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Michelle Bowser* (bowserml1@gcc.edu), Grove City College, Number 1780, 100 Campus Drive, Grove City, PA 16127, and Trevor Partridge and Kirsten Rodgers. The Strong Symmetric Genus of Small D-type Generalized Symmetric Groups. Preliminary report.

For each positive integers m and n, the generalized symmetric group G(n, m) is defined to be the group generated by all $n \times n$ permutation matrices and all $n \times n$ diagonal matrices with entries in the m^{th} roots of unity. The D-type generalized symmetric group D(n, m) is the normal subgroup of G(n, m) generated by all $n \times n$ permutation matrices and all $n \times n$ diagonal matrices with entries in the m^{th} roots of unity that have determinant 1. The strong symmetric genus of a finite group G is the smallest genus of a closed orientable topological surface on which G acts faithfully as a group of orientation preserving symmetries. We obtain the strong symmetric genus of each group D(n, m) where n = 3, 4, or 5. This project was supervised by Dr. Michael A. Jackson. (Received July 22, 2009)