

## A hybrid of an Eider *Somateria mollissima* and a Merganser species (*Mergus* sp.) found in Finland

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On 20 July 1980, O. Tenovuo noticed an unfamiliar duck on the seashore in Anavainen, Kustavi, which he supposed to be a hybrid Eider x Merganser. The next day the bird came closer to the shore in a flock of Eiders, and it appeared that it really might be such an exceptional duck hybrid.

As it seemed impossible to confirm the identification solely by field observations, we asked the local game management association to shoot the bird at the beginning of the duck hunting season. On 23 August it was shot by Mr. Jarkko Keskievari. The bird was then stuffed and put on display in the Biological Museum of the University of Turku.

The bird was delivered for examination to the Game and Fisheries Research Institute, where it was studied by several experts. They reported that it clearly had features of both an Eider and a Merganser (Goosander or Red-breasted Merganser), some features even being exactly intermediate between an Eider and a Merganser.

*Description.* Aarno Salminen, who is an expert on duck hybrids, has kindly analysed the details of the hybrid as follows:

*Bill* dull orange-toned yellow, sides of upper mandible darker at base, dull grey. Nail and tip of culmen dull grey. The shape of bill exactly intermediate between an Eider and a Merganser, broader than Merganser's but narrower than Eider's, higher at base than Merganser's. Nail large and curving gently below the lower mandible, which indicates a Goosander rather than a Red-breasted Merganser. The feathering on the sides of upper mandible Eider-like, broad and blunt and extending only halfway between nostrils and base of bill, like the feathering on culmen. Edge of culmen continuing bare towards the eye as in Eider. Nostrils elongated, bill more coarsely serrated than Eider's.

*Legs* greenish brown-yellow, webs and claws dark, in shape resembling those of an Eider rather than a Merganser.

*Iris.* The colour could not be determined.

*Plumage* moulting. The bird is a male in already slightly worn eclipse plumage or summer plumage, in which the wing feathers are still growing and the tail feathers changing. Body feathers changing only on back, rump and especially underparts. Tail feathers apparently totalling 18, four of which very worn and the rest growing.

Overall *coloration* Merganser-like, not at all resembling male Eider in eclipse plumage except for the wing. (Note that extensive conclusions regarding the coloration cannot be made because according to other data the bird is a first-year male and moreover, in eclipse plumage.)

Head and neck as in Red-breasted Merganser, light-greyish cinnamon-brown, base of neck being obscurely demarcated from the nearly all-grey body. Crown and sides of head darker than the rest of the head. Narrow light-coloured supercilium, eye-stripe and eye-ring indistinct. Chin and throat cinnamon-toned, light, without demarcation. Neck almost pure light cinnamon-brown. A pronounced thick crest at nape (not straggling) very similar to the male Goosander's in eclipse plumage.

Mantle and scapulars dark grey-brown — black-brown. Feathers light-tipped, giving a mottled pattern. Foremost and innermost scapulars have black white-shaded feathers (from breeding plumage). Back, rump

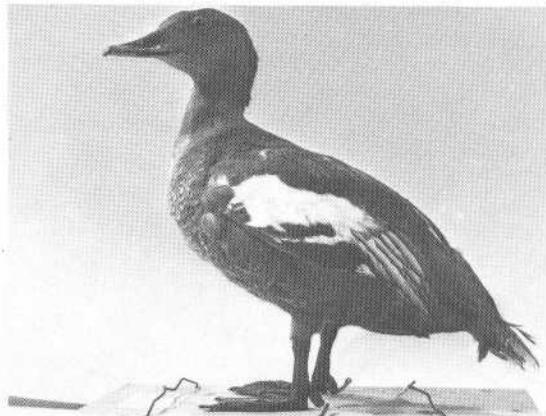


Fig. 1. The stuffed hybrid of an Eider and a Merganser species in the Biological Museum of the University of Turku.

and upper tail coverts grey-brown, growing feathers dull black. Growing tail feathers grey-black, the worn ones (4) faded brown. Lowest scapulars elongated, very sharp, inner webs frosty black, outer webs frosty white (like tertials).

Flanks and sides of breast grey-brown, feathers with lighter tips. Chest and upper breast also grey-brown, barred, lighter than upper parts. Feathers light-tipped with darker subterminal bands but many also having wide white patches, as in the male Eider's eclipse plumage. Some totally white feathers also present. Lower breast and belly like chest but more uniformly light. Vent and under tail coverts grey-brown with hazy lighter pattern and having some strange white feathers with narrow brown wavy stripes. On the sides of rump a group of dark feathers with patterned tips.

*Wing.* The most important basis of identification besides size and shape. A conspicuous large white wing-patch as in Goosander and male Eider. Lesser and median upper wing coverts white, but a group of inner ones and marginal upper wing coverts brownish grey with white tips. Greater upper wing coverts black with broad white tips as in secondaries. Primaries dark. Tertials exactly intermediate between those of an Eider and a Merganser, elongated, sharp, gently curving downwards (not so sharply as Eider's). Outer webs of the outer ones white with black fringes, inner webs frosty grey-black.

*Measurements.* Weight about 2 000 g, length 68 cm, wing 27 cm (primaries still growing), wing-span 92 cm, tarsus 5.2 cm and bill 5.4 cm. The bird was identified as a male on the basis of the gonads as well.

*Discussion.* Concerning the identification, the most remarkable characters are the coloration of the upper side of the wing, the shape of the head and bill, and the structure and size of the bill — some of which had already attracted our attention in the field. As can be noted from the description above, it is difficult to decide which Merganser species was involved in the cross. How-

ever, the large size, large nail and details of the upper side of the wing, especially the white lesser upper wing coverts, indicate a Goosander rather than a Red-breasted Merganser. This conclusion is also supported by the timing of the courtship.

It is hard to find any obvious reason for the origin of the hybrid. In the subfamily *Anatinae* (ducks), eiders are nowadays separated from mergansers *Mergini* in their own tribe, *Somaterini*. The remoteness of the relationship and differences in courtship are probably the main reasons why hybrids between an Eider and a Merganser have not been reported earlier. According to Grey (1958), the only hybrid known for the Eider is with the King Eider *Somateria spectabilis*, while the Goosander has hybrids with the Goldeneye *Bucephala clangula*, Mallard *Anas platyrhynchos* and Shelduck *Tadorna tadorna*.

As the Eider and Goosander are abundant breeding species in the study area there does not seem to be any need for hybridisation. In the field the bird was observed either alone or among female Eiders (at that time the flocks of Goosanders were mostly living further out in the archipelago).

A notable feature is that the stomach of the bird contained crustaceans *Mesidothea entomon*; thus it had not eaten the main food of either species. A chromosome analysis could not be done because the bird had been dead (frozen) for some days before reaching the Biological Museum.

*Acknowledgements.* We express our thanks especially to Prof. Teppo Lampio, chief of the Game Division, to Aarno Salminen and all the other experts who studied the bird.

**Selostus: Haahkan *Somateria mollissima* ja koskelon *Mergus* sp. risteytymä tavattu Suomessa**

Heinäkuun 20 p:nä 1980 havaitsi Olli Tenovuo Kustavin Anavaisissa kesäasuntomme lähivesillä vesilin-

nun, jonka tuntomerkkien totesimme viittaavan haahkan ja koskelon risteytymään. Vesilintujen metsästyskauden alettua sai Jarkko Keskievari kehotuksestamme linnun ammuttua (23.8.). Lintu on täytettyä Turun yliopiston eläinmuseon kokoelmissa, jota ennen se oli pidemmän aikaa asiantuntijoiden tutkittavana Riista- ja kalatalouden tutkimuslaitoksen riistantutkimusosastolla Helsingissä.

Tarkan analyysin linnun tuntomerkeistä suoritti vesilintujen risteytymiin perehtynyt tutkija Aarno Salminen. Ulkonäössä kiintyi jo kentällä huomio siihen, että monet tuntomerkit olivat haahkan ja koskelon "keskiarvoja". Tämä havaitaan mm. pään ja nokan muodossa sekä nokan rakenteessa. Määrittystä ajatellen merkittävä tuntomerkki on lisäksi siiven yläpinnan väri: tertiaalit ovat juuri haahkan ja koskelon "puolivälistä", pidentyneet, terävät ja loivasti alaskaartuvat. — Lintu oli jo hiukan kuluneessa 'eklipsipuvussa' oleva vuoden ikäinen koiras.

Täysin luotettavasti ei voida päätellä kumpi koskelolaji on ollut risteytymän toisena osapuolena. Suuri koko, kookas nokan kynsi sekä siiven yläpinnan yksityiskohdat viittaavat kuitenkin enemmän iso- kuin tukkakoskeloon. Kirjallisuudesta emme ole tavanneet mainintaa haahkan ja koskelon välisestä risteytymästä.

Kustavissa ovat sekä haahka että isokoskelo runsaslukuisia pesimälintuja eikä syytä risteytymiseen ole helppo löytää. Niinä parina päivänä joina meillä oli tilaisuus tarkkailla lintua se oleskeli joko yksinään tai naarashaahkojen parvessa. Merkillepantavaa oli se, että linnun mahalaukussa oli kikkettä *Mesidothea entomon*, joten se ei ollut syönyt kummankaan kantalaajin pääravintoa.

## References

Grey, A. P. 1958: Bird Hybrids: a check-list with bibliography. — Farnham Royal, Buckinghamshire.

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