*Constructing a 3D cetacean model in Blender*

1. Add dorsal and lateral images
   1. These should be from the same individual whale
   2. Rotate the images such that they are perpendicular to each other respective to the long axis of the whale
2. Scale the images such that the total length for both dorsal and lateral images is the same visually
   1. i.e., the rostrums and fluke notches on BOTH images will have the same coordinates if the dorsal and lateral images are aligned
3. Add a cylinder to the 3D viewport
   1. Subdivide it into 1% intervals such that it consists of 101 ellipses, where the 1st ellipse is at the rostrum of the whale, and the 101st ellipse is at the fluke notch of the tail
   2. Dissolve ellipses 87-100 individually so there is one ellipse at 85% body length and one at 100% body length
   3. Merge all vertices in the 1st ellipse (the rostrum) at center; they will collapse into a point
   4. Repeat for the 101st ellipse (the fluke notch)
4. Scale and overlay the mesh (former cylinder) such that the designated rostrum and fluke notch align with the rostrum and fluke notch, respectively, of the two images.
5. In **dorsal** view, adjust the widths of ellipses (one axis only) to match the width of the whale at the corresponding point
   1. If the whale is not in a perfectly straight line, the picture will need to be shifted/rotated slightly to preserve symmetry
   2. It may be helpful to scale every 5th ellipse, and then return at the end to scale the ellipses in between
6. Repeat above step until end of body core is reached
7. In **lateral** view, adjust the heights of ellipses (one axis only) to match the height of the whale at the corresponding point
   1. If the whale is not in a perfectly straight line, the picture will need to be shifted/rotated slightly to preserve symmetry
   2. It may be helpful to scale every 5th ellipse, and then return at the end to scale the ellipses in between
8. If the model is very “bumpy” after all ellipses are sized correctly, it may help to smooth vertices in the width and height dimensions to make it more realistic