



SAMPLE STORAGE

Contact support@Species360.org

IMPORTANT NOTE! Sample Storage functionality is automatically assigned to the Medical Admin (Species360) and Veterinarian (Species360) Roles. For any custom Medical Roles that have been created, you will need to assign this functionality if desired.

For help with Medical Roles see Medical Roles.

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Topics Covered

Sample Storage Overview Create Storage Locations Managing Storage Locations Using Templates Viewing the Locations Tree Place Samples Into Storage Managing Stored Samples Sharing Samples Viewing the Grid History Reports Metrics and Statistics Samples with a Purpose

Sample Storage Overview

Many institutions maintain an inventory of biological samples from their collection animals and the Sample Storage module allows an institution to track what samples they have stored, the location of those samples and whether the sample has been reserved for a specific purpose or project. Sample types include; serum, plasma, feces, urine, tissue, semen, blood smears, etc. Samples may be stored frozen, dried or preserved. While vials of serum and plasma in a freezer are typically the most common samples placed into storage, ZIMS has the flexibility to track other samples held in other environments. These could include plucked hair samples in envelopes on a cabinet shelf, cell cultures in liquid nitrogen tanks or stained blood smears on glass slides. The ZIMS Sample Storage module helps you to manage all those sample storage details and maintains a link to the animal and the sample collection details.

The Sample Storage module is found under Start > Medical > Sample Storage. You can drag this to your desktop for quick access.



The Sample Storage module home screen has 8 submodules that organize and group related functions:

- 1. Tree View of Locations: A graphical view of the storage location hierarchy.
- 2. Place Samples into Storage: This submodule allows the user to locate existing medical sample records and move a portion into storage or create a new sample and store that sample.
- 3. Manage Stored Samples: Search and view stored samples and their storage history. Update those samples records or remove a sample and track the recipients of sent out samples.
- 4. Samples with a Purpose: Locate and view a summary of samples that have been stored for a particular purpose or project.
- 5. Manage Storage Locations: Create and update information about the specific locations used to store samples.
- 6. Manage Location Templates: Template allow rapid addition of complex locations, such as box containing an internal grid with 100 storage spaces.
- 7. Metrics and Statistics: Charts and tables providing an overview of stored sample data.
- 8. Reports

The main Sample Storage home page is a visual display of the topics contained within it, with easy to interpret icons. Click anywhere within the tile to open it.



You can always get back to this home page by selecting Sample Storage in the upper left hand corner.

Sample Storage				
≡ Sam	nple Storage			
Locations	Total 93 records	s +		

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Create Storage Locations

Before you begin placing samples into storage you need to create your sample storage location hierarchy. This hierarchy is very similar to the Husbandry module's Enclosure Tree. Just as an animal cannot be moved into an enclosure until the enclosure has been defined within ZIMS, a sample cannot be placed into storage until the storage location has been defined. Initial ZIMS activity will revolve around defining and creating the virtual storage locations that reflect the existing (or planned) physical storage locations. Once the initial storage hierarchy has been created, additional storage locations will only be created as the storage system expands to accommodate new samples (e.g., a new box is added).

Storage locations are created through the Manage Storage Locations submodule

- Some storage locations (e.g., a box with an internal grid) hold a fixed number of samples
 - Each individual space within the box can be defined and labeled as a separate, and very precise, storage location
 - Creating a storage box location with an internal grid that is 10 by 10, requires defining 101 storage locations (the box plus 100 internal storage spaces)
- Location Templates allow a storage box along with the entire internal grid to be created using a single add screen
 - Templates for commonly used freezer storage box with 8 by 8, 9 by 9 and 10 by 10 grids have been defined by Species360 staff and are available for use by members
 - The 2 most commonly used grid label systems are supported:
 - Simple numbering labels: e.g., 1 to 64 for an 8 by 8 grid
 - Letter Row/Number Column labels: e.g., A-1, A-2, ... H-7, H-8 for an 8 by 8 grid
 - If other sized boxes are being used for storage, additional templates can be created through the Manage Location Templates submodule
- Storage Locations are created and placed within a hierarchy that typically reflects the physical organization of the storage locations
 - Grid spaces are defined within a box
 - that may be placed within a rack
 - held within a freezer
 - \circ housed at the institution
- Every level of the hierarchy is named and the system supports as many levels as needed. The user chooses and defines the storage locations to meet their needs
 - this can result in very precisely defined storage location that allows for rapid sample retrieval
 - e.g., the serum vial is in ... Freezer #1 > Rack 12> Box 52 > grid space 38



- equally, the system can support a less precise storage location system, where sample retrieval may require more effort
 e.g., the bag of tissues is in Freezer #1
- Most institutions use a mixed organizational system with the majority of samples in precise storage locations, but with some samples in less specific locations

To start creating locations, select the tile to "Manage Storage Locations". Initially, the only Sample Location will be Sample Storage Locations. Select either of the plus sign buttons to add a new location.

🔲 Sample Storage	
Sample Storage Q Search for I	ocations +
Locations Total 1 records	
Filters Add new location	Location Name/ID Location Type
Location Name / ID	Sample Storage Locations
Location Type Please Select	

You can create any hierarchy structure that works for your institution, but if you are uncertain how to begin, consider a simple tiered approach.

Add Location	×
Single New Location Use Template	
Location Name / ID * 2	Description 3
Your Institution	free text for more info
Location Type • 4	Effective Date 5
Institution	5/9/2019
Held within this location * 6	Location Path
Sample Storage Locations × Q	Sample Storage Locations
Created by	
Bug Miller 🔹 👻	
Notes	
B I U ᢒ � ☱ ☱ ≜ #	₩ <u>T</u> _x Note Templates •
more information as needed	
	9
× CI	ose 🖹 Save and Repeat 🖺 Save and Close

1.You can add a single new location or use a template (see more details below for templates).



2. Create the highest node first, then create the sub locations that will exist under it. Your institution will be the highest location on the tree. Then add buildings, rooms, freezers, shelves, box racks and then gridded boxes as needed.

3.Use the Description box for more information as needed.

4.The Location Type is a data standard drop down list.

5.The Effective Date defaults to today. You can change it if you want but it will not impact when you can put samples into it.

6.When you add the first Location, the only option available for this field is Sample Storage Locations. As you add other Locations they will become available to select from.

7.Add who created this Location if desired.

8.Use Notes to provide additional information.

9. The most efficient way to create an organized and structured location hierarchy is to use the Save and Repeat button so you can create the next level of the hierarchy and work your way down.

Below we are adding a Hospital Building.

	<u> </u>		
Add Location			×
Single New Location Use Template			
Location Name / ID *		Description	
Hospital Building			
Location Type*		Effective Date	
Building	~	5/9/2019	#
Held within this location * 2		Location Path	
Your Institution ×	Q	Sample Storage Locations > Your Institution	١
Nominal Operating Temperature		Created By	
Please Select	~	Bug Miller	Ŧ
Notes			
B I U ᢒ � \ = =	AA	<u><i>T</i></u> _× Note Templates <i>▼</i>	
			_

1.The Location Type is now a Building.

2.Because we added Your Institution as a Location it is available to select from.

3.The Location Path is now expanded.

4.Various Location Types will activate a field to record the Nominal Operating Temperature.

We continued to add Locations and they are now displayed along with the original Sample Storage Locations. You can search for Locations using the Search box.





								негр мепи	*		-
orage	٩	Searc	h for lo	ocations	+						Ŧ
11 records	s +				·					С	:
		4		Location Name/ID	Location Type	Location Held	Description				
				Conservation Building	Building	Your Institution					₽
				Freezer 1	Ultra-low freezer	Hospital Building					8
	Ŧ			Hospital Building	Building	Your Institution					8
	Q			Necropsy Freezer	Ultra-low freezer	Hospital Building					0
ler the pare	ent			Necropsy Storage Room	Room	Hospital Building					8
				Rack 1	Box Rack	Shelf 1					8
				Rack 2	Box Rack	Shelf 1					8
				Sample Storage Locations							8
				Shelf 1	Shelf	Freezer 1					8
				Shelf 2	Shelf	Freezer 1					8
				Your Institution	Institution	Sample Storage Locations	free text for more in	fo			

For more details watch the video at <u>https://vimeo.com/352167115</u>

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Managing Storage Locations

From within a location record you can manage them using the three-dot actions button. You can Edit or Delete the location or Move to Another Location.

DETAILS	CONTENTS	MOVE HISTORY 2 :				
	_	+ Add New Location				
ir Institution > Hospit	al Building > Necre	C Edit Location				
		Delete Location				
		Move to Another Location				

The information that you can Edit in a location are:

- Location Name/ID
- Description
- Effective Date and Created By
- You cannot Edit the Location Type or the Location Path.

Sample storage locations that have never held a sample can be safely deleted from the location hierarchy. However, sample storage locations that previously held samples but are currently empty cannot be deleted, they will be marked obsolete when you attempt to delete them.





📵 Sample Storage	You are editing data in ZIMSTRAINING - NOT LIVE ZIMS!		Help Menu 🗸	_ 0 <u>_ × </u>
중 Sample Storage 🕂				+
Back Test [Gridded Box]	DETAILS CO	NTENTS	MOVE HISTORY	, 2 :
Display samples currently held	Location Path	+	Add New Location	
Display locations (sublocations)	Sample Storage Locations >	Ø	Edit Location	
directly below this location		Û	Delete Location	
Samples Held in Current Location		Ð	Move to Another Loc	ation
No sample	s stored directly in this location. Ty looking in storage spaces and within t	thi x	Export search results	s to Excel file
		ß	Export search results	s to PDF file
	Are you sure you want to delete this record?	9	Batch Thaw Event fo	r this Location
	Yes No			
	!			
	This location Test is associated with historical			
	sample storage records and cannot be			
	removed from the system. This location will			
	be marked as obsolete.			
	ок			

Locations currently holding samples cannot be deleted or marked obsolete until all samples have been removed. If samples have previously been associated with this location, you will receive a message that the location will be marked as Obsolete instead of Deleted.

If you select to Move to Another Location you can record the Move Date, New Location and the Responsible Party.

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Using Templates

To create a gridded box or a cyrocane, consider using one of the Templates created by Species360. Select "Manage Storage Locations" in the Sample Storage home page. Below we are adding a Gridded Box to Shelf 2.





Add Location	×
Single New Location OUse Template	Location Templates* 2
	Please Select
Location Name / ID *	cryocane
Box 1	Cryocane; 5 vial capacity; labeled 1 to 5
	Cryocane; 6 vial capacity; labeled 1 to 6
Location Type	Freezer box; 10 by 10 grid; labeled 1 to 100
~ •	Freezer box; 10 by 10 grid; labeled A-1 to J-1
Held within this location *	Freezer box; 8 by 8 grid; labeled 1 to 64
Shelf 2 × Q	Freezer box; 8 by 8 grid; labeled A-1 to H-8
	Freezer box; 9 by 9 grid; label Press enter to sel
Created By	Freezer box; 9 by 9 grid; labeled A-1 to I-9
Please Select 💌	Glass slide storage box
Notes	
B I U ᢒ � ☱ ☱ ≜ .	Z _{x} Note Templates →

1.We selected to Use Template.

2.The available Templates appear in the drop down for selection.

3.When using Templates, the Location Type is not an editable field.

4.We used the lookup magnifying glass to find the appropriate Held within this Location.

When a Template is selected an illustration will appear to help you confirm that your selected the appropriate Template.

Single New Location		Location Templates * Freezer box; 9 by 9 grid; labeled 1 to 8		
Location Name / ID *		Description		
	# of Sublocations 81 Sublocation Naming 1, 2, 3, 4, 5			
Location Type		Effective Date	_	
Gridded Box		5/9/2019		

If you have some frequently used location types, you may also create local Templates that can be used again in the future. To create a Template, click on the Sample Storage home page tile "Manage Location Templates". Select the Add New Location Template plus icon.





≡ Sa	mple Storage	e Q Search for locations
Location 1	Templates	10 records
ø	cryocane	Cryo cane
6	Cryocane; 5 1 to 5	vial capacity; labeled Cryo cane

Add Location T	emplate				×
Template Name *	1			Location Type *	2
Gridded Box A1	-			Gridded Box	-
Description 3					
as needed					
Sublocation Naming	4 ro	ows*	5 columns*	# of spaces	ŝ
●A-1, A-2, A-3	-	5	x 5	25	
1 , 2, 3, 4, 5					
On, n+1, n+2, n+3					
*n: institution storage	location counter				
A-1	B-1	C-1		D-1	E-1
A-2 6	B-2	C-2		D-2	E-2
A-3	B-3	C-3		D-3	E-3
A-4	B-4	C-4		D-4	E-4
A-5	B-5	C-5		D-5	E-5
Editable 7					
				×	Close 🖪 Save

1.Give the Template a unique Template Name

2.Select the Location Type from the drop down list. Currently, ZIMS only supports templates with structured sub locations such as gridded boxes, cryocanes and glass slide trays. All other location types can be very rapidly adding one at a time using Save and Repeat function as mentioned above.

3.Provide a description as needed

4.Select the desired Sublocation Naming

5.Select the number of rows and columns

6.The grid will display for confirmation that configuration was what you wanted 7.Check if you want others to edit the Template

The Template will display as a Local Template in the Manage Location Templates list and will be available for selection next time you want to use a Template.

	6	Freezer box; 9 by 9 grid; labeled 1 to 81	Gridded Box	$81\ sublocations$ / standard $5.25'' \times 5.25''$ box with $81\ grid$ spaces that can each hold a vial		
	6	Freezer box; 9 by 9 grid; labeled A- 1 to I-9	Gridded Box	\$1 sublocations / standard 5.25" x 5.25" box with $$1$ grid spaces that can each hold a vial		
,	6	Glass slide storage box	Glass Slide Tray	100 sublocations / holds 100 slides in individual, numbered slots arranged in 2 columns of 50 spaces each		
l	Q	Gridded Box A1	Gridded Box	25 sublocations / as needed		







For more details watch the video at <u>https://vimeo.com/352167115</u>. Templates are near the end.

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Viewing the Locations Tree

You can view your storage location hierarchy as a tree by selecting Tree View of Location in the Sample Storage home page. Expand the Tree by using the expand icon or clicking on the expand arrow to the left of Sample Storage Locations.

Location Name / ID	Location Type		
Type to filter	Please Select	~	

You can filter by location name or type. A blue notebook indicates there is a sub location under that node. You can expand each node one at a time using the arrow, or use the expand icon to expand the entire Locations Tree.

Location Name / ID	Location Type	
Type to filter	Please Select 💌	
Sample Storage Locations [S	ample Storage Locations]	
Vour Institution [Institution]	tion]	
🔸 🔁 Hospital Building	[Building]	
- Freezer 1 [Iltra-low freezer]	
→⊳ Shelf	1 [Shelf]	
C	Rack 1 [Box Rack]	
Ľ	Rack 2 [Box Rack]	
🗋 Shelf	2 [Shelf]	
🗋 Necropsy F	reezer [Ultra-low freezer]	
🗋 Necropsy S	torage Room [Room]	
Conservation Bui	lding [Building]	

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Place Samples Into Storage

Once your locations are established, you can begin using the structure you have created to record where your Samples are stored. The sample collection information is usually already recorded in ZIMS. Samples being placed into storage are often collected as part of a medical examination with diagnostic testing performed on some material and one or more portions stored for future needs. For more information on Sample Collection see <u>Samples</u>. Many members are already recording sample collection as part of a patient medical record and linking it to test requests and results. For more information see <u>Tests</u> and <u>Results</u>.

Once the sample has been registered in ZIMS, from the Sample Storage home page you will click on the tile to "Put Samples into Storage". NOTE: This option is also available under the Samples and Tests tab in a Necropsy record and above the Preview Pane in the Medical dashboard. See <u>Pathology</u> for Necropsy details.

If you have arrived at the Collected Samples screen and the Sample has not yet been recorded, you can record that Sample by clicking on the plus button or Add New Sample from the Actions menu and entering the required data fields.



To view your Samples, you will select the appropriate filters:







") Reset to Default Q Search

- 1. The date range defaults to the last 7 days but can be edited
- 2. Common Sample Types will display as the default but can be removed (use the "x") and others added (use the arrow) or type in at Please Select.
- 3. You can filter by only samples with no additive/preservative data
- 4. You can search by Samples taken from a single animal using the GAN or Local ID
- 5. You can search for Samples taken from a Taxonomy
- 6. The default is All Samples but you can filter by Antemortem or Postmortem Samples
- 7. You can select to view only Samples that are marked as Available. If your team is consistently marking clinical samples as consumed when the entire volume is submitted to the lab, you can remove these from view by clicking on the check box to "show available samples only". If the sample status updates are not consistently applied, we recommend you do not use this check box or you may not see all your collected Samples.

Note, if you have additives for the sample registered in the Sample Record, this will display along with the sample type.





Sample Storage ZIMSTraining_DA	TA_ONLY						
🖨 Sample Storage 🛛 🕂							
Collected Samples To	otal 6 reco	rds 🕂					
Filters		•	Animal ID/GAN	Taxonomy	Sample Type	Collected Date/Time	Sampl
Collection Date All dates on or before	Ŧ			Anas undulata / Yellow- billed duck	Whole Blood / Heparin	Sep 17, 2017 00:00	
8/10/2021 Sample Type	Ê		4	Anas undulata / Yellow- billed duck	Plasma	Sep 17, 2017 00:00	'M
Serum × Plasma × Whole Blood × Tissue	×		. 41	Loxodontar, ncana / African eleph	Serum	Oct 31, 2017 00:00	S
Please Select			3741	Coxodonta africana / African elephant	Plasma	Dec 26, 2017 00:00	'M
Additive/Preservative Data	out		. 78741	Loxodonta africana / African elephant	Tissue / THORAX (VENTRAL)	Feb 25, 2018 00:00	ſM
Search local animals Taxonomy	Q)769	Strix aluco / Tawny owl	Serum	Aug 03, 2018 00:00	M
C Reset to Default	Q Searc	Page 1 of	1 Page Size 50 Change				

Once you select your filters and select to Search, all Samples matching those filters will display. If the Sample was collected during Necropsy, the green Necropsy Icon will appear. All others were collected prior to death.

	Multiple Animals	Multiple Taxonomies	Tissue / Hair coat	23/Jul/2018 00:00	S-RCV18-115416	0
	14152 / RCV15-03866	Macaca fuscata fuscata / Japanese macaque	Tissue / RIGHT INDEX FINGER	24/Jul/2018 00:00	S-RCV18-115556	0
• 🕐	14152 / RCV15-03866	Macaca fuscata fuscata / Japanese macaque	Tissue / RIGHT INDEX FINGER	24/Jul/2018 00:00	S-RCV18-115553	0
	14493 / QPK12-00028	Tauraco leucotis / White-cheeked turaco	Whole Blood	24/Jul/2018 08:20	S-RCV18-115274	0

Select a sample (or multiple samples) and choose Move Samples into Storage from the actions menu.

ds selected	o +				0
	Animal ID/GAN	Taxonomy	Sample Type	Collected Date/Time	Sar 🕂 Add new sample
	13310 / MIG12- 29922602	Ailurus fulgens fulgens / Red panda	Whole Blood	06/Jan/2019 10:25	S-R O Move samples into storage
	13310 / MIG12- 29922602	Ailurus fulgens fulgens / Red panda	Whole Blood	06/Jan/2019 11:25	S-R 🖹 Export to Excel
	15004 / RCV18-00750	Ovis aries / Sheep/mouflon	Serum	08/Jan/2019 11:30	S-R 🖾 Export to PDF
	15004 / RCV18-00750	Ovis aries / Sheep/mouflon	Whole Blood	08/Jan/2019 11:30	S-RCV19-116859 0
	3901 / MIG12- 29767778	Bubo virginianus / Great horned owl	Tissue / Choanal/Cloacal	09/Jan/2019 00:00	S-RCV19-116886 0

Left side of screen:



1. Note that the sample collection details and animal details cannot be edited when moving the sample to storage. To edit that information, you must edit the sample record within the



Medical dashboard.

- 2. The date will default to the collected date but can be edited. The time may become important when recording multiple Samples.
- 3. You have the option to record who stored the Sample
- 4. Select the Sample Container from the drop down list
- 5. Record the volume stored
- 6. The most recent Storage Location used at your institution or the next available box in a gridded box will be the default but can be edited. You can record the Storage Location if you know the Name by typing it in. This is a type ahead lookup so you will see possible matches right away. If you are unsure, use the magnifying glass lookup. This will open your Storage Location Tree and you can select from there. Note, you can double click on the 'node' within the tree to select, or highlight and scroll down to select.
- 7. If the location is a gridded box or has sublocations, record that here. You can click on the icon to view the occupied and unoccupied grids or sublocations.
- 8. If the quality of the Sample has changed since it was collected you can update that information here.
- 9. Check this box if you will be sending out or testing the Sample in the future.
- 10. Record where you will be sending it. NOTE: This sample now becomes a Sample with a Purpose. See <u>Samples with a Purpose</u> below)

Right side of screen:

- 1. If a Test Panel is available you can select it here
- 2. If the Sample was collected for a specific project, record that information here. Use the arrow to display recent projects to select from, or record a new one



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- 3. You can add a Note if appropriate.
- 4. Add a barcode or container ID as appropriate
- 5. Record the Sample Owner
- 6. If you are storing several vials of the Sample, you can save data entry time by clicking on the copy icon on the far right of the row. A new row will appear and the next available space in the grid will prefill but is editable.

The Sample in the list will now display that it is stored in two locations.

ľ	ds 🕂						C	:
		Animal ID/GAN	Taxonomy	Sample Type	Collected Date/Time	Sample GSN/ID	Stored	
		13310 / MIG12- 29922602	Ailurus fulgens fulgens / Red panda	Whole Blood	06/Jan/2019 10:25	S-RCV19-116855	2	
		13310 / MIG12- 29922602	Ailurus fulgens fulgens / Red panda	Whole Blood	06/Jan/2019 11:25	S-RCV19-116856	0	
l		15004 / RCV18-00750	Ovis aries / Sheep/mouflon	Serum	08/Jan/2019 11:30	S-RCV19-116860	0	

If you have selected multiple samples from the Sample list, you can record storage information as described above for the first sample in the list, and then when you Save, you will enter the storage information for the next sample in the list, and so on. The number of the Sample and the details will display at the top of each record.

<u> </u> Sample Storage		
Sample Storage	e Q Search fo	r locations
Subsample to storage	Selected sampl	e 1 of 3
Created from Sample	Collection Date	Animal Info
S-RCV19-116856 (Whole	06/Jan/2019	13310 / MIG12-29922602 / Ailurus fulgens fulgens
Blood)	11:25	/ Red panda
Date Stored *		Stored By
6/1/2019	00:00	Species360 Member Si 🔍

For more information watch the video Putting Samples Into Storage.

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Managing Stored Samples

Your Samples in storage can be removed for testing, discarded due to contaminate or even lost. When you perform any actions that remove the Sample from storage such as removing for use/testing, discarding or marking as lost, the Sample will be removed from the Stored Samples list. You can also move them to a new storage location. These actions can be performed from the list of Samples or from within the sample record itself. To move or remove stored Samples click the "Manage Stored Samples" tile on the Sample Storage home page. When you first open this screen there are no Samples displayed and you need to make a selection from the filters on the left hand menu to narrow the number of results.





Stored Samples	Displaying 0 records out
Filters	
Record Scope	
 Currently stored 	1
Currently or previously	stored
Animal	
Search local animals	Q
Taxonomy	2
Search taxonomy	Q
Include taxon below	
Sample Type	
Please Select	-3
Initial Date Stored Range	
From Date	#
To Date	#
Location Name / ID	
Search locations	۹ (5)
Include all locations be	low
Show advanced filters	6

	_
Hide advanced filters	- 1
Removed Samples	_
Marked To Send Out	_
Anatomical Source / Tissue	
Search terms	Q
Collected From 3	
Antemortem	
OPostmortem	- 1
Project 4	_
Barcode / Container ID 5	

1.You can select only the Samples currently stored or all Samples that have been stored
2.You can filter for Samples taken on a specific Animal or Taxonomy
3.You can filter by Sample Type
4.You can filter by the date the Samples was originally put into storage
5.You can search by the Storage Locations you have recorded
6.For more filters select the Show
Advanced Filters option which will add filters for.......

1.You can filter by Samples that have been Removed or Marked to Send Out. If you select Marked to Send Out, additional fields for Send To and Test Panel will appear
2.You can filter by Samples from a specific source or tissue
3.You can filter by Samples taken from a living animal or during Necropsy
4.You can find Samples marked for a specific Project
5.If you record bar codes you can search by them

select Hide Advanced Filters.



We have done an open search with no filters applied. The results grid shows that two Samples have been marked as Reserved for a Project. The Location column indicates where the Sample is stored and is a hyperlink into the record for the location. The Sample GSN (Global Sample Number)/ID is a hyperlink to a screen displaying details about that sample and the storage history

Reserved	Sample Type	Amount	Taxonomy	Animal ID/GAN	Date Stored	Sample GSN/ID	Location	Status
~	Whole Blood	.3 ml	Red panda / Ailurus fulgens fulgens	13310 / MIG12- 29922602	06/Jan/2019 00:00	S-RCV19- 116855-S01	> Box 1 > 1	In storage
	Whole Blood	.3 ml	Red panda / Ailurus fulgens fulgens	13310 / MIG12- 29922602	06/Jan/2019 00:00	S-RCV19- 116855-S02	> Box 1 > 2	In storage
~	Whole Blood	.3 ml	Red panda / Ailurus fulgens fulgens	13310 / MIG12- 29922602	04/Jan/2019 00:00	S-RCV19- 116786-S01	> Box 1 > 3	In storage
_	Tissue / CARAPACE	1 g	Green turtle / Chelonia mydas	13421 / MIG12- 29432165	03/Jan/2019 00:00	S-RCV19- 116836-S02	> Hospital Building > Necropsy Freezer	In storage
	Serum	.6 ml	Red panda / Ailurus fulgens fulgens	13310 / MIG12- 29922602	02/Jan/2019 00:00	S-RCV19- 116788-S01	> Hospital Building > Necropsy Freezer	In storage
							-	

To manage the Sample, check the box and from the Actions menus select the action you want to take on that Sample. You can check more than one box and perform Batch Actions.

ds out of 4	177 stored samples	: 2/477 selected 🗙					C _1
•	Reserved	Sample Type	Amount	Taxonomy	Animal ID/GAN	Date Ste	Remove samples from storage for use
		Plasma	1 ml	Amur tiger / Panthera tigris altaica	14192/ MIG12- 28659696	31/Oct/2 16:45	Discard samples from storage
		Plasma	1 ml	Amur tiger / Panthera tigris altaica	14192 / MIG12- 28659696	31/Oct/1 00:00	 Mark stored sample as lost or disappeared Move stored samples into new storage locations
		Plasma	0.5 ml	Amur tiger / Panthera tigris altaica	14192/ MIG12- 28659696	31/Oct/2 00:00	Edit sample storage records for this sample
		Plasma	1 ml	Amur tiger / Panthera tigris altaica	14192/ MIG12- 28659696	31/Oct/: 00:00	Delete stored sample and storage records Export search results to Excel file
	Ø	Tissue	2 g	Persian goitered gazelle / Gazella subgutturosa subgutturosa	12052/ 19766893	22/Aug/ 00:00	Export search results to PDF file
				Persian goitered gazelle /			

Remove Samples from Storage for Use

You may remove a sample from storage to run tests on or you may be sending it to another institution in response to a research request, regional biobank, or a referral laboratory. For laboratory tests, test panels that exist for that lab can be selected. The test results will be entered via the medical dashboard.





Animal Info					
GAN	Preferred ID	Taxonomy		Sex	
MIC12 20022602	12210	Ailurus fulgons fulgo	n / Pod panda	Fomalo	
MIG12*29522002	13510	Aitorus luigeris luiger	is / Reu paritua	renate	
Sample Info	-				
Collection Date/Time	Sample T	ype	Anatomical Source/Tissue	Local Sample ID	
06/Jan/2019 10:25	Whole B	llood	Cephalic vein	~	
Removal Type *			Current Location		
Caral Cara	6		- Maria Institution - Itan Mari		
Sena Out	institution usage		> Your Institution > Hospital	Building > Freezer 1 > Shelf 2 >	BOX 1 > 1
	institution usage	•	> Your Institution > Hospital	Building > Freezer 1 > Shelt 2 >	BOX 1 > 1
Removal Date · 3	institution usage	00	Responsible Party	Building > Freezer 1 > Shelt 2 >	BOX1>1
Removal Date • 3	institution usage		Responsible Party	Building > Freezer 1 > Shelf 2 >	*
Removal Date * 3 9/9/2019 Removal Reason 5	institution usage		> Your Institution > Hospital Responsible Party 4 Species360 Member Support Sent To 6	Building > Freezer 1 > Shelf 2 >	
Removal Date * 3 9/9/2019 Removal Resson 5 Please Select	institution usage	*	> You' Institution > Hospital Responsible Party 4 Species360 Member Support Sent To 6 IDEXX CBC >	Building > Freezer 1 > Shelf 2 >	
Removal Date * 3 9/9/2019 Removal Reason 5 Please Select Stored Amount	institution usage		> Your institution > Hospital Responsible Party 4 Species360 Member Support Sent To 6 IDEXX CBC > Removed Amount 7	Building > Freezer 1 > Shelf 2 >	- Q
Removal Date * 3 9/9/2019 Please Select Stored Amount .3 ml	institution usage		> rour institution > nospital Responsible Party 4 Species360 Member Support Sent To 6 IDEXX CBC * Removed Amount * 7 © Entire ample	Building > Freezer 1 > Shelf 2 >	Q
Removal Date 3 9/9/2019 Removal Reason 5 Please Select Stored Amount .3. ml	institution usage		> Your institution > Hospital Responsible Party 4 Species360 Member Support Sent To 6 IDEXX CBC * Removed Amount 7 © Entrie sample Orarial Lample / remainder retu	Building > Freezer 1 > Shelf 2 > t	d Box 1 > 1
Removal Date 3 9/9/2019 Removal Reason 5 Please Select Stored Amount 3 ml	institution usage	<u>۳</u>	> Your institution > Hospital Responsible Party Species360 Member Support Sent To 6 IDEXX CBC M Removed Amount 7 @ Entire sample Partial sample / remainder retu	Building > Freezer 1 > Shelf 2 > t t rned to storage	Q Q
Removal Date * 3 9/9/2019 Please Select Stored Amount 3 ml			> Your institution > Hospital Responsible Party 4 Species360 Member Support Sent To 6 IDEXX CBC 15 Removed Amount * 7 © Entire sample O Partial sample / remainder retu	Building > Freezer 1 > Shelf 2 >	- Q

1.The Animal and Sample Info will display and is not editable

2.You can select to send the Sample out, or keep it at your institution for testing

3.The Removal Date will default to today but is editable

4.You can record who removed the Sample from storage

5.The Removal Reason is a data standard list to select from

6.If you selected a lab when you recorded the Sample it will display here but is editable

7.You can select to send out the entire Sample or just some of it

8.Any additional Notes as desired

If you select to remove only part of the Sample, additional fields will display to record the amount of the Sample removed, the Container Type and thawing information.

			۲) Partial sample / remain	der returned to storag	e	
Amount Removed*				Amount Returned to	Storage		
	millilitre	*			millilitre	Ŧ	
Container type for Rei	moved Portion						
Plastic vial			~				
Was sample thawed to	o allow splitting of sample	?		Total Times the retur	ned portion has been	thawed 1	
	O			Current Thawed Cou	nt: 0		

The remaining Sample will be placed back in storage and the amount adjusted for the partial removal. The partial removal will display in the Storage History tab for the origin sample.

Back Sample ID: S-RCV19-116788-S01 Curren	k Sample ID: S-RCV19-116788-S01 Current status: In storage DETAILS						C	; ;
Location Held	Nominal Temperature	Date In	 Duration 	Notes				
~ (S-RCV19-116788-S01-A01): (0.2 ml)		15/Oct/2019	~				8	0
Sample Storage Locations > Your Institution > Hospital Building > Necropsy Freezer	-80 °F	02/Jan/2019	~9 months				2	0



Example: User wants to test "cats" in the collection for antibodies against a viral disease. The stored serum and plasma samples can be searched for Felidae samples collected during the past 6 months, and the results grid sorted by Animal ID/ GAN. The user selects samples from a number of different animals on the results grid, clicks on the Action menu and selects the "Remove from storage" option. The entire batch of samples can be removed as a single activity with the user able to record the laboratory used for testing, the test panel requested and with other sample removal information.

NOTE: Test results can be entered via the medical dashboard. Note the test request and test results will be dated after the sample collection record. For in house lab testing, any test panels you have created for your institution can be selected. For treatment (ie: plasma transfusion, artificial insemination)- detailed information may be entered into the patient clinical notes, those may also be copied into sample removal notes if desired. For details on Tests and Results see <u>Tests and Results</u>.

Discard Samples From Storage

The Sample may have become degraded in quality or is simply no longer needed and storage space is limited.

Discard Sample: S	S-RCV19-116855-S	02 - Discarding 1 of 1			×
Animal Info					
GAN	Preferred ID	Taxonomy		Sex	
MIG12-29922602	13310	Ailurus fulgens fulgens	/ Red panda	Female	
Sample Info					
Collection Date/Time 06/Jan/2019 10:25	Sample Whole	e Type e Blood	Anatomical Source/Tissue Cephalic vein	Local Sample ID ~	
Current Location > Your Institution > H Discard Date * 2	lospital Building > Free	zer 1 > Shelf 2 > Box 1 > 2	Responsible Party		
9/9/2019 Discard Reason			Bug Miller Disposal Method		~
Contaminated		-	Discarded		~
Notes					
в I <u>U</u> S 6	� <u>⊨</u> ≞ ≜	Note Templates	Ŧ		

1.The Animal and Sample Info will display but is not editable
2.The Discard Date defaults to today but is editable
3.You can indicate who discarded the Sample
4.The Discard Reason is a data standard list
5.The Disposal Method is a data standard list
6.Add any Notes as needed

Mark Stored Sample as Lost or Disappeared





The Sample is no longer in its location and you have no information about what happened to it.

Lost / Disappeared	d Sample: S-RCV1	9-116786-S01		×
Animal Info				
GAN	Preferred ID	Taxonomy		Sex
MIG12-29922602	13310	Ailurus fulgens fulge	ns / Red panda	Female
Sample Info	-			
Collection Date/Time	Sampl	туре	Anatomical Source/Tissue	Local Sample ID
02/Jan/2019 09:27	Whole	Blood	JUGULAR VEIN	~
Location Held when discov > Your Institution > H	ered missing ospital Building > Free	zer 1 > Sheif 2 > Box 1 > 3		
Date discovered missing*	2		Discovered missing by 3	
9/9/2019	-	m	Bug Miller	Ŧ
Notes				
віЦе	% ⊨ ≡ ≜ ;	Note Template	S v	
Last seen in storage of	n 1 September 2019	4		

1. The Animal and Sample Info will display but is not editable

2.The Date Discovered Missing default to today but is editable

3.You can record who discovered the Sample missing

4.Notes may be important here such as indicating when the Sample was last seen in its location

Move Stored Sample into new Storage Locations

You may need to transfer a stored Sample from one location to another. For example, you may consolidate Samples for a research project.

Subsample storage tran	ster: Selected sample 1 of 1				
Sample Storage Info					
Created from Sample		Collection Date		Animal Info	
S-RCV19-116836-S02 (Tissue / Date / Time Stored	CARAPACE) Stored By	03/Jan/2019 09:30 Storage Container / Amount	Sample Owner	13421 / MIG12-2943 Project	2165 / Green turtle / Chelonia mydas Barcode
03/Jan/2019 00:00	Species360 Member Support	Swab transport tube / 1 g	USFWS	~	~
Current Storage Location Sample Storage Locations > Yo Transfer Date *	ur Institution > Hospital Building > Ne	ecropsy Freezer	Transfer By		
16/10/2019	•	#	Species360 Member	Support	
New Location *	4				
Search locations		Q			
Notes					
B I U S %	\Xi 🗮 🔺 🕷 👖 Note Temp	lates 💌			

1. The Sample Storage Info will prefill and is not editable

- 2.Record the date the Sample was transferred
- 3.Record who transferred the Sample

4.Record the new storage location. You can use the lookup to find it is needed.

Edit Sample Storage Records for this Sample (not available as a Batch Action) You may need to edit records for stored samples. Select the edit icon.

3								
Back Sample ID: S-RCV19-117024-S01 Current s		DETAILS	STORAGE HISTORY	ALIQUOTS	C	1		
Location Held	Nominal Temperature	Date In	 Duration 	Notes				
Sample Storage Locations > Minnesota Zoo > Hospital > Lab Freezer #1 > R02 > A003 > 38	-75.5 °C	31/Oct/2019	~2 weeks			(3 8	





ated from Sample Collection Date Animal Info XCVI9-117024-S01 31/Oct/2019 14192/ MG12-28659696 / Panthera tigris altaica asma) / Amurt tiger stored * 1/10/2019 00:00 Rachel Thompson * iample Stored Animal Info ample Stored UUM Storage Location * Grid Space Send To Test Panel Project Note Barcode/Co UUM Storage Location * Grid Space Send To Test Panel Project Note Barcode/Co UUM Storage Location * Grid Space Send To Test Panel Project Note Barcode/Co UUM Storage Location * Grid Space Send To Test Panel Project Note Barcode/Co UUM Storage Location * Grid Space Send To Test Panel Project Note Barcode/Co UUM Storage Location * Grid Space Send To Test Panel Project Note Barcode/Co UUM Storage Location * Grid Space Send To Test Panel Project Note Barcode/Co UUM Storage Location * Grid Space Send To Test Panel Project Note Barcode/Co UUM Storage Location * Grid Space Send To Test Panel Project Note Barcode/Co UUM Storage Location * Grid Space Send To Test Panel Project Note Barcode/Co UUM Storage Location * Grid Space Send To Test Panel Project Note Barcode/Co UUM Storage Location * Grid Space Send To Test Panel Project Note Barcode/Co							
RC/19-117024-S01 31/Oct/2019 14192 / MIG12.28659696 / Panthera tigris altaica asma) asma) 00:00 //Amurt tiger ts/ordel Stored By ample container* Mount Amount UOM Storage Location * Grid Space Future Send To Test Panel Project Note Barcode/Co ID Imiliuit * Amount Imiliuit *	ated from Sample	Collection Date	Animal Info				
la Stored * Stored By I1/10/2019 OC:00 Rachel Thompson Amount UOM Storage Location * Grid Space Future Send To Test Panel Project Note Barcode/Co ID Plasti V 1 millul V Amous Q 38 V H	RCV19-117024-S01 asma)	31/Oct/2019 00:00	14192 / MIG12-28659696 / Panthera / Amur tiger	tigris altaica			
11/10/2019 Image: Container 00:00 Rachel Thompson Image: Container Future Stored Note Barcode/Container ample container Stored Amount UOM Storage Location* Grid Space Future Send To Out or Test Panel Project Note Barcode/Co ID Plasti IV 1 Imiliali IV Amount Q 38 III Imiliali IV Imiliali IV<	e Stored *		Stored By				
ample ontainer* Stored Amount UOM Storage Location* Grid Space Future Send Testing Send To Send To Test Panel Project Note Barcode/Co ID Plasti * 1 milluli * Amoust Q 38 * III Image: Send To Image: S	1/10/2019	00:00	Rachel Thompson 💌				
Plasti v 1 millili v 🗛 38 v 🖽	ample Stored Container * Amount	UOM	Storage Location * Grid Space	Future Send Send To Out or Testing	Test Panel Project	Note Barcode/C ID	0
	Plasti 👻 1	millili 👻	∧003 × Q 38 ▼			B	

All fields are editable.

Delete Stored Sample and Storage Records (not available as a Batch Action)

Be very careful if you select to Delete Subsample and Storage records. This will remove the initial storage record, all associated storage records and the corresponding sample record in the medical records.

You can also manage your samples from within the sample record. The following options are available:



The screens for each action are the same as the ones when you navigate from the sample list screen as shown above.

What if I accidentally store a sample in the wrong place?

You can edit an incorrect storage location by finding your sample ID then:





🖨 Sample Storage 🛛 🕂									Ŧ
	010270-S01 Current status: In sto	orage				DETAILS	STORAGE HISTORY	c	:
Location Held		Nominal Temperature	Date In	 Duration 	Notes				
Sample Storage Locations > Bag 1	AVES Tissue	20 °C	06/07/2023	0Y 0M 4D				2 0	
	Subsample to storage: Selected sample	elofl						2	
	Created from Sample Collection Date S-YDS23-010269-S01 (Tissue) 05/07/2023 (e Animal Info 20:00 / Anodorhyn Hyacinth macaw	chus hyacinthinus /						
	Date Stored * 5/7/2023	Stored By		Current Thaw Count					
	Sample Stored UOM Container * Amount UOM	Storage Location * Grid Space *	Future Send Out or Testing	Test Panel Project	Note ID Barcode/Container	Sample Owner*		4	l
	Bag v gram v	Bag 1 X Q			R	×	۹		
						_			
						4	Save X Close		

- 1. Select storage history
- 2. Click the edit icon 🕼 to open up the details tab.
- 3. Edit the storage location by clicking the red x and retype the correct location.
- 4. Save to update the location.

For more information watch the video Managing Stored Samples.

Back to Topics Covered

Sharing Samples

Sharing Samples (single record sharing) was created so you can share a Sample record with a Bio Bank and they can record storage details for it. They will not be able to change any of the sample collection information. At this time, this functionality is intended only for use by EAZA member institutions. You can only share a parent sample; no subsamples can be shared.

To share the Sample, highlight it in the dashboard and select Share This Record above the preview pane.





	Animal	(3 Rec	ords) Date	Details			Responsible Staff
∃ 02 <i>/</i>	/23/2020						
Ø (🌔 97A039 / Alligat	tor snapping turtle / 66578	93 02/23/2020	00:00 / Plasma	11		
∃ 08 /	/05/2019						
Ø I	🔋 B18005 / Plymo	outh Rock chicken (silver p	pencil 08/05/2019	00:00 / Tissue /	Cloaca /		
∃ 07/	/17/2019						
(🔋 XGA021 / Niger	rian dwarf goat / 2095557	0 07/17/2019	00:00 / Plasma	11		Adrienne Miller
🖁 Đ	cport to PDF 📡 E	dit 🔀 Delete 🐠 Ret	quest Test 🛛 👫 Move T	o Storage 🗣 Create	e Subsample	Share This Reco	rd 단글 Sample Tree Vi
	GAN	Preferred ID T	axonomy		Sex	Birth Date	Age
6	HSV18-00120	B18005 G	allus gallus domestic ply	/mo	Female	Undetermined 😲	2Y 3M 21D
_ Sam	ple Detail				S	ample Quality	



1.The sample type, date collected and Sample ID will display in addition to the animal Local ID, common name and GAN.
2.Any existing shares of this Sample will display.
3.Record the BioBank Institution. This can be made to pre-fill in Medical Preferences.

The shared sample will display in the External Sharing grid in My Institution.





PROVIDNCE	MIG12-29823595 [Myrmecophaga tridactyla/Giant anteater]		Medical, Husbandry		05/23/2018	Keith Gilchrist
JACKSONVL	HSV16-00001 [Grammostola rosea/Chilean rose tarantula]		Husbandry		04/11/2016	Keith Gilchrist
EAZA.BIOB			Single Sample	Plasma/17 Jul 2019/S-HSV19- 010907; XGA021/Nigerian dwarf goat/20955570	06/26/2020	Adrienne Miller
EAZA.BIOB			Single Sample	Tissue/05 Aug 2019/S-HSV19- 010911; B18005/Plymouth Rock chicken (silver pencil)/HSV18- 00120	06/26/2020	Adrienne Miller
TOLEDO		Pongo pygmaeus/Bornean orangutan	Medical, Husbandry		12/30/2019	Adrienne Miller
TOLEDO	HSV18-00126 [Ailurus fulgens fulgens/Red panda]		Medical, Husbandry		09/27/2019	Adrienne Miller

The BioBank can now find the record in ZIMS and record storage information.

Records previously shared will be marked with this icon in the Sample Storage search results: <- ->





To determine if a record is already shared:

Medical Records									
😁 New 🔹 陷 Edit	🗶 Delete 🗄 Manage	Animal Lists 🗸 🛛 Relo	ad medical list 🛛 🏹	Export medical list	Medical Reports - Medical A	💽 🕞 Sample Storage	My Calendar		
Dashboard 😲		Animal		(3 Records) Date	-utilis Res	Basic Info			
Select animal to s	ee detail 🔎	17/02/2021				GAN Identifiers	-		
A Cords	7 🖬 🛾	654	12780840	17/0:	2/2021 00:00	Current Enclosure ~			
Clinical note	s	□ 01/02/202				Sex Male			
Diagnoses &	& Procedures	() 454	10790345			Scientific Name	hera lea	5	
Prescription	s/Treatments	31/01/201		3	<u></u>	Common Name		ck here for details	
Tests & Res	() Sample Storage	(P) 454	a manual			Birth ~ fro 01/0	om 11/1952 to		- = X
📝 Anesthesia				Place S	amples into Storage				
Necropsy/E	🖌 🕋 Sample Stora	ige +		Locate an	existing sample record in				(Ŧ)
Physiologic	a			ZIMS, select sample into	and move a portion of that storage. Add a new sample				
⊿ (Collected Samp	les Total 3 recor	ds 🗕		if needed.				c :
Clinical note									
Diagnoses	F 114			A	-	Control of Theme	Collected	6I- 66N//D	Channel .
Dashboard	Filters		• 🕛 🔛	Animal ID/GAN	Taxonomy	Sample Type	Date/Time	Sample GSN/ID	Stored
	Collection Date								
Clinical Notes	Last 12 months		- ++	454	Panthera leo / Lion	Serum	31/01/2021 00:00	S-I 4	0
Diagnoses & Pre	Last 12 months			A					
Prescriptions/Tre	Sample Type		- ++		Panthera leo / Lion	Serum	01/02/2021 00:00	S-1 3	0
Samples	Plasma × Sei	rum 🗾 🤟							
Gampies	Tissue × Who	ole Food ×		454	Panthera leo / Lion	Serum	17/02/2021 00:00	S-1 5	0
😌 Tests & Results									
🥖 Anesthesia	Please Select								
Physiological Me	Only Show Tissue S	am es Without							
Thyaiological Mi	Additive/Preservativ	ve							
Necropsy/Biopsy	Animal	🤳 🔰							
Weights	454/1	<u>ک</u> ک							
D <- Click here for	Taxonomy								
	Search taxonomy	Q							
Contraction	Include taxon below	v							
Contraception	Collected From								
Click here for	collected From	4							
	O All								
Enclosures	Antemortem								
Click here for	D Reset t	o Defau <mark>t Q</mark> Search	Page 1 of	1 Page Size 20 Cha	nge				1 - 3 of 3

- 1) From a sample record in the medical dashboard
- 2) Open Sample Storage module
- 3) Choose, Place Sample Into Storage
- 4) Search for sample by specific animal (or other search terms)
- 5) When viewing the samples in the search results grid, rows marked with the <- -> sharing icon have already been shared.

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Viewing the Grid History

The ability to easily view all the Samples stored in a grid location over time can be very useful especially for correcting historical data entry errors. To view the history, search for the Box using Manage Storage Locations.





🖶 Sample Storage 🛛 🕂									
Locations Total 1 records +									
Filters		Location Name/ID	Location Type	Location Held					
Location Name / ID Box 5		Box 5	Gridded Box	Shelf 1					
Location Type									
Please Select	-								
Location Held Search locations	Q								

Select the Location hyperlink. Go to the Contents tab and select the "Display locations (sublocations) directly below this location" radio button. Any grids with historical Samples will display with a counterclockwise clock arrow to the right.

●Back Box 5 [Gridded Box]		DETAILS CONTENTS	MOVE HISTOR					
 Display samples currently held directly within the location Display locations (sublocations) directly below the location 	is nis	Location Path Sample Storage Locations > Zoo > Freezer 1 > Shelf 1						
	S	Sublocations of Current Location						
Location Name/ID	Location Type	Effective Date Description						
1	Grid space	23/Jan/2020	ల					
2	Grid space	23/Jan/2020	9					
3	Grid space	23/Jan/2020	9					
4	Grid space	23/Jan/2020	છ					

Selecting this icon will display the current Sample and any other historical Samples held in the grid.

Sample History	of>Zoo>Freezer 1>Sh	elf 1>Box 5>1					×
Stored Date	Sample GSN/ID	Sample Type	Stored Amount	Animal ID	Taxonomy	Sample Status	Removal Date
23/Jan/2019	S-RCV19-116957-S01	Serum	2 ml	/RCV14-01562	Vulpes zerda / Fennec fox	Sent Out	18/Feb/2020
18/Feb/2020	S-RCV20-119354-S01	Tissue	1 g	/MIG12-29767188	Aythya americana / Redhead	In storage	~
							× Close

You can also view the history of a grid when you are moving a sample into storage by selecting the box icon to the right of the Grid Space.



				Stored By				
		Ê	00:00	Species360 Mer	nber Support 🔹			
r*	Stored Amount	UOM	Storage Location *	Grid Space *	Additional Characteristic	Future Send Out or Testing	Send To	Test Panel
•		millili	▼ Box1× Q	A-4	Please Select 💌			

This will open the grid space display. If the grid space currently, or historically, held a sample, the counterclockwise clock arrow will display to view the history.

Select grid space										
A-1	A-2	A-3 ව	A-4	A-5	A-6	A-7				
B-1	B-2	B-3	B-4	B-5	B-6	B-7				
C-1	C-2	C-3	C-4	C-5	C-6	C-7				
D-1	D-2	D-3	D-4	D-5	D-6	D-7				
E-1	E-2	E-3	E-4	E-5	E-6	E-7				

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Reports

The Stored Samples Report lets you search for samples using Animal, Sample and Storage filters. You can also select formatting for the final Report.

Animal Filters:

nimal	Taxonomy	Sex Type	Animal Status at Sample	Health Status at Sample	
Search local animals Q	Search taxonomy Q	All Combined	Collection	Collection Any health status	
	✔ Include taxon below	Females only Males	Antemortem Postmortem	Normal health only	

Sample Filters:





Sample Filters						
Sample Type		Date Collected Range		Anatomical Source / Tis	Marked To Be Sent Out	
Serum ×	*	From Date	##	Search terms	Q	
Please Select		To Date	Ê			

Sample Type is a multiple select dropdown list.

Storage Filters:

Current Storage Status		Storage Location Name / ID		Initial Date Stored Range		Date Removed Range		Time in	Units
		Search locations Q Include all locations below		From Date		From Date	**	Storage	Please 🔻
						To Date		From To	Please 🔻
Sent To		Removal Reason		Project Name		Barcode / Container ID		Text in Storag	ge Note
Search institutions Q		Please Select	-						

Current Storage Status defaults to In Storage but you can use the multiple select dropdown list to select other Statuses as desired.

Report Output Format:

Report Output Format						
Sort Order	Taxonomy Preference					
by Date Collected	Common Name					
O by Taxonomy	O Scientific Name					
O by Storage Location						

Remember to select the Sort Order that you want the Report to display.



1. Export the Report to Excel is the default output. Note, reset will clear all filters.

Back to Topics Covered

Metrics and Statistics

ZIMS has generated some useful metrics about your institution's Sample Storage.





Sample Storage 🕂		
etrics and Statistics		
Iters • • • • • • • • • • • • • • • • • • •	Stored Sample Types Braying 718 received with 718 stored snaples Provide the store of 718 stored snaples	4 Ven das talls Constad Das is final Dunitad PDP disument
	Ser	rum
	Se	NUM
	Stored Sample Types 718	Au of 2 1/24/202
	Stored Sample Types 718 Serum 472 (65.0%)	NUM Au of 21/94/201
	Stored Sample Types 718 Serrum 471 (65.6%) Tissue 149 (20.6%)	NM As of 2.256.255
	Stored Sample Types 71.8 Serum 471 (65.6%) Tissue 149 (26.8%) Plasma 60 (56.4%)	лия А. df 2:00:000
	Stored Sample Types 718 Serum 471 (55.6%) Tissue 169 (20.8%) Plasma 60 (8.4%) Feces 23 (3.2%)	лия Ания 200 200
	Sered Sample Types 718 Serum 472 (55.6%) Tissue 149 (20.8%) Plasma 60 (3.4%) Pecces 2 (0.2%) Whole Blood 12 (2.7%)	num An of 2 (14 202

1.You can group by Stored Sample Types or Stored Taxonomies

2.You can select all Samples or just those collected Postmortem or Antemortem

3.A pie chart will display as per your filters selected. Hovering over the pie piece will display a count of that Sample Type.

4.You can select to view the data in a chart presentation (5) or download the data to Excel or pdf

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Samples with a Purpose

Samples with a Purpose allows you to find samples that were placed into storage for a specific purpose or project. When you place a sample into storage you have the option to select a checkbox for Future Send Out or Testing and the institution you will be sending it. The sample can also be tied to a specific project. (See <u>Place Samples into Storage</u> above).





希 Sam	ple Storage 🔸				
Reserve	ed Samples Quick actions tutions: 8 🛛 🔁				
Stored and Tagged Samples	Institution	Project Name	Earliest Sample Collection	Latest Sample Collection	5
22	Animal Health Diagnostic Center / CORNELLAB	-	Sep 11, 2001	Jan 29, 2020	0 0
3	IDEXX Laboratories USA / IDEXXUSA		Jun 04, 2018	Jan 28, 2020	0 0
1	Marshfield Laboratories - Marshfield / MFLABWIMA		Dec 11, 2019	Dec 11, 2019	0 0
2	University of Minnesota Veterinary Diagnostic Laboratory / UM VD LAB		Oct 04, 2017	Oct 04, 2017	0 d 0
2	University of Minnesota Veterinary Diagnostic Laboratory / University of Minnesota Veterinary Diagnostic Laboratory		Nov 27, 2017	Nov 28, 2017	0 0
2	Veterinary Reference Laboratories / VRLLABS		Oct 10, 2017	Oct 10, 2017	0 0
1	Washington Animal Disease Diagnostic Laboratory - Pullman / WADDL	Selenium	Nov 01, 2018	Nov 01, 2018	0 0
13	Washington Animal Disease Diagnostic Laboratory - Pullman / WADDL		Oct 09, 2017	Jan 28, 2020	¢

1.The number of samples tagged

2.The institution they will be sent to

3.If the sample is part of a specified project

4.The dates of sample collection

5.Use the icons to export to Excel or pdf or send the samples (or some of them) out

Selecting the arrow icon will bring up the screen to send the samples out. You can removes samples one by one or easily do a batch send out by checking the sample and selecting Remove samples from storage for use option under the Action menu.

🖶 Sample Storage 🛛 🕂									
Stored Samples Display	ing 13 record	ls out of 69	9 stored samp	les: 4/13 selected	×				0
Filters		•	Reserved	Sample Type	Amount	Taxonomy	Animal ID/GAN	Date Stored	Remove samples from storage for use
Record Scope			~	Serum	1 ml	Amur leopard / Panthera pardus	13348 / RCV12- 00083	Jan 28, 2020	Discard samples from storage
Currently or previously stored						orientalis			⊘ Mark stored sample as los Dr disappeared
Animal			~	Serum	1 ml	Reindeer / Rangifer tarandus	15204/RCV18- 00931	Dec 07, 2018 00:00	
Search local animals Taxonomy	Q		~	Serum	1.8 ml	Jersey cow / Bos taurus taurus jersey	15080/RCV18- 00818	Jun 07, 2018 00:00	Move stored samples into new storage locations Fdit sample storage records for this sample
Search taxonomy	Q		~	Serum	1.5 ml	Holstein cow / Bos taurus taurus holstein	15081/RCV18- 00819	Jun 06, 2018 00:00	Concerning and storage records Delete stored sample and storage records
Sample Type Please Select	¥		~	Serum	1.8 ml	Sichuan takin / Budorcas taxicolor tibetana	11061/ 9042633	Jun 05, 2018 00:00	D Export search results to Excel file
Initial Date Stored Range From Date	600		~	Serum	1.5 ml	Sichuan takin / Budorcas taxicolor tibetana	14442 / RCV16- 00153	Jun 01, 2018 00:00	Export search results to PDF file

This will bring up your sample removal screen. All samples removed by batch must have the same removal type, removal date, responsible party and other removal data, otherwise they should be removed individually. See <u>Managing Stored Samples</u> above).

Back to Topics Covered

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