STUDBOOK TOOLS

The Reports and Tools that are found under the Tools menu in ZIMS for Studbooks.

Contact support@Species360.org

The Tools menu is found in the left hand Dashboard when any of the Studbook Lists are open (Living Animals, All Animals, Suggested Animals and Pending Updates).

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Census Report and Graph
This Report will display a yearly census taken on the date specified. The first part (left side) of the report provides the Census count, the second part (right side) details how that count was produced.
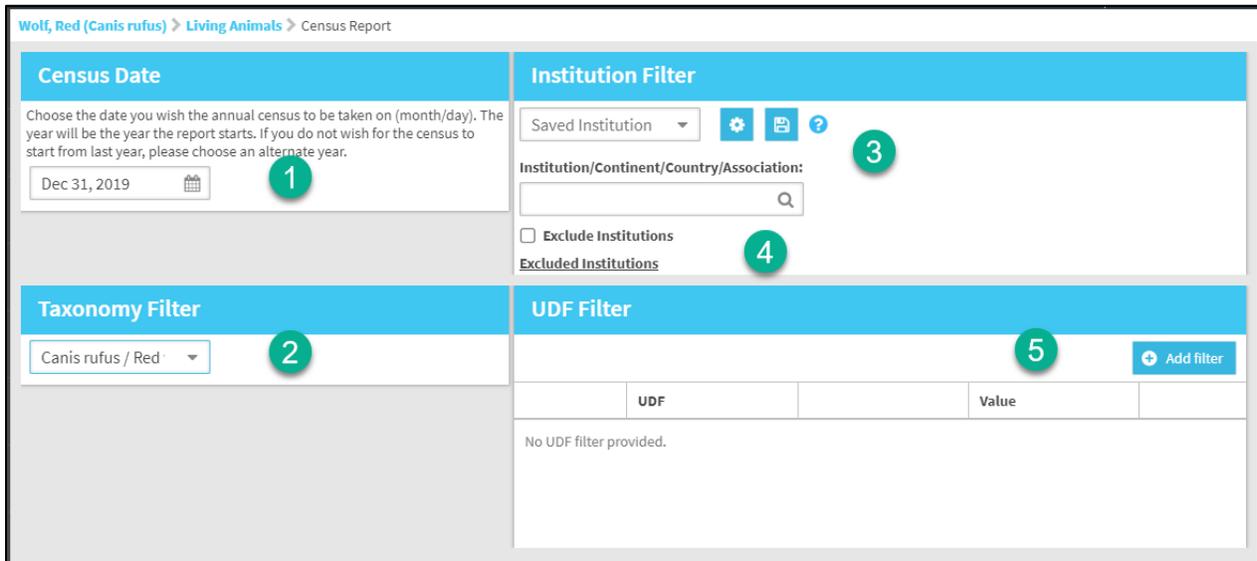
1.Select the date you want the Census taken on, often this is the first or last date of a year. By default, it will start from last year and run through the earliest year recorded in your Studbook.

2.Select the Taxonomy to be covered in the Census. Some Studbooks cover multiple subspecies.

3.You can select specific Institutions, Continents, Countries or Associations to run the report for. You can also save these filters for later use.

4.In reverse, you can select to Exclude specific Institutions.

5.You can select to filter the Report on selected UDFs (User Defined Fields).
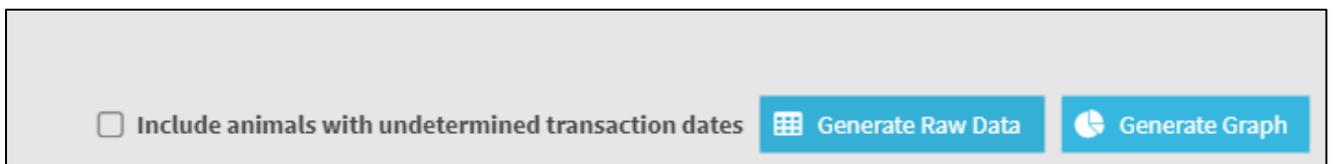
When you are done selecting your filters you can select to include animals with undetermined transaction date, Generate Raw Data (create the Report) or Generate Graph.

*Note, viewing Raw Data will provide you the option to view columns listing the total count

of holding institutions for that year and the total count of breeding holders for that year:

If you select Generate Raw Data, the Report will display. This is the left-hand side of the Report and supplies the Census count by Population Size, Wild Born and Captive Born.

1.You can go back to your filters to create new ones.
2.The filters you have selected will display.
3.You can also View Graph from this screen.
4.You can download the data to Excel.
5.The numbers are hyperlinks that will open a list of the animals.

Year	Population Size	Annual Lambda (N)	Geometric Mean (N)	Wild Born	Undete...	Captive Born	Annual Lambda (Captive)	Geometric Mean (...	Captive Births
2019	31 (13.18.0.0)	1.033	-	4 (2.2.0)	0 (0.0.0)	27 (11.16.0)	1.080	-	2 (1.1.0)
2018	30 (12.18.0.0)	1.000	1.016 (last 2 years)	5 (2.3.0)	0 (0.0.0)	25 (10.15.0)	1.042	1.061 (last 2 years)	1 (0.1.0)
2017	30 (13.17.0.0)	1.034	1.022 (last 3 years)	6 (3.3.0)	0 (0.0.0)	24 (10.14.0)	1.043	1.055 (last 3 years)	2 (1.1.0)
2016	29 (13.16.0.0)	0.829	0.970 (last 4 years)	6 (3.3.0)	0 (0.0.0)	23 (10.13.0)	0.821	0.991 (last 4 years)	3 (1.1.1)
2015	35 (16.19.0.0)	1.000	0.976 (last 5 years)	7 (3.4.0)	0 (0.0.0)	28 (13.15.0)	1.000	0.992 (last 5 years)	1 (0.1.0)
2014	35 (17.18.0.0)	0.946	0.971 (last 6 years)	7 (3.4.0)	0 (0.0.0)	28 (14.14.0)	0.966	0.988 (last 6 years)	0 (0.0.0)
2013	37 (19.18.0.0)	1.000	0.975 (last 7 years)	8 (4.4.0)	0 (0.0.0)	29 (15.14.0)	1.000	0.990 (last 7 years)	0 (0.0.0)
2012	37 (19.18.0.0)	1.028	0.981 (last 8 years)	8 (4.4.0)	0 (0.0.0)	29 (15.14.0)	1.036	0.995 (last 8 years)	1 (1.0.0)
2011	36 (18.18.0.0)	1.059	0.990 (last 9 years)	8 (4.4.0)	0 (0.0.0)	28 (14.14.0)	1.077	1.004 (last 9 years)	2 (1.1.0)

This is the right-hand side of the Report and supplies details of the Census such as Births, Deaths and Wild Captures. Note that the year column is frozen so it is always visible even if you scroll to the right.

By selecting the arrow to the right of any column, the columns can be sorted Ascending or Descending.
They can also be customized to display only the information you want to see. If you export to Excel, the data will export as it displays on the screen.
The column customization will hold as set when the Studbook is closed.
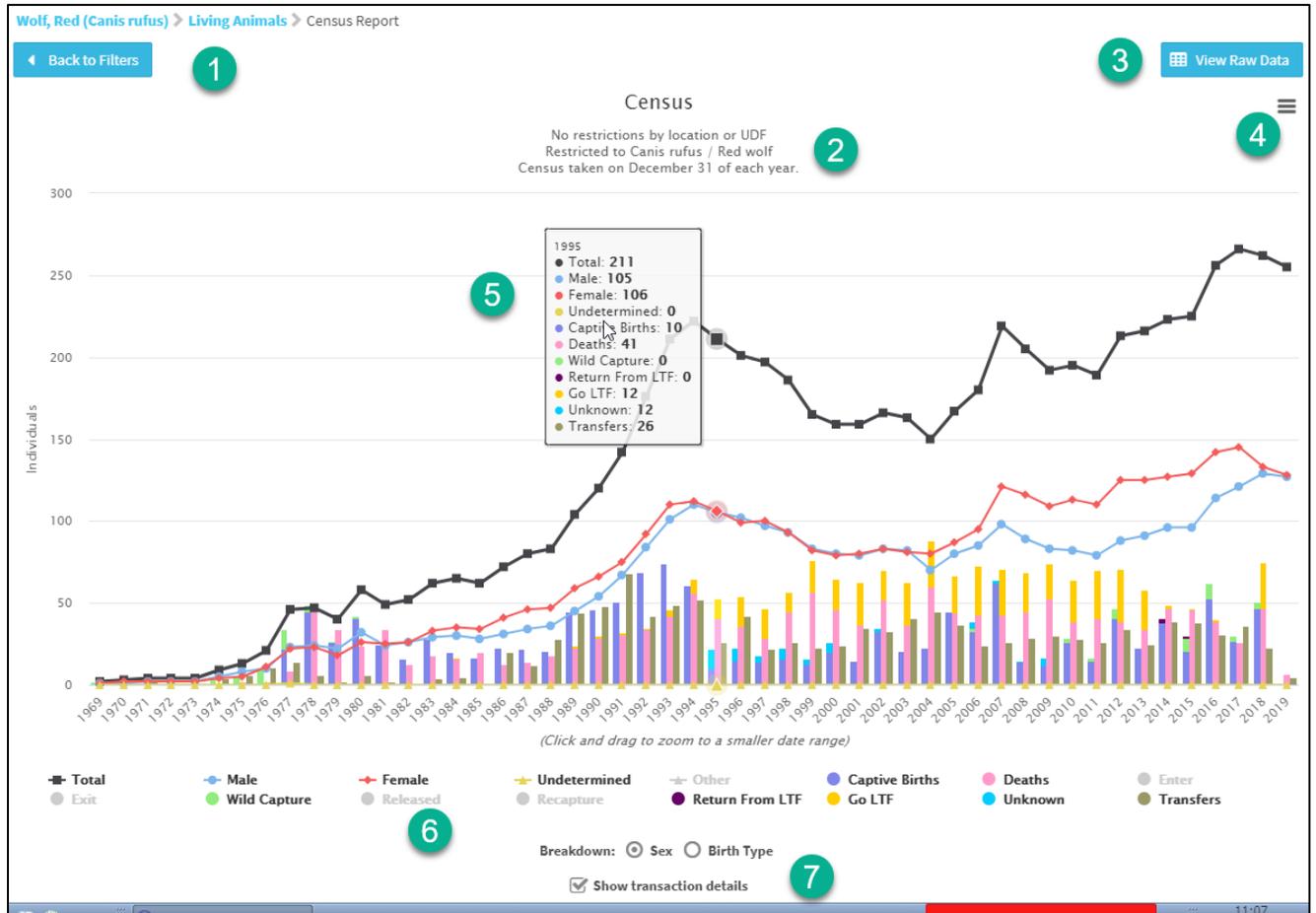
You can select to View Graph from either the filter screen or the results grid.

1.Go back to your filters using the Back to Filters button.

2.The filters used for the graph display at the top.

3.You can view the raw data from this screen.

4.Use the hamburger icon to view in Full Screen, print the chart or download to various formats.

5. Hovering over any point in the graph will display the details for that year.

6.Clicking on a field allows you to remove it from the Graph.

7.You can run the Graph by Sex or Birth Type and you can select to include transaction details.

2002
- Total: **18**
- Male: **9**
- Female: **9**
- Captive Births: **0**
- Deaths: **0**
- Wild Capture: **0**
- Transfers: **0**
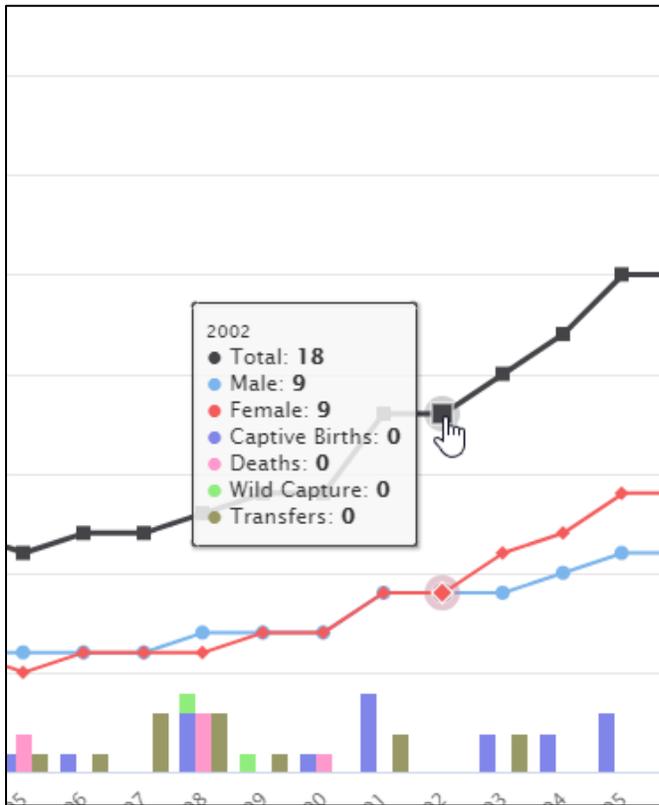
Hovering over the dots will display the counts for the year. Left clicking on the dots will bring up a list of the animals.
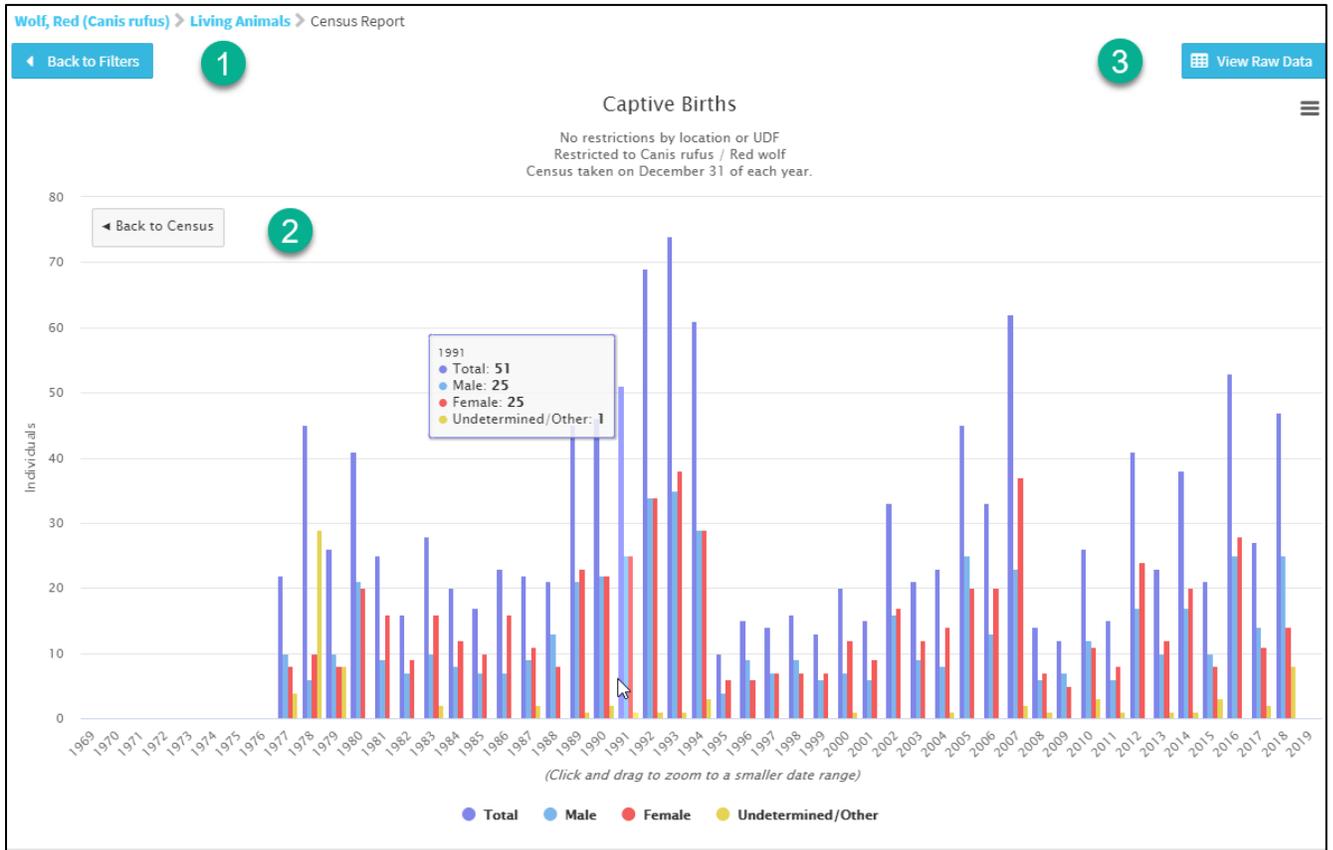
Double clicking on the transaction details bars will bring up another graph that displays sex type.
1.To go back to the filters select Back to Filters
2.To go back to the graph, select Back to Census
3.To view the data select View Raw Data

To select a smaller time frame, left click and drag your mouse over the desired area.

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Age Structure

Click here for a video overview of the Age Structure tool.

To access Age Structure, open the Tools menu while inside of your desired studbook:
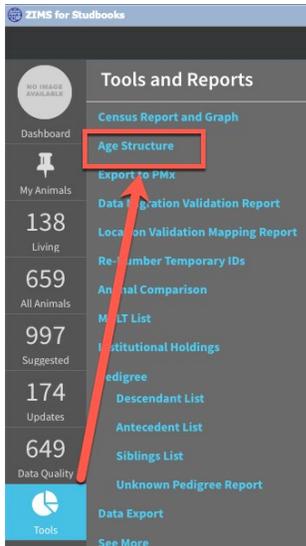
Note: Animals with undetermined age estimates are removed by default. Select the filter to include them if desired.

Click "show breeding" button at the bottom of the chart to include:
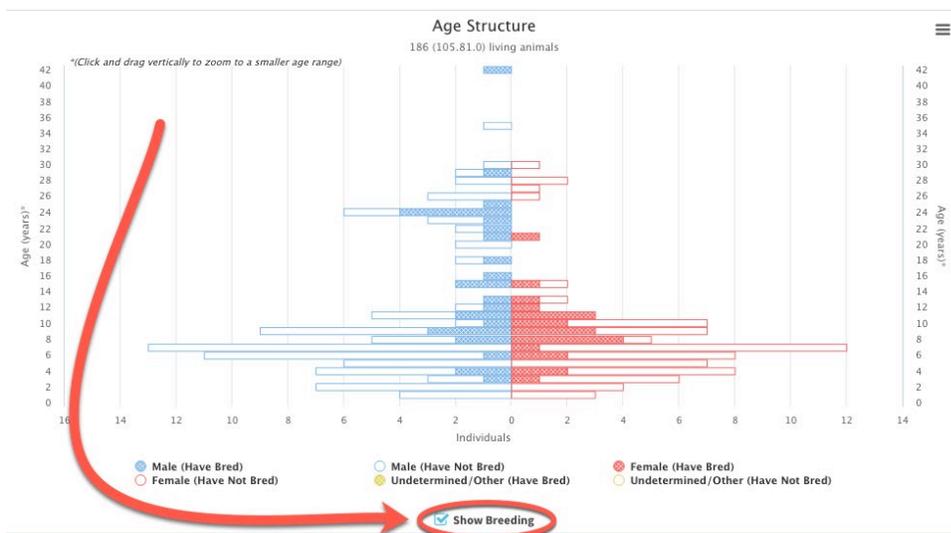
Males that...
Have Bred
Have Not Bred

Females that...
Have Bred
Have Not Bred

Undetermined/Others...
Have Bred
Have Not Bred

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To select a specific set of age classes, left click and drag your mouse over the desired area.
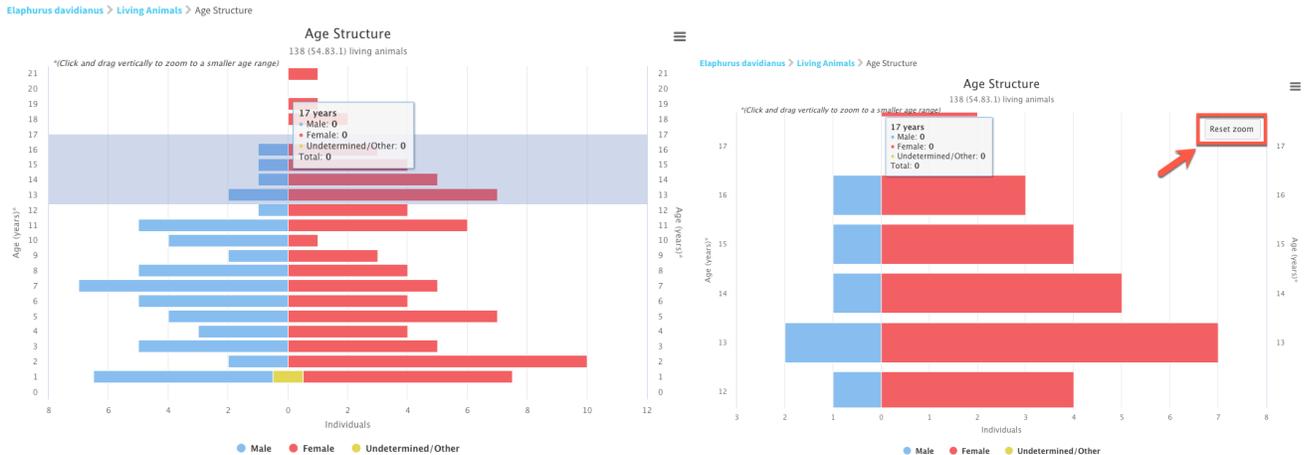
The selected data will be displayed – you can reset the view to include all data by pressing the 'reset zoom' option.

Additional filters available:

1. Expand the filter menu
2. Institution Filters and saving filters are available here
3. Included institutions and associations are added here and display at right
4. Check box to exclude institutions will allow you to select specific holders

Taxonomy and UDF Filters:
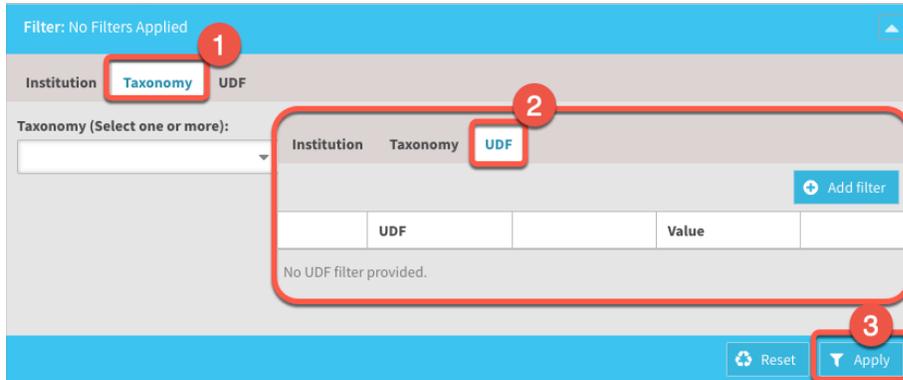
1) Filter by taxonomies that are assigned to the current studbook
2) And/Or apply UDF filters from existing UDF options in the current studbook

Export the data to image files via the top left 'hamburger menu'.
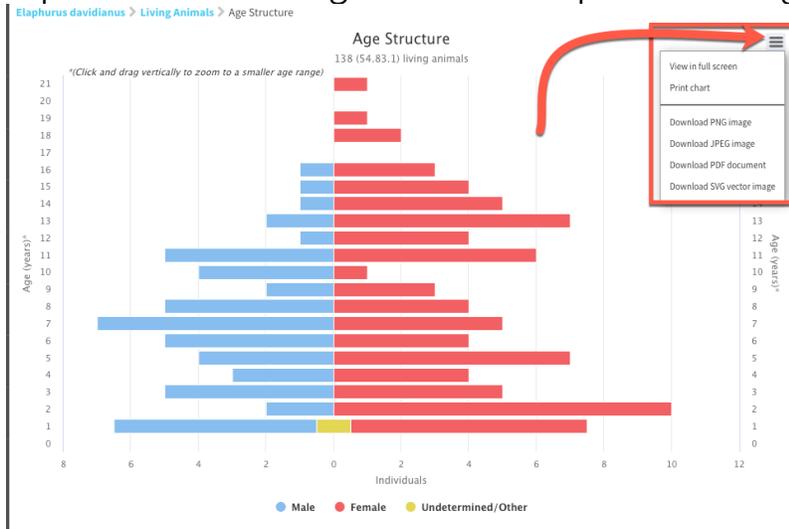
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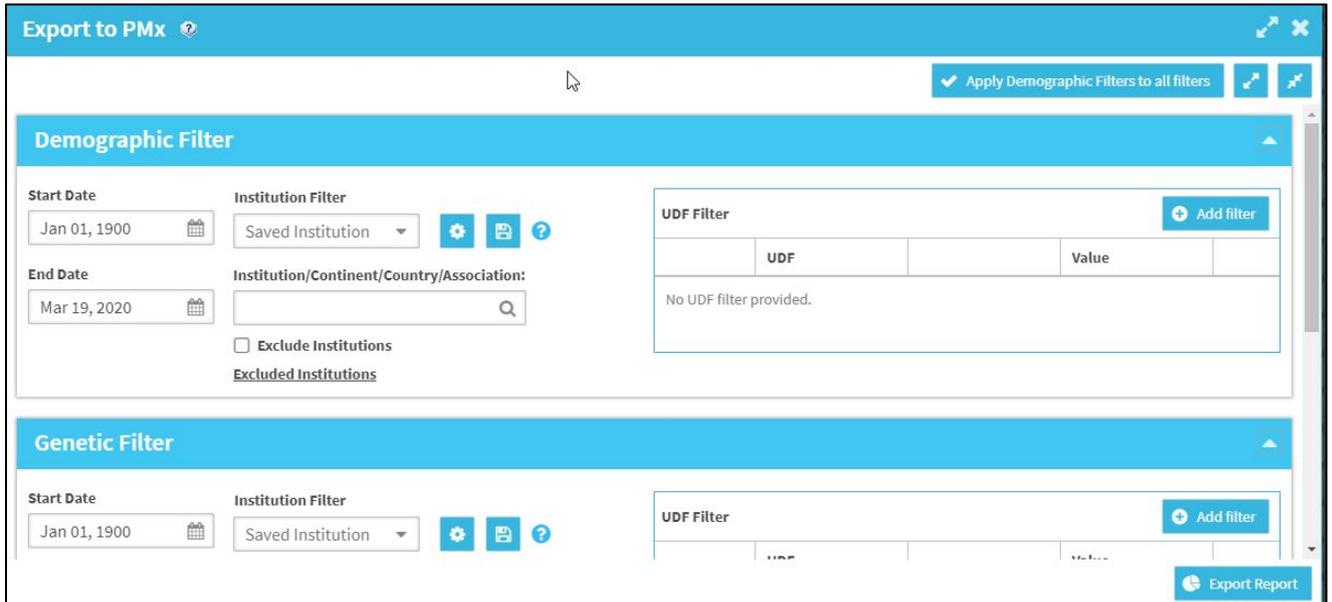
Export to PMx

The Export to PMx is used by Population Managers when making recommendations.
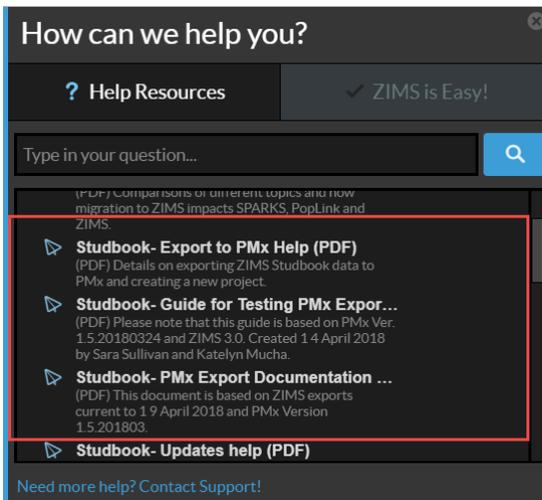
You can find additional information and instructions on how to export your data to PMx for analysis under the Help menu in ZIMS.

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Data Migration Validation Report

Data Migration Validation Report				
Studbook Name	Canis rufus	**Taxon Name**	CANIS RUFUS	
Studbook Format	PopLink	**Common Name**	RED WOLF	
Studbook Scope	InternationalYHOSTC.Point Defiance Zoo & Aquarium YLASTACCSC 2103YLASTEDITC 1914	**Migration Date**	Apr 21, 2017	

This report is given to users to assist them with the comparison of their legacy studbook data to the data that was migrated into ZIMS for Studbooks. These calculations are as of the migration date and will not be updated as information is added to the studbook in ZIMS.

Category	Detail	Legacy Software	ZIMS
Animal Sex Counts	Total Number of Animals in Studbook	2172	2172
Animal Sex Counts	Total Number of Males in Studbook	1025	1025
Animal Sex Counts	Total Number of Females in Studbook	1063	1063
Animal Sex Counts	Total Number of Other Sex in Studbook	84	84
Animal Age Counts	SB ID of All-time oldest animal	11	11
Animal Age Counts	All-time oldest animal (Age in Days)	6434	6434
Animal Age Counts	SB ID of All-time youngest animal	1079	1079
Animal Age Counts	All-time youngest animal (Age in Days)	1	1

The Data Validation Report compares the data in the legacy application (SPARKS or PopLink) and the data in ZIMS after migration. This report is created as a tool for the Studbook Keeper to confirm the data migrated as expected. Species360 recommends reviewing this report after migration.

There are expected differences in the numbers in this Report:

- **Total transaction/birth transactions:** Birth transactions are mandatory in ZIMS. The migration process creates birth transactions for all wild caught animals or any animal without a birth transaction in SPARKS or PopLink. Therefore, the ZIMS studbook may have a higher number of birth transactions than the legacy studbook.
- **Birth Location with most number of births:** Could change as a result of adding the birth transactions during migration.
- **Transfer location with most number of transfers:** Could change as a result of adding the birth transactions during migration.
- **Institution Counts:** ZIMS has corrected any geography locations entered as institutions. This may affect the number of Institution Counts

If your counts are different for any other categories contact support@Species360.org with questions.

At the top of the Data Migration Validation Report you may see some Data Quality Errors
that may have caused problems with migration. These include:

- For SPARKS and PopLink:
  - Birth/Hatch transaction is not the first event
  - Wild capture is not the first transaction or does not follow a release or birth
- For PopLink:
  - A recapture transaction does not follow a release transaction
  - A LTF transaction is not the last transaction or follows a transaction other than   Return from LTF

Species360 recommends addressing these issues prior to migration.

| PopLink Data | Studbook IDs created in PopLink but then deleted | 66, 83 |

Deleted Studbook IDs were tracked within PopLink. The DMV report documents these
deleted IDs in the last row of the report for studbooks migrated from PopLink. These IDs
cannot be reused in the studbook once it is migrated to ZIMS.

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Location Validation Mapping Report

Location Validation Mapping Report				
Studbook Name	Podargus strigoides		**Taxon Name**	Podargus strigoides
Studbook Format	PopLink		**Common Name**	Tawny frogmouth
Studbook Scope	North American regionalYHOSTC.Woodland Park Zoo		**Migration Date**	Sep 01, 2017

This report shows you where the locations from your transactions mapped to during the migration of your studbook.

Mapping Record Type	Legacy Location	Times Used	Maps To	SB ID of Animals Used In
Geographical Reference	AUSTRALIA	10	Australia (Country)	1001, 1003, 1008, 1009, 1122, 1140, 1141, 1142, 1444, 1499
Geographical Reference	NEW SO WA	33	New South Wales (en) (state) (AU) (State)	1002, 1004, 1005, 1006, 1010, 1011, 1013, 1014, 1015, 1016, 1041, 1042, 1043, 1044, 1045, 1046, 1054, 1143, 1144, 1145, 1147, 1148, 1149, 1500, 1501, 1502, 1503, 1505, 1506, 1626, 1640, 1641, 1687
Geographical Reference	QUEENSLAN	8	Queensland (en) (state) (AU) (State)	1731, 1732, 1734, 1735, 1736, 1737, 1740, 1741
Geographical Reference	S AUSTRAL	6	South Australia (en) (state) (AU) (State)	1163, 1237, 1238, 1722, 1723, 1724
Geographical Reference	VICTORIAA	3	Victoria (en) (state) (AU) (State)	1612, 1613, 1614
Global Institution	ADELAIDE	18	ADELAIDE : Adelaide Zoo	1122, 1140, 1141, 1142, 1163, 1237, 1238, 1444, 1723, 1724, 1725, 1727, 1728, 1730

The Location Validation Mapping Report compares legacy software location values to the locations they were mapped to during the migration process into ZIMS and provides the Studbook IDs of the animals with that location in their record.

Some information about this Report:
- **Global**
  - The system will map institutions that were previously entered as user defined institutions in the legacy studbook to global institutions if it can match it to a Species360 global institution.
  - If the studbook is using an historic mnemonic, the system will update the mnemonic to the newly recognized mnemonic.
- **Local**
  - When the system cannot find a match to an institution in the global list or the geographic location list, it is added as a local institution.
- **Geographical**
  - When a mnemonic matches a ZIMS geographic location, it will be mapped to a geolocation and listed in the mapping report.

Global Institution	PHILADELP	28	PHILADELP : Philadelphia Zoo	1036, 1052, 1053, 1105, 1120, 1256, 1439, 1490, 1492, 1494, 1499, 1504, 1508, 1509, 1510
Global Institution	PHOENIX	14	PHOENIX : Phoenix Zoo	1343, 1456, 1457, 1539, 1540, 1542, 1544, 1548, 1549
Global Institution	PITTS CA	17	NATAVPGH : National Aviary in Pittsburgh	1064, 1073, 1097, 1100, 1133, 1151, 1184, 1192, 1231, 1443, 1464, 1598, 1803, 1804

Above is an example of the system mapping an historic mnemonic to the newly recognized ZIMS mnemonic.
- Historically this institution was PITTS CA and recently the mnemonic changed to NATAVPGH.
- During migration, PITTS CA was changed to NATAVPGH for the animals listed in the grid.

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Re-number Temporary IDs
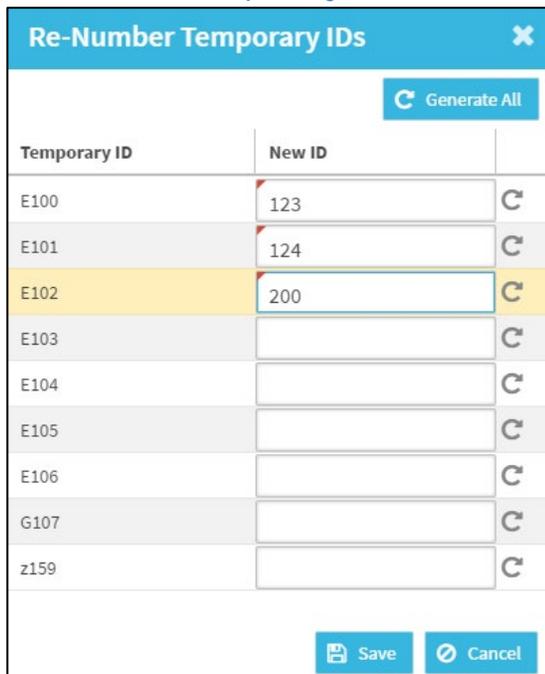
Selecting to Re-Number Temporary IDs allows you to quickly assign permanent Studbook IDs to your animals with Temporary IDs. All animals with alpha characters will display in this tool. Check with your Regional Association to see if they approve of Temporary Studbook IDs.

The permanent studbook number (New ID) text box can be populated in one of 3 ways:
- Manually filled in by the user.
- Automatically generate individual studbook number by the user clicking on the associated 'auto-generate' arrow next to the text box.
- Automatically generate all studbook numbers by the user clicking the 'Generate All' button of the form.

You cannot assign an ID already in use. Once an animal is assigned a Studbook ID, the number is permanent and cannot be edited or reassigned unless the animals full record is deleted. The temporary ID remains unavailable for future use unless the draft animal record is deleted from the studbook before completing the record. This is due to the fact that the draft ID is adda to the identifier table in the animal's record to document the previous temporary ID.

Animal Comparison

The Animal Comparison Tool allows you to compare two animal details side-by-side. This is especially helpful should you think you have duplicate records or are looking for a match. You can compare 2 Studbook Animals, 2 GANs (from Husbandry) or a Studbook Animal and a GAN (from Husbandry). When comparing a Husbandry record with a Studbook record, the Husbandry record displays in dark blue with "Suggested Animal" text. The Studbook record displays in light blue with "Studbook Animal" text.

MULT List

The MULT List will display a list of your possible parentage "MULT groupings". This Tool only displays if you have MULT parents in your Studbook. It also shows what records these MULTs have been used in. All studbook IDs are hyperlinks into the specific animal's record.

Multiple parents will list in the Animal lists and on an individual's record – when hovering over the <u>MULT #</u> link you will be presented with the known possible parentage in a pop up:

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Institutional Holdings

This report displays the number of animals an institution has held within its collection. The list will default to show all collections that have ever held the species. The report will show current and historical holdings. Use the filter options to filter by institution, date, taxonomy and UDF. Filtering by date will add a column with the holdings for that date period.

The columns can be sorted, customized and re-ordered. The Holdings numbers are hyperlinks to a results grid where you can go directly into the Animal record.

More details about the Institution Holding report.
Click here for a video overview of the Institution Holding Report.

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Pedigree
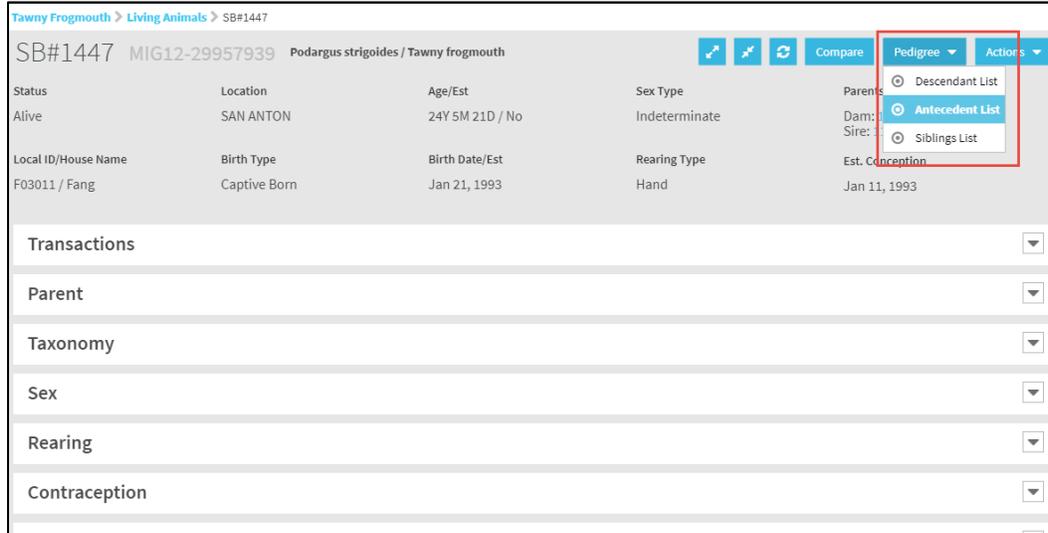
The Pedigree Reports are available in the Tools menu and also directly within the animal record. You can select to view:

- **Descendant List:** List of all the descendants of a focal animal, with option to chart.
- **Antecedent List:** List of all the ancestors of a focal animal, with option to chart.
- **Sibling List:** List of all the **full** siblings (both parents the same) of a focal animal.
- **Unknown Pedigree Report:** (Available only in the Tools menu) List of all the animals in the studbook with some level of unknown pedigree. This includes animals with MULT parents. This is a good Report to run to help you find unidentified parents.
- **For more information on the Pedigree Explorer option, click here:**
  Pedigree Explorer: Help document describing the pedigree explorer in Studbooks.

If the focal animal is included in a MULT parent, it will be included in the Antecedent and Descendant list and may inflate the number of animals in the list.

Above is an Antecedent List. From all the results grids you can go back into the record by selecting View Animal. You can also limit the list to current animals by checking the Living Only box.

Above is an Unknown Pedigree Report (only available from the Tools menu). If you want to view only current animals check the Living Only box.

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Data Export

This tool is used to create a complete export of the studbook data in XML format. It can be used for data analysis and research outside of ZIMS.

The ability to perform a studbook export in XML is controlled by your Studbook Role. The Studbook Admin must give access to Search/View Data Export in the Studbook Role. The export is available for regional and institutional Studbooks.

Once the role for Data Export has been assigned, you can find the export under Tools > Data Export in the left-hand navigation when an Animal List is open. Select "Begin Export" to initiate a full XML export of the studbook. This tool will export the full studbook regardless of what screen you are on when you run the export. You will receive a message in the upper left-hand corner that your request is queued up. The export will run in the background and you can continue working in the studbook and even log off while it is running. There is no visual indication that it is running other than the initial notification and you cannot stop the export.

The export data will begin downloading automatically when the export is complete, and you will receive a message that the download has started in the upper left-hand corner. If you close the Studbook module or ZIMS during the export, the next time you log into the Studbook it will automatically download to your browser (if completed). Once downloaded it will remain on the server for seven days until you download it.

Depending on the size of the studbook it might take quite a bit of time to complete since it is exporting all the animal and studbook data for the entire Studbook. If your request is in a queue, meaning you or multiple people are running exports at the same time, ZIMS will run the exports in the order of the requests, finishing the first request before starting on the second. First one started, first one done.

The export is downloaded as a zipped file. When ready it will appear in the lower left-hand corner of your browser or it can be found in your Download folder. The folder will be named by the association or institution managing the studbook and then the studbook name.

The following information is included in the XML Export:

- Studbook Overview
    - Basic information
    - Description
    - Species notes
    - Conventions/assumptions
    - Taxonomy details
    - Assignments - list of names, institutions, title, start date, end date, role
    - User defined fields
    - MULT list

- Local institutions list and all their information
- All animal detail information for each animal in the studbook (permanent IDs, temp IDs, and draft animals)
    - Basic information
    - Transactions
    - Parents
    - Taxonomy
    - Sex
    - Rearing
    - Contraception
    - Identifiers
    - User defined fields
    - Notes

If the export fails, you will receive a message in the upper left-hand corner of the screen. If this happens, please contact our support team for assistance at support@species360.org.

Overlay data is not exported in the Data Export tool at this time.

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