

How Did You Get That Photo?

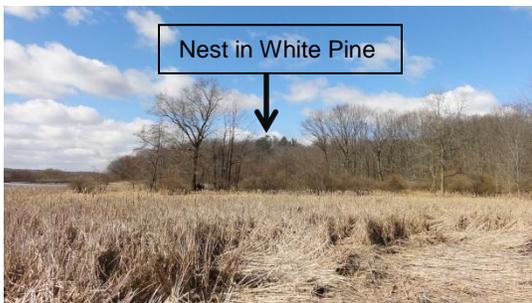
Royal Botanical Gardens' photographs of the Bald Eagles and their nest are all taken from the boardwalk on the Marshwalk Trail, along the shore of Cootes Paradise. The best view of the nest itself is to be found about half way along the boardwalk as it goes out to the lookout tower. This is the only clear vantage point of the nest; even from the water, the view is not as clear. Photographers are reminded that this species is protected by Ontario's Endangered Species Act: it is illegal to enter the forest to approach the nest area.

The Marsh Boardwalk is about 350 metres (just over 1000') from the eagles' nest. It's possible to get great photos from this distance, but some specialized equipment helps. We recommend that you use a telephoto lens of at least 500 mm focal length, or the equivalent magnification relative to a full-frame camera for your particular camera. A form of stabilization such as a tripod is also highly recommended. If you use a tripod please be aware that the boardwalk is narrow and moves considerably when people are walking along it. Please be patient and courteous. Everyone deserves a good look at these wonderful birds.

It is also a good idea to use as high a shutter speed as is possible, assuming you can manually adjust your camera. Higher shutter speeds will cut down on the vibrations that we have found are coming from the boardwalk itself, and also will help to avoid the image being blurred by the movement of the trees.

Sample Photos and Explanations

These photos were all taken by RBG staff on their own time, using their own personal equipment. They are shared here in the hopes that they will help everyone enjoy the thrill of capturing their own photos of the Bald Eagles.



Sony DSC-HX5V Wide Angle 4 MM

A wide-angle photo of the shoreline habitat where the eagles are nesting gives you a good idea of how far away they are from the boardwalk. This photo was taken with a Sony DSC-HX5V pocket camera, an older model. The tree with the eagles' nest is in the centre of the frame; the nest is a little above the middle.



Sony DSC-HX5V Telephoto 42 MM

Changing the same pocket camera to a telephoto setting lets you see the nest itself, but it's still pretty small-appearing. This telephoto shot was taken with the Sony camera lens set to 42 mm, the "longest" this model can shoot. The nest tree fills the frame, and the white head of one of the Bald Eagles is clearly visible.



Sony DSC-HX5V Telephoto 42 MM Cropped

This image is the same original photo as Sony telephoto shot, but has been cropped to show just the area around the nest itself. The eagle is clearly visible, and even its beak can be made out.



500 MM Telephoto Lens Uncropped

A good telephoto lens is a wonderful tool for nature photography. This photo was taken with a Tamron 150-500 mm zoom lens mounted on a Nikon D800 camera body. The lens was set to 500 mm focal length. It was taken “hand-held” with the lens’s internal image stabilization system running to keep things steady. This image is similar to that taken with the Sony camera at a telephoto setting. However, this camera and lens record a lot more information, so much more detail is visible.



500 MM Telephoto Lens Cropped.jpg

This is the central portion of the telephoto image above, cropped to highlight the nest itself. A lot more detail is available in a photo like this compared to the telephoto shot from the Sony camera.

Photos that have shown baby eagles have either been taken with a long telephoto lens like this one or with a telescope as described below.



285 MM Telescope Uncropped.jpg

We have been experimenting with even longer “lenses” to see if we can get better views of the eagles from the boardwalk. This is an uncropped photo (just as recorded by the camera) of the eagles’ nest taken from the boardwalk with an astronomical telescope and a Nikon D7000 camera body. Astronomical telescopes are great tools that can be used for more than gazing at the moon. The details of the telescope are found under the next image.

Comparing this image and the one taken with the telephoto zoom lens you can see the much higher magnification possible with the telescope. In this case, the telescope is magnifying the image about 5.5x more than the telephoto lens can. However, the telescope is also much more difficult to use as it requires deft manual focus, is much more subject to vibrations on the tripod, and is also subject to optical issues such as glare that can reduce quality.

2850 MM Telescope.jpg



This strange-looking set-up is actually a small astronomical telescope attached to a Nikon camera body, mounted on a heavy-duty photography tripod. The telescope is a Meade ETX 125TB which was purchased used at a telescope store in Ontario. It is mounted on a Nikon D7000 camera body, and produced the photo “2850 MM Telescope Uncropped”.

The Meade ETX 125 series of telescopes have a focal length of 1,900 mm, or about four times that of the 500 mm telephoto lens, and an aperture of 125 mm (it is this classified as an “f/15” telescope). The Nikon D7000 camera body has a smaller sensor than a “full frame” camera (like the Nikon D800 used above), and so it has the effect of cropping the image coming from the telescope. This effectively makes the telescope “longer.” In this case, the telescope has an effective focal length of around 2,850 mm compared to the image taken by the 500 mm telephoto lens and “full frame” dSLR body. A great deal of detail can be seen with this approach, but it is also technically demanding and requires good optical equipment.