we watched from fitting into the feeding niches designated by Cade (1960) and Dementiev (1951) as coastal and insular.

Gyrfalcons were widely distributed throughout the high Arctic islands. Known colonies of seabirds are few and widely spaced. Ptarmigan are not known to exceed low populations there and were not observed on the project area during three previous summers. A few remains of ptarmigan in winter plumage were found near the nest but they did not amount to more than a few kills. High populations of ptarmigan have not been reported from the high Arctic islands. It therefore appears that all Gyrfalcon populations in the high Arctic do not necessarily have access to food sources regarded as typical in other areas.—DALTON MUIR, *Canadian Wildlife Service, Ottawa, Ontario K1A 0E7, Canada*; AND DAVID M. BIRD, *Macdonald Raptor Research Centre, Macdonald College of McGill Univ., 21,111 Lakeshore Rd., Ste-Anne-de-Bellevue, Quebec H9X 1C0, Canada.* *Accepted 10 Jan. 1984.*

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High incidence of plant material and small mammals in the autumn diet of Turkey Vultures in Virginia.—Reports of feeding behavior and food of the Turkey Vulture (*Cathartes aura*) have been mainly anecdotal (Pearson, Bird-Lore 21:319–321, 1919; Kempton, Wilson Bull. 39:142–145, 1927; Hamilton, Auk 58:254, 1941). Recent reports focus on the unusual items in the diet and behaviors associated with obtaining these foods (Jackson et al., Wilson Bull. 90:141–143, 1978; Titus and Mosher, Can. Field. Nat. 94:327–328, 1980). Materials found near nests after adults have fed young also have been used to describe the diet of Turkey Vultures (Pearson 1919; Coles, Auk 61:219–228, 1944). I examined pellets cast by Turkey Vultures to determine the dietary composition and relative frequency of food types used by these birds in the autumn.

Fifty-three pellets were collected from beneath a large roost between 28 September and 9 November 1978. The roost is located on the Radford Army Ammunition Plant, 14 km west of Blacksburg, Montgomery Co., Virginia, and was previously described by Prather et al. (Wilson Bull. 88:667–668, 1976). Pellets were air dried, weighed, and dissected. All non-hair material was removed, identified, and counted. Hair was spread over a grid and a random sample of 500 hairs was removed from each pellet and microscopically identified. Dichotomous keys (Williams, J. Wildl. Manage. 2:239–250, 1938; Mathiak, J. Wildl. Manage. 2:251–269, 1938; Spires, M.Sc. thesis, VPI&SU, Blacksburg, Virginia, 1973) and a regional reference collection were used to identify the mammal hairs. I determined the presence-absence of each mammal based on the identification of its hair in samples from all pellets. Quantification of non-mammal species was also based on presence-absence in all pellets. The proportion of species' remains in each pellet does not necessarily reflect the importance of that species in the diet of Turkey Vultures since remains of different types and of different taxa are ingested at unequal rates. The data do, however, give some suggestion of the relative abundance of various food sources.

Pellets were oblong and tapered at one end. Each measured approximately 5 cm long, 3 cm wide, and 2 cm deep at the thickest part. The mean dry weight was 2.76 ± 2.17 g. The pellets were stained with a yellow-green substance and produced a pungent odor which dissipated when they were soaked in water. Most of the pellets (74%) were composed of compacted quantities of hair or other material from one species. Incorporated into most of the pellets comprised of hair were varying amounts of vegetation, feathers, snake scutes, and a small quantity of bone.

The results reflect the diverse diet of a scavenger and are not totally unexpected (Table

TABLE 1

FREQUENCY OF OCCURRENCE OF MATERIALS INDICATING FOOD ITEMS IN 53 TURKEY VULTURE PELLETS

Non-mammal	%	Mammalian-domestic	%	Mammalian-native	%
Feathers (*Gallus gallus* primarily but not exclusively)	70	Dog (*Canis familiaris*)	26	Southern opossum (*Didelphis marsupialis*)	51
Snake scutes	4	Cat (*Felis catus*)	15	Shrew (Soricidae)[a]	23
Plant material	26	Horse (*Equus caballus*)	28	Mole (Talpidae)[a]	27
Bone	trace	Pig (*Sus scrofa*)	9	Raccoon (*Procyon lotor*)	6
		Cow (*Bos taurus*)	15	Skunk (Mustelidae)[a]	26
		Sheep (*Orvis aries*)	55	Fox (Canidae)[a]	8
				Woodchuck (*Marmota monax*)	9
				Squirrel (*Sciurus* sp.)	6
				Muskrat (*Ondatra zibethica*)	6
				Eastern cottontail (*Sylvilagus floridanus*)	19
				White-tailed deer (*Odocoileus virginianus*)	32

[a] More than one species in the family present, each with different genus.

1). Percent occurrence values ranged from a high of 70% for feathers to a low of 6% for the hairs of forest-dwelling mammals. Only feathers, and sheep and opossum remains were found to occur in more than 26 of the pellets (50%), suggesting that Turkey Vultures regularly find carcasses of these species. The feathers were primarily from chickens. A few pellets contained what appeared to be vulture feathers. Some pellets contained feathers which could not be identified to species. In approximately 70% of the pellets there was hair, feathers, or other material which could not be identified to species of origin. It would appear during the autumn that this group of Turkey Vultures ingests chicken remains more often than other types of food.

Past studies have not mentioned Turkey Vultures commonly ingesting vegetation or mole and shrew remains. Each of these less common food types occurred in approximately 25% of the pellets. Fourteen of the pellets contained some plant material which could not be identified to species, but appeared to be herbaceous. In six of the pellets plant material comprised more than one-half of the contents. Small amounts of plant material in pellets might be attributed to accidental ingestion while feeding on a carcass. However, a pellet comprised of nearly 70% plant material suggests more than accidental ingestion. Koford (Natl. Audubon Soc. Resear. Rept. 4:1–154, 1966) stated that California Condors (*Gymnogyps californianus*) ate grass and cast the undigested material. McIlhenny (Auk 56:472–474, 1939) mentioned that Black Vultures (*Coragyps atratus*) ingested cow excrement, which might have served as a source of vegetation, but gave no indication that Turkey Vultures did this. Bent (Smithson. Inst. Bull. 167:12–28, 1937) and Brown and Amadon (Eagles, Hawks, and Falcons of the World, McGraw Hill, New York, New York, 1968) have both suggested that Turkey Vultures eat rotting fruit and vegetation on rare occasions.

The frequency of mole and shrew hairs in the pellets indicate that during the autumn this group of Turkey Vultures is regularly ingesting these species. The regular ingestion of moles and shrews seems unusual because of their small size and the potential difficulty Turkey Vultures might have locating a small carcass. However, Brown and Amadon (1968) mentioned that the ability of Turkey Vultures to find bits of food in dense vegetation was "fabulous." These data support their belief that Turkey Vultures are skillful at finding small food items.

These data were based on pellets obtained from vultures in southwestern Virginia. Although the composition of the diet may not reflect the types of autumn foods used by these birds throughout their range, it does confirm that vultures eat a wide variety of items during this time of year.

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Osprey preys on Canada Goose gosling.—At 08:00, 19 May 1983, while working at the Pratt Fish Hatchery in Pratt Co., Kansas, I observed an Osprey (*Pandion haliaetus*) dive from a 20-m hover over a pond 50 m north of my location. A pond dike blocked my view of the lower portion of the bird's descent. The osprey remained out of sight for approximately 4–5 sec before flying back into view carrying a bird in its talons. The Osprey circled over ponds to the west before landing on a large, dead cottonwood (*Populus deltoides*) on a river bank approximately 70 m north of where the attack took place.

I observed the Osprey and its prey through 7 × 35 binoculars, and, after moving to within