Marine Biodiversity in a Bag

Ben Waggoner

University of Central Arkansas, Department of Biology, 180 Lewis Science Center, Conway AR 72035-5003 USA

(ediacara@cyberback.com)

Marine aquarium suppliers sell bags of aragonite sand from tropical regions. Depending on where it was collected, aragonite sand usually contains identifiable shells of foraminiferans, enidarians, arthropods, gastropods, scaphopods, and bivalves. It lends itself well to lab exercises in invertebrate zoology, paleontology, marine biology, biodiversity, and general ecology. Not all brands of sand are equally rich, and instructors should select sustainably sourced sand, since not all marine aquarium specimens and products are collected sustainably. However, a ten-pound bag provides material for hundreds of students, and the sand can be reused indefinitely if picked specimens are not kept in a permanent collection. Participants will pick through sand samples and discover a surprising diversity of specimens, including rarely seen taxa such as scaphopods and caecid gastropods. We will then calculate various biodiversity indices and discuss sampling and rarefaction.

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