

Barry of the Canadian Wildlife Service identified the specimen as a Brant and concluded from the description that the bird was probably a Black Brant.

On 18 October 1959 Mr. Fred Martel of Jasper photographed a Brant as it fed on a grassy slope leading from Lake Annette near Jasper. Mr. Martel was uncertain of the identification of this bird and made field notes of its markings. From the field notes and the photographs it appears that this bird was an intergrade between *Branta bernicla hrota* and *Branta nigricans*. Intergrades of these two species are discussed by Manning, Höhn, and Macpherson (*The Birds of Bank's Island*, Bull. 143, Nat. Mus. of Canada, Ottawa, 1956), who present in Plate VII a photograph of a group of skins of "eight brant, *B. b. hrota* and *B. b. bernicla* graded according to the color of the lower breast." The Brant photographed by Mr. Martel is comparable to the specimen marked Grade IV on this plate, with respect to the color of the breast. It has a broad, white neck ring. It appears to be an intergrade with a slight preponderance of color characteristics of the Black Brant.

On 24 September 1960 Lt. Col. D. G. Greene of Edmonton shot a Brant at Cooking Lake, 42 kilometers (25 miles) east of Edmonton. The bird was alone and in flight. The specimen was presented to the University of Alberta, where it is preserved in the collection of the Department of Zoology. This bird is an immature female American brant, *Branta bernicla hrota*.

These three records are particularly interesting, since they indicate that Brant passing through Alberta may be either the eastern or the western form or intergrades between these two.

Mareca penelope, European Widgeon

A male European Widgeon was collected 27 April 1959 by Mr. Bernard Hamm of Grande Prairie. The bird was sitting on the ice of Valhalla Lake about 56 kilometers (35 miles) northwest of Grande Prairie, in company with four American Widgeon. The specimen is preserved in the collection of Mr. Hamm. Although previous sight records have suggested the sporadic occurrence of this species in Alberta, this is the first specimen to be taken in the province.

Larus glaucescens, Glaucous-winged Gull

On 2 June 1960 a wounded gull bearing a band was found on the shores of Therien Lake, near St. Paul, Alberta. The band was not removed, and the bird was released. Fish and Wildlife Officer G. W. Steedsman sent the information through the usual channels reporting the bird as an immature Ring-billed Gull.

The band (#597-56837) had been placed on a young Glaucous-winged Gull by Wm. Merilees of Vancouver, B. C. The bird was banded on Christie Island, 32 kilometers (19 miles) NNW of Vancouver, on 19 July 1959. When queried upon the possibility of error in identification, Mr. Merilees replied (priv. corresp.), "The bird was probably five to six weeks old. . . . There can be no mistake as to species because no other gulls are known to nest in the area." The Glaucous-winged Gull has never previously been reported so far inland in Canada. The A.O.U. *Check-list* (1957) reports only one other comparable inland occurrence in North America.—W. RAY SALT, *Department of Anatomy, University of Alberta, Edmonton, Alberta, Canada.*

Comparison of Female Mallard with Female New Mexican Duck.—In 1958 the New Mexico Department of Game and Fish began a project to attempt the

restoration of the New Mexican Duck (*Anas diazi novimexicana*) by artificial propagation and stocking. In the process of establishing a captive flock for propagation purposes, there arose the problem of distinguishing purebred individuals from Mallards (*Anas platyrhynchos*). The purpose of this note is not to debate the subspecific status of the New Mexican Duck. It may be possible, however, in the future to contribute to this subject data collected from pen-raised individuals of known parentage.

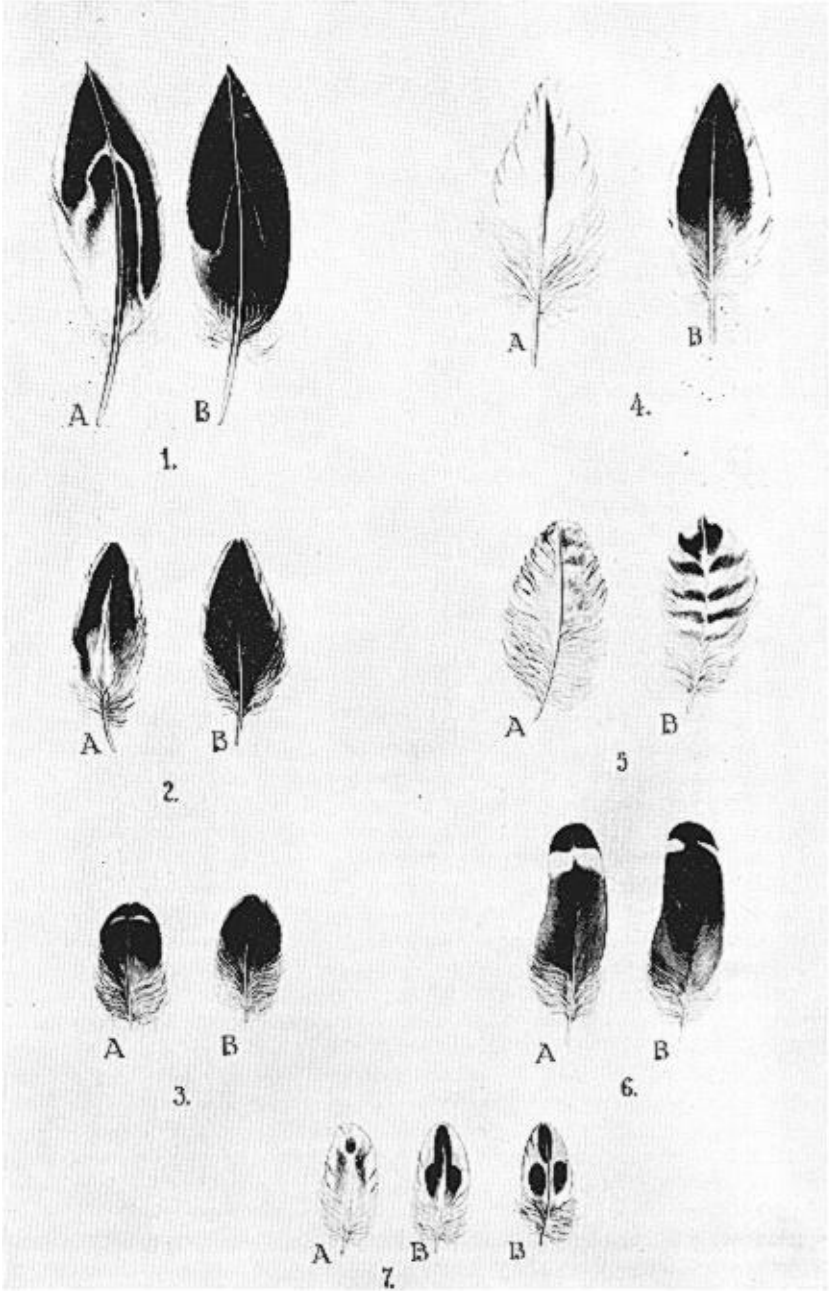
In mature breeding plumage there is no question of identity in the males of either group, as there can be little question of males in breeding plumage resulting from varying degrees of hybridization between the two. The characters that distinguish the female Mallard from the female New Mexican Duck are more subtle, and a search of the literature has revealed no satisfactory comparison. For this reason the following comparisons of adult plumage are presented.

The female New Mexican Ducks used in preparing these descriptions are from a brood trapped at San Simon marsh in southwestern Hidalgo County, New Mexico. The purity of breed of these birds is based on the males of the same brood that showed no indication of mixed ancestry. The development of this brood was closely observed and compared at weekly intervals with a brood of young Mallards, raised with them for this purpose.

From the beginning there appeared to be a difference between the two species, in weight and bill measurements. Because of the size of the sample and the improbability of obtaining a substantial sample of the New Mexican Ducks, it seems improbable that any conclusions should be drawn from these data. One factor that would confuse the issue in any further evaluation of wild individuals is the probability of Mallard x New Mexican Duck hybrids that might close the gap between the two species.

In the downy stages the dark portions of the down patterns are lighter or more reddish-brown in the New Mexican Duck than in the Mallard. As feathering develops the young New Mexican Duck takes on a darker, more finely marked pattern than the Mallard. The breast feathering in particular is markedly different in the two species during the early stages of development. Another brood very nearly approached our criteria of the perfect New Mexican Duck while in immature plumage. However, definite signs of Mallard hybridization appeared in the males when adult plumage was attained.

The main tail feathers of the adult female New Mexican Duck are much darker than those of the Mallard. There is very little or no white on the three outer rectrices. These feathers on the Mallard have a white edge, and on the New Mexican Duck a narrower, light-brown edge. There is also a difference in the central patterning of these main tail feathers. Whereas on the Mallard this is very light, almost white, and shaped as an inverted U, the corresponding pattern on the New Mexican Duck is darker and V-shaped (Figure 1-1). The upper tail coverts of the Mallard are patterned along the quill. In the New Mexican Duck this pattern is absent, and the border is darker and narrower (Figure 1-2). On the specimens from which these descriptions were taken, a difference existed on the lower back or rump feathers. On the Mallard these feathers, a dark brown, are barred across the upper end, whereas on the New Mexican no barring exists, but there is a lighter brown edging at the tip (Figure 1-3). Further examination indicates a variation on this factor in some individual Mallards, so its use as a criterion of separation may be questioned. The under tail coverts on



the Mallard are white or near-white with a central stripe of brown; on the New Mexican Duck they are dark brown with an edging of light brown. Observations made so far indicate this is the most striking single difference between the two (Figure 1-4).

The small under wing coverts, at the proximal end of the ulna, are boldly barred on the New Mexican Duck and on the Mallard are hardly marked at all (Figure 1-5).

The flank area of the Mallard is lighter than the flank on the New Mexican Duck, with more bold patterning as described for the tail feathers. The buff area under the chin and throat is darker on the New Mexican Duck. This area on the male was described by Huber (*Auk*, 37: 273-274, 1920) as "pinkish buff." The head of the New Mexican Duck is browner with very little of the greenish, iridescent effect present on the Mallard.

The bill of the female New Mexican Duck as immature was more finely spotted and the spots less numerous than on the Mallard. As maturity developed and the orange and black of the bill of the female Mallard intensified, the bill of the female New Mexican Duck became darker, shading to olive-green with very little orange near the base.

In the wing, the tertials of the New Mexican Duck are overlaid with a slightly iridescent, greenish cast, and in the Mallard the same area is gray. The speculum in the New Mexican Duck was described as "dark dull bluish-violet" by Huber. In some cases and under poor light conditions this is correct. However, under other conditions, especially when the wing is wet, the speculum is greenish-blue to really bright green. The white border of the speculum on the forward edge is much less distinct on the New Mexican Duck than on the Mallard (Figure 1-6) and in some cases almost absent; the white being diffused with brown and dusky splashing.

The breast of the Mallard is much lighter in color than that of the New Mexican Duck. The breast feathers of the Mallard are light tan to tannish-gray, with a brown spot near the center of the tip, and lighter brown stripes on either side of the quill. On the New Mexican Duck this may vary from three larger brown spots, one at the tip and one on either side of the quill, to a pattern in which these spots are joined in a *fleur-de-lis*-like pattern with a light stripe along both sides of the quill (Figure 1-7).—WILLIAM S. HUEY, *P.O. Box 4201, Santa Fe, New Mexico*.

An Enigmatic Northward Migratory Flight off North Carolina in September.—On 26 September 1960 I witnessed northward flights of migrating landbirds across Onslow Bay, North Carolina. I observed the migrants with binoculars from the bridge of a U.S. Navy ship that was anchored about three kilometers (two miles) off-shore, just north of the New River Inlet (about 58 kilometers—35 miles—west-southwest of Beaufort). By referring to a gyroscopic compass

Figure 1. Feather comparisons between New Mexican Duck (*Anas diazi novimexicana*) and Mallard (*Anas platyrhynchos*) females in adult plumage. These feathers are from various sections as listed, where obvious differences occur. 1—tail, 2—upper tail coverts, 3—saddle, 4—under tail coverts, 5—under wing, 6—secondary wing coverts, 7—breast. In all cases the specimen labeled A is from the Mallard and B from the New Mexican.