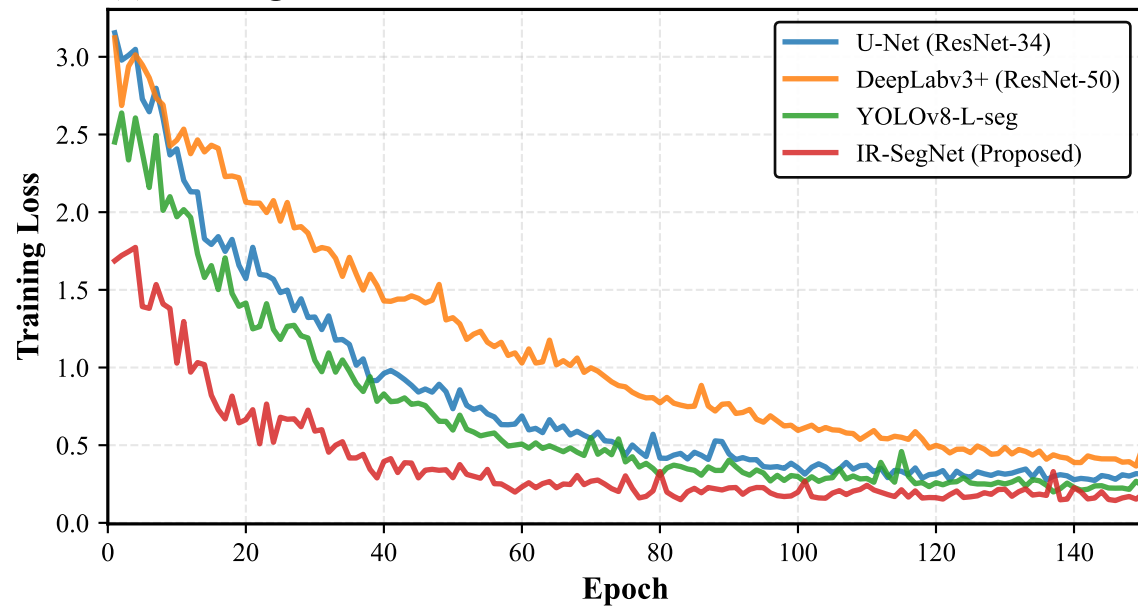
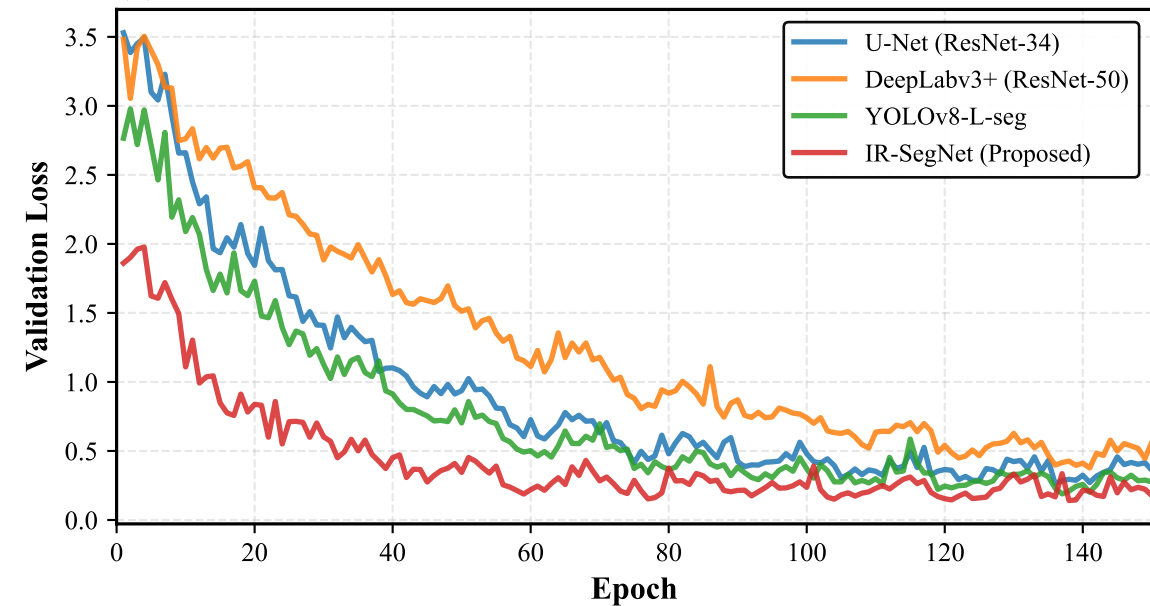


Training Dynamics of Different Models Over 150 Epochs

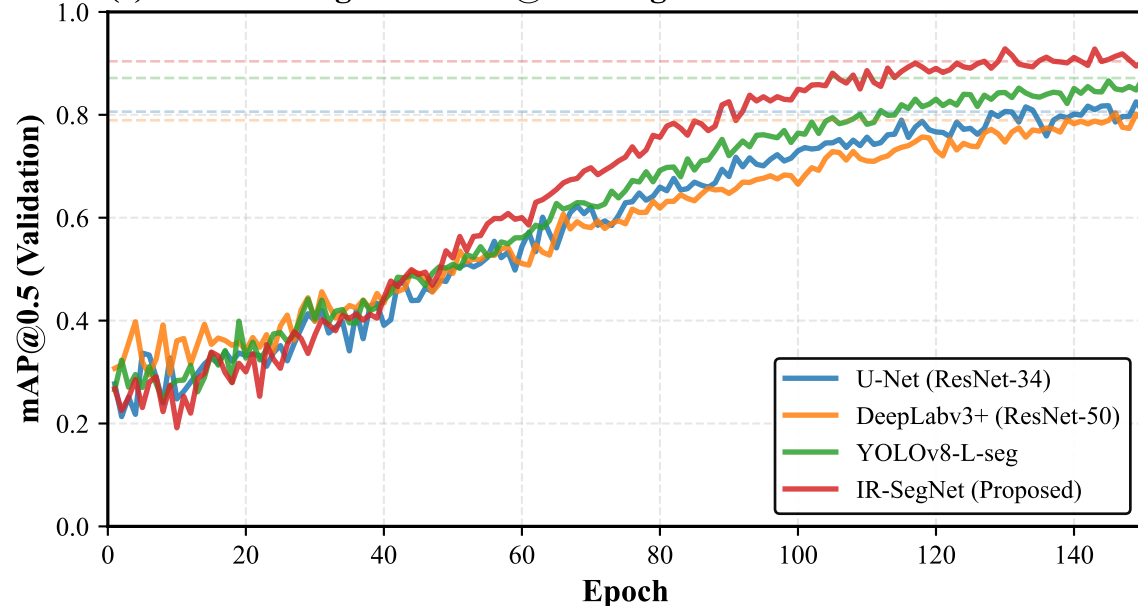
(a) Training Loss Curves



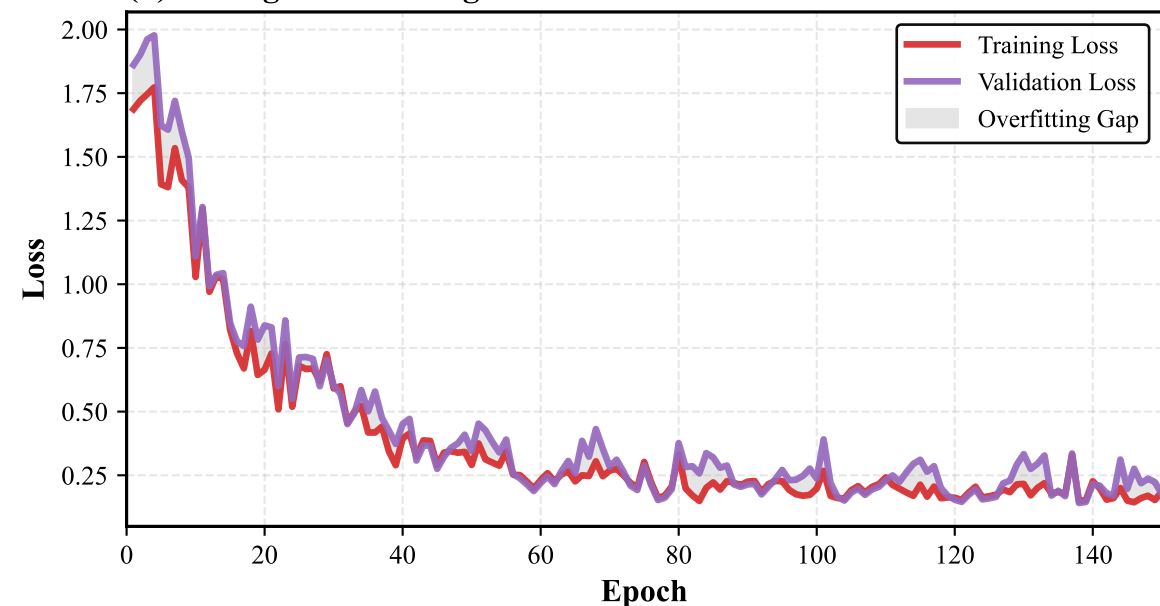
(b) Validation Loss Curves



(c) Mean Average Precision@0.5 Progression



(d) IR-SegNet: Training vs Validation Loss



(e) Learning Rate Schedules

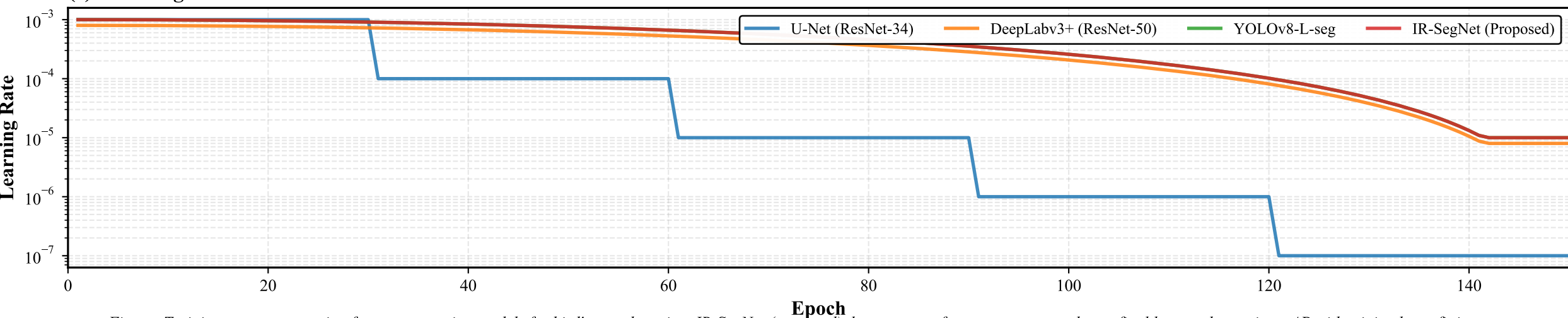


Figure: Training curves comparing four segmentation models for bird's nest detection. IR-SegNet (proposed) demonstrates faster convergence, lower final loss, and superior mAP with minimal overfitting.