

Treatment of dystocia in a captive false map turtle *Graptemys pseudogeographica*

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Dystocia, often referred to as egg binding, is common in reptiles (Mader et al., 1994; Sykes, 2010) and birds (Abou-Zahr et al., 2019). It describes the situation where eggs are either retained within the body or stuck within the cloaca (pelvic canal). Egg binding can be caused by attempts to pass abnormally large eggs, behavioural stress caused by lack of adequate areas to nest, nutritional deficits, or disease. It is a serious health risk and can result in death if the eggs are not removed.

In the Biodiversity Laboratory of Saint Joseph's University (SJU), we maintain large colonies of turtles for behavioural research and conservation. Recently we encountered a young female *Graptemys pseudogeographica* with an egg lodged in her cloaca (Fig. 1). Attempts to manually dislodge the egg failed, so the animal was transported to our attending veterinarian at the Radnor Veterinary Hospital.

At the hospital the map turtle was weighed (450 g) and X-rays were taken, which revealed several eggs within the animal (Fig. 2). A number of these eggs were misshapen, with some being smaller than normal, and two being larger than normal. To remedy the situation, the egg was extracted from the cloaca by the following procedure (percloacal ovocentesis). An 18-gauge catheter (without stylet) was placed onto a 3 cc syringe containing lubrication gel, and the catheter inserted around the egg, through the cloaca. Once the egg was lubricated with the gel, the catheter was removed and a 20 cc hypodermic needle was used to puncture the egg and extract the yolk. The egg shell was then squeezed out to clear the cloaca. Following the procedure, the turtle was prescribed a 0.1 mL injection of the antibiotic Fortaz every 72 hours and 0.45 mL of calcium gluconate every 12 hours for 14 days. The calcium gluconate was provided to replace female calcium, which is used in the egg-laying muscle contractions. Following the procedure, the turtle successfully passed the remaining eggs.

REFERENCES

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Figure 1. View of *Graptemys pseudogeographica* female with an egg lodged in her cloaca



Figure 2. X-ray of *Graptemys pseudogeographica* female, showing large egg lodged in cloaca, along with another large egg near left rear leg, and 3-5 smaller eggs in central body region

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