

Taxonomy in ZIMS for Studbooks

This document explains the importance of taxonomy in ZIMS for Studbooks during and after migration. For additional questions about taxonomy contact [Contact SPECIES360 Support](#)

Why is defining a taxonomy in my studbook important?

- The taxonomy that is defined for your studbook dictates which animals from Husbandry (institutional records) can be seen in your ZIMS studbook.
 - Husbandry animals can be seen in two locations within the studbook:
 1. Linked to animals that exist in the studbook, where the Husbandry records will display in context of the studbook records or as pending updates.
 2. In the Suggested List where users can add these animals to their studbook.
- If the taxonomy defined in your studbook does not match the taxonomy of the animal in Husbandry records, that animal cannot be linked to Studbook records or added from the Suggested List.
- You can view the taxonomies included in your studbook in the Studbook Overview.

| Taxonomy Details | | | | | |
|--|-------------------------|---------|---------|-----------------------------------|---------------------------------------|
| Taxonomy (Live Bearing) | Gestation Period (days) | | | Gestation Period for calculations | Max. Birth Date Range for Litter M... |
| | Minimum | Average | Maximum | | |
| Diceros bicornis / Black rhinoceros | 450 | 450 | 450 | Avg | 3 |
| Diceros bicornis michaeli / Eastern black rhinoceros | 450 | 450 | 450 | Avg | 3 |
| Diceros bicornis minor / Southern black rhinoceros | 450 | 450 | 450 | Avg | 3 |

How is the selected taxonomy applied during migration?

- Taxonomy is a required field in ZIMS for Studbooks.
- During migration users are required to select a single taxonomy to represent their studbook. This taxonomy will be used to create a taxonomy event for each animal in the studbook. The taxonomy transaction date will be the animal's birth date.
 - To determine the recognized taxonomy for your species in ZIMS use the Taxonomy Module to search and view the current ZIMS taxonomy. If ZIMS navigates you to a different taxonomy than entered, you are using an obsolete taxonomy. This obsolete taxonomy is no longer the recommended taxonomy in ZIMS. Please see below examples of how to handle obsolete taxonomy when migrating.
 - If you do not have access to the Taxonomy Module, Species360 or your Studbook Admin can run and export the search on your behalf.
- Users define the taxonomy selected for migration within their legacy studbook in the following location:
 - SPARKS: indicate taxonomy in the Footnote: Scientific field
 - PopLink: indicate taxonomy in the Studbook Overview: Scientific Name field
- **After migration all animals in the studbook will have the same taxonomy.**

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- This means, in studbooks with multiple taxonomies, Studbook Keepers will have to add/edit or accept updates for individual animal taxonomy records in ZIMS if the animal's taxonomy is different than the migrated taxonomy.
 - If a studbook animal has a different taxonomy than Husbandry (institution record), the animal will have a pending update.
 - If the taxonomy defined by the institution is not a taxonomy included in the studbook, you cannot accept the Husbandry update until that taxonomy is added to the studbook.
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- Once that taxonomy is added to the studbook, the pending update can be accepted and the Studbook Keeper can decide if they want to accept or reject the taxonomy change.
- If users are managing taxonomy by UDF, all UDFs are migrated to the studbook as entered in the legacy studbook. Users can continue to maintain their taxonomy in UDFs if they choose or can transition to managing the taxonomy using the ZIMS taxonomy.

How to select to correct taxonomy for migration?

The Studbook Keeper and the Studbook Admin should work together select the taxonomy defined in the studbook.

- *If taxonomy is not defined correctly during migration animals may not be automatically linked.*
- *If taxonomy is not defined correctly after migration animals may not populate in the Suggested List as expected.*
- The ZIMS Species Holding Report can be used to provide the number of living animals that are currently assigned to a specific taxonomy in ZIMS. This can be a helpful tool in assessing the impact of selecting a specific taxonomy on your living studbook population. If you do not have access to this report, Species360 or your Studbook Admin can run and export it on your behalf.

Below are several common scenarios to consider when selecting taxonomy:

- **Studbook contains a species and several subspecies below:**
 - When linking studbook animals to Husbandry animals during migration, the process looks for matching data in Husbandry based upon the single taxonomy specified in the studbook AND any taxonomy values that are under that taxonomy (including obsolete taxonomy).
 - For this reason, **Species360 recommends selecting the highest level taxonomy during migration.** This will allow all animals in the studbook to be linked to the Husbandry animals of that highest level taxonomy and all the subspecies and obsolete taxonomy below. This prevents Studbook Keepers from having to review and link animals after the studbook has been migrated.
 - Example: If the studbook lists 'Diceros bicornis' as its taxonomy then the linking process evaluates animals that are classified as 'Diceros bicornis' AND

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any of the subspecies or obsolete taxonomy under it, such as ‘Diceros bicornis michaeli.’

- **Studbook contains only a single species or single subspecies:**
 - If studbook is managing one species or one subspecies, the best course of action is to define the single managed taxonomy during migration.
 - **Species360 only recommends Studbook Keepers define a subspecies as their taxonomy when they manage a single subspecies.**
 - Example: If the studbook lists ‘Diceros bicornis michaeli’ as its taxonomy, then the linking process will only look at animals that are classified as ‘Diceros bicornis michaeli’ because there are no taxonomies below. Husbandry animals defined as ‘Diceros bicornis’ will not be evaluated for linking to the studbook.
- **Studbook contains multiple species:**
 - **Species360 strongly recommends not migrating separate species into the same studbook unless there is an exceptional situation** (i.e. the species were previously treated as the same species and have since been recognized as separate species)
 - *If the Studbook Keeper prefers to migrate with multiple managed taxonomies in one studbook, please first consult with Species360 and your Studbook Admin.*
- **Studbook contains a taxonomy marked obsolete in ZIMS:**
 - **Species360 recommends migrating with a currently recognized taxonomy for the following reasons:**
 - If the obsolete taxonomy is selected during migration, only obsolete taxonomy animals will be linked or populate updates. This could result in many animals needing to be manually linked after the current taxonomy is added to the studbook after migration.
 - The taxonomies defined in ZIMS are defined by IUCN and Regional Association approved taxonomic authorities. To be consistent with other studbooks and records entered into ZIMS it is highly recommend that you use the currently recognized taxonomy.
 - *If the Studbook Keeper prefers to migrate with an obsolete taxonomy, Species360 recommends consultation with Species360 and your Studbook Admin.*

What happens if I chose the wrong taxonomy during migration?

- It is vital to review the taxonomy prior to migration into the sandbox (in your legacy studbook) and after the studbook has been migrated into the sandbox to ensure the taxonomy defined within the studbook will link the animals to Husbandry as expected.
- Once the studbook is in ZIMS, your Studbook Admin can add additional taxonomies to your studbook.
 - This will populate animals onto the Suggested List where you can link them-or add them to your studbook as a new animal. It will also allow you to accept pending updates of the added taxonomy.
- Studbooks cannot be re-migrated to Live ZIMS, so it is important to confirm the correct taxonomy during migration.

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I want to add another taxonomy to my studbook. How can I do this?

- Your Studbook Admin can edit the taxonomy included in the studbook at any time. Contact them for assistance.
- Studbook Admins can find details on how to do this [here](#).
- If a new taxonomy is added to the studbook:
 - The animals with the new taxonomy will now display on the studbook Suggested Animal List.
 - The system will look at the new animals of the new taxonomy from Husbandry and try to find matches to animals in your studbook. If there are matches, they will display as potential links in the Suggested List and the user can link the Husbandry and Studbook animals.
 - In addition, after the new taxonomy is added any pending taxonomy updates for the new taxonomy can now be accepted into the studbook.
 - The new taxonomy also displays as a drop down option in the taxonomy grid in the animal detail screen. This allows the taxonomy to be added directly to a current studbook animal.

I want to remove a taxonomy from my studbook. How can I do this?

- Your Studbook Admin can edit the taxonomy included in the studbook at any time. Contact them for assistance.
- If a taxonomy is removed from your studbook, the animals with that taxonomy:
 - Will no longer display on the Suggested Animal list.
 - Will have the link to the Husbandry record removed. This means that the Husbandry record will no longer be available to view and no pending updates will populate for these animals.
 - The only exception to this rule is if institutions in Husbandry have conflicting taxonomies recorded. If one of the institutions recorded a taxonomy that is in the defined taxonomy, then the link will remain.
 - Studbook animals with the removed taxonomy will remain in the studbook.
 - All records accepted into the studbook when the animal was linked will remain in the studbook (including taxonomy records).
 - If you open a removed taxonomy for edit, you will not be able to save it until you select a taxonomy included in the studbook.

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