962-55-973 **Daniel J Gries*** (dangries@math.ohio-state.edu), 231 W.18th Ave, Columbus, OH 43210. On the cohomology of the hyperelliptic mapping class group.

Let Γ_g be the mapping class group of a closed orientable surface of genus g. In this paper, we study the hyperelliptic mapping class group, denoted Δ_g , which is defined as the normalizer in Γ_g of a special involution with 2g + 2 fixed points. For an odd prime p, we determine the p-part of the Farrell cohomology of Δ_g in the first two cases of Δ_g containing p-torsion, namely g = (p-1)/2 and g = p - 1. We also discuss the Yagita invariant of Δ_g at the prime 2. To obtain our results, we make use of the fact that Δ_g is a quotient of Artin's braid group B_{2g+2} , which allows us to obtain information from braid manipulations. (Received September 29, 2000)