

# Hybrid yellow-legged gull from the Madeleine Islands

*Even with the bird in hand, positive ancestry of hybrids can still remain a mystery.*

Michel Gosselin, Normand David, and Pierre Laporte

ON AUGUST 16, 1973, DAVID and Laporte spotted eight gulls resting on the north shore of Lac de l'Hôpital, Madeleine Islands, Quebec (47°25'N, 61°54'W). Five were Herring Gulls (*Larus argentatus*), two were Ring-billed Gulls (*L. delawarensis*), but the last one was quite different from either species. Somewhat smaller than a Herring Gull, it had a distinctly darker gray mantle, yellow legs, and extensive grayish streaks on the head, nape and sides of the throat; the yellow bill bore a red spot and an incomplete black band.

The bird was collected and measured (fresh)—total length 587 mm, tail 154 mm, flattened wing 427 mm (in addition, an estimated 5 mm was broken off at the tip of both outermost primaries), culmen 56 mm, bill height at angle 20 mm, tarsus 66 mm. The irides were yellow and the eye-rings orange-red. The back color was mechanically measured at 4.5 on the Munsell scale. The tenth (outermost) primary was black with some gray at the base of the inner web, and white subapical spot overlapping both webs; this spot showed on the inner side, a small area clouded with gray. The grown-out portion of the ninth primary was black, tipped with white. On the next few primaries, the black portion decreased as the gray increased so that by the fifth primary of the right wing and the fifth and fourth of the left wing there was only a black spot on the outer web. The gray areas of the primaries were not darker than the mantle.

The bird was completing its annual molt: the ninth primary was only half grown and the tenth was not yet replaced; the rectrices were white and not fully

grown. That and the color of the bill strongly suggested that the bird was acquiring the plumage typical of the fourth winter. A photograph of the head of the bird showed that the proximal part of the culmen was somewhat depressed. During the process of drying, this depression deepened considerably. The bird could not be sexed owing to extreme internal damage. The preserved skin was deposited in the National Museum of Natural Sciences, Ottawa, Canada, under catalogue number 60750.

The above characteristics limit the possible identity of this bird to a few gulls whose back coloration and size vary between those of the British Lesser Black-

backed Gull (*L. fuscus graellsii*) and the American Herring Gull (*L. a. smithsonianus*).

Only two populations of gulls have characteristics similar to those of our bird. One is the Lesser Black-backed Gull of north-central Siberia (*L. f. taimyrensis*); the other is the Yellow-legged Gull (*L. cachinnans*) of southwestern Eurasia, which is best treated as a species distinct from the Herring Gull (Devillers 1983), and which has a sedentary insular form, *L. c. atlantis*, resembling the Madeleine Islands bird.

*L. f. taimyrensis* is considered a hybrid population between *L. f. heuglini* and *L. a. vegae* (Cramp & Simmons 1983). Ac-

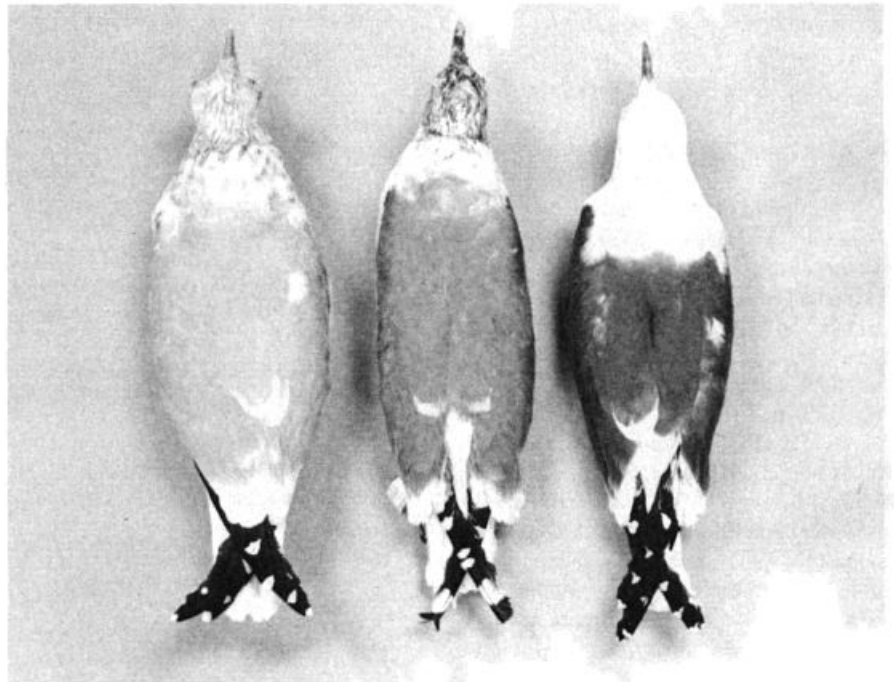


Figure 1. From left to right *Larus argentatus smithsonianus* (N.M.N.S. 57700); Madeleine Islands specimen (N.M.N.S. 60750); *L. fuscus graellsii* (N.M.N.S. 54185).

ording to the measurements given by those authors and Dwight (1925), the male *L. f. taimyrensis* is a large bird, with only the bill size approaching that of our specimen; the female, however, is more similar to our bird, except for the bill size.

From a geographical viewpoint, the possibility of *L. c. atlantis*, resident in the Azores and neighboring Atlantic islands, must be closely examined. Indeed, the Madeleine Islands specimen is very similar to males of *L. c. atlantis*, although the black areas on the primaries seem less extensive. Since Barth (1968) has postulated that *atlantis* may be of hybrid origin, we believe there is also a strong possibility that the Madeleine Islands bird is of hybrid origin. Indeed, the combination of light irides, reddish eyerings and yellow feet points to the Lesser Black-backed Gull while the mantle coloration and measurements (Table 1) seems intermediate between this species and the Herring Gull.

**Table 1. Comparisons of dry skin measurements.**

	Mid-point between the mean of ♂ <i>L. a.</i> <i>smithsonianus</i> and the mean of ♂ <i>L. f. graellsii</i> <sup>1</sup>	Madeleine Islands specimen <i>N.M.N.S. 60750</i>	Mean of ♂ <i>L. c. atlantis</i> <sup>1</sup>
Wing chord	422.7	412.0 <sup>2</sup>	420.5
Tail	167.3	150.0 <sup>2</sup>	171.0
Culmen	55.0	54.7	54.3
Tarsus	66.7	65.0	66.3
Middle toe without claw	52.6	50.0	55.2
Depth of bill at base	18.4	18.2	18.4
Depth of bill at angle	19.0	18.5	19.2
Mantle coloration <sup>3</sup> :	4.6	4.5	4.5

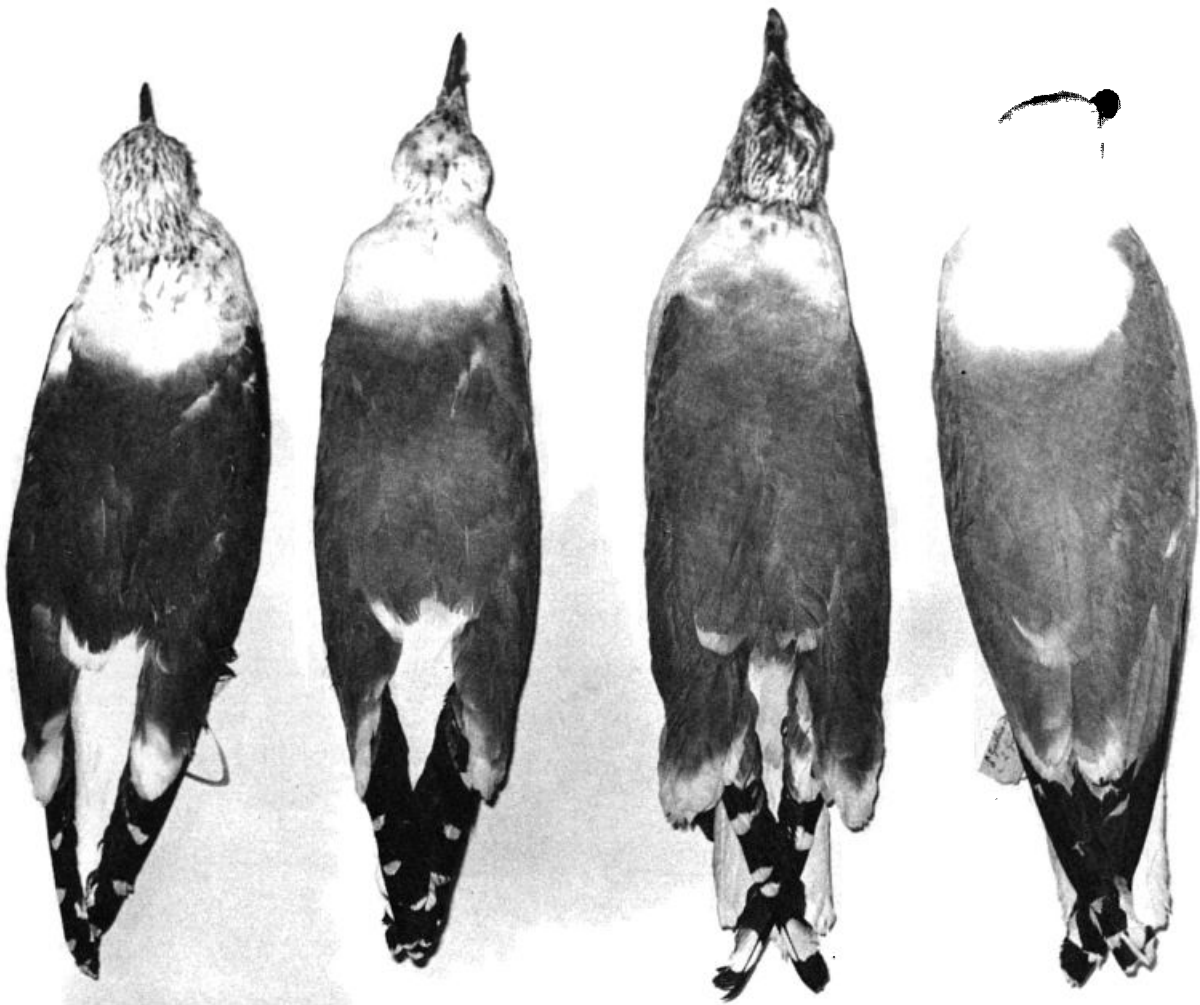
<sup>1</sup>Measurements from Dwight (1925). Females are smaller.

<sup>2</sup>Incomplete; see text.

<sup>3</sup>Mantle colorations from Barth (1968; *pers. comm.*).

Harris (1970) and Harris *et al.* (1978) have reviewed the hybridization of Lesser Black-backed and Herring gulls in western Europe, a relatively rare phenomenon under natural conditions. Because of the recent increase of Lesser

Black-backed Gulls in North America and the nearly constant association of this species with Herring Gulls on this continent, it can be postulated that mixed pairs and resulting hybrid birds could occur. Similar invasions of the range of one spe-



**Figure 2.** From left to right: *Larus fuscus graellsii* (A.M.N.H. 745087); *L. cachinnans atlantis* (A.M.N.H. 168884); Madeleine Islands specimen (*N.M.N.S. 60750*); *L. c. michahellis* (A.M.N.H. 745002).

cies by another were recently pointed out to explain the appearance of hybrids between *L. marinus* and *L. argentatus* in the Great Lakes area (Godfrey 1973), and between *L. hyperboreus* and *L. argentatus* in Iceland (Ingolfsson 1970).

The latter two hybrid combinations, however, are relatively easy to identify, as they do not closely resemble any other form. In the case of hybrid Lesser Black-backed  $\times$  Herring Gulls, one is also faced with the possibility of a vagrant Yellow-legged Gull from Europe. Some populations of the Yellow-legged Gull (*L. c. michahellis*) are known to undergo post-breeding dispersal and are seen in increasing numbers in northwestern Europe (Devillers 1983).

In Eastern North America, Herring Gulls with yellow legs have been reported in the past (Barth 1968). Until we learn more about the specific identity and relative occurrence of these birds, such individuals should be carefully examined.

#### ACKNOWLEDGMENTS

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—National Museum of Natural Sciences, National Museums of Canada, Ottawa, Ontario K1A 0M8 (Gosselin); Centre de recherches écologiques de Montréal, 5858 Côte des Neiges #400, Montreal, Québec H3S 1Z1 (David); Canadian Wildlife Service, P.O. Box 10, 100, Sainte-Foy, Québec G1V 4H5 (Laporte)

