Grackle Bownet Trap Deployment Protocol

Developed by Luisa Bergeron, Zoe Johnson-Ulrich, Carol Rowney, and Corina Logan
www.CorinaLogan.com, corina_logan@eva.mpg.de
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Materials

- Our 5ft (1.5m) diameter bownet with remote control was purchased from Mike's Falconry Supply: https://www.mikesfalconry.com/CUSTOM-5-FOOT-DIAMETER-MANUAL-BOWNET-TRAP-p/bn.htm. *NOTE:* Only use the remote control to deploy the bownet so no string is involved in triggering it and, thus, hand cues can be avoided.
- Our training data sheet, training checklist, and a poster presentation are available at: https://gitlab.com/corinalogan/the-grackle-project/blob/master/README.md

Prepare the bownet to use for trapping

- Wrap the tubing (on the half of the circle that moves) with dark-colored pipe foam

Training a new person on the bownet

- **WHO can train:** Staff who have completed this training can supervise the training of new people
- **Document trainings:** Establish a record of competency. Document the dates and times of training for each person and write notes on what was learned, what they still need to work on, and when their skill has improved to the level where all team members are confident that the trainee is proficient.
    - NOTE: if someone hasn't deployed the trap in the field for 3 months, refresh training as needed, either by having them deploy the bownet with no birds present, or by having them in the observer role during trapping.
- Follow this protocol WITHOUT any birds present until all team members are comfortable that the team member in training is proficient in the method. Use Canela, the taxidermic grackle, to mimic grackle placement in the trapping area and practice making decisions about when to deploy the bownet. Trapping is a skill, which means it must be learned.
- Before triggering the bownet, each trainee must be trained on **1) being an observer** during trapping (*observer*), and then as **2) the second person** who confirms safe trap deployment (*confirmer*; Figure 1). On the first training day, the trainee *observes* during trapping and communicates with the other trappers about the safety of birds around the trap. Once the *observer* has seen the bownet safely deployed (either during a dry run with no birds present or during trapping), they can then move to the role of the *confirmer*.

Make sure the *observer* is comfortable with the correct trapping positions and the bownet before becoming the *confirmer*. During actual trapping, the trainee will need to confirm trap deployment as the *confirmer* at least two times before they can trigger the bownet.

- Once a trainee passes the first two steps of trap deployment training (*observer* and *confirmer*), they must then deploy the trap in the field under the supervision of a trained *deployer* for at least two trapping sessions in which the trap was deployed. The trainer must approve their field proficiency before they are allowed to trap without supervision.

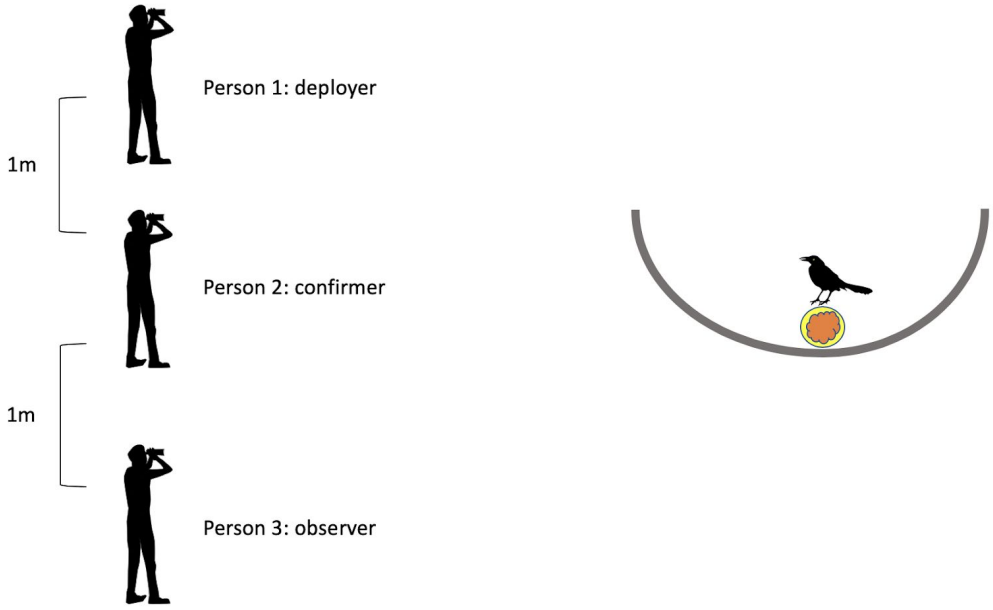

Figure 1. Trappers sit perpendicular to bownet and at least one meter apart.

Setting up the bownet

- Follow the manufacturer's instructions on how to set up the bownet (in laminated folder on trapping cart). Ensure that the stabilizing stakes do not touch irrigation lines (look for external sprinkler heads to figure out where the lines are).
- Place the food bowl in the center of the inside curve of the bownet such that the near edge of the bowl is within 2in / 5cm of the bow. The far edge of the bowl should not be more than 6in / 15cm away from the bow.
- Push the netting up against the bow to make it more discreet. Be sure to keep netting away from the bow hinges. Leave gaps between the netting and 1) the metal stakeholder, 2) the trigger box hook, and 3) the food bowl (see Figure 2).
- Flip the switch on the remote trigger box to the ON position. Attach trigger box to bownet, making sure the pin is inserted into top hole (see manufacturer instructions in laminated folder on cart). Insert pin far enough through the hole so that the bownet does

not deploy on its own, but not so far that it doesn't retract enough to deploy (~0.5in / 5mm of pin extending past the hole should work).

- Fully extend remote's antenna and put the remote in the ON position.
- Test that the remote trigger is functional (i.e., batteries and trigger box are working) without deploying the bownet before every trapping attempt. To make the bownet non-functional for testing, loosely tie the bows together with string (Figure 3). To test that the remote trigger works, press the remote trigger (hold down the gray button) and make sure the pin fully retracts. Trigger the remote at least 2 times. If the pin does not move, or if it moves slightly but not enough to deploy the bownet, replace the batteries and test again.
    - Make sure no grackles are present during this testing to avoid drawing attention to the bownet.
    - Test the remote trigger every 30min-1hr to ensure it is still working.

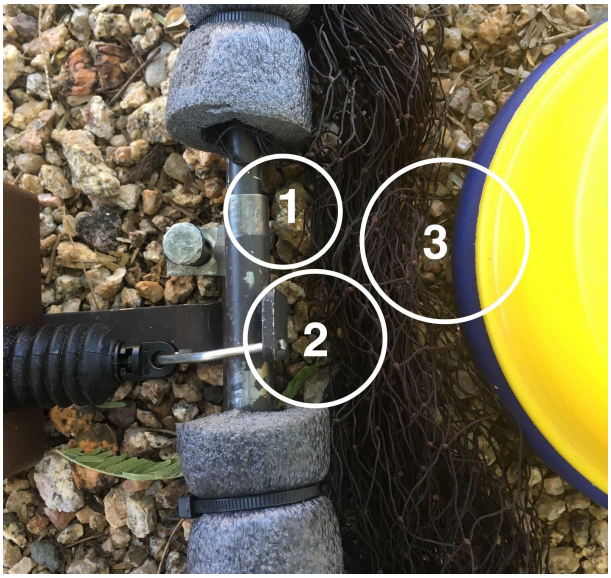

Figure 2. Placement of the food bowl in relation to the bow and the net.

Figure 3. The white string is loosely, but securely tied around the bows to hold them together during testing of the remote trigger and triggerbox batteries.

How to trap a grackle with the bownet: When to deploy using the remote

- All trappers sit with a perpendicular view of the bow so it is 100% clear when the bird is in the correct trapping position. There are always two people confirming deployment before the trap is deployed (*deployer* and *confirmer*), and they sit at least 3.3ft / 1m apart to account for positional differences in depth perception (Figure 1). Use the foam piping as a visual cue to determine the bird's position: If the bird's feet are blocked by the foam,

then it is too close to either side of the bow and needs to move to a more central location to safely be trapped.

- To avoid a bird being able to try to fly out of the bownet area before the net is fully closed (which means it could get injured by the rim of the net), **ensure:**
    - The bird is facing the bow and eating from the bowl with its head down. Make sure the feet/legs are no more than 1in / 2.5cm from the bowl (Figure 4).
    - Only trigger the net if there is a maximum of 1 bird in the correct position and no other birds are inside the bownet area. When other birds are in the trapping area, it is difficult to keep them safe if the net is deployed.
        - Grackles tend to be jumpy the closer they get to the net, be patient if they jump back and forth. Wait until they are stationary for at least 2 seconds before deploying the trigger.
    - There are no birds in the net area outside of the curve of the bow (e.g., in the middle of the net area) because they can fly about ⅓ to ⅔ of the distance of the net area between the time of deployment and the closing of the net.
    - There are no birds within 3ft / 0.9m of the outside of the bownet area or the bow's trajectory that might get caught in the closing net
    - Two people have a 100% clear view of the bird's position to agree with 100% certainty that the bird is in the correct position before deploying the net. Person with the trigger says "OK?", second person says "OK" if they agree. If the second person says nothing or "No", then do not trigger the net. Decide in advance who these two people are when setting up.
- If possible, a third person (*observer*) will be on the lookout for other grackles in the area. The *observer* will let the others know if there are any grackles that can see the bownet and whether it is safe to deploy the trap (i.e., are birds far enough away for the trap to be deployed). If no third person is available, the *deployer* and *confirmer* will switch between checking the surrounding area (using binoculars when needed) and looking for a grackle in the correct position to be trapped.

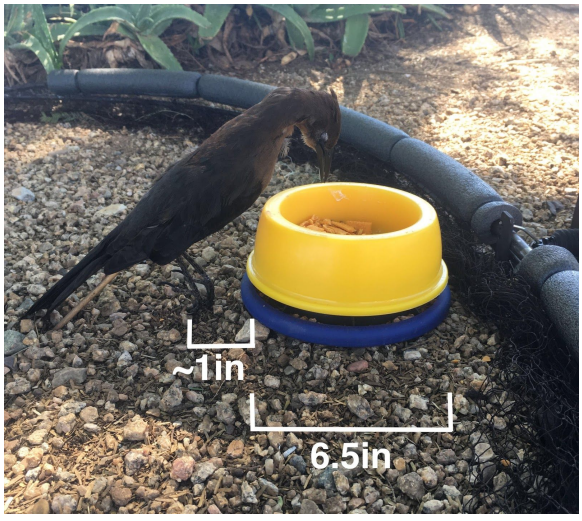

Figure 4. Canela, the taxidermic grackle, demonstrates the correct position for a grackle to be safely trapped.

In case of emergency

In the event of a bird getting injured by the bownet tubing, one team member removes it from the net (if possible and does not exasperate the bird's condition) and holds it in the hand or puts it in a cat carrier, while another team member immediately calls the veterinarian. Consult with the veterinarian about any observable injuries and discuss whether to euthanize it, bring it into aviaries for rehabilitation, or release it. Two team members must both identify the injuries the bird is experiencing and convey these to the vet to ensure that injuries are clearly communicated amongst the team and to make sure that injuries are accurately reported. Before making a final decision with the vet, wait for a period of time (unsure of how long - 15 min? Discuss with the vet on the phone) and watch the bird to determine which symptoms are due to shock (in which case, they will pass), and which are due to an injury.