Field of View (FOV)

distance along the x-axis (length) and y-axis (width), and, consequently, the area observed

28 mm lens (large FOV)

50 mm lens (small FOV)

Again, both of these photographs were shot from the same position; the left one with a 28 mm lens and the right one with a 50 mm lens. Notice that as the field of view decreases, some objects disappear (the left most dolphin and most of "Sharky."

100 mm lens (smallest FOV)

100 mm lens (smallest FOV)

These last two pictures were shot from the same position with a 100 mm lens. The camera remained pointed at the exact same spot as in the previous two shots. Note that the camera is specifically pointing at the sofa and not any of the animals. If I were aiming for "Squirt,", I would only need to adjust the camera slightly upward to center on him. However, I was interested in the puffer fish. With the shrinking field of view as the magnification increased, the puffer fish slipped completely out of the picture. Only by adjusting the camera (analogous to adjusting the specimen on the stage with the mechanical stage) can I bring the red and orange puffer fish into view. Many students lose objects under the microscope as they increase magnification because the field of view diminishes so quickly.

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