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Nest placement in Sage Thrashers.—Nest site selection and placement has been shown to be important to nest success in various avian species (Goddard and Board, Wilson Bull. 79:283–289, 1967; Tenaza, Condor 73:81–92, 1971). Birds nesting in desert environments are particularly adapted to construct, place, and orient nests so as to maintain a favorable heat balance in eggs, young, and adults (Ricklefs and Hainsworth, Condor 71:32–37, 1969; Austin, Auk 93:245–262, 1976).

During the summer of 1976 I studied nest placement in Sage Thrashers (*Oreoscoptes montanus*) on the Snake River plain north of Pocatello, Idaho. The habitat is dominated by sagebrush (*Artemisia tridentata*). Of 15 first nests built and hatching young over the period 7 May to 29 May 1976, 13 were placed on the ground beneath the sage and close to the trunk. The average nest height was 2.9 cm from the bottom of the nest to the ground. Of 6 nests built and hatching young over the period 24 June to 14 July, 5 were placed off the ground in the branches of the sage. The average height of these nests was 22.7 cm. The difference in heights is significant, $0.005 < P(U \geqslant 79) < 0.01$ (Mann-Whitney U test, Siegel, Nonparametric Statistics for the Behavioral Sciences, McGraw-Hill Book Co., Inc., New York, 1956). A typical nest is about 10 cm from top to bottom.

This difference in placement of first and second nests could be due to a number of factors. I do not know whether second nests were actually second broods of particular pairs or perhaps the nests of later nesting birds. The location of the later nests near first nests suggests the former. I believe the placement was a result of adjustment to avoid thermal stress. In May 1977 temperatures were recorded at the mean nest heights of 2.9 cm and 22.7 cm on 5 days, each day at a different location in the sagebrush. This mean maximum temperature at the upper position was 29.3°C and that at the lower 32.3°C. The mean minimum temperature at the upper position was –7.8°C and that at the lower –3.0°C.

Thus, first nests built early in the year and placed on the ground would benefit from the warmer temperature at ground level. Second nests placed higher in the sage and away from the main stem would benefit from air circulation and convective heat loss to the cooler air. This has been shown an effective means of heat dissipation from nests of the Cactus Wren (*Campylorhynchus brunneicapillum*) as reported by Ricklefs and Hainsworth (op. cit.).

Twelve of 15 first nests were built directly under a thick overhanging branch of sage, and another was placed under an old nest from some previous year. This would serve to reduce heat loss to the night sky as reported for hummingbirds (Calder, Condor 73:314–321, 1971). No second nests were built under thick overhanging structures.

The depth of nest cups, as measured after the fledging of young, was greater in second nests (8.2 cm) than in first nests (4.7 cm) though not significantly so, $0.10 < P(U \geqslant 17.5) < 0.20$. I suggest that the deeper cups would protect the eggs and young from direct exposure to the sun while adults were off the nest.

No significant relationships were found with respect to orientation of nests from the main body of the sage.

This study was made while conducting research sponsored by the Frank M. Chapman Memorial Fund of the American Museum of Natural History and the Department of Biology, Idaho State University.—TERRELL D. G. RICH, *Dept. of Biology, Idaho State Univ., Pocatello 83209.* *Accepted 28 Apr. 1977.*