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ON THE OCCURRENCE OF THE CRESTED PENGUIN
(*EUDYPTES CHRYSOCOME*) IN AUSTRALIA,

with Notes on its Range, and on the History of its Original Discovery.

BY

A. F. BASSET HULL, Hon. Ornithologist.

(Plates x.-xi.)

Early in December, 1917, a Crested Penguin (*Eudyptes chrysocome*, Forster) was taken alive in Broken Bay, New South Wales, this being the first recorded occurrence of the species in this State. Mr. C. F. Rane, who resides at Balmain, has supplied me with the following graphic account of the incident:—

“I captured the bird at Ettalong Beach on 5th December, 1917, whilst fishing from the rocks at the southern end of the Beach, nearest to Barrenjoey, I do not know the name of the headland. While looking towards Ettalong Village, I saw, what appeared to me to be, a Mollyhawk, some two or three hundred yards along the beach, riding on the breakers. At the same time the bird gave a call resembling the screech of a goose. I then answered it, imitating the call. The bird then made one dive and came up within ten feet of where I stood. A heavy sea then caught the bird and swept it in close to the beach. I jumped into the water between the bird and the open. It then made a dive for the open water, but came straight at me. I made a clutch and caught it by the neck, and after keeping it for a few days, I sent it to the Zoological Gardens at Taronga Park.”

Mr. A. S. Le Souef, Director of the Gardens, informed me that the Penguin appeared to be in good health when received, and lived contentedly enough in the Seal Pond. After about ten days it showed signs of moping and would not eat. It died a few days afterwards, and the body was sent to the Australian Museum. The skin is preserved there, and the following is a description:—

Immature male. The whole upper surface dark brown, the centre of the feathers bluish-black. A few shreds of down adhering below the neck. Superciliary stripe extending from culmicorn over the eye, $3\frac{1}{8}$ inches in length, whitish to behind eye, then pale sulphur-yellow. Chin and upper throat light brown, lower neck and rest of under surface white. Wings, brownish, tipped with white except at the extremities. Under surface of wings white with an irregular black margin. Feet, fleshy-white; toes, black; bill, reddish horn colour. Total length 27 inches. Wing, 7 in.; foot (bare to end of middle toe), $4\frac{3}{4}$ in.; middle toe, $1\frac{1}{8}$ in.; bill, 2 in.; latericorn, $1\frac{3}{4}$ in.; lower mandible, $2\frac{1}{4}$ in. (Plate x., fig. 1).

Some earlier records of the occurrence of this species in Tasmania and Australia are as follows:—

Gould says¹:—“For a fine example of this singular Penguin I am indebted to my friend, Ronald C. Gunn, Esq., of Launceston, Van Diemen’s Land, who informed me that it had been washed on shore on the northern coast of that Island after a heavy gale. It is less plentiful in

¹ Gould—Birds of Australia (folio), 1848.

that part of the world than in many others, for although it is occasionally found on the shores of Van Diemen's Land and the south coast of Australia, its great strongholds are the islands of Amsterdam, St. Paul's, and Tristan d'Acunha. As I had no opportunity of seeing the bird in a state of nature, I cannot perhaps do better than transcribe the account given by Latham, who states that 'it is called Hopping Penguin . . .'

In 1887, the Field Naturalists' Club of Victoria organised an expedition to King Island, Bass Strait. In a list of the birds identified by Members of the Club, Campbell² notes *Catarractes chrysocome*, Latham, a skin having been obtained. In his "Nests and Eggs"³ Campbell states that this Crested Penguin was captured alive among the rocks on King Island.

In a tabulated list of the birds of Western Australia⁴ Campbell includes *Catarractes chrysocome* amongst "fifteen species of birds now recorded for the first time as West Australian." This species is noted "near Hamelin Harbour (Tomb)." Mr. Campbell informs me that he did not see the specimen, but recorded it on the authority of Mr. Hugh Tomb, the manager of a timber station—the Karri Timber Company (Davies) near Hamelin Harbour, and from what he can recollect of the information given him by Mr. Tomb, the bird was secured alive. Campbell's tabulated list shows the extra-West Australian range of the birds named, and *C. chrysocome* is noted as found in the Northern Territory, New South Wales, Victoria, South Australia and Tasmania. Ramsay's tabulated list⁵ gives the range of *C. chrysocome* as Gulf of Carpentaria, New South Wales, Victoria, South Australia and Tasmania.

Under date 2nd August, 1909, Mr. C. P. Conigrave⁶ states that an interesting find recently made on Rottnest Island, twelve miles north-west of Fremantle, Western Australia, was a specimen of the Crested Penguin (*Catarractes chrysocome*) which was picked up by Mr. Miller of the Rottnest Signal Station. Mr. Otto Lippert, the taxidermist of the Western Australian Museum, happened to be collecting on the Island, and he at once prepared the skin.

In February, 1910, a specimen of the Crested Penguin made its appearance on the beach at Lorne, on the south coast of Victoria.⁷ When first seen by the members of a cray-fishing party it was on the rocks at the water's edge, but it followed them over some hundreds of yards of rocks and sand. They placed it in a bag and carried it to their residence, where it was domiciled in a large sea-bath, about twenty yards square, where it lived for six weeks. During the first fortnight it was very savage and spent most of its time in the dark recesses of a bathing box, where it underwent a complete moult. The moult finished at the head, and some of the discarded crest feathers measured as much as four inches

² Campbell—List of Birds identified by the Field Naturalists' Club of Victoria, King Island, 1887 (*Vict. Nat.*, iv., 1887-8, p. 138).

³ Campbell—Nests and Eggs of Australian Birds, 1901.

⁴ Campbell—List of West Australian Birds (*Proc. R. Soc. Edinb.*, xvii., 1889-90, p. 320).

⁵ Ramsay—Tabular List of Australian Birds, 1888.

⁶ Conigrave—*Emu*, ix., 1909, p. 92.

⁷ Nicholls—Notes on the Crested Penguin (*Catarractes chrysocome*) (*Emu*, x., 1910, p. 41).

in length. After the moult the colour of the crest was bright sulphur-yellow. The bird had no power of erecting this crest, but at times, when teased, the feathers of the head showed up slightly. From Dr. Brooke Nicholls' interesting account, this bird had evidently reached its full plumage before capture, as the length of the discarded crest feathers indicates. It became very tame, and was christened "Billy." This name was given him, Dr. Nicholls informs me, on account of the eagerness with which he answered the call to meals given by rattling a stick on the "billy" in which the small fish were brought to him. "One morning Billy followed some bathers to the beach, a distance of about half a mile from the house. He made strenuous efforts to keep up with the party going across the loose sand, but, finding himself being left behind, uttered such loud 'squawks' of distress that he had to be carried. On reaching the bathing site, the members of the party donned their bathing attire and made for the open ocean, with Billy following. A heavy surf was running, and as we entered the water Billy paused. Wading further and further out we called to him, and he made an attempt to follow, but was swept off his feet and washed ashore by the foaming water, which was not more than eight or nine inches deep. At length, after being knocked down and buffeted by several successive waves he managed to struggle into water about a foot deep, and then, swimming swiftly, shot like an arrow towards us. Once in the breakers the bird had all the best of it, and we dived and chased after him through the waves as one might romp with a dog ashore. Tiring of the sport, Billy commenced to dive and hunt for fish, and gradually went out to sea. We called to him by name, and, turning his head, he answered once or twice with a loud squawk, but kept paddling oceanwards all the time. He had suddenly realised that he was once again in the open ocean, and not confined by the four cemented walls of a bath. The sea had called to him and he had obeyed." I am indebted to Dr. Brooke Nicholls for the photograph of Billy in the bath house, reproduced in Pl. xi., fig. 1.

In September, 1913⁸ a specimen of the Crested Penguin came ashore between the Mersey and Don Rivers, not far from Devonport on the north coast of Tasmania. Mr. H. Stuart Dove says:—"This is the first Crested Penguin I have ever seen in the north of the Island, although two or three have been taken in the south, where one would naturally expect to see those which have strayed from the Antarctic Islands which are their home. The specimen in question was in splendid order, evidently only just deceased, and had escaped the battering of the reefs; stuffed and mounted, he forms a conspicuous addition to my collection of natural curiosities. He evidently had another moult to undergo before reaching maturity, the measurements and colouring not quite agreeing with those given by the authorities for an adult. In my specimen I should describe the upper surface as a fine dark metallic blue, upper surface of wings the same, tail somewhat lighter blue; under surface, silvery white, *except the throat and chin, which are ashy-white, with a small dark patch a little below the base of beak.* Sides of the head below the crest, a darkish grey; forehead, bluish-grey. The wings above are of the same

⁸ Dove—The Crested Penguin (*Catarrhactes chrysochrome* Forster), in *Australian Waters (Ibis)* (10), iii., 1915, p. 87).

tint as the back; beneath, white, with broad patch of dark blue at the tips, the same at the base, extending somewhat on to body in front of wing; there is also a border of dark blue on the upper edge, but not extending to the tip. Beak, dark red; feet, reddish, webbed, with strong nails. The tail is long for a Penguin, and formed of stiff, narrow feathers. The crest is black, formed of fine pointed feathers, the pale yellow appearing only underneath, and beginning behind the eye. Total length, 24 inches; wing, 6 in.; tail, 3 in.; foot (on flat, with tarsus), 4.5; beak, 2 in; crest. 3 in.

Mr. Dove has furnished me with a photograph of this bird, stuffed and mounted (Pl. xi., fig. 2).

Mathews⁹ introduced *Penguinus*, Brunnich, to replace *Catarractes*, Brisson, but later (with Iredale),¹⁰ he accepted the dictum of his reviewer, "J.A.A." in "The Auk," rejected *Penguinus* and adopted the genus *Eudyptes*, Vieillot, for the Crested Penguins.

Taking *Eudyptes chrysocome*, Forster (the Crested Penguin) as the dominant species, Mathews and Iredale grouped *E. pachyrhynchus*, Gray, the Victoria Penguin, *E. sclateri*, Buller, the Big-crested Penguin, and *E. filholi*, Hutton, the Campbell Island Crested Penguin, as sub-species. They separated *E. schlegeli*, Finsch, the Macaroni Penguin, as a dominant species, and stated that "the Macquarie Island, *P. schlegeli*, is the New Zealand representative (but seemingly specifically distinct) of the Falkland Island, *P. chrysolophus*." [The initial *P.* (*Penguinus*) is evidently written in error for *E.* (*Eudyptes*)]. The New Zealand range of the varieties of the Crested Penguin according to these authors is as follows:—

E. chrysocome (Tasmania), New Zealand (? breeding on the south-west coast): Antipodes Island (breeding): ? Macquarie Island (breeding).
E. pachyrhynchus. New Zealand Seas: Snares Island (breeding).
E. sclateri. New Zealand Seas: Auckland Island (breeding) ? Bounty Island (breeding).
E. filholi. Campbell Island (breeding).

Almost synchronously¹¹ Mathews gives *E. pachyrhynchus*, Gray, as the Australian representative of the species. As he adopted Forster's Tasmanian bird as the type of the species, the inclusion of the New Zealand variety in the Australian list is apparently an error.

The Australian range of the Crested Penguin is given by various authors as follows:—

Ramsay.¹² Gulf of Carpentaria, New South Wales, Victoria and South Australia, Tasmania.
 Campbell.¹³ Coasts of New South Wales, Victoria, South and West Australia, Tasmania.

⁹ Mathews—On some necessary alterations in the Nomenclature of Birds (*Novitates Zoologicae*, xvii., 1910, p. 497).

¹⁰ Mathews and Iredale—A Reference List of the Birds of New Zealand. Pt. i. (*Ibis* (10) i., 1913, p. 219).

¹¹ Mathews—A List of the Birds of Australia, 1913.

¹² Ramsay—Tabular List of Australian Birds, 1888.

¹³ Campbell—Nests and Eggs of Australian Birds, 1901.

Hall.¹⁴ Regions 5 (Tasmania) and 6 (Western Victoria and South Australia).

Littler.¹⁵ Tasmania, South Australia.¹⁵

Mathews.¹⁶ Australian Seas.

Lucas and Le Souef¹⁷. South Australia, Tasmania.

Forster's *Aptenodytes chrysocome* having been definitely accepted as the type of the Australian representative of the species, it is desirable to discuss the author and the material upon which he founded the species.

John Reinold (sometimes spelt Reinhold or Reynold) Forster and his son George, arrived in England from Germany in 1767. He became associated with Joseph Banks, Lord Sandwich, and Cook, the great navigator.¹⁸ As soon as it was known that Mr. Banks had withdrawn from Cook's proposed second expedition, Forster applied for the appointment of Naturalist for the voyage, and having secured the interest of Lord Sandwich, he obtained the position. He was to receive the £4,000 which had been granted by Parliament to secure the services of Dr. Lynd. His son, a youth of eighteen, accompanied him as his assistant.¹⁹

Captain Cook²⁰ in describing the personnel of his second expedition, says:—"It being thought of public utility, that some person skilled in Natural History should be engaged to accompany me in this voyage, the parliament granted an ample sum for that purpose, and Mr. John Reinhold Forster, with his son, were pitched upon for this employment."

Forster did not prove an agreeable companion, and fell out with most of his fellow voyagers. In particular, William Wales, the astronomer to the expedition, was very scathing in his comments upon the naturalist, his personal qualities and qualifications.²¹

Upon his return from the voyage, some disagreement arose with regard to the manner in which Forster's scientific observations were to be incorporated in the narrative of the expedition for publication. This culminated in an order directed by Lord Sandwich to Forster, forbidding him to publish anything relating to the voyage. Notwithstanding this prohibition, Forster published²² an account of the voyage under his son's name.

¹⁴ Hall—A Key to the Birds of Australia, 1906.

¹⁵ Littler says "This dweller on the lonely Islands of the Southern Ocean is very seldom seen round the coast of Tasmania. A few specimens have been taken round the Southern Coast, and one or two in Bass Strait." (*The Birds of Tasmania*, 1910).

¹⁶ Mathews—The Birds of Australia, i., 1910.

¹⁷ Lucas and Le Souef—The Birds of Australia, 1911.

¹⁸ Lichtenstein—Descriptiones animalium, etc., 1844 (preface).

¹⁹ Kitson—Captain James Cook, 1907, p. 238.

²⁰ Cook—A Voyage towards the South Pole, and Round the World, etc., 1779 (gen. introd., p. xxxiv.)

²¹ Wales—Remarks on Mr. Forster's Account of Captain Cook's last Voyage Round the World, etc., 1778.

²² Forster—A Voyage round the World in His Britannic Majesty's Sloop Resolution, etc., 1778.

From the foregoing an impartial judgment can easily be arrived at as to the personal characteristics of the Author. Now as to the material upon which he founded his *Aptenodytes chrysocome*.

In 1781 he published an account of the "*Aptenodytæ*, a family of birds peculiar to the Southern Hemisphere."²³ From his introductory remarks, I translate the following²⁴:—

"During the voyage to the Southern Hemisphere which I undertook with the able and distinguished navigator, James Cook, who has been taken from us by an untimely death, I had the opportunity of seeing a great many species of this family, and of examining their habits and nature with considerable care. In the case of only two species have I described the skins of dead birds; one species, which I have never seen, has become known to me only from Edwards' plate. Consequently, hardly anyone could be better qualified to discuss this family of birds, whether by reason of knowledge or of being an eye witness, than myself and my son, George Forster. May I, therefore, be allowed to introduce to ornithology the new genus of the *Aptenodytæ* (wingless divers), and to communicate their history to the learned world as far as I was able to investigate it" (p. 126). "In New Zealand we saw fairly often a species . . . and we described it because it had not been examined by anyone before us. This we called *minor*, because the other species exceeded it in size. Before we could examine this species, the other ship²⁵ was separated from ours during a period of fog, and had been driven to the southern extremity of New Holland. In this corner of New Holland another species of *Aptenodytes*, which, on account of its remarkable crest, I have called *chrysocome*, had been killed by the seamen. An example of this species, given to me by the celebrated Captain Tobias Furneaux, I myself have described, while my son has made a plate of it. I afterwards saw in London another specimen, brought from the Falkland Islands, which Joh. Steph. Hausman, M.D., has now placed in the Museum of His Serene Highness, the Duke of Brunswick.

"At the New Year Islands, near Staaten Island, we saw several thousands of *Aptenodytes magellanica*, and more than five hundred of them were eaten by the seamen. We met this same species at the Island of South Georgia, in Possession Harbour, together with another gigantic species, which we accordingly named *patagonica*.

"Before we landed, we saw from the ship in the neighbourhood of this Island, Penguins with intensely reddish eyes, swimming in the sea. We had come across the same kind of bird in the sea which washes the Island seen by the French Captain, Kerguelen, in the neighbourhood of which we cruised, the air being obscured for some days by a very dense

²³ Forster—*Historia Aptenodytæ, etc.*, 1781, p. 125.

²⁴ I acknowledge my indebtedness to Assistant-Professor F. A. Todd, of the Sydney University, for elucidation of some obscure passages in the Latin text.

²⁵ The *Adventure*, Captain Furneaux.

fog; and the celebrated Sonnerat²⁶ captured the same species almost on the Equator. Other navigators had seen the same birds too, at the Falkland Islands, and we called this Penguin *torquata*, because of its white collar.

P. 128 "We saw another species brought from the Falkland Islands . . . *A. papua*."

P. 129 "The *Aptenodytæ*, *chrysocome*, *magellanica*, *antarctica*, and *minor*, were seen by us to fling themselves out of the water with a leap and with a sort of shooting motion; and on the same spot to dive in again, first with the head, and then with the whole body."

The first species to be described in detail is the Crested Penguin. I translate the following:—p. 135. "*Aptenodytes chrysocome*, with dark red bill, yellowish feet; frontal crest, narrow and erect, auricular crest, sulphur coloured and drooping (Pl. x., fig. 1).

"*Pingouin santeur*, Bougainville Voyage, p. 69 (French edition), pp. 64-5 (English edition).

"*Habitat*: The southern part of New Holland, called Van Diemen's Landt, and the Falkland Islands.

²⁶ M. Sonnerat (5) published his "Voyage a la-Nouvelle Guinée" in 1776. Chapter xii. of this work is entitled "Description de queques Oiseaux de la Nouvelle Guinée." From this chapter, which is copiously illustrated, I translate the following:—"It remains only for me to speak of three birds, all three of the 'Manchot' (Penguin) family. This family comprises only sea-birds, the species it contains are all devoid of the power to fly, they walk awkwardly, and in walking carry the head erect and perpendicular; their feet are right behind, and so short that the bird can only take very short steps. The wings are only appendages attached to the place where true wings ought to belong; their use seems only to be to assist the staggering bird, and to serve it as a balancing pole, in its erratic course. The sea is the element of the Penguins. Travellers often confuse them with the 'pingoins'; they differ from the latter, however, in two very perceptible characters, in the shape of the wings, which although very short and very narrow in the 'pingoins,' nevertheless, allow them to rise and to fly some distance; in the shape of the bill, which in the 'pingoins' is large and flattened at the sides, and in the 'Manchots' is thin, rounded and cylindrical. The 'Manchots' inhabit desert islands in the Indian and American oceans, they come to land to pass the night, and to lay their eggs. The inability of these birds to fly, the difficulty they experience in running, place them at the mercy of those who chance to land on the islands which serve them for shelter. They are captured running; knocked on the head with a stick or stone, and owing to their form, which puts it out of their power to avoid an enemy, they are regarded as being stupid, and no trouble is taken to look after their preservation. They are not found in inhabited places, and have never been there. They belong to a race which, unable to defend themselves or to escape, will surely disappear, above all, where man the destroyer settles, who allows nothing to survive which he can annihilate. I will mention the three Manchots which I have observed, one the Manchot of New Guinea, another, the Collared Manchot of New Guinea, and the third, the Manchot Papua."

Sonnerat's plates show that the first is the King Penguin (*Aptenodytes patachonica*), the second, the Collared (Forster's *torquata*) and the third, the Gentoo Penguin (*Pygoscelis papua*). Obviously Sonnerat had specimens of the birds to describe and to delineate, but equally obviously he was in error in including them in the avifauna of New Guinea. Forster blindly followed him and gave New Guinea as a habitat (inter alia) of his *Aptenodytes patachonica*, *A. torquata*, and *A. papua*. This error appears also to have been responsible for Ramsay's Gulf of Carpentaria, and Campbell's Northern Territory ranges for *E. chrysocome*."

“Captain Tobias Furneaux, having become separated from our ship about the month of March, 1773, reached the southernmost corner of New Holland, and in a harbour called Adventure Bay found this Penguin sitting on a rock. One of the sailors disabled it with one blow of a stick, and captured it. He then took it alive to the ship, in which it lived for some days. When it died the skin was stuffed by order of the Captain, and entrusted to me to describe; my son also made a drawing of it. My distinguished young friend, Joh. Stephan Hausman, M.D., lately a member of the University of Göttingen,²⁷ had bought another example of the same species in London, and had resolved to place it in the Museum of His Serene Highness, the Duke of Brunswick.²⁸ I ordered this to be again examined and drawn, giving the commission to Jo. Fred Miller, the talented painter and copper plate engraver. These Penguins lay their eggs among the nests of the Cormorants.²⁹ When angry they erect their crests. While swimming they jump out of the water in leaps and then dive again.” The detailed description of the species follows.

In a note Forster says:—“In the figure of this and of the rest of the Penguins, I find the artist wanting in accuracy, especially in regard to the feet; and I draw attention to this lest others be led astray through fault of mine.”

In 1844 Lichtenstein³⁰ published a volume containing descriptions of the animals collected and observed by Forster during the voyage to the southern seas, compiled from Forster’s own annotated papers. The reference to the Crested Penguin is found on page 348 as follows:—

“The other Captain had first found the Crested Penguin in the southern part of New Holland, and had brought its dried skin with him. I made my drawing and description from this and called the bird *Aptenodytes chrysocome*. Its specific character will, therefore, be properly expressed thus:—‘A. With twin auricular crests drooping and sulphur coloured.’ Bougainville describes another Crested Penguin living in colonies at the Falkland Islands. It is smaller than the *patagonica*, progresses by leaps, is active, of a rich yellow, with a golden crest which it erects when annoyed, and with yellow eyelids. Perhaps this is identical with our *chrysocome*, or may even be a distinct species; but the obscure description of the distinguished voyager does not make this clear.”

From the foregoing extracts, one fact stands out incontrovertibly, viz.: that Forster’s *Aptenodytes chrysocome* is a composite, founded on a dried skin taken in Tasmania, and another, bought in London, said to have been brought from the Falkland Islands.

In describing his movements from the time he became separated in the “Adventure” from Captain Cook in the “Resolution,” Furneaux³¹ recounts his arrival at Van Diemen’s Land, and sojourn in “Adventure

²⁷ “Civis nuper Georgiæ Augustæ.” Georgia Augusta is the University of Göttingen, commonly known by that name to this day. Civis=civis academicus.

²⁸ Göttingen is in the Duchy of Brunswick.

²⁹ “Inter Pelecanorum nidos ova deponunt.” The Cormorant referred to is *P. carunculatus*, a Falkland Island species.

³⁰ Lichtenstein—Descriptiones animalium, etc., 1844.

³¹ Cook—A Voyage towards the South Pole, and Round the World, etc., 1779, i., p. 112.

Bay." He details the natural features, signs of natives, trees, plants and animals, and proceeds:—"The land birds we saw, are a bird like the raven; some of the crow kind, black, with the tips of the feathers of the tail and wings white, their bill long and very sharp; some parroquets; and several kinds of small birds. The sea-fowl are ducks, teal and the sheldrake. I forgot to mention a large white bird, that one of the gentlemen shot, about the size of a large kite of the eagle kind." No mention is made of the capture of the Crested Penguin. In his "Voyage"³² also, Forster does not mention receiving the skin from Furneaux, although he relates in detail the separation of the two ships (Forster was on the *Resolution*), the reunion in Queen Charlotte Sound, and Furneaux' account of his doings in the interim.

Conclusions.

1.—The type of *Eudyptes chrysocome*, Forster, in relation to Australia was described from the dried skin of a bird captured in 1773, in Adventure Bay, Tasmania, where the species was, even at that time, of rare occurrence.

2.—The true habitat of the species is limited to the subantarctic islands—Kerguelen, Macquarie, Antipodes, Snares, and Campbell Islands, where it breeds in colonies.

3.—Between breeding seasons it ranges over the seas washing the southern coasts of Australia and New Zealand.

4.—Individuals occasionally land on the Tasmanian and Australian coasts, but they never breed, and have never bred on these coasts.

5.—The range of the species is gradually extending northward, but whether this is part of a general northward migration of Antarctic species, there is not sufficient evidence available to show. It may be pointed out in this connection that the Little Penguin (*Eudyptula minor*, Forster) has, within the last twenty years, extended its breeding range from Montague Island, one hundred and fifty miles south of Port Jackson, to Port Stephens, ninety miles north of that harbour.

Bibliography.

CAMPBELL, Archibald John—List of Birds identified by the Field Naturalists' Club of Victoria, during its expedition to King Island, November, 1887 (*Victorian Naturalist*, iv., 1887-8, p. 138).

———List of West Australian Birds, showing their Geographical Distribution throughout Australia, including Tasmania. (*Proc. Roy. Soc. Edin.*, xvii., 1889-90, p. 304).

———Nests and Eggs of Australian Birds . . . Sheffield, 1901.

CONIGRAVE, C. P.—[Note on *Catarrhactes chrysocome*] (*Emu*, ix., 1909, p. 92).

COOK, James—A Voyage towards the South Pole and Round the World, performed in His Majesty's Ships the *Resolution* and *Adventure* in the years 1772, 1773, 1774 and 1775. London, 1779.

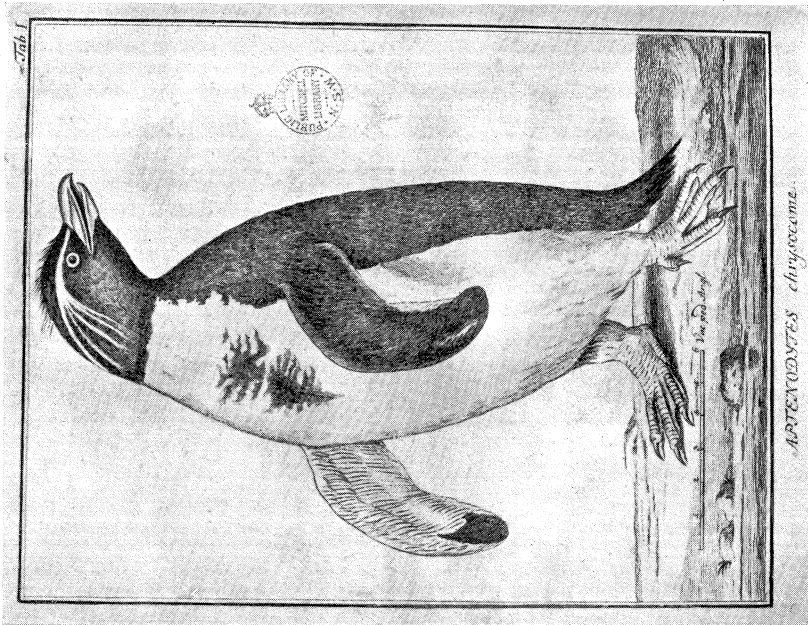
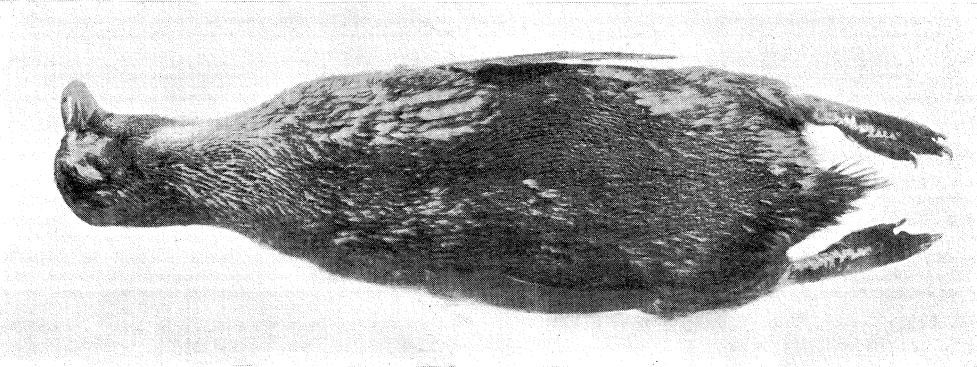
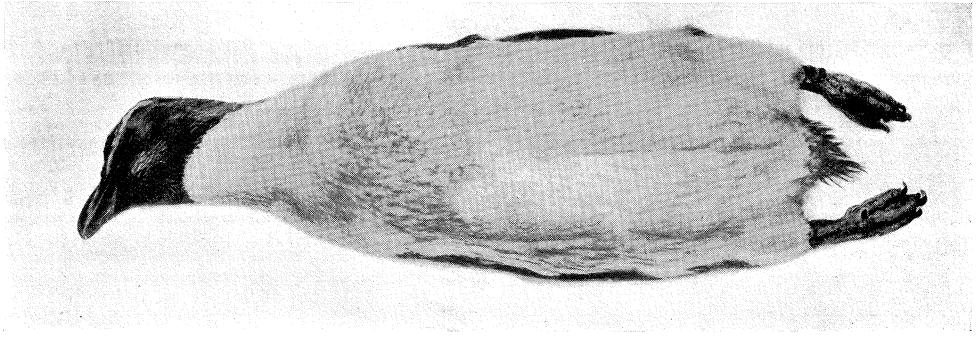
DOVE, H. Stuart—The Crested Penguin (*Catarrhactes chrysocome*, Forster) in Australian Waters (*Ibis* (10), iii., 1915, p. 87).

³² Forster (G.)—A Voyage round the World in His Britannic Majesty's Sloop *Resolution*, etc., 1778.

- FORSTER, George, F.R.S.—A Voyage round the World in His Britannic Majesty's Sloop Resolution, commanded by Captain James Cook, during the years 1772,3,4 and 5. London, 1777.
- FORSTER, John Reinold, LL.D.—Historia Aptenodytæ, Generis avium orbi australi proprii. Comment, Götting, iii., 1781.
- GOULD, John—The Birds of Australia, vii. (fol.) London, 1848.
- HALL, Robert—A Key to the Birds of Australia and Tasmania . . . Melbourne, 1906.
- KITSON, Arthur—Captain James Cook . . . London, 1907, p. 238.
- LICHTENSTEIN, H. Descriptiones animalium quae in itinere ad maris australis terras per annas 1772, 1773 et 1774 suscepto, collegit, observavit et delineavit Joannes Reinoldus Forster; Regiae Societatis scientiarum Londinensis sodalis, hunc demum editae auctoritate et impensis Academiae literarum regiae Berolinae curante Henrico Lichtenstein. Berolini, 1844.
- LITTLER, Frank Mervyn—A Handbook of the Birds of Tasmania . . . Launceston, 1910.
- LUCAS, A. H. S. and LE SOUEF, W. H. DUDLEY—The Birds of Australia. Melbourne, 1911.
- MATHEWS, Gregory M.—On some necessary alterations in the nomenclature of Birds (*Novitates Zoologicae*, xvii., 1910, p. 497).
- The Birds of Australia, i. London, 1910-1911.
- A List of the Birds of Australia. London, 1913.
- and IREDALE, Tom.—A Reference List of the Birds of New Zealand. Pt. i. (*Ibis* (10), i., 1913).
- NICHOLLS, E. Brooke—Notes on the Crested Penguin (*Catarrhactes chryso- come*) (*Emu*, x., July, 1910, p. 41).
- RAMSAY, E. P.—Tabular List of all the Australian Birds at present known to the Author . . . Sydney, 1888.
- SONNERAT, P.—Voyage a la Nouvelle Guinée. Paris, 1776.
- WALES, William, F.R.S.—Astronomer on Board the Resolution, in the Voyage under the appointment of the Board of Longitude. Remarks on Mr. Forster's Account of Captain Cook's last Voyage round the World, 1772, 1773, 1774 and 1775. London, 1778.

EXPLANATION OF PLATE X.

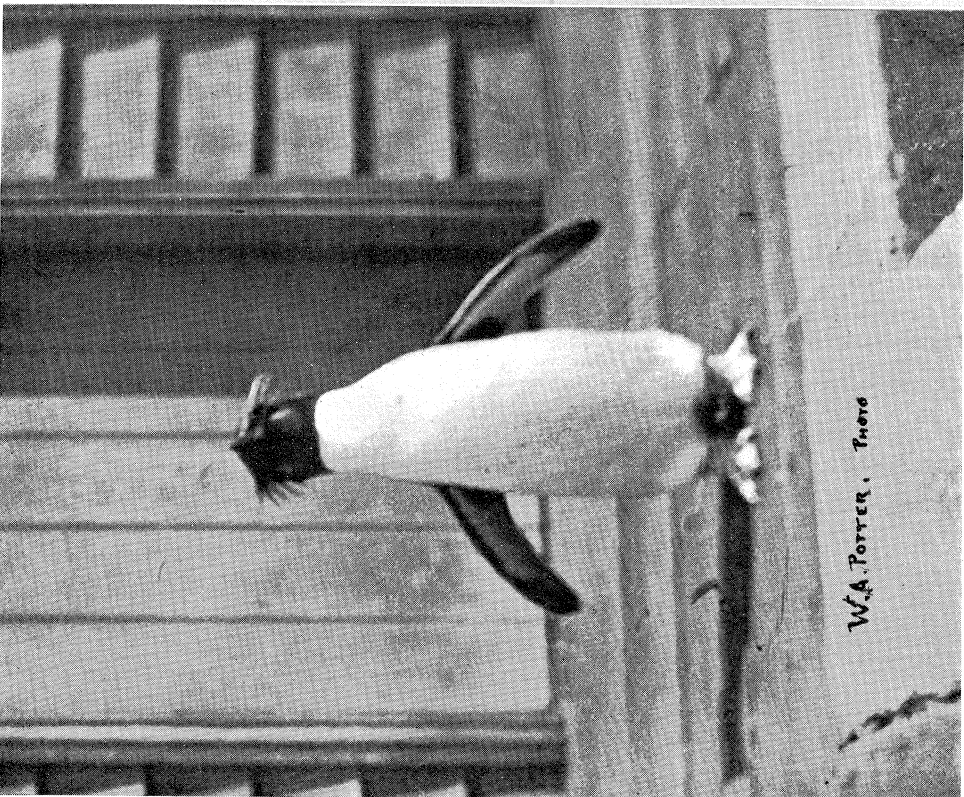
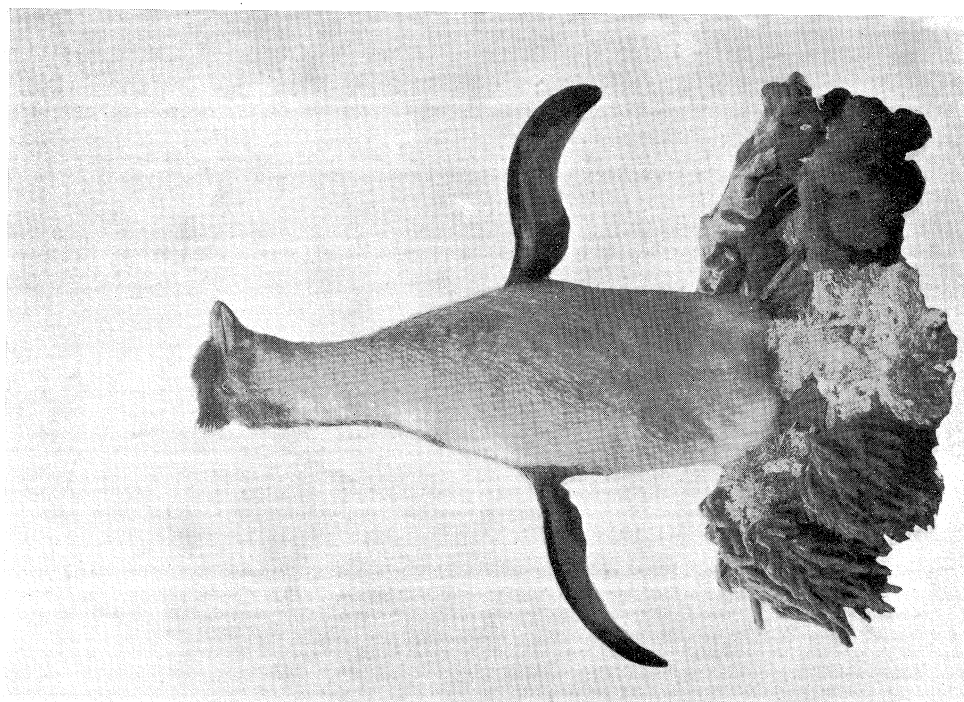
- Fig. 1. *Aptenodytes chrysocome*, Forster, reproduced by permission of the Trustees of the Mitchell Library, Sydney, from Forster's "Historia Aptenodytæ," 1781.
- 2-3. *Eudyptes chrysocome*, Forster, captured at Ettalong Beach, Broken Bay, New South Wales, in December, 1917.



Photos by (1) MERCER and RAMSAY.
(2) C. CLUTTON, Austr. Mus.

EXPLANATION OF PLATE XI.

- Fig. 1. *Eudyptes chrysocome*, Forster, captured at Lorne, Victoria, in February, 1910.
2. *Eudyptes chrysocome*, Forster, found dead on beach near Devonport, Tasmania, in September, 1913.



Photos by (1) W. A. POTTER.
(2) H. STUART DOVE.

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