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Talmage J. Reid, Department of Mathematics, The University of Mississippi, University, MS 38677, and **Haidong Wu*** (haidong@hilbert.math.olemiss.edu), Department of Mathematics, The University of Mississippi, University, MS 38677. *On 3-connected binary matroids.*

A cocircuit C^* in a connected matroid M is said to be *non-separating* if and only if $M \setminus C^*$, the deletion of C^* from M is connected. Non-separating cocircuits in binary matroids are natural generalizations of vertices in graphs. A *vertex-triad* in a connected matroid is a three element non-separating cocircuit. In the cycle matroid of a simple 3-connected graph, vertex-triads are in one to one correspondence to vertices of degree three in the graph. In this talk, we present some generalizations of certain well-known graph connectivity results to binary matroids using vertex-triads. We also give some applications of these results. (Received October 03, 2000)