Fig. S1. Visualization of Norway spruce forest 3D scenes and DART-simulated top-of-canopy reflectance images for three scenarios. i) 3D detailed tree representations were retained as geometrical facets (3D detailed), ii) 3D detailed tree representations had foliage transformed into turbid medium (turbid), and iii) predefined simple 3D tree crown shapes, in our cases ellipsoidal, were filled with a turbid medium and contained simple straight trunks without branches (simple). The upper images show nadir RGB (red = 640 nm, green = 550 nm, and blue = 450 nm) and false colour (CIR) composites (red = 780 nm, green = 640 nm, and blue = 550 nm) views of simulated forest canopy reflectance for each scenario.
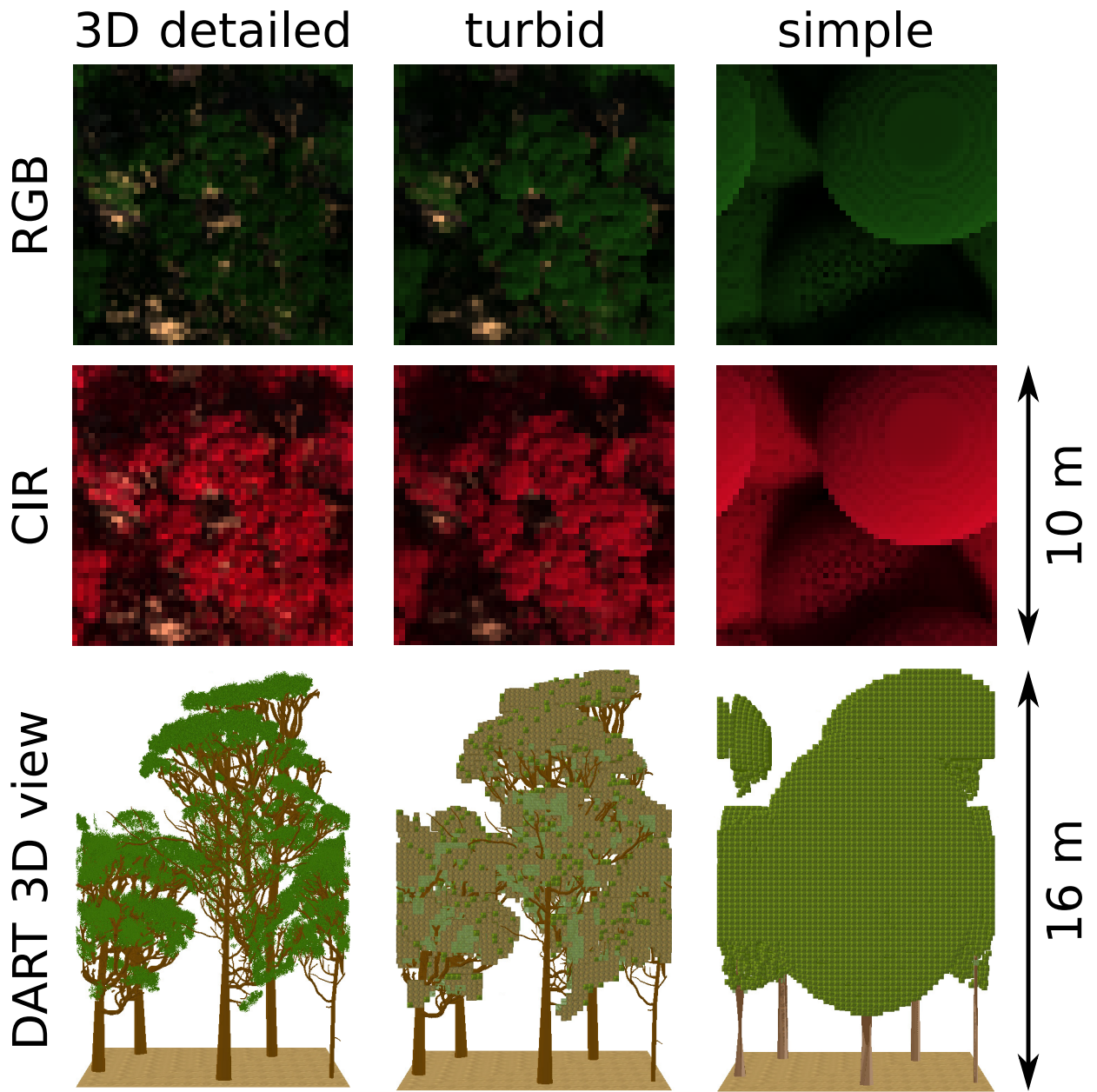
Fig. S2. Visualization of white peppermint forest 3D scenes and DART-simulated top-of-canopy reflectance images for three scenarios. Description of scenarios and image color compositions are in the caption of Figure S1.
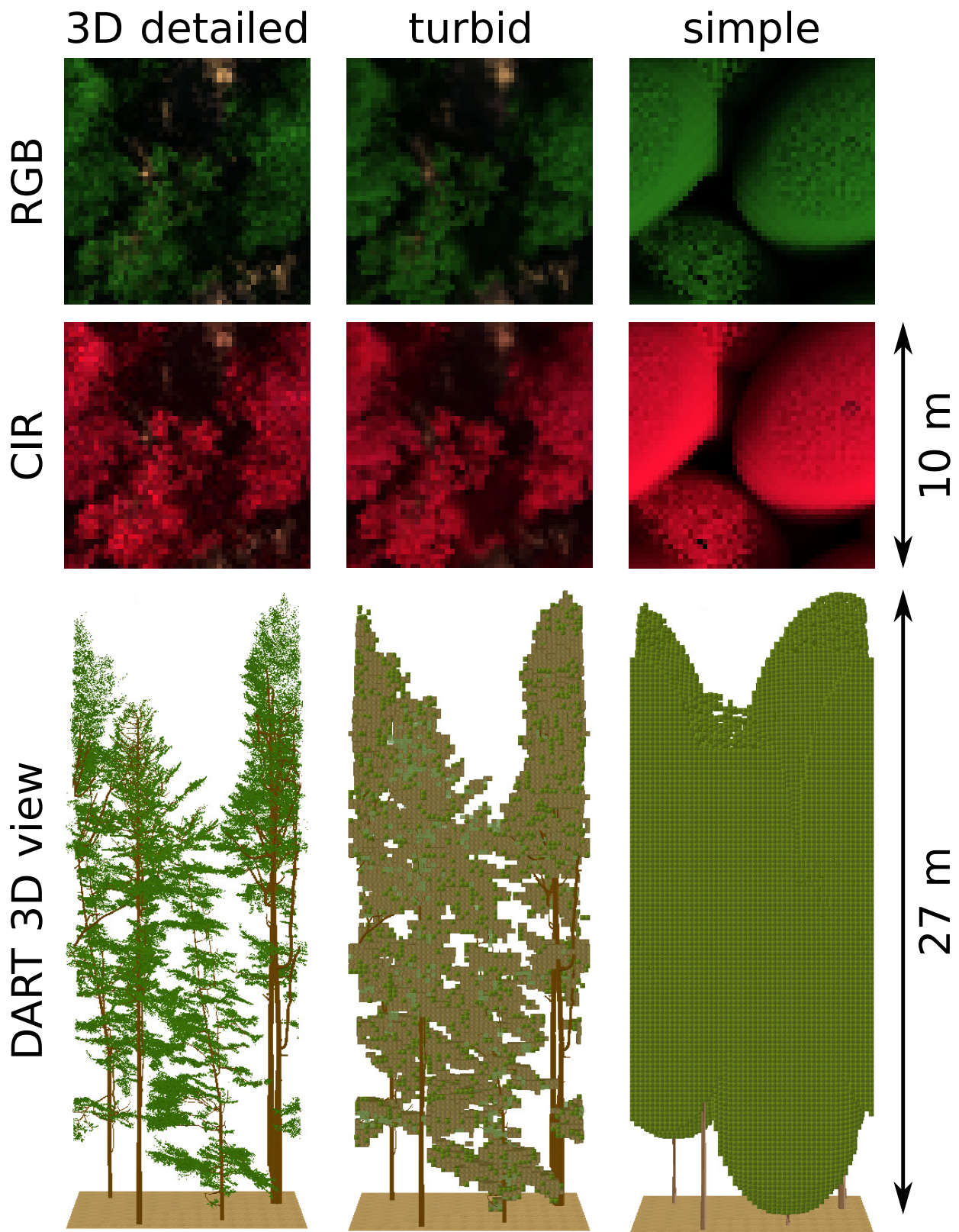
Fig. S3. Visualization of European beech forest 3D scenes and DART-simulated top-of-canopy reflectance images for three scenarios. Description of scenarios and image color compositions are in the caption of Figure S1.