Data clean-up guidelines for ZIMS for Studbooks – January 2019

Intro
Being able to make breeding and transfer recommendations that are of the highest benefit to the population and the participating institutions depends on studbook data that is as complete, clean and correct as possible. While some data quality errors may be quite harmless, others can make a huge difference to analysis results and management decisions based on these. Below we provide guidance and what to check.

1. Linking and adding new animals

a) Search for links for all living individuals in the studbook that should be in ZIMS for Husbandry. At times, this may require switching to the Global view of the **Suggested animal list**. See linking guidelines.

b) Accept any living individuals in the Suggested Animals list (Local filter) that are not yet in the studbook as new animals.

c) Sort the 'All animals' list to check for duplicates in the studbook. At times, individuals are entered twice in ZIMS for Husbandry by two different institutions and therefore the same individual may appear twice in the studbook, possibly even in two different institutions. Also, you may have accidentally accepted an individual as new in the Suggested Animal list, while in fact you already had records for it in the studbook. Investigate individuals with similar LocalIDs or birth dates (in case litter size is only one offspring at a time).

Suggested Links

2. Pending and manual updates

a) Go to the **Pending updates** screen and check at least all updates for living individuals (See Pending update guidelines). You may need to contact institutions directly at times for more context or to check data that seems incorrect. After this, the studbook should be up to date for the living animals for which the data is actively entered in ZIMS for Husbandry.

If you have recently migrated, it may not yet have been possible to go through all updates of living individuals. It then seems best to focus on transaction updates and updates of younger individuals (e.g. sexing and parentage) to have the most important data included for analysis.

＋ Accept Update

⊘ Reject Update

b) Check for which individuals you may not receive active updates and check or request updates from the institution directly. These will be the following individuals:

I. Unlinked individuals (no GAN) in your studbook that you cannot link because they are not in ZIMS for Husbandry, for example because they are born and still living in a non-EAZA institution that is not a Species360 member.

II. Linked individuals (with a GAN) that have been at a ZIMS-using institution and have then moved to an institution that does not use ZIMS. In your institution list, you can look up which institutions are using ZIMS.

3. Data Quality

Go to Data Quality. In case the number of errors is very high, you may want to sort first on High Priority errors. Investigate all errors. In case an error or warning is not really an error, you can dismiss it using the cross sign next to the error.

- There should be only two ways an error disappears from this list; 1. You find out that the data is incorrect and correct it in the studbook. 2. You dismiss it using the cross sign because you know for certain that it is not really an error (but instead e.g. variation in gestation time). If you do not know for sure if you can dismiss it, it is better to leave it in the list.
- By adding notes to the animal's records after you dismiss an error, it will be easier for you or someone else to later understand why an error was dismissed.
- The most important errors to investigate are those that influence the pedigree (i.e. parentage of individuals that are alive or with living descendants) and errors of high priority.
- A full list of data quality errors can be found following this link.

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High Priority

View List ›

4. Data validation

Several other checks will improve the quality of your data.

- Sort the 'All animals' list on Age and determine the oldest living and dead individuals. Check if the birth date estimates of these individuals seem correct.
- Create an unknown ancestry report and investigate those individuals with living descendants for options to resolve parentage, add MULTs or develop assumptions that can be incorporated using the Overlay module (that can be found on the studbook dashboard).
- Once exported to PMx, go to the Life tables. Look for the first age with an Mx above 0. By clicking on this value in the list, a pop-up box opens showing the individuals that are the first to reproduce. Investigate these cases, to determine if this indeed seems correct. Similarly, it is useful to check this for Mx for the oldest individuals.

Overlays