Dig Boxes

These dig boxes are designed to promote digging foraging behavior. The boxes are filled with substrate and diet items to prolong foraging. The size of these dig box depends largely on the size and strength on the targeted species and this guide should modified for use with larger or smaller species.

This enrichment device has been successfully implemented with: Meerkats, fossa, capuchins, Owston's palm civet, squirrel monkeys, and tamarins.

Items needed:

- 22mmx150mm lumber
- 75mm x 75mm lumber
- 87 x 38mm lumber
- Half round larch posts (optional)
- 100mm screws
- 60mm screws
- 40 mm screws
- 2 Hinges
- Latch
- 1" or 2" Mesh (depending on species)
- Wire cutters
- File
- Handsaw
- Drill with bits
- Sandpaper
- Measuring tape
- Pencil

Safety concerns:

- Ensure all wooden parts are thoroughly sanded.
- Use proper mesh size for targeted species to avoid entrapment of limbs.
- Ensure edges of mesh are fully covered by lumber.
- **This device should be implemented as part of a goal-focused enrichment program. Individual animal characteristics should be fully considered before trialing.**

Directions:

These are general directions, as the size of the device will depend on the targeted species; animals with larger appendages will require deeper boxes and larger mesh size than smaller individuals. Additionally, stronger species will require thicker lumber on the lid and frame of the base.

Lid:

1. Cut a piece of mesh to the desired size, keeping in mind one row of squares on each edge will be sandwiched between the wooden frames. File sharp edges.

2. Cut four pieces of lumber equal to the length of your mesh plus ~25mm (blue squares in Figure 1). Cut four pieces of lumber equal to the width of your mesh minus the width of the lumber (green squares in Figure 1).
3. Using these pieces, make two frames for each side of the mesh. Drill pilot holes before securing wood together with 100mm screws.

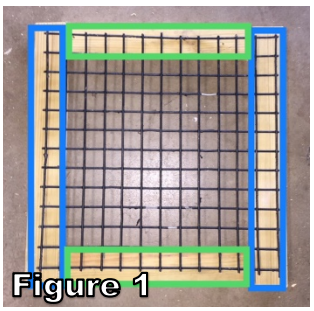
Figure 1

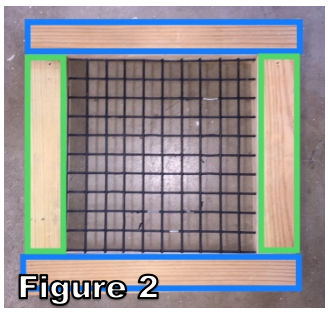
Figure 2

4. Sandwich the mesh between the two frames. Alternate the frames so that the longer pieces of wood are sitting overtop the smaller pieces (see Figure 2).
5. Secure the two frames together using screws that pass through the top frame and mesh and half-way through the bottom frame (see Figure 3).
6. Half-round larch posts can be substituted for the top lumber to give the box a more naturalistic look, if needed.

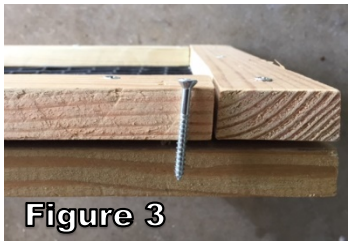
Figure 3

Base:

7. Make the square base for the box using thicker wood, which will hold the substrate and diet items. When deciding on lumber thickness, consider how deep you want the box to be in relation to the targeted species arms. Larger wood will also have greater durability for stronger species.
8. Cut two pieces equal to the length of the lid and two pieces equal to the length of the lid minus the width of the wood. Secure together making a square frame that should be the same size as the lid.

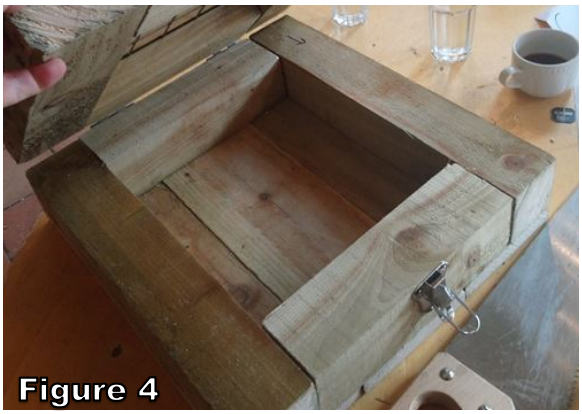
Figure 4

9. The base can be made using pretty much any wood cut to fit the bottom of the square frame (Figure 4).

Box:

10. Add two hinges to the base to secure the top and bottom together. To line up each hinge, pull the lid slightly overhanging the base so that the hinge is flush against the base and lid (see Figure 5). Mark the holes and drill pilot holes where marked. Secure the bottom hinges to the base, keeping the lid overhanging to ensure the hinges line up correctly.
11. Move the lid back so that it is in line with the base and secure the top of each hinge (see Figure 6 but ignore the holes where I thought one hinge would suffice).
12. Secure the latch on the side opposite the hinges (see Figure 7).

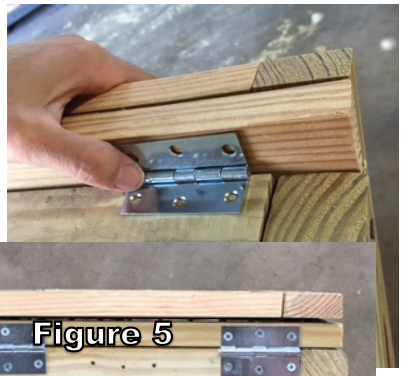

Figure 5

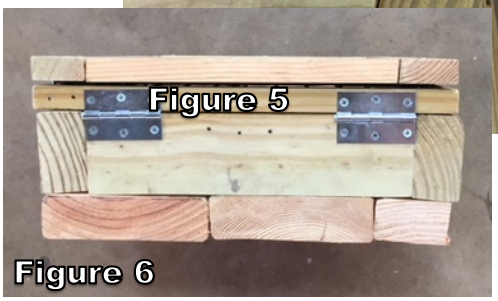

Figure 6

Figure 7

Video links of the device in action:
http://bit.ly/digboxmeerkat

http://bit.ly/digboxcapuchin

http://bit.ly/DigboxFossa

We'd love to see your animals in action! Send pictures or videos of your animals using this device to Mark@teambuildingwithbite.co.uk