

Appendix D. Laboratory Examination

NOTE: The following is the proposed data schema definition (XSD) followed by the documentation for *Laboratory Examination* of tissue or carcass records that will be encoded onto the *HealthMAP* information system.

```

<?xml version="1.0" encoding="UTF-8"?>
<schema targetNamespace="http://data.gcoos.org/mmhmap/xml/1.0"
  xmlns="http://www.w3.org/2001/XMLSchema" xmlns:gml="http://www.opengis.net/gml"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:mmc="https://www.mmc.gov/"
  xmlns:dc="http://purl.org/dc/elements/1.1/" elementFormDefault="qualified" version="1.0.0.2"
  xml:lang="en">

  <!-- This is the original version of MMC LevelA subforms for groupEvents (as of 2017-03-06) -->
  <annotation>
    <documentation>
      <dc:description>
        This XML Schema defines the recommended Marine Mammal Commission Level A XML elements and
        types for subforms to record group events.
      </dc:description>
    </documentation>
  </annotation>

  <!-- =====
                        Element: Record identifier
  ===== -->

  <element name="recordIdentifier">
    <annotation>
      <documentation>
        <dc:description>
          Record identifier based on a proposed persistent record identifier for HealthMAP
        </dc:description>
      </documentation>
    </annotation>
    <complexType>
      <sequence>
        <element name="recId" type="string" minOccurs="0"/>
        <element name="organization" type="string" minOccurs="0"/>
        <element name="localId" type="string" minOccurs="0"/>
        <element name="animalId" type="string" minOccurs="0"/>
        <element name="animalIdCount">
          <simpleType>
            <restriction base="integer">
              <minInclusive value="0"/>
              <maxInclusive value="999"/>
            </restriction>
          </simpleType>
        </element>
        <element name="laboratory" type="string" minOccurs="0" maxOccurs="unbounded"/>
        <element name="laboratoryId" type="string" minOccurs="0" maxOccurs="unbounded"/>
        <element name="labRecId" type="string" minOccurs="0" maxOccurs="unbounded"/>
        <element name="reportId" type="string" minOccurs="0" maxOccurs="unbounded"/>
      </sequence>
    </complexType>
  </element>

  <!-- =====
                        Element: laboratory report(s)
  ===== -->

  <element name="labReport">

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<complexType>
  <sequence>
    <element name="labDateStart" type="date"/>
    <element name="labDateEnd" type="date"/>
    <element name="labTechnicianName" type="string" minOccurs="0" maxOccurs="unbounded"/>
    <element name="labStaffPosition" type="string" minOccurs="0" maxOccurs="unbounded"/>
    <element name="labSummary" type="string" minOccurs="0"/>
    <element name="labDetails" type="string" minOccurs="0"/>
    <element name="labRemarks" type="string"/>
  </sequence>
</complexType>
</element>
</schema>
```

Schema documentation for animalLab.xsd

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Namespace: "http://data.gcoos.org/mmhmap/xml/1.0"

Schema(s)

Main schema animalLab.xsd

Namespace	http://data.gcoos.org/mmhmap/xml/1.0
Annotations	<dc:description>This XML Schema defines the recommended Marine Mammal Commission Level A XML elements and types for subforms to record group events.</dc:description>
Properties	attribute form default: unqualified
	element form default: qualified
	version: 1.0.0.2

Element(s)

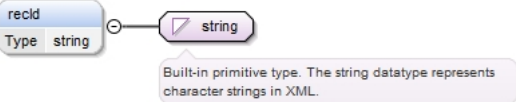
Element recordIdentifier

Namespace	http://data.gcoos.org/mmhmap/xml/1.0
Annotations	<dc:description>Record identifier based on a proposed persistent record identifier for HealthMAP</dc:description>

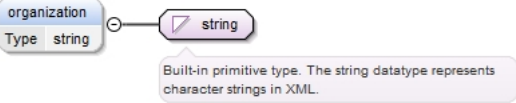
Diagram	
Properties	content: complex
Model	recId{0,1} , organization{0,1} , localId{0,1} , animalId{0,1} , animalIdCount , laboratory* , laboratoryId* , labRecId* , reportId*
Children	animalId, animalIdCount, labRecId, laboratoryId, laboratory, localId, organization, recId, reportId
Instance	<pre> <recordIdentifier xmlns="http://data.gcoos.org/mmhmap/xml/1.0"> <recId>{0,1}</recId> <organization>{0,1}</organization> <localId>{0,1}</localId> <animalId>{0,1}</animalId> <animalIdCount>{1,1}</animalIdCount> <laboratory>{0,unbounded}</laboratory> <laboratoryId>{0,unbounded}</laboratoryId> <labRecId>{0,unbounded}</labRecId> <reportId>{0,unbounded}</reportId> </recordIdentifier> </pre>
Source	<pre> <element name="recordIdentifier"> <annotation> <documentation> <dc:description>Record identifier based on a proposed presistent record identifier for HealthMAP</dc:description> </documentation> </annotation> <complexType> <sequence> <element name="recId" type="string" minOccurs="0"/> <element name="organization" type="string" minOccurs="0"/> <element name="localId" type="string" minOccurs="0"/> <element name="animalId" type="string" minOccurs="0"/> <element name="animalIdCount"> <simpleType> <restriction base="integer"> <minInclusive value="0"/> <maxInclusive value="999"/> </restriction> </simpleType> </element> <element name="laboratory" type="string" minOccurs="0" maxOccurs="unbounded"/> <element name="laboratoryId" type="string" minOccurs="0" maxOccurs="unbounded"/> <element name="labRecId" type="string" minOccurs="0" maxOccurs="unbounded"/> <element name="reportId" type="string" minOccurs="0" maxOccurs="unbounded"/> </sequence> </complexType> </element> </pre>

Element recordIdentifier / recId

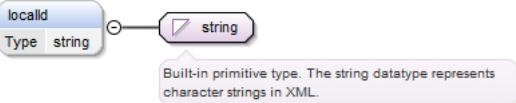
Namespace	http://data.gcoos.org/mmhmap/xml/1.0
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Diagram					
Type	string				
Properties	<table> <tr> <td>content:</td><td>simple</td></tr> <tr> <td>minOccurs:</td><td>0</td></tr> </table>	content:	simple	minOccurs:	0
content:	simple				
minOccurs:	0				
Source	<code><element name="recId" type="string" minOccurs="0"/></code>				

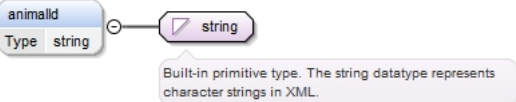
Element recordIdentifier / organization

Namespace	http://data.gcoos.org/mmhmap/xml/1.0				
Diagram					
Type	string				
Properties	<table> <tr> <td>content:</td><td>simple</td></tr> <tr> <td>minOccurs:</td><td>0</td></tr> </table>	content:	simple	minOccurs:	0
content:	simple				
minOccurs:	0				
Source	<code><element name="organization" type="string" minOccurs="0"/></code>				


Element recordIdentifier / localId

Namespace	http://data.gcoos.org/mmhmap/xml/1.0				
Diagram					
Type	string				
Properties	<table> <tr> <td>content:</td><td>simple</td></tr> <tr> <td>minOccurs:</td><td>0</td></tr> </table>	content:	simple	minOccurs:	0
content:	simple				
minOccurs:	0				
Source	<code><element name="localId" type="string" minOccurs="0"/></code>				

Element recordIdentifier / animalId

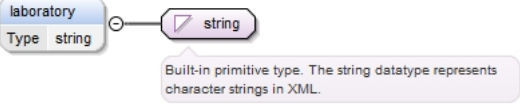
Namespace	http://data.gcoos.org/mmhmap/xml/1.0				
Diagram					
Type	string				
Properties	<table> <tr> <td>content:</td><td>simple</td></tr> <tr> <td>minOccurs:</td><td>0</td></tr> </table>	content:	simple	minOccurs:	0
content:	simple				
minOccurs:	0				
Source	<code><element name="animalId" type="string" minOccurs="0"/></code>				

Element recordIdentifier / animalIdCount

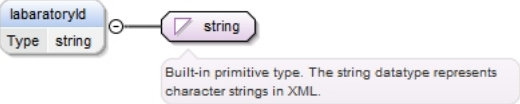
Namespace	http://data.gcoos.org/mmhmap/xml/1.0				
Diagram					
Type	restriction of integer				
Properties	<table> <tr> <td>content:</td><td>simple</td></tr> </table>	content:	simple		
content:	simple				
Facets	<table> <tr> <td>maxInclusive</td><td>999</td></tr> <tr> <td>minInclusive</td><td>0</td></tr> </table>	maxInclusive	999	minInclusive	0
maxInclusive	999				
minInclusive	0				

Source	<pre> <element name="animalIdCount"> <simpleType> <restriction base="integer"> <minInclusive value="0"/> <maxInclusive value="999"/> </restriction> </simpleType> </element> </pre>
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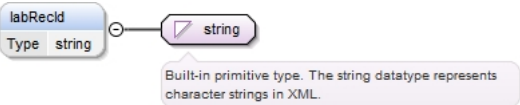
Element recordIdentifier / laboratory

Namespace	http://data.gcoos.org/mmhmap/xml/1.0						
Diagram							
Type	string						
Properties	<table> <tr><td>content:</td><td>simple</td></tr> <tr><td>minOccurs:</td><td>0</td></tr> <tr><td>maxOccurs:</td><td>unbounded</td></tr> </table>	content:	simple	minOccurs:	0	maxOccurs:	unbounded
content:	simple						
minOccurs:	0						
maxOccurs:	unbounded						
Source	<pre> <element name="laboratory" type="string" minOccurs="0" maxOccurs="unbounded" /> </pre>						

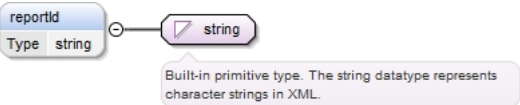
Element recordIdentifier / laboratoryId

Namespace	http://data.gcoos.org/mmhmap/xml/1.0						
Diagram							
Type	string						
Properties	<table> <tr><td>content:</td><td>simple</td></tr> <tr><td>minOccurs:</td><td>0</td></tr> <tr><td>maxOccurs:</td><td>unbounded</td></tr> </table>	content:	simple	minOccurs:	0	maxOccurs:	unbounded
content:	simple						
minOccurs:	0						
maxOccurs:	unbounded						
Source	<pre> <element name="laboratoryId" type="string" minOccurs="0" maxOccurs="unbounded" /> </pre>						

Element recordIdentifier / labRecId

Namespace	http://data.gcoos.org/mmhmap/xml/1.0						
Diagram							
Type	string						
Properties	<table> <tr><td>content:</td><td>simple</td></tr> <tr><td>minOccurs:</td><td>0</td></tr> <tr><td>maxOccurs:</td><td>unbounded</td></tr> </table>	content:	simple	minOccurs:	0	maxOccurs:	unbounded
content:	simple						
minOccurs:	0						
maxOccurs:	unbounded						
Source	<pre> <element name="labRecId" type="string" minOccurs="0" maxOccurs="unbounded" /> </pre>						

Element recordIdentifier / reportId

Namespace	http://data.gcoos.org/mmhmap/xml/1.0		
Diagram			
Type	string		
Properties	<table> <tr><td>content:</td><td>simple</td></tr> </table>	content:	simple
content:	simple		

	minOccurs: 0
	maxOccurs: unbounded
Source	<code><element name="reportId" type="string" minOccurs="0" maxOccurs="unbounded" /></code>

Element labReport

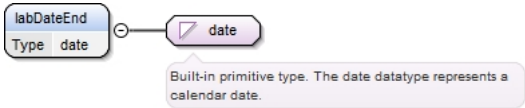
Namespace	http://data.gcoos.org/mmhmap/xml/1.0
Diagram	
Properties	content: complex
Model	labDateStart, labDateEnd, labTechnicianName*, labStaffPosition*, labSummary{0,1}, labDetails{0,1}, labRemarks
Children	labDateEnd, labDateStart, labDetails, labRemarks, labStaffPosition, labSummary, labTechnicianName
Instance	<pre> <labReport xmlns="http://data.gcoos.org/mmhmap/xml/1.0"> <labDateStart>{1,1}</labDateStart> <labDateEnd>{1,1}</labDateEnd> <labTechnicianName>{0,unbounded}</labTechnicianName> <labStaffPosition>{0,unbounded}</labStaffPosition> <labSummary>{0,1}</labSummary> <labDetails>{0,1}</labDetails> <labRemarks>{1,1}</labRemarks> </labReport> </pre>
Source	<pre> <element name="labReport"> <complexType> <sequence> <element name="labDateStart" type="date"/> <element name="labDateEnd" type="date"/> <element name="labTechnicianName" type="string" minOccurs="0" maxOccurs="unbounded"/> <element name="labStaffPosition" type="string" minOccurs="0" maxOccurs="unbounded"/> <element name="labSummary" type="string" minOccurs="0"/> <element name="labDetails" type="string" minOccurs="0"/> <element name="labRemarks" type="string"/> </sequence> </complexType> </element> </pre>

Element labReport / labDateStart

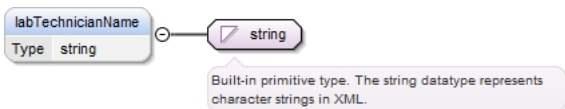
Namespace	http://data.gcoos.org/mmhmap/xml/1.0
Diagram	
Type	date
Properties	content: simple
Source	<code><element name="labDateStart" type="date" /></code>

Element labReport / labDateEnd

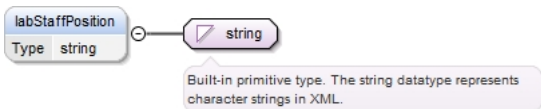
Namespace	http://data.gcoos.org/mmhmap/xml/1.0
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Diagram	 <p>labDateEnd Type date</p> <p>Built-in primitive type. The date datatype represents a calendar date.</p>
Type	date
Properties	content: simple
Source	<code><element name="labDateEnd" type="date"/></code>

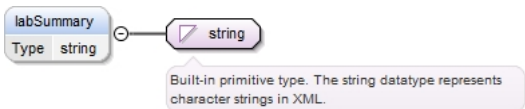
Element labReport / labTechnicianName

Namespace	http://data.gcoos.org/mmhmap/xml/1.0
Diagram	 <p>labTechnicianName Type string</p> <p>Built-in primitive type. The string datatype represents character strings in XML.</p>
Type	string
Properties	content: simple minOccurs: 0 maxOccurs: unbounded
Source	<code><element name="labTechnicianName" type="string" minOccurs="0" maxOccurs="unbounded"/></code>

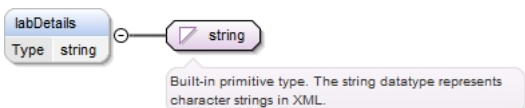
Element labReport / labStaffPosition

Namespace	http://data.gcoos.org/mmhmap/xml/1.0
Diagram	 <p>labStaffPosition Type string</p> <p>Built-in primitive type. The string datatype represents character strings in XML.</p>
Type	string
Properties	content: simple minOccurs: 0 maxOccurs: unbounded
Source	<code><element name="labStaffPosition" type="string" minOccurs="0" maxOccurs="unbounded"/></code>

Element labReport / labSummary

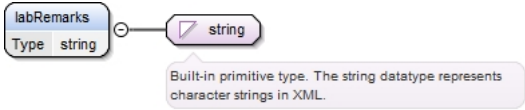
Namespace	http://data.gcoos.org/mmhmap/xml/1.0
Diagram	 <p>labSummary Type string</p> <p>Built-in primitive type. The string datatype represents character strings in XML.</p>
Type	string
Properties	content: simple minOccurs: 0
Source	<code><element name="labSummary" type="string" minOccurs="0"/></code>

Element labReport / labDetails

Namespace	http://data.gcoos.org/mmhmap/xml/1.0
Diagram	 <p>labDetails Type string</p> <p>Built-in primitive type. The string datatype represents character strings in XML.</p>
Type	string

Properties	content: simple
	minOccurs: 0
Source	<code><element name="labDetails" type="string" minOccurs="0"/></code>

Element labReport / labRemarks

Namespace	http://data.gcoos.org/mmhmap/xml/1.0
Diagram	 <p>The diagram illustrates the relationship between the <code>labRemarks</code> element and the <code>string</code> primitive type. A box labeled <code>labRemarks</code> with <code>Type string</code> below it is connected by a line to a box labeled <code>string</code>. A callout bubble points to the <code>string</code> box with the text: "Built-in primitive type. The string datatype represents character strings in XML."</p>
Type	string
Properties	content: simple
Source	<code><element name="labRemarks" type="string"/></code>