



## Taxonomy and distribution of the Pygmy Eagle *Aquila (Hieraetus) weiskei* (Accipitriformes: Accipitridae)

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### Abstract

We re-evaluated the taxonomic status of the New Guinean subspecies *weiskei* of the Little Eagle *Aquila morphnoides* and confirmed that it differs considerably from the Australian *A. morphnoides* in multiple morphological and plumage characters. Genetic differentiation in published mitochondrial *cyt-b* and *ND2* sequences between the nominate subspecies and *weiskei* is equivalent to that found between other accipitrid taxa at the species level, as are pairwise divergences between each Little Eagle taxon and their sister species, the Booted Eagle *A. pennata*. The available morphological and genetic evidence thus strongly and unambiguously supports the specific distinctness of *A. weiskei*. We propose the English name Pygmy Eagle, as this is the world's smallest known eagle. We show that the distribution of *A. weiskei* includes the western part of New Guinea (Vogelkop) and the Moluccas (Halmahera, Ternate and Seram), based on our new observations.

**Key words:** morphology, genetics, *pennata*, *morphnoides*, Little Eagle, New Guinea, Moluccas

### Introduction

The Little Eagle *Aquila morphnoides* was described by Gould (1841) from Australia. Reichenow (1900) described a similar taxon from New Guinea as *Eutolmaetus weiskei*. The latter taxon was later regarded as a subspecies of *Hieraetus morphnoides* (Peters 1931; Stresemann & Amadon 1979). Dementiev *et al.* (1966) treated *Hieraetus* as a synonym of *Aquila*. The genera *Aquila* and *Hieraetus* (*sensu* Stresemann & Amadon 1979) are now known to be paraphyletic, and most of the species of the latter genus may be included in *Aquila* (Wink & Sauer-Gürth 2004; Helbig *et al.* 2005; Lerner & Mindell 2005; Gjershaug 2006; Haring *et al.* 2007), which has priority (ICZN 1999). The Taxonomic Sub-Committee of the BOU Records Committee (Sangster *et al.* 2005) treats the Booted Eagle *Hieraetus pennatus* as *Aquila pennata*. The name *Hieraetus* can be used as a subgenus name for the 'booted eagle' clade (Parry 2001) that includes *A. morphnoides*, Pygmy Eagle *A. weiskei*, *A. pennata*, Ayres's Hawk-Eagle *A. ayresii* Gurney, 1851 and Wahlberg's Eagle *A. wahlbergi* Sundevall, 1851 (Helbig *et al.* 2005). Alternatively, *Aquila* and the revised *Hieraetus* (*sensu* Helbig *et al.* 2005) may be treated as separate genera, and there is some behavioural, vocal and morphological support for such a distinction (Debus *et al.* 2007), but here we follow Sangster *et al.* (2005).

Brown and Amadon (1968) mentioned that the New Guinea race of *Hieraetus morphnoides* is sometimes regarded as a separate species, but did not provide a reference. Amadon and Bull (1988) indicated that the diminutive form *weiskei* of New Guinea may be a separate species. Parry (2001) suggested that *A. weiskei* should be treated as a valid biological species based on character differences (in both juvenile and adult plumages) and biometric differences between this taxon and its sister *A. morphnoides*. He (Parry 2001) maintained that these differences are greater than the differences between *A. morphnoides* and *A. pennata*,