

Epi- and endobionts on and in free-living colonies of *Manicina areolata* (Cnidaria, Scleractinia): A comparison of two Pleistocene communities from southern Florida

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ABSTRACT

The epi- and endobiont communities (EEBCs) found within an exquisitely preserved collection of 48 *Manicina areolata* specimens from two Pleistocene localities in southeastern Florida, United States, were examined in detail. The EEBCs include a broad taxonomic spectrum of encrusting and boring organisms, but differ markedly between the two localities. Specimens from the Canal locality generally show an equable distribution of EEBCs, with serpulids, spirorbids, and/or chamids numerically dominant and chamids dominating in average area, whereas the Palm Beach Aggregates (PBA) coralla have a much less even distribution of EEBC constituents and lithophagids numerically and spatially dominate virtually all bases. Given the relative proximity of the two localities and inferred distance from the Pleistocene shoreline, it seems unlikely that any of the EEBC components would have been substantially less available in one locality as compared to the other. Therefore, we favor an explanation focused on sedimentologic differences between the two areas. The Canal environment was shelly, carbonate mud, in contrast to the shelly, coarser-grained siliciclastic sediment present at PBA. The substrate at the Canal site was relatively soft, which resulted in corallum basal morphology commencing with a prominent apical cone, whereas the substrate at the PBA site was firmer and this support produced much flatter bases as well as allowing for a substantially greater number of lithophagid bivalves to bore into the coralla.