



A revised nomenclature and classification for family-group taxa of parrots (Psittaciformes)

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Abstract

The last 20 years have seen a resurgence in systematic studies of parrots (Aves: Psittaciformes). Principally but not solely molecular in nature, this body of work has addressed the circumscription of higher level groupings within the Psittaciformes and relationships among them. Stability has now emerged on many formerly contentious matters at these levels. Accordingly, we consider it appropriate to underpin further work on parrot biology with a freshly revised classification at the taxonomic ranks spanned by family-group nomenclature, i.e., between superfamily and tribe. In light of the body of recent work, we advocate a framework of three superfamilies among parrots (Strigopoidea, Cacatuoidea and Psittacoidea) within which Linnaean taxonomy can accommodate present phylogenetic understanding by employing groupings at the ranks of family, subfamily and tribe. Just as importantly, we have addressed numerous issues of nomenclature towards stabilising the family-group names of parrots. We erect two new subfamily names, Coracopseinae Joseph, Toon, Schirtzinger, Wright & Schodde, subfam. nov. and Psittacellinae Joseph, Toon, Schirtzinger, Wright & Schodde, subfam. nov. We stress that rankings we have applied reflect the state of understanding of parrot phylogeny and how it can be summarized in a Linnaean system; comparisons with rankings in other groups are likely not appropriate nor relevant.

Key words: Psittaciformes, parrots, nomenclature, family-group

Introduction

Phylogeny and systematics of parrots (Psittaciformes) have been increasingly active areas of study over the past twenty years. The results of that work have led to substantial revision of our view of evolutionary relationships at the supra-generic level within this order. In this paper we review the taxonomic and nomenclatural implications of these studies. We believe that modern studies of parrot biology will benefit from a systematic framework reflecting the clarity we now have in understanding relationships within and among the major groups of parrots. The underlying systematic work we review has been molecular (Miyaki *et al.* 1998; Brown & Toft 1999; Groombridge *et al.* 2004; de Kloet & de Kloet 2005; Astuti *et al.* 2006; Tavares *et al.* 2006; Tokita *et al.* 2007; Wright *et al.* 2008; Schweitzer *et al.* 2010, 2011; Joseph *et al.* 2011; White *et al.* 2011; Kundu *et al.* 2012) and morphological (Hume 2007; Mayr 2008, 2010; Worthy *et al.* 2011). Our aims are first to clarify the suprageneric groupings indicated by these studies, then to suggest appropriate taxonomic ranks for them and, finally, to determine their nomenclature in accord with the International Code of Zoological Nomenclature (ICZN 1999). We conclude with a recommended classification using that nomenclature (see also Table 1). We hope to have provided a nomenclatural foundation for future taxonomic changes to reflect improved phylogenetic understanding at the family-group level. The symbol † is used to denote extinct genera.

Systematics: implications for taxonomic groupings and rank

Strong agreement has been reached that parrots comprise three major monophyletic groups, here termed Groups 1, 2 and 3 for ease of discussion (Fig. 1). Group 1 comprises the New Zealand genera *Nestor* Lesson and *Strigops*