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| **Standard Operating Procedure** | | SOP Link |  |
| 1. Title: Video Coding Acomys Behavior | | | |
| 1. Version Number: 1.0 |  | | |
| 1. Supersedes Version Number: |  | | |
| 1. Author: Justin Varholick | Issuing Date | |  |
| 1. Signature: | To be revised: As Needed | | |
| 1. Approval by PI: | | | |
| 1. Signature: | Date: **05.07.2019** | | |

**Materials Needed:**

* BORIS <http://www.boris.unito.it/>
* BORIS project file
* Coding checklist googlesheet <https://docs.google.com/spreadsheets/d/1p-G1gczlnpwIQO6Md8zXazHMHjuFN4XqJ9tRdbMCnzI/edit?usp=sharing>

**Ethogram:**

|  |  |  |
| --- | --- | --- |
| **Location** |  |  |
| Top | Left or Right | Entire body of mouse, excluding tail, is on the floor of the 2nd level; Left and Right defined by middle vertical lip on 2nd floor |
| Bottom | Left or Right | Entire body of mouse, excluding tail, is below the floor of the 2nd level; Left and Right defined by middle vertical lip on 2nd floor |
| Shelter | In or On | Entire body of mouse, excluding tail, is inside or on-top-of the shelter |
| Cup | In | Entire body of mouse, excluding tail, is inside the cup |
| Food Hopper | Under | Entire body of mouse, excluding tail, is underneath the food hopper |
| **Agonistic Behavior** |  |  |
| Offensive | Chasing | Actor mouse rapidly pursues target mouse while target mouse flees, unaccompanied by mounting |
|  | Mounting | Actor mouse rapidly pursues target mouse while target mouse flees, accompanied by front or rear mounting |
|  | Attacking | Actor mouse lunges and/or bites target mouse, with or without target mouse fighting back |
|  | Food Stealing | Target mouse has control of food by holding it in both forepaws and/or mouth. Actor mouse then takes control over food, leaving target mouse without control |
| Defensive | Flee | The actor mouse approaches the target mouse and the target mouse rapidly flees; the actor follows |
|  | Induced Flee | The actor mouse approaches the target mouse and the target mouse rapidly flees; the actor does not follow |
|  | Freeze | Target mouse is immobile in response to actor mouse |
| **Other** |  |  |
| Unseen |  | Cannot reliably code whether mouse is in or on shelter, in cup, or under food hopper |
| Inactive |  | Mouse visible and motionless for >15seconds |

**Coding Procedure:**

* All coding begins 10seconds after start of video
* First code location of mouse 1 only, then location of mouse 2 only
* Take note of times when overt agonistic behavior occurs
* Then code agonistic behavior of mouse 1, then agonistic behavior of mouse 2
* Speed of video can be increased to up to 1.5x for location coding only, and jump forward 1sec only
* Allowance of a 1sec window for coding of behavior and when it occurs in video

1. Open BORIS on the Desktop
2. File > Open Project > SocialAvoidanceBhv.bcf
3. Observation > New Observation – Select corresponding video to code and   
   label; cage#\_date\_timevideo\_initials
4. Start coding 10 seconds after start of video
5. First code location and other of mouse 1 for 10 minutes
6. Second, code location and other of mouse 2 for 10 minutes
7. Third, code agonistic behavior of mouse 1 for 10 minutes
8. Fourth, code agonistic behavior of mouse 2 for 10 minutes
9. Close observation and start next one
10. coded file will be in project, save project after each coded video

**Inter- and intra-rater reliability:**

* at least 2 observations of the same video file must be completed and in the project file

1. Analysis > Interrater Reliability > Cohen’s Kappa
2. Select the 2 videos, click OK
3. Select all behaviors, click OK
4. Adjust time unit to 10 seconds, click OK
5. Save the kappa score and number of events in the google sheet