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American warblers Non-native species

© Copyright, Princeton University Press. No part of this book may be distributed, posted, or reproduced in any form by digital or mechanical Greater Scaup Agents With 600 (Office of the publisher.

L 46cm 18" | summer N Europe; winter W and C Europe

### ▼ Adult of (January)

At a distance, the grey upperparts are typically not obviously darker than the flank, creating a complete pale area. The rounded head and restricted black on the bill-tip are typical. See also the very rare Lesser Scaup.



▼ ♀ (June)

In the summer the flanks and upperparts are considerably browner (less grey than in the winter); the pale ear-patch develops from late winter. There is little contrast between upper- and underparts (compare with Tufted Duck ♀), as in Lesser Scaup ♀.



▼ 1st winter of (February)

After the head moult in autumn most  $\delta\delta$  show no white around base of bill, contra all  $\cent{P}$  plumages. The moult timing is very variable and such immature plumages can still be seen into spring. This individual is of the subspecies nearctica (N America and E Asia). This subspecies typically has a more swollen forehead and coarser vermiculations on the upperparts in  $\delta\delta$ , but is otherwise identical to nominate marila.

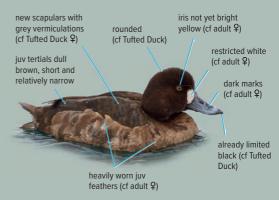


warmer brown than Tufted Duck ♀

in all plumages often fuller breast, protruding more than in Tufted Duck

### ▼ 1st winter ♀ (February)

Immature ♀♀ look much like adult ♀ and Tufted Duck ♀, but see the highlighted differences.



### ► Adult ♂ eclipse (October)

This image shows differences from 1st winter ನೆರೆ, which look very similar to this plumage type. The timing of when they show this plumage differs markedly between 1st winter and adult 33. In October 1st years are mostly still in juvenile plumage; 1st winters reach a similar plumage from December (sometimes even later), when adults are already in breeding plumage.



brown with vermiculations

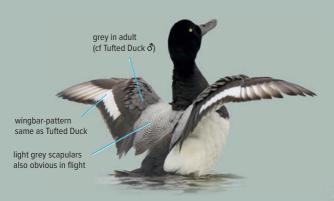
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### ▶ Adult ♂ and ♀ (June, March)



### ▼ Adult ♂ (June)

In flight similar to Tufted Duck  $\delta$ , but light grey upperparts, and see highlighted subtle differences in the upperwing. 1st year  $\delta\delta$ lack grey markings in the coverts until long into the spring, creating a stronger contrast with the light grey scapulars.



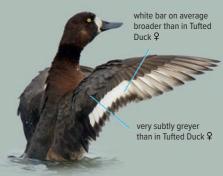
peaked rear crown

(sometimes forming

small crest)



▼ Adult ♀ (June) The differences from Tufted Duck ♀ in flight, in this plumage, are minimal.



### **Lesser Scaup** Aythya affinis

L 42cm 16.5" | vagrant from N America

### ▼ ♂ (June)

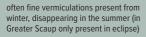
The headshape applies to all plumages, but start of small crest only in  $\delta$ .

nearly vertical and straight

(cf Greater Scaup) sheen varies from purple-brown to greenish,

relatively coarse vermiculations (cf Greater Scaup)

or both, as here



▼ ♀ (March)

Individuals in this plumage need to be separated from both Greater Scaup 9 and Tufted Duck 9, and eventual hybrids, in which in addition to the highlighted features both upper- and underwing-patterns are important. The iris colour is less important in ageing than in Greater Scaup, but this is probably a 2cy based on moult contrast (the tertials have been moulted and are therefore not useful for ageing). The plumage in relation to age is identical to Greater Scaup ♀. The differences from a Tufted Duck ♀ with an extreme amount of white at the bill-base are head shape, bill-pattern, the grey vermiculations on the upperparts and the breast, which is on average a slightly warmer colour (usually only obvious when compared directly).

> typical flat rear crown without long crown feathers (cf Tufted Duck ♀)

upperparts paler than head (cf Tufted Duck ♀) white often with angled border (rounder in Greater Scaup ♀)



moult contrast between new flank-feathers and worn uppertail-coverts indicative for 1st years (in all diving ducks)

in profile almost no black visible on nail (black restricted

in Greater Scaup)

to nail and nail narrower than

© Copyright, Princeton University Press. No part of this book may be distributed, posted, or reproduced in any form by digital or mechanical Lesser Scaup Ameans without prior written permission of the publisher.

### ▼ Adult ♂, last phase eclipse (December)





grey-brown in 1st winter)

### **▶ Bill-structure and -pattern**

and grey in primaries (cf Tufted

Duck and Greater Scaup)

The shape of the nail is diagnostically narrow and of even width compared with Greater Scaup (and hybrids). In 1st years and \$9 there can sometimes be dark markings on both sides of the black nail, but the shape of nail is still visible at close range. The head in general is (when seen from the front or behind), like the bill, narrower than in Greater Scaup (similar to Tufted Duck).

### ■ Greater Scaup, bill-structure and -pattern

More often shows variable, dark markings on both sides of the black nail than Lesser Scaup, especially in 99 and 1st year 33.



### ▼ 1st winter ♂ (January)

The differences from Greater Scaup 1st winter  $\delta$  are small as regards plumage and the bill-pattern can be almost identical. The ID needs to be based on head shape, the shape of the nail, size, the wing-pattern (upper- and underwing) and the coarse vermiculations. This individual is straightforward to age as a 1st winter; see the highlighted features. Some 1st winters look more like adults as regards bill-pattern and head colour (less brown).



This underwing feature often slightly more contrast than in Tufted applies for all plumages. Duck and Greater Scaup due to variable grey greater coverts which contrast with pure white median coverts and axillaries



### ■ Hybrid ♂♂, Lesser Scaup-like (April and March)

There are various hybrid combinations which could look like a Lesser Scaup. Often the most similar is Greater Scaup × Tufted Duck (bottom image). The upper individual is probably a Tufted Duck × Common Pochard because of, among other things, the orange iris. Almost all Lesser Scaup-like hybrids can be eliminated using the highlighted features.







L 42cm 16.5" | vagrant from N America

### ▼ Adult of (January)

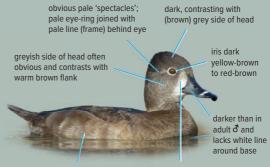
In this plumage a relatively straightforward species to identify, but some Ring-necked hybrids can be difficult to rule out. The tail is relatively long and is often held above water. There is an, often not visible (as here), white patch on the chin immediately against the base of the lower mandible, lacking on many hybrids.



grey with obvious white 'shark tooth' at front

### ▼ ♀ (January)

In both 1st years and adult 9 there is a typical colour contrast between the greyish head and the (warm) brown breast and flanks. Often shows a whiter area at the front of the flank: a faint mirroring of  $\delta$  plumage (but not in this individual).



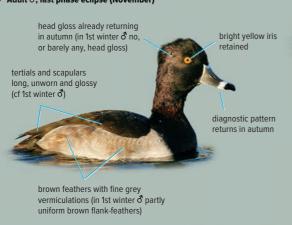
(reddish) brown flank contrasts with dark upperparts (flank becomes warmer brown during spring)

diffuse pale area at bill-base

### ► Adult of eclipse, in captivity (August)



### ▼ Adult ♂, last phase eclipse (November)



▼ 1st winter ♂ (January)

Very similar to adult  $\delta$  eclipse, but see the highlighted features. The bill-pattern is already as an adult, but the iris is still a slightly darker yellow.



flank-feathers mix of uniform brown juv and adult-type uniform grey vermiculated feathers (cf adult & eclipse)

### ▼ Adult-type ♂ (April)

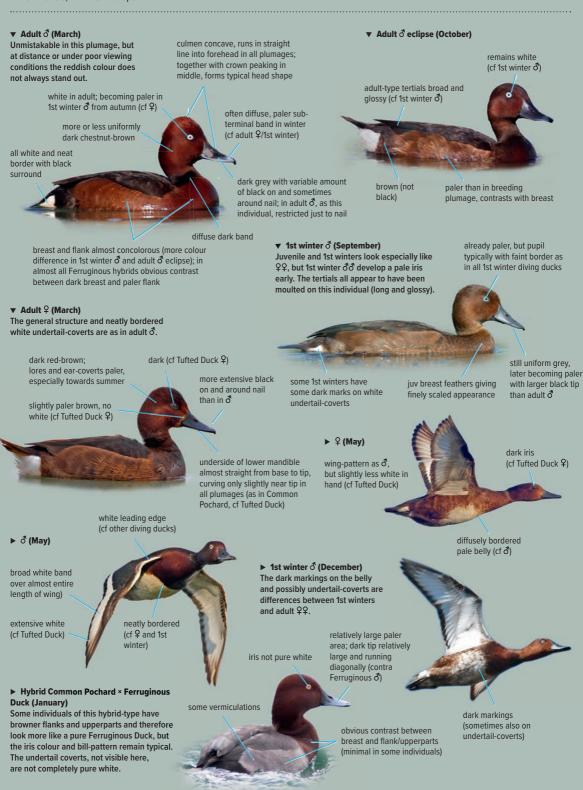
The contrast caused by darker greater coverts differs from Tufted Duck and Greater Scaup, but is shared with Lesser Scaup.

> grey greater coverts contrast with other, whiter coverts and axillaries in all plumages

### ► Adult-type of (December)

wingbar almost uniform grey along entire length in all plumages (cf other Aythyas including Tufted Duck)

L 41cm 16" | C, E and SE Europe



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pale blue with diagnostic

L 45cm 17.5" including tail | SW and SE Europe

### ▼ d summer (July)

Unmistakable due to swollen blue bill, largely white head and more or less uniform warm brown body. but see Ruddy Duck.



### ▼ ♂ summer (May)

Some  $\delta\delta$  also have dark markings on the white head in spring/summer, possibly 2cy ්ී ්. See also the dark markings around the nostril in this individual in the middle of the breeding season, compared with individuals which look completely as adult  $\delta$  in May.



### ▼ Adult-type ♂ (January)

Plumage varies little throughout year, but the dark crown covers a broader area from autumn into the winter. The bill is dark in the autumn and becomes blue during the winter.



### ▼ ♂, probable 1st winter (January)

The complex, individual variation and still partly unknown moult strategies make accurate ageing of an individual like this difficult, unless obvious iuvenile tail-feathers are visible.



### ▼ ♀ (May)

Quite similar to the introduced or escaped Ruddy Duck; see highlighted features.

white stripe narrow with relatively neat border (cf Ruddy Duck ♀-type, but differences can be minimal)



### ▼ Tail-feathers

The extremely worn tail-feathers (from the individual above) are probably juvenile, but retained adult-type feathers cannot be completely ruled out as the protruding bare feather shafts are not (no longer?) present.

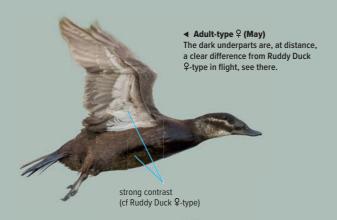


### ▶ 1st winter, probable ♀ (January)

Almost identical to adult ♀ in the winter, but this individual shows the typical juvenile tail-feathers. It is not certain what percentage of 1st winter 33 attain a 3-type head after the head moult; if this applies to all  $\delta\delta$ , that would make this a 9.



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### ▼ Q-type (January)

See the diagnostic differences in bill-structure from Ruddy Duck.

wavy border between bill and head with bulge towards white head-stripe (cf Ruddy Duck)

swollen base of upper mandible (cf Ruddy Duck)



bulge of feathering towards bill (cf White-headed)



# ■ Ruddy Duck *Oxyura jamaicensis*, ♀ or 1st winter (October)

The general structure and pattern of both upper- and underwing are identical to White-headed, but the pale underparts make separation in flight relatively straightforward.

pale; no obvious contrast with underwing-coverts (cf White-headed **2**-type)

### ■ Ruddy Duck, adult-type of summer (May)

The most important differences from White-headed ♂ are shown. Unlike many other ducks, stifftails (*Oxyura*) attain summer plumage in the spring, whereas most other ducks are in breeding plumage from late autumn.



### HYBRID WHITE-HEADED DUCK × RUDDY DUCK

Hybrids occurred especially on the Iberian Peninsula due to hybridisation with feral/introduced Ruddy Ducks. Hybrids generally have a less swollen base to the upper mandible. 1st generation hybrids are often identifiable due to intermediate features, which are easier to see in  $\delta\mathcal{S}$ . But hybrids are fertile, creating back-crosses which can be very difficult to separate from pure individuals. To prevent White-headed Ducks from going extinct due to genetic 'pollution' successful projects were carried out on the Iberian Peninsula to remove the Ruddy Ducks.

### ■ Ruddy Duck, ♂ winter (January) ♂♂ in the winter look like ♀♀, but with



### ■ Ruddy Duck, ♀ (January)

In the image the most important differences from White-headed  $\centcal{P}$  or 1st winter.



white

L 41cm 16" | Iceland

### ▼ Adult of (May)

Unmistakable due to unique markings and colour-pattern. The fresh wing with glossy secondaries and the dark belly of this individual are typical for an adult (3cy+). A 2cy in spring/summer has an almost adult &-like body, but the wing and central underparts are still juvenile (brown, worn and faded).

### ▼ Adult of eclipse (August)



### ▼ 1st winter/2cy of (February)

The underwing is all dark and the silhouette in flight is characterised by an attenuated and pointed rear end in all plumages.  $\delta\delta$  in an advanced stage of body moult are identifiable from their 1st winter. Ageing is straightforward due to the presence of faded, juvenile body-feathers, which are retained until the summer of 2cy.



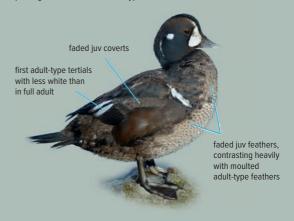
### ▼ Adult <sup>Q</sup> (June)

The juvenile, immature  $\mathcal{P}$  and adult  $\mathcal{P}$  plumages all have the same general features: almost completely uniformly dark brown, but with a whitish patch on the side of the head, a large pale patch on the face and dark lores. Compare with Velvet Scoter 9, which bears a superficial resemblance.



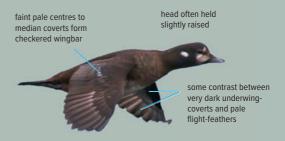
### ▼ 1st winter of (February)

The post-juvenile moult usually starts with the head, breast-sides, scapulars and flank-feathers, as can be seen here. The juvenile wing and central underparts are retained until the complete moult in the summer and will wear and bleach further until the rest of the plumage has moulted to adult-type.



### ▼ ♀ (February)

Uniform brown, but with obvious head markings and attenuated rear end. Contrast on the underwing is less obvious under poor viewing conditions, and species like Common Scoter show a similar contrast.



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L 64cm 25" | N and W Europe

### ▼ Adult &. nominate mollissima. breeding plumage (March)

Unmistakable, owing to the combination of the white upperparts and black underparts. The elongated, triangular head shape is characteristic in all plumages.



### ▼ Adult ♂ eclipse, nominate mollissima (September) This individual is in a later stage of eclipse.



### ▼ 1st winter &, nominate mollissima (December)

This individual is a good example of how the body moult progresses: the head (except the crown), breast and flank are moulted first while the central underparts are still juvenile. A roughly similar moult progress is shown by many ducks and geese, where the central underparts retain juvenile feathers the longest, often until long into spring. The retained juvenile feathers have a different structure (shorter and narrower) and often a different colour and pattern, but in many species this is not as visible as in Eider.



#### ▼ Adult of eclipse (July)

In full eclipse typically almost completely dull black. Some 1st winter of are also mainly dull black at a certain stage, but the white coverts (just visible here) show this to be an adult. Also, the newly growing tertials are white,



### ▼ 1st winter ♂, nominate mollissima (April)

This plumage is very variable, among other things due to very variable moult timing in each individual. This individual is more or less average. The dark coverts and tertials are always characteristic for this age-class until summer of the 2cv.



coverts and tertials dark (cf adult of eclipse)

usually uniform white as here, but sometimes darker

### ▼ 2nd winter 3/3cy, nominate mollissima (April)



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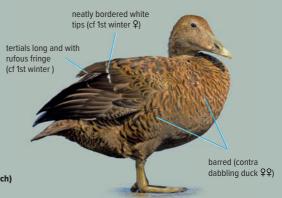


▼ 1st winter ♀ (January) Already similar to adult ♀, but the wing is still juvenile; see highlighted features for differences from adult.

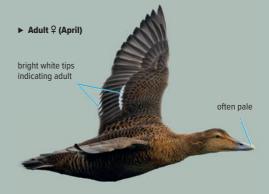


### ▼ Adult ♀ (September)

99 are uniform brown with a heavily barred flank. The colour varies from warm brown when fresh (autumn/winter), as in this individual, to greyer during spring and early summer. The bill-tip becomes darker in the spring.







### ▼ Adult ♂, American Eider dresseri (June) Adult 33 of all (sub)species unmistakable in flight. An American Eider has been recorded once in Europe. The differences between dresseri and the European subspecies are highlighted.



even, narrow

black line

### ▼ Adult ♂, Northern Eider *borealis* (June)

For the ID of an individual outside the normal distribution zone all features need to be confirmed. In addition to variation in nominate mollissima there is a zone of individuals with intermediate features, e.g. on the Faroe Islands. The higher, more angular forehead is also shown by American dresseri and Pacific Eider v-nigrum (and exists due to a more developed organ for filtering out higher concentrations of salt).



high forehead often

very broad and reaches up towards eye 'sails' on back (often more slightly concave obviously erect than here), rarely present in nominate

mustard or orange-yellow; in nominate grey-green, but sometimes as in this individual

feathering shorter than in nominate, just reaching start of nostril

green under

black cap

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L 57cm 22.5" | extreme N Europe



Unmistakable due to the black upperparts, the uniquely patterned and coloured head and the bill-shape and -colour. An adult of (after 3cy) has a large yellow-orange knob, with a vertical front edge on the bill.

#### ▼ Adult ♀ (March)

The ground colour is a warmer reddish-brown than in Eider  $\[Pi]$ -type (but a newly moulted Eider adult  $\[Pi]$  is often also relatively reddish-brown). In worn/faded plumage (midsummer) some individuals are considerably less reddish and their general colour barely differs from Eider  $\[Pi]$ . The structure differs from Eider due to the shorter bill and shorter, thicker neck (especially obvious in flight). The neatly bordered, bright white tips to the greater coverts and secondaries indicate an adult.

small 'sails' (in Eider  $\circ$  sometimes present in NW Atlantic (sub)species)

feathering on side and above bill reach equally far (cf Eider)

dark including nail and darker than head (in Eider \$\varphi\$ bill usually paler than or same tone as head)

### ▼ 1st winter ♂ (March)

The breast can be darker, especially early in the winter and again later in the spring of 2cy when heading towards first eclipse.

V-shaped markings (straighter in Eider ♀)

black centres with small point (in Eider  $\frac{1}{2}$  round)

broad and diffuse pale around eye and gape (often forming 'smile'), not obvious in this individual



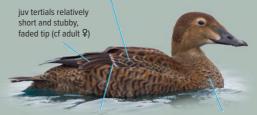
diagnostic yellow and broad, most obvious feature at distance

> usually pinkish

### ▼ 1st winter ♀ (March)

The (variable) mix of juvenile and adult-type body-feathers is typical for this age-class. The dull juvenile wing is sandwiched between moulted, reddish flank and scapulars. See the uniform reddish-brown plumage of adult  $\boldsymbol{\Psi}.$ 

juv wing with relatively narrow feathers and faded fringes compared with adult-type scapulars and flank-feathers typical head-pattern in all \$\partial\$ plumages: bill darker than head, broad, pale eye-ring and pale 'smile'



restricted white in juv greater coverts (cf adult  $\ensuremath{\mathfrak{P}}\xspace)$ 

mix of faded juv and reddish adult-type feathers

### ▼ 2nd winter/3cy of (March)

Both the head-pattern and bill-shape are still developing. This individual is slightly delayed: most 2nd winters in March look more like an adult  $\ensuremath{\mathfrak{d}}$  as regards head-pattern, and the knob on the bill is usually more developed. A large variation in moult timing and progression is normal in ducks; this individual is no exception.

developed 'sails' and presence of a few white coverts contra advanced 1st winter

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▼ ්රී eclipse (October)

### ▼ Adult & eclipse, in captivity (August)

The body is almost completely blackish-brown, but the large white wing-patch (hidden here between the flank and scapulars) is retained in adult. The knob on the bill withers after the breeding season.



### ▼ Adult of (March)

Also unmistakable in flight. Some individuals, otherwise looking fully adult, have a few patches in the white covert-panel.



### ▼ Adult ♀ (March)

The slightly shorter and thicker neck can stand out in flight in a group of Common Eiders, in addition to the shorter bill and smaller size.

more white markings than

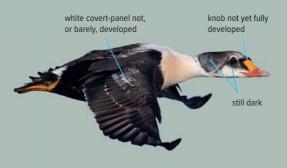
in Eider  $\mathfrak{P}$ , forming larger,

continuous pale area (cf Eider 9)

black, contrasting with paler head (cf Eider ♀)



### ▼ 2nd winter/3cy of (March)



lowest point of underside is often around vent (cf Eider ♀ in flight)

### ▼ Adult ♀ (April)

characteristic

V-shaped markings

Upperwing similar to that of Common Eider.



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L 46cm 18" | extreme N Europe

### ▼ Adult & (March)

Unmistakable due to the orange-brown underparts with black patch on the side of the breast, the white head with a green tuft on the rear crown and the black neck-band and chin.



### ▼ Adult of eclipse, in captivity (July)

Very different from full breeding plumage, but still unique. The adult-type tertials are almost the same in eclipse as in full breeding plumage (compared with the scapulars). The large, white covert-panel is retained and readily separates individuals in this plumage from ♀♀.



### ▼ 1st summer/ 2cy of (May)

The advancing moult makes this individual straightforward to identify as a  $\delta$ .



readily identifiable as ♂ based on whitish feathering on breast and black chin

### ▼ Adult ♀ (March)

At distance almost uniformly dark brown.



### ▼ 1st winter ♂ (April)

Superficially similar to adult ♀, but see the highlighted features. The moult from juvenile to 1st winter is slow with much individual variation. A proportion of 1st winter 33 have a paler breast in April, as well as some white in new scapulars and more white on the side of the head.

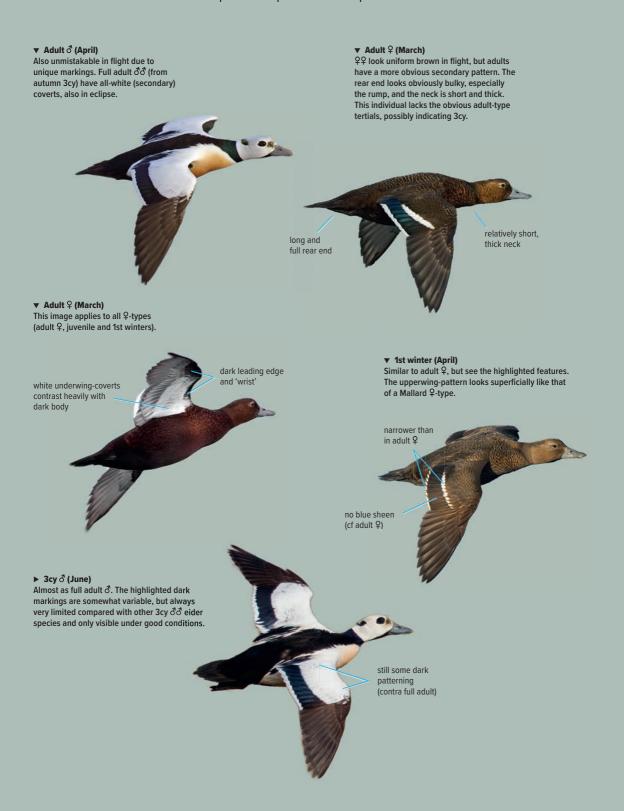
> pale marking and slightly developed tuft on rear crown first indications for  $\delta$



### ▼ 3cy of (June)



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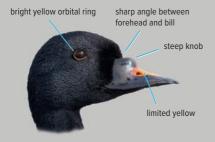


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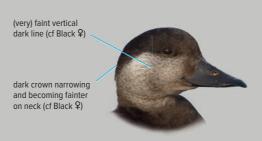
### **SCOTER HEADS**

Scoter heads and bills differ from each other in both pattern and structure where individuals of the same sex are compared (except  $\mathfrak{PP}$  Common and Black), making these the most important ID features. Species other than Common and Velvet Scoter are vagrants in Europe, although some occur fairly regularly. A frequent problem with observing scoters (swimming on the sea) is often the viewing conditions, which means that seeing details can be very difficult. Adult-type heads are shown. See species accounts for immature individuals.

### ▼ Common Scoter of (May)



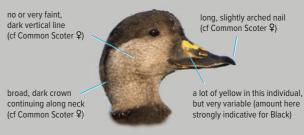
### ▼ Common Scoter ♀ (February)



### ▼ Black Scoter & (November)



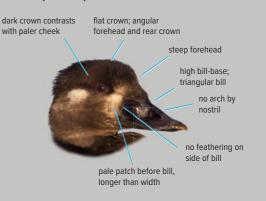
### ▼ Black Scoter ♀ (November)



### ▼ Surf Scoter, adult ♂ (December)

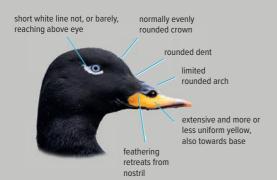


### ▼ Surf Scoter ♀ (December)

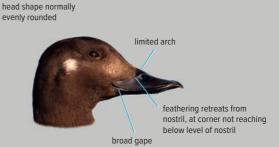


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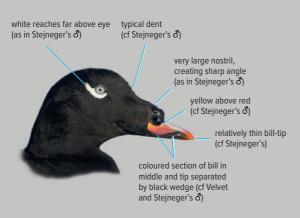
### ▼ Velvet Scoter, adult & (January)



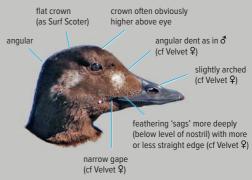
### ▼ Velvet Scoter, adult ♀ (Mav)



### **▼** White-winged Scoter ♂ (November)



### **▼** White-winged Scoter ♀ (October)



### ▼ Stejneger's Scoter, adult & (April)



### ▼ Stejneger's Scoter, adult ♀ (April)



L 49cm 19" | summer N Europe; winter NW and SW Europe

#### ▼ Adult ♂ (June)

All-black plumage. The amount of yellow (sometimes orange) on the culmen is variable; in individuals with relatively large amounts of yellow, it reaches above the knob as far as the forehead and partly over the sides. In rare cases where a 1st winter  $\eth$  has a lot of yellow, such an individual could be confused with Black Scoter as the knob on bill is also less developed in younger individuals.



variable amount of yellow (here less than average; yellow often continuing to knob)

### ▼ Adult ♀ (January)

The combination of brown plumage and typical head-pattern usually make the ID straightforward. The uniform plumage (including lack of old tertials) and the relatively extensive brown wash on the pale cheek are good indicators for an adult  $\varphi$ . For the subtle differences with Black Scoter  $\varphi$ , see there.



### ▼ 2cy of (February)



### ▼ 2cy ♀ (February)

1st year  $\P$  look like adult  $\P$ , but still have (some) juvenile belly feathers which become more faded during the winter. A 1st year  $\P$  often also has a more contrasting greyish cheek than an adult  $\P$ . The juvenile belly feathers are retained for longer in all duck species, but in many species the belly is pale in all plumages and does not stand out.



### ▼ Adult ♂ (May)

Ageing based on the all-dark belly.



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L 49cm 19" | vagrant from N America



All plumages as in Common Scoter with regard to both sex and age, see there.

yellow of bill borders entire extent of nasal feathering (never in Common Scoter る)



(orange-)yellow knob, much larger and less steep than in Common Scoter &

> nostril situated approx halfway (cf Common Scoter 3)

long nail often slightly arched, making culmen slightly concave, and reaching beyond tip of lower mandible (cf Common Scoter)

narrow black line under yellow knob (not in Common Scoter 3)

### ▼ Adult ♀ (November)

The differences from Common Scoter 2 are subtle and partly overlapping. This individual shows all known features.

### ▼ 1st winter ♂ (autumn/winter)

The bill-pattern is already diagnostic and develops earlier in the year than the typical bulge and the  $\delta$ plumage (here still a mainly \$\infty\$-type head-pattern). The yellow is duller earlier in the autumn, often greenish. Some Common Scoter 33 appear to have more yellow on the knob, sometimes due to light reflection, but the differences are obvious when seen well.



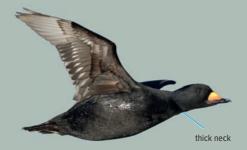
a lot of yellow in this individual, but very variable (amount here strongly indicative)

long, arched nail



▼ Adult & (February)

The thick neck is especially obvious in flight (compare Common Scoter in flight).



### ▼ ♀ (February)

The same features of head and bill in the swimming individual also apply to this individual. Coupled with the thick neck this gives a strongly indicative combination.



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L 54cm 21" | summer N Europe; winter W and C Europe



### ▼ Adult ♀ (Mav)

The dark brown plumage with pale patch on the ear-coverts and lores is characteristic for all Q-type 'white-winged' scoters. The white secondaries are often only visible when an individual is active (e.g. diving/flying).

yellow concentrated on bill-sides and nail; bill-base and around nostril black (cf Common Scoter adult  $\delta$  where the yellow/black pattern is almost opposite)

faint loral spot indicative for adult (cf 2cy 2)



### ▼ 1st winter ♂ (February)



Adult of (May)

# bright red only in adult ♂ (in ♀ and imm brownish to dull red)

white secondaries and greater covert tips characteristic for all adult-type 'white-winged' scoters

### ▼ 2cy o (May)

Straightforward to identify as immature due to the pale belly, the mix of a brown juvenile wing, black adult-type body-feathers and still pale lores, but the bill-pattern is already well-developed. The iris is becoming paler and the white 'hook' under the eye is starting to develop. In individuals more advanced than this the 'hook' is always smaller than in adult  $\delta$ .



### ▼ 2cy ? (May)



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L 53cm 21" | vagrant from N America

### ▼ Adult ♂ (November)

For the diagnostic differences in head shape and bill-pattern, see SCOTER HEADS (p. 54).



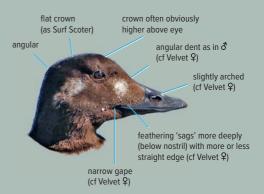
typically brownish (sometimes becoming obviously paler in spring/summer)

### ▼ 1st winter ♂ (December)

Typically still mostly ♀-type plumage long into the winter, but the first of features are starting to show. Separation from Velvet Scoter is still difficult, but note the 'sagging' nasal feathering creating a narrower gape, as shown in the adult 9.

### ▼ Adult ♀ (October)

Apart from the highlighted features in structure and nasal feathering, identical to Velvet Scoter ♀. See also SCOTER HEADS (p. 54) for direct comparisons with the other species.





♂ pattern starting to show through

### ▼ Adult of (June)

The large white tips to all greater coverts apply for all 'white-winged' scoters with adult-type greater coverts (from the autumn of 2cy).

### ▼ 1st winter ♀ (October)

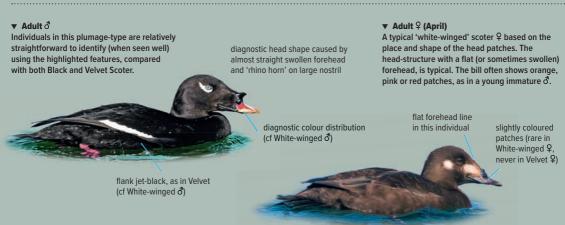
The diffuse and limited pale tips to, at most, some of the greater coverts apply for all 'white-winged' scoters with juvenile greater coverts (until autumn of 2cy). The head shape in this image is very similar to Stejneger's. Prolonged observation in the field will usually allow the differences to be seen.





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L 53cm 21" | vagrant from E Asia



### ▼ 2cy ♂ (second half of winter to summer of 2cy)

A typical individual in transitional plumage. The red on the bill is already different to any Velvet Scoter, but the ID from White-winged Scoter in 1cy is still difficult if the bill-pattern has not yet developed. The ID needs to be based on the head shape: see White-winged Scoter 1st winter  $\delta$  in December.



almost straight line from forehead to bill (cf White-winged)

pattern and colour developing; already diagnostic yellow under red

### ▼ 2cy of (July)

This individual is more advanced than the individual next to it, but the bill around the nostril is still flat. The bill-pattern (the colour distribution of yellow under red) is already diagnostic.



### Surf Scoter Melanitta perspicillata

L 51cm 20" | vagrant from N America



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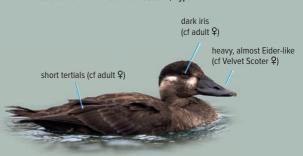
### ▼ 2cy of (April)

The bill-shape and colour are still developing (compare with the adult  $\delta$ ). Also the iris is still greyish instead of white in an adult. Individuals of this age (both sexes) have a paler belly (not visible here).



### ▼ Juvenile (October)

As an adult  $\mathcal{Q}$ , but note the highlighted features. The general colour is often slightly paler brown. The cheek is paler than in Velvet Scoter  $\mathcal{Q}$ -types (contrasting slightly with the dark crown), but darker than in Common Scoter  $\mathcal{Q}$ -type.



### ▶ 3cy of (February)

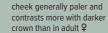
The white forehead-patch and the bill-colour and structure are not yet fully developed. Some individuals still lack the forehead-patch completely until 3cy spring.



### ▼ 2cy \( \text{(April)}

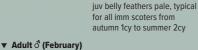
As an adult  $\mathfrak{P}$ , but with worn plumage and without white markings on the neck. The difference between the juvenile wing and the moulted flank and scapulars is more difficult to see than in 2cy  $\mathfrak{F}$ . The paler bill-base occurs regularly in 2cy  $\mathfrak{P}$ .

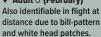




### ▼ Adult ♀ (March)

Compare the head-pattern and shape with 9-type Common and Velvet Scoters, which both show similarities, but Velvet Scoter can be ruled out even at distance due to the lack of white secondaries.



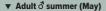






# © Copyright, Princeton University Press. No part of this book may be distributed, posted, or reproduced in any form by digital or mechanical **Long-tailed Dugle**ars with the publisher.

L 44cm 17.5" (excl central tail-feathers adult 3) | summer N Europe; winter NW Europe



Unmistakable. Has very long central tail-feathers from 3cy (also in winter plumage). This species has an actual summer and winter plumage, as opposed to most other duck species who acquire a breeding plumage in the autumn/early winter after eclipse.

### ▼ ♀ summer (July)

\$\foatstyre{1}\$ typically show a strong contrast between dark upperparts and whitish underparts, dark breast-band and variable pale areas on the head. The reddish-brown tertial and scapular fringes, as well as the still black primaries, are indicative for an adult.





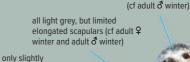
dark markings

## ▼ 1st winter ♂ (March)

elongated

### ▼ Adult ♂ winter (March)

Unmistakable. The lack of brown in the plumage, the very long central tail-feathers and the clean, white crown indicate an adult  $\eth$  (compare 1st winter  $\eth$ ).



typical for of in all plumages (except young juv and adult in late summer)



### brownish (cf adult & winter)

### ▼ Adult of winter (March)

Unmistakable. The extremely elongated tail-feathers can be shorter or absent.

### ▼ ♀ winter (March)

More compact than adult  $\delta$  in flight, but the uniformly dark wings and pied plumage are typical. An individual at distance could be confused with an auk species, e.g. with Atlantic Puffin.





white sides to rump and black centre in all plumages

black extends to belly

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### VARIATION IN 99

♀♀ in the winter are extremely variable in scapular colour and the amount of dark on the crown, breast and cheek/neck. This is caused by a slow and complex moult, variable individual moult timing, age and individual variation.

### ▼ Adult <sup>Q</sup> winter (December)

This is an image of a classic adult  $\mathcal{P}$  at the start of the winter. The upperpart feathers have reddish edges and the tertials are relatively long, contra 1st winter 9. The scapulars can have more faded edges.



### ▼ Adult ♀ still mainly in winter (April)

The moult to summer plumage has started; see the scapulars with new summer-type feathers.



still fresh coverts in the spring indicate adult (cf 2cy)

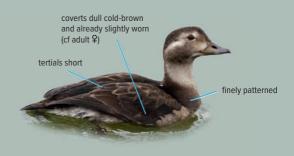
### ▼ ♀, probable 2cy (June)

An adult ♀ in summer plumage is usually less worn and has more reddish-brown edges to the upperpart feathers, especially the scapulars. The head lacks contrast in this individual, but the head-pattern of 9 is extremely variable throughout the year.



### ▼ 1st winter ♀ (October)

This individual is probably still mainly in juvenile plumage. In addition to the wing and breast the whole head and neck are probably still fully juvenile, easiest to see due to the finely patterned breast. The longer scapulars are post-juvenile.



### ▼ 1st winter ♀ (March)

A typical individual based on the combination of uniformly dark bill (contra ♂), grey-brown (not reddish) feather edges on the upperparts and new, grey scapulars with a dark centre.



### ▼ 1st winter ♀ (March)

Ageing of 9 can be problematic. The combination of short tertials without warm brown edge, diffuse dark scapular centres and the slightly worn greater coverts in this individual are strongly indicative for a 2cy. Many 1st winter 29 in their 2cy, though, have greyish scapulars, forming a pale panel on the upperparts (see above), highlighting the variation. This individual only has a faint dark patch on the cheek/neck, which fits the normal variation.



L 44cm 17.5" | summer N Europe; winter NW, W and C Europe

### ▼ Adult of (December)

Unmistakable in this plumage. No other duck shows this combination of highlighted features.



### ▼ Adult ♀ (January)

The combination of grey body and brown head is typical for all \$\pm\$-type plumages. In Europe only confusable with the very rare (outside Iceland) Barrow's Goldeneye (see there for the differences).

> brown head with high crown, very pale eye stands out; uniform yellow-white iris typical for adult (cf 1st year)

> > white lesser coverts (contra

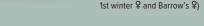


triangular with orangeyellow tip, neatly bordered in adult

pale neck-band in all Q-type plumages

### ▼ 1st winter ♂ (February)

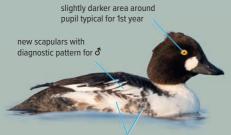
Advanced individuals, as here, are usually straightforward to identify from the second half of the winter based on the already-developed, diagnostic head-pattern. At distance a similar individual could cause confusion with Barrow's Goldeneye  $\mathring{\mathcal{O}}$  due to dark juvenile feathers on the foreflank; likewise some individuals in this plumage show a longer white face-patch. The pattern of the new scapulars is then important. Many 1st winter  $\mathring{\mathcal{O}}$  have a more \$-like plumage long into the spring (see the flying individual next page).



### ▼ 1st winter ♀ (December)

Similar to adult  $\hat{\Psi}$ , but note the highlighted features. An individual actively diving often flattens the crown feathers, losing the high-crowned appearance.

diffuse dark area



flank with mix of dark juv and white adult-type feathers





▼ Adult & (April)

large, continuous white area typical for adult  $\boldsymbol{\delta}$ 

64

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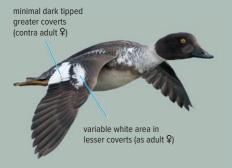
### ▼ 1st winter of (February)

Many 1st winter  $\delta\delta$  have a 9-type plumage. Typical for 1st years are the minimal dark tips to the greater coverts (often appear to be lacking), creating a continuous white area across the secondaries and greater coverts. Only 1st year ∂∂ have some white lesser coverts, creating a variable white area on the front of the wing (usually smaller than in adult  $\mathfrak{P}$ ).

### ► Adult ♀ (April)

Adult ♀♀ show 3 white areas on the upperwing, separated by 2 black lines (large black tips to the greater and median coverts). The underwing is all dark in all plumages.





# Barrow's Goldeneye Bucephala islandica

Common Goldeneye

adult ♂)

L 47cm 18.5" | Iceland

### ▼ Adult of (May)

Straightforward to identify when seen well. Away from Iceland be aware of Common Goldeneye 1st winter  $\delta$ , because some individuals at distance can be surprisingly (but superficially) similar due to a long and narrow white face-patch, dark breast-side with white flank and shorter white patches on the scapulars.

### ▼ Adult ♀ (June)

(nearly) uniform white area (cf adult  $\mathcal{P}$  and 1st winter  $\mathcal{E}$ )

> Many individuals from the Icelandic population have little orange/yellow on the bill, as in this individual. This colour mainly disappears in the summer. Very similar to Common Goldeneye 2, but note in addition to the highlighted features the disproportionate 'large head-small bill', which applies to all plumages. The upperwing-pattern is specific and characteristic in all plumages, but often only visible in flight.



white patch pointed and reaches above bill (cf Common Goldeneve adult 3)

black reaches further down neck than in Common Goldeneye adult ♂

long feathers create 'bulbous' rear head

dent created by obvious

transition between short

crown feathers and long

feathers on rear of head

(cf Common Goldeneye ♀)

highest part of crown approx above eye and rounded (cf Common Goldeneye ♀)

> vertical (sometimes also in Common Goldeneye in certain postures)

relatively short, nail slightly drooping

large black tips indicate adult-type (cf imm ♀)

very little white (cf 1st winter ♀ and Common Goldeneye ♀)

long, dark head feathers cover upper part of neck (cf Common Goldeneye ♀)

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### ▼ Adult of eclipse (October)

A  $\mbox{$\mathbb P$}$ -type plumage (as in many adult  $\mbox{$\mathbb S$}$  ducks in eclipse), in part due to lack of the diagnostic full breeding plumage scapulars. In this plumage can also look like Common Goldeneye adult  $\mbox{$\mathbb S$}$  in eclipse and both adult  $\mbox{$\mathbb S$}$  and 1st winter  $\mbox{$\mathbb S$}$  Common Goldeneye. The latter 2 plumage-types of Common Goldeneye also have a similar pattern of white in the wing, see there. A 1st winter in October (both species) still lacks a bright yellow iris with strongly demarcated pupil and a  $\mbox{$\mathbb S$}$  (both species) lacks white in front of the bill.

long head feathers (cf Common Goldeneye)

relatively large amount of white in lesser coverts typical for adult of but not connecting with white in greater coverts and secondaries (cf Common Goldeneye of eclipse)

black patch on breast-side

### ▼ Adult ♀ (November)

Typical bill-pattern with more yellow below nostril than above. In Common Goldeneye ♀ the yellow usually runs above the nostril towards the bill-base rather than below it.



nail broad in profile, broader than in Common Goldeneye

orange bill-patch diagnostically running below nostril (cf Common Goldeneye Q)

### ▼ ♀ (N America, May)



in individuals from N American population much orange-yellow (sometimes whole bill); in Icelandic population more orange-yellow than in Common Goldeneye with diagnostically more colour below nostril than above



black flank line already slightly developed

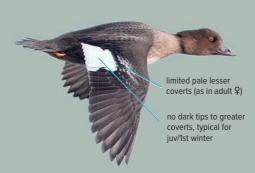
# 5–6 white secondaries (in Common Goldeneye 6–7) typical limited white for adult-type of goldeneye with isolated white covert-panel (cf Common Goldeneye of)

# daries (in eye 6–7) hite for deneye with overt-panel deneye ♂)

### ▼ Juvenile/1st winter (September)

▼ 1st winter of (February)

The highlighted features in combination are characteristic for this plumage-type. The still-dull yellow iris is also typical for a 1st year. Unlike Common Goldeneye, 1st winters are not easy to sex based on the upperwing-pattern. The already fairly obvious white markings on the lesser coverts, all-black bill and already slightly paler iris are indicative for a  $\eth$  (\$\$\Phi\$ often already have a faint yellow-brown bill-band). Later in winter the scapulars have roundish white patches in  $\eth \eth$  and the white facial crescent starts to develop.



### **▼** Adult ♀ (June)

The ID in flight is relatively straightforward based on obvious differences in upperwing-pattern compared with Common Goldeneye when comparing similar plumage-types. The plumage-types which look the most similar are Barrow's Goldeneye adult  $\boldsymbol{\mathcal{Q}}$  and Common Goldeneye 1st winter  $\boldsymbol{\mathcal{O}}$ , but the latter does not show (or barely) dark tips to the greater coverts.

very limited white in smaller covert tracts (cf Common Goldeneye adult  $\mathfrak{P}$ )

L 36cm 14" | vagrant from N America; also escapes from waterfowl collections

### ▼ Adult of (February)

Unmistakable due to unique head-pattern. In the right light a rainbow of colours can be seen in the black areas of the head.

### ▼ 1st winter ♂ (December)

This plumage-type looks like both adult  $\mathcal Q$  and adult  $\mathcal S$  in eclipse, but note the highlighted features. In December an adult  $\delta$  will have been in full breeding plumage for some time.





narrow shoulder-stripe

coming through

### ► Adult ♂ (January) Unmistakable, but see Common Goldeneve ♂

▶ ♀ (March)

(cf both goldeneyes)



of wing

### ▼ Probable adult ♀ (November)

1st winters of both sexes look like this plumage-type, but a 1st winter ♀ lacks white in the greater coverts. A 1st winter ♂ usually has light grey uppertail-coverts and already has a longer white patch on the ear-coverts, but some individuals are very similar.

> dark head with white patch on ear-coverts typical for all ♀ plumages, adult of eclipse and 1st winter of



### ▼ Adult & eclipse, in captivity (June)

In addition to the highlighted features the white covert-panel is sometimes visible, and is diagnostic for an adult  $\delta$ . This individual is in complete wing moult, where the primaries, among other feathers, have been dropped.



### ▼ 1st winter ♀ (March)

Here it is similar to an adult ♀ except for the absence of white in the greater coverts. The lifted head is typical in flight.



L 41cm 16" | summer N Europe; winter NW, W and C Europe

### ▼ Adult of (February)

Unmistakable. One of many uniquely patterned ducks in adult ♂ full breeding plumage.

### ▼ of eclipse (July)

This individual is in a relatively early stage of eclipse. Gradually a mainly \$\text{\$\text{\$\text{\$}}\$-type plumage develops, but some white feathers are normally retained in the crown and on the upperparts, while the dark areas of the head become blackish instead of red-brown in 99.



### ▼ 2cy & (January)

In contrast to most other duck species many 1st year 33 retain a २-type plumage for longer. 1st year ैं ook like २२ often long into the spring when other features, highlighted here, are not visible.

> first white feathers appearing on head, breast-side and scapulars



panel indicating 1st years of both sexes

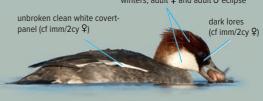
broad white wingbars characteristic for 1st years of both sexes



### ▼ Adult ♀ (February)

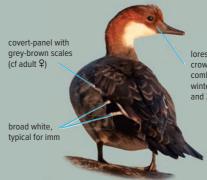
All Q-types look similar due to same basic pattern. The combination of the uniform white covert-panel and the blackish lores is typical for an adult ♀.

> typical red-brown crown and neck and white throat/cheek of 1st winters, adult  $\mathfrak{P}$  and adult  $\mathfrak{F}$  eclipse



### ▼ 2cy ? (May)

The highlighted features also apply to 1st winters and are retained in 1st year \$\text{9}\$ until the summer of 2cy.



lores not darker than crown, denoting age in combination with sex in late winter/spring (in adult ♀ and 2cy ♂ lores blackish)

blackish loral area

(cf 1st year ♀)

characteristic wing-pattern for adult: uniform white covert-panel and narrow wingbar across greater coverts (cf 1st year)

white axillaries and underwing-coverts with dark central line, diagnostic at distance in all plumages



The wing-pattern is similar to that of an adult of and is a useful difference from 1st year 9/3. The white throat and dark secondaries are a useful difference at distance from Common Goldeneye, but note also the underwing-pattern.

### ▲ Adult-type ♂ (November)

The underwing-pattern is diagnostic compared with other fast-flying 'small, black and white ducks', such as Common Goldeneye and especially useful at long range when other features are difficult to ascertain due to fast wingbeats. 33 retain remnants of eclipse long into the autumn.

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L 46cm 18" | vagrant from N America; frequently escapes from waterfowl collections



#### ▼ Adult <sup>2</sup> (November)

In \$2 the crown is also very flexible giving a characteristic head shape in all postures.



### ▼ Adult ♂ eclipse, in captivity (June)

An individual in complete wing moult; all secondaries and primaries have been dropped, as have the tertials. Characteristic for a  $\delta$  are the pale iris and the (mainly) dark bill. Some new feathers with  $\delta$ features are appearing (vermiculated grey feathers on foreflank and the white line on the breast-side).

### ▼ 1st winter ♂ (February)

relatively short and worn tip

Many 1st winter  $\delta\delta$  already show  $\delta$  plumage features in the flank and head among other features. 1st winter 9 are virtually identical, but have a dark iris and a yellow lower mandible.

broad with squared-off tip



becoming paler typical for 1st winter ♂ narrow, dirty white shaft indicating juv tertials, also

all-dark bill and iris already

### ► Juvenile/1st winter (September)

▼ Adult ♂ (December)

crown not yet developed in this individual juv tertials with just diffuse pale shaft (cf adult-type)

### ▼ Adult ♀ (November)

The wing-pattern of 1st year 9/3 is similar to this pattern, but the white tips to the greater coverts are smaller, and especially in ♀♀, split into 2 small white patches per feather.





Unmistakable. The wing-pattern in eclipse is an important difference from 1st year  $\delta \delta$  and all  $\varphi$  plumages, which barely (adult  $\mathfrak{P}$ ) or never (1st year  $\mathfrak{P}/\mathfrak{F}$ ) have a pale panel

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L 55cm 21.5" | summer N Europe; winter NW, W and S Europe

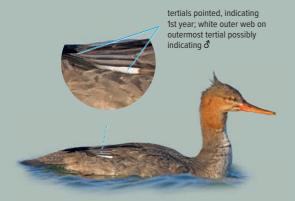
### ▼ Adult of (March)

Straightforward to separate from Goosander adult of based on shaggy crest, brown breast and grey flank. The billshape applies to all plumages.



### ▼ 1st winter (December)

In this plumage very similar to an adult  $\mathcal{P}$  due to a similar tertial-pattern, but adult-type tertials are rounder tipped. The short crest and orange-brown iris are typical for a 1st winter in addition to the pointed tertials.



### ▼ Adult of (May)

Straightforward to identify based on the brown breast and the largely white inner-wing separated by black wingbars into 3 white sections (compare Goosander adult 3).



### ▼ Adult <sup>Q</sup> (November)

All  $\mathcal{P}$ -types (adult  $\mathcal{P}$ , 1st year  $\mathcal{O}/\mathcal{P}$  and adult  $\mathcal{O}$  eclipse) have the same basic pattern and therefore look very similar to each other. See the highlighted features for subtle differences between an adult  $\mathcal Q$  in the autumn/winter compared with 1st year (note that the white outermost tertial of this adult  $\hat{\mathbf{Q}}$  is hidden here).



very diffuse colour transition (cf Goosander ♀)

### ► Adult ♀ (March)

Some ♀♀ develop darker areas around the eye, the bill and sometimes on the throat from the second half of the winter. Later in the spring these disappear again.



### ▼ 2cy of (March)

Still similar to adult ♀, but the typical ♂ features are starting to show. The mainly white tertials are freshly moulted. The iris is already pure red (brown in 2cy  $\mathcal{P}$  and orange-red in adult  $\mathcal{P}$ ).



new, vermiculated grey feathers coming through



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