Lead-210 Dating Bamboo Coral (Family Isididae) of New Zealand and California

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This study investigated the age and growth of bamboo coral (family Isididae) collected off New Zealand and California using skeletal cross sections from partial coral colonies. Age and growth was determined independent of growth zone counts using lead-210 dating. This was accomplished by micro-sampling the skeletal carbonate in a series of radial samples (from the edge to near the center) and applying the lead-210 dating method. The skeletal cross sections for each species were similar in diameter for comparative purposes. The results for the radial sampling indicated the time required for the New Zealand colony (*Lepidisis* sp.) to form a radius of 7.6 mm was 43 years (range of 38 to 48 yr). This equates to a radial growth rate of 0.177 mm/year (range of 0.162 to 0.195 mm/yr). The results for the radial sampling indicated the time required for the Davidson Seamount colony (*Keratoisis* sp.) to form a radius of 7.5 mm was 150 years (range of 97 to 197 yr). This equates to a radial growth rate of 0.05 mm/yr (range of 0.038 to 0.077 mm/yr). Because the sections had a similar radius, we concluded that the *Keratoisis* sp. collected at 1425 m from the Davidson Seamount grew about 3 times slower than the *Lepidisis* sp. taken at 690-800 m from off New Zealand.

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