

KING EIDERS MATED WITH COMMON EIDERS IN ICELAND

BY OLIN SEWALL PETTINGILL, JR.

THE Common Eider (*Somateria mollissima*) is one of Iceland's most abundant birds, with an estimated breeding population of a half million individuals (see Pettingill, 1959). The majority nest in colonies whose sizes range from a few pairs to many hundreds. From May 24 to 27, 1958, it was my good fortune to study and film one of the largest colonies (5,000 nests), situated on the farm of Gisli Vagnsson, along the Dyrafjörður in Northwest Iceland. Egg-laying at this time was virtually completed, with incubation just getting under way.

In my earlier paper (*op. cit.*) I have described the colony and pointed out that the males were present, each one stationed close to a nest while his mate sat on it. Many nests were near together—in a few cases as close as two feet, with the result that there was marked hostility among the guarding males. Presumably the males departed from the colony after the first ten days of incubation as they did on the Inner Farne (Tinbergen, 1958), an island off the northeast coast of England.

Before I visited the Vagnsson colony, Dr. Finnur Gudmundsson, Curator in the Natural History Museum at Reykjavik, told me that I should expect to find from one to several male King Eiders (*S. spectabilis*) mated with female Common Eiders. He had noted many mixed pairs himself in various Iceland colonies and once published an account of his observations (Gudmundsson, 1932:96-97). He went on to say that such matings are of "frequent occurrence" in Iceland and have been known about since the 18th Century. Farmers formerly regarded a male King Eider in a colony as an aberrant male Common Eider with the status of "king." Interestingly, Dr. Gudmundsson had never seen a male Common Eider paired with a female King Eider and had no authoritative report of any such instance.

The presence of these peculiarly mixed pairs in Iceland is remarkable as the island lies outside the breeding range of the King Eider. There is no substantiated evidence of a pure *spectabilis* pair ever having bred in Iceland. The species does, however, visit the coast of Iceland regularly in the winter, though never in large numbers. Practically all records refer to single birds, mostly adult males, in company with Common Eiders. It is not impossible, of course, that a few female and immature male King Eiders also occur in winter, but, owing to the similarity of their respective plumages to those of female and immature male Common Eiders, they are overlooked.

For the phenomenon of mixed pairs in Iceland, Dr. Gudmundsson has the following explanation: If, toward the end of winter, a visiting male King Eider pairs with a female Common Eider from Iceland, the male thereafter



KING EIDER (*Somateria spectabilis*) MATED WITH COMMON EIDER (*S. mollissima*)

A male King Eider stationed near his mate, an incubating female Common Eider; photographed by Olin Sewall Pettingill, Jr., on May 26, 1958, in Northwest Iceland.

accompanies the female, eventually following her to the nesting colony and remaining with her. On the other hand, if a male Common Eider from Iceland pairs with a female King Eider, say, from Greenland, the male follows her to Greenland. The basis of Dr. Gudmundsson's explanation is that, after pair formation, the male follows the female to her point of origin, wherever it may be. Considerable strength is given this assumption by Hochbaum's generalized statement (1944:62) that among ducks in the Delta Marsh (Manitoba, Canada) it is the initiative of the female that leads the pair to the breeding area.

Dr. Gudmundsson's prediction that I should find mixed pairs in the Vagnsson colony was borne out soon after my arrival for I discovered altogether two male King Eiders in normal, fully adult plumage. Each sat close to an incubating female, obviously a normal Common Eider, in a different part of the colony. Their nests were closely surrounded by other nests belonging to pure pairs of Common Eiders. The presence of the King Eiders was "an old story" to Gisli Vagnsson. The colony had been in existence since 1912, and for as long as he could remember there had always been at least one *kongur* every nesting season.

On watching the two King Eiders for short periods during the course of my visit, I became impressed with the similarity of their behavior to the behavior of neighboring male Common Eiders. Both Kings showed aggression, as did the male Commons, making vigorous attacks on near-by males, and occasionally grasping an opponent by the head, neck, wings, or tail. Both Kings were themselves attacked and grasped. A lively fight between a King and a Common sometimes took place, during which both contestants bit and thrashed each other, but neither one emerged the worse for the encounter. I could see only one difference in the behavior of the two Kings. One seemed far more aggressive by attacking several male Commons in succession at points as far away from the nest as 10 to 15 feet. I judged this behavior to be the result of his greater intolerance of adjacent males.

The fact that the two King Eiders adjusted themselves to the colony is notable since the species does not nest in colonies on its home grounds. In Greenland, for instance, the King Eider never gathers in colonies (Salomonson, 1950-51:132-133). A natural expectation would be that a species without adaptation to colonial life could not tolerate the competition or crowding imposed by the proximity of so many nesting pairs.

Despite the frequency of mixed pairs in Iceland over a period of many years, even centuries, no *spectabilis* characters are discernible in the present population of Common Eiders. All the males which I saw in the Vagnsson colony and elsewhere were apparently pure *mollissima*. Only one hybrid specimen is known to have been taken in the country. This is a male (now in the Museum of Natural History) shot in the bay just outside Reykjavik about

1929. Further data are unavailable because it was recovered as a mounted bird in a school collection where it had been for several years. The specimen shows a blending of the characters of both species, though the *spectabilis* characters are more conspicuous. Two *mollissima* × *spectabilis* hybrids were taken in Greenland in 1894 and 1906, respectively, and later described by Krabbe (1926). Like the Iceland specimen, they too showed a blending of characters of both species. To the best of my knowledge, no other hybrid of these two species has ever been taken anywhere.

On the basis of the evidence at hand I can only conclude that offspring of mixed pairs of Common and King Eiders are rarely produced, and that in all probability the few hybrids which do result are sterile.

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