

UNDERSTANDING AND USING DEPTH OF FIELD

by Bill Popejoy Jan 2011

What is Depth of field? It is the **ZONE OF ACCEPTABLE SHARP FOCUS** in a photograph. Three things determine Depth of Field, FOCUS POINT, FOCAL LENGTH and F STOP:

(1) The area that you focus the camera on, FOCUS POINT.

The closer to the camera the focus point is, the less is the depth of field.

The farther away the focus point is, the greater is the depth of field.

(2) The focal length of the lens, FOCAL LENGTH.

The shorter the focal length is, the greater is the depth of field.

The longer the focal length is, the less is the depth of field.

(3) F Stop Numbers.

The smaller the F-STOP number is, the smaller is the depth of field.

The greater the F-STOP number is, the greater is the depth of field. The sensitivity to light of your camera is stated as "ISO". Using a higher ISO allows one to use small F-Stops (large numbers). All digital cameras allow one to choose the "ISO" number. You can change the ISO number anytime, even after the last shot taken. All you need to do is use a higher ISO number, the camera does the rest.

Depth of field and FOCUS POINT.

In general about one third of the depth of field is in front of the focus point (toward the camera) and two thirds is behind the focus point (away from the camera).

USING WHAT WE KNOW ABOUT DEPTH OF FIELD:

For maximum depth of field, use the largest F Stop number possible (Use Aperture Preferred), or use a slower shutter speed, and/or use a short focal length and/or have the subject being photographed far from the camera and/or use a larger ISO number. Outdoors in bright sun, use ISO 100 or 200. In overcast light use 400.

For minimum depth of field, use the smallest F Stop number possible, or use a faster shutter speed, and/or use a long focal length and/or place the subject being photographed close to the camera and/or use a smaller ISO number.

"Focus Lock" allows one to focus anywhere in the frame thus controlling FOCUS POINT. Simply place the point that you want to "lock" on in the center of the frame and depress the shutter part way. Then, while holding the shutter release in position, recompose. Then press the shutter release button the rest of the way down. This will take practice!

Cameras with "Zoom Lenses" allow one to choose the focal length being used. however you probably won't know what it is.

WARNING: USING TOO HIGH AN ISO MAY CAUSE GROSS OVEREXPOSURE. Always check after switching to a higher ISO.

NOTE: Shutter speed has no effect on depth of field.