

## An Alternative Method of Selecting Complex Shapes in Photoshop

Ed Ogle

As someone who is interested in macro photography, I have tried many things to remove the halos that are formed by focus stacking techniques. These halos are the result of the focus difference between the foreground and the background. Fig. 1 is a 10-image focus stack of two carnivorous sundew plants taken at f/5.6. This image has been postprocessed to make the halo around the plant more noticeable rather than less for the purposes of this demonstration. Also, f/5.6 was used here to further accentuate the halo. At smaller apertures, such as f/11, will reduce the halo effect but it won't eliminate it.



Fig 1 – Original photo with focus stacking halos

If you try to use the “object select” tool in Photoshop on this image you will get a selection that looks like Fig 2. As you can see the object select tool will select the plants in the image but will also include some of the halo. What I have found is a way to use the “magic wand” in combination with the “object select” tool to make a more accurate selection. By using this technique you are in effect introducing a “variable-strength-of-selection” to the object select tool.



Fig 2 – Selection using “Object Select” tool alone

**The process steps:**

- 1) Set the range of the magic wand tool to about 20 which is what I did for this image. Another image might work better with a different strength. Find a spot on the object that is approximately average brightness for that object and “magic wand” it. The resulting selection should look something like Fig 3.



Fig 3 – The magic wand selection

- 2) Next, with the “marching ants” visible, you should duplicate the layer and apply a layer mask to the new layer such that the selected area is visible and the background is mask out. Do an <Alt> click on the duplicated layer to make the layer mask visible. In this case the layer mask should look something like Fig 4.

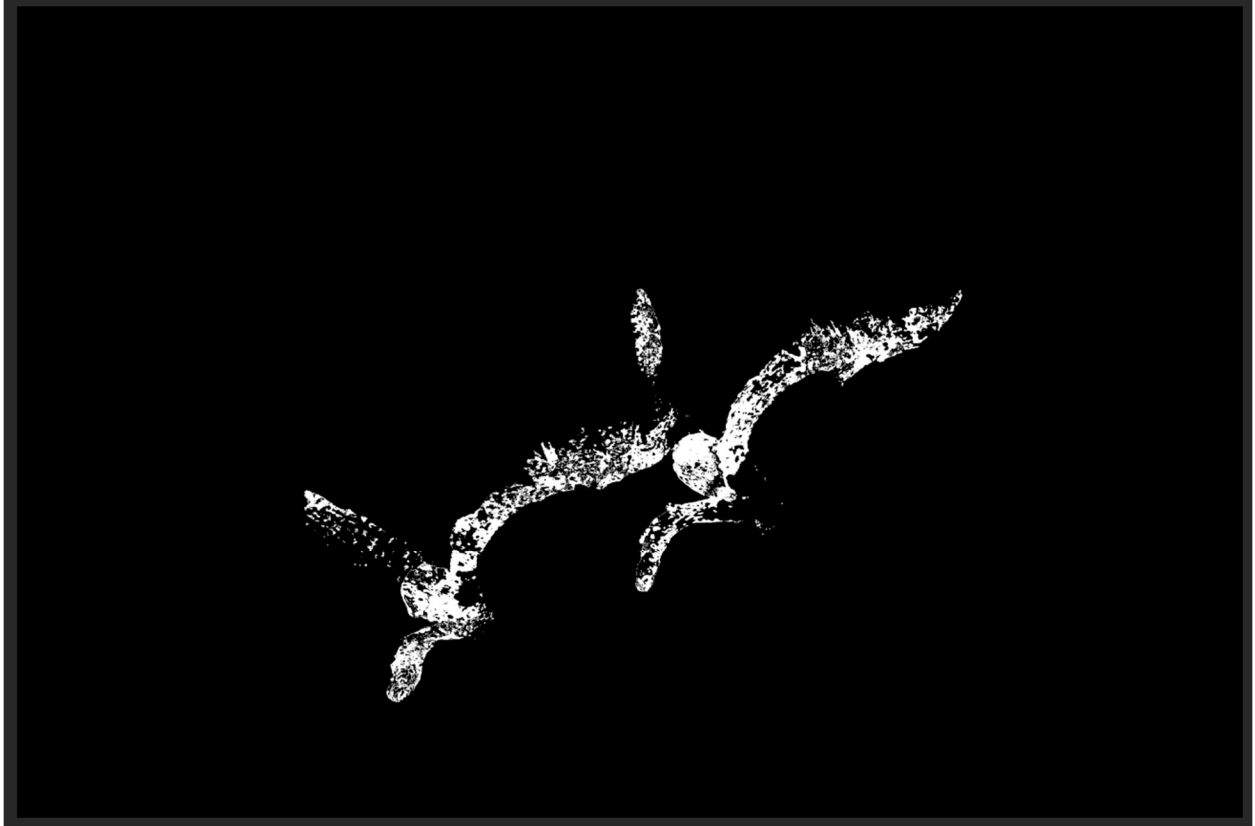


Fig 4 – The mask created with the magic wand

- 3) Next, with the layer mask visible, you should use the “object select” tool to select the white areas of the layer mask. The object select tool will draw a tight line around all the dots in the layer mask as shown in Fig 5.

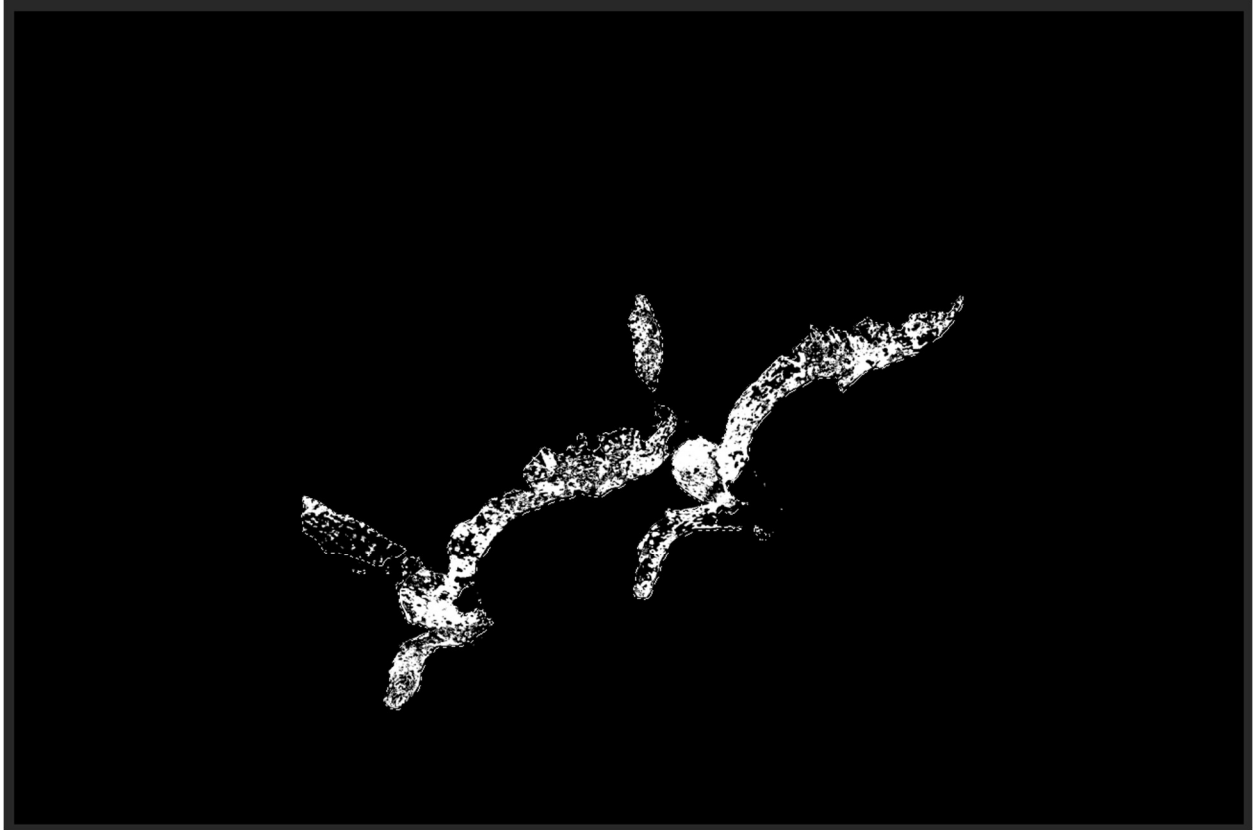


Fig 5 – The select object tool used on the magic wand produced mask

- 4) At this point you can close out the view of the layer mask returning to the original image and you will find that the selection made in Step 3 will look like Fig 6 and will be a much tighter selection than what the select object tool produced. Also, at this point you can delete the duplicated layer and its mask as long as you keep the selection active. The selected area produced by this method probably won't be perfect but most of the areas that were problems with the select object tool will be much better and most of the halo will be outside of the selected area. Fig 6 shows the selected areas resulting from these steps so far. Compare Fig 6 to Fig 2 to see the difference between the area selected by this method and the area selected by the object select tool used by its self.



Fig 6 – The selection created using this method

- 5) Next you should invert the selection so that all the background is selected rather than the subject (in this case the plant). With the background selected, use the clone stamp to clone the background over the halo. Fig 7 shows the resulting finished image with most of the halo removed. Since the selection wasn't perfect in this case, I didn't fix any halo areas that were outside the parts that were selected. Compare Fig 7 to Fig 1.





Fig 7 – The final image with most halos removed

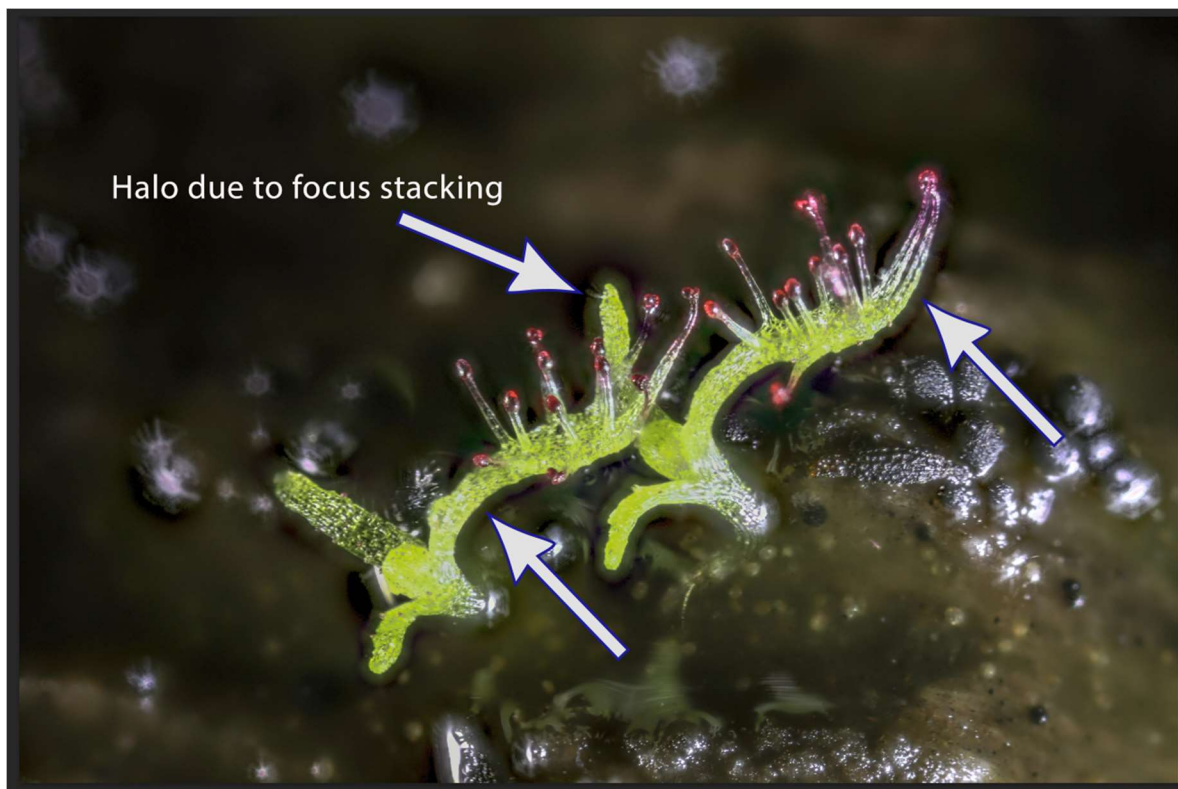


Fig 1 – The original image for comparison