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REPRODUCTIVE BIOLOGY OF THE CHESTNUT-BACKED CHICKADEE (*POECILE RUFESCENS*) IN NORTHWESTERN OREGON

PHILIP K GADDIS

5825 SW Miles Ct., Portland, OR 97219; pjgaddis@pacifier.com

CHARLOTTE C CORKRAN

Northwest Ecological Research Institute, 130 NW 114th Ave., Portland OR 97229

ABSTRACT—Chestnut-backed Chickadees were studied over a 4-y period near Portland, Oregon, and for 1 of those years near Eugene, Oregon. Data on nesting activities and nestling growth rates were obtained by monitoring nest boxes. The chickadees began nest-building activity in March, with the 1st eggs being laid in early April and nests continuing to be initiated through early July. The timing of nest initiation was bimodal with the 1st peak in late April and a 2nd, smaller peak in June, referred to as "late nests". Late nests accounted for 14 of the 94 nests observed. Clutch size for early nests varied from 5 to 10 eggs, with 7- and 8-egg clutches occurring at nearly equal frequency and representing 67.9%. Fledge success was greatest for 9-egg clutches and lowest for the smallest (6 or fewer) and largest (10) clutch sizes. Incubation averaged 13.8 d. The nestling growth phase averaged 18.8 d. Nestling body mass at age 14 d (the growth asymptote) was not correlated with clutch size or 14-d brood size. Late nests had lower clutch sizes but did not appear to be different for other reproductive parameters. Twenty-two nests failed to fledge any young at all, of which 13 nests failed due to predation. Predation by weasels was observed in one case and implicated in others. Other possible nest predators were Raccoons, Domestic Cats, and Douglas' Squirrels. Eviction of the chickadees by House Sparrows, House Wrens, and Bewick's Wrens was also observed.

Key words: Chestnut-backed Chickadee, *Poecile rufescens*, reproductive success, clutch size, nestling growth rate, northwestern Oregon