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Vats of Preservative No More: Vacuum Sealing Specimens in Chordate Biology Labs

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Traditionally, mid-level chordate biology labs employ large vats of preservative for storage of specimens on both short and long-term scales. Motivated by the logistics of using and disposing of large volumes of preservative in compliance with health and safety regulations, vacuum sealing was investigated as a method to maintain instructor prosections and student study specimens over varying periods of time. A readily available commercial grade vacusealer and food preparation plastic bags were used to seal specimens (perch, lamprey, shark, frog, mudpuppy, snake, mink, fetal pig, and rabbit) dipped in or sprayed with Wardsafe®, 20% isopropyl alcohol and Infutrace®. Specimens were monitored for quality from four to eighteen months. Specimen quality varied with animal and preservative used. While this method necessitates a redistribution of time and effort, the advantages in terms reduction in the amount of preservative used, time associated with specimen retrieval at the start of lab period, and end of semester cleanup make it preferable to holding specimens in large vats of preservative. The logistics needed for the successful use of this method will be illustrated and discussed.

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