

ABSTRACT

**A METHOD FOR DEVELOPING TREE POSITIONING MAP, ESTIMATING
TREE COUNTS AND CROWN AREA RATIO**

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The present invention discloses a method for determining position, count and crown area ratio of trees from an acquired image, the method comprising the steps of: converting (120) the acquired image from a Red, Green, and Blue, RGB image into Hue Saturation Value, HSV image; converting (140) the HSV image into a binary image
10 using a thresholding algorithm; locating centroid of each contour within the binary image using a distance transform technique; segmenting (170) the contours using a watershed segmentation algorithm, wherein each contour represents an individual tree; calculating (180) contour area of the segmented contours; removing (190) contours with area size that exceeds a predefined range; and determining the position, count and
15 crown area ratio of the tree through the remaining contours.

(The most illustrative figure: Figs. 1a & 1b)