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- <sup>3</sup>BREITUNG, A. J. 1957. *Annotated Catalogue of the Vascular Flora of Saskatchewan*. *Am. Midland Nat.* 58: 1-72.
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## Wildflower PHOTOGRAPHY

by G. A. HARDY\*

Flowers are among the most popular, plentiful and accessible of all nature subjects. Most serious nature photographers begin with flowers. Yet too many flower pictures turn out trite and disappointing. This may be neither the fault of the subject or the photographer. It may also occur because of the difference between the way an object appears to the viewer and the way the camera records it. The mind's eye sees the flower in a three-dimensional vision that separates it from its surroundings and adjusts to motion and some color variations. The camera on the other hand sees with monocular or two-dimensional vision and hence places equal emphasis on all objects within its viewing range. Hence the rose that looks

so lovely to the eye may be lost amid the leaves and branches when photographed.

Except when the photographer's object is to show the whole plant and surroundings from an ecological approach, far more satisfactory results can be obtained by using some form of close-up photography as outlined below. This article can only outline the subject and I commend to my readers the vast storehouse of artistic and technical knowledge available in the hundreds of excellent books available.

### Equipment and its use.

A single lens reflex camera is a must since the photographer can then see the exact area that will be exposed to the film. By opening or closing the lens diaphragm, the area (depth of field) of sharp focus can be altered to suit the subject. A camera with interchangeable lenses is best. A sturdy tripod with a horizontal and vertical panhead is also a must. For subjects very close to the ground I use a single leg unipod made of a 10" spigot with a 1/4 x 20 threaded 1/2" screw-t



Fig. 1. Early Yellow Locoweed.

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2. Marsh Marigold.

ve bolt soldered on the top. This head fits the hole in the base of most cameras. Only a firm and immovable one such as described will ensure sharp pictures.

There are three types or ranges of photography.

1) Normal lens pictures using the standard 55 mm lens will focus down to 12" or 18" and provide pictures of the plants and habitat as mentioned above.

2) Close-up photography is generally described as that range where some attachment either behind or in front of the normal lens will allow the camera to be closer to the subject and thus provide a larger image on the film. Generally the inside limit of this range occurs when the object appears on the film in life size, also referred to as a 1:1

ratio. This can be done by placing one or more close-up attachment lenses to the front of the normal 55 millimeters (mm) lens or a longer focal length lens of, say, 135 millimeters (mm). Close-up lenses come in varying strengths called diopters. I suggest a +2 and a +3 which, when used together, provide +5, very adequate for close-up work. These on a normal lens place the camera very close to the subject; this can create lighting problems from shadows. Attachment to a 135 mm lens, while not providing as large an image, will allow a better working distance. Each increase in magnification results in a narrower depth of sharp focus; hence a smaller lens opening and slower shutter speed must be used to increase depth, while compensation by longer shutter time is made for the proper exposure. (Figs. 2 and 3)



Fig. 3. Western Red Columbine.

(3) Another method to obtain close-ups is by placing extension tubes or bellows behind the lens in those cameras with interchangeable lenses. When enough tubes or extension of the bellows yield an image beyond the 1:1 ratio, we are in that area of photography known as macro-photography. The more tubes, the more light is lost and this must be compensated for by longer exposures. For example, a life-size image obtained by this method requires 4 times the exposure and a 1/2-size image twice the exposure. This area of photography is used in pictures where you see stamens and pistils with all the structural detail and grains of pollen revealing colours not normally seen. (Fig. 4)

### Lighting

One of the most common causes of disappointment is improper lighting. High bright sun from behind the camera yields flat and uninteresting pictures and often extreme loss of color saturation. Hazy sunlight is very good, and one should arrange the subject so that the light falls from about 45 degrees to one side or above. With some subjects, back lighting by the sun will produce dramatic effects but it is usually necessary to place a reflector near the camera to light to some extent the frontal area. The dull side of kitchen aluminum foil taped to cardboard is

satisfactory. This can be held in place by clothes hanger wires stuck in the ground with one cut-off end curled like a paper clip to hold the card. (Fig. 5)

One of the most common causes of blurred pictures is movement due to wind. If this condition or weak light is the problem an electronic flash at 45 degrees with the reflector to fill the shadow side is often used. Strobe light is so fast that most object movement is frozen. Be sure to purchase a unit that has an output or guide number of at least 65 to 80 using Kodachrome film. An example of this type of lighting is shown in Fig. 6. Here again a reflector to fill the shadow side is recommended.

### Background

Another common fault in flower photography is intrusion of backgrounds. In general, only a hint of the habitat area should be present in close-ups; otherwise bright leaves, stems and grasses distract the eye and prevent proper separation of the main subject. Tie back the nearby foreign objects with thread or vegetable bag clips. If the background is too bright, shadow it with an umbrella or something similar.



Fig. 4. Willow blossom.



5. Goat's Beard seedhead.

Above all, limit the sharp focus area to your main subject and place the background well out of focus as in Fig.

Composition is an extensive subject in itself but a very necessary attribute to making pictures. Since flower pictures lend themselves to pictorial treatment, good composition within the frame avoids static and uninteresting pictures. Leading lines of leaves or stem may direct the eye to the main subject which

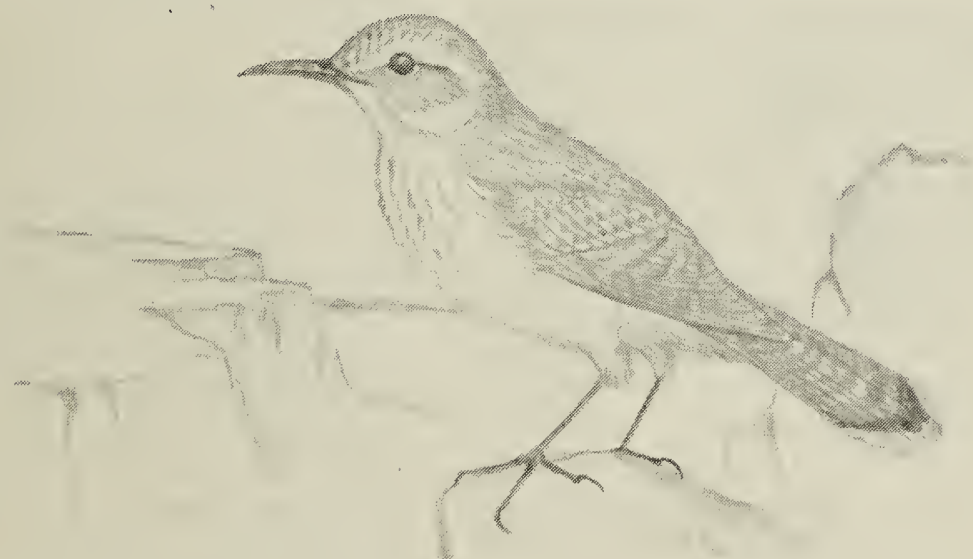


Fig. 6. Star-flowered Solomon's-seal.

should seldom occupy the exact centre of the picture.

### Summary

- A good single-lens reflex camera
- Sturdy tripod
- Lots of close-ups; move in
- Careful attention to lighting; make it look natural
- Selective focus to separate subject from background
- Pleasing composition or arrangements
- Above all, sharp subjects



Rock Wren

A. R. Smith