1102-05-129 **Kailee Rubin*** (kailee.rubin@gmail.com), 10 N. Livingston St., Apt. #913, Madison, WI 53703, and **Jon Ver Steegh**, **Ben Caffrey**, **Gregory Michel** and **Eric Egge**. *Baxter Permutations, Snow Leopard Permutations, and Restricted Catalan Paths.*

As introduced by Chung, Graham, Hoggatt, and Kleiman in 1978, complete Baxter permutations are those that have even entries in even positions, odd entries in odd positions, and satisfy certain conditions related to the placement of entries between consecutive numbers. The permutation induced on the odd (resp. even) entries of a complete Baxter permutation is commonly called a Baxter (resp. anti-Baxter) permutation, meaning it avoids the generalized patterns $2-14-3$ and $3-14-2$ (resp. $2-41-3$ and $3-41-2$). We call a pair of Baxter and anti-Baxter permutations compatible whenever they form a complete Baxter permutation. We define a snow leopard permutation as one which is compatible with a doubly alternating Baxter permutation. We use a recursive decomposition and natural bijection to Catalan paths to show that the snow leopard permutations are counted by the Catalan numbers. Like the complete Baxter permutations, the snow leopard permutations preserve parity. We show that the permutations they induce on their odd (resp. even) entries are in bijection with the set of Catalan paths which avoid $NEEN$ (resp. contain no ascent of length exactly 2). Finally, we study the relationship between the permutations induced on the odd and even entries of a snow leopard permutation. (Received July 26, 2014)