

## REVIEW

### Moa: the life and death of New Zealand's legendary bird

Quinn Berentson

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Over the past decade our understanding of moa taxonomy and biology has made great advances, thanks largely to the development of new molecular and isotopic techniques, and novel new ways of getting information about behaviour (Allentoft & Rawlence 2011; Worthy & Scofield 2012). As a result, most popular books devoted to the topic of moa (e.g., Brewster 1987; McCulloch & Cox 1992) are now wildly outdated, and in this respect *Moa: the life and death of New Zealand's legendary bird* by Quinn Berentson is certainly a timely publication. In writing this book, Berentson has thoroughly researched the history of moa, the personalities involved with the initial discovery and description of these birds, and even assisted with field excavations, in order to get to personally know his topic of interest. This devotion to the cause is apparent in Berentson's writing, which breathes new life into moa in an easy to read and highly engaging way. The book is also visually very impressive. The quality of the paper, and reproduction quality of the images, are excellent; both features we have now come to expect from Craig Potton Publishing. In addition, it is refreshing that Berentson has selected many historic images that the authors of this review have not seen published previously, as well as supplementing these with his own photographs.

The first half of the book deals largely with the 19<sup>th</sup> century, exploring the key discoveries and characters involved with bringing moa to the attention of the scientific world. The second half of the book moves into more recent times, examining 20<sup>th</sup> and 21<sup>st</sup> century discoveries, and essentially exploring how the moa became a part of the New Zealand identity.

Despite the numerous positive attributes of the book, there are a few factual and interpretative errors. The sizes depicted for some moa species (e.g., little bush moa [*Anomalopteryx didiformis*] and heavy-footed moa [*Pachyornis elephantopus*], pp. 223-227) are at odds with the sizes shown in Tennyson & Martinson (2006). There appears to be confusion over clinal size variation and sexual size dimorphism in the coastal moa (*Euryapteryx curtus*); the depicted female being the small northern North Island size class. There was also at least one chimeric error in the reference lists (Chapter 16: reference 26).

It is perhaps inevitable with books that rely partly on secondary sources of information, that anecdotal myths and errors can also be propagated. In this regard Berentson (p. 89) discusses the discovery of moa bones at Waikouaiti, and states that, "In 1846 a Dr McKellar visited Waikouaiti from the British Isles" and that "far richer treasures were acquired from the same locality a few months later [by Percy Earl]". Numerous texts on the discovery of moa allude to this, but it is in fact incorrect, as pointed out by Andrews (1986: 133-134). The site was actually discovered by one of Johnny Jones' whalers, quite probably Tommy Chasland. In fact, Mackellar never actually visited Otago, but purchased the moa bones indirectly (Bennett 1844). The text also competently summarises Walter Mantell's involvement in the moa finds at Waikouaiti, but includes oft repeated errors. For example, although Owen did criticise Mantell in 1850 for stating that moa lacked a hind toe (hallux), he did not have the specimen to prove it. The text implies that Owen had obtained a specimen from Waikouaiti by stealth; an accusation that is simply not true. Furthermore, the caption to the relevant plate (p. 99) states that a hallux is illustrated, but the highlighted toe is actually a lateral view of the middle toes' ungual. In fact, it appears that the first time Owen actually illustrated a hind toe was in his 1879 monograph, and even then he could only show a single phalange. Today it remains unclear what the true status of the hallux was for each moa species as they were extremely vestigial and missing in many skeletons altogether.

Despite these minor issues, which are likely to be of concern only to scholars in the field, the book has achieved its stated aim, by filling a "important gap in our natural history literature, a popular but serious book on this national icon." And sometimes this sort of historical retelling discovers new information. For example, Berentson highlights Major James Michael's discovery of a large *Dinornis robustus* leg at Glenmark (p. 149). Michael's position as Deputy British Commissioner at the Paris (1867), Vienna (1873), and Edinburgh (1884) Exhibitions, caused this specimen to become the most widely known of all moa specimens. The bones were amongst the type material described by Richard Owen as his *Dinornis maximus*. The discovery was illustrated in the *Illustrated London News* (erroneously referred to as Major Mair in the caption to the illustration on p. 149). The exciting discovery here is that Berentson has discovered that this leg is actually on display in Chennai today. Subsequent research by RPS has determined that this specimen is also probably part of the type specimen of *Dinornis maximus* Haast, as well as being part of perhaps the largest moa individual ever recorded. Furthermore, Berentson

has highlighted that it is Michael, and not Moore or Haast, who should be credited for putting the Glenmark deposit in the international spotlight.

For anyone intrigued by New Zealand's natural history, *Moa: the life and death of New Zealand's legendary bird* is certainly one book worth having. As Berentson appropriately concludes, "The moa are gone, but at least now we have a much better idea of what we have lost, and we can finally appreciate and mourn them properly."

#### LITERATURE CITED

- Allentoft, M.E.; Rawlence, N.J. 2011. Moa's Ark or volant ghosts of Gondwana? Insights from nineteen years of ancient DNA research on the extinct moa (Aves: Dinornithiformes) of New Zealand. *Annals of Anatomy - Anatomischer Anzeiger* 194: 36-51.
- Andrews, J.H.R. 1986. *The southern ark: zoological discovery in New Zealand 1769-1900*. Auckland: Century Hutchinson. 237 pp.
- Bennett, G. 1844. Letter from George Bennett to Richard Owen, held in the British Library [20.2.1844], London.
- Brewster, B. 1987. *Te moa: the life and death of New Zealand's unique bird*. Nelson: Nikau Press. 64 pp.
- McCulloch, B.; Cox, G. 1992. *Moas: lost giants of New Zealand*. Auckland: Harper Collins. 64 pp.
- Tennyson, A.J.D.; Martinson, P. 2006. *Extinct birds of New Zealand*. Te Papa Press, Wellington. 180p.
- Worthy, T.H., Scofield, R.P. 2012. Twenty-first century advances in knowledge of the biology of moa (Aves: Dinornithiformes): a new morphological analysis and diagnoses revised. *New Zealand Journal of Zoology* 39: 87-153.

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