



## Guidelines for submitting MCZ Catalog Numbers to NCBI BioProject & BioSample Records

When submitting next-generation sequencing data as a NCBI BioProject, researchers must include links to MCZ specimens on the **BioProject page**. After this is complete, each specimen should additionally be listed on a **BioSample page**.

### Record the link to the MCZ specimen on the BioProject page

- Submit links to MCZ Catalog numbers within the “**Related Resources**” section of the **BioProject**. The URL address should be entered in the following required format:  
**[http://mczbase.mcz.harvard.edu/guid/MCZ:collection\\_code:specimen\\_id](http://mczbase.mcz.harvard.edu/guid/MCZ:collection_code:specimen_id)** (e.g., <http://mczbase.mcz.harvard.edu/guid/MCZ:IZ:19673>). All MCZ Catalog numbers should be complete and include any prefixes and original formatting (e.g., MCZ:Herp:R-2244).
- If multiple MCZ specimens are included in a single BioProject, multiple links should be listed on the BioProject page.

### Record the MCZ Catalog Number on the BioSample page

- MCZ Catalog numbers and other identifiers are recorded on the BioSample page, where a description of the biological source materials used in experimental assays is included. Each physically unique specimen included in the study should be registered as a single BioSample with a unique set of attributes, and multiple BioProjects can be linked to a single BioSample.
- Submit the MCZ Catalog number as a “**specimen voucher**” within the “**Attributes**” section of a **BioSample**. The specimen voucher describes the *primary* identifier of the physical specimen from which the sequence was obtained, and is intended for use in cases where the voucher/sample is still available (e.g., museums, herbaria, frozen tissue collections). The specimen voucher should be entered in the following required format:  
**institution\_code:collection\_code:specimen\_id** (e.g., MCZ:IZ:19673). All MCZ Catalog numbers should be complete and include any prefixes and original formatting (e.g., MCZ:Herp:R-2244).

Below is the list of relevant Collection Codes for the different MCZ Collections. Note that the first letter of each collection must be capitalized:

Cryogenic	Cryo
Entomology	Ent
Ichthyology	Ich
Herpetology	Herp
Invertebrate Zoology	IZ
Malacology	Mala
Mammalogy	Mamm
Ornithology	Orn

NCBI records for material submitted using the proper MCZ Catalog number format as noted above will be automatically hot-linked to the proper MCZbase specimen record (and the MCZbase record will be hot-linked back).



### **Additional Data**

- It is suggested that information regarding type of tissue used to obtain the sequence data (e.g., heart, muscle, liver, ground whole organism) be recorded in the “**tissue**” field on the **BioSample page**.
- It is suggested that information regarding type of sample used to obtain the sequence data (e.g., cell culture, tissue sample, whole organism) be recorded as a source modifier using the “**sample\_type**” field on the **BioSample page**.
- Refer to the relevant NCBI submission tool documentation for further instructions and a glossary of all available modifiers.