



The View From Heifer Hill—November 2021

## How to Build a Beaver Lodge

For the past week, I have been learning how to build a beaver lodge. My instructor has never seen one, has never studied architecture, and is only 18 months old. He is, however, a beaver, and I have been humbled.

Regular readers of this column will know that I am writing about Pumpkin, the orphaned beaver kit. Beavers are a challenge for wildlife rehabilitators. They need care and protection for a full two years, and they need a place to swim. For Pumpkin, these basic needs were met with an indoor enclosure and a stock tank pool. His efforts to escape made it clear that these arrangements were barely satisfactory. He knew there was more to being a beaver. At last, in September, Pumpkin and his new friend Pye were released into a fenced pond. Can you imagine his delight when he experienced such riches for the first time?

If the good times were to last all winter, however, there was work to be done. The beavers would need to make a lodge and cache saplings and branches under the water, enough to last for the weeks when ice seals them into the pond. Would these youngsters know how to be beavers without any instruction?

Once they settled in, they began searching the banks for a suitable site to dig a burrow. The one they fixed upon seemed risky. I worried that the water might not be deep enough and that ice might seal the entrance, so I put up a digging barrier. I decided to find a better spot and start building there to give them the idea. How hard could it be?

Pumpkin was delighted when I pulled on waders and joined him in the pond. When I attempted to direct his attention to my chosen lodge site, however, he swam away. I gathered some branches and tried to get them to interlock on the bank above my starter tunnel. This was much harder than I thought it would be. Furthermore, the more I studied the site, the more complicated I thought it would be to build there. I went back to look at the place the beavers had chosen. Their tunnel extended into the bank and came up under the wire mesh floor of their shoreside enclosure. I removed the mesh to reveal a small dry chamber at the end of their tunnel. With all obstacles removed, Pumpkin swam right over to resume building. I sat back to watch and learn.

If I were to write a lodge building manual based on my observations, it would have the following steps:

- Once you have dug an underwater tunnel into the bank and back up to the surface:
- Haul a stick ashore with your teeth and place it across one side of the opening.
- Still using your teeth, shove it into whatever obstacle it encounters. If it stays in place, leave it. If not, try a different angle.
- Repeat with a few timbers, each placed at a different angle or from another side.
- Swim inside with a stick and work it into the ceiling.



- Deepen the tunnel by doing the “jellyfish egg-beater.” For this deluxe move, float with your head and tail underwater (like a jellyfish?), dig the bottom with your front paws and churn away the loosened debris with your webbed hind feet.
- Dive to the bottom of the pond to fetch a load of mud and leaves.
- Hold it against your chest with stubby front legs and chin, swim into the lodge, and push it onto the floor or walls.
- Repeat with a load to deposit on the top.
- From the inside, dig to enlarge the living chamber.
- From inside, gnaw away sticks in the roof to enlarge the living chamber.

Continue rotating through these steps until you have a comfortable sleeping/dining area above the water table and well-mudded exterior walls. Don't cover the very top with mud, though. That's your vent.

Not every beaver lodge is constructed this way. If you follow these instructions, however, your lodge-building will be more successful than mine was.

This lodge has arisen against one wall of the fence and therefore has a feature lacking in

most beaver homes—a window. I'm not sure the beavers appreciate this, but I do. I can follow their work on the interior as well as the exterior. I will close it up with foam panels once the real cold comes and open it for food deliveries and check-ins.

I have read that beavers begin a food cache by anchoring the first branches to the bottom of their pond with rocks and mud. Additional braches are shoved in until they catch. Pumpkin and Pye started filling their pantry this week. I watched them dive to the bottom of the pond, towing branches, only to watch the branches float back up. Though it was painful to see these preliminary failures, I never thought to show them how it should be done. In the end, they used a novel approach. They wedged a few large branches between rocks along the deep side of the pond and then began sticking others into that matrix. Soon the pile will have enough size and integrity to remain submerged.

I can take no pride in teaching these beavers how to prepare for winter. Thank goodness I didn't need to. I am gratified to be reminded that I fulfill other needs; like all mammals, young beavers need a mother. Pumpkin still squeaks with excitement when I visit and climbs up into my lap for a hug session. Yes, he is wet and muddy and weighs thirty pounds. I'll enjoy it while it lasts.

