



## United States Department of the Interior

FISH AND WILDLIFE SERVICE

Seney National Wildlife Refuge

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To: Users of the following manual:

Petrillo, H.A. and R.G. Corace, III. 2014. Rapid Ecological Assessment of Forests in the Laurentian Mixed Forest-Great Lakes Coastal Biological Network, Midwest Region, National Wildlife Refuge System, US Fish & Wildlife Service: Midwest Region - Survey Protocol Framework: First Edition. Published by the National Inventory and Monitoring Program, Fort Collins, CO.

RE: Clarification re: coarse woody debris (CWD) measurements

CWD is measured along each sub-plot transect only if: 1) the central axis of the piece intersects a transect and at this point the piece is at least 5" or 12.7 cm in diameter; 2) the piece is at least 3.3' (1 m) long; and 3) the piece is in decay class 1-4, not 5 (see Table 4 in manual and Figure 1, below).

The following measurements are collected for each piece of CWD that meets the above:

- 1) small end diameter (collected where the diameter tapers to *no less than* 5" or 12.7 cm);
- 2) large end diameter;
- 3) the midpoint diameter where the debris intersects the transect; and
- 4) the length, to the nearest meter, of the CWD (measured from the large end diameter to where the diameter tapers to 5" and/or decay class 5 begins). The decay class of the CWD is also recorded.

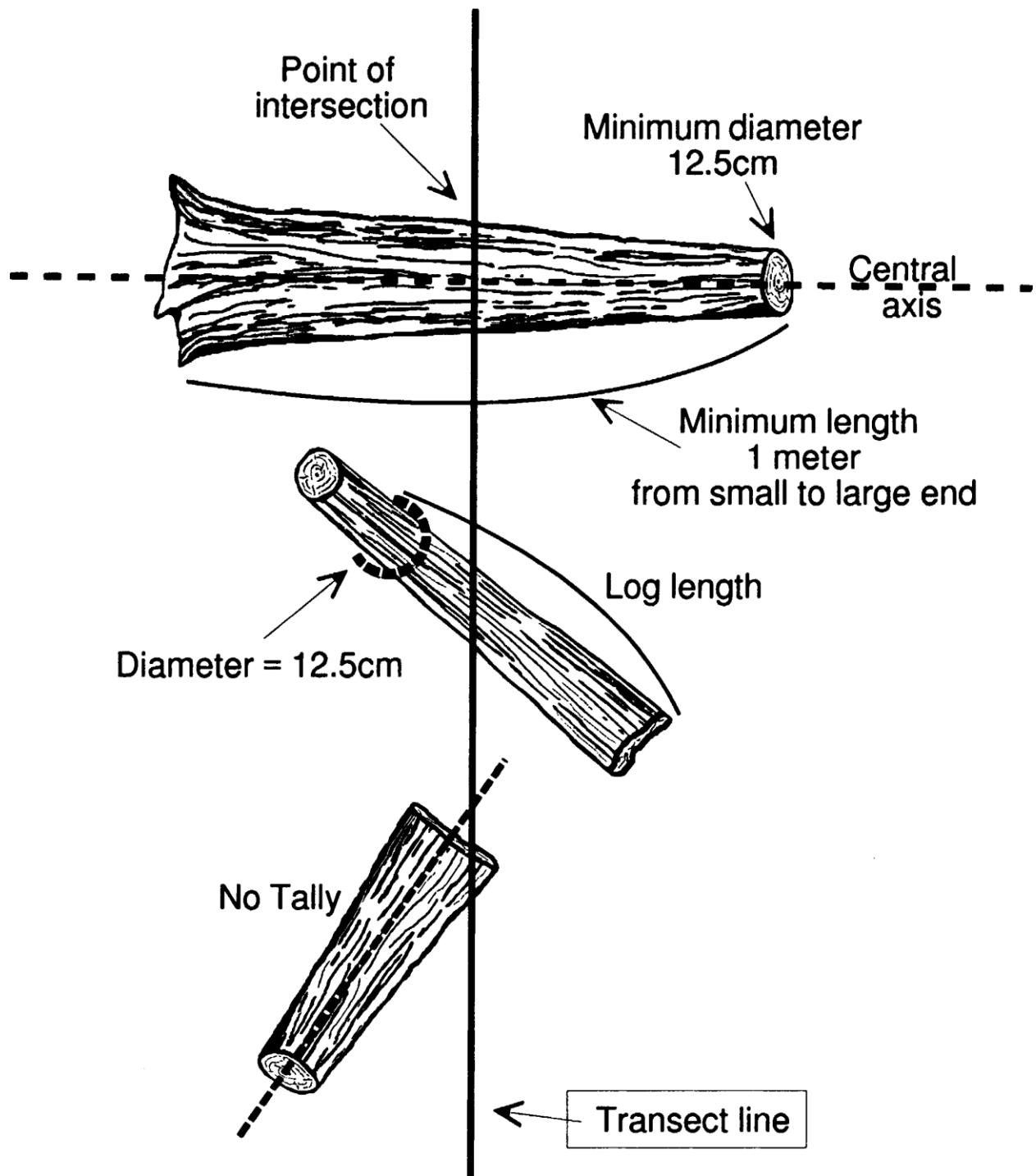


Figure 1. Logs intersecting the transect line. Tally logs must cross the line through the central log axis. Minimum dimensions are shown for small-end diameter, point of intersection, and log length (see K.L. Waddell / *Ecological Indicators* 1 (2002) 139–153).