

Tidying Your Studbook in 5 Steps

[Contact Species360 Support](#)

For details on the topics see the [training materials for the ZIMS for Studbooks module](#). This document outlines best practices for bringing your studbook up to date with current ZIMS data as well as a recommended order of prioritization. In the colored boxes use Ctrl + left click for a hyperlink to the section within the document.

If your studbook was up to date when you migrated into ZIMS, you can continue to use your studbook for analysis and recommendations. ZIMS automatically shows all the differences between animals in your studbook and the same animals recorded in Husbandry. These updates can be updated over time while you continue to use your studbook.

Five Steps

Review living animals on Suggested List with Possible Match

- Review these Possible Matches for living animals to determine if the studbook animal should be linked to the Husbandry animal, rejected from the studbook, or added as a brand new studbook animal.

Review living animals on Suggested List without Possible Match

- Review the Suggested Animals that are currently living with no Possible Match to determine if they should be added to the studbook, linked to the suggested animals, or rejected.

Review Pending Updates: Transactions, sex, parents, and contraception

- Focus on transactions first so you know if anyone died or left the population. Then address sex, parent and contraception updates since these updates will impact analysis when exporting to PMx or making breeding/transfer recommendations.

Review High/Medium Data Quality Errors for living animals

- Review data quality errors focusing on high and medium errors for living animals to improve the accuracy of your studbook for analysis and planning.

Review Remaining Suggested Animals, Pending Updates and Data Quality Errors

- Continue to review and work through the non-living animals on the Suggested Animals, Pending Updates and Data Quality Error Lists.

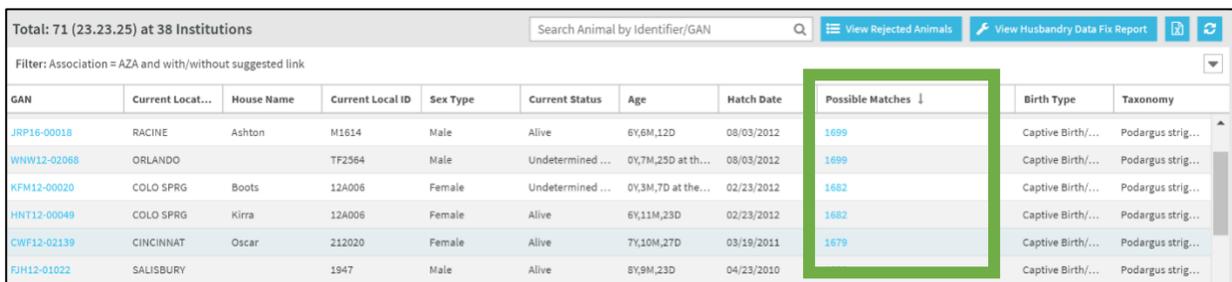
Step 1 – Review Animal on Suggested List with Possible Match

The Suggested List is a list of animals that are in ZIMS for Husbandry that are not linked to animals in the studbook. There are three types of Husbandry animals that can display in this list:

1. Husbandry animals that do not exist in your studbook and may need to be added to your studbook.
2. Husbandry animals that the system has found a match for in the studbook (possible match) and the user should review and take action on.
3. Husbandry animals that may be in the studbook but there is not enough information for the system to suggest a link between the Husbandry and Studbooks animal.

We suggest that you start with living animals.

- Investigate and review all animals with Possible Matches in the Suggested List and take appropriate action on those animals.
 - Sort the Suggested List by “Possible Matches” to view all the animals in the list with Possible Matches to a studbook animal.



GAN	Current Locat...	House Name	Current Local ID	Sex Type	Current Status	Age	Hatch Date	Possible Matches ↓	Birth Type	Taxonomy
JRP16-00018	RACINE	Ashton	M1614	Male	Alive	6Y,6M,12D	08/03/2012	1699	Captive Birth/...	Podargus strig...
WNW12-02068	ORLANDO		TF2564	Male	Undetermined ...	0Y,7M,25D at th...	08/03/2012	1699	Captive Birth/...	Podargus strig...
KFM12-00020	COLO SPRG	Boots	12A006	Female	Undetermined ...	0Y,3M,7D at the...	02/23/2012	1662	Captive Birth/...	Podargus strig...
HNT12-00049	COLO SPRG	Kirra	12A006	Female	Alive	6Y,11M,23D	02/23/2012	1662	Captive Birth/...	Podargus strig...
CWF12-02139	CINCINNAT	Oscar	212020	Female	Alive	7Y,10M,27D	03/19/2011	1679	Captive Birth/...	Podargus strig...
FJH12-01022	SALISBURY		1947	Male	Alive	8Y,9M,23D	04/23/2010		Captive Birth/...	Podargus strig...

- Click the GAN of the Possible Match to view the basic information, Suggested Link (what Possible Matches are called within the record) and actions.
- Investigate if the Suggested Link (Studbook animal) should be linked to the Husbandry animal. An easy way to do this is use the Compare button at the top of the record. This tool allows you to compare Studbook records to Husbandry records.
- Once linked, the Studbook animal will display the Husbandry records and Pending Updates.
 - To see additional information on the animal, select “View Animal Detail in Husbandry” button (upper right hand in the record) to navigate to the full Husbandry record. The additional information in the global view of the record may help confirm the Husbandry and Studbook animal match.
- An animal in the Suggested List may have multiple Possible Matches for the following reasons:
 - The Possible Matches (Studbook animals) are duplicates.
 - The Possible Matches (Studbook animals) have the same information entered which is causing the system to suggest them as links. ZIMS uses local ID/mnemonic pairings, transponders, and Studbook IDs to suggest links.
 - In the case that an animal has more than one suggested link, it may be helpful to use the Animal Comparison Tool (in the tools bar or at the top of the record) to compare the Studbook animals side-by-side and spot key differences or similarities.

- If after investigation the animal in the Suggested List (Husbandry animal) should be linked to the Suggested Link (Studbook animal), click the **link icon** (in green square below) to link the two records.
 - If ZIMS says the studbook ID is already linked to a GAN, contact support@Species360.org for assistance.
 - The warning means that the Husbandry animal is already linked to an animal in the Studbook and usually happens when a single animal has two separate records in Husbandry. In this case the two Husbandry records likely need to be merged into one record.
 - Email support@Species360.org with the GAN listed on the Suggested List as well as the GAN that the suggested animal is already linked to (GAN in the Suggested Link is found at the top left to the right of the Studbook ID in the basic information).

New Animal: GAN#KFM12-00020 ~ *Podargus strigoides* / Tawny frogmouth [View Animal Detail in Husbandry](#)

Status Undetermined (Lost to follow up)	Sex Female	Parentage Dam: 1593 Sire: 1637	Age 0Y,3M,7D	Reproductive Status	Last Known Institution COLO SPRG / Cheyenne Mtn Zoological Park Local ID: 12A006
Hatch Date 02/23/2012	Hatch Type Captive Birth/Hatch		Death Date ~	Rearing Type Hand	First Known Institution ORLANDO / Sea World Orlando Local ID: TF2553

Suggested Links (1 options)

We found 1 potential matches in this studbook. If you feel they represent the same animal you may link them.

Studbook ID	Birth Date	Sex	Age	Parents	Status	Location	Linked On	
1682	02/23/2012	Female	6Y,11M,23D	Dam: 1593 / ORLANDO Sire: 1637 / ORLANDO	Alive	COLO SPRG	#1682, 12A006/COLO SPRG, TF2553...	

None of these match, import as new animal [New Animal](#)

This animal shouldn't be in studbook [Reject](#)

I know who this animal should be linked to, I will enter the studbook ID [Manually Link](#)

- If after investigation the animal in the Suggested List (Husbandry Animal) should not be linked to the Suggested Link (Studbook animal) or no link is found, then select one of the other available options in the green box below.

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None of these match, import as new animal [New Animal](#)

This animal shouldn't be in studbook [Reject](#)

I know who this animal should be linked to, I will enter the studbook ID [Manually Link](#)

- **New Animal:** Add this animal as a brand-new animal to the studbook. Use this button when you know the animal is not already in your studbook. This will create a draft animal in the studbook and user can accept/reject the institution record for that animal into the draft animal.
- **Manually Link:** Link a Studbook animal that is not listed as a Possible Match to the Suggested Animal. Use this button when you know that the Suggested Animal already exists in your studbook but did not populate as a Possible Match. This will open a dropdown menu to select the Studbook animal that should be linked to this Husbandry record (dropdown only displays animals that are not already linked to a Husbandry animal).
- If ZIMS says the studbook ID is already linked to a GAN, contact support@Species360.org for assistance. See above bullet for explanation.
- **Reject:** Remove the animal from the Suggested List. Use this button if the animal should not be linked to an animal in the studbook or added to the studbook.

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Step 2 - Review Living Animals on Suggested List Without Possible Matches

After having added animals on the Suggested List with Possible Matches, focus on currently living animals on the Suggested List without Possible Matches. Prioritizing reviewing living animals will bring your current studbook population up-to-date, making it ready for analysis and recommendations as soon as possible.

- Sort the Suggested Animal List by the “current status” column and work with the animals that are listed as “alive.”
 - Follow the same guidelines as Step 1 for adding, linking, or rejecting animals.

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Step 3 - Review Pending Updates: Transactions, sex, parents and contraception

The Pending Update List is a list of animals recorded in the Studbook that have differences between the Studbook and Husbandry records. These Pending Updates can be accepted into the Studbook records or rejected.

- When a studbook first migrates, the pending updates are the differences between records in the Studbook and Husbandry records.
- After migration, the new Pending Updates on the list are a result of additions/changes in Husbandry records.
- Pending Updates populate for the following records: transactions, parents, sex, taxonomy, rearing, contraception.

We recommend that you start with living animals and Transactions first to catch all records that may need to be dispositioned or new holding institutions recorded. Then address Sex, Parent, and Contraception updates as these directly affect PMx analysis and breeding/transfer recommendations. Contraception may move up in priority if you have permanently contracepted animals in your Studbook

- Use the toggle filter buttons at the top of the pending updates list to filter by the record types (multiple types can be selected).

Total Updates: 506 updates in 271 (134.110.27) animals

Filter: No Filters Applied

Transactions (91) Parent (147) Taxonomy (8) Sex (99) Rearing (161) Contraception (0)

Stubbook Number	Identifier	Institution	Sex	Hatch Date	Current Status	Sire	Dam	Age	Birth Type	Taxonomy	Last Modified
1733	NKG13-08942	ST LOUIS	Male	10/01/200...	Alive	1731	1732	13Y,4M,14D	Captive B...	Podargus ...	02/05/201...
2 Pending Updates 2 Parent											
1806	BPL17-02755	ORLANDO	Male	03/17/2015	Alive	1699	1726	3Y,10M,29D	Captive B...	Podargus ...	02/05/201...
1 Pending Updates 1 Transaction											
1565	6078647	SAN ANTON	Male	07/10/1997	Alive	1255	1351	21Y,7M,5D	Captive B...	Podargus ...	02/05/201...

- Select the studbook number to navigate to the animal record and view the Pending Updates.
- Once in the animal detail, boxes with Pending Updates will:
 - Open to display Pending Updates automatically (boxes with no updates will not display institutional records).
 - Open with the studbook records on the left and the Husbandry records on the right.
 - Display an orange badge and pending updates will be highlighted in green on the institution side. Below, the Taxonomy box has no Pending Updates so only the Studbook record displays. The Sex box does have a Pending Update so both the Studbook (left) and the Husbandry (right) records display.

Taxonomy

Hybrid

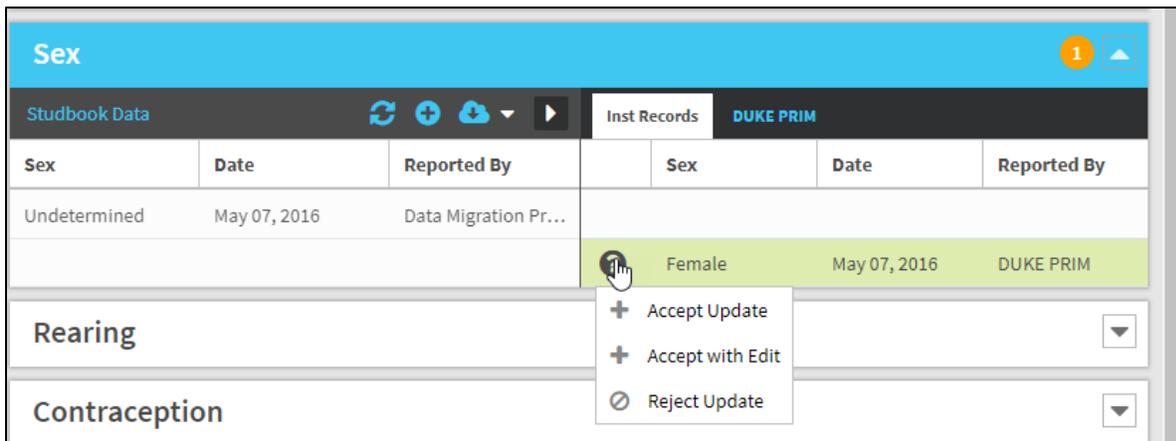
Taxonomy	Taxonomy Determination	Date	Reported By
Daubentonia madagascarie...	Undetermined	Jul 07, 2019	Data Migration Process

Sex

1

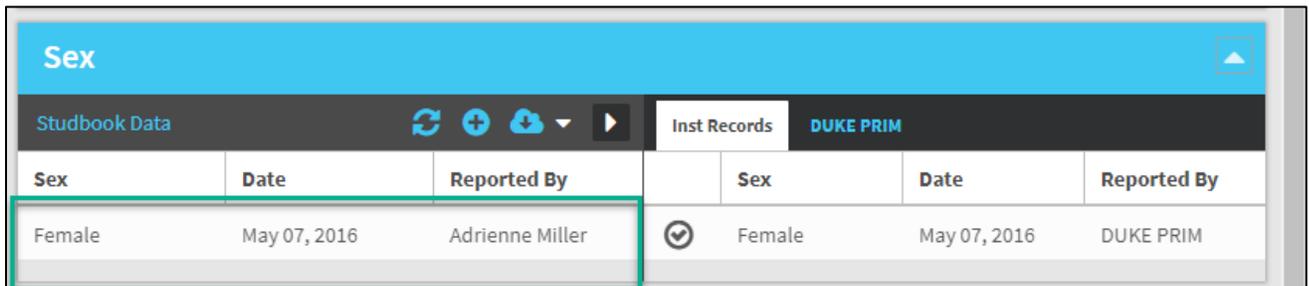
Studbook Data			Inst Records			
Sex	Date	Reported By	Sex	Date	Reported By	
			?	Undetermined	Jul 07, 2019	SANDIEGOZ
Male	Jul 07, 2019	Data Migration Pr...	✓	Male	Aug 27, 2019	SANDIEGOZ

- Click the “?” icon in the pending update to accept update, accept with edit or reject the record.
 - Once the record is accepted or rejected it will no longer display as a pending update in the studbook animal or the Pending Update List.



The screenshot shows the 'Sex' record interface. On the left, under 'Studbook Data', there is a table with columns 'Sex', 'Date', and 'Reported By'. The first row shows 'Undetermined', 'May 07, 2016', and 'Data Migration Pr...'. On the right, under 'Inst Records', there is a table with columns 'Sex', 'Date', and 'Reported By'. The first row shows 'Female', 'May 07, 2016', and 'DUKE PRIM'. A question mark icon is visible next to the 'Female' entry in the 'Inst Records' table, and a dropdown menu is open, showing three options: '+ Accept Update', '+ Accept with Edit', and '⊗ Reject Update'.

- Once Accepted the data displays in the Studbook left hand side.



The screenshot shows the 'Sex' record interface after the update has been accepted. The 'Studbook Data' table now has a row with 'Female', 'May 07, 2016', and 'Adrienne Miller', which is highlighted with a green border. The 'Inst Records' table still shows the 'Female' entry from 'DUKE PRIM', but it now has a checkmark icon next to it, indicating it is no longer a pending update.

- Use the breadcrumb (top left-side) navigation to go back to the Pending Updates list.
- Note: sometimes the institution side of the record will show information highlighted in red.
 - These are not pending updates and no action is needed.
 - Institution information highlighted in red indicates the data is a close match to what is already in the studbook but it is not an exact match. The text in red highlights discrepancies.
 - Users may choose to update their data to reflect the institution records; follow up with the institution for more information or ask them to correct their side; or ignore the discrepancy because it is inconsequential.

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Step 4 - Review High/Medium Data Quality Errors

The Data Quality List is a list of animals in the studbook that have an error in their records that has been identified by ZIMS. There are three priority levels of errors: High, Medium and Low. ZIMS has additional data quality errors with different rules than SPARKS/PopLink, so more errors may populate after migration.

Prioritize data quality errors from highest to lowest to improve the accuracy of your studbook for analysis.

- Select Data Quality from the left-hand dashboard or from the Data Quality grid in the main dashboard. If going from the left-hand dashboard, use the toggle filter buttons at the top to filter by Data Quality priority types. The button is dark when that priority is selected. Multiple types can be selected.
- Hover over the question mark badge, to view more details on the data quality error and suggested actions.
- View a full list of the data quality codes and these hover over messages [here](#).
- To correct the error, click the animal's studbook number to navigate to their record and make changes accordingly. Note that the errors are displayed in the right-hand Animal Activity box, so you do not need to remember them from the Data Quality list.
- As errors are fixed, they will be removed from the data quality list (you will need to refresh the list). Check to see if your edits cleared it up or added new errors.
- If an error is populating in the studbook and it is not a "true" error. In these situations, the data is entered correctly in the Studbook, but the data is causing ZIMS to identify an error. A common example is for species with delayed implantation or embryonic diapause. ZIMS recognizes that the Sire was deceased long before the estimated conception date, so it posts as an error when, due to the species biology, it is not. These "errors" can be dismissed from the list by selecting the "x" next to the error.
- Before you dismiss an error, you have the option to record a note using the note icon to the left of the "x". This is highly recommended because you may forget why an error was dismissed and if your Studbook travels to another Studbook Keeper, they may not understand why you dismissed the error.
- Any dismissed errors can be viewed again by checking the "Display Dismissed Errors" checkbox.

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Step 5 – Review Remaining Suggested Animals, Pending Updates, and Data Quality Errors

As time allows review the remaining Suggested Animals, Pending Updates and Data Quality Errors that remain. These lists will continue to update after migration to ZIMS, the studbook is now in real time!

- As new animals are added to Husbandry, the Suggested List will display them for the user to accept or reject.
 - Suggested List displays new births/hatches at the top of the list by default.
- As additions and edits are made to Husbandry records, the Pending Updates List will populate with new updates to be accepted or rejected.
- As records are accepted or a manually added to the studbook, additional errors may be added to the Data Quality List.

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