**Variation in foraging on seed caches between years**

Clark’s nutcrackers foraged on a significantly lower proportion of cached seeds in 2011, the year after a low whitebark pine cone crop. Foraging on fewer caches may have occurred because it was more difficult to access caches below the deeper snow pack in 2011. However, Clark’s nutcrackers cache up to 59% of seeds aboveground [1], and regularly cache in exposed areas, such as steep cliffs and south facing slopes, where wind and sun prevent heavy snow accumulation [2–4]. The birds also retrieve caches from under the snow and ice [5]. I have seen a Clark’s nutcracker dig diagonally down through the snow, until its body was completely buried, then return to the surface with whitebark pine seeds (recognizable by the size; T. D. Schaming personal observation). Hutchins saw an individual peck through eight inches of ice to pull out seeds (H. E. Hutchins personal observation).

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