

Macro Photogrammetry for Small Biological Specimens

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The adaptation of digital photogrammetric techniques to create detailed 3D models of biological specimens includes methods of macro photography, focus-stacking, and the use of Agisoft Photoscan Standard software. In comparison with other methods of 3D scanning, macro photogrammetry allows for imaging of biological specimens that are small in size or have delicate structures. Three-dimensional models of *Palaemonetes* sp. (Grass Shrimp) and *Chondrus crispus* (Irish Moss) are included to demonstrate methods of specimen preparation and digital techniques used.

The implications of modeling biological specimens include the building of teaching materials and insights into spatial information, as well as shape and surface details.