

## MOUNTAIN BLUEBIRD USE OF TREELESS LAVA FLOWS FOR NEST SITES

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The Mountain Bluebird (*Sialia currucoides*) is a cavity-nesting species that breeds in a variety of open woodland habitats. Breeding habitats include groves of aspen and cottonwood (*Populus spp.*), pine woods, including Pinyon Pine (*Pinus edulis*), and junipers (*Juniperus sp.*) (Bent 1949). The breeding territory usually includes a large area of open space where the nest is located and areas of trees or brush that provide cover nearby (Power 1966). Power (1966) concluded that the Mountain Bluebird had highly specialized nesting requirements and that the use of unusual sites was very rare. However, a few nest sites other than cavities in trees have been recorded. These include eaves, horizontal beams of bridges (Power 1966), holes in banks, crevices in cliffs, sites among rocks, and an old swallow nest (Bent 1949). In Idaho, the Mountain Bluebird nests over a wide elevational range (245 m to 3350 m) and requires open country with trees large enough to provide nesting sites (Burleigh 1972). On the Snake River plain in southcentral Idaho the Mountain Bluebird is a fairly common migrant, but nest sites are lacking over most of the sagebrush steppe. I report here on the nesting of Mountain Bluebirds in a sparsely vegetated and treeless lava flow.



Figure 1. Location of a Mountain Bluebird nest in a rough treeless lava flow in Blaine County, Idaho. Note cap near nest entrance for scale.

## NOTES

On 27 May 1981 I discovered a Mountain Bluebird nest site located 2 m off the ground in a large block of rough lava (Figure 1) in Blaine County, Idaho, at an elevation of 1530 m. The nest itself was deeply recessed in a crevice and could not be seen. However, the sounds of young birds could be heard within and the adults made several feeding trips into the nest. Vegetation on the lava flow was very sparse and consisted of Sandberg's Bluegrass (*Poa sandbergii*), Rock Penstemon (*Penstemon deustus*) and Desert-sweet (*Chamaebatiaria millifolium*), among other species. The adults were not foraging in this habitat but rather flew directly about 200 m to the edge of the flow to forage in habitat dominated by Threetip Sagebrush (*Artemisia tripartita*), Big Sagebrush (*A. tridentata*) and Sandberg's Bluegrass. Three other breeding territories within a 10-km radius of this site have been suspected—one site in 1981 and two in 1982. In each case, I observed a pair of bluebirds perched in the same area of lava in mid-May on two or three consecutive days. However, no nests were located and the pairs may not have been breeding.

This type of nest site must be considered atypical. The nearest trees are scattered Limber Pines (*Pinus flexilis*) 8 km away on similar lava flows in Craters of the Moon National Monument. However, the general requirements of open terrain with cover nearby were met. A nest site located deep within a crevice would be relatively safe from predation and should provide a favorable nest microclimate in a region with intense mid-day heat. Configuration of the recent lava flows provides many miles of edge between the sagebrush and lava itself where potential nest sites appear to be abundant. However, there seems to be some factor limiting the spread of breeding pairs into the lava flow/sagebrush habitat.

In the Eastern Bluebird (*Sialia sialis*), Pinkowski (1979) found little relationship between an individual's type of natal site and the type of nest site subsequently selected. However, if young were successfully raised, adults were likely to select those types of sites again rather than switch to a different type (Pinkowski 1977, 1979). If a similar nest site selection operates in Mountain Bluebirds, then lava nest sites may not be generally successful. An evaluation of nest success and nest site selection by known individuals would be valuable in this regard. Such information would also contribute toward understanding the more general problem of why bird species have limits to their range of breeding habitats and do not continually attempt to invade new habitats and new types of nest sites.

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