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Terry A. McKee* (terry.mckee@wright.edu), Dept of Mathematics and Statistics, Wright State University, Dayton, OH 45435. *Chord-Set Subgraphs of Chordal Graphs.*

A *chord-set subgraph* of a host graph is the subgraph that consists of all the chords of some cycle of the host. Restricting the host graph to be chordal but not K_4 ensures that chord-set subgraphs are connected; restricting the host graph to be chordal and K_4 -free ensures that the class of chord-set subgraphs is hereditary. The graphs that can be chord-set subgraphs of K_4 -free chordal graphs are precisely the caterpillars among trees, and they are precisely the outerplanar chordal graphs among 2-connected graphs. There is also an involved general characterization that subsumes those two particular cases. (Received November 07, 2006)