Suppose the finite group $G$ acts, preserving orientation, on an orientable surface of genus $p + 1$ where $p > 5$ is prime. Then $G$ is almost Sylow-cyclic (the Sylow $p$-subgroup $G_p$ is cyclic if $p$ is an odd prime and $G_2$ has a cyclic subgroup of index at most two) and does not contain $C_2 \times C_4$. In particular, by Kulkarni’s Theorem, $G$ acts preserving orientation on all but finitely many orientable surfaces. This also holds for $G$ acting on a non-orientable surface $S$ with $\chi(S) = -p$, where again $p > 5$ is prime. On the other hand, $C_p \times C_p$ acts on the surface of genus $p + 1$ for $p = 3, 5$. (Received August 07, 2015)