Use of age and plumage terminology in California Bird Records Committee reports

At the 2019 annual meeting of the California Bird Records Committee (CBRC) it was decided that we would adhere to Humphrey-Parkes (1959; H-P) molt and plumage terminology in annual reports. Prior to 2019 we were using the terminology that was agreed to for Rare Birds of California (CBRC 2007), which consisted primarily of cycleseasonal terms such as "first-fall," "second-winter," etc. At the time this decision was made, the H-P system had not or had only recently been modified by Howell et al (2003), and it was decided that H-P terminology was not established or understood well enough to be appropriately used by the CBRC. However, the modifications of Howell et al. (including use of preformative in lieu of "first prebasic" molt) have greatly improved the comprehensibility of the system, such that it is rapidly gaining usage, and, once learned, it is undoubtedly the clearest and most cohesive molt, plumage, and age terminology to use throughout the world.

The following plumage terms are proposed for use in CBRC reports and it is suggested that members also use these terms in comments on records for clarity there, and to gain familiarity of use. Molts into each of these plumages will be termed with the prefix "pre," e.g., preformative molt results in formative plumage, second prebasic molt results in second basic plumage, etc.

First cycle, second cycle, third cycle, definitive cycle. In general, H-P terminology is based on the concept of the cycle to describe molts, plumages, and age. The "first cycle" includes the juvenile, formative, and first alternate plumages of birds less than 1 year of age, the "second cycle" includes the second basic and second alternate plumages of birds 1–2 years of age, etc., while "definitive cycle" is used for birds in definitive basic and alternate plumages, by which time plumage maturation has generally ceased (see also "Adult" below). Cycles end and the next one begins when a prebasic molt commences, usually with the dropping of the innermost primary (p1). For example, the first cycle progresses to the second cycle when the second prebasic molt commences. The minimum age of birds in the definitive cycle varies from 2 years in most passerines to 3 years in loons, 3–5 years in gulls and some other large waterbirds, and 7–10 or more years in albatrosses and frigatebirds. In CBRC reports, the above, more general cycle terms will be used in cases where birds have been recorded through more than one inserted plumage, for birds in which inserted plumage state is unknown or not clear (including many large gulls from October to February), and when multiple birds in the same cycle but potentially in different plumages are discussed simultaneously.

Juvenile. A bird in juvenile plumage, within the first cycle, that has not yet initiated the preformative molt. Among CBRC records these will primarily be used for vagrant shorebirds in late summer and fall, plus a few other hawks, falcons, tubenoses, and waterbirds. We will use the term "juvenile" as both a noun and an adjective, dispensing with use of "juvenal" as a modifier (e.g., "juvenal plumage"), following Howell and Pyle (2015). Juvenile is now synonymous with "first basic" plumage as redefined by Howell et al. (2003).

Formative. A first-cycle bird that has completed or is well along in its preformative molt but has not begun the next (first prealternate or second prebasic) molt. Many CBRC

records (especially of waterfowl and passerines) involve birds in formative plumage in their first fall, winter, or (for species lacking first alternate plumages) spring. Formative replaces H-P's former use of "first-basic" plumage.

First alternate, second alternate, third alternate, definitive alternate. Used for birds in alternate plumage during each of these cycles. In CBRC reports alternate plumages will be referred to most frequently among passerines, shorebirds, gulls, and loons, among species that undergo a prealternate molt. Fourth and later alternate plumages may also be specifed in occasional cases for gulls.

Second basic, third basic, fourth basic, definitive basic. Used for birds in basic plumage during each of these cycles. In CBRC reports, reference to the second basic plumage will be made primarily for waterbirds and some hawks in which the second basic plumage is not yet the definitive plumage. Reference to third and fourth basic plumages will be most frequent for gulls. Fifth and later basic plumages may rarely be mentioned for slow-maturing waterbirds such as albatrosses, frigatebirds, and the Masked and Nazca boobies. In species remaining in a predefinitive plumage for several or more years, phrases like "third or fourth basic plumage" for gulls and boobies or "fifth to seventh basic plumage" for frigatebirds and albatrosses may need to be used, due to plumage characters beginning to overlap between cycles.

Adult. An acceptable, alternative term frequently used in CBRC reports for a bird in a definitive plumage. Generally "adult" will be used in lieu of "in definitive plumage," but the latter may be used more often referring to a cycle, a particular plumage (e.g., definitive alternate plumage) or the molt producing a particular plumage (definitive prealternate molt).

Syntax and usage

Use of cycle-based and plumage terms may be used with feathers, e.g., "formative feathers," but not for birds in cases such as "second basic individual" or "first alternate male." Use instead such terms as "male in first alternate plumage".

Hyphens are not needed for these terms; e.g., "second basic plumage" as opposed to "second-basic plumage); "first alternate feather" as opposed to "first-alternate feather." The hyphen is not needed because "second," for example, modifies the entire expression "basic plumage," not the word "basic" alone.

Peter Pyle and Philip Unitt 11 February 2019

Literature Cited

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