

# Systematic notes on Asian birds. 58. The correct type species of *Anthracoceros* Reichenbach, 1849.

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The history of the generic name *Anthracoceros* is reviewed. It is confirmed that the type species usually cited, *Buceros malabaricus* Gmelin, 1788, was not the first subsequently included nominal species. It is further shown that neither of the nominal species included in *Anthracoceros* by Bonaparte in 1854 can be considered as type candidates. This mistaken use of *Anthracoceros* aside, the type species of *Anthracoceros* is shown to be *Buceros monoceros* Shaw, 1811, by subsequent monotypy (Art. 69.3), and the correct citation given.

## Introduction

There is considerable confusion regarding the type species of *Anthracoceros*. The name usually cited, *Buceros malabaricus* Gmelin, 1788, (e.g., by Peters, 1945: 266) is now considered by many to be unidentifiable or a *nomen dubium*, and is, for example, absent from the latest systematic review of the genus (Frith & Frith, 1983). The problem is further complicated by the introduction of the generic name being associated with an illustration only, without mention of any included species. This is perfectly acceptable under the International Code of Zoological Nomenclature (1999) (The Code) (Art. 12.2.7), but requires certainty regarding the exact point at which species were 'subsequently and expressly included' (Art. 67.2.2).

## History

During 1849-50 H.G.L. Reichenbach, director of the Zoology Museum Dresden, as a portion of his 'Die vollständigste Naturgeschichte des In- und Auslandes', published a series of 100 uncoloured plates of superior draughtmanship, depicting the heads, feet, wings and tails of some 1200<sup>1</sup> genera, many of which were new at that time. On plate XLIX 'Investigatores: Levirostres: Bucerotinae.' is the unmistakable representation (Fig. 1) of a member of the genus currently known as *Anthracoceros* Reichenbach, 1849<sup>2</sup>.

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<sup>1</sup> As stated by Reichenbach on the French and German title pages, 'mille et deux cent' and 'zwölfhundert' respectively.

<sup>2</sup> Dated from Meyer (1897: vi) and Zimmer (1926: 510).

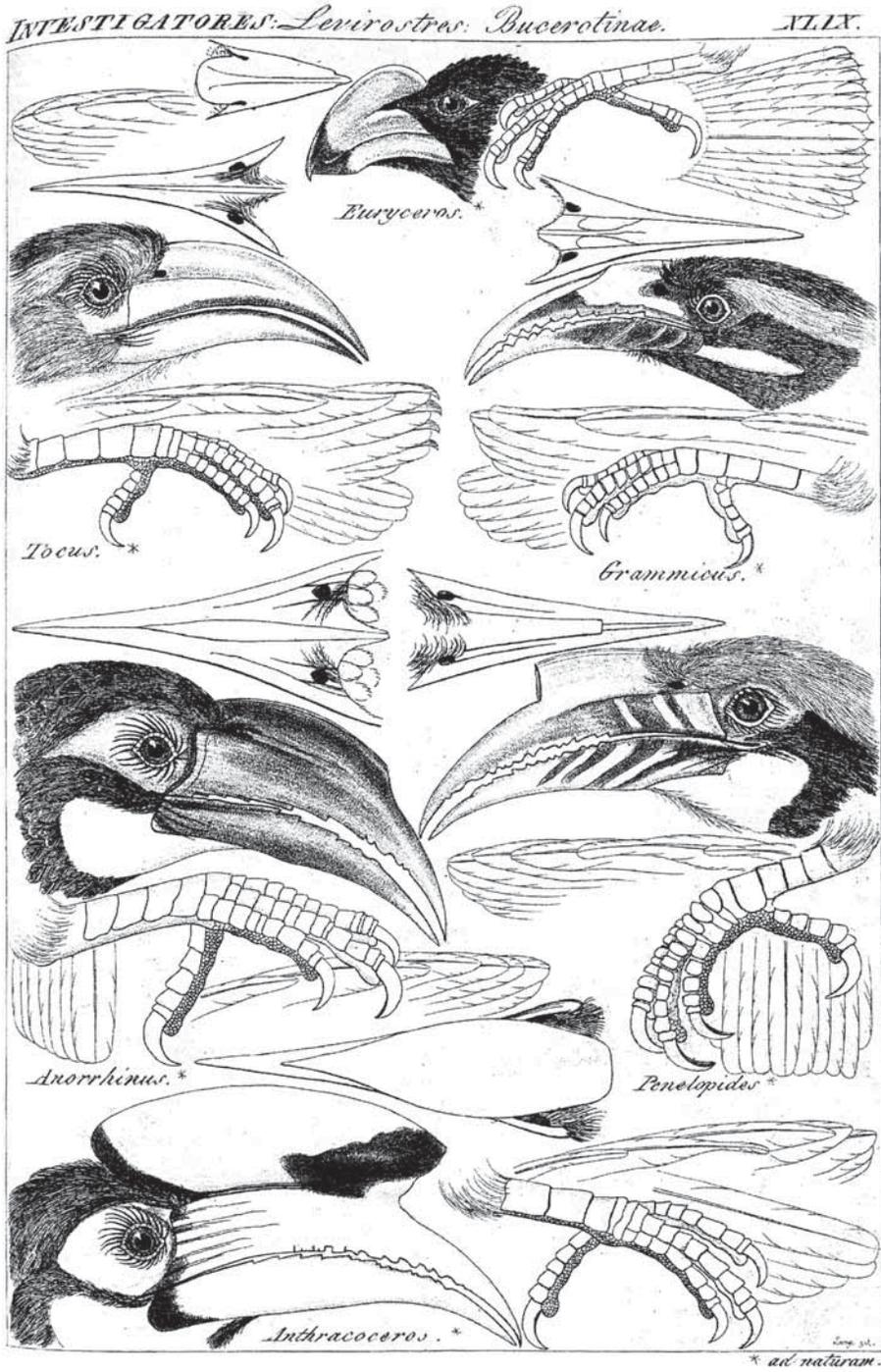


Fig. 1. Pl. XLIX from Reichenbach (1849). Reproduced with the kind permission of the Trustees of The Natural History Museum, London.

For many years, although by no means universally, *Anthracoceros* Reichenbach, 1849, was considered to be a junior homonym of *Anthracocera* Agassiz, 1846 (an unjustified emendation of *Anthrocera* Scopoli, 1777 [Lepidoptera]). Baker (1930a: 356), or Tom Iredale his long-time helper in matters nomenclatural, considered *Anthracoceros* to originate from Bonaparte, 1854, 'ex Reichenbach, 1849', stating 'not *Anthracocera* Agassiz, 1846' and employed *Hydrocissa* Bonaparte, 1850, as the first available name for the genus. He later (1930b: 678) modified this statement to exclude the reference to Bonaparte (1854), in the belief that *Anthracoceros* had been introduced by Reichenbach but was, after all, preoccupied by Agassiz's name.

Bonaparte, in *L'Ateneo Italiano* (1854: 312), had an opportunity to designate the type species but, in listing two species, missed it. The first, his '21? *bicolor*, Eyton.' (a junior synonym of *Buceros malayanus* Raffles, 1822) was only doubtfully included (as evidenced by the question mark), and cannot, therefore, be considered as a type candidate (Art. 67.2.5). His second, '22. *galeritus*, Temm[inck].' is patently invalid, as it is the type of *Anorrhinus* Reichenbach, 1849, the figure above *Anthracoceros* on the same plate (Fig. 1). It follows that it is not the subject of Reichenbach's figure for, and generic definition of, *Anthracoceros*.

Peters (1945: 261) rightly recognized this, and in a footnote to *Anorrhinus*, stated that Bonaparte 'evidently transposed the species that he included in *Anthracoceros* with those placed in *Anorrhinus*.' *Anorrhinus galeritus* does not resemble the figure. Curiously, although Peters (1945: 266) recorded the subsequent designation of a type species for *Hydrocissa* Bonaparte, 1850, by Gray (1855), he did not record the simultaneous designation of a type species for *Anthracoceros* Reichenbach, 1849, by Gray (1855). Instead he recorded the type of *Anthracoceros* as being by the subsequent designation of '*Buceros malabaricus* Gmelin. (Elliot, Monogr. Bucerot., pt. 10, 1882, p. xvi [= intro., p. xvi]).'

*Anthracoceros* Reichenbach, 1849, is available (Art. 12.1) and Bonaparte (1854), by failing to include a species that could become the type by monotypy, did not establish the type. Gray (1855: 83) met the conditions imposed by Art. 67.2.2 of the Code. In the case of *Hydrocissa* he acted by subsequent designation (Art. 69.1). In the case of *Anthracoceros* his action applies by subsequent monotypy (Art. 69.3). Elliot's action 27 years later was unnecessary. G.R. Gray's 1855 action is a valid nomenclatural act (Art. 67.11) and comprehensively antedates Elliot's, supplying both the first *valid* subsequently and expressly included nominal species, and the type.

## Conclusion

The correct citation is thus:

### *Anthracoceros*

*Anthracoceros* Reichenbach, 1849. Avium Systema Naturale [100 plates of generic details], Insesores Investigatores. pl. XLIX.

Type by subsequent monotypy, *Buceros monoceros* Shaw, 1811 = *Buceros coronatus* Boddaert, 1783. G.R. Gray, 1855, Cat. of the Genera and Subgenera of Birds, p. 83.

*Anthracoceros coronatus* (Boddaert, 1783).

Not preoccupied by *Anthracocera* Agassiz, 1846 [Lepidoptera].

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