertebrate Zoology. Includes: fishes from United States Fish Commission (USFC); some fossil type specimens from Bowring Green State University (BGSU); fossils from Florida Geological Survey (FGS). Obsolete as: SIM, USNM. Current as: USNM (fishes, herps, fossils). Also as: NMNH (herps). District of Columbia. USA.

1760. FAU: Florida Atlantic University, Department of Biological Sciences, Boca Raton. Florida. USA.


1762. FSBC: Fish and Wildlife Research Institute (FWRI), Florida Fish and Wildlife Conservation Commission (FWC), St. Petersburg. Note: FWRI created in 2004 by integrating parts of the Division of Wildlife, Division of Freshwater Fisheries, and the Florida Marine Research Institute (FMRI); FMRI descended from Florida State Board of Conservation Marine Laboratory (FSBC) established in 1955 and administered by the Florida Department of Natural Resources (FDNR) from 1969–1993. Includes: Southeast Area Monitoring and Assessment Program (SEMAP) Ichthyoplankton Archiving Center. Obsolete as: FDNR, SAC (SEMAP Archiving Center), SEAP (pertains to locality data). Current as: FSBC (fishes), FWRI (tissues), SML (SEMAP ichthyoplankton collection). Florida. USA.

1763. FTU: Florida Technological University, Orlando. Florida. USA.

1764. GBERL: Gulf Breeze Environmental Research Laboratory, Gulf Breeze. Florida. USA.


1766. IU: Jackson State University, Fish Collection, Jackson. Florida. USA.

1767. PBMM: Palm Beach Museum of Natural History, Wellington. Current as: PBMM (fossils). Florida. USA.

1768. PCHPC: Peter C.H. Pritchard Collection hosted at the Chelonian Research Institute, Oviedo. Current as: PCHPC. Also as: PCHP. Florida. USA.


1770. SEFC: Southeast Fisheries Science Center, National Marine Fisheries Service (NMFS), Virginia Key, Miami. Formerly: Tropical Atlantic Biological Laboratory (TABL). Note: TABL fish collection mostly transferred to University of Florida (UF) in 1972–1973 and 1995; specimens also at the Academy of Natural Sciences of Philadelphia (ANSP) and US National Museum of Natural History (USNM). See also: UF. Florida. USA.

1771. UCF: University of Central Florida, Fish Collection, Orlando. Florida. USA.

1772. UF: University of Florida, Florida Museum of Natural History (FLMNH), Gainesville. Formerly: Florida State Museum (FSM) until 1988. Includes: fish collections transferred from Butler University, Indianapolis (BU, BUI), Florida State University, Tallahassee (FSU), Indian River Coastal Zone Museum, Harbor Branch Foundation, Fort Pierce (IRCZM), National Marine Fisheries Service, Gulf Coastal Fisheries Center, Panama City (NMFSPC), Tropical Atlantic Biological Laboratory (TABL), University of Miami, Coral Gables (UMIM, UMRC) and University of Miami Rosenstiel School of Marine and Atmospheric Science (UMML); fossils from Florida Geological Survey (FGS). Note: 200000 added to each UMML catalog number (e.g., UMML 12345 databased as UF 212345). Obsolete as: FLMNH, FNHM, FSM, UF-FSU. Current as: UF (fishes, herps, fossils). Florida. USA.

1773. USF: University of South Florida, Fish Collection, Tampa. Note: collection started by John C. Briggs in 1970s and continued by Philip Motta; Leviton et al. (1985:819) alternatively applied USF to University of South Florida, Department of Marine Science, St. Petersburg. Florida. USA.

1774. UWF: University of West Florida, Pensacola. Florida. USA.

1775. CCK: Columbus State University, Columbus. Current as: CCK (fossils, Cretaceous research collections). Georgia. USA.

1776. GMNH: Georgia Museum of Natural History, University of Georgia, Athens. Includes: D.S. Scott Ichthyology Collection. Obsolete as: UG, UGAMNH. Current as: GMNH (fishes, herps). Georgia. USA.

1777. GSU: Georgia Southern University, Statesboro. Includes: herpetology collection transferred from Savannah Science Museum (SSM) in 1999. Georgia. USA.


1779. UH: University of Hawaii, Honolulu. Note: fish types largely transferred to BPBM, some to US National Museum of Natural History (USNM). Hawaii. USA.


1781. UIM: University of Idaho, Museum of Natural History, Moscow. Idaho. USA.


1784. FMNH: Field Museum of Natural History, Chicago. Formerly: Chicago Natural History Museum (CNHM). Includes: fishes from University of Indiana (IU), fossil herps from the Academy of Natural Sciences of Philadelphia (ANSP) and US National Museum of Natural History (USNM). See also: UF. Florida. USA.
Current as: FMNH (fishes, herps, geological slide collection), FMNH PF (fossil fishes), FMNH PR (fossil herps), FMNH UF (Walker Museum fossil fishes), FMNH UR (Walker Museum fossil herps). Illinois. USA.

1785. GNHL: The Grove National Historic Landmark, Glenview Park District. Illinois. USA.

1786. INHS: Illinois Natural History Survey, University of Illinois at Urbana-Champaign, Champaign. Note: descended in part from Illinois State Laboratory of Natural History (ISLHN). Includes: fish & herp collections of the University of Illinois Museum of Natural History (UIMNH; herps retain UIMNH catalog numbers); fish & herp collections from Southern Illinois University Carbondale (SIUC) and fish collections from Southern Illinois University Edwardsville (SIUE), Kentucky Department of Fish & Wildlife Resources, Frankfort (KFW), Murray State University, Kentucky (MSUKY) and University of Louisville, Kentucky (UL), all transferred from SIUC in July 2015. Current as: INHS (fishes, herps). UIMNH (herps from University of Illinois Museum of Natural History). Illinois. USA.

1787. ISM: Illinois State Museum, Springfield. Illinois. USA.


1789. IWU: Illinois Wesleyan University, Bloomington. Current as: IWU (herps). Illinois. USA.

1790. LUC: Department of Biology, Loyola University Chicago, Chicago. Current as: LUC (teaching & research collection). Also as: LU D (fishes, developmental collection). Illinois. USA.

1791. NIU: Northern Illinois University, Dekalb. Illinois. USA.

1792. UCRC: University of Chicago Research Collection, Chicago. Current as: UCRC (fossils). Also as: UCPC (Paleontological Collection). Illinois. USA.

1793. BU: Butler University, Indianapolis. Note: historical fish collection (1874–1892) transferred in part to University of Florida (UF). Also as: BUI. Indiana. USA.


1795. ISU: Indiana State University, Terre Haute. Also as: ISUVC (mammals). Indiana. USA.

1796. IU: Indiana University, Bloomington. Note: old zoological collection destroyed by fire in July 1883 or transferred primarily to California Academy of Sciences (CAS-IU), Field Museum of Natural History (FMNH), University of Michigan (UMMZ) and US National Museum of Natural History (USNM); fish collection of Shelby Gerking and others (1940s Indiana State surveys) transferred to Ohio State University (OSUM). Also as: IUM. Indiana. USA.

1797. PUL: Purdue University, Department of Forestry and Natural Resources, Lafayette. Indiana. USA.

1798. DURC: Drake University Research Collection, Des Moines. Current as: DURC (herps). Iowa. USA.

1799. GC: Grinnell College Biology Department, Fish Collection, Grinnell. Iowa. USA.


1804. KU: University of Kansas Biodiversity Institute, Lawrence. Formerly: Museum of Natural History (retained for public unit of institute). Obsolete as: KUMNH, KUNHM (fishes), UKMNH (herps). Current as: KUI (fishes), KUIT (fish tissues), KUH (herps), KUVP (fossils). Kansas. USA.

1805. WSU: Wichita State University Fish Collection, Wichita. Kansas. USA.

1806. EKU: Eastern Kentucky University, Department of Biological Sciences, Branley A. Branson Museum of Zoology, Richmond. Obsolete as: EUK. Current as: EKU (fishes, herps). Kentucky. USA.

1807. MOSU: Morehead State University, Morehead. Current as: MOSU. Kentucky. USA.

1808. TMCF: Thomas More College Field Station, California. Includes: fishes received from ORSANCO. Current as: TMCS. Kentucky. USA.

1809. UKEN: University of Kentucky, Lexington. Kentucky. USA.

1810. LSUM: Louisiana State University Museum of Natural Science (LSUMNS), Baton Rouge. Note: part of Louisiana Museum of Natural History established in 1999. Includes: original herp collection (pre-1990) of Southeastern Louisiana University (SLU); 80% of herp collection from Tulane University Museum of Natural History (TU), transferred in 2011. Obsolete as: LSUMZ (amphibians). Current as: LSUMG (Geology Collections, fossils), LSUMZ (Zoology Collections, fishes, herps). Louisiana. USA.

1811. LSUS: Louisiana State University in Shreveport, Museum of Life Sciences, Shreveport. Louisiana. USA.

1812. LTU: Louisiana Tech University Museum of Vertebrate Zoology, Ruston. Louisiana. USA.

1813. LWF: Grand Isle Fisheries Research Lab, Louisiana Department of Wildlife and Fisheries, Grand Isle. Formerly: Lyle S. St. Amant Marine Biological Laboratory. Louisiana. USA.

1814. NLU: University of Louisiana at Monroe, Museum of Natural History, Monroe. Formerly: Northeast Louisiana University. Also as: NLM. Louisiana. USA.

1815. NOAS: New Orleans Academy of Science, New Orleans. Note: museum active from establishment in 1853 to 1861, but collections scattered during the Civil War; surviving botanical and geological specimens transferred to the original Tulane University Museum of Natural History (TU) ca. 1885. Current as: NOAS (fossils). Louisiana. USA.

1816. SLU: Southeastern Louisiana University, Vertebrate Museum, Hammond. Includes: 20% of herp collection from Tulane University Museum of Natural History (TU), transferred in 2011; fish and herp collections of University of New Orleans (UNOVC) to be acquired. Note: original herp collection moved to LSUMZ ca. 1990. Current as: SLU (fishes, herps). Louisiana. USA.

1817. TU: Royal D. Suttkus Fish Collection, Tulane University.
University Biodiversity Research Institute (TUBRI), Belle Chase. Includes: fishes formerly held by Systematics and Environmental Laboratory established in 1968 at the F. Edward Hebert Riverside Research Laboratories, Belle Chase, which became the new Tulane University Museum of Natural History (TUMNH) in 1976. Note: original TU Museum of Natural History established in 1885 and closed/disbanded from 1952 to 1957; in 2011, herp collection transferred to Louisiana State University Museum of Natural Science, Baton Rouge (LSUMZ, ca. 80%) and Southeastern Louisiana University (SLU, ca. 20%). Current as: TU (fishes). Louisiana. USA.


1819. UNOVC: University of New Orleans vertebrate collection, Department of Biological Sciences, New Orleans. Note: fish and herp collections to be transferred to Southeastern Louisiana University (SLU). Also as: UNO. Louisiana. USA.

1820. BCB: Bowdoin College, Fish Collection, Brunswick. Maine. USA.

1821. UMO: University of Maine, Department of Zoology, Orono. Includes: Ira C. Darling Center Ichthyological Collection. Maine. USA.

1822. UNE: University of New England, Teaching and Research Fish Collection, Biddeford. Formerly: Saint Francis College. Maine. USA.

1823. CBL: Chesapeake Biological Laboratory, University of Maryland, Solomons. Note: part of fish collection transferred by Frank Schwartz to UNC-IMS (specimens now at North Carolina Museum of Natural Sciences, NCSM), remainder of CBL fish collection to Virginia Institute of Marine Science (VIMS). Maryland. USA.


1826. BSNH: Boston Society of Natural History [now Boston Museum of Science]. Note: extant specimens now at Museum of Comparative Zoology (MCZ). Massachusetts. USA.

1827. BU: Boston University Collection, Boston. Note: some fishes at Gray Museum (GMWH). Massachusetts. USA.

1828. EIS: Essex Institute, Salem. Note: founded in 1848; natural history collections no longer extant; some herps at Museum of Comparative Zoology (MCZ). Massachusetts. USA.

1829. GMWH: Gray Museum, Marine Biological Laboratory Fish Collection, Woods Hole. Includes: part of Boston University Collection (BU). Massachusetts. USA.

1830. MCZ: Museum of Comparative Zoology, Harvard University, Cambridge. Includes: collections of the Boston Museum which had been given to the Boston Society of Natural History (BSNH) in 1893 and 1899; Woods Hole Oceanographic Institution fish collection (WHOI). Obsolete as: MCZH. Current as: MCZ (fishes, herps), MCZ-VP (fossils). Massachusetts. USA.

1831. MNHC: Massachusetts Natural History Collections, University of Massachusetts, Amherst. Includes: collection transferred from Massachusetts Board of Agriculture, Boston, in 1866. Obsolete as: UMA. Current as: MNHC. Massachusetts. USA.

1832. UMD: University of Massachusetts Dartmouth, Fish Collection, North Dartmouth. Formerly: Southeastern Massachusetts University (SMU). Massachusetts. USA.

1833. USBCF: United States Bureau of Commercial Fisheries, Biological Laboratory, Woods Hole. Note: original collection now mostly at US National Museum of Natural History (USNM). Also as: USBE. Massachusetts. USA.


1835. MSUM: Michigan State University Museum, East Lansing. Obsolete as: MSU, MSUF. Current as: MSUM (fishes), MSUVP (fossils). Michigan. USA.

1836. UMMP: University of Michigan Museum of Paleontology, Ann Arbor. Includes: some fossil type specimens from Bowling Green State University (BGSU). Obsolete as: UM. Current as: UMMP (fossils). See also: UMMZ (Recent fishes, herps). Michigan. USA.


1838. JFBM: James Ford Bell Museum of Natural History, University of Minnesota, Minneapolis. Current as: JFBM (fishes, herps). See also: UMMP (fossils). Minnesota. USA.


1840. UMVP: University of Minnesota, Department of Earth Sciences, Vertebrate Paleontology Collections, Minneapolis. Note: paleontology collections transferred to Cincinnati Museum Center (CMC) in 2018. Current as: UM, UMVP (fossils). See also: JFBM (Recent fishes, herps). Minnesota. USA.

1841. GCRL: Gulf Coast Research Laboratory, The University of Southern Mississippi, Ocean Springs. Note: some specimens moved to University of Southern Mississippi (USM). Also as: GCRLM. Mississippi. USA.

1842. MMNS: Mississippi Museum of Natural Science, Jackson. Formerly: Fanny A. Cook Memorial Museum. Note: some Cook fish specimens at FMNH, USNM, AMNH. Current as: MMNS (fishes, herps). Mississippi. USA.

1843. MSU: Mississippi State University, Mississippi State. Mississippi. USA.

1844. UMS: University of Mississippi, Oxford. Mississippi. USA.

1845. USM: University of Southern Mississippi, Department of Biological Sciences, Museum of Ichthyology, Hattiesburg. Also as: USMS, USMI. Mississippi. USA.

1846. ASSL: Academy of Science of St. Louis, St. Louis. Missouri. USA.

1847. JH: Private collection of Julius Hurter, St. Louis. Missouri. USA.

1848. MDC: Missouri Department of Conservation, Columbia. Missouri. USA.

1849. NEMS: Northeastern Missouri State University, Department of Zoology, Kirksville. Missouri. USA.

1850. STL: St. Louis University, St. Louis. Current as: STL (fishes). Missouri. USA.

1851. UMKC: University of Missouri, Kansas City. Missouri. USA.

1852. UMOC: University of Missouri, Museum of Zoology, Columbia. Obsolete as: UMoMZ. Missouri. USA.

1853. FLBS: Flathead Lake Biological Station, Lake County. Obsolete as: FLBS (fishes). Montana. USA.

1854. MOR: Museum of the Rockies, Bozeman. Note:
affiliated with Montana State University. Current as: MOR (fossils). See also: MSUB (Biology Department). Montana. USA.

1855. MSUB: Montana State University, Biology Department, Bozeman. See also: MOR. Montana. USA.

1856. UMZM: Philip L. Wright Zoological Museum, University of Montana, Missoula. Note: nearly all fish specimens donated to Idaho Museum of Natural History (IMNH) in 2015. Obsolete as: MV, UMM. Current as: UMZM. Montana. USA.

1857. UNO: University of Nebraska at Omaha, Omaha. Nebraska. USA.

1858. UNSM: University of Nebraska State Museum, Lincoln. Obsolete as: UN. Current as: UNSM (fishes, fossils). Also as: SNR-UNL (School of Natural Resources teaching and research collections). Nebraska. USA.


1861. UNLV: University of Nevada, Las Vegas, Paradise. Also as: MBM (Marjorie Barrick Museum); LVT (tissue collection). Note: herp collection transferred to Museum of Vertebrate Zoology, University of California (MVZ) in 2009; two-thirds of fish collection transferred to California Academy of Sciences (CAS) and one third to Arizona State University (ASU). Nevada. USA.


1863. DCM: Dartmouth College Museum, Fish Collection, Hanover. New Hampshire. USA.


1865. NMFC: Newark Museum, Fish Collection, Newark. New Jersey. USA.


1867. SHML: Sandy Hook Marine Laboratory, National Marine Fisheries Service, Highlands. Note: destroyed by fire in 1985; rebuilt as James J. Howard Marine Sciences Laboratory. New Jersey. USA.

1868. ENMU: Eastern New Mexico University, Portales. New Mexico. USA.


1870. MDM: Mesalands Dinosaur Museum and Natural Sciences Laboratory, Tucumcari. New Mexico. USA.

1871. MSB: Museum of Southwestern Biology, Department of Biology, University of New Mexico, Albuquerque. Includes: fishes from US Geological Survey (USGS), Fort Collins (historically cited as BS/FC and now recataloged with MSB numbers). Obsolete as: UNM (but still in use for herp specimen tags). Current as: MSB (fishes, herps). New Mexico. USA.


1873. NMSU: New Mexico State University, University Park. New Mexico. USA.

1874. WNNU: Western New Mexico University, Silver City. New Mexico. USA.

1875. AMNH: American Museum of Natural History, New York. Includes: herp collection from Texas AM University-Kingsville (formerly Texas A & I University, TAI, TAIC), type specimens from Vanderbilt Marine Museum (VMM); fossils belonging to the Republic of Mali transferred from Stony Brook University in 2019 (CNRST-SUNY). Current as: AMNH. Also as: F:AM (fossils, Frick Collection), AMNH FF (fossil fishes), AMNH FR (fossil herps). New York. USA.

1876. BSGLC: Buffalo State Great Lakes Center, Buffalo. New York. USA.

1877. CAD-SBU: Cheikh Anta Diop–Stony Brook University Collection, Department of Anatomical Sciences, Stony Brook University. Current as: CAD-SBU (fossil fishes). See also: CNRST-SUNY (fossils). New York. USA.

1878. CUMV: Cornell University Museum of Vertebrates, Ithaca. Current as: CUMV. Also as: CU (retained on specimen labels). New York. USA.

1879. LINHM: Long Island Natural History Museum, Levittown. Note: fossil collection assembled by Bryan J. Maden, Department of Biological Sciences and Geology, Queensborough Community College, Bayside. Current as: LINHM (fossils). New York. USA.


1881. NYSM: New York State Museum, Albany. Formerly: New York State Geological and Natural History Survey (1836–1870); Also as “State Collection” in early references to specimens collected during 1836–1840 surveys and now lost. Current as: NYSM. New York. USA.


1883. UR: Department of Earth and Environmental Sciences, University of Rochester, Rochester. Current as: UR (fossils). New York. USA.

1884. VMM: Suffolk County Vanderbilt Museum, Centerport. Formerly: Vanderbilt Marine Museum. Note: most type specimens transferred to American Museum of Natural History (AMNH). New York. USA.

1885. APPZ: Appalachian State University, Boone. Note: part of herp collection transferred to North Carolina Museum of Natural Sciences (NCSM) in 2014. Obsolete as: ASUC. Current as: APPZ (fishes, herps). North Carolina. USA.

1886. DPC: Duke University, Duke Lemur Center, Division of Fossil Primates, Durham. Current as: DPC (fossils). See also: DU. North Carolina. USA.

1887. DU: Duke University, Vertebrate Collection, Durham. Note: fishes transferred to The Academy of Natural Sciences of Philadelphia (ANSP) and North Carolina Museum of Natural Sciences (NCSM). Also as: DUF, DU F (fishes). See also: DPC. North Carolina. USA.
1888. **NCSC** (fossils): North Carolina Museum of Natural Sciences, Raleigh. Formerly: North Carolina State Museum. Includes: fishes from Duke University (DU), University of North Carolina at Chapel Hill, Institute of Marine Sciences (UNC/ UNC-IMS), including fishes formerly at CBL, GSMN and West Virginia University) and Western Carolina University; fish collection assembled by Rudy Arndt at Stockton State College, NJ, transferred ca. 2002; fishes and herps from the Charleston Museum (ChM); herps from Appalachian State University (APPZ). Current as: NCSC (fossils). North Carolina. USA.


1890. **UNC**: University of North Carolina at Chapel Hill, Institute of Marine Sciences, Morehead City. Note: fishes transferred to North Carolina Museum of Natural Sciences (NCSC) in 1996. Also as: UNC-IMS. North Carolina. USA.


1892. **UNC**: University of North Carolina at Greensboro, Greensboro. North Carolina. USA.

1893. **UNCW**: University of North Carolina Wilmington, Department of Biological Sciences, Wilmington. North Carolina. USA.


1895. **PTRM**: Pioneer Trails Regional Museum, Bowman. Current as: PTRM (fossils). North Dakota. USA.


1897. **BGSU**: Department of Geology, Bowling Green State University, Bowling Green. Note: fossil type specimens transferred to US National Museum of Natural History (USNM), Orton Geological Museum, Ohio State University (OSU) and University of Michigan Museum of Paleontology (UMMP). Current as: BGSU (fossils). Ohio. USA.


1899. **CMNH**: Cleveland Museum of Natural History, Vertebrate Zoology, Cleveland. Ohio. USA.

1900. **DATM**: Dayton Museum of Natural History, Dayton. Ohio. USA.

1901. **OCM**: Oberlin College, Faculty of Arts and Sciences, Department of Biology, Museum, Oberlin. Ohio. USA.

1902. **ORSANCO**: Ohio River Valley Water Sanitation Commission Ichthyological Reference Collection, Cincinnati. Note: some fishes transferred to Thomas More College Field Station, California (TMCFPS). Ohio. USA.

1903. **OSU**: Orton Geological Museum, School of Earth Sciences, Ohio State University, Columbus. Includes: some fossil type specimens from Bowling Green State University (BGSU). Current as: OSU (fossils). Also as: OGM (fossils). See also: OSUM (Recent fishes, herps). Ohio. USA.

1904. **OSUM**: Museum of Biological Diversity, Ohio State University, Columbus. Includes: fish collection of Shelby Gerking and others (1940s Indiana State surveys) from Indiana University (IU) and Indiana Biological Survey (INBS) fish collection assembled by Tom Simon. Obsolete as: OSUM. Current as: OSUM (fishes, herps). See also: OSU (fossils). Ohio. USA.

1905. **OUVC**: Ohio University, Vertebrate Collection, Athens. Ohio. USA.

1906. **OWU**: Ohio Wesleyan University, Delaware. Ohio. USA.

1907. **UCC**: University of Cincinnati, Cincinnati. Note: paleontology collection transferred to Cincinnati Museum Center (CMC) in 1998. Ohio. USA.

1908. **WSU-LC**: Wright State University, Celina. Current as: WSU-LC (fossils). Ohio. USA.

1909. **OMNH**: University of Oklahoma, Sam Noble Oklahoma Museum of Natural History, Norman. Formerly: Stovall Museum. Obsolete as: OKMNH, UOK, UOMNH, UOMZ. Current as: OMNH (fishes, herps), OMNH VP (fossils). Also as: SNOHMNH. Oklahoma. USA.

1910. **OSU**: Oklahoma State University, Department of Zoology, Stillwater. Formerly: Oklahoma Agricultural and Mechanical College. Obsolete as: OAM, OSUMZ. Current as: OSUS (fishes). Oklahoma. USA.

1911. **UC**: University of Central Oklahoma, Edmond. Current as: UCO (fishes, herps). Oklahoma. USA.

1912. **UTT**: University of Tulsa, Fish Collection, Tulsa. Oklahoma. USA.

1913. **OS**: Oregon State University, Corvallis. Includes: all fishes formerly at Oregon State University, School of Oceanography (OSU). Obsolete as: OSU, OSMNH. Current as: OS (fishes), OSMNH (herps). Oregon. USA.


1915. **ANS**: The Academy of Natural Sciences of Philadelphia, Philadelphia. Also known as: Academy of Natural Sciences of Drexel University (for marketing purposes). Includes: paleontological collection of the American Philosophical Society transferred in the late 1840s; specimens from Wistar Institute (WIAP), Commercial Museum of Philadelphia (CMP), Duke University (DU) and Delaware Museum of Natural History (DMNH); private collections of Charles Lucien Bonaparte and Edward Drinker Cope. Current as: ANSP (fishes, herps, fossils). Pennsylvania. USA.


1918. **EUP**: Edinboro University of Pennsylvania, Department of Biology and Health Services, Edinboro. Current as: EUP (herps). Pennsylvania. USA.

1919. **LU**: Lehigh University, Bethlehem. Note: most fluid-preserved and skeletal specimens of amphibians and non-avian reptiles transferred to American Museum of Natural History (AMNH) in 2013. Pennsylvania. USA.

1920. **PCM**: Philadelphia Commercial Museum, Philadelphia. Note: renamed Philadelphia Civic Center Museum in
1952; completely closed in 1994; extant fishes (mostly from Philippines) transferred to ANSP in 1917; some PCM herp specimens also at ANSP. Pennsylvania, USA.


1922. PSU: Pennsylvania State University, University Park. Pennsylvania, USA.

1923. PSAU: Pennsylvania State University at Altoona, Altoona. Also as: PSUaa. Pennsylvania, USA.


1925. WFI: Wagner Free Institute of Science, Philadelphia. Note: institution extant, but disposition of some historical specimens unknown (e.g., holotype of *Trachemys euglypha*). Pennsylvania, USA.

1926. WIAP: Wistar Institute, Philadelphia. Formerly: Wistar Institute of Anatomy. Note: some historical specimens (e.g., Borneo fishes) now at ANSP. Pennsylvania, USA.

1927. YC: York College Fish Collection, York. Pennsylvania, USA.

1928. MZUPRPP: Museo Zoológico, University of Puerto Rico, Rio Piedras. Note: collection separate from University of Puerto Rico, Mayagüez (UPRM). Obsolete as: UPRRP. Current as: MZUPRPP. Puerto Rico, USA.

1929. UPRM: University of Puerto Rico, Mayagüez. Note: collection separate from Museo Zoológico, University of Puerto Rico, Rio Piedras (MZUPRPP). Current as: UPRM (fishes, herps), UPRMP (fossils, Department of Geology Paleontology Collection). Also as: UPR. Puerto Rico, USA.

1930. NMFSN: National Marine Fisheries Service, Northeast Fisheries Center Fish Collection, Narraganset, Rhode Island, USA.

1931. URIZ: University of Rhode Island, Department of Zoology, Kingston, Rhode Island, USA.

1932. CHM: Charleston Museum, Charleston. Note: most fishes and herps transferred to North Carolina Museum of Natural Sciences (NCSM), but small collection of regional specimens retained. Incorrect as: CMR. Obsolete as: CR. Also as: CHM (ChM preferred). South Carolina, USA.

1933. CUSC: Clemson University, Department of Biological Sciences, Vertebrate Collections, Clemson. South Carolina, USA.

1934. GMBL: Grice Marine Biological Laboratory, Charleston. South Carolina, USA.

1935. SCMMRI: South Carolina Marine Resources Research Institute, Charleston. Obsolete as: SCMRI. South Carolina, USA.

1936. USC: University of South Carolina, Belle W. Baruch Institute for Marine and Coastal Sciences, Columbia. South Carolina, USA.


1938. NHFC: Natural Heritage Fish Collection, Department of Natural Resource Management, South Dakota State University, Brookings. Current as: NHFC (fishes). South Dakota, USA.


1940. USDOM: University of South Dakota, W.H. Over Museum, Vermillion. South Dakota, USA.

1941. APSU: Austin Peay State University, Museum, Clarksville. Current as: APSU (fishes). Tennessee, USA.

1942. ETMNH: East Tennessee State University and General Shale Brick Natural History Museum and Gray Fossil Site. Current as: ETMNH (fossils). See also: ETVM. Tennessee, USA.

1943. ETV: Vertebrate Paleontology Laboratory, Department of Geosciences, East Tennessee State University, Johnson City. Note: fossil collection includes skeletons of Recent herps. Current as: ETV (fossils). See also: ETMNH. Tennessee, USA.

1944. GSMNP: Great Smoky Mountains National Park, Natural Resource Collection [scientific study series], Gatlinburg. Note: beginning in 1967, specimens transferred to various institutions on indefinite loan, including University of North Carolina (UNC; fishes now at North Carolina Museum of Natural Sciences, NCSM, Hiwassee College (herps, recalled ca. 1973), Cincinnati Museum of Natural History (CMC, herps) and US National Museum of Natural History (USNM). Obsolete as: GRSM. Current as: GSMNP. Tennessee, USA.

1945. MSUMZ: University of Memphis, Museum of Zoology, Memphis. Formerly: Memphis State University. Tennessee, USA.

1946. UT: University of Tennessee, Department of Zoology, Knoxville. Current as: UT (fishes, David A. Etnier Ichthyological Collection; herps). Tennessee, USA.

1947. UTMCV: University of Tennessee at Martin, Fish Collection, Martin, Tennessee. USA.

1948. ASNHC: Angelo State Natural History Collection, Angelo State University, San Angelo. Current as: ASNHC (herps). Texas, USA.

1949. FWM: Fort Worth Museum of Science and History, Fort Worth. Obsolete as: FWMNH. Texas, USA.

1950. HNMS: Houston Museum of Natural Science, Houston. Note: Recent herp collection transferred to Texas A&M University, College Station (TCWC). Current as: HMNS (fossils). Texas, USA.

1951. MBI: Marine Biomedical Institute, University of Texas Medical Branch at Galveston, Galveston. Texas, USA.

1952. MUVP: Midwestern University Vertebrate Paleontology Collection, Snyder. Current as: MUVP (fossils). Texas, USA.

1953. MWSU: Midwestern State University, Wichita Falls. Note: fish collection transferred to University of Texas at Austin (TNHC); herp collection transferred to Texas A&M University, College Station (TCWC). Also as: MU (herps). Texas, USA.

1954. NC: Navarro College, Biology Department, Corsicana, Texas, USA.

1955. NNTRC: National Natural Toxins Research Center, Texas A&M University-Kingsville. Texas, USA.


1959. SRSU: Sul Ross State University, Alpine. Also known USA.
as: The University of the Big Bend. Texas. USA.

1960. TAMUG: Texas A&M University at Galveston, Department of Marine Biology, Galveston. Current as: TAMUG (fishes). See also: TCWC. Texas. USA.

1961. TCU: Texas Christian University Collection, Fort Worth. Assigned here: TCU. Texas. USA.

1962. TCWC: Biodiversity Research and Teaching Collections (BRTC), Department of Wildlife and Fisheries Sciences, Texas A&M University, College Station. Formerly: Texas Cooperative Wildlife Collection. Includes: Texas A&M University Systematic Collection of Marine Organisms, Department of Oceanography (TAMU/DO); herp collections from Midwestern State University (MWSU), University of North Texas, Witte Museum (WMSA) and Houston Museum of Natural Science (HMNS). Obsolete as: BRTC (herps). Current as: TCWC (fishes, herps). See also: TAMUG. Texas. USA.

1963. TNHC: University of Texas Biodiversity Collections (UTBC), University of Texas at Austin. Formerly: Texas Natural History Collections administered by Texas Memorial Museum (TMM) and Texas Natural Science Center (TNSC). Includes: collections from Lamar University, Beaumont (fishes), Midwestern State University, Wichita Falls (MWSU; fishes), Museum of Texas Tech University, Lubbock (TTU; fishes, herps), Texas A&M University-Kingsville [formerly Texas A&M University (TAIC; fishes)], Texas State University, San Marcos (TSUSM), University of Texas at Brownsville (fishes, herps), University of Texas Marine Science Institute, Port Aransas (UTMSI) and Southern Illinois University Edwardsville (SIUE; herps) as well as private herp collections of Tom C. Scanlon (TCS) and Ralph W. Axtell (RWA). In error as: UT. Obsolete as: TNHM. Current as: TNHC (fishes), TNHCH (herps). Texas. USA.

1964. TSUM: Texas State University, San Marcos. Formerly: Southwest Texas State Normal School, later Southwest Texas State University. Note: uncataloged teaching collection extant, research collection unknown; some fish specimens transferred to University of Texas at Austin (TNHC). Texas. USA.

1965. TU: Museum of Texas Tech University, Lubbock. Note: fish and herp collections transferred to University of Texas at Austin (TNHC). Current as: NSRL (tissue collection, Natural Science Research Laboratory), TTU P (fossils). Texas. USA.

1966. UTA: University of Texas at Arlington, Department of Biology. In error as: University of Texas at Austin (Schlep & O’Shea 2010). Obsolete as: UTADC (herps). Current as: UTA-A (amphibians). Also as: UTACV (Collection of Vertebrates). Texas. USA.

1967. UTEP: University of Texas at El Paso, Biodiversity Collections, El Paso. Formerly: Museum of Arid Land Biology (MALB), Department of Biological Sciences, Texas Western College. Obsolete as: MALB. Current as: UTEP (fishes, herps, fossils). Texas. USA.


1969. BYU: Brigham Young University, Monte L. Bean Life Science Museum, Provo. Current as: BYU. Also as: MLBM (fishes). Utah. USA.


1974. GMU: George Mason University, Vertebrate Collection, Fairfax. Virginia. USA.

1975. ODU: Old Dominion University, Department of Biology. Norfolk. Virginia. USA.

1976. RC: Roanoke College, Biology Department, Salem. Virginia. USA.

1977. URM: University of Richmond, Department of Biology. Note: fish collection transferred to Virginia Institute of Marine Science (VIMS) in 1993. Virginia. USA.

1978. VCU: Virginia Commonwealth University, Richmond. Note: fish collection transferred to Virginia Institute of Marine Science (VIMS). Virginia. USA.

1979. VIMS: Virginia Institute of Marine Science, Gloucester Point. Includes: fishes formerly cataloged at Chesapeake Biological Laboratory, University of Maryland, Solomons (VIMS-CBL), University of Richmond, Virginia (VIMS-UR) and Virginia Commonwealth University (VCU), all assigned new VIMS catalog numbers. Current as: VIMS (fishes, Nummally Ichthyological Collection). Virginia. USA.

1980. VISR: Virginia Institute for Scientific Research, Allen T. Gwathney Laboratory on University of Richmond campus, Richmond. Note: collection no longer extant; some fishes transferred to The Academy of Natural Sciences of Philadelphia (ANSP). Virginia. USA.


1985. PLL: Pacific Lutheran University, Parkland. Washington. USA.


1988. UWBM: University of Washington, Burke Museum of Natural History and Culture, Seattle. Includes: fishes and otoliths collected by the Alaska Fisheries Science Center (AFSC). Obsolete as: BMUW, MNHW, UW, UW, UWFC. Current as: UW (fishes), UWBM (herps). Washington. USA.

1989. WBVS: West Virginia Biological Survey collection at Marshall University, Huntington. West Virginia. USA.


1991. UWGB: Richter Museum of Natural History, University of Wisconsin, Green Bay. Wisconsin. USA.

1992. UWM: University of Wisconsin, Zoology Depart-
ment, Milwaukee. Wisconsin. USA.

1993. UWSP: University of Wisconsin-Stevens Point, Museum of Natural History, Stevens Point. Wisconsin. USA.


2002. HM: HerpMapper Project (launched Sep 2013, global in scope); unique HM numbers catalog observations submitted by citizen scientists to online database (www.herpmapper.org) and have been cited in publications (e.g., Herpetological Review). USA.

2003. NPS: National Park Service, US Department of the Interior. Note: specimens collected on lands administered by the US National Park Service are the property of NPS, but may be deposited on loan at a non-NPS repository that meets federal requirements. The non-NPS repository may assign its own catalog numbers and should cross reference them to NPS catalog numbers; NPS catalogs lots using unique combination of 4-letter abbreviation (specific to NPS Unit where specimens were collected) and up to 6 digit number (e.g., UPDE 123456 refers to a specimen lot from the Upper Delaware Scenic and Recreational River). Such specimens should be cited using both the NPS and non-NPS repository catalog numbers (e.g., ANSP 187723 [NPS UPDE 2153]). USA.


2019. MBUCV: Museo de Biología de la Universidad Central de Venezuela, Caracas. Note: founded in 1949; collections relocated to Instituto de Zoología y Ecología Tropical (IZET) in 1965; separate collections denoted by Roman numerals such as I (mammals), II (birds), III (reptiles), IV (amphibians) and V (fishes). Current as: MBUCV (fishes, herps), MBUCV-V (fishes), MBUCV-IV (amphibians), MBUCV-III (reptiles). See also: MIZA. Distrito Federal. Venezuela.


2025. CPUCLA: Colección Regional de Peces, Universidad Centroccidental Lisandro Alvarado (UCLA), Barquisimeto. Lara. Venezuela.

2026. CVULA: Universidad de los Andes, Colección de
Vetebrados, Mérida. Note: separate from ULABG at same institution. Obsolete as: ULAM. Current as: CVULA. Also as: CV-ULA (herps). Mérida. Venezuela.


2031. UDONEC: Universidad de Oriente, Núcleo de Nueva Esparta, Centro de Investigaciones Científicas, Porlamar, Isla Margarita. Also as: UDOP. Nueva Esparta. Venezuela.


2033. MMUDO: Museo del Mar [Museo Marino de Cumaná], Universidad de Oriente, Cumaná. Obsolete as: UDO. Current as: MMUDO. Sucre. Venezuela.


2036. AFY: Private collection of Agustín Fernández-Yépez. Note: extant fishes at Field Museum of Natural History (FMNH), Museo de Biología de la Universidad Central de Venezuela (MBCUV), Museo de Historia Natural La Salle (MHNLS), Venezuela.


2044. VNUIH: Vietnam National University, Hanoi. Includes: Department of Vertebrate Zoology, University of Tông-Hop (DVZUT), Also known as Zoology Museum, University of Hanoi (LZUH, ZMUH), merged into VNUIH in 1993. Obsolete as: CRES (Center for Natural Resources and Environmental Studies), HNUV, LZUH, NUH, VUHN, DVZUT, ZMUH. Current as: VNUIH (fishes, herps). Also as: ZMVNU (mammals). Hanoi. Vietnam.


2046. RIA2: Research Institute for Aquaculture no. 2 [Vien Nghieng cuo Nuoi trong Thuy san 2], Ho Chi Minh City [ex Saigon]. Ho Chi Minh City. Vietnam.

2047. SIEZC: Department of Zoology, Southern Institute of Ecology (SIE), Vietnam Academy of Science and Technology (VAST), District 1, Ho Chi Minh City [ex Saigon]. Note: established in 2012 to expand Center for Biodiversity and Development (CBD) formerly based at the Institute of Tropical Biology (ITB). Current as: SIEZC (herps). See also: ITBCZ. Ho Chi Minh City. Vietnam.

2048. TDHSP: Truong Dai hoc Su Pham [Ho Chi Minh City Pedagogical University], Zoological Collection, Ho Chi Minh City [ex Saigon]. Ho Chi Minh City. Vietnam.


2058. CRP: Private collection of Mr. Parry, Harare [Salisbury]. Zimbabwe.


ADDENDUM

Four additional institutional codes became available as this article was in production, bringing the total number of codes listed to 2,064. To avoid renumbering the entire list, these codes are listed below as the midpoint of the two adjacent index numbers where the code would have appeared in the listing (e.g., 193.5 belongs between index numbers 193 and 194).

193.5. CICMG: Coleção Ictiológica do Centro Federal de Educação Tecnológica de Minas Gerais (CEFET-MG), Belo Horizonte. Current as: CICMG (fishes). Minas Gerais, Brazil.


1596.5. NHVUIC: Ichthyological Collection, Nevşehir Hacı Bektaş Veli Üniversitesi [Hacı Bektaş Veli Nevşehir University], Nevşehir [ex Neapolis and Muşkara]. Current as: NHVUIC (fishes). Also as: NUIC. Nevşehir [Nevşehir], Turkey.