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Morphological and isotopic variability of *Cyprideis* from Florida, Jamaica and the Dominican Republic

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Isotopic measurements have become a standard method in paleontology to reconstruct paleoenvironmental conditions from biogenic carbonates. This application depends on the knowledge of recent processes and controlling factors during the formation of the biomineral. Due to the fast calcification of their shell (hours to days), ostracods can provide a snapshot of the isotopic composition of their host water.

We used two species of the genus *Cyprideis* (Ostracoda) of three surface sediment samples from different non-marine habitats, to determine their morphological and isotopic variation. The material was collected in Peace River (Florida), Parrotee Pond (Jamaica) and Laguna del Rincon (Dominican Republic). Morphological analysis of the two species *Cyprideis salebrosa* (Florida, Dominican Republic) and *Cyprideis americana?* (Jamaica) included size measurements (length, height) and node formation (number, position). *C. salebrosa* shows typical node formation and separation of female and male adults in size and shape, with slight differences between Florida and Dominican Republic.

Oxygen and carbon isotope ratios were measured for both species. The total range of stable isotope values of *C. salebrosa* covers -3.99 to 1.83 ‰ for $\delta^{18}\text{O}$ and -10.21 to -4.88 ‰ for $\delta^{13}\text{C}$. Isotopes of *C. americana?* vary from -4.75 to 2.21 ‰ and from -10.93 to -4.96 ‰ for oxygen and carbon, respectively. Floridian *C. salebrosa* shows lighter isotopic signatures (oxygen and carbon) and a smaller variation than the Dominican specimens. *C. americana?* shows overlapping signatures in the lowest $\delta^{18}\text{O}$ and $\delta^{13}\text{C}$ as Florida, but with a much higher range in oxygen and carbon isotopes. Male *Cyprideis* spread less than females, but just a few data are available. Preservation of the valves has no significant impact on the range of the isotopic measurements. *Cyprideis* shows a positive vital offset in all samples (Florida: $+1.42 \pm 0.98$ ‰, Dom. Rep.: $+0.24 \pm 0.84$ ‰, Jamaica: $+1.13 \pm 1.76$ ‰). The distribution of the isotope ratios is probably controlled by the habitat type and the evaporation ratios. The most instable habitat shows the highest isotopic range.

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