

# Supplementary Material: Weakly Supervised Segmentation Pretraining for Plant Cover Prediction

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## 1 Ground Truth Segmentation Examples

As mentioned in the main paper, to be able to evaluate the segmentation quality of our method, we created a small set of images with ground truth segmentations. This set contains 14 images in total and two examples can be seen in Figure 1. It should be noted that there are also areas labeled as “uncertain” in these images. These are areas that could not be sorted into one of the existing classes, as the plant in these image parts can either not be determined, or the area consists primarily of shadows between the plants that contain no recognizable features. These areas are ignored during evaluation.

## 2 Example Output for Classification and Segmentation Pretraining

In Figure 2, we show two images for comparing the outputs obtained with either classification pretraining (top) or segmentation pretraining (bottom) of the network, which has been trained with global average pooling in both cases. The corresponding ground-truth segmentations can be found in the bottom image of Figure 1. We can see that especially the segmentation of *Centaurea jacea* and *Achillea millefolium* improved after segmentation pretraining. There are also improvements in the detection of grasses in multiple areas on the left and right side of the image.

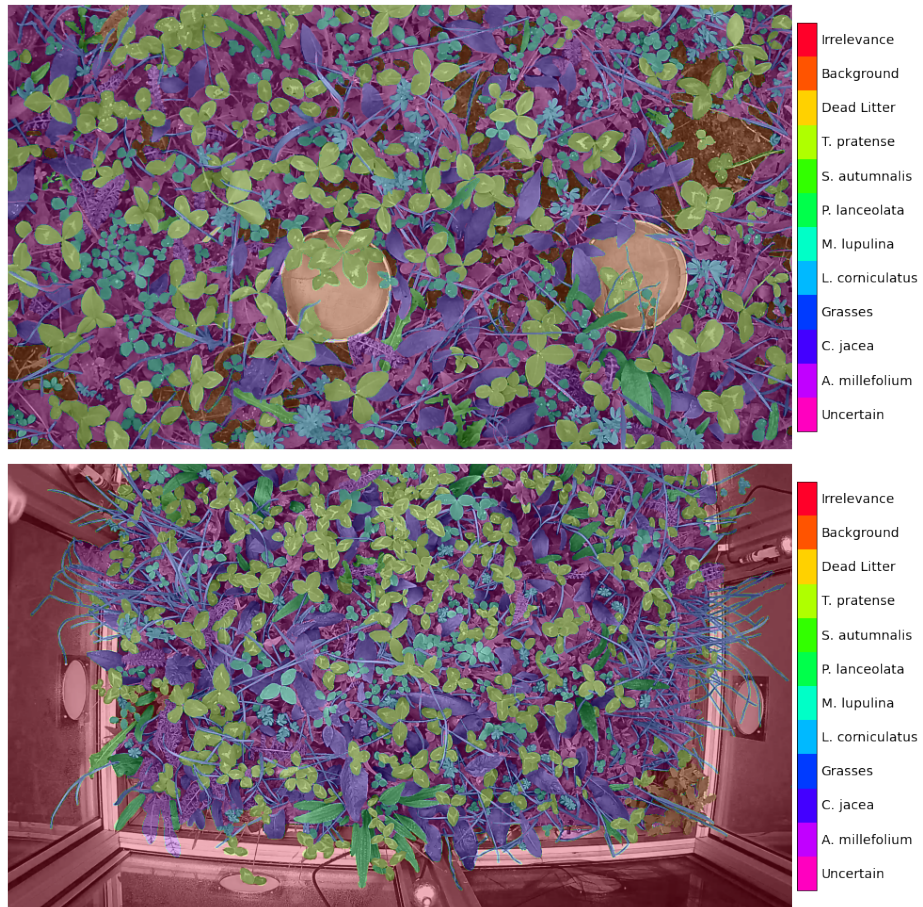
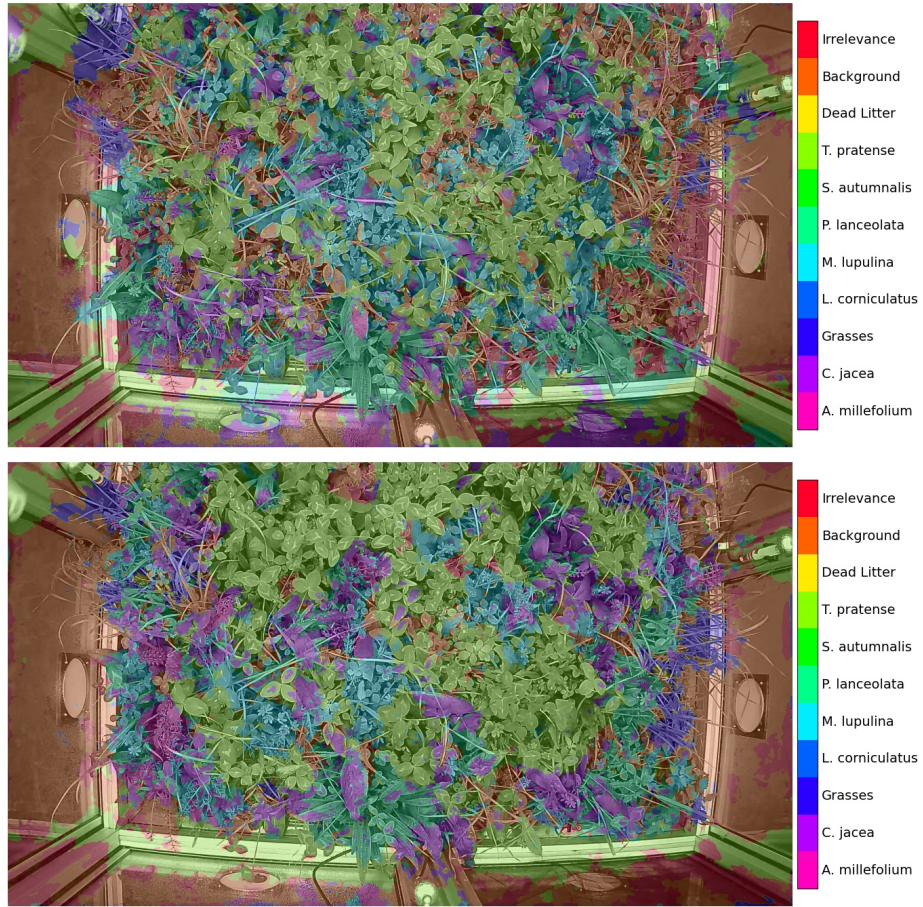


Fig. 1. Two example images with ground-truth segmentations.



**Fig. 2.** An example output for visual comparison of classification pretraining (top) and segmentation pretraining (bottom).