



FIG. 1. Seasonal changes in body fat of kestrels in northeastern Utah. Boxed Ns represent birds trapped in 1973; Ns are birds taken in 1974, solid lines are males and dashed lines females.

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First reports of pellet ejection in 11 species.—Pellet casting, widespread in birds of prey, also occurs in other groups. Birds whose foods contain indigestible hair, bone, shell, chitin, etc. are most likely to eject pellets. Hanson (List of species known to eject pellets, the International Bird Pellet Study Group, Bull. 7, with additions, 1977) reported pellet casting in 18 orders comprising 67 families and 316 species. One hundred and twenty-nine (41%) species were Falconiformes and Strigiformes. Stenzel (Using pellets to study bird diets, Point Reyes Bird Observatory News Letter, No. 36, 1975) mentions the Long-billed Curlew (*Numenius americanus*) and the Black Turnstone (*Arenaria melanocephala*) which were not listed by Hanson.

TABLE 1
SPECIES OF BIRDS OBSERVED CASTING PELLETS AND MEASUREMENTS OF SOME
COLLECTED PELLETS FOR 6 SPECIES

Species	Location	No. collected	Length (mm)		Diameter (mm)	
			range	\bar{x}	range	\bar{x}
White Ibis (<i>Eudocimus albus</i>)	in flight					
Black-bellied Plover (<i>Pluvialis squatarola</i>)	beach					
Willet (<i>Catoptrophorus semipalmatus</i>)	beach	7	24-35	30	13-20	16
Greater Yellowlegs (<i>Totanus melanoleucus</i>)	mud flat					
Sanderling (<i>Calidris alba</i>)	beach	5	9-14	11	6-8	7
Laughing Gull (<i>Larus atricilla</i>)	beach					
Least Tern (<i>Sterna albifrons</i>)	captive beach	4	13-16	14	9-11	10
Sandwich Tern (<i>Sterna sandvicensis</i>)	beach	4	18-25	21	11-15	14
Royal Tern ¹ (<i>Sterna maximus</i>)	beach	11	17-35	27	12-25	19
Sooty Tern ² (<i>Sterna fuscata</i>)	captive beach					
Black Skimmer (<i>Rynchops niger</i>)	beach	4	27-32	30	17-21	19

¹ Royal Tern pellets—body of pellet measured.

² Sooty Tern pellets collected on Dry Tortugas.

Between 1975 and 1978 I found pellet ejection in 11 species not listed by Hanson (op. cit.) including a skimmer (*Rynchops*) thus adding the Rynchopidae to the total number of families. Species were added to my list by direct observation (sometimes with collection of pellets in the wild) and by collection of pellets from captive individuals. The 11 previously unlisted species are shown in Table I. My observations are mostly from the vicinity of Naples, Florida.

Pellets seem most numerous in roosting places, i.e., tops of wooden pilings and connecting stringers, beaches and sand bars.

I have found pellet ejection difficult to observe. Hours of observation are required to see a few instances of ejecting behavior. The behavior most often resembles the retching that accompanies regurgitation. Most pellet ejection by Willets that I have watched has taken 12-25 min. The Willet stands in a hunched position with fluid dripping from the bill, often flicking its bill sideways. As ejection becomes imminent the dripping and flicking increases.

then with 1 or 2 retches the bird deposits a pellet between its feet. At other times I have seen Black-bellied Plovers, Willets and Sanderlings flick their heads sideways and eject a pellet without any other casting behavior. One White Ibis ejected in flight, flicking its head sideways to cast the pellet. I have seen retching behavior in Snowy Egrets (*Egretta thula*) and Ring-billed Gulls (*Larus delawarensis*) suggesting that these 2 species may also eject pellets.

The pellets were generally ovoid but varied in size and shape in different species. Shorebird pellets were elongated, tern pellets almost round, and gull pellets teardrop-shaped. Pellets of different species may also vary considerably in size (Table I). Royal Tern pellets were large and consisted of an ovoid body often with a long fin projecting like a tail. Measurements of the pellets of this species are for the body only, as inclusion of the tail would overestimate the real pellet size.

Pellets I examined were composed mostly of indigestible material. Tern and skimmer pellets resembled each other closely, containing mainly fish scales, bones, and fins. One Royal Tern pellet contained pieces of crab carapace and legs. Shorebird pellet composition varied considerably. Some shorebird pellets were composed completely of whole and crushed shell of coquina (*Donax variabilis*). I have seen this type of pellet ejected by Black-bellied Plovers, Willets, and Ruddy Turnstones (*Arenaria interpres*) and it is impossible to differentiate among the pellets of these species. At other times these 3 species eject pellets that seem to be composed mostly of chitinous material. Gull pellets not only contain indigestible parts of food items, but occasionally bits of glass, plastic and metal.

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Rufous-collared Sparrow victimized by Bronzed Cowbird.—On 4 July 1977, on a lawn in Guatemala City, Guatemala, I saw a recently fledged Bronzed Cowbird (*Molothrus aeneus*) following and begging food from a Rufous-collared Sparrow (*Zonotrichia capensis*). I watched them intermittently for about 1 h during which time the sparrow fed the cowbird frequently. Once the cowbird flew to the ridge of a low roof, followed by the sparrow carrying food, which it gave to the young bird. This sparrow is heavily parasitized by the Shiny Cowbird (*M. bonariensis*) in South America (Friedmann, H., et al., *Smithson. Contr. Zool.*, No. 235, 1977) but there are no records of parasitism of *Z. capensis* by *M. aeneus*.—AMANDA VILLEDA, 8^a Av. 17-32, Zona 1, Guatemala, Guatemala. Accepted 6 Nov. 1978.

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Probable Canada Goose × White-fronted Goose hybrids.—Records of hybrid geese produced in captivity are common, particularly within genera (Gray, *Bird Hybrids*. Tech. Comm. No. 13, Commonwealth Agric. Bureau, Farnham Royal, Bucks, England, 1958; Cokrum, *Wilson Bull.* 64:140-159, 1952). Davis (Auk 62:636, 1945) and Nelson (Auk 69:425-428, 1952) each reported single instances of Canada Goose (*Branta canadensis*) × Lesser Snow Goose (*Anser caerulescens caerulescens*) hybrids in captivity and Bailey (Auk 66:197, 1949) recorded a similar hybrid in the wild. Thirty *B. canadensis* × *A. c. caerulescens* hybrids were observed in the wild by Prevett and MacInnes (*Condor* 75:124-125, 1973).

Reports of crosses between Canada Geese and White-fronted Geese (*Anser albifrons*) are