



## Transcript for *Up the Creek* (Kids Can Press) Preview Video

### Preview (0:00 – 5:43)

Hi everyone! It's Colleen from the KU Natural History Museum, and I just wanted to remind you about tomorrow's Story Book Science. We'll be here on Facebook Live at 10AM reading *Up the Creek* by Nicholas Oldland; and we'll be reading this with permission from Kids Can Press.

Now one of the things I want us to look at is the cover of the book. We have a beaver, a moose, and a bear. Those are three vertebrates. What that means is they have backbones, but we will not be talking about these vertebrates.

You'll also notice that the vertebrates are in a canoe. So instead of talking about the animals in the canoe, we're going to be talking about animals that can be found where you would canoe. So a stream or a creek; and those animals are aquatic macroinvertebrates. So if we were to break down what aquatic macroinvertebrates means: when we say aquatic, it means where they live, either for their entire life or just some part of their life, and that would be a creek or any water area; when we say macro, it means that they are big enough that we can see them with our naked eye; and when we say invertebrates, we mean that they do not have a backbone. And I have some pictures of aquatic macroinvertebrates on the wall, and we'll talk a lot about those tomorrow.

One of the ones I wanted to go over today as a little sneak peek is the stonefly. Now the stonefly is an aquatic macroinvertebrate that goes through, uh, a life cycle with three stages; and we call it incomplete metamorphosis. So what that means is that it starts out as an egg – make sure this is straight for everyone – then it goes through a series of stages where it's a nymph, and then it goes through and becomes an adult. What I mean when I say it's a nymph is that it doesn't look any different than the adult. It kind of looks like a miniature version of the adult, um, and the only real difference between the nymphs and the adult besides size are that many of the adults also have wings. Now this is a picture of an adult stonefly. It looks really similar to the nymph that I just showed you except – you can see the main difference – are those wings.

Now the reason I shared those photos with you is because I do have a specimen of a stonefly, but it can be a little hard to see. Even though I can see it with my naked eye, it's still pretty small. So I'm going to try my best to make sure everyone can see it. So you'll notice that – opps – right there, that is the stonefly. It's about the size of my fingernail; and it's still quite small. And it goes through those nymph stages and then becomes an adult; and the reason I didn't take the adult out of the container is because those wings are very fragile. But you can see just how much bigger it is than the nymph that was on that plate.

So some of the other macroinvertebrates we'll talk about are the dobsonfly. Now the dobsonfly, it goes through a complete metamorphosis. So that means it has four stages in its life cycle, and we'll look at those. It starts out as an egg, then it goes through a larval stage, then it goes through a pupal stage, and then it becomes an adult. Now the dobsonfly larva, it looks a little different than the stonefly larva; and this is a picture of dobsonfly larva. It kind of looks like a centipede or a millipede, but it's not. It is the dobsonfly in its larval stage. It will then go into its pupal stage. That is the dobsonfly in the pupal stage; and then it becomes an adult. Now this is a male dobsonfly, and this is a female dobsonfly. And I do have a specimen of a



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dobsonfly. These are a little bigger than the stonefly we just saw, but you can see how it looks like that centipede, millipede-like creature; but again it's not. That's the dobsonfly in its larval stage.

So those are all the specimens that I have to share with you before our reading tomorrow. I do just want to ask and give you a little heads up about an activity we're going to do. So I ask that if you want to participate, you bring a scrap sheet of paper just like this – doesn't have to be fancy – uh, just because we are going to be using that scrap sheet of paper in an activity where we discuss the diets of some of the aquatic macroinvertebrates that we'll be talking about.

So join me tomorrow on Facebook Live at 10AM. Again we'll be reading *Up the Creek* by Nicholas Oldland, and don't forget to bring your scrap sheet of paper. Alright? I'll see you then! Bye!