

# Reproductive Success Manuscript Template

## Case reports:

These will be reports of achieving reproductive success in a pair or group that has not bred successfully until now. This is not the same as the “first-ever breeding” report (see next template); this refers to stories of one facility’s struggle to get a set of animals to breed and finally achieving a reproductive success. Here are sections of the paper we envision:

*Species biology as it pertains to reproduction.* We don’t need a full natural history, but authors should, at minimum include:

- Typical social organization in the wild (i.e., group size and sex composition, territorial or not, the role of social dominance in the species, if relevant). Cite relevant references.
- Mating system: monogamy, polygyny, polyandry, promiscuity, spawning, etc. This section would also include what is known about the mating season (in the wild and in human care) and/or what triggers mating in the species. Cite relevant references.

*Individual history.* Describe the history of the individuals you’ve been working with that struggled to reproduce until now. Age, rearing condition, previous reproductive success or failure with other partners, contraception history, if relevant. General health condition. General behavioral condition (e.g., abnormal behaviors, subjective personality). You can discuss specific health or behavioral issues if you believe that ameliorating a health or behavioral condition is what lead to the reproductive success.

*Housing & husbandry description.* Tell us about their exhibit and holding areas (photos and dimensions are useful), highlighting key features (e.g., pools, perching for escaping conspecifics, mud wallow). If den boxes or nests are relevant features, describe them. You can describe the diet and feeding practices generally. We don’t need recipes, unless it appears like a diet change may have been relevant in achieving the success. Similarly, we don’t need descriptions of enrichment or training programs unless they are suspected to be relevant to the reproductive success.

*Mating/reproductive management description.* Describe what you do generally to set these animals up for reproduction. This includes introduction or socialization

procedures (including how decisions are/were made to introduce animals, separate animals after breeding and/or remove animals from social groups in preparation for birth/hatching, if relevant), provision of nest materials, manipulation of diet, manipulation of environmental parameters, hormone treatments, etc. How are animals monitored (cameras, casual observations, hormone analysis) during the mating and birthing process?

*A description of failed reproductive history with the animal(s) in question.* When were they bred put together or set up for breeding? What appeared to be the issue? What exactly were the results (e.g., no breeding, breeding but no pregnancy/egg laying, abortions/stillbirths or infertile eggs, infanticide or neglect, etc.)?

*What was done differently this time that made the difference?* We are generally looking for stories where people are somehow modifying care and management to achieve reproductive success, rather than just waiting in the status quo to see if the animals reproduce. It may be the case that you made multiple changes this time and you can't say for sure which one did the trick — that's fine. Tell us what you did anyway.

However, if this species appears to be one where a pair bond or compatibility takes multiple seasons to develop and you just seemed to “get lucky” this time, tell us how this year appeared to be different in terms of the animals' behavior, demeanor, interactions, health status, etc., compared to the previous, failed attempts. These observations are helpful for letting people know what they need to see to possibly be successful.

### **First reported breeding of a species**

These papers report the first reported reproduction of the species in human care — whether in your region or globally. Authors should determine whether their “first” is truly global or not by reviewing ZIMS records, trade publications like hobbyist magazines, published literature, or other means.

These papers would generally have all the same sections as case reports. Exceptions might be if the first attempts you made were actually successful, in which case you would not be summarizing previous, failed attempts. Similarly, if the first attempt was successful, you wouldn't outline what you did differently that resulted in the success. If it is a “first” but it did take multiple attempts to achieve it, these papers should describe previous attempts, possible reasons for failure, and interventions attempted, as well as what was done differently that seems to have finally resulted in success.

## **Reliable recipes**

These are stories from facilities with demonstrated history of repeated success with multiple pairs/groups of a species, not just a pair or single social group. This is their cookbook for how they set up animals to breed, how they monitor, do breeding intros, manage nesting/pregnancy/birth/hatching, etc., with their ideas on what is critical and their reflections on what they've tried over the years that didn't work. These papers would have all the same sections as the case reports but would also include some statements in the introduction about the facility's record with the species (e.g., how many offspring or generations of offspring have been produced). These papers should also include their ideas on what is critical to sustained success and their reflections on what they've tried over the years that didn't work.