



Duck Detectives

Prep

Lesson 2 and Two Ducks and a Merganser will prep students for this activity!

Materials:

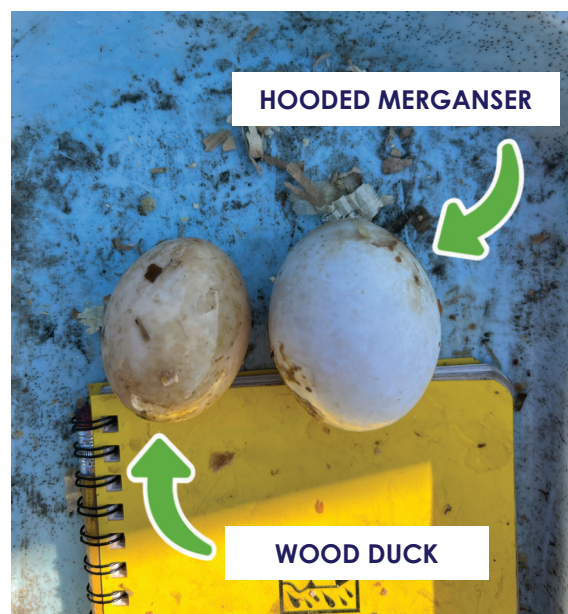
- Wood duck box cardboard cutout
- Laminated wood duck and hooded merganser egg cutouts
- Laminated wood duck and hooded merganser chicks (and other critters)

How to:

Explain to students that they will be modeling real life bird observations done each year by RIDEM Division of Fish and Wildlife biologists and staff. In reality, biologists check nest boxes at the end of the nesting season to count eggshells, but for this activity, we'll be checking in real time. They will be checking a wood duck box for nesting activity! However, they won't just be on the lookout for wood ducks. Hooded mergansers also use wood duck boxes for nesting...and they will even lay their eggs in a wood duck's nest! Sometimes, a mama wood duck will be taking care of her own babies and also a few stray hooded merganser babies. This type of nesting strategy where a parent of one species takes care of the babies of another species is called brood parasitism.

Pass around or hold up the cutouts of the wood duck eggs and the hooded merganser eggs. Can students spot the difference between the two? Wood duck eggs are oval and beige colored. Hooded merganser eggs are rounder and bright white.

Next, pass around the cutouts of the chicks, and challenge students to spot the differences between the wood duck and the hooded merganser. Wood duck chicks have dark brown bodies with pale yellow bellies and faces. They have a thin brown stripe behind their eye. Hooded merganser chicks have a dark brown body and pointier beak. Their heads are dark and poofy on top, and tan on the bottom.



Once everyone feels comfortable identifying the eggs and chicks, explain that each day, we'll be checking the nest box to see who has been laying their eggs in it.

Egg clutch size for wood ducks is typically 6-16 eggs; for hooded mergansers, it's 5-13 eggs. Birds will lay one egg a day until their clutch is complete. There are infinite combinations you can put together for this activity. For example, you could set up a scenario with just wood duck eggs, or just hooded merganser eggs. Maybe you have a wood duck nest with 10 wood duck eggs, and one hooded merganser egg, or vice versa. It's up to you!

Each day, add an egg to the nest until you reach your desired clutch size and species combination. Ask students to check the nest each day, and figure out who's been nesting there. Keep a tally on the board, or create a table to record the number of eggs from each species.

When the egg clutch is complete, it's time to hatch! In real life, it takes over a month for mama ducks and mergansers to incubate their eggs, so we're speeding up the process a bit for our imaginary nest box. The entire nest will hatch over a 24 hour period, and within the next day or so, the chicks will leap out of the box and follow their mother to the water. Before students come in, replace eggs with their respective, adorable chick!

Add in some fun twists!

In nature, not every egg or chick makes it. They are very susceptible to all types of predators! To add in a predation event, remove some of the eggs from the box before students check the next day, simulating a nest predator (such as a black rat snake) sneaking a snack overnight.

Wood ducks and hooded mergansers aren't the only critters to use nest boxes. Screech owls, kestrels, tree swallows, bluebirds, squirrels, and mice have all been found using our wood duck boxes. We've included cutouts of these animals to add into the box before or after the nesting period is over to show that many different species benefit from nesting boxes!