



**2023 Biology  
Photo/Art Contest  
Winners**



# First Place: Emily Lekas



A cushion sea star (*Oreaster reticulatus*) rests in a bed of turtle grass in the East Harbour Lobster and Conch Reserve in South Caicos. Photograph taken by Emily during her study abroad program through the School for Field Studies.





# Honorable Mention: Lauren Yim

Beautiful leopard on the move in South Africa.



# Honorable Mention: Joshua Pandian

Formation of a Frond

ISO 100 film

Darkroom Print Settings: f/11, 15s exposure time, contrast filter 3

This picture, taken at the Lewis Ginter Botanical Garden, depicts a new frond emerging from a dwarf tree fern (*Blechnum gibbum*). On the surface the subject looks very ordered and structured, but behind the scenes various cells and environmental factors tied together by a multitude of complex signaling pathways are responsible for producing the beauty that we observe.

The interactions of cells and light in the process of photosynthesis is the driving force behind the growth seen in the image. This connection between light and growth is mirrored in the printing process used to create the image. Much like how sunlight can excite molecules in a leaf, which leads to the formation of glucose and energy that contributes to frond growth, the light used in the darkroom excites the molecules in photo paper, which leads to the formation of the image that we see.

I wanted this image to encapsulate the complexity and order of nature and I hope it is a reminder of what drives us to study life and its many intricacies.

