

time in activities associated with his mate and have less time for aggressive singing.

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FOOD CACHING IN THE SCREECH OWL

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Instances of food storing or caching in raptors have been reported (Pierce, *Condor* 39:140, 1937; Tordoff, *Wilson Bull.* 67:138, 1955; Stendell and Waian, *Condor* 70:187, 1968). Food storage may be appropriate when a food resource is periodic and/or unpredictable. It has been proposed that this behavior is adaptive for avian predators such as shrikes (*Lanius*) (Cade, *Living Bird* 6:43-86, 1967) and Snowy Owls (*Nyctea scandiaca*) (Pitelka et al., *Ecol. Monogr.* 25:85, 1955).

In April 1974, on Amherst Island, near Kingston, Ontario, Canada, I found a Screech Owl (*Otus asio*) storing meadow voles (*Microtus pennsylvanicus*) on a rafter inside an old shack. Three visits were made to the site. At each visit, a Screech Owl was flushed from the shack. Numerous regurgitated pellets were found in the shack, indicating that the owl had been using it for a long period.

On April 12, seven voles were found on the rafters. Each vole was weighed and eartagged for subsequent identification. Two days later, there were only five voles, all with eartags. A week later, I found six voles, four of them eartagged. The size of the voles in the cache was between 13 and 26 g (mean 20.1 g; $N = 9$). I could find no apparent signs of external injury on the voles in the cache. The owl appeared to be storing vole carcasses it had picked up nearby.

At the time of my observations, the vole population on the island was declining in density, from approximately 165 voles/ha to about 33/ha. Vole carcasses were abundant in the vicinity of the shack.

My findings show turnover in the cache. However,

some stored items remained longer than those observed by Stendell and Waian (1968). During forty days of observation of a kestrel (*Falco sparverius*) cache, prey items were stored for seven days at most. The storage of prey by raptors must be brief because decay may often be rapid. Decay is probably the chief factor limiting the usefulness of a cache. When decay is slow, as in winter, or the turnover rate of the cache is high, as while feeding young, decay is less limiting.

Food caching is probably adaptive in many situations, providing a readily accessible food supply. In shrikes, this behavior is necessitated by the similarity in size of the predator and the prey. In the Snowy Owl, the accumulation of prey items is probably in response to the great demand for prey by the female and young during the nesting period. It is possible that the caching behavior in this instance was also related to breeding as Screech Owls in this locality begin nesting in mid-April. However, there was no evidence that the owl in question was nesting.

As a result of caching behavior, foraging time may be reduced, permitting more time for other activities (e.g. breeding). It seems possible that caching could occur before actual breeding activity commences if physiological changes themselves are adequate to elicit this behavior at the onset of the breeding season. Thus, caching could provide a margin of safety in the provision of food, while substantially reducing the time and energy costs normally associated with foraging.

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HEAD-SCRATCHING BY A ONE-LEGGED CHAFFINCH

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R. B. Waide and J. P. Hailman described head-scratching attempts by one-legged birds (*Condor* 77: 350) and concluded that the behavior is functionally important. This note supports their view.

In late March 1956 a female Chaffinch (*Fringilla coelebs*) with a broken right leg started coming to my garden, and subsequently to window ledges, for artificial food. By 11 April 1956 the bird's toes and section of the tarsus below the break had withered and dropped off leaving a tarsal stump < 1 cm in length. The bird continued to come for food until the late summer of 1960 and amongst my sporadic notes made about its behavior there are several con-

cerning head-scratching. This behavior was achieved by balancing on the tarsal stump and extending the right wing until it touched the perch. With practice the bird held this posture easily and was able to scratch the head with the claws of the left foot. Most passerines are over-wing scratchers but in this case

the bird scratched from under the left wing, presumably in adaptation to its injury.

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A HYBRID AMERICAN AVOCET \times BLACK-NECKED STILT

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To my knowledge, there has not been previously reported an interspecific hybrid, wild or captive, from parents in the family Recurvirostridae. It was with interest, therefore, that I learned about a living "Avostilt" in the San Francisco, California, Zoo. The following note describes that bird, which I saw on 10 and 17 July and 20 August 1974.

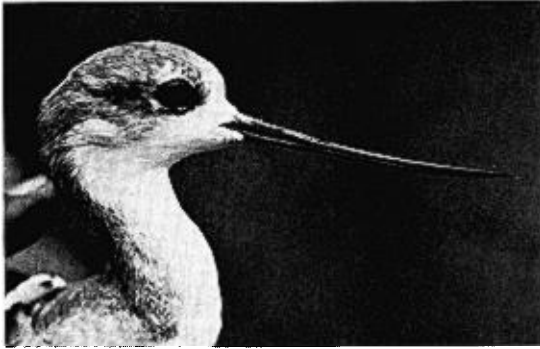


FIGURE 1. American Avocet \times Black-necked Stilt, San Francisco Zoo, 17 July 1974.

Records at the San Francisco Zoo are incomplete, but zoo officials recall the bird to have been hatched during May 1971, the result of the pairing of a male American Avocet (*Recurvirostra americana*) and a female Black-necked Stilt (*Himantopus mexicanus*). According to zoo records, these two species were the only recurvirostrids held in captivity for at least five years previous. Morphological evidence supports the presumed parentage. The geographic origins of the parent birds were not recorded, but zoo officials state that most, if not all, stilts and avocets in captivity at the zoo came from the wild in central California.

The hybrid resembles a winter-plumaged avocet, but the bill is noticeably shorter and straighter (see fig. 1), and the gray of the neck is restricted to the dorsal side, in the pattern of the black of a Black-necked Stilt. The eye of the hybrid appears larger than that of an avocet, and the brown color is intermediate between the black iris of an adult avocet and the brown iris of an adult stilt. The feet are semi-palmate, and intermediate between those of the parent species (see fig. 2). The sex of the hybrid is unknown, but zoo officials believe it to be a male, based upon an "attempted mating" with a female stilt in 1973.

On 17 July the bird was netted, the culmen and tarsus were measured, and the bird was weighed (280 g) and photographed. Culmens and tarsi were measured on museum specimens of stilts and avocets from localities in central California. Comparisons of these data, shown in table 1, show that the hybrid is intermediate between the parent species.

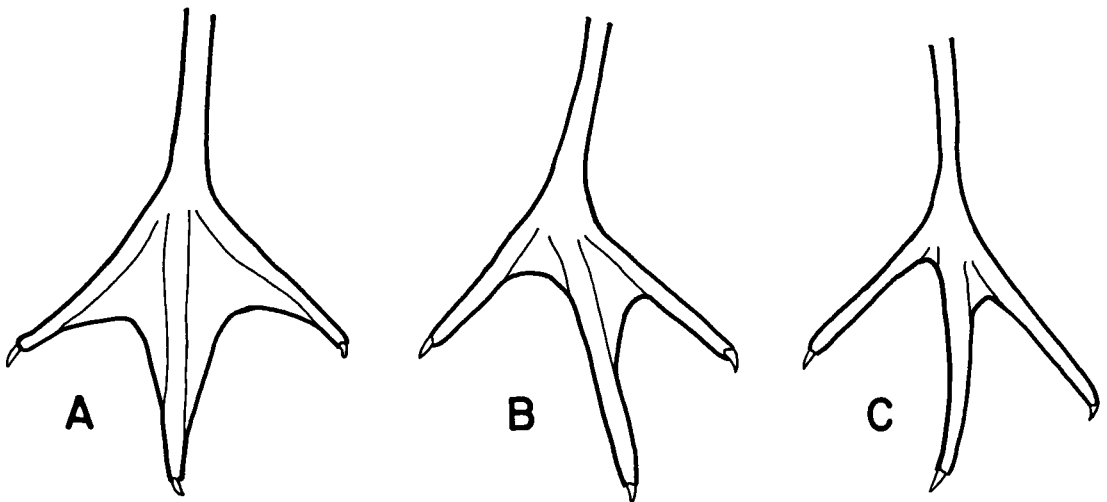


FIGURE 2. Degree of webbing in the feet of A. American Avocet, B. hybrid, C. Black-necked Stilt. Drawn to same size.