



Green-winged Teal. *Victoria, British Columbia; November 2008.* © Glenn Bartley.



Cinnamon Teal. *Rio Grande Valley, Texas; February 2008.* © Glenn Bartley.



Blue-winged Teal. *Rio Grande Valley, Texas; February 2008.* © Glenn Bartley.

Female ducks? No problem. Today's birders can recognize female **Blue-winged Teal** (note the trans-ocular line), **Green-winged Teal** (note the pale buffy streak above the undertail coverts), and **Cinnamon Teal** (with her blank stare). The female Cinnamon Teal can also be identified, probabilistically speaking, by the fact that she is with a drake. But what plumage is the drake in? Obviously, he is in his "bright plumage," but what should we call that plumage? This note takes a look at that question.

What, If Anything, Is "Eclipse" Plumage?

These male Cinnamon Teal (photo, below) appear to be molting into a relatively drab "eclipse" plumage, which they acquire in summer after nesting. Although the term eclipse is still used in many popular field guides, most professional publications avoid it. Eclipse is no longer considered useful because this "plumage" is not acquired by a separate molt (that is, from the usual prealternate and prebasic molts, as in other birds); neither does it represent a distinct

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third "supplemental" plumage that would require a special name. The term eclipse has traditionally been applied only to drakes, leaving unresolved the correct name for the corresponding plumage in hens.

Because male ducks have a bright plumage in winter/spring and a drab plumage in summer/fall, there has been confusion about whether the so-called eclipse plumage is actually the basic or the alternate plumage. Ducks lose their flight feathers simultaneously, becoming

Male **Cinnamon Teal**. What plumage are they in? See text for analysis.
Santa Clara County, California; 11 June 2008. © Joseph Morlan.



flightless while in the summer eclipse plumage. Since wing/tail molt is usually part of the complete prebasic molt, and because eclipse plumage is drab, similar to basic plumage in most other birds, it has seemed reasonable to conclude that the eclipse plumage is actually just basic plumage. Indeed, that was the conclusion reached originally by Humphrey and Parkes (1959). They saw the complete molt of flight feathers as the last stage of the molt under which eclipse (basic) plumage is acquired.

However, based on homologies (shared ancestral traits) with geese, Pyle (2005) showed that the drab eclipse plumage is actually equivalent to an alternate plumage, whereas the bright winter plumage is the basic plumage. In Pyle's scheme, the complete wing/tail molt, which occurs in late summer and renders ducks flightless, is part of the ensuing complete body molt, which brings the males into a bright plumage in fall and winter. Thus, the prebasic molt of flight feathers commences immediately following—and perhaps overlaps with the end of—the prealternate body molt.

Pyle further points out that the molt into eclipse plumage is often incomplete, thus not likely to be a prebasic molt, which, by definition, is nearly always complete. Pyle's argument contradicts the detailed plumage descriptions and molt names used by Palmer (1976) as well as those offered by Howell et al. (2003) for the Mallard and Surf Scoter. It also contradicts most of the widely used waterfowl accounts in Poole (2005); note, though, that these accounts are being slowly revised.

We are left with rampant confusion in terminology. If we said these Cinnamon Teal are acquiring alternate plumage, the reader would not know if we were using new terminology advocated by Pyle or the traditional terminology of Palmer and Poole. Is the bright cinnamon breeding color being lost or being acquired? The confused terminology fails to clarify what is going on.

Barry (2007) and Benesh (2007) have forcefully articulated the need for precision in molt and plumage terminology. I agree, but in the case of ducks I hesitantly recommend that we continue using the word eclipse for their drab summer plumage. Floyd (2007) provided a detailed discussion of the new nomenclature in his analysis of a Mallard but also used the term eclipse for clarity. I concur with this approach. At least for now, we need to avoid the inevitable confusion inherent in adopting either the traditional system or the new Pyle system without further explanation.

If we choose to abandon the term eclipse, we must specify which of the two alternative systems we are using. These Cinnamon Teal, we would have to say, are “acquiring alter-

nate plumage *sensu* Pyle” or “acquiring basic plumage *sensu* Humphrey and Parkes.”

It gets worse. This conflict in interpretation also leaves us with no unambiguous name for the bright winter plumage of ducks. Is it basic or alternate? What are the names of the associated molts? Again, it will depend on whose interpretation we are using: a well-established but probably wrong one, in which the bright plumage is considered to be alternate; or a new and probably correct one, in which the bright plumage is considered to be basic.

I have no answer to this conundrum. In this case, there is an inherent conflict between being accurate and being understood. Given such a situation, I come down on the side of being understood. For example, Howell et al. (2003), in their ground-breaking publication, retained the term “juvenile” as a synonym for “first basic” in a quest for clarity. Changing the name of a plumage to another name which has been traditionally used for a different plumage may lead to chaos. More recently, Howell (2009) suggested that we distinguish plumages and molts from their associated plumage *aspects* which we see in the field. I agree with this approach, which attempts to disentangle a bird's plumage from its appearance.

Therefore, with some reluctance, I recommend that the bright plumage of male ducks in winter be called the “bright plumage.” We could be more accurate and say basic plumage (*sensu* Pyle), but I fear that will leave many birders lost or confused, especially when many texts and even professional publications are still not current on the subject.

Change takes time.

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