



## American Dipper Nesting in an Abandoned Pileated Woodpecker Nest-Cavity in British Columbia

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American Dipper (*Cinclus mexicanus*; Figure 1) is the only truly aquatic songbird in North America and is found year-round along western North American mountain ranges from northern Alaska to Central America. It frequents clear, unpolluted streams and lakeshores where it feeds primarily on aquatic invertebrates and their larvae, small fishes, and fish eggs (Mitchell 1968, Ealey 1977, Kingery 1996). The

species usually breeds close to fast-moving streams with horizontal ledges and crevices in cliff or rock faces, on large rocks and boulders, or in cavities on fallen trees that provide nest sites (Kingery 1996).

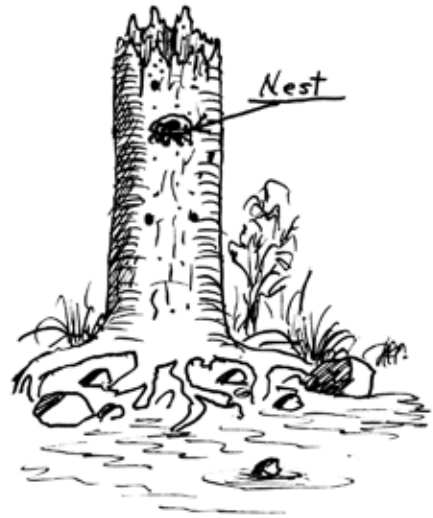
Nests are built near swift water and are usually inaccessible to terrestrial mammalian predators, protected from flood waters, and sheltered from inclement weather (Loegering and Anthony 2006).



**Figure 1.** American Dipper is often considered a useful biomonitor of the health of mountain watercourses because of its preference for clear, unpolluted streams where it feeds and nests. *Photo by Mark Nyhof.*

Natural sites include rock ledges behind or near waterfalls, ledges on rocky cliffs, over-hanging dirt banks in canyon walls, large mid-stream boulders, cavities in boulder piles, and rarely among hollows in exposed roots and tree stumps lying horizontally in or along streams. American Dipper has readily adapted to nesting on human-made structures such as girders and beams under bridges (Figure 2), ledges on small wooden and concrete dams, concrete spillways, and open-fronted nest boxes (Hawthorne 1979, Kingery 1996, Campbell et al. 1997, Osborn 1999, Willson et al. 2009). There is a single record for British Columbia of a Northern Flicker (*Colaptes auratus*) cavity being used for nesting by dippers but this was in a fallen snag lying at the edge of a creek (Campbell et al. 1997, British Columbia Nest Record Scheme files).

In spring 1967, GRR followed a pair of American Dippers that flew with food to an old Pileated Woodpecker (*Dryocopus pileatus*) cavity in a standing black cottonwood (*Populus trichocarpa*) stub (Figure 3) while exploring the upper Salmon River in Aldergrove, BC. He suspected nesting and recorded the following notes that are transcribed verbatim from his field diary.



**Figure 3.** Black cottonwood stub with old Pileated Woodpecker cavity in which a pair of American Dippers nested in 1967. Sketch by Glenn R. Ryder, upper Salmon River in Aldergrove, BC, 7 March 1967.



**Figure 2.** The Salmon River runs through the municipalities of Langley and Aldergrove in the Fraser River valley, BC, and most American Dipper nests found along this watercourse were on support structures under bridges. Photo by R. Wayne Campbell, Salmon River (Langley), BC, 27 April 1996.

March 7, 1967 – I seen the two Adults picking up Aquatic insects along the edge of the Creek then I noticed the one Bird flying downstream to a large Cottonwood stump some 15 feet high right at the River edge. The Dipper had appeared to Vanish at this point I hiked down the Creek to double Check what was going on at the stump was a large Pileated Woodpecker nest Cavity facing the River. I could see the (4) Heads of the young [American Dipper] looking from within their nest young small as yet I did not disturb them But just left area. This nest is Built in the Cavity much like that of the winter wren or Bewick's wren. It is a very unusual nest spot .

March 10, 1967 – A check of the Nest...showed all four young still o-k and growing. Both Parents feeding.

March 17, 1967 – I seen the (2) Adults on a bar getting Aquatic insects on checking the large Cavity in the Cottonwood stump seen the (4) young all Fast growing and all o-k.

March 23, 1967 – (2) seen looking for food for their young at River Bar, A check was made of their Nest in the Cottonwood Snag Cavity all o-k. (4) young growing fast.

This may be the first report of American Dipper nesting in a cavity in a standing (i.e., vertical) tree stub. The cavity, 4.6 m (15 ft) above ground and 28 cm (11 in) deep, was crammed with mosses, the dipper's typical nesting material. The 7 March date for nestlings is at least 29 days earlier than the calculated date of 4 April reported by Campbell et al. (1997) for British Columbia. Consequently, in some years, egg-laying may start as early as the second week of February and nest-building may commence during the third week of January (see Hann 1950, Kingery 1996).

This discovery of American Dippers nesting in a cavity of an upright snag adds another species in support of the conservation and management of all woodland cavity sites along riparian watercourses in British Columbia. †

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