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Joan P Hutchinson* (hutchinson@macalester.edu), Department of Mathematics, Macalester College, Saint Paul, MN 55105. *A variation on Heawood-list-coloring for graphs on surfaces.*

Thomassen's celebrated planar 5-list-coloring theorem shows that if the vertices of a plane graph have 5-lists except that the vertices on one face have only 3-lists, then the graph can be list-colored. For a nonplanar surface $S(\epsilon)$ of Euler genus ϵ , let $H(\epsilon)$ be the Heawood number of $S(\epsilon)$, which is known to give the best coloring and list-coloring number for $S(\epsilon)$. We prove that for $\epsilon > 0$ and $\epsilon \neq 3$, every graph on $S(\epsilon)$ can be list-colored provided the vertices have $H(\epsilon)$ -lists except that the vertices on one face have only $(H(\epsilon) - 2)$ -lists and provided the induced subgraph on vertices of that face does not contain $K_{H(\epsilon)-1}$. We compare this result with those of L. Postle and R. Thomas that hold for locally planar graphs on surfaces (that is, those embedded with all noncontractible cycles sufficiently long). (Received September 16, 2013)