

## THE OCCURRENCE OF THE MUSK DUCK, *BIZIURA LOBATA* (SHAW), IN NEW ZEALAND

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In *The Transactions of the New Zealand Institute*, Vol. 24, p. 188, H. O. Forbes mentions a bone, or bones, of *Biziura* without specifying which bone he had, or its locality. The latter is, presumably, Enfield Swamp. He states: "The present species is named *Biziura lautouri* in compliment to Dr. H. de Latour, of Oamaru, to whom the author, as well as the Canterbury Museum, is deeply indebted for his kind aid in its acquisition of the recent important deposit of *Dinornis*



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Plate XX — *Biziura lobata*: Posterior aspect.

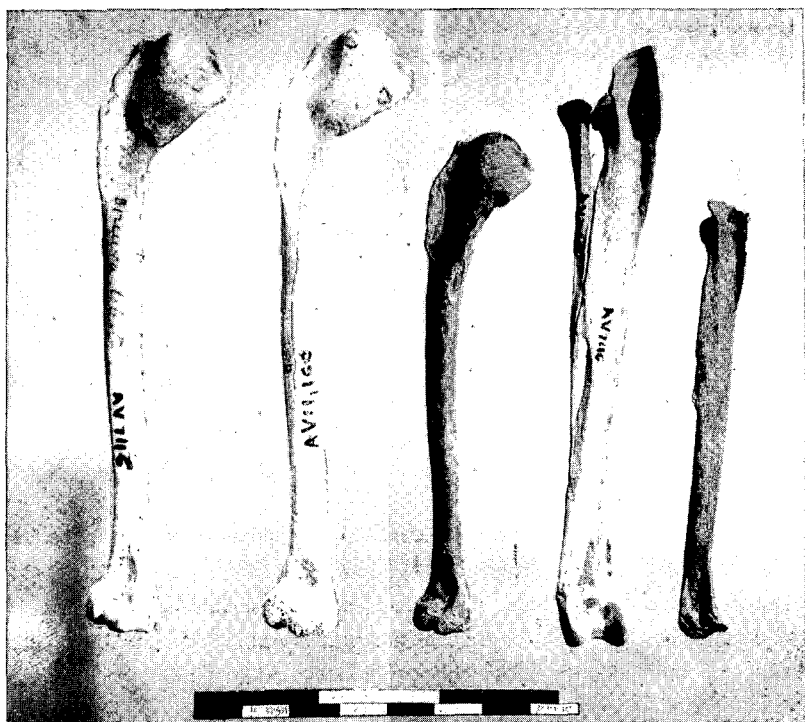
R. humerus AV. 7,116. M. Australia.

R. humerus AV. 11,160. ?M. Marfell Beach, Lake Grassmere, Marlborough.

R. humerus. ?F. Poukawa Swamp, Hawkes Bay.

R. tibio-tarsus. AV. 7,116. M.

Part R. tibio-tarsus. ?F. Poukawa Swamp, Hawkes Bay.



[Michael Trotter

Plate XXI — *Biziura lobata*: Anterior aspect.

R. humerus AV. 7,116. M. Australia.

R. humerus. AV. 11,160. ?M. Marfell Beach, Lake Grassmere, Marlborough.

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Part R. tibio-tarsus. ?F. Poukawa Swamp, Hawkes Bay.

remains discovered near that town" (at Enfield Swamp). As the specimen, or specimens, mentioned by Forbes have disappeared, although it or they are possibly among the Forbes material in the British Museum of Natural History, one cannot be sure what he had. His description is inadequate and "*lautouri*" is a *nomen nudum*.

It is quite clear that Forbes considered his bone, or bones, as distinct from the Australian form, *Biziura lobata*. That he had a part skeleton of the latter for comparison is certain as it is still in the Canterbury Museum labelled in his handwriting.

In April 1963 Mr. J. R. Eyles found a right humerus in the sandhills at Marfell Beach, Lake Grassmere, Marlborough (C.M. AV. 11,160) which compares very well with the part skeleton Forbes left (AV. 7116, male). While in Australia recently, at the National Museum, Melbourne, I measured a series of skeletons of *Biziura*

*lobata* and there is no doubt that the Marfell Beach humerus belongs to this species, and is, so far as I am aware, the first New Zealand record.

On 10 August 1963 at Poukawa Swamp, Hawkes Bay, in Square M/10, Mr. Russell Price found a worn R. tibio-tarsus which also appeared to be a *Biziura*. As it was considerably smaller than the corresponding bone in the part skeleton I had for comparison I wondered if it might represent the form Forbes had. Since examining and measuring the skeletons in the National Museum of Victoria, I realised that it is well within the normal range of the species and is therefore the second New Zealand record. The part skeleton, AV. 7116, and the humerus from Marfell Beach, AV. 11,160, are from exceptionally large birds.

Unfortunately, the Australian skeletons had no indication of sex. Delacour, Vol. 3, p. 258, gives measurements which indicate that the female is much smaller than the male, although "there is a great deal of individual variation in size in both sexes." His measurements (on skins) are: "Male: wing 226-240 mm.; tail: 110-150 mm.; culmen: 43-51 mm.; tarsus: 48-52 mm. Female — wing: 180-218 mm.; culmen: 36-38 mm." No tail or tarsal measurements are given for the female.

I conclude, therefore, that AV. 11,160 is the humerus of a large male and Mr. Price's part tibio-tarsus is probably from a female.

I, also at the National Museum, examined skeletons of the Blue-billed Duck, *Oxyura australis* Gould, the wings and legs of which resemble *Biziura lobata* closely in bone structure, but which are much smaller.

#### MEASUREMENTS

Humerus:	L.	P.	M.	D.	C.M.
C.M. AV.11, 160	12.1	2.5	0.7	1.55+(a little worn)	
C.M. AV.7,110 male	11.9	2.45	0.65	1.525	
N.M. W.5353	9.7	2.1	0.55	1.15	
N.M. B.8662	9.7	2.05	0.55	1.225	
N.M. B.6808	9.4	1.9	0.55	1.0	
Tibio-tarsus:					
C.M. AV.7,110 male	11.9	1.4	0.725	1.5	
		---	0.6	---	
N.M. W.5353	9.9	1.1	0.55	1.2	
Poukawa actual -	9.0				
estimated -	9.7	---	0.6	---	
N.M. B.8662	9.45	1.025	0.525	1.2	
N.M. B.6808	9.0	1.05	0.55	1.125	

The National Museum, Victoria, specimens, and the Poukawa bone are probably female. I wish to thank Mr. A. McEvey for the opportunity to examine the Australia skeletons.

#### REFERENCES

- DELACOUR, J., 1959: Waterfowl of the World, Vol. 3.  
 FORBES, H. O., 1892: Preliminary Notice of Additions to the Extinct Avifauna of New Zealand (Abstract). T.N.Z.I., Vol. 24, pp. 185-189.

It is divided into two parts — the first deals with nesting dispersion and the pair-bond and the second with clutch size, size of eggs and growth rate. There is also a large clutch of appendices in which a tremendous amount of detail on a wide variety of subjects is summarised — an excellent idea which saves cluttering the main text and helps to keep it easily readable. Every chapter has its summary and eventually there are summaries of the summaries. Though this involves the reader in some repetition he, at least, cannot claim that the argument is ever obscure.

There are a few specific points which seem to merit criticism:—

1. Conclusions reached on the basis of comparison by means in the absence of any other statistical data, may frequently be unjustified (I was surprised, by the way, at how little elementary statistics appear in this book). It is the very use of means in this way that leads to the saying that there are lies, damned lies and statistics.
2. One gets the impression that *all* variation is regarded as adaptive. Need this be so?
3. Virtually all the data Dr. Lack uses seem to be regarded by him as equally reliable. Synthesizers of other people's work are always faced with the problem of assessing its reliability. I wonder whether Dr. Lack should, at times, have been more obviously critical.
4. As an off-shoot of this last point, definitions often vary with the expert, Dr. Lack sometimes omits even giving his own, e.g. there is none for incubation time. How is the reader to know, therefore, whether certain data have been properly combined or compared?
5. When does a natural habitat become unnatural?

Such reservations as these are minor as far as the work as a whole is concerned, but if they are justified in any way they may have led to at least some errors in deduction.

The very pleasant illustrations are by Robert Gillmor; and, as usual, there is a virtually exhaustive bibliography (O. Hilden's paper on clutch size in waterfowl is a notable omission) and an excellent subject and animal index.

— G.R.W.

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## LETTER

A gremlin haunted me when I wrote the paper on "The Occurrence of the Musk Duck *Biziura lobata* (Shaw) in New Zealand." I figured, but did not describe, the right humerus collected by Mr. Russell Price in the creek deposits at Poukawa Swamp, Hawkes Bay, in 1963.

The measurements are, in centimetres:

L	P	M	D
10.2	1.9	0.6	1.215

The bone is very little worn, and appears to be slightly sub-adult.

— R. J. SCARLETT