COELIOSCOPY GENDER IDENTIFICATION OF JUVENILE CHELONIANS: A NEW CLINICAL SERVICE

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ABSTRACT

Gender determination in the vast majority of chelonians is temperature-dependent, and private breeders, curators, researchers and conservationists often need to identify gender in rare or endangered species, especially when precise incubation parameters are not fully known. What initially started as a research and conservation tool has now developed into a regular clinical service for several breeders in our area. To date we have confirmed gender in 256 juveniles (as small as 10 g) from several species including radiated tortoises (Astrochelys radiata), Aldabra tortoises (Aldabrachelys gigantea), Galapagos tortoises (Chelonoidis nigra), Hermann’s tortoises (Testudo hermanni), asian box turtles (Cuora flavomarginata), and red-eared sliders (Trachemys scripta elegans). The following description represents our approach to providing this service to our local chelonian breeders, and we believe has value as a clinical service for reptile practitioners elsewhere.

Coelioscopic gender identification has proven to be safe, effective and essentially 100% accurate in a number of species. Errors and complications, although rare, can be associated with pre-existing disease/sepsis, iatrogenic bladder perforation, equivocal determination in young animals due to lack of gonadal differentiation, and misidentification due to lack of experience with a particular species. In order to minimize such issues we recommend (i) starting with juveniles 12-18 mo of age until competence with a particular species is achieved; (ii) using a consistent, injectable, anesthetic regime, (iii) starting with the largest animal in a group and working towards the smallest, (iv) sterile crystalloid infusion to improve visualization, and (v) using a quality, small diameter telescope with color monitor and photodocumentation for later review.

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LITERATURE CITED