



## FORBIDDEN SUBGRAPHS THAT IMPLY 2-FACTORS

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The connected forbidden subgraphs and pairs of connected forbidden subgraphs that imply a 2-connected graph is hamiltonian have been characterized by Bedrossian, and extensions for general graphs of order at least 10 were proved by Faudree and Gould. We give a complete characterization of connected forbidden subgraphs and pairs of connected forbidden subgraphs that imply a 2-connected graph of order at least 10 has a 2-factor. In particular it will be shown that the characterization for 2-factors is very similar to that for hamiltonian cycles, except there are seven additional pairs. In the case of graphs of all possible orders, there are four additional forbidden pairs not in the hamiltonian characterization, but the claw is a part of each pair.