Review of: "Comparing YOLOv8 and Mask RCNN for object segmentation in complex orchard environments"

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Potential competing interests: No potential competing interests to declare.

This article compares the segmentation performance of YOLOv8 and Mask R-CNN machine learning models on two different fruit datasets. Accuracy, recall rate, mean average precision (mAP), and area under the curve (AUC) are used to evaluate the performance of the two methods. Both YOLOv8 and Mask R-CNN models can provide practical segmentation results for apple crown images collected during dormancy and early growth stages. YOLOv5 demonstrates slightly better performance.

Overall, the article is well organized, and its presentation is good. The theoretical deduction logic is clear, and the experimental results are abundant, which supports the conclusion of the paper. However, some minor issues still need to be improved:

1. Are certain parameters, such as the number of training iterations and batch size, the same during the subsequent comparison process in the learning process of the two networks?
2. A more detailed introduction of the network part is possible.
3. The title in Table 1 should be aligned left, the title of the figure should be centered, and the format of the icons should be consistent.
4. Sections 2.1 and 3.2 have first-line indents, and others do not.
5. The description of the Fruit Company in section 3.1 should be consistent.
6. There are extra spaces in section 1.
7. The full name of a proper noun should be given when it appears for the first time.
8. The format of expressions like "YOLOv8’s" and "YOLOv8's" in the article should be consistent.