the fauna, the number of different birds at Reddick stands at 66, 64 of which have been identified to species.

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Plumage aberrancy in Blue-winged Teal.—I captured three juvenile Blue-winged Teal (*Anas discors*) showing an unusual plumage variation near Minnedosa in southwestern Manitoba on 7 August 1972. Each had a conspicuous white collar (Fig. 1) that nearly encircled the lower neck, was most prominent ventrally and laterally on the throat, and measured 3.3, 8.2, and 15.0 mm at maximum widths. The abnormal feathers lacked pigmentation and possessed none of the dark markings usually found on teal lower neck or upper breast plumage. In all other respects, the birds resembled typical juvenile Blue-winged Teal without abnormality in the colors of eyes, bills, feet, legs, and other feathers.

These ducklings (1 male, 2 females) were captured with 10 other young (5 males, 5 females) and an adult female teal, none of which had white throat feathers. Possibly the three abnormal ducklings represented one brood as they were all about 30–35 days old. Although other teal with this plumage aberrancy may have been on the pond, none was captured. During 1972, we caught 182 juvenile and 66 adult Blue-winged Teal in the Minnedosa District, but no others had white collars.

On 22 May 1973 I saw an adult female Blue-winged Teal that had white throat feathers similar to the plumage variation noted in 1972. This duck was swimming with a normally plumaged male teal on a pond 0.6 mile northwest of the pond where the unusual ducklings were banded the previous summer. Although I did not see a leg-band on the female, it was probably one of the same birds.

After trapping the three white-throated teal in Manitoba, I recalled an earlier observation of this same plumage variation in Blue-winged Teal captured near Woodworth, North Dakota. Notes and photos obtained of these birds indicated that at least two ducklings (30–35 days old) trapped on 26 July 1965 by a U.S. Fish and

Fig. 1. Comparison of throat plumages of four juvenile Blue-winged Teal caught 7 August 1972 near Minnedosa, Manitoba. The bird on the right is normal.

Wildlife Service banding crew had similar patches of white feathers on the throat (Fig. 2). Although no measurements were taken, comparison of the photographs indicated that the white markings were wider in the North Dakota birds (20–30 mm) than in the Manitoba birds (3–15 mm). In addition to the neck collars, these birds had a patch of white feathers on each side of the body as well as somewhat whiter breast plumage (Fig. 2).

To my knowledge, this plumage aberrance in Blue-winged Teal has not been reported elsewhere. Bennett (1938) described a plumage variation in alternate-plumaged males in which the white cresent extended over the eyes and joined at the

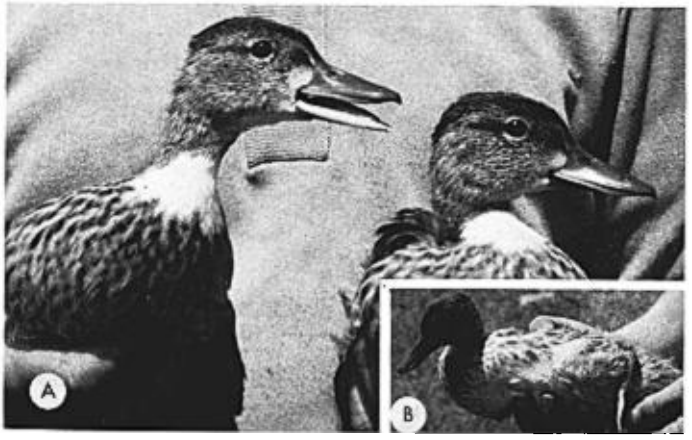

Fig. 2. Plumage variations in two juvenile Blue-winged Teal caught 26 July 1965 near Woodworth, North Dakota. Note the conspicuous white feathers on the throats (A) and side (B).

back of the head forming a white nuchal spot on some birds. Greij's (1973) experiments designed to study the effects of sex hormones on plumages on Blue-winged Teal did not produce this type of plumage variation. Furthermore, E. D. Greij (pers comm.) never saw this plumage variation in 304 teal wild-trapped during spring and fall migrations in northwestern Iowa. He also examined 182 skins of this species in the U.S. National Museum, Univ. of Michigan Museum of Zoology, and Iowa State Museum of Zoology, none of which exhibited such plumage abnormality.

Genetic and physiological factors contributing to the development of avian plumage variations have been little studied (Sage 1962). J. G. Harrison (1955) concluded that plumage variants of wildfowl fall into three classes: (a) those with evolutionary significance; (b) those related to hormonal factors, possibly including melanism; and (c) those where changes are albinistic or isabelline. Sage (1962) discussed the influence of heredity, diet, senility, shock, disease, and injury on albinism and melanism in birds.

Initially, I thought that the plumage variation described above represented an example of partial albinism in the Blue-winged Teal. In reviewing the incidence of albinism in North American birds, Gross (1965) found 155 individuals representing 35 species of the Anatidae with albinistic plumages, but did not specifically mention Bule-winged Teal. He cited previous reviews of avian albinism by Dean (1876) and Ross (1963), both of whom listed records of partial or total albino specimens of this species. These specimens apparently exhibited a significant lack of plumage coloration in contrast to the localized white markings observed on the teal trapped in North Dakota and Manitoba.

If the white throat patches were not albinistic characters, the occurrence of similar plumage variations in Blue-winged Teal from two localities 250 miles and 7 years apart is of considerable interest, because it suggests a recessive genotype in this species. Otherwise, the ventral feather tract of the cervical area appeared to be highly susceptible to mutation in response to localized trauma or other factors. Then I learned of the white neck spot variant reported in the European Green-winged Teal (*Anas crecca crecca*), Yellow-billed Teal (*Anas flavirostris flavirostris*), Gadwall (*Anas strepera*), and Northern Shoveler (*Anas clypeata*) (Harrison and Harrison 1958, 1959a, 1959c).

J. M. Harrison (1946) first reported the white neck spot in the European Green-winged Teal. He suggested that this plumage characteristic indicated the ancestral relationship of the teal with the mallard (*Anas platyrhynchos*) and termed the phenomenon "autophoric reverse mutation" (Harrison 1946, 1953). As more evidence accumulated, it appeared that the European Green-winged Teal was particularly likely to produce variations in plumage pattern and color (Harrison 1955). Additional sightings of white collars in this species and its discovery in the Gadwall convinced Harrison (1954) that this plumage variation had phylogenetic significance in the Anatidae.

Harrison and Harrison (1958, 1959a) described the white neck spot variant in seven European Green-winged Teal and one Yellow-billed Teal collected between 1931 and 1958. Because the white neck spot occurred in the same place and recurred with some regularity, the character was considered a significant pattern variation and not haphazard albinism. Because this plumage variant was always found in males, the character was thought to represent a reversionary trend with evolutionary significance. The white neck spot was believed to be analogous to the white neck ring as typically seen in the drake Mallard.

Subsequently Harrison and Harrison (1959a) reported that 3 of 12 drake Gadwalls had partial or complete white neck rings. They also found this variant present

in a varying degree in 11 of 30 drake Northern Shovelers, particularly in first-year transition plumages (Harrison and Harrison 1959c). In each case, the plumage analogies and evolutionary relationships to the Mallard were mentioned.

Although I believe that the white neck spots in the five Blue-winged Teal described in this paper are similar to the plumage variants reported in the European Green-winged Teal, Yellow-billed Teal, Gadwall, and Northern Shoveler by Harrison and Harrison (1958, 1959a, 1959b, 1959c), I have concluded that this particular plumage feature represents partial leucism (Buckley 1969) rather than autophoric reverse mutation (Harrison 1953). I base this conclusion on the fact that the white throat markings were found in both males and females in Manitoba and were associated with additional white plumage patches in North Dakota. Partial leucism, often incorrectly called partial albinism (Pettingill 1970), is the localized, often symmetrical, loss of all pigments in the plumage but not in the soft parts (Buckley 1969). Leucism, unlike albinism, is often dominant to normal, wild-type coloration. If abnormalities in plumage pigmentation are sex-linked, this would explain the predominance of the white neck spot in males of some species.

The adaptive significance of this plumage variation is open to speculation, but it apparently did not inhibit pair formation in the one observed instance. I doubt that the white neck spot variant has any evolutionary significance as evidence of ancestral relationships. I reject the idea that this plumage aberrancy is analogous to the neck ring in the Mallard.

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On the Status of *Buteo nitidus* in New Mexico.—For many years southwestern New Mexico has been included in the range of the Gray Hawk, the substantiating specimen evidence consisting of two sets of eggs collected by Frank Stephens at or near Fort Bayard, Grant County, in 1876. Study of the sole remaining egg and of notes relating to the others suggested strongly to Hubbard (1974a) that they were laid by Cooper's Hawks (*Accipiter cooperii*). The same author (1974b) subsequently wrote that the eggs "were found to be those of Cooper's Hawk," terming the Gray Hawk's status in New Mexico hypothetical. His arguments were based on the eggs' pigmentation and size, date of collection, habitat, and the lack of other verified records.

Prior to 1974 at least two sight records of adult-plumaged Gray Hawks were made in southwestern New Mexico by individuals familiar with the species: 10 April 1961, at San Simon Cienaga, Hidalgo County, by Bruce G. Elliott MS, and 16 May 1973, ca. 29 km southeast of Fort Bayard in the Mimbres River Valley by myself. Other sightings have been made along the Gila River, the most recent being that of an adult reported near Redrock, Grant County, 23 August 1973, by T. S. Bickle and W. Childs (1973). Hubbard (1974a) questioned Levon Lee's report (*in* Ligon 1961: 70) of an adult and young *Buteo nitidus* near Cliff, a few kilometers upstream from Redrock and near Mangas Creek. But although Lee was understandably puzzled by the fledged immature hawk he first encountered, he readily recognized the adult, which he saw "quite clearly" during the half-hour he devoted to the birds. Mr. Lee, a careful observer, would not likely have confused an adult Gray Hawk with *Buteogallus anthracinus*, a possibility suggested by Hubbard. Donald Bowman, who has had field experience with *B. nitidus* in Arizona, informed me (*in litt.*) that he "occasionally" saw adults of the species along the Gila near Riverside and Cliff during the 1960's. Of the summering raptors with which he was concerned—*Buteogallus*, *Buteo albonotatus*, and *B. nitidus*—Bowman considered the latter to be "the rarest." He did not record dates of his observations, but he saw Gray Hawks during two or three different years.

A single fresh flank feather from an adult Gray Hawk Allan Zimmerman and I found near Mangas Springs, Grant County, on 13 October 1974, provides meager but tangible evidence of the species' occurrence in the state (Fig. 1). This feather (preserved at Western New Mexico University) was entangled in the hooked spines of a cocklebur fruit beneath large willows and broad-leaved cottonwoods along Mangas Creek, 24 km northwest of Silver City (36 km from Fort Bayard). It is