

**Meeting:** 1003, Atlanta, Georgia, AMS CP 1, AMS Contributed Paper Session

1003-05-1161      **Charles Brian Crane\*** (cbcrane@emory.edu), 2515 NE Expressway, Apt. X-12, Atlanta, GA  
30345. *Forbidden Subgraphs and Generalized Pancyclic Properties in Graphs*. Preliminary report.

A graph  $G$  with  $n$  vertices is said to be  $(k, m)$ -pancyclic if for any set  $S$  of  $k$  vertices in  $G$  and any integer  $r$  with  $m \leq r \leq n$ , there is a cycle of length  $r$  in  $G$  which contains  $S$ . We consider pairs of forbidden subgraphs which guarantee that a 2-connected graph is  $(k, m)$ -pancyclic for some integer  $m \leq n$ , and we give the best (smallest) possible value for  $m$  in each case. (Received October 04, 2004)