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Robert P Kropholler and **Genevieve S Walsh*** (genevieve.walsh@tufts.edu), 503 Boston Ave, Medford, MA 02155. *Incoherent free by free groups*. Preliminary report.

A group is coherent if every finitely generated subgroup is also finitely presented. A group is incoherent if it is not coherent. We show that free-by-free groups satisfying a particular homological criterion are incoherent. This class is large in nature, including many examples of hyperbolic and non-hyperbolic free-by-free groups. We apply this criterion to finite index subgroups of $F_2 \rtimes F_n$ to show incoherence of all such groups, and to other similar classes of groups. (Received July 25, 2019)