

(*Contopus virens*) by Craig (1943) have shown that intersong interval is longer between identical transitions than between different songs. These results, as well as the data presented here, do indeed suggest that a positive correlation between versatility and continuity, as measured by intersong interval, does exist.

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Crows use Automobiles as Nutcrackers

DAVID B. GROBECKER AND THEODORE W. PIETSCH

College of Fisheries, University of Washington, Seattle, Washington 98195 USA

On 19 November 1977 at 0930 we observed a Common Crow (*Corvus brachyrhynchos*) hovering over a busy street in a residential area of Long Beach, California. From a height of ca. 10 m, the bird dropped from its beak a palm fruit (*Washingtonia* sp.) that broke into two pieces on the heavily traveled street. Immediately after release, the crow flew to a nearby lamppost where it perched and seemingly watched the palm fruit as cars passed. After approximately 2 min, one car ran over a piece of the fruit. Within seconds the bird flew to the shattered food and flew off with a fragment. After 20 min the feeding sequence was repeated with the exception that upon impact with the pavement the palm fruit failed to break, and it took considerably longer, approximately 7 min, for a moving car to run over the fruit.

Surprisingly complex behavioral adaptations of crows are well documented. Crows are characterized by their resourcefulness, adaptability to diverse habitats, and extraordinary learning capabilities (Frings and Frings 1959, Peterson 1963, Powell 1972). Powell (1972) showed that the operant behavior of the Common Crow is comparable to that of pigeons, rats, and monkeys, and Porter (1910) demonstrated that this species can learn a door-opening response by simply watching another, trained crow. The Hooded Crow (*C. cornix*) is known to pull up fishermen's lines set through holes cut in the ice to steal bait or fish (Homberg 1957, Scott 1974). Crows are known to follow milkmen on their route; when bottles are left alone, the bird pries off the caps with its beak and sips the milk (Scott 1974). The possibility that crows deliberately drop walnuts, to be cracked, in the direct path of automobiles has been previously suggested, based on a single observation (Maple 1974). Our observations, however, now support that suggestion. This is indeed an ingenious adjustment to the intrusion of man's technology.

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Egg Retrieval by Incubating White-tailed Ptarmigan

KENNETH M. GIESEN

*Cooperative Wildlife Research Unit,
Colorado State University, Fort Collins, Colorado 80523 USA*

During investigations of nesting White-tailed Ptarmigan (*Lagopus leucurus*) in north-central Colorado I documented egg retrieving behavior by incubating females. This behavior has not previously been reported from the Tetraonidae. Egg retrieval was initially observed and photographed in 1975. In 1976 and 1977 I further investigated this behavior and delineated conditions causing egg retrieval.

Under field conditions an egg was randomly selected from the hen's clutch and placed at predetermined distances from the nest bowl. Only hens that remained on the nest during egg removal were tested. Behavior of the hen was observed until the egg was retrieved or 30 s had elapsed. During the trial the observer remained within 1 m of the nest.

All hens tested ($n = 3$) responded to an egg outside the nest by reaching out with their head and rolling the egg back into the nest (Fig. 1). This behavior appeared identical to that reported for the Greylag



Fig. 1. An incubating female White-tailed Ptarmigan returning an egg to her nest by rolling it with her bill.