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Baogang Xu, Nanjing Normal University, **Gexin Yu*** (gyu@wm.edu), College of William and Mary, and **Xiaoya Zha**, Middle Tennessee State University. *A note on chromatic number and induced odd cycles*. Preliminary report.

An odd hole is an induced odd cycle of length at least 5. Scott and Seymour confirmed a conjecture of Gyárfás and proved that if a graph G has no odd holes then $\chi(G) \leq 2^{2^{\omega(G)+2}}$. Chudnovsky, Robertson, Seymour and Thomas showed that if G has neither K_4 nor odd holes then $\chi(G) \leq 4$. In this note, we show that if a graph G has neither triangles nor quadrilaterals, and has no odd holes of length at least 7, then $\chi(G) \leq 3$, and for each vertex u of G , the set of vertices of the same distance to u induces a bipartite subgraph. This also answers some questions by Plummer and Zha. (Received August 11, 2015)