

**Sharks and Rays: Myth and Reality**

**Week 5**

**Female Reproduction Overview**

**Dr. Marcelo Carvalho:** Here we have the female dogfish displayed for dissection. She is also on her back as the male. This specimen's around 85 centimeters in total length from the snout to the tip of the tail.

The pleuro-peritoneal cavity [the rear portion of the body cavity] has been exposed. All the organs are in place. Again, as in the male shark, the digestive system is overlying the reproductive system. Moving aside the left liver lobe, the stomach, here we can see components of the reproductive system: the ovary, the uterus. We shall remove the digestive system so we can observe more closely the reproductive system. It's interesting to note that this specimen has been injected with dye, so that we can see both its veins and its arteries - the reason why we have a lot of pink and yellow in here.

Now, we have further exposed the reproductive tract of this female. Reproduction in the female begins in the ovary, where ova, or eggs, are formed. The eggs are secreted from the ovary and passed into the oviduct

through the ostium, a small pore - it's very hard to see here, but it's located at the top of the oviduct. This is where fertilization occurs. After the egg is fertilized, it moves through a small gland, called the shell gland, at the top of the oviduct, which secretes a thin membrane around the eggs, the fertilized eggs. The eggs then will move down the oviduct, eventually resting in the uterus, the distal [rear] portion of the oviduct, where most of the gestation occurs. In the case of this species, gestation may take two years, or 24 months.