The Trouble with Tertials

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Letters

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The trouble with tertials.—The term "tertials" is usually used to denote the most proximal secondaries, commonly three, that cover the bases of primaries on a folded wing and frequently differ from other secondaries in molt sequence (Jenni and Winkler 1994, Pyle 1997). Secondaries, including tertials, are typically attached to the ulna (Van Tyne and Berger 1959). Tertials are often depicted connecting to the ulna's olecranon process (e.g., Wray 1887, Kortright and Shortt 1943, Lucas and Stettenheim 1972) but have been shown to occasionally attach to the skin surrounding the olecranon (Berger and Lunk 1954).

The term "tertials" is also a synonym for "tertiaries" (Thomson 1964, Baumel et al. 1993). Tertiaries are analogous to secondaries but more proximal and attached to tissues superficial to the humerus (Baumel et al. 1993). Tertiaries are most often indicated as enlarged flight feathers in long-winged birds such as those in the Diomedeidae and Cathartidae (Van Tyne and Berger 1959) and are frequently referred to as "humerals" (e.g., Wray 1887, Tickell 2000). They also have been designated by their synonym, "tertials" (Fisher 1942). The term "tertials" can, therefore, be used contradictorily to represent exclusively ulnar feathers as well as feathers that are exclusively humeral.

Van Tyne and Berger (1959) and Baumel et al. (1993) noted that referring to proximal secondaries as "tertials" is technically inaccurate. Similarly, describing humerals as "tertiaries" incorrectly implies that they are in a continuous series with primaries and secondaries (Lucas and Stettenheim 1972). These discrepancies are among several that have long prompted some researchers to abandon "tertials" and "tertiaries" as ornithological terms (e.g., Wray 1887, Thomson 1964; for reviews, see Berger and Lunk 1954, Van Tyne and Berger 1959). However, using the term "tertials" to indicate innermost secondaries is solidly entrenched within the ornithological literature. Ornithologists investigating molt sequences so consistently designate the most proximal secondaries as "tertials" (e.g., Jenni and Winkler 1994, Pyle 1997) that it is justifiably accepted as accurate terminology within their field of study. Replacing "tertials" with a different term would, therefore, be disruptive and burdensome.

An uncomplicated solution would be to no longer define "tertials" and "tertiaries" as synonyms and to discontinue use of the term "tertiary" to represent a type of feather. Adopting the most common application of "tertials" as the correct term for the modified proximal secondaries that cover portions of the folded wing and frequently differ in molt sequence from other secondaries would create no problem for most ornithologists or birders. The little-used term "tertiaries" could then be discarded in favor of "humerals" for denoting feathers analogous to secondaries but positioned along the humerus (e.g., Tickell 2000). Differentiating these terms as proposed above would resolve a problem in avian terminology with little adjustment required by either professional or citizen ornithologists.

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