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Tara C Davis* (tdavis@hpu.edu), 1164 Bishop Street, UB210A, Honolulu, HI 96813, and
Alexander Yu. Olshanskii (alexander.olshanskiy@vanderbilt.edu), 1326 Stevenson Center,
Vanderbilt University, Nashville, TN 37240. *Subgroup Distortion in Wreath Products of Cyclic
Groups.*

I will discuss some effects of subgroup distortion in the wreath products $A \text{ wr } \mathbb{Z}$, where A is finitely generated abelian. The effects of distortion in these groups is similar to that in free metabelian groups. One result is that every finitely generated subgroup of $A \text{ wr } \mathbb{Z}$ has distortion function equivalent to some polynomial. I will also mention a formula for the length of elements in arbitrary wreath product $H \text{ wr } G$, and how it applies to distortion. (Received December 06, 2011)