

Green-winged Teal *Anas carolinensis* and Baikal Teal *Anas formosa*

Introduction

The Green-winged and Baikal Teal are an intriguing brace of dabbling ducks. While the female Green-winged Teal teeters at the edge of the realm 'unidentifiable', the Baikal Teal teeters on the brink of 'unacceptable'. Being a natural optimist I want to haul both of them back from the edge. Some female Green-winged Teals can be identified as well as eclipse drakes. A number of Baikal Teal in the Western Palearctic have been genuine vagrants and what a 'beautifully formed' (Latin: *formosa*) vagrant duck the males are!

For those how want to take a longer look at wildfowl in the hunt for these things, a female *anas* sp. at Seaforth, Merseyside in May 2006 provided a salutary lesson that there is much to be discovered. Quickly heralded as a female Baikal Teal, it soon became evident that while the face pattern seemed exceptional, the overall structure and plumage were closer to Teal (indeed Green-winged Teal). While the identification of this particular bird may never be unequivocal, it provided the necessary perspective that female Teals, though rarely studied, may contain much-sought vagrants and that knowing speculum patterns is a key to correct identification.

Range

Green-winged Teal breeds throughout North America (apart from the High Arctic) south to northern California and northern New England. The species winters as far south as Central America and the West Indies. It is a frequent visitor to Western Europe averaging c 25 records in Britain and Ireland annually.

Baikal Teal breeds in the forest zone of north to northeast Siberia from the Yenisey basin to Kamchatka. The species migrates to winter in Japan, Korea and northern and eastern China. Only recently Ogilvie and Young (1998) estimated the total world population at 75,000 following rapid decline chiefly due to massive over-hunting. However more recently it has made an apparent phenomenal recovery with huge monospecific flocks numbering up to 400,00 birds found wintering in Korea. The BBC has filmed these huge flocks as one of the great wildlife spectacles.

Vagrants have also been found on the pacific coast of North America from Alaska to California.

Vagrancy Potential

Green-winged Teal in female-type plumages probably represents the vagrant that is most easily overlooked in the UK. With around 25 records annually of drakes, the presence of unidentified and overlooked Green-winged Teals in female, eclipse and immature male plumages has to be assumed. In a comparable species, the Blue-winged Teal, it is the drab females and immature plumages that outnumber records of stunning adult males in breeding plumage in the U.K.

There has been the occasional whiff of possible female Green-winged Teal whenever a female clearly accompanies drake Green-winged Teal. For example, a female accompanied a drake Green-winged Teal one on Flamborough Head late April 2005. Unfortunately both birds only stayed a few minutes before being flushed, the female being hardly looked at (no other Teal in the area).

Baikal Teal has surely now established itself as an occasional vagrant to the Western Palearctic. In recent years an apparent 1st winter male Baikal Teal at Minsmere, Suffolk found on 18th November 2001 seemed an obvious candidate for vagrancy. A 1st winter female which was shot in Denmark on 24th November 2004 finally settled the arguments when it was found to have an isotope signature for which the simplest explanation is that the bird originated in Siberia (Fox et. al. 2007). However true vagrancy can be established as early as 1836 when 5 birds were obtained in Saone Valley, France pre-dating any known introductions into Europe (Cramp et. al 1977). Perhaps it should come as no surprise that these were also found in the month of November! The evidence clearly indicates that Baikal Teal can and do arrive occasionally in Western Europe and have been for a long time.

While most males are straightforward enough to identify, the potential for females and juvenile males to go un-noticed seems self-evident.

Identification

A word about speculums

The following text will focus on various aspects of separating these birds in the less distinct juvenile and female plumages. Many of the plumage, bare part and structural differences are subtle and must be covered in some detail. However an easier aspect of the plumage well worth focusing on is that of the colourful speculums. In many cases with practice the differently patterned speculums provide one of the easiest ways of identifying otherwise rather difficult looking individuals.

Structure

Baikal Teal is not dissimilar in head and bill size to Eurasian and Green-winged Teal, the bill of Baikal Teal averaging just over 1 mm longer* and slightly thinner. The head is somewhat squarer and more peaked at the rear crown (“fuller-naped and thicker-necked” Eldridge and Harrop 1992). However the most obvious structural difference is in body length, particularly at the rear end, such that Baikal Teal

normally look obviously longer-bodied, longer-winged ** and especially longer-tailed than Eurasian/ Green-winged Teal.).

* bill of female Green-winged Teal 34.2 – 36.1 mm; female Baikal Teal 36 – 38 mm (Palmer 1976)

** wing chord of female Green-winged Teal 185-189 mm; Baikal Teal 201 - 214 mm (Palmer 1976)

Scapular Feathers

The scapular feathers on any individual dabbling duck vary in shape and size to some extent but certain overall differences are apparent when looked for. Juvenile and female Baikal Teals as a broad brush stroke have feathers that are typical plain centre and pointed, whereas Green-winged and Eurasian Teal and scapular feathers that are typically rounded and obviously marked with pale buffy bars internally. Juveniles are a bit more complicated with some overlap in shape and pattern. In juvenile Baikal Teal many scapular feathers are short and rounded and as they moult into 1st winter plumage, more pointed feathers appear. On adult females the scapulars average longer and are more obvious. Some individuals even have very long, lanceolate scapulars (as on adult males). Furthermore the scapulars are normally plain centred on Baikal Teal, or with simple pattern of a single buff internal cross bar, which is usually not as obvious as on most adult female Eurasian/Green-winged Teal. Eurasian and Green-winged Teals are almost reversed in development of the feather shape in that in juvenile plumage the feather is rather plain rather short and slightly pointed on some (thus closer to some juvenile and female Baikal Teal) but in subsequent plumages the scapulars are slightly longer (though shorter-looking than in Baikal Teal), rather round-ended feathers with obvious internal orangey-buff wavy crossbars and crescents.

Rump and Back Pattern

In female Baikal Teal apart from a row of upper tail coverts, which have dark centres and a paler buff fringing producing a dark 'band' between rump and tail the back and rump pattern consist of relatively plain pale brownish-grey feathers (with faint paler fringing in young birds). In female Eurasian/ Green-winged Teal the appearance of the back and rump is quite different and essentially consists blackish feathers (sometimes with paler internal marks) with obvious pale greyish fringe, producing a very scaly or scalloped effect.

Speculums

There is a great deal of useful information in the shape and patterns of speculums, which can greatly aid identification. In Green-winged and Eurasian Teals, there are important age and sex related differences in the speculum patterns.

1) Width of speculum

This is a crucial point.

There is variation in the arrangement /structure of the upperwing feathers within the genus *Anas* and different species this affects the width of the speculum. The most obvious example of this is between Eurasian Teal and Garganey. In Garganey the white-tipped greater coverts are much closer to the trailing edge of the wing than in Eurasian Teal so the speculum on a Garganey is obviously narrower than on a Eurasian Teal.

The same is true on female Baikal Teal. The greater coverts are closer to the trailing edge so the speculum on female Baikal Teal is considerably narrower than on a Eurasian and Green-winged Teal. This can be admittedly difficult to assess on flying birds. However when at rest (in profile) it is relatively easy to assess the speculum width relative to the rest of the wing.

2) Upper border to speculum

The pale tips of the greater covert feathers forms a bar, which creates the pale upper border of the speculum. On female Baikal Teal this pale bar is a solid deep cinnamon-orange/brown colour. The bar is normally obviously *thin and of even colour and width all along its length*. In Eurasian Teals the greater covert bar is obviously different compared to Baikal Teals. It varies according to age and sex, but is typically quite extensively white, broader and often more wedge shaped as it broadens from the inner to outer section of the greater coverts. It is thinnest and of most even width in young females and broadest and most wedge shaped in adult males. Green-winged Teals have average differences in this character from both Baikal Teals and Eurasian Teals when like for like (in terms of age and sex) are compared. In general the upper border of the speculum on *Green-winged Teal is thinner and of more even width along its length* than on Eurasian Teal. Average colour differences in the greater coverts bar have long been documented (Phillips 1923; Schioler 1925) with Green-winged in all plumages having more cinnamon orange present in the greater covert bar than Eurasian Teal (9 out of 10 birds identifiable according to Phillips 1923). However the thinner more even width of the greater covert bar of Green-winged Teal compared to Eurasian Teal has not previously been well documented. In reality it can be a significant difference in all ages including adult males. This would seem to be another useful character in the identification of vagrant 'Teals' in general. The

differences become very apparent when comparing flight shots of Eurasian and Green-winged Teal. In a flock of Eurasians many of the birds will show a rather broad wedge shaped upper border to the speculum. It appears mostly whitish and obviously broader than the white trailing edge.

However in a flock of Green-winged Teal the upper borders are thinner and produce a more parallel pattern with the similar width white trailing edge.

It is important to note that the overlap in the colour of greater covert bar between Green-winged and Eurasian Teal is such that some Green-winged Teals show a very similar amount of white as Eurasian Teals in similar plumage (per Noel Wamer) rendering it particularly difficult to identify female Eurasian Teal in N. American context

3) White trailing edge to speculum

All 3 species have a white trailing edge to the speculum. The *exact shape of white on each feather tip* affects the width and overall appearance of the white trailing edge. The amount of white also varies with the age and sex of the individual. In general in Baikal Teal, adult males have the broadest white trailing edge (more like prominent long rectangular block of white on rear wing in some, cutting well up into the speculum) while conversely in Eurasian and Green-winged Teals it is the immature females that have the broadest white and adult males have the least white.

In female Baikal Teal the upper edge of the white tip of each secondary feather is more squared off or even convex. The overall effect is of a more solid 'block' of white with straight-looking line along the upper edge. This long 'block' of white is usually very obviously wider than the cinnamon-brown greater covert bar, by as much as 2-3 times.

On Green-winged and Eurasian Teals the white tip of each feather is on average more concave-shaped (with much less white on inner web) creating more of a 'U' shape of white at the feather tip. The result is a slightly more wavy upper edge to the white.

Green-winged Teals have on average a slightly broader trailing edge than Eurasian Teal of same age/ sex (Scott 1999, pers.obs.). The combination of narrower richly coloured, greater covert bar and broader white trailing edge means that some female Green-winged Teals (particularly immatures) have a white trailing edge which is broader than the greater covert bar and so *superficially similar to the pattern on female Baikal Teal*. In reality the distinctive differences in speculum between Baikal Teal and Eurasian/ Green-winged Teal patterns are not too difficult to discriminate between once the patterns are properly understood.

4) Pattern of green and black in speculum

On female Baikal Teal the green and black pattern runs close to being parallel with the upper and lower borders of the speculum, broadening only gradually and slightly toward the inner section of the wing. The result is the inner secondaries still have an obvious broad portion of black sub terminally to the white feather tip. The green colour is often a slightly darker, bronzy –green (making it harder to see) and specifically it extends to being present on about 6 to 9/10 secondaries. Birds with only 6 green-marked secondaries are probably immatures and have very restricted green on the inner secondary feathers.

On Eurasian and Green-winged Teal the variation in the green and black pattern varies considerably. The brighter ‘teal green’ colour (sometimes looks metallic blue) typically forms a block of green on inner side of speculum that tapers out toward the mid speculum. The number of green marked feathers varies from 3 to 9/10 (contra BWP). Some aspects of variation can be quantified around age and sex: adult males have the most green and immature females have the least green. More specifically the inner feathers can have from none (adults) to quite a margin of black, sub terminally on the inner secondary feathers (most often immature females). There are apparently no obvious differences in the black and green patterns between Green-winged and Eurasian Teal.

Bare Parts

Female Baikal Teal has a dark grey bill, which is bluer-toned towards the base. Eurasian and Green-winged Teal have slate coloured bills usually with pinky/ orange/ yellow to varying degrees at the base and some with dark spotting here. It has been suggested that on average Green-winged Teal may have less colouring at the bill base than Eurasian (Millington 1998).

Leg colour of female Baikal Teal is described as bluish or yellowish-grey (Phillips 1923). On young birds the legs appear to vary with some being flesh coloured (pers. obs., Eldridge and Harrop 1992)

Leg colour in Eurasian Teal varies from olive-grey to grey-brown (BWP), grey-green to drab (Witherby et. al.) or greenish to brownish-grey (Phillips 1923), being on average typically greyish. Green-winged Teal has paler legs than Eurasian Teal and are described as darkish, lead-coloured to olive-greenish (Palmer 1976) and pale brown to grey-fawn (Witherby et. al.). In fact a search of photos on the Internet reveals that many Green-winged Teal have quite obviously pale legs ranging in colour tone from olive-green though flesh to even yellowish.

Underwing

Differences in underwing pattern between Baikal Teal and Green-winged/Eurasian Teal are slight. Differences are most obvious in fresh plumage (autumn) when the smaller underwing coverts are uniformly dark on Baikal Teal versus pale-fringed dark on Green-winged/ Eurasian Teal with all 3 species showing contrast with the rest of the paler underwing particularly a whitish mid-wing bar/panel (greater underwing coverts). However, with wearing of pale fringes through winter to spring the underwing of Green-winged/ Eurasian Teal the underwing pattern becomes progressively more similar to that of Baikal Teal.

Facial Pattern

On adult female Baikal Teal a *bright white* loreal spot, emphasised, by a dark surround and bright white chin and throat, typifies the facial pattern. A white vertical spur (variable in its conspicuousness) extends up from the throat towards the eye. About 15 % of females (Palmer) also have a dark line running from the gape and forming a bridal (but it can be broken and inconspicuous (Eldridge and Harrop 1992)). The rest of the head pattern is relatively subdued and there is not normally such an obvious dark cheek stripe as on female Garganey and some Green-winged Teals. A thin line between bill base and eye and broader supercilium behind the eye tend to be quite deep cinnamon buff and add to the cryptic face pattern. The white loreal spot can be somewhat obscured in summer and the full distinctiveness of the face pattern reduced at distance with only the loreal spot being outstanding (Eldridge and Harrop 1992).

In the juvenile plumage of Baikal Teal, the facial pattern can be closer to some congeners with a more conspicuous Garganey-like cheek stripe on greyer face and absence of the white spur. However the white loreal spot is still usually conspicuous. Some juveniles can have a remarkably similar to the face pattern of some female Teals (particularly Green-wings).

Eurasian Teal usually have a much more subdued pattern lacking the bright whites of the loreal spot, throat and spur found in Baikal Teal and have a much simpler pattern of buff and grey-brown tones broken by weak dark eye-stripe and paler supercilium. There is some variation, with some birds showing slightly stronger face pattern such as weak cheek stripe, vague pale spur and pale loreal spot but not normally like that of adult female Baikal Teal.

Female Green-winged Teal vary somewhat more than Eurasian Teal. Some have very similar facial pattern to Eurasian Teal; many have a much stronger facial pattern including prominent pale loreal spot and strong Garganey-like cheek stripe as first indicated by Millington (1998) and occasionally a pale spur (Martin Reid pers coms). Indeed well marked birds are sometimes mistaken for Garganey by North American birders. In fact a prominent pale loreal spot has long been known as a feature of Green-winged Teal. Schioler (1925) who illustrated all the Eurasian/ Green-winged Teal plumages in great detail and painted a female Green-winged Teal with striking face pattern of a kind that would be unfamiliar to British observers. Palmer (1976), in the description section on female Green-winged Teal writes:

“... Quite often with unmarked circular white area at side base of bill (such as is typical of the female Baikal Teal).”

However when considered more carefully, the loreal spot and chin / throat region on Baikal Teal are generally brighter white and with the white spur are incongruent patterns compared with the rest of the head plumage with its rich, almost rusty buffs and browns. When present, obvious pale loreal spots on Green-winged and Eurasian Teals tend to be more buff toned matching the ground colour of the rest of the facial pattern.

Key Features of Green-winged Teal

Adult male Green-winged Teal - extra feature

Besides the well documented differences between Green-winged Teal and Eurasian Teal in adult male plumage such as:

- White vertical stripe at front of breast and lack of white horizontal stripe (scapular band) above flanks
- Reduced/absent cream borders (especially upper) of green facial blaze
- darker overall due to finer, more densely packed vermiculations on body
- deeper pink wash on breast

There is also one other feature, which could be used even in eclipse plumage, or with tricky moulting individuals:

- Narrower, parallel-sided upper border to speculum, which can be mostly orange-coloured (broader, mostly white and more wedge-shaped in Eurasian Teal)

Female/ immature Green-winged Teal and Eurasian Teal

Features common to both versus Baikal Teal

- Short-bodied, compact structure
- Typically rather short rounded scapulars with pale internal barring
- Back and rump with scaly appearance due to pale-fringed black feathering
- Speculum broad covering nearly half of inner wing, obvious at rest
- Bill base variation of pinkish/ orange/ yellow
- Small underwing coverts blackish with pale fringes when fresh (autumn), more uniform dark when worn (spring onwards)

Features separating female/immature Green-winged and Eurasian Teal

- Narrower (parallel –sided) and more extensively orange toned greater covert bar on Green-winged Teal
- Stronger face pattern, more often with pale loreal spot and more conspicuous dark cheek stripe on Green-winged Teal

Features of female/ immature Baikal Teal versus Green-winged Teal

- Longer bodied
- Typically rather long pointed scapulars which are mostly plain centred
- Back and rump mostly plain brownish-grey
- Speculum narrow covering less than 1/3 of inner wing, obviously thin at rest
- Bill base bluish-grey
- Small underwing coverts always wholly dark lacking obvious pale-fringing
- Particularly thin greater covert bar, wholly cinnamon orange
- White trailing edge often appears on solid block of white
- Facial pattern, with bright whitish loreal spot usually against background of strong rufous tone to plumage. Beware some Teals; especially Green-wings can appear confusingly similar especially when comparing fresher juvenile/1st winter plumages.

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