Addendum and Erratum

Cohomology and group actions

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D. Gottlieb has pointed out to me that Theorem (1.1)(b) should read:

“ $|G|$ divides $\prod_{j=1}^m \exp H_j(G; H^j(C))$ ”. Similarly in Corollary (1.4) (b) should read: “ $|G|$ divides $\exp H_n(G; M)$ ”. The mistake in the calculation takes place halfway down page 603, which should read: “Taking $l = -k - 1$ ” instead of $l = -k - 2$, with appropriate modification on the next line.

N. Yagita has pointed out to me that Corollary (1.8) has been previously proved by G. Lewis [2] in 1968. He also points out that the cohomology of D , (1.7), was first calculated by L. Evens [1] in 1963.

Yagita [3] has shown that if a non-abelian p -group acts freely on $S^n \times \dots \times S^n$, (k -times), trivially on H_* , then $2p$ divides $n + 1$, the case of $k = 2$ being contained in the work of Lewis [2].

I thank Gottlieb and Yagita for their comments.

References

1. Evens, L.: A generalization of the transfer map in cohomology of groups. Trans AMS **108**, 54–65 (1963)
2. Lewis, G.: Free actions on $S^n \times S^n$. Trans. AMS **132**, 531–540 (1968)
3. Yagita, N.: Dimensions of spheres whose product has a free action of a non-abelian p -group. (Preprint)