



## The discovery and naming of the remarkable Tooth-billed Pigeon *Didunculus strigirostris* of Samoa and the history of the reception, attempted suppression and acceptance of Titian Peale's report on the mammals and birds of the United States Exploring Expedition 1838–1842 (1849), with a summary of the status of Peale's new species

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### Abstract

Titian Peale's discoveries during the United States Exploring Expedition of 1838–1842, particularly in the South Pacific, included a large, dodo-like pigeon from Samoa, the now Critically Endangered Tooth-billed Pigeon, *Didunculus strigirostris*. We review the early history of the pigeon and its name, which is inexorably connected to a review of the history of Peale's report on his collections and the fate of his new species of mammals and birds. The discovery of the pigeon drew attention to Peale's work and we investigate how it became known in advance of Peale's published report, as well as the attempts to suppress his report and replace it with another version. After enquiries made to 13 archive collections and other sources of Peale, his report, criticisms of his findings and suppression attempts against his published report, we resolved some issues, but important questions remain seemingly unanswerable. The result presented here is a more detailed historical summary of Peale's report and his new species than hitherto known, with 9 mammal and 44 bird names of Peale now in use. We also demonstrate that while the species name *strigirostris* has long been credited to another, the same also now must apply to Peale's name *Didunculus*, which must date from 1845 by Jardine and not 1848 [= 1849] by Peale.

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### Introduction

Our investigation of the origins of the modern discovery of the remarkable Tooth-billed Pigeon *Didunculus strigirostris*, and its naming, revealed its inextricable links to the publication history of Titian Ramsay Peale's (1799–1885)<sup>1</sup> report on the birds and mammals observed and collected on the United States Exploring Expedition of 1838–1842<sup>2</sup>. We already have touched

on part of this publication history by pointing out that Peale's report was published in June 1849, not 1848, the date printed on the work itself (Bruce *et al.* 2016: 99), and which is discussed here in more detail. Our original intent was to prepare a short note on the pigeon's names, particularly to clarify their authorship, as a supplement to our earlier paper. However, it soon increased in scope when we sought to answer the simple questions of how and when news of the Tooth-billed Pigeon's discovery and naming by Peale had reached Europe, particularly England, as early as 1845, or possibly 1844.

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<http://hbs.bishopmuseum.org/dating/sherbornia/>

<sup>1</sup> Actually Titian Ramsay Peale II, although the distinction was not made in his works; Titian Ramsay Peale I died at 18 (1780–1798) *cf.* Peck (2018).

<sup>2</sup> Although often regarded as the first American exploratory and scientific voyage into the southern oceans, there actually had been an earlier voyage in 1829–1831, but scientific results were minimal by comparison as its goal was more about the feasibility of making any explorations into southern high latitudes (Fanning 1834: 478–491; Roberts 1941; Howgego 2004: 455–456). The naturalist on board, James Eights (1798–1882), reported at the time only on some invertebrate specimens and geology, e.g. Eights (1835; see also Calman 1937; McKinley 2005).

In order to try and move forward with this mystery tale, we present herewith what revelations we could find, offering a more detailed history of the topic than was possible hitherto. And to highlight the significance of the overlooked date change for the names of Peale's mammals and birds, we expanded our research to encompass a review of all the new species named by Peale, their treatment in Cassin's revised report, and their current status. We have summarised our results on Peale's names in Appendix II. Our overall findings, however, indeed proved to be more complex than originally anticipated, and this is the result.

### Methods

Extensive enquiries covering 13 archive collections and other sources, revealed much overlooked information, despite the key questions remaining elusive and stubbornly unanswerable so far.

Enquiries were sent to the Dept of Zoology, University of Cambridge, Cambridge, England (Strickland archives; Rookmaaker 2010); National Museums Scotland, Edinburgh, Scotland (the Jardine archives in the J.A. Harvie-Brown (1844–1916) Collection; Pitman 1981); Academy of Natural Sciences of Drexel University, Philadelphia (Phillips & Phillips 1963; also recent online guides at [www.ansp.org](http://www.ansp.org) and [www.pacscl.org](http://www.pacscl.org)); American Philosophical Society, Philadelphia ([www.amphilsoc.org/guides/stanton/](http://www.amphilsoc.org/guides/stanton/)); Historical Society of Pennsylvania, Philadelphia ([www.hsp.org/collections/catalogs-research-tools](http://www.hsp.org/collections/catalogs-research-tools)); Library of Congress, Washington, DC (Charles Wilkes papers, where three Wilkes-Cassin letters from 1851 were located but not directly relevant except as part of the process of Cassin being hired to produce a replacement report; see their online finding aid [www.lccn.loc.gov/mm75045716](http://www.lccn.loc.gov/mm75045716)); National Archives, Washington, DC ([www.archives.gov/legislative/guide/house/chapter-23-joint-library.html](http://www.archives.gov/legislative/guide/house/chapter-23-joint-library.html); see JC.035); Smithsonian Institution, Washington, DC, USA ([www.siarchives.si.edu/collections/siris\\_arc\\_217343](http://www.siarchives.si.edu/collections/siris_arc_217343); RU 7186); Ernst Mayr Library, Harvard University, Cambridge, Massachusetts ([www.ocp.hul.harvard.edu/expeditions/wilkes.html](http://www.ocp.hul.harvard.edu/expeditions/wilkes.html), which includes a downloadable copy of the 1843 separate); and Department of Library Services, Amer-

ican Museum of Natural History, New York, USA ([www.beta.worldcat.org/archivegrid/collection/data/786272406](http://www.beta.worldcat.org/archivegrid/collection/data/786272406)).

Philbrick (2003: 367) reported first-time access to Wilkes papers held by Duke University, Durham, North Carolina, USA ([www.library.duke.edu/rubenstein/findingaids/wilkes/#collectionoverview](http://www.library.duke.edu/rubenstein/findingaids/wilkes/#collectionoverview)); these are primarily family papers, but also included are letters associated with the expedition reports, and some have been quoted here. Philbrick also noted Wilkes papers in two additional archive collections. The Kansas State Historical Society, Topeka, Kansas, USA ([www.kshs.org](http://www.kshs.org)) contains microfilm of Wilkes correspondence covering 1837–1847 (reel MS 53, Sara Keckeisen *in litt.* July 2017). The Wisconsin Historical Society, Madison, Wisconsin, USA ([www.wisconsinhistory.org](http://www.wisconsinhistory.org)) contains some Expedition papers (see [search.library.wisc.edu/catalog/999464479202121](http://search.library.wisc.edu/catalog/999464479202121)), but nothing of relevance here (Simone Munson *in litt.* July 2017).

The possibility of a press report on Peale and the pigeon in either a U.S. or U.K. newspaper was investigated, with negative results. Dr J. Boneham (*in litt.* March 2017) at The British Library kindly searched on our behalf the ProQuest British Periodicals database and the Readex Early American Newspapers, Series 1 (1690–1876) database and we looked at The British Newspaper Archive, [www.britishnewspaperarchive.co.uk/](http://www.britishnewspaperarchive.co.uk/) and *Chronicling America*, [chronicling.america.loc.gov](http://chronicling.america.loc.gov), the source of two of the newspapers cited here. Also checked was [www.gale.com/c/19th-century-us-newspapers](http://www.gale.com/c/19th-century-us-newspapers) (M. Cadoree Bradley *in litt.* April 2017). A search of the Readex database also was undertaken on our behalf (M. Cadoree Bradley *in litt.* May 2017).

Genealogy websites were searched for shipping lists and a seemingly useful website checked for our investigation proved to be [www.olivetree-genealogy.com/ships/](http://www.olivetree-genealogy.com/ships/), but see also [www.theship-slist.com/ships/passengerlists/](http://www.theship-slist.com/ships/passengerlists/).

### Historical Background

The Tooth-billed Pigeon, or Manumè'a, is the national bird of Samoa and its modern discovery was first made on Upolu, one of the two largest islands forming the Independent State of

Samoa, formerly Western Samoa. It could have occurred around early to mid-November 1839, depending on how one reads the *Narrative of the Expedition* (cf. Wilkes 1845: 87, 94, 101, 114), when three specimens were collected by Peale, of which only one was thought to survive, but a 'long lost' second specimen was located (Peale 1849: 212; Deignan 1961: 123; Ingersoll & Fisher 2006: 73). However, we can be a little more accurate based on the published version of Peale's journal, which indicates that the most likely date he obtained the pigeon specimens was around 30 October–2 November (Poesch 1961: 161–164). Peale (1849: 211) commented that it was becoming rare and held little hope for its survival, partly due to its popularity then as a pet, but more particularly to the arrival and spread of feral cats (Wilkes 1845: 122, 154; Walpole 1854; Ramsay 1864; Pritchard 1866: 161–164; Stair 1897: 195, 1898).

Samuel James Whitmee (1838–1925), a missionary in Samoa, in a letter dated 12 December 1873, reported his observations of the pigeon and noted that “within a recent period it must have increased considerably” as finding one took much less time (Whitmee 1874). Whitmee also sent a young bird to Sydney (Bennett 1874), where George Bennett (1804–1893) had had previous experience with live *Didunculus* (Gould 1865: 556–560; Stair 1898). Whitmee was in Samoa from 1863 to 1876 and again from 1891 to 1894. During his second stay he famously befriended the writer Robert Louis Stevenson (1850–1894) and taught him about Samoa and its people and culture, but particularly the Samoan language<sup>3</sup>. Whitmee also proofread Stair's memoirs of his early years in Samoa (Stair 1897: 17).

Unfortunately, Whitmee's optimism for the pigeon must have been short-lived as it also was of interest to 19th Century collectors, most notably at the time, those connected to the traders J.C. Godeffroy & Sohn, whose Pacific headquarters were in Samoa, at Apia, on Upolu, from 1857 to 1879 (cf. Finsch 1866).<sup>4</sup> When, due to bankruptcy, they were taken over, operations continued under the name of the Deutsche Han-

dels-und Plantagen-Gesellschaft der Südsee-Inseln zu Hamburg (DHPG). The DHPG also sought German political involvement by the annexation of Samoa, not only to reduce labour costs, but also to include Samoa in a growing network of German colonies in the Pacific that also expanded their trading operations, which continued until 1914 (Stevenson 1892; Masterman 1934: 63–81; Gilson 1970). While the Museum Godeffroy, established in Hamburg in 1861 for their collections (Ward 1876), was closed in 1885, with the death of Godeffroy, its in-house journal continued until 1910 (Cooper 1888: 231–239; Spoehr 1963). Although the pigeon, against the odds, has managed to survive into the present, it is officially classified as Critically Endangered (Pratt & Mittermeier 2016)<sup>5</sup>.

The name *Didunculus* is intended to allude to it as a little dodo, and thus also known in the 19th Century as a 'dodlet', a name exclusively associated with this pigeon (Newton 1893: 154–155, who also lamented its likely extinction, and considered it “not lively or attractive as a cage bird”). While its distinctive bill shape in particular, as well as its size and insular isolation provide superficial reminders of the Dodo *Raphus cucullatus* [formerly *Didus ineptus*], it recently has been demonstrated that its affinities lie close to the Dodo, and indeed it is one of the Dodo's nearest living relatives (Shapiro *et al.* 2002). Also like the Dodo, it had very closely related, but now extinct, relatives on nearby island groups, as demonstrated by the recent discovery of a Tongan Tooth-billed Pigeon *D. placopedetes*, which was up to 40% larger than Samoan birds (Steadman 2006; Hume & Walters 2012: 156; Hume 2017: 179), and another, as yet unnamed, of similar size to Samoan birds, from Fiji (Worthy & Clark 2009: 251); both having long ago succumbed to the predations of man and other introduced mammals and this may yet be the fate of *D. strigirostris* (Collar 2015, Baumann & Beichle 2020).

An examination of the earliest records of this pigeon reveal how the name *Didunculus*, and subsequently Peale's report, were initially received into the ornithological literature, which was un-

<sup>3</sup> See [freepages.family.rootsweb.ancestry.com/~stanier/X-LMS.html](http://freepages.family.rootsweb.ancestry.com/~stanier/X-LMS.html); accessed May 2017).

<sup>4</sup> The book by Finsch & Hartlaub (1867) on the birds of Fiji, Tonga and Samoa was dedicated to Johan Cesar VI. Godeffroy (1813–1885).

<sup>5</sup> See also [news.mongabay.com/2013/03/extinction-warning-racing-to-save-the-little-dodo-from-its-cousins-fate/](http://news.mongabay.com/2013/03/extinction-warning-racing-to-save-the-little-dodo-from-its-cousins-fate/); [www.iucnredlist.org/details/22691890/0](http://www.iucnredlist.org/details/22691890/0); accessed May 2017.

usual then and later. The limited distribution of Peale's report has been indicated as from "a few" (Poesch 1961: 100) up to 90 (Stone 1899: 44, 1915: 11; Walters 2003: 149) copies, but the official count seems to be 70 (Overstreet, *in* Bruce *et al.* 2016: 99; *cf.* Haskell 1942: 55), out of an official print run of 100 copies. In a public announcement in 1845 the proposed distribution of the expedition's scientific reports covered 63 copies, with the remainder to go to the Library of Congress for future distribution (Anonymous 1845). The total of 70 may be a rounding up of this figure or, more likely, the result of later changes to the official distribution list.

The small number of copies printed for the scientific reports by the government was criticised as "niggardly" and "unjust," in a review of the first scientific reports published in 1846, particularly as most of these would be circulated to official sources where they would receive scant attention, but the reviewer did note that the printers actually prepared 150 copies (Anonymous 1846: 211–214). Possibly this unofficial arrangement was continued for some of the later reports, but we do know some had 100 official copies and 150 extra copies, where authors took up the offer to have unofficial copies for additional distribution requirements (Haskell 1942). In terms of printing extra copies, this arrangement was in response to the government bill, H.R. 277, dated 28 March 1844, of the U.S. 28th Congress, 1st Session, allowing authors, including Charles Wilkes and Titian Peale, to print extra copies without infringing copyright requirements nor charging extra for plate preparation, with all associated materials returned to the government<sup>6</sup>.

Whether or not this was the case with Peale's report, despite Peale not taking up the offer for extra copies, the subsequent loss by fire in December 1851 of the remainder of the small print run (Haskell 1940, 1942), made it a rare work. Indeed, despite earlier indications of possibly more than 100 copies printed, Haskell (1942: 55) suggested that as few as 87 copies were actually printed of Peale's volume; and to add to its mystique, from its earliest appearance

it also was associated with negative comments circulated by John Cassin (1813–1869) to the effect that its inadequate descriptions were questionable (Sclater 1859: 326).

Enquiries sent to three Philadelphia archive collections, but particularly those of the Academy of Natural Sciences, where Cassin once worked and most of his correspondence is held, failed to reveal any evidence of letters or other documents on his attempts amongst European ornithologists to undermine the credibility of Peale's report. If such papers exist, they may be held with family papers and not in any public archives. Thus the extent of what Cassin wrote on this topic and how widely he circulated his critique remains a mystery, although a letter quoted below demonstrates that Peale soon became aware of this plot.

As part of our extensive archive enquiries we sought additional manuscript sources on all aspects of the story of the attempted suppression of Peale's report and its replacement by Cassin's edition, considered by Haskell as the most interesting story of all the scientific reports. Haskell's own account of this story was based on Wilkes's correspondence with his political supporters in Washington (1942: 55–59). While Haskell's account is thorough, some more personal elements of the story are noted below.

This state of affairs at the time was mentioned by Sir William Jardine (1800–1874), who noted that he and his son-in-law Hugh E. Strickland (1811–1853) had learned that the pigeon came from Samoa (Jardine 1851). Although the Rev. Thomas Heath (1797–1848), a missionary on Samoa, initially contacted Strickland in 1843 about possibly sending him some birds (Rookmaaker 2010: 107), none of the three surviving specimens in the collection, sent in 1846, include a Tooth-billed Pigeon (*cf.* Salvin 1882: 136, 159, 278), but Heath still was influential in the connection of the pigeon to Samoa (see below). Jardine also expressed frustration at being unable to obtain a copy of Peale's report through his bookseller, although he was able to quote details provided by George Robert Gray (1808–1872) from the British Museum copy. He then concluded that "the general opinion is, that the work for some reason or other has been suppressed, in which case being unattainable,

<sup>6</sup> Details can be found in [www.memory.loc.gov/cgi-bin/ampage?collid](http://www.memory.loc.gov/cgi-bin/ampage?collid); accessed March 2017.

the few volumes in circulation cannot be used as any authority for the species which have been described in them as new” (Jardine 1851).

With more information on the fate of Peale’s report, Jardine later lamented having to consider using a work under such circumstances, exacerbated by Peale being the only author not to take up the offer of acquiring extra copies at cost, but noted a proposed reprint or new work to replace “that which we may consider lost” (Jardine 1852). According to a letter sent to Strickland from Philip Lutley Sclater (1829–1913) dated 7 March 1851, a copy of Peale’s report was by then available in Oxford (Rookmaaker 2010: 155), but this news apparently did not reach Jardine at the time of his first article (1851), nor when he published his second on this topic (1852).

Carl Johan Gustav Hartlaub (1814–1900), a well-known ornithologist based at Bremen, Germany, also noted this problem but was more precise about its source by quoting an extract from Cassin’s circulated ‘judgement’ of Peale’s report: “I have sufficient knowledge of the book to be fully satisfied that little confidence can be placed in any of Mr. Peale’s birds described as new, of which there are upwards of an hundred [112]; the *Fissirostres* are erroneous to an extraordinary extent” (Hartlaub 1851: 48). Hartlaub’s response (1852) was a critical review of Peale’s report, enabled through temporary access to a copy, where he reassessed and carefully worked out the descriptions of the new birds.

In a letter to Strickland dated 11 January 1852, Hartlaub mentioned that he had obtained a copy of Peale’s report: “good god [*sic*] what a book. It contains so much of new, important and interesting matter.” He then remarked that he would write a critical review because while Peale made “some blunders” this was outweighed by the valuable material covered by his report (Rookmaaker 2010: 214). In the context of what Cassin was doing at the time, Haskell (1942: 58) also noted this significant quote but suggestively in isolation, unconnected to what else he noted of Cassin’s activities. Poesch (1961: 100) repeated the quote but also noted Hartlaub’s (1852) review and the significance of Peale’s report as made clear by Hartlaub.

The other contemporary publications from

England, as cited here, were not mentioned by either Haskell or Poesch, making Cassin’s exchange with Hartlaub seem very unusual, but less so when linked to his contacts in England, yet still seeming to be a mysterious action in view of how Cassin was brought in to work on replacing Peale’s report in 1850. In a letter dated 12 March 1851 from Cassin to Spencer Fullerton Baird (1823–1887) of the Smithsonian Institution, he stated that “I shall publish nothing relative to Peale’s book for at least a year” (Bartlett 1940: 643; see also Dall 1915: 259). He is undone here by Hartlaub, who, no doubt, was not meant to link Cassin so directly to his criticisms of Peale’s report. Peale’s Philadelphia friend, George Ord (1781–1866), in a letter to Peale dated 27 January 1852, pointed out that “I have long been persuaded there was a plot concocted to defraud you of the produce of your labors” (American Philosophical Society collection; D.J. Gary, *in litt.* July 2017).

In a subsequent letter dated 4 December 1852, Ord commiserated with Peale: “I am by no means surprised at the treatment which you have received by certain individuals, having authority in matters relating to the history of the Exploring Expedition. As soon as I learned that you had incurred the hostility of the Commander, I felt assured that no justice would be done you... The reviewer you speak of is just such a person as is suited to the designs of the conspirator in chief. But what will signify their opinions when put into the scale with those of disinterested persons, quite as well qualified as they are to decide upon your scientific merits? Posterity is an impartial judge; and should it be hereafter determined, that “no reliance whatever can be placed on your reports”, I can see no hope for your scientific reputation. The course which you have taken meets with my cordial approbation: you have secured the copy right to your own work; give it to the world as the fruits of your own investigations... [to] take its place in the catalogue of those productions which owe their origin to original investigators. Perhaps prudence would suggest forbearance at the present juncture; but the time may come when it will be fit and proper to assert your rights. Your enemies have perhaps succeeded in depriving you of a few feathers...but it would be well for them to recollect that your

bill and your spurs are uninjured, and may be employed with their wanton efficacy.” (American Philosophical Society collections; D J. Gary *in litt.* October 2017).

This letter in particular suggests that his exchanges with Ord must have contributed to ameliorating some of his worst concerns in the aftermath of his dismissal in 1846 and the treatment of his report. Twenty-five years after his report was published Peale reflected on his association with the Exploring Expedition and amongst other things, discussed the fate of his report and what Hartlaub did in 1851 and 1852. He also provided the Cassin quote, and added that Cassin was “a critic as able, and fully entitled to give a judgement”. In addition, Peale provided translations of parts of Hartlaub’s notices but does not mention any other sources, thus reinforcing the isolation of Cassin’s quote as given later, but at least here Peale seems surprisingly charitable about Cassin’s opinions of his work, perhaps a benefit of time and distance (Peale 1874: 308–309).

The combination of Hartlaub’s (1852) review and his later summary (1854) of the known distribution of Pacific island birds, when he incorporated Peale’s results with those of the recent French discoveries and earlier works, significantly helped to establish the validity of Peale’s report. In 1855 the French ornithologist Charles Lucien Jules Laurent Bonaparte (1803–1857) sent a desperate plea to Peale, written on the cover of a separate, to try and acquire a copy of the report, then in great demand in Europe: “How can I manage to get a copy of the Am. Expl. Exp. Zool. In exchange or sale? The plates have not yet reached Europe.” (Stone 1900). This interest is clearly due to Hartlaub’s supportive review and thus Peale (1849) was accepted, making redundant the revamped second and ‘official’ edition of Cassin (1858a), which was intended to both suppress and supersede it, because Peale had fallen out of favour with his boss, the former expedition commander and later editor and supervisor of the publication of the scientific reports, Lieutenant Charles Wilkes (1798–1877). This was supported by other officials behind the expedition documentation (Peale 1903: 324; Collins 1912: 65; Stone 1915: 10–11; Lucas 1917; Burns 1932: 34; Bartlett

1940: 642; Roberts 1941: 349, 355; Poesch 1961: 100–103; Mitterling 1962; Sterling, in Peale 1978: iv; Porter 1983: 77–78; 1985: 303–304; Watson 1985: 50–54; Porter 1986: 130–134; Mearns & Mearns 1992: 130–136; Walters 2003: 149; Bourne 2008; Egerton 2011: 156; Peck 2018: 717–719). In his retirement years, Peale resumed his old interests in entomology, especially butterflies, with his major work only recently published after languishing for well over a century (Peale 2015; *cf.* Poesch 1961: 113–116; Peck 2018).

Despite the apparent machinations of Cassin, he still cited some of Peale’s new names from around the time of his circulated critique (*cf.* Cassin 1851, 1852). How serious Cassin was, personally, in condemning Peale, may be open to question in view of his admitted role in a book of comic satire (Stephens 1851). He made several contributions, signed as “C.”, for example, on the “Little Dear *Io urbica*”, pp. 77–80, part of a collection of ‘portraits’ of notable persons of the day, with illustrations of their heads attached to a bird or other type of animal. According to Stone (1921; see also Dall 1915: 258–259), who originally became aware of Cassin’s association with this book through his letter to Baird of 12 March 1851, “Cassin possessed a keen sense of humor and did not take his science so seriously”, a point he did not make earlier (Stone 1901) nor later (Stone 1929).

However, allowing for a sense of humour and not taking his work too seriously, supports Cassin’s apparent later contradiction of his actions against Peale and thus helping to explain the final version of his own report, which Cassin noted in December 1855 as “nearly ready” (Cassin 1856: 441). Cassin still worked with Peale’s various new names from his report, which Cassin indicated as the first edition (Cassin 1858a: 261; Mathews 1929: 691). Despite this admission, note that Cassin’s title page does not indicate it as a second edition, nor does the introductory note, pp. v–vi, even acknowledge that there was a first edition except that Cassin stated that his original brief in 1851 was to prepare the plates, which then led to preparing the “present volume”. In addition, Cassin put all of Peale’s new names, if not used in the text, at least in his summary catalogue, pp. 429–452, including Peale’s

descriptions (*cf.* Zimmer 1926: 676). As discussed above, it was in 1850, not 1851, that Cassin was first contacted and briefed by Wilkes (Haskell 1942: 58; Stanton 1975: 329).

Moreover, on 12 March 1851, in Cassin's letter to Baird, he stated that "I am unconditionally discharged from that business, and the only civil letter Wilkes ever wrote to me conveyed that information" (Dall 1915: 259). Was this part of Cassin distancing himself from his attempts to undermine Peale's report? This may have been the case at the time, but Cassin soon approached the proposal from a more business-like perspective. In a letter to Wilkes dated 26 July 1852, Cassin summed up his task, outlining his role in three parts: "I beg the liberty of submitting to you, Sir, a proposal relative to the volume on the Quadrupeds and Birds of the collection made by the United States Exploring Expedition under your command:

"1. I will rewrite the volume from the original materials, superintend as far as I may be required, the preparation of drawings for the completion of the Atlas, arrange and label the collection, within three years from July 1st 1852, for three thousand dollars.

2. The expense of removing to Philadelphia such portions of the collection as may be necessary, and of returning them to Washington and such travelling expenses as may be indispensable, may be paid by the United States.

3. In all respects I propose to be governed by such rules and regulations as are applied to others now or lately engaged on similar services in the affairs of the Expedition,—payment to be made to me in a similar manner and on similar conditions." (The Charles Wilkes Papers, David M. Rubenstein Rare Book & Manuscript Library, Duke University; E. Dunn *in litt.* August 2017).

Despite the way Cassin's volume was subsequently recognised, officially or unofficially, as either a replacement or addition, according to what one read, the general interpretation was that where both versions of volume 8 were present they were treated as parts one and two of the same volume 8 (Collins 1912: 65) or Peale was the "official" edition while Cassin was the "author's" edition, and as such, distinct works whether or not one regarded Cassin as being intended as a 'substitute' for Peale (Bartlett 1940: 688), or whether one regarded Peale's report as

'suppressed' or not.

The main value of Cassin's edition is that it came with a separately published, larger format *Atlas* with 53 colour plates of mammals (11) and birds (42), including 32 by Peale, which Peale had indexed in his earlier report but they were not published at the time (Cassin 1858b). Peale's plates represent 8 of mammals and 24 of birds, while 4 of mammals and 27 of birds were planned but suppressed (Porter 1983: 84).

Although Cassin updated various parts of Peale's taxonomy, including some changes based on his own later revisions, he still acknowledged his debt to Peale by retaining all of his new names, accepted or not, their descriptions and much other detail. While his taxonomic revisions reduced the number of Peale's new species, in his view (Stanton 1975: 368; see Appendix II), no new species were named by Cassin, which made it easier for his edition to fall into literary limbo. However, for all the contradictions in his text, the "unscrupulous" (Rounds 1990: 50) Cassin did seek to take credit for the expedition results (Walters 2003: 149) while failing to acknowledge the important role of Hartlaub's (1852) review of Peale (1849) and repeating unnecessary errors (Sclater 1859: 326, 1879: 92; Bruce *et al.* 2016: 99).

We know Hartlaub was not entirely overlooked because Cassin included the new name he proposed (Hartlaub 1852: 104), *Erythrura pealii*, emended to *pealei* by Cassin (1858a: 138), thus highlighting an error by Peale, with praise going to Hartlaub. As Peale later put it: "Cassin's report and mine are in existence...the world may judge between the rights of original observation and closet philosophy – what an observer says, and what others think he ought to say" (Peale (1874: 309; see also Porter 1979: 114). The context of the quote also was provided by Haskell (1942: 59). Unsurprisingly, such details, as well as any reference to his sense of humour, are lacking from contemporary obituaries and reports of Cassin's death, e.g. Brewer (1869), Bridges (1869), Newton (1869).

When Cassin's edition was a relatively new work, Peale as the source of new names was retained, as, for example, by Dole (1869), although less clearly by Sclater (1871) in his review of

Dole's synopsis. Later, Rothschild (1900: [pref. viii]), despite repeating the misleading view that the majority of copies of Peale (1849) were destroyed, accepted the new names as dating from Peale, while noting that Cassin (1858a) "may be called a new edition" but "while many mistakes are corrected, some alterations are most unhappy and erroneous" (see also Wilson & Evans 1899: xv). Collins (1912: 65) sought ornithological opinions on Peale and received two useful replies. The first noted that the 100 plus new species of Peale were "properly reduced to about 30" and the second noted that Cassin "severely condemned Peale's descriptions, but modern ornithologists consider Cassin's descriptions little better."

This seems to reflect the general consensus that despite its flaws we use Peale and recognise that Cassin was not much of an improvement anyway. Moreover, the important issue is that as the so-called 'suppression' of Peale's report never really was recognised as such, and as it is the first publication of the new names, Peale (1849) is the valid source of Peale's new species (Appendix II).

With his understandable uncertainties at the time, on 24 November 1852 Peale deposited the details of the title of his work in Washington, DC, to establish his copyright. If this was to deter plans for a replacement, it was obviously unsuccessful (Haskell 1942: 59), although as Ord noted above, an important step for Peale to take.

### **The Authorship of *Didunculus* and the Search for Evidence Supporting its Advance Notice in England**

The consequences of the early and controversial history of Peale's report also can be demonstrated by the genus-group name *Didunculus*. We know that some type of advance publicity of the most extraordinary of Peale's ornithological discoveries allowed details of the pigeon to find their way into Strickland's report on ornithological progress (Strickland 1845). Also around this time, the natural history collector Lady Harvey, of Edinburgh, Scotland, acquired a small collection of 'Australian' natural history objects, including a specimen of the same pigeon, at a sale. Later, she presented the pigeon specimen

to Jardine, who then named, described and illustrated it (1845), while also noting the apparent link to the Peale comments quoted by Strickland (1845).

Gould (1846) subsequently observed that all of the other items in the collection purchased at the sale by Lady Harvey were Australian and most were from south-eastern coastal areas. Based on a letter from Jardine to John Gould (1804–1881) dated 6 February 1844, we know Gould visited Lady Harvey's collection at least once: "I have been looking at the Owl you noticed at Lady Harvey's" (Sauer 1999: 281). While it is not known if Gould maintained any contact with Lady Harvey, he obviously had some involvement with identifying the contents of this particular collection purchased in 1844 or 1845, most likely through his friendship with Jardine (Sauer 1999: 428). However, perhaps his acquaintanceship with Lady Harvey was limited as she is not listed amongst Gould's associates by Sauer (1995), despite Sauer checking the contents of Gould's folios and as revealed here in his later coverage of Gould correspondence at this time<sup>7</sup>.

According to a letter sent to Strickland from Samoa by Rev. Heath, dated 20 November 1843, Rev. John Bettridge Stair (1815–1898) worked for Heath as "our printer" and sent some birds to England. Three years later Heath noted that a young man in the printing department [not Stair, who had left by then] had rat problems with collecting a few birds and did not know the bird requested by Strickland (*cf.* Rookmaaker 2010: 107), presumably the pigeon. It would seem that although Heath originally offered to help Strickland, he relied on his assistants and was either less involved or just less interested in the details of what Strickland wanted.

Details of the origin of the specimen obtained by Jardine were eventually revealed in the memoirs of Rev. Stair, who was based on Upolu during 1838–1845. Stair actually met Peale and others on the expedition in 1839 but despite this connection he first saw and obtained two live *Didunculus* only as late as 1843, but one later died. The other was sent to Sydney, Australia, for

<sup>7</sup> The quote cited above is the only mention of Lady Harvey in the Gould correspondence for the period in question.



study, but soon died there and became part of a collection of mostly Australian material (1897: 196, 1898), which also apparently included an “Apteryx”, identified by Stair (1897: 194) as the Critically Endangered Samoan Moorhen *Pareudiastes pacificus*<sup>8</sup>. However, it is now regarded as extinct for over a century, despite a few recent sight records attributed to this rail (Hume & Walters 2012: 118; Pratt & Mittermeier 2016; Hume 2017: 137).

Stair seems to have implied that the rail specimen was part of the collection purchased by Lady Harvey. Back in England in 1846 Stair (1897: 196–197, 1898) claimed he saw a drawing of it in the possession of G.R. Gray, at the British Museum, but it was not identified at the time. Also during his 1846 visit with Gray, Stair saw a drawing of his pigeon specimen and provided more details. It seems most likely that Stair was the source of the information later used by Jardine to establish the original provenance of the specimen and thus not found in Australia or the Solomon Islands, as suggested by Strickland (see Appendix I).

While the fate of the rail specimen and drawing were not specifically investigated as part of this study, our impression is that the specimen was lost and the drawing lost or misplaced. It does not appear to have been included in the sale purchase by Lady Harvey as it was not presented to Jardine, along with the pigeon, as might have been expected, nor mentioned subsequently by Gould (1846). In fact, there is no indication that Jardine was aware of it at the time. More than likely, Stair’s specimen did reach, at least, England, where, apparently, a drawing was made. However, the point needs to be made that, apart from Gould’s general remarks, we know nothing of the fate, let alone the actual composition, of the remainder of the Harvey purchase of Australian specimens/objects. Stair’s “Apteryx” rail was not formally named and described, as *Pareudiastes pacificus*, until 1871 (Hartlaub & Finsch 1871: 25, pl. II) and was thought to have been first collected in 1869 (Hume & Walters 2012: 118; Hume 2017: 137).

Lady, later Dame, Elizabeth Harvey, née

Bradly or Bradley (1776–1853) was the wife of Admiral Sir John Harvey (1772–1837) and their daughter Elizabeth (1798–1873) continued her mother’s collecting activities (Anonymous 1797, 1837, 1853: 327, 1876; Allen 1982<sup>9</sup>). The reference to Lady Harvey as “Dame” in Anonymous (1853) suggested a later honour that might have been reflected in obituary coverage in at least some of the leading newspapers of the day, but the only information found in several newspapers was the briefest of listings of her as a ‘relict’, i.e. widow, of a knighted admiral.

As Bruce *et al.* (2016: 99) left the details, it might be implied that the authorship of the genus-group name *Didunculus* would become Peale, in Jardine, or even, Peale, in Strickland, in Jardine. Unfortunately, while we would prefer to keep the name associated with Peale, he cannot be credited for the name as it appeared in 1845 despite both Strickland (quoted by Jardine) and Jardine clearly attributing the name to Peale. Following Article 50.7 of ICZN (1999), which is quite explicit about names first published as junior synonyms, the name must be credited to Jardine alone because he is the author “who published it as a synonym, even if some other originator is cited, and is not the person who subsequently adopted it as a valid name”. Therefore, *Didunculus* Peale, 1849, becomes an objective junior synonym and homonym of *Didunculus* Jardine, 1845.

The only prior source we could find that recognised the name as dating from Jardine is Marschall (1873: 23), although listed in such a way that Scudder (1884: II.98) apparently thought he meant the earliest usage was Gould in 1848: “Gould in Birds of Australia. V. 8. Gray in Genera of Birds. 1848. = *Didunculus*, Jard.” Indeed, Marschall also proved to be the only source we could find who indicated that there were other 1848 publications associated with *Didunculus* (see below).

Strickland (1845: 189; reprinted in Jardine 1858: 273) included a sentence at the end of his last paragraph in his subsection on ‘Polynesia’ where he stated: “The recent American voyage of discovery will extend our knowledge of Polynesian zoology, and its researches will be made

<sup>8</sup> [Datazone.birdlife.org/species/factsheet/22692854](https://datazone.birdlife.org/species/factsheet/22692854); (accessed October 2017).

<sup>9</sup> See also [www.bradlyfamilytree.talktalk.net/WybornBradly/gp5.htm](http://www.bradlyfamilytree.talktalk.net/WybornBradly/gp5.htm); (accessed October 2017).

known by Mr. Titian Peale, who is said to have discovered among other rarities, a new bird allied to the Dodo, which he proposes to name *Didunculus*." Jardine (1845: 176) added to this information with "and we believe "*strigirostris*" has been applied specifically". In a letter, dated 16 Sept. 1845, from Strickland to Jardine, Strickland pointed out that it was his nephew, Arthur Strickland, who had provided the details of the pigeon based on Peale and that the report including the name and description may already be published (see Appendix I).

Jardine subsequently sought further details on the pigeon and an address to write to Peale, according to a letter from George Ord, dated 28 December 1845: "I have written to Mr. Peale, who at present resides at Washington, on the subject of the *Didunculus*. As I gave him your address it is probable he will write to you" (Harvie-Brown Collection; B. McGowan *in litt.* April 2017). An enquiry about Jardine's letter to Ord, dated 21 November 1845, to see if it shed any light on how Jardine found out about Peale and the pigeon, although at that stage the 16 September 1845 letter from Strickland would seem to be the source, but it could not be located in the George Ord Collection in the American Philosophical Society, Philadelphia, collections, although it contains other letters from Jardine (D.J. Gary, *in litt.* July 2017). If Peale did reply, there is no letter in the Harvie-Brown Collection (B. McGowan *in litt.* April 2017).

None of the quoted details, nor indeed any mention at all of the pigeon, can be found in the promotional report of the expedition by its commander, Lt Charles Wilkes, in 1843, which had been widely circulated as a separate (Wilkes 1843a; reviewed by Poe 1843) based on Wilkes (1843b), and also reprinted abroad (Wilkes 1844). In 1842 Wilkes already had published in Washington a 'synopsis' of the expedition, which was part of the process of seeking government funding to publish the proposed scientific reports, but this was not widely circulated. The 1843 separate used for general promotion was essentially a reworking of the same material and thus the pigeon discovery had not been mentioned in the lengthier 1842 publication either. Wilkes's concerns were mostly political as the official attitudes to the expedition had

changed greatly since its departure in 1838 and his concern was for its reputation and that of the participants (letter of 16 July 1842, *cf.* Goode 1892: 308–309).

Dr Charlotte M. Porter, who had undertaken research on Peale earlier (see reference list), mentioned in response to enquiries by MDB that she once saw what she identified as a broadsheet circular promoting Peale's forthcoming report and such a circular seemed to us to be the most likely source of the quotations and other details noted by Strickland and Jardine (C.M. Porter *in litt.* October 2016). Unfortunately enquiries failed to locate a copy (see Methods for archive details).

Other enquiries through internet searches were also unsuccessful, and thus all the obvious sources of Peale and/or U.S. Exploring Expedition archival materials (see Methods) apparently failed to retain a copy of this seemingly elusive circular, leaving this summary explanation of our search efforts to hopefully inspire someone else to try their luck. On the other hand, could the failure to locate any kind of advertising material for the Peale report suggest that the existence of such a piece of printed ephemera may now be considered questionable? From a letter by Strickland to Jardine in the Harvie-Brown Collection, Edinburgh, we know that Strickland's nephew Arthur provided hitherto unknown details about *Didunculus* (see Appendix I), but not the source. Such information may have reached England in a press report reprinted in a local newspaper, if not by letter or word of mouth, rather than through any form of printed materials intended to promote the scientific reports, which also may be evidenced by the way information subsequently reached Jardine in piecemeal fashion for his published notes of 1851 and 1852, with some no doubt coming through Strickland, and also demonstrated here by a letter to Strickland from Hartlaub.

We were inclined to conclude that information of the pigeon in relation to Peale, as mentioned by Strickland (1845) and Jardine (1845), must have been added during the 'in press' period of their papers or at the latest, in the proof stages of these publications as the information belatedly came to hand from Strickland's nephew. However, the matter proved to be not so

straightforward. Through The British Library, we learned that the report volume containing Strickland (1845) was received on 18 June 1845, while the September 1845 issue of the *Annals* containing Jardine (1845) was received on 1 September 1845. We were advised that both copies checked contained a blue British Museum stamp, indicating they were acquired under legal deposit (J. Boneham *in litt.* March 2017), making these equivalent to publication dates.

The obvious consequence of these revelations is that the information must have been acquired earlier, despite the language of the 16 September 1845 letter suggesting the information had only recently been passed on to Strickland by his nephew Arthur. In the case of Jardine's paper, a letter from his publisher, Richard Taylor (1781–1858), dated 18 January 1845, was located in the Harvie-Brown Collection (B. McGowan *in litt.* March 2017) and discussed the pigeon paper, demonstrating that it was 'in press' for some time so that any additional information could have been added well before the publication time<sup>10</sup>. According to Sheets-Pyenson (1981) Taylor made many improvements with the efficient operation of the *Annals*, including always trying to find cheaper alternatives for engraving sources. This suggests that perhaps even as late as 1845, after the merger that created the *Annals* in their best known form, and relocation of the printing to London, engraving delays could explain extended 'in press' periods. However, nothing was suggested to indicate if the delay of months, as seems apparent in the case of Jardine's paper including the pigeon description, was normal at the time when engravings were included.

In the midst of these events, on 23 July 1845, Strickland married Catherine Dorcas Maule Jardine (1825–1888), *cf.* Rookmaaker (2010: 25). It is more than likely that marriage arrangements and/or associated social events could have been the main reason why Strickland and Jardine were together in Edinburgh in late 1844. And five days later, on 28 July 1845, Jardine wrote to Gould: "I shall send the York Artamus

which I have kept so long – I consider it distinct from any of those described & if not disagreeable to you I shall send a description of it to the "Annals" along with another bird or two which I consider new – I name it Artamus mentalis ... [following is a sketch of the head of *Didunculus*]... The appearance of the bird is pigeon-like, feet, wings, & plumage – about the size of our Stock dove, but I incline to place it among the Megapodinae or some where thereabouts – Do you know *Didunculus strigirostris* from the Pacific – I have a short paper for the "Annals" containing descriptions of a few birds but before sending to Taylor I must put the question to a High Australian authority – ask Gray, or Mitchell if they have seen or heard of such a bird." (Sauer 1999: 419). In a letter dated 30 July 1845 Gould replied: "I cannot make out the new bird you have sent a description off [*sic*] (Gnathodon) I have seen nothing like it from Australia[.] I am also equally ignorant about *Didunculus*[.]" (Sauer 1999: 421). Despite what Jardine implied, the description and illustration of the pigeon in Jardine (1845) only was accompanied by the *Artamus*. The plates featured with the paper were dated 1845 (*Artamus*) and September 1845 (*Didunculus*), although these dates are not always present<sup>11</sup>.

In a footnote to the 30 July 1845 letter from Gould, in Sauer (1999: 421–422), Storrs Olson, who had assisted Sauer with technical details, summarised the background on the pigeon, that Jardine had guessed that the pigeon was from Australia, then the link to Peale's bird and the crediting of the name '*strigirostris*' twice. He concluded by remarking that "The Gould correspondence is of interest in shedding further light on this rather confusing turn of events" (Olson, *in* Sauer 1999: 421–422). Indeed, the Gould correspondence is the only evidence we have found on Jardine prior to the publication of his 1845 paper that reveals a prior knowledge of the pigeon although not much else.

We must now consider the letter presenting the only background on the circumstances of the awareness of the pigeon and its connection to

<sup>10</sup> Is this indicated by Jardine's (1845) paper being dated "July 30, 1845"? However, this also is a date of a Gould letter discussing the paper's contents (*q.v.* in text).

<sup>11</sup> Compare the two copies available to view on the Biodiversity Heritage Library [BHL] website, [www.biodiversitylibrary.org](http://www.biodiversitylibrary.org).

Peale despite the anomaly presented by its date.

As the 16 September 1845 letter indicated, when Jardine acquired the pigeon specimen from Lady Harvey, he was most likely to have been accompanied by Strickland, and most probably initiated the arrangement through a meeting at a social occasion. If Jardine's editor wrote to him on 18 January 1845, it suggests that Strickland was making a December 1844 visit and the first draft of the descriptive paper was submitted a week or two later. However, while the Gould correspondence clarifies a few points, altogether it still offers insufficient details, as the following indicates.

Apparently, Jardine alone was in Edinburgh in November 1844. However, it is still possible Strickland was with him at the time, if not earlier, after his visit to York for the BAAS meeting<sup>12</sup>. Later, in late February–early March 1845, Strickland also may have been present in Edinburgh. Jardine alone visited Ireland during August–early September 1845. Strickland was in Oxford for most of the winter of 1844–1845, and returned from his honeymoon in Europe towards mid-September 1845 (Sauer 1999: 353, 359, 363, 365, 368, 384, 427–428).

To the above we can add a letter to Jardine from Taylor dated October 1845, where, after explaining some errors with the labelling of the *Artamus* plate, he wrote: "I hope no mistake will be made in the other, that which contains Gnathodon strigirostris, & think sh[all] be Vol. XVI. Pl. IX. This I should be glad to have in my hands as quickly as possible." (Harvie-Brown Collection; B. McGowan *in litt.* October 2017)<sup>13</sup>. It would appear that the plates connected to Jardine's paper in the issue of *Annals* published on 1 September 1845 did not contain the plates, which were, no doubt, published in the following issue. Such detail is seldom apparent when these works are viewed many years later in bound form. Indeed, although when bound, plates were usually intercalated with the text, they also might be grouped at the back of the

volume. Both examples can be seen with the two sets available on BHL.

Based on such meagre evidence, it seems most likely that Strickland's nephew, Arthur, visited Strickland during the first months of 1845, when Strickland was at Oxford. Perhaps their contact could be narrowed down to the period immediately prior to his marriage and extended honeymoon in the summer of 1845. In addition, it also must have been prior to a visit by Strickland with Jardine at his home, in order for the Peale and pigeon details to be included as they were in their respective publications. And all this, despite what is implied in the 16 September 1845 letter, which could not have been written until shortly after Strickland had returned from his honeymoon<sup>14</sup>. We can only wonder if there was some other reason why the letter was written in this way when it is clear the details were known beforehand.

The key to the mystery remains the nephew, Arthur Strickland, but finding details about him has proved elusive; for example, no details found in the database of the Strickland archives (M. Brooke *in litt.* July 2017), nor the published calendar of Strickland correspondence, where only a cousin Arthur is specifically mentioned (Rookmaaker 2010: 370; *in litt.* August 2017). As this identity appears to be correct, we are not sure how his nephew fits in with Strickland's contacts for information, although the lack of any detail suggests that contact between uncle and nephew was informal, as implied by the 16 September 1845 letter and this may explain why there are no records of their exchanges in the Strickland archives. However, perhaps a passing reference to Arthur by Rookmaaker (2010: 99) may not be the cousin, but as noted on p. 370, cousin Arthur presented his bird collection to H.E. Strickland in 1850. A recent biography of Jardine did not mention any details of this extraordinary episode from late 1844–early 1845 (Jackson & Davis 2001). An enquiry to Christine Jackson on the period 1844–1845, particularly in regard to the MS biography of

<sup>12</sup> 26 September – 2 October 1844.

<sup>13</sup> Gould also assisted by responding to Jardine's enquiry about finding some reference material of *Artamus*, as well as seeking to borrow the *Didunculus* specimen for his *Birds of Australia* (Sauer 1999: 346, 410, 427–428).

<sup>14</sup> Much of his 'honeymoon' time was spent visiting ornithologists and collections in Europe, including Denmark and Germany, highlighted by the Gould correspondence (Sauer 1999: 428; cf. Rookmaaker 2010: 25).

Gladstone (1910–1913), did not reveal any further details of use (Christine Jackson *in litt.*, March 2019).<sup>15</sup>

The possibility of a press report on Peale and the pigeon in either a U.S. or U.K. newspaper has been noted but apparently there was none (see Methods).

What seems to us to be the only possible way the information could have been obtained in time to be used by Strickland and Jardine was first revealed in a newspaper article noting an exhibition of the expedition collections and another of illustrations for the proposed scientific reports, on display during a meeting of a “Geological Association” in Washington, DC (Anonymous 1844a). A search revealed that the late mention of an announcement in November in a Hawaiian newspaper corresponded in detail to similar press notices published in a number of eastern U.S. newspapers during May and June 1844. Enquiries about what this ‘Geological Association’ could be and of its meeting, revealed that it was the Association of American Geologists and Naturalists, previously, from its founding in 1840, the American Association of Geologists. The name was changed in 1842 to the former, and in 1848 it became the American Association for the Advancement of Science.<sup>16</sup>

Their Fifth Annual Meeting took place in Washington during 7–14 May 1844. On the evenings of Saturday 11 May and Sunday 12 May the members and guests were invited to see respectively the collections of the U.S. Exploring Expedition housed at the Patent Office and in more detail the then completed illustrations planned for use in forthcoming reports plus materials used for illustrations at Lt. Wilkes’s residence (Locke 1844a: 42–43; 1844b: 134). The similar press notices in the various newspapers seen indicated that the exhibition featured nearly 2000 birds, 829 fish, 140 reptiles, 900 crustacea, 1500 insects, 20,000 shells, 300 zoöphytes, 400 corals and 10,000 species of plants; in all, about 50,000 specimens. In ad-

dition, there were over 1060 drawings featuring some of these collected specimens (e.g. Anonymous 1844c). The 134 mammal specimens collected were not mentioned, along with other items such as fossils and bottles of seawater samples, as well as about 2500 ethnological and archaeological specimens, with all the collections weighing about 40 tons (Walsh 2004)<sup>17</sup>.

How many of these drawings were of birds is unclear, let alone how many were in any type of finished state at that time. In a letter to Wilkes dated 9 April 1848, sent on Peale’s behalf, it was stated that: “there are 38 unfinished and 46 finished drawings – total number required for the work 84 be finished thus “of the 46 drawings finished but two engravings made, of which I have seen the proofs so that I apprehend no difficulty or delay in keeping ahead” of the engravers should I be permitted to finish my own work” (The Charles Wilkes Papers, David M. Rubenstein Rare Book & Manuscript Library, Duke University; E. Dunn *in litt.* August 2017). Peale later observed, in a letter to Wilkes, dated 19 April 1849: “Previous to my dismissal from the U.S. Exploring Expedition, I attached labels and numbers to all the specimens alluded to. The plates on which they are to be represented, and numbers to designate them, may all be found in my printed report, and a person with a slight knowledge of the subject can have no difficulty in selecting the required specimens, if the arrangement of the public collection has not been altered.” (The Charles Wilkes Papers, David M. Rubenstein Rare Book & Manuscript Library, Duke University; E. Dunn *in litt.*, August 2017).

According to Haskell (1942: 57), Peale’s work on his drawings was still incomplete in 1850. In a letter to Wilkes dated 9 March 1857, Cassin discussed delayed arrangements with his revised report, but particularly his problems with the accompanying Atlas: “My manuscript would have been placed in the hands of Mr. Stuart before this had he been in Philad[elphi]a and when last I saw him I understood that his absence was to be for a few days only – hence have

<sup>15</sup> Thanks to Bob McGowan, copies of the relevant pages of Gladstone were scanned and sent to MDB for examination, but again nothing of use to clarify what we need to know from the relevant 1844–1845 period was revealed.

<sup>16</sup> See: [research.omicsgroup.org/index.php/Association\\_of\\_American\\_Geologists\\_and\\_Naturalists](https://research.omicsgroup.org/index.php/Association_of_American_Geologists_and_Naturalists) (M. Cadoree Bradley *in litt.* April 2017).

<sup>17</sup> The value of documenting extant material from 19th Century voyages of scientific discovery and exploration was recently demonstrated for the ornithological collection of the Baudin Expedition of 1800–1804 (Jansen 2018).

been at his office quite repeatedly—I propose to use a large number of the plates already engraved for Mr. Peale but cannot at this moment state the precise number because I do not know which are engraved & which are not,—never having had in my possession a complete set of them – this is a matter now of arrangement between you or Mr. Stuart and myself...and will of course give at any moment my projection of an Atlas – it will not I think be as extensive as that contemplated by Mr. Peale. There are a few birds yet to be drawn for which I will take the liberty of asking your permission at a future time. The greater part of the engravings that I know were made for Mr. Peale can be used for my Atlas – and please be assured I have not the smallest disposition to incur expense unnecessarily.” (The Charles Wilkes Papers, David M. Rubenstein Rare Book & Manuscript Library, Duke University; E. Dunn *in litt.* August 2017).

Due to Peale’s delays with the plates, along with Cassin’s delays and further dilemmas, the most likely source of the pigeon details must therefore have been from the collections exhibited at the Patent Office. What is also significant here is that by 1849 Peale would be referring to the public displays of the collection in the Smithsonian building, where the collections were removed from the Patent Office in 1846, which is suggestive that more than likely the arrangement of the public collection in the Patent Office rooms must have been followed as much as possible when re-established in their new location.

Poe (1843) remarked about “suites” of specimens, including expedition collections, already accessible at the “National Gallery”, which at the time was a wing of the Patent Office, with extension plans in place by 1844 (Ellsworth 1845: 2). The original Patent Office building now houses the National Portrait Gallery, and Hart (2004: 11) noted that the collections stored in the Patent Office at that time “drew huge crowds”. The exhibition presented during the ‘Geological Association’ meeting on 11 May 1844 and the attendant publicity in local and district newspapers suggests that this was a type of ‘official’ opening and no doubt such widespread newspaper coverage could explain the ‘huge crowds’.

Our original assumption was that this was a

special event, as much of the collection would be needed for preparing the scientific reports. However, it seems more likely that although the collection storage in the overcrowded Patent Office had already been attracting curious onlookers, a more structured presentation would better suit the long-term objectives of publicising the Exploring Expedition. While this publicity clearly was not to sell more copies of reports, it would at least sell the expedition’s importance to the Washington politicians and ensure that the publication program would continue, which it did, until as late as 1874 (Goode 1892, Haskell 1942). As suggested here, while we have focussed on the information being acquired during the meeting, we cannot overlook the possibility that we also must assume that the exhibition continued for a period after the meeting and notes reaching the Stricklands could have been taken later, but still within the timeline needed to reach England before June 1845. However, while not ignoring this possibility, we think a meeting connection remains the most likely scenario in our interpretation of the best possible source of information and when it was acquired and this is the main approach in our discussion here.

Earlier meeting proceedings provided details of all who attended the annual meetings, but for 1844 the abstracts do not include this information. However, a notice in a local newspaper at the time provided details of Association members present, including one visitor from England, “Peter Edwin Henderson F.R.S., Civil Engineer, York, England.” (Anonymous 1844b). A check of ship passenger lists from the period on both Peter Henderson and Arthur Strickland did not provide any additional information. As the only proven attendant from England at the annual meeting, according to what we could find, Henderson’s profession is also suggestive of a possible link to either Strickland, and although being from York, we do not know if he returned to England in time for the September 1844 meeting in York of the British Association for the Advancement of Science [BAAS], but as his name is absent from the published proceedings, this seems unlikely.

Transit times for Atlantic crossings in 1844–1845 were around 4–5 weeks, as indicated for the letter of George Ord discussed ear-

lier, replying to one from Jardine dated 21 November and received 20 December 1845, but usually closer to four weeks or less, as also found by Frajola (2010: 30; see also Fox 2004). Note that it was a 'Geological Association' that included the exhibition and H.E. Strickland was primarily a geologist although he published extensively on birds (Jardine 1858; Rookmaaker 2010: 21–36). We therefore suggest that a source of information on the pigeon as notes from an exhibition passed on to Arthur and then from Arthur to his uncle offers the best explanation as to why nothing on the pigeon was found in the Strickland archives. We also note that there is no P.E. Henderson mentioned in the Strickland correspondence by Rookmaaker (2010), which does not preclude any connection with H.E. Strickland, but may be more suggestive of any link being to Arthur Strickland, either directly or indirectly at the time.

We know that Strickland and Jardine had information on the pigeon discovery. After extensive enquiries in archives and other sources, the exhibition seems to us to be the only possible source of information we have found that fits the timeline. Information obtained in May 1844 during the 'Geological Association' meeting could easily have been passed on in time to appear in a report presented in September 1844, as indicated by Frajola (2010) on transit times of letters. And certainly, of course, before the BAAS report was published in June 1845. If we assume that the details were not sent by letter, but instead based on information obtained by word of mouth, then the transit time, while making it possible for the information to be received before September 1844, would be connected to a person who is most likely to have been on an extended visit to the U.S. and not just for a meeting, and thus making an arrival date in England more likely to be after September 1844 and possibly not until early 1845. Again, this fits with the suggested timeline of Strickland's activities.

We also know that in a contemporary review of the September, 1844, York meeting of BAAS, the summary of what Strickland mentioned in his report did not include any reference to *Didunculus* (Anonymous 1844d: 675), but of course this is not conclusive proof the in-

formation was not available in September 1844. Furthermore, there is no proof that such details were provided by letter between Arthur and H.E. Strickland, leaving word of mouth, but possibly including informal written notes, as the most likely possibility, by someone travelling to England with information from the May 1844 meeting and exhibitions. The sticking point here remains the letter between Strickland and Jardine (see Appendix I) as we know the information was obtained and used before 16 September 1845; yet why does this letter suggest otherwise? A letter from either Strickland or Jardine to a third party would perhaps make more sense rather than one between father- and son-in-law who were very close and they obviously shared information on the pigeon specimen when in Edinburgh together at dates indicated but not specified.

The pigeon also is alluded to in a quote highlighted by Poesch (1961: 101; see also Irwin 1955: 65) to demonstrate criticisms levelled at Peale in the controversy at the time of well-read 'closet naturalists' vs. experienced field men: "I am not at all surprised that our closet naturalists have pronounced Peale's bird and the Dodo to be pigeons. Neither would I be surprised if they were to declare their conviction that our cuckoo is not a bird because it has never been known to hatch its own eggs" (Charles Waterton (1782–1865) to George Ord, 24 October 1847). This suggests that Ord, after an exchange with Jardine in 1845, as noted above, sought other opinions on the pigeon. Ord's correspondence also might explain the source of the footnote in Peale's report, quoted below.

Returning to the details provided by Jardine (1845) we also have [*Didunculus*] *strigirostris* Jardine, 1845, which is an objective junior synonym of *Gnathodon strigirostris* Jardine, 1845. The extant, unique type specimen, the holotype, of *Gnathodon strigirostris* is held in the collections of National Museums Scotland, Edinburgh, no. 1915-85 (Herman *et al.* 1990: 14) (see Figure 1). Therefore, following Article 74.4 of ICZN (1999), this holotype also is a lectotype of [*Didunculus*] *strigirostris* Jardine 1845. The type specimen was acquired by the museum as part of a purchase of mostly British birds in 1876, a decade before the disastrous auction of the re-



**Figure 1.** The mounted holotype of *Gnathodon strigirostris* Jardine 1845. First reproduction of an image of the specimen here presented with the permission of Bob McGowan, National Museums Scotland, Edinburgh, Scotland.

mainder of Jardine's collection (Sclater 1886; Sharpe 1906: 360). Peale (1849: 208–209) did not explicitly indicate that his use of the species-group name, *strigirostris*, followed Jardine, thus *Didunculus strigirostris* Peale, 1849, also is an objective junior synonym of *Gnathodon strigirostris* Jardine, 1845, and objective junior synonym and homonym of [*Didunculus*] *strigirostris* Jardine, 1845. The original painting Peale provided for the plate of the pigeon, published in 1858 (Cassin 1858b: pl. 34), included a full colour background, missing from the published plate due to cost-cutting measures (Haskell 1942: 56) (see Figures 2 and 3).

As demonstrated by his reference to Peale's proposed report, Jardine (1845) was well aware of Peale's intention to use the species-group name *strigirostris*. By applying it himself, Jardine clearly linked the information on Peale's new pigeon to his own specimen description,

thereby supporting his treatment of *Didunculus* as a junior synonym of his *Gnathodon*. In the catalogue of type specimens of birds in the National Museum of Natural History, Washington, DC, Deignan (1961: 123) indicated that Peale credited Jardine's *strigirostris* to himself and explained this with a quote from an unpublished note by Charles Wallace Richmond (1868–1932), a former curator: “the authorities who had the work in charge made him describe as new everything that *was* new at the time the Expedition collected it! This is explained in Peale's suppressed introduction.” Deignan apparently overlooked the prior publication of the suppressed introduction by Haskell (1942: 59–60). It also can be found in the facsimile reprint of Peale's report (Peale 1978). In this suppressed introduction Peale made it clear that a major obstacle for him was the loss of his personal reference library and part of his collections when





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Picus strigirostris

**Figure 2.** Original painting with colour background by Titian Peale for the Tooth-billed Pigeon *Didunculus strigirostris*. Reproduced by permission of Dept of Library Services, American Museum of Natural History, New York, USA.



**Figure 3.** The published plate no. 34 of Cassin (1858b) of the Tooth-billed Pigeon *Didunculus strigirostris*, revealing the uncoloured background (from <https://www.biodiversitylibrary.org/item/141450#page/99/mode/1up>).

the *USS Peacock* was wrecked on a bar of the Columbia River on 18 July 1841 (Porter 1983: 74, 1985: 304). Peale was eventually compensated for his losses in the amount of \$1782.20, plus \$1260.27 for salary arrears July 1842 to January 1843 (U.S. 29th Congress, 2nd Session, Bill, H.R. 663, dated 16 February 1847<sup>18</sup>).

### Peale's Report as 1849, not 1848

The long overlooked date change in ornithological and mammalogical literature of Peale's report from 1848 to 1849, was presaged by the genus-group name *Didunculus* applied to Peale's major discovery. It is usually attributed to Peale in his report, but it had actually appeared earlier as a

junior synonym of *Gnathodon* (Jardine 1845), as discussed above. *Gnathodon* was soon found to be unavailable as it had been used earlier by George Brettingham Sowerby (1788–1854) in 1832 for a shell (Sherborn 1926: 2747; Petit 2006: 88). Sherborn also listed Richmond's later discovery (1917: 592) of another *Gnathodon*, proposed by Streubel (1842: 283, 290), and long treated as a synonym of the quail genus *Colinus* Goldfuss, 1820. Earlier, Dall (1879: 132) had stated that *Gnathodon* "was used by Gray for a mollusk in 1825." However, no such name can be traced, which agrees with Sherborn's findings. Dall's reference can be explained by Sowerby (1832), who noted after listing *Gnathodon*, "Gray in American Journal of Science." No such reference can be found in either volume 9 or 10 of the *American Journal of Science and the Arts* from 1825, using the date provided by Dall.

Mathews (1925: 105, 1929: 690) gave the publication date of Peale's report as "in or before October 1848", but without providing any supporting evidence for this proposed date. Despite this claim and the ongoing dating of Peale's report as 1848 in ornithological and mammalogical literature, it has been established and confirmed that official distribution, and hence publication, was delayed until "Seventy copies were sent to the Dept. of State for distribution in the week preceding June 5, 1849" (Overstreet, in Bruce *et al.* 2016: 99).<sup>19</sup> Overstreet also provided a table of report details, with Peale and Cassin listed as volumes VIIIA and VIIIB respectively, following Haskell, with the date of June 1849 listed for Peale. Despite the date correction, an oversight led to Peale being listed as 1848.<sup>20</sup> With Peale's report dated to June 1849, what is usually overlooked is that there are still four publications of *Didunculus* as the name of the pigeon dating from 1848.

Strickland & Melville (1848: 39–40, 65, 97, 107) used *Didunculus* in their discussion of its

<sup>18</sup> See [www.memory.loc.gov/cgi-bin/ampage?collId](http://www.memory.loc.gov/cgi-bin/ampage?collId); accessed October 2017. In 2020 terms \$1782.20 = \$56,490.96 and \$1260.27 = \$39,947.18, a total of \$96,438.14 ([www.officialdata.org/us/inflation](http://www.officialdata.org/us/inflation), accessed October 2020).

<sup>19</sup> See L. Overstreet, undated, [www.sil.si.edu/digitalcollections/usexex/learn/Overstreet-01.htm](http://www.sil.si.edu/digitalcollections/usexex/learn/Overstreet-01.htm); 'notes in the bibliographic descriptions'; the quote provided by Overstreet comes from Haskell (1942: 55).

<sup>20</sup> See: [www.sil.si.edu/DigitalCollections/usexex/navigation/ScientificText/USExEx\\_19\\_10\\_select.cfm](http://www.sil.si.edu/DigitalCollections/usexex/navigation/ScientificText/USExEx_19_10_select.cfm); no doubt based on the date listing being taken from the title page.

apparent similarities to the dodos and related birds of the Mascarene Islands. Gray (1848) made it a belated addition to his *Genera of Birds*. Doubtless both were aware of the preoccupation affecting *Gnathodon*, although it is only mentioned by Gray (1848). Moreover, Strickland & Melville (1848: 40) noted that Peale's report was apparently still unpublished and Gray's entry of this species as a new family in his book was based on Jardine (1845), with his mention of Peale derived from it. Gould (1846) was Gray's other main source, as is apparent from a comparison of the two plates (Gould 1846, Gray 1848), who also mentioned *Didunculus* based on Strickland (1845), although using *Gnathodon*, but he later adopted *Didunculus*, no doubt being influenced by Gray or Strickland or both (Gould 1848a, 1848b): "it is identical with the bird described by Mr. Titian Peale of America under the name of *Didunculus*" (cf. Gould 1848a: 82, 1848b: lxxii).

Gray's two pages on the pigeon were dated December 1848, and even if this part of his book may have appeared in early 1849, all four works came before the publication of Peale's report. Moreover, none can be regarded as additional junior synonyms and homonyms because they obviously followed Jardine, directly or indirectly, but with *Gnathodon* being replaced by *Didunculus*. Perhaps Gray was the source of the *Gnathodon* oversight when he wrote, in an undated letter, to Jardine (Harvie-Brown Collection): "which name having been previously employed in Conchology, &c., induces me to send you these hasty lines thinking that you would not like to lose the naming of so singular a bird – I give you one which strikes me would be well bestowed upon it, viz. *Odontophaps* as it is certainly a pigeon with a dentated bill." Jardine did not take up Gray's suggestion and allowed *Didunculus* to stand.

As we know, Peale proposed *Didunculus* as a new name (1849: 208) because it was new when collected. However, in a footnote Peale added (p. 209): "Since writing the above, *Knathodon* [sic] has been proposed as a name for this genus, by Sir William Jardine, Bart. It would give me pleasure to adopt it, as better

than the one now proposed, but for the fact that it has been preoccupied in Entomology [sic]." On this basis, despite the policy Peale had to follow, we can interpret Peale's proposed *Didunculus* merely as a replacement name for Jardine's *Gnathodon*, rather than as a new genus-group name for a new taxon.

### The Status of Peale's New Species

Bartlett (1940: 687–705) provided a concordance for the treatment of new names between Peale and Cassin (listed as "ed. 2"). On pp. 701–702 the treatment of *Didunculus* by both was compared, with Peale's footnote on Jardine's name, corrected there to *Gnathodon*, noted. Cassin was listed as adopting the unnecessary replacement name *Pleiodus* Reichenbach, 1847, instead of using *Didunculus* (Bruce *et al.* 2016: 99). Bartlett's reconciliation of Peale's and Cassin's treatments of the new species discovered by Peale was also to highlight the need for Peale's new names to be properly reassessed. This became a stimulus for the summary provided in Appendix II. We also offer details on the current status of Peale's new names, which proved relatively easy for the mammal names when compared to what was required for the bird names.

Peale's specimens, originally housed in rooms of the U.S. Patent Office, were transferred to the Smithsonian Institution building after it opened in 1846, and eventually to the mammal and bird departments of the Smithsonian's United States National Museum (Goode 1892), which became in 1969 the National Museum of Natural History<sup>21</sup>. In order to put all of Peale's new species names on an equal footing, whether they are currently in use or long buried in synonymy, we began with the latest type specimen catalogues, all of which provide an identification of the then current status of the new species names listed. In the case of the mammals, a revised, four-part type catalogue was recently completed (Fisher & Ludwig 2012–2016), which has the added advantage of including all of Peale's new species, whether or

<sup>21</sup> See [naturalhistory.si.edu/onehundredyears/brief\\_history.htm](http://naturalhistory.si.edu/onehundredyears/brief_history.htm); accessed October 2017.

not a type specimen was still extant. Due to its recent publication we have followed the current names provided, except one, with at least nine of Peale's new mammal species names in current use.

Turning to the birds, the situation requires a more comprehensive effort to indicate the current status of Peale's new species names. The starting point is the type specimen catalogue by Deignan (1961), where Deignan indicated a current name for each of Peale's new species for which there is extant type material. Deignan (1961: ix) claimed that "the majority" of Peale's types were present and the preparation of Appendix II revealed only six are actually missing, with observations of two noted (*Ibis brevirostris*, *Aptenodytes magirostris*). In addition, two other new names were based on sight records (*Astur ferox*, *Barita cinerea*).

In order to provide a starting point for the current status of Peale's new bird species omitted by Deignan (1961), we turned to the three most recent works covering the additional names that also provide full synonymies in order to locate and place these names (Mathews 1927, 1930; Hellmayr & Conover 1948). Altogether, 73 of Peale's 112 new bird species listed required an indication of a change in current status since Deignan (1961), including the three extra sources required, in order to reconcile Peale's new species names with current taxonomy. In view of the current state of flux of bird taxonomy, as compared to a comparatively more stable period in the early 1960s, the number of changes is relatively fewer than one might have expected.

The initial crosscheck of current status of the bird names to a more recent source was based on reconciling the names with the detailed lists of the two-volume Howard & Moore 4th edition world bird list (Dickinson & Remsen 2013; Dickinson & Christidis 2014). As there can be differing taxonomic interpretations in some bird groups, we also compared coverage in three other recent world bird lists: 1. HBW/BirdLife (del Hoyo & Collar 2014, 2016); 2. IOC World Bird List, Version 7.2 ([www.world-birdnames.org/](http://www.world-birdnames.org/)) accessed 15 May 2017; 3. The Clements Checklist of Birds of the World ([www.birds.cornell.edu/clementschecklist/](http://www.birds.cornell.edu/clementschecklist/)) accessed 15 May 2017. For Peale's new bird

species there seems to be a general consensus as to the number currently recognised, although not always within the same taxonomic category. In our notations of differences from Deignan (1961) we refer to these four sources as HM4, HBW, IOC and CCBW respectively. The end result is that at least 44 of Peale's new bird species names are in current use. For additional details see the caption to Appendix II.

### Summary and Conclusions

The research presented here began as a summary of a few relevant details on authorship issues affecting the pigeon names *Didunculus* and *strigirostris*, intended to supplement our earlier paper (Bruce *et al.* 2016). Using this opportunity to investigate the source of the advance awareness in England of Peale's involvement in the Exploring Expedition and his major discovery, we actually expected a quick result from an enquiry to an appropriate archive, based on the apparent existence of a broadsheet circular promoting Peale's proposed scientific report on the mammals and birds. This did not happen. With enquiries extending to 13 archive collections and other sources, including extensive searching on the internet, our investigation took us in unexpected directions.

Although we can present here a more detailed review of the background of this case and its publication history than hitherto, we still could not answer all questions, including, unfortunately, the key questions that underpinned this investigation despite filling in much related detail. We still do not know exactly when the details of Peale's pigeon discovery was first passed on to H.E. Strickland, and then to Jardine. We may never know for sure just who passed on the information to Strickland's nephew, Arthur, but we do feel that apparently after exhausting all other possibilities, there must be a connection between a May 1844 exhibition in Washington, DC, of the expedition collections and other materials, and both Stricklands.

As a source of information on Peale and his pigeon discovery, the exhibition clearly provided the opportunity for these details to be acquired and then to somehow reach the Stricklands, and later Jardine, in England. The details may not have been available to Strickland when preparing

his report, but instead during its 'in press' period, or even when the report was in its final, proof stage. With Strickland's report published on 18 June 1845 and Jardine's paper on 1 September 1845, we are compelled to disregard the misleading context of a letter dated 16 September 1845 (see Appendix I). The source of the information on Peale and the pigeon is credible and fits the available evidence, but not the actual date of the letter, which seems to be playing havoc with the timeline of events. We must ask: Why does this letter between Strickland and Jardine seem to contradict the evidence of their earlier publications?

Despite our archive enquiries turning up negative results, a broadsheet circular may yet be awaiting discovery in some archive, even though we have reluctantly concluded that this appears to be doubtful. Our quest to locate letters in archives offering details of the Wilkes/Cassin conspiracy against Peale, as well as Cassin's concomitant letter-writing efforts to undermine Peale's report, only revealed some evidence of Peale's awareness of these events. On the other hand, we cannot entirely disregard the possibility that there may yet be a letter or two, or more, containing such details of these controversial issues either overlooked in archives already contacted or in other collections we have missed, and possibly a circular.

There still remains the possibility of an overlooked mention of Peale and his pigeon discovery in a contemporary newspaper article, although the databases checked are very comprehensive. Lastly, the missing link to the still unsolved mysteries in this tale remains as the elusive Arthur Strickland. Apart from being H.E.'s nephew, who was he? What happened to him? Did he leave personal papers in a collection somewhere?

In conclusion, the status of the name *Didunculus strigirostris*, its source and authorship details have been revised and updated. While it has long been known that this remarkable pigeon discovery by Peale had been eclipsed by Jardine's chance find, well before the delayed publication of Peale's expedition report, there still was confusion in the literature. In addition, the notice of the pigeon discovery is inextricably linked to the history of Peale's report, which

needed to be reviewed in its historical context more thoroughly than hitherto. The major oversight of claiming the name *Didunculus* as first appearing in Peale's report, dated to 1848 instead of 1849, has been corrected, which led to the reassessment of its status and authorship, which no longer can be Peale but instead is Jardine, 1845. The opportunity also was taken to provide an illustration of the original type specimen of this pigeon, as well as the original coloured painting prepared by Peale, which reveals more detail than the published plate. In order to complete this account we also have provided a detailed, revised summary of Peale's new species and their current status.

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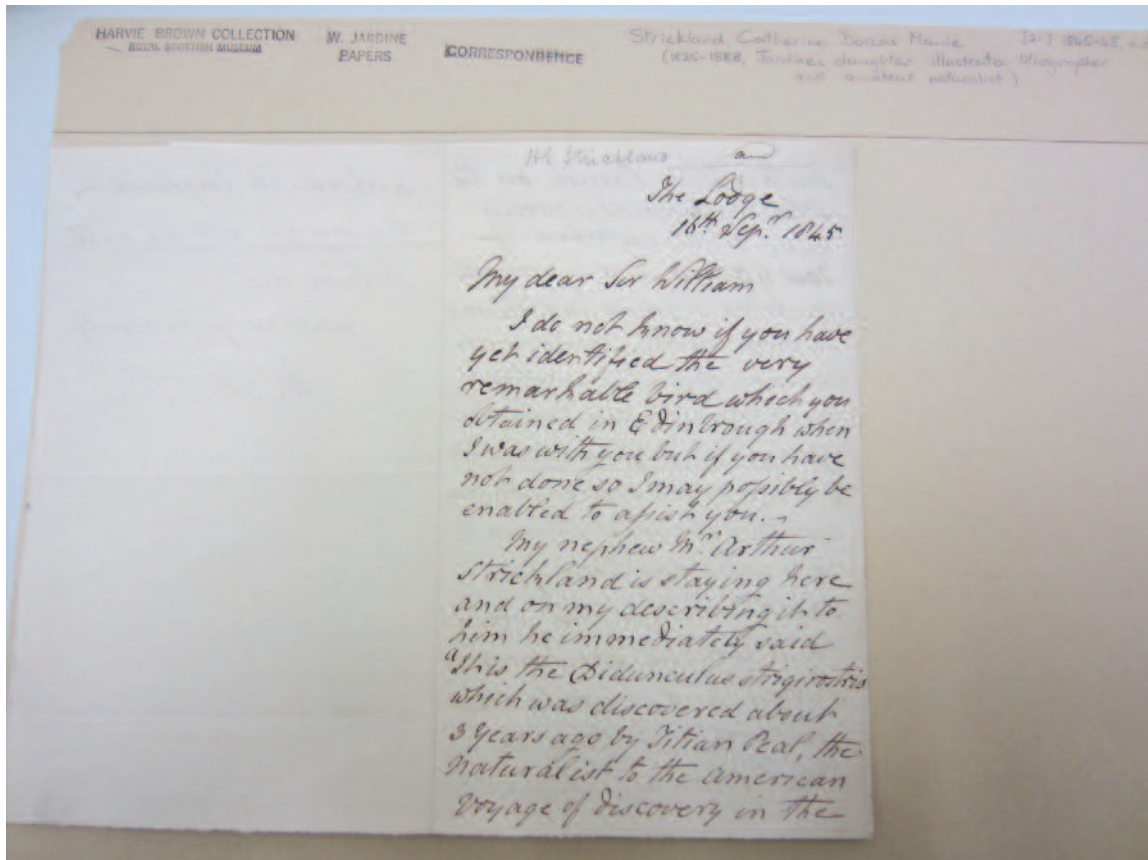
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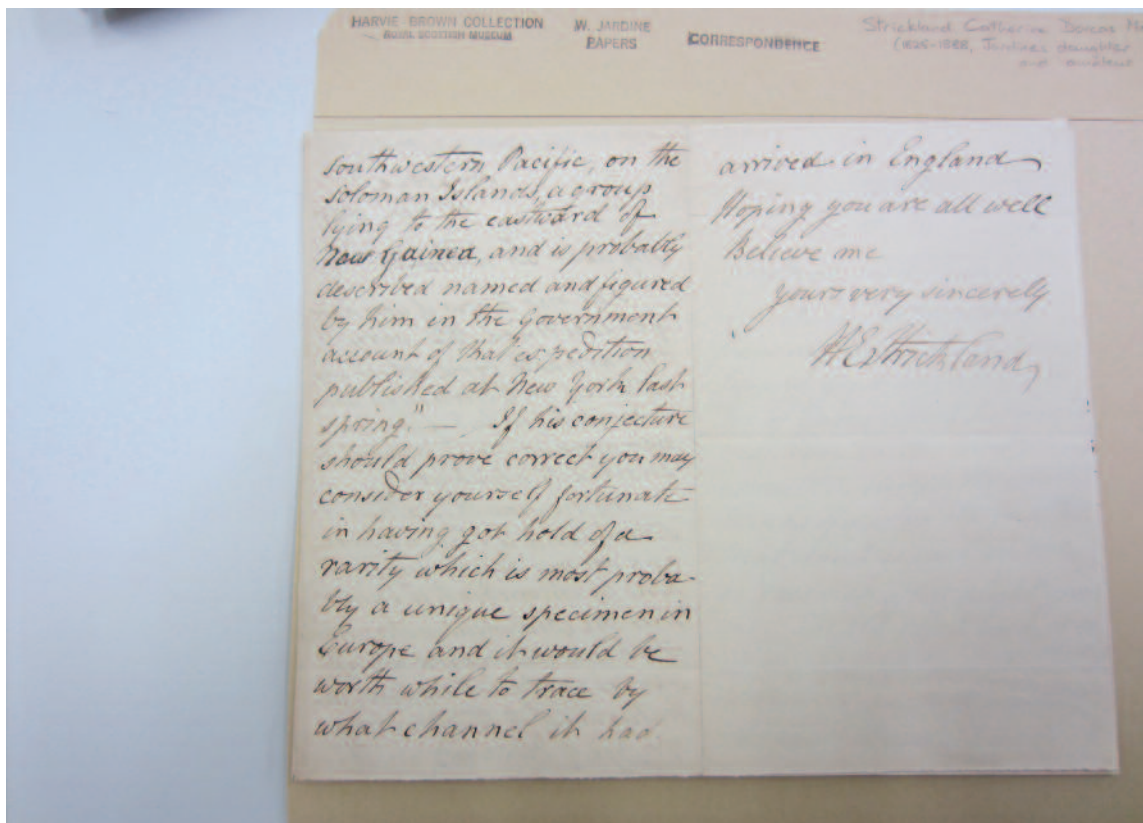
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**Figure 4.** The first page of the Strickland-Jardine letter dated 16 Sept. 1845. [Harvie-Brown Collection, National Museums of Scotland, Edinburgh, Scotland; reproduced by permission.]



**Figure 5.** The second and third pages of the Strickland-Jardine letter dated 16 Sept. 1845. [Harvie-Brown Collection, National Museums of Scotland, Edinburgh, Scotland; reproduced by permission.]

## Appendix I

Letter from H.E. Strickland to Sir William Jardine: The Lodge, 16 Sept. 1845

“My Dear Sir William,

I do not know if you have yet identified the very remarkable bird which you obtained in Edinbrough [*sic*] when I was with you but if you have not done so I may possibly be enabled to assist you.

My nephew Mr. Arthur Strickland is staying here and on my describing it to him he immediately said “This is the *Didunculus strigirostris* which was discovered about 3 years ago by Titian Peal [*sic*], the naturalist to the American Voyage of Discovery in the southwestern Pacific, on the Solomon Islands, a group lying to the eastward of New Guinea, and

is probably described, named and figured by him in the Government account of that expedition published at New York last spring”– If his conjecture should prove correct you may consider yourself fortunate in having got hold of a rarity which is most probably a unique specimen in Europe and it would be worth while to trace by what channel it had arrived in England.

Hoping you are all well

Believe me,

Yours very sincerely,

HE Strickland”

[For a copy of the original letter see Figures 4 and 5. The figures and transcription from the Harvie-Brown Collection, National Museums of Scotland, Edinburgh, Scotland; reproduced by permission.]

## Appendix II. An annotated summary of Peale's new mammal and bird species names (1849), their interpretation by Cassin (1858a), and current status.

The new names proposed by Peale (1849), all highlighted in his list of contents, pp. xiii–xxv, and as given by Cassin (1858a), are indicated below by the page numbers of these editions. The current status of the mammals, except for one, is based on the four-part updated catalogue of the mammal types of the National Museum of Natural History (formerly United States National Museum [USNM]), Smithsonian Institution (Fisher & Ludwig 2012, 2014, 2015, 2016; indicated below as 1, 2, 3 or 4 + page no.<sup>1</sup>). Current status for most of the bird names was initially based on the type catalogue for the National Museum of Natural History (Deignan 1961; as D61 + page no.); the eight names omitted were checked against Mathews (1927, 1930; as M27 or M30 + page no.<sup>2</sup>) and Hellmayr & Conover (1948; as HC48 + page no.), the latest works providing full synonymies and covering the additional names. Three new names listed by Deignan (1961) as Peale MS have not been listed separately but are mentioned where appropriate in the annotations because while these were intended as new names following Peale's requirement to name what was new when discovered, it was clear that Peale subsequently found that they could be identified with older names. Differences of status of Peale's bird names compared to Deignan (1961) were noted against four recent world bird lists (HM4, HBW, IOC, CCBW—see text for details). Peale's new names in current use, indicated in bold, reveal at least nine mammal and 44 bird names currently applying to species and subspecies (includes four bird names highlighted in the annotations).

Names in the list below derive from and are in the following order: Peale (1849) / Cassin (1858a) / Current Status. Original pagination or reference details are in square brackets [ ]. Any variations are noted in the annotations. Sequence follows Bartlett (1940).

### Mammals

*Pteropus vociferus* [19] / *Pteropus Macklotii* [10] / *Pteropus hypomelanus?* [3.53]

Perhaps *P. vociferus* is identifiable with *P. hypomelanus* (Fisher & Ludwig 2015: 53). If so, Peale's is the oldest name and it would be a new species credited to Peale.

*Pteropus samöensis* [20] / *Pteropus samoensis* [7] / *Pteropus s. samoensis* [3.53]

*Dysopes aurispinosus* [21] / *Molossus aurispinosus* [5] / *Nyctinomops aurispinosus* [3.68]

*Vespertilio semicaudatus* [23] / *Vespertilio semicaudatus* [4] / *Emballonura s. semicaudata* [3.57]

*Halichærus antarcticus* [30] / *Lobodon carcinophaga* [25] / *Phoca vitulina richardi* [4.27]

*Halichærus antarcticus* is actually a new species that should be credited to Peale, but the name has been dismissed as a *nomen oblitum* (Fisher & Ludwig 2016: 27).

*Phocæna pectoralis* [32] / *Delphinus pectoralis* [28] / *Peponocephala electra* [4.60]

*Phocæna australis* [33] / *Delphinus obscurus* [27] / *Lagenorhynchus australis* [4.60]

Now *Sagmatias australis* (Vollmer *et al.* 2019).

*Delphinus albimanus* [33] / *Delphinus albimanus* [29] / *Delphinus delphis* [4.59]

<sup>1</sup> Unlike the treatment of the birds by Deignan (1961) the new mammal catalogue lists all of Peale's new names, thus including those for which type material is no longer extant.

<sup>2</sup> Stone (1899: 45–47) listed type material held by the Academy of Natural Sciences, Philadelphia, notably for two new Hawaiian birds (*Buteo solitarius*, *Corvus hawaiiensis*), provided by J.K. Townsend to be used to represent the descriptions of specimens lost by shipwreck. Mathews (1929) provided a summary of the identifications of Peale's new birds, but the names are instead cited to the latest sources with full synonymies, including two by Mathews.



*Delphinus albirostratus* [34] / *Lagenorhynchus cæruleoalbus* [31] / *Stenella attenuata* [4.60]

*Delphinus lateralis* [35] / *Lagenorhynchus lateralis* [32] / *Stenella attenuata* [4.61]

*Delphinapterus borealis* [35] / *Delphinus borealis* [30] / *Lissodelphis borealis* [4.60]

*Cervus lewisii* [39] / *Cervus lewisii* [59] / *Odocoileus hemionus columbianus* [4.50]

*Arvicola montana* [44] / *Arvicola montanus* [47] / *Microtus m. montanus* [2.16]

*Arvicola occidentalis* [45] / *Arvicola occidentalis* [44] / *Microtus t. townsendii* [2.17]

*Arvicola californica* [46] / *Arvicola californicus* [45] / *Microtus c. californicus* [2.15]

*Mus exulans* [47] / *Mus exulans* [38] / *Rattus exulans* [2.84]

*Mus vitiensis* [49] / *Mus vitiensis* [40] / *Rattus exulans* [2.85]

*Mus peruvianus* [51] / *Drymomys parvulus* [43] / *Mus musculus domesticus* [2.78]

*Cricetodipus* [52] / *Perognathus* [48] / *Perognathus* [1.50]

*Cricetodipus parvus* [53] / *Perognathus parvus* [48] / *Perognathus p. parvus* [1.50]

*Sciurus fossor* [55] / *Sciurus fossor* [49] / *Sciurus g. griseus* [1.22]

## Birds

*Buteo solitarius* [62] / *Pandion solitarius* [97] / *Buteo solitarius* [M27.250]

On p. 308 of Peale (1849) is spelled *solitaria*, a point overlooked by Deignan (1961: 45), although the two spellings were noted by C.W. Richmond on his index card ([www.zoonomen.net/cit/RI/SP/Burn/burn00232a.jpg](http://www.zoonomen.net/cit/RI/SP/Burn/burn00232a.jpg)). As this dual name usage has not been addressed previously (N. David *in litt.* April 2017), we act as First Reviser under Article 24.2.3 (ICZN 1999) and select the spelling *solitarius*, as used by Deignan. Note that although this species was named by Peale in his report, the type specimen was loaned by J.K. Townsend as most of the Hawaiian collection of the expedition was lost in the wreck of the *USS Peacock* (Cassin 1858a: 98; Stone 1899: 45; Ingersoll & Fisher 2006: 29).

*Circus approximans* [64] / *Circus assimilis* [101] / *Circus a. approximans* [D61.47]

*C. approximans* usually treated as monotypic (HM4, IOC, CCBW). Peale (1849: xv) first listed the new species as *Circus juxta*, the name given page priority, with *approximans* as a synonym, by Mathews (*cf.* 1929: 691). However, *juxta* had never gained any usage in subsequent publications prior to its revival by Mathews (1922: 10), and few, apart from Mathews himself, used it until as late as the 1940s, once Peters (1931: 267) had applied *approximans* and ignored *juxta*; and this was done despite Mathews having selected *juxta* over *approximans* in his capacity as First Reviser of the names (Debus *et al.* 2018). Peale (1849: 308) used *approximans* again in his specimen catalogue, clearly demonstrating that *juxta* was not followed as the name for his new species. Cassin (1858a: 101) correctly placed *approximans* as a synonym of *C. assimilis*, a name subsequently misapplied to a different species whose correct name should have been *C. jardinii* Gould, 1838 (Debus *et al.* 2018).

*Falco ferox* [67] / *Ieracidea nova zealandiæ* [89] / *Falco novaeseelandiae* [D61.51]

Trewick & Olley (2016) separated the North and South Island populations, with North Island birds now *F. n. ferox*.

*Astur ferox* [308] / *Astur cruentus* [429] / *Circus a. assimilis* [M27.237]

*Circus assimilis* now monotypic (HM4, HBW, IOC, CCBW). Although the name *Astur ferox* was published as a *nomen nudum* it is included here following Bartlett (1940); Cassin (1858a: 429) noted that specimens were labelled with the name although no description was published (see also Mathews 1927: 237).

*Aster [sic] rufitorques* [68] / *Accipiter rufitorques* [90] / *Accipiter fasciatus rufitorques* [D61.41]

Now a separate species, *A. rufitorques*, endemic to Fiji (HM4, HBW, IOC, CCBW).

*Aster [sic] bifasciatus* [70] / *Accipiter badius* [430] / *Accipiter virgatus gularis* [D61.43]

On p. 309 of Peale (1849) *Aster [sic = Astur] bifasciatus* is spelled *bifasciata*, a point overlooked by Deignan (1961: 5), although the two spellings were noted by C.W. Richmond on his index card ([www.zoonomen.net/cit/RI/SP/Arat/arat00885a.jpg](http://www.zoonomen.net/cit/RI/SP/Arat/arat00885a.jpg)). As this dual name usage has not been addressed previously (N. David *in litt.* April 2017), we act as First Reviser under Article 24.2.3 (ICZN 1999) and select the spelling *bifasciatus*, as used by Deignan. Now *A. g. gularis* (HM4, HBW, IOC, CCBW).

*Strix lulu* [74] / *Strix delicatula* [105] / *Tyto alba lulu* [D61.138]

*Tyto alba lulu* now merged alternatively with *T. d. delicatula* (HM4), *T. alba delicatula* (HBW, CCBW) or *T. javanica delicatula* (IOC).

*Noctua venatica* [75] / *Athene nova zealandiæ* [[112] / *Ninox novaeseelandiae venatica* [D61.152]

On p. 309 of Peale (1849) *Noctua venatica* is spelled *venaticus*, a point overlooked by Deignan (1961: 152), although the two spellings were noted by C.W. Richmond on his index card ([www.zoonomen.net/cit/RI/SP/Nino/nino00172a.jpg](http://www.zoonomen.net/cit/RI/SP/Nino/nino00172a.jpg)). As this dual name usage has not been addressed previously (N. David *in litt.* April 2017), we act as First Reviser under Article 24.2.3 (ICZN 1999) and select the spelling *venatica*, as used by Deignan. The subspecies *venatica* now merged with the nominate *N. n. novaeseelandiae* (HM4, HBW, IOC, CCBW).

*Athene patagonica* [78] / *Athene cunicularia* [109] / *Speotyto c. cunicularia* [D61.154]

Now *Athene c. cunicularia* (HM4, HBW, IOC, CCBW).

*Colluricincla maculosa* [81] / *Lalage terat* [143] / *Lalage m. maculosa* [D61.317]

*Ocypterus superciliosus* [83] / *Artamus superciliosus* [434] / *Artamus superciliosus* [D61.476]

Named as new but the same species-group name was applied to this species by Gould in 1837. An example of the policy of naming everything new at the time it was collected.

*Ocypterus mentalis* [84] / *Artamus mentalis* [141] / *Artamus leucorhynchus mentalis* [D61.476]

*Artamus mentalis* is a separate species, endemic to Fiji (HM4, IOC, CCBW). Named as new but the same species-group name was applied to this species by Jardine in 1845, based on a specimen from the Yorkshire Philosophical Society (B. McGowan *in litt.* October 2017) and added to the paper where he described *Didunculus*. An example of the policy of naming everything new at the time it was collected and in this case, apparently adopting Jardine's species-group name, in comparison to Jardine adopting Peale's species-group name for his pigeon (*strigirostris*), in the same paper (Jardine 1845).

*Turdus pallidus* [86] / *Colluricincla harmonica* [142] / *Colluricincla h. harmonica* [D61.473]

On p. 311 of Peale (1849) *Turdus pallidus* is spelled *pallida*, a point overlooked by Deignan (1961: 473), although the two spellings were noted by C.W. Richmond on his index card ([www.zoonomen.net/cit/RI/SP/Turd/turd00812a.jpg](http://www.zoonomen.net/cit/RI/SP/Turd/turd00812a.jpg)). As this dual name usage has not been addressed previously (N. David *in litt.* April 2017), we act as First Reviser under Article 24.2.3 (ICZN 1999) and select the spelling *pallidus*, as used by Deignan.

*Mimus peruvianus* [87] / *Mimus melanotis* [436] / *Mimus l. longicaudatus* [D61.416]

*Pitta coronata* [89] / *Pitta cucullata [sic]* [437] / *Pitta sordida cucullata* [D61.299]

*Saxicola fumifrons* [90] / *Ptyonura mentalis* [435] / *Muscisaxicola macloviana mentalis* [D61.271]

The genus *Muscisaxicola* is now treated as masculine, thus *maclovianus* (HM4, HBW, IOC, CCBW).

- Petroica coccinea* [92] / *Petroica phoenicea* [276] / *Petroica multicolor boodang* [M30.447]  
 Now *Petroica b. boodang* (HM4, HBW, IOC, CCBW).
- Petroica pusilla* [93] / *Petroica pusilla* [164] / *Petroica multicolor pusilla* [D61.467]  
 Recently treated as a separate species, *P. pusilla*, endemic to Samoa (Pratt & Mittermeier 2016: 231).
- Regulus plumulosus* [94] / *Euscarthmus parulus* [156] / *Spizitornis p. parulus* [D61.293]  
 Now *Anairetes p. parulus* (HM4, HBW, IOC, CCBW).
- Zosterops flaviceps* [95] / *Zosterops flaviceps* [167] / *Zosterops lateralis flaviceps* [D61.510]
- Eopsaltria flavifrons* [96] / *Eopsaltria flavifrons* [160] / *Pachycephala flavifrons* [D61.472]
- Eopsaltria icteroides* [96] / *Eopsaltria icteroides* [161] / *Pachycephala flavifrons* [D61.472]
- Eopsaltria albifrons* [97] / *Eopsaltria albifrons* [162] / *Pachycephala flavifrons* [D61.472]
- Rhipidura nebulosa* [99] / *Rhipidura nebulosa* [151] / *Rhipidura n. nebulosa* [D61.459]  
 Recently treated as a separate species endemic to Samoa (Pratt & Mittermeier 2016: 228).
- Monarcha cinereus* [101] / *Leucocirca lessoni* [165] / *Mayrornis l. lessoni* [D61.469]
- Platyrrhynchus albiventris* [102] / *Myiagra rubecula* [149] / *Myiagra albiventris* [D61.469]
- Lepturus brevicauda* [103] / *Muscigralla brevicauda* [435] / *Muscigralla brevicauda* [D61.274]  
 Although named as new, the same species-group name was applied to this species by d'Orbigny & Lafresnaye in 1837. An example of the policy of naming everything new at the time it was collected.
- Corvus leptonyx* [105] / *Corvus ruficollis* [116] / *Corvus corax leptonyx* [D61.326]  
 Occurrence on Madeira, where Peale found his type specimen, a female, uncertain, but not resident. According to Vaurie (1959: 176), the type was a straggling *C. c. tingitanus* Irby, 1874, which is resident in the Canary Islands ['canariensis']. Deignan (1961: 326) noted that the type could represent *tingitanus*, *canariensis* or *hispanus*; the latter two named in the revision by Hartert & Kleinschmidt (1901). Mathews (1929: 693) demonstrated the earlier view, prior to 1901, that *leptonyx* was the oldest name for the birds subsequently named *tingitanus*. The separation of *canariensis* and *hispanus* was tentatively accepted by Dickinson & Christidis (2014: 235), but no mention of *leptonyx* nor of occurrence in Madeira. While *leptonyx* could have a claim to validity for some raven populations in this region, its status may best be regarded as indeterminate.
- Corvus hawaiiensis* [106] / *Corvus hawaiiensis* [119] / *Corvus tropicus* [M30.896]  
 On p. 315 of Peale (1849) *Corvus hawaiiensis* is spelled *Hawaiïensis*, a point overlooked by Ingersoll & Fisher (2006: 240), although the two spellings were noted by C.W. Richmond on his index card ([www.zoonomen.net/cit/RI/SP/Corv/corv00173a.jpg](http://www.zoonomen.net/cit/RI/SP/Corv/corv00173a.jpg)). As this dual name usage has not been addressed previously (N. David *in litt.* April 2017), we act as First Reviser under Article 24.2.3 (ICZN 1999) and select the spelling *hawaiiensis*, as used by Ingersoll & Fisher (see also Banks 1983). Now *Corvus hawaiiensis*; the name *Corvus tropicus*, long associated with the Hawaiian Crow, belongs to an Asian drongo (*cf.* Banks 1983) and Peale's name is accepted as the correct name (HM4, HBW, IOC, CCBW). One of two type specimens on loan to replace specimens lost in the wreck of the *USS Peacock* (Peale 1849: 107; Stone 1899: 46; Ingersoll & Fisher 2006: 240–241).
- Barita cinerea* [315] / *Strepera anaphonensis* [431] / *Strepera v. versicolor* [M30.658]  
 Peale's name was without descriptive details. These were added later by Mathews (*cf.* Mathews 1930: 658).
- Lamprotornis atrifusca* [109] / *Calornis corvina* [124] / *Aplonis atrifuscus* [D61.482]  
 The genus *Aplonis* is now treated as feminine, thus *atrifusca* (HM4, HBW, IOC, CCBW).

*Lamprotornis fusca* [110] / *Aplonis marginata* [125] / *Aplonis t. tabuensis* [D61.482]

*Lamprotornis brevirostris* [111] / *Aplonis brevirostris* [126] / *Aplonis tabuensis* ***brevirostris*** [D61.483]

*Geospiza peruviansis* [115] / *Volatinia jacarina* [135] / *Volatinia jacarina* ***peruviansis*** [D61.616]

On p. 318 of Peale (1849) *Geospiza peruviansis* is spelled *peruvianus*, a point overlooked by Deignan (1961: 616), although the two spellings were noted by C.W. Richmond on his index card ([www.zoonomen.net/cit/RI/SP/Gall/gall00817b.JPG](http://www.zoonomen.net/cit/RI/SP/Gall/gall00817b.JPG)). As this dual name usage has not been addressed previously (N. David *in litt.* April 2017), we act as First Reviser under Article 24.2.3 (ICZN 1999) and select the spelling *peruviansis*, as used by Deignan.

*Geospiza prasina* [116] / *Erythrura pealei* [138] / *Erythrura* ***cyaneovirens pealii*** [D61.560]

On p. 318 of Peale (1849) *Geospiza prasina* is spelled *prassinus*, a point overlooked by Deignan (1961: 616), although the two spellings were noted by C.W. Richmond on his index card ([www.zoonomen.net/cit/RI/SP/Gall/gall00819a.jpg](http://www.zoonomen.net/cit/RI/SP/Gall/gall00819a.jpg)). As this dual name usage has not been addressed previously (N. David *in litt.* April 2017), we act as First Reviser under Article 24.2.3 (ICZN 1999) and select the spelling *prasina*, as used by Deignan. Alternatively, a separate species (HBW, IOC, CCBW). *Erythrura pealii*, erroneously cited to Peale as *E. pealei* by Cassin (1858a: 138), is a replacement name for *G. prasina*, preoccupied in *Erythrura*, not *Loxia prasina* Sparrman, 1788 (Deignan 1961: 560). The original card for the replacement name in Richmond's index cited *pealei* to Hartlaub, but obviously this was based on Cassin and later corrected; both cards are accessible at [www.zoonomen.net](http://www.zoonomen.net). However, Hartlaub (1852) only used *pealii* and the change by Cassin may be treated as an incorrect subsequent spelling (Art. 33.3 of ICZN 1999).

*Geospiza cyaneovirens* [117] / *Erythrura cyanovirens* [sic] [137] / *Erythrura* ***c. cyaneovirens*** [D61.559]

On p. 318 of Peale (1849) *Geospiza cyaneovirens* is spelled *cyanovirens*, a point overlooked by Deignan (1961: 616), although the two spellings were noted by C.W. Richmond on his index card ([www.zoonomen.net/cit/RI/SP/Gall/gall00790b.JPG](http://www.zoonomen.net/cit/RI/SP/Gall/gall00790b.JPG)). As this dual name usage has not been addressed previously (N. David *in litt.* April 2017), we act as First Reviser under Article 24.2.3 (ICZN 1999) and select the spelling *cyaneovirens*, as used by Deignan.

*Camarhynchus leucopterus* [118] / *Spermophila telasco* [133] / *Sporophila telasco* [D61.615]

On p. 318 of Peale (1849) *Camarhynchus leucopterus* is spelled *leucoptera*, a point overlooked by Deignan (1961: 615), although the two spellings were noted by C.W. Richmond on his index card ([www.zoonomen.net/cit/RI/SP/Caly/caly00047a.jpg](http://www.zoonomen.net/cit/RI/SP/Caly/caly00047a.jpg)). As this dual name usage has not been addressed previously (N. David *in litt.* April 2017), we act as First Reviser under Article 24.2.3 (ICZN 1999) and select the spelling *leucopterus*, as used by Deignan.

*Fringilla (Niphaea) laciniata* [121] / *Phrygilus alaudinus* [136] / *Phrygilus a. alaudinus* [D61.626]

On p. 317 of Peale (1849) *Fringilla laciniata* is spelled *liciniata*, a point overlooked by Deignan (1961: 626), although the two spellings were noted by C.W. Richmond on his index card ([www.zoonomen.net/cit/RI/SP/Frin/frin00299a.jpg](http://www.zoonomen.net/cit/RI/SP/Frin/frin00299a.jpg)), but in this particular case it is written on the card as "*linciniata*". As this dual name usage has not been addressed previously (N. David *in litt.* April 2017), we act as First Reviser under Article 24.2.3 (ICZN 1999) and select the spelling *laciniata*, as used by Deignan. Alternatively *Rhopospina a. alaudina* (HM4), or *Corydospiza a. alaudinus* (HBW).

*Pipilo cinerea* [123] / *Euspiza diuca* [135] / *Diuca d. diuca* [D61.625]

*Buceros obscurus* [125] / *Buceros hydrocorax* [433] / *Buceros hydrocorax mindanensis* [D61.202]

Possibly a separate species (HBW). Peale's name was long overlooked, but preoccupied by *B. obscurus* Gmelin, 1788 (Deignan 1961: 202). Bartlett (1940: 688–689) used the hornbill name to illustrate his point about how Cassin treated Peale's names.

*Platycercus splendens* [127] / *Aprosmictus splendens* [237] / *Prosopeia tabuensis* ***splendens*** [D61.130]

Now a separate species, *P. splendens*. (HM4, HBW, IOC, CCBW). *Prosopeia* is the correct genus-group name, not *Pyrrhulopsis*, as in HM4 (*cf.* Schodde *et al.* 2014).

*Platycercus atrogularis* [129] / *Aprosmictus tabuensis* [234] / *Prosopeia tabuensis atrogularis* [D61.129]

Now *P. t. tabuensis* (HM4, HBW). On p. 320 of Peale (1849) is spelled *atragula*, a point overlooked by Deignan (1961: 129), although the two spellings were noted by C.W. Richmond on his index card ([www.zoonomen.net/cit/RI/SP/Pitt/pitt00273a.jpg](http://www.zoonomen.net/cit/RI/SP/Pitt/pitt00273a.jpg)). As this dual name usage has not been addressed previously (N. David *in litt.* April 2017), we act as First Reviser under Article 24.2.3 (ICZN 1999) and select the spelling *atrogularis*, as used by Deignan. *Prosopeia* is the correct genus-group name, not *Pyrrhulopsis*, as in HM4 (*cf.* Schodde *et al.* 2014).

*Meiglyptes fuscus* [132] / *Meiglyptes brunneus* [443] / *Meiglyptes t. tukki* [D61.215]

On p. 321 of Peale (1849) *Meiglyptes fuscus* is spelled *fusca*, a point overlooked by Deignan (1961: 215), although the two spellings were noted by C.W. Richmond on his index card ([www.zoonomen.net/cit/RI/SP/Malu/malu00462a.jpg](http://www.zoonomen.net/cit/RI/SP/Malu/malu00462a.jpg)). As this dual name usage has not been addressed previously (N. David *in litt.* April 2017), we act as First Reviser under Article 24.2.3 (ICZN 1999) and select the spelling *fuscus*, as used by Deignan.

*Bucco rubritorquis* [133] / *Megalaima malaccensis* [444] / *Megalaima armillaris henricii* [D61.207]

Now *Psilopogon h. henricii* (HM4, HBW, IOC, CCBW).

*Cuculus simus* [134] / *Cuculus simus* [245] / *Cacomantis pyrrophanus simus* [D61.133]

Now *C. flabelliformis simus* (HM4, HBW, IOC, CCBW).

*Cuculus fucatus* [136] / *Cuculus [sic] tenuirostris* [244] / *Cuculus s. saturatus* [D61.133]

*Centropus nigrifrons* [137] / *Centropus melanops* [249] / *Centropus m. melanops* [D61.137]

Monotypic (HBW, IOC, CCBW).

*Eudynamys cuneicauda* [139] / *Eudynamys taitensis* [248] / *Urodynamis taitensis* [D61.134]

*Phoenicophæus nigriventris* [140] / *Zanclostomus sumatranus* [445] / *Rhopodytes d. diardi* [D61.135]

Now *Phaenicophaeus d. diardi* (HM4, HBW, IOC, CCBW).

*Anadænus ruficauda* [142] / *Rhinortha chlorophæus* [444] / *Rhinortha c. chlorophaea* [D61.136]

Now monotypic (HM4, HBW, IOC, CCBW). Peale thought the type was an adult male, but it is a female of the present species.

*Entomiza olivacea* [145] / *Leptornis samoensis* [172] / *Gymnomyza samoensis* [D61.486]

The overlooked preoccupation of the name *Gymnomyza*, not Fallen, 1810 (see Sherborn 1926: 2875) has a twofold consequence. The Samoan species is the type of the genus *Amoromyza* (Richmond 1917: 593) and becomes *Amoromyza samoensis*. The taxonomic position of the New Caledonian type species of *Gymnomyza* is now considered 'equivocal' as its usually associated congeners "are paraphyletic and thus cannot share a genus name" (Andersen *et al.* 2019: 227); a replacement name for *Gymnomyza* awaits publication (*cf.* Bruce *in press* for further discussion on this case).

*Entomiza angustipluma* [147] / *Moho angustipluma* [168] / *Chaetoptila angustipluma* [D61.486]

*Myzomela nigriventris* [150] / *Myzomela nigriventris* [175] / *Myzomela cardinalis nigriventris* [D61.487]

*Myzomela jugularis* [150] / *Myzomela jugularis* [176] / *Myzomela jugularis* [D61.487]

*Dacelo nullitorques* [155] / *Todiramphus divinus* [199] / *Halcyon v. venerata* [D61.199]

Now *Todiramphus v. veneratus* (HM4, HBW, IOC, CCBW).

*Dacelo vitiensis* [156] / *Todiramphus vitiensis* [195] / *Halcyon chloris vitiensis* [D61.197]  
Alternatively, *Todiramphus chloris vitiensis* (HM4, HBW), or *T. sacer vitiensis* (IOC, CCBW).

*Dacelo minima* [159] / *Todiramphus recurvirostris* [198] / *Halcyon recurvirostris* [D61.198]  
Now *Todiramphus recurvirostris* (HBW, IOC, CCBW), or *T. sanctus recurvirostris* (HM4).

*Dacelo coronata* [160] / *Todiramphus tuta* [sic] [192] / *Halcyon chloris pealei* [D61.198]  
Alternatively, *Todiramphus chloris pealei* (HM4, HBW) or *T. sacer pealei* (IOC, CCBW). Note that *Halcyon pealei* Finsch & Hartlaub, 1867, is a replacement name for *D. coronata*, not S. Müller, 1843. Deignan (1961:195) listed *Dacelo albifrons* Peale MS (Peale 1849: 162), which was originally in synonymy with *D. vagans* [= *Todiramphus sanctus vagans* (HM4, HBW, IOC, CCBW)].

*Harpactes rodiostrernus* [166] / *Harpactes ardens* [229] / *Harpactes ardens* [D61.190]  
Now *Harpactes a. ardens* (HM4, HBW, IOC, CCBW).

*Caprimulgus æquicauda* [168] / *Stenopsis parvulus* [188] / *Caprimulgus longirostris decussatus* [D61.164]  
Now *Systellura longirostris decussata* (HM4, HBW, IOC, CCBW).

*Caprimulgus conterminus* [169] / *Stenopsis longirostris* [188] / *Caprimulgus longirostris bifasciatus* [D61. 164]  
On p. 327 of Peale (1849) *Caprimulgus conterminus* is spelled *contermina*, a point overlooked by Deignan (1961: 164), although the two spellings were noted by C.W. Richmond on his index card ([www.zoonomen.net/cit/RI/SP/Caly/caly00453a.jpg](http://www.zoonomen.net/cit/RI/SP/Caly/caly00453a.jpg)). As this dual name usage has not been addressed previously (N. David *in litt.* April 2017), we act as First Reviser under Article 24.2.3 (ICZN 1999) and select the spelling *conterminus*, as used by Deignan. Now *Systellura longirostris bifasciata* (HM4, HBW, IOC, CCBW).

*Caprimulgus bimaculatus* [170] / *Caprimulgus albonotatus* [441] / *Caprimulgus macrurus bimaculatus* [D61.165]  
On p. 327 of Peale (1849) *Caprimulgus bimaculatus* is spelled *bimaculata*, a point overlooked by Deignan (1961: 165), although the two spellings were noted by C.W. Richmond on his index card ([www.zoonomen.net/cit/RI/SP/Caly/caly/00431a.jpg](http://www.zoonomen.net/cit/RI/SP/Caly/caly/00431a.jpg)). As this dual name usage has not been addressed previously (N. David *in litt.* April 2017), we act as First Reviser under Article 24.2.3 (ICZN 1999) and select the spelling *bimaculatus*, as used by Deignan.

*Chordeiles peruvianus* [172] / *Chordeiles acutipennis* [189] / *Chordeiles acutipennis exilis* [D61.160]

*Hirundo rufocollaris* [175] / *Petrochelidon fulva* [181] / *Hirundo fulva rufocollaris* [D61.309]  
Now *Petrochelidon r. rufocollaris* (HM4, HBW, IOC, CCBW).

*Macropteryx spodiopygius* [176] / *Collocalia spodiopygia* [184] / *Collocalia s. spodiopygia* [D61.170]  
Now *Aerodramus s. spodiopygius* (HM4, HBW, IOC, CCBW). On p. 327 of Peale (1849) *Macropteryx spodiopygius* is spelled *spodiopygia*, a point overlooked by Deignan (1961: 170), although the two spellings were noted by C.W. Richmond on his index card ([www.zoonomen.net/cit/RI/SP/Macg/macg00116a.jpg](http://www.zoonomen.net/cit/RI/SP/Macg/macg00116a.jpg)). As this dual name usage has not been addressed previously (N. David *in litt.* April 2017), we act as First Reviser under Article 24.2.3 (ICZN 1999) and select the spelling *spodiopygius*, as used by Deignan.

*Macropteryx leucophæus* [178] / *Collocalia cinerea* [183] / *Collocalia l. leucophaea* [D61.169]  
Now *Aerodramus l. leucophaeus* (HM4, HBW, IOC, CCBW). On p. 327 of Peale (1849) *Macropteryx leucophæus* is spelled *leucophæa*, a point overlooked by Deignan (1961: 169), although the two spellings were noted by C.W. Richmond on his index card ([www.zoonomen.net/cit/RI/SP/Macg/macg00112a.jpg](http://www.zoonomen.net/cit/RI/SP/Macg/macg00112a.jpg)). As this dual name usage has not been addressed previously (N. David *in litt.* April 2017), we act as First Reviser under Article 24.2.3 (ICZN 1999) and select the spelling *leucophæus*, as used by Deignan.

*Columba castaneiceps* [187] / *Columba castaneiceps* [252] / *Columba vitiensis castaneiceps* [D61.112]

On p. 329 of Peale (1849) *Columba castaneiceps* is spelled *castaneoeps*, a point overlooked by Deignan (1961: 112), although the two spellings were noted by C.W. Richmond on his index card ([www.zoonomen.net/cit/RI/SP/Clad/clad00820a.jpg](http://www.zoonomen.net/cit/RI/SP/Clad/clad00820a.jpg)). As this dual name usage has not been addressed previously (N. David *in litt.* April 2017), we act as First Reviser under Article 24.2.3 (ICZN 1999) and select the spelling *castaneiceps*, as used by Deignan.

*Ptilinopus coralensis* [190] / *Ptilinopus coralensis* [272] / *Ptilinopus purpuratus coralensis* [D61.105]

Salvadori (1893: 105) was convinced, mistakenly as it turned out, that there were two species involved in the type series and named *Ptilopus [sic] smithsonianus* (Deignan 1961: 105–106). Now a separate species (HM4, HBW, IOC, CCBW).

*Ptilinopus furcatus* [191] / *Ptilinopus purpuratus* [269] / *Ptilinopus p. purpuratus* [D61.105]

*Ptilinopus fasciatus* [193] / *Ptilinopus fasciatus* [271] / *Ptilinopus porphyraceus fasciatus* [D61.106]  
Possibly a separate species (HBW).

*Ptilinopus perousii* [195] / *Ptilinopus perousii* [274] / *Ptilinopus p. perousii* [D61.107]

*Carpophaga latrans* [200] / *Carpophaga latrans* [261] / *Ducula latrans* [D61.110]

*Carpophaga auroræ* [201] / *Carpophaga auroræ* [256] / *Ducula auroræ* [D61.107]  
Now *Ducula a. auroræ* (HM4, HBW, IOC, CCBW).

*Carpophaga wilkesii* [203] / *Carpophaga wilkesii* [258] / *Ducula auroræ* [D61.107]  
Now *Ducula a. wilkesii* (HM4, HBW, IOC, CCBW).

*Carpophaga casta* [204] / *Carpophaga bicolor* [265] / *Ducula bicolor* [D61.110]  
Also *Ducula b. bicolor* (HM4).

*Peristera pectoralis* [205] / *Peristera erythroptera* [277] / *Gallicolumba erythroptera* [D61.123]  
Listed under *Gallicolumba* (CCBW) or *Alopecoenas* (HM4, HBW, IOC), but now corrected to *Pampusana erythroptera* (Bruce *et al.* 2016).

*Didunculus* [208] / *Pleiodus* [279] / *Didunculus* [D61.123]

*Didunculus strigirostris* [209] / *Pleiodus strigirostris* [279] / *Didunculus strigirostris* [D61.123]

Now placed closely in sequence to the dodo and solitaire within Columbidae (HM4). *Didunculus*, as discussed in the text, has long been erroneously credited to Peale, 1848 (HM4, HBW, IOC), but actually dates from Jardine (1845). Deignan (1961: 123) stated that one of the two specimens, originally identified as a pair, and so recorded in Richmond's card index, had "vanished without trace", but was later reported from the collection of the Academy of Natural Sciences in Philadelphia (Ingersoll & Fisher 2006: 73). Neither Deignan nor Ingersoll & Fisher identified the sex of the specimen each listed.

*Ardea patruelis* [216] / *Ardea stagnalis [sic]* [297] / *Butorides striatus patruelis* [D61.28]

The genus is feminine, thus *striata* (HM4, HBW, IOC, CCBW). On p. 331 of Peale (1849) *Ardea patruelis* is spelled *patruela*, a point overlooked by Deignan (1961: 28), although the two spellings were noted by C.W. Richmond on his index card ([www.zoonomen.net/cit/RI/SP/Arat/arat00398b.jpg](http://www.zoonomen.net/cit/RI/SP/Arat/arat00398b.jpg)). As this dual name usage has not been addressed previously (N. David *in litt.* April 2017), we act as First Reviser under Article 24.2.3 (ICZN 1999) and select the spelling *patruelis*, as used by Deignan.

*Ibis brevirostris* [219] / *Ibis guarauna* [302] / *Plegadis chihi* [HC48.267]

Hellmayr & Conover (1948: 267, footnote 1) noted that the type was formerly at the USNM, now lost, and with no other details they accepted Cassin's identification, although conceding that in juvenile plumage it also could have been *P. ridgwayi*.

- Porphyrio samoensis* [220] / *Porphyrio indicus* [308] / *Porphyrio porphyrio samoensis* [D61.80]  
 Also as *P. melanotus* (IOC, CCBW). On p. 331 of Peale (1849) *Porphyrio samoensis* is spelled *samoënsis*, a point overlooked by Deignan (1961: 34), although the two forms were noted by C.W. Richmond on his index card ([www.zoonomen.net/cit/RI/SP/Poec/poec00771a.jpg](http://www.zoonomen.net/cit/RI/SP/Poec/poec00771a.jpg)). As this dual name usage has not been addressed previously (N. David *in litt.* April 2017), we act as First Reviser under Article 24.2.3 (ICZN 1999) and select the spelling *samoensis*, as used by Deignan.
- Porphyrio vitiensis* [221] / *Porphyrio vitiensis* [309] / *Porphyrio porphyrio vitiensis* {D61.80}  
 Now synonymised with *Porphyrio porphyrio samoensis* (HM4).
- Rallus luridus* [223] / *Rallus sanguinolentus* [304] / *Rallus sanguinolentus luridus* [D61.73]  
 Now *Pardirallus sanguinolentus luridus* (HM4, HBW, IOC, CCBW). On p. 332 of Peale (1849) *Rallus luridus* is spelled *lurida*, a point overlooked by Deignan (1961: 73), although the two spellings were noted by C.W. Richmond on his index card ([www.zoonomen.net/cit/RI/SP/Ptil/ptil01136a.jpg](http://www.zoonomen.net/cit/RI/SP/Ptil/ptil01136a.jpg)). As this dual name usage has not been addressed previously (N. David *in litt.* April 2017), we act as First Reviser under Article 24.2.3 (ICZN 1999) and select the spelling *luridus*, as used by Deignan.
- Fulica alai* [224] / *Fulica alai* [306] / *Fulica americana alai* [D61.80]  
 Now a separate species, *Fulica alai*, endemic to Hawai'i (HM4, HBW, IOC, CCBW).
- Scolopax pectinicauda* [227] / *Gallinago stenura* [313] / *Capella stenura* [D61.88]  
 Once again, *Gallinago stenura* (HM4, HBW, IOC, CCBW). Deignan (1961:87) listed *Scolopax Holmesii* Peale MS (Peale 1849: 229) in the synonymy of *Coenocorypha a. aucklandica*.
- Scolopax meridionalis* [229] / *Scolopax meridionalis* [310] / *Chubbia stricklandii* [D61.88]  
 Now *Gallinago stricklandii* (HM4, HBW, IOC, CCBW).
- Limosa foxii* [231] / *Limosa novæ zealandiæ* [314] / *Limosa lapponica novaezealandiæ* [D61.85]  
 Now *L. l. baueri* (HM4).
- Numenius femoralis* [233] / *Numenius femoralis* [316] / *Numenius tahitiensis* [D61.85]
- Tringa parvirostris* [235] / *Tringa parvirostris* [321] / *Aechmorhynchus parvirostris* [D61.84]  
 Now *Prosobonia parvirostris* (HM4, HBW, IOC, CCBW).
- Totanus polynesiae* [237] / *Totanus oceanicus* [318] / *Heteroscelus incanus* [D61.86]  
 Now *Tringa incana* (HM4, HBW, IOC, CCBW).
- Charadrius vanelloides* [240] / *Sarciophorus tricolor* [328] / *Zonifer tricolor* [D61.82]  
 Now *Vanellus tricolor* (HM4, HBW, IOC, CCBW).
- Glareola cuneicauda* [244] / *Thinocorus ingæ* [288] / *Thinocorus rumicivorus cuneicauda* [D61.92]
- Anser hauaiënsis* [249] / *Bernicla sandwichensis* [sic] [338] / *Nesochen sandvicensis* [D61.34]  
 On p. 334 of Peale (1849) *Anser hauaiënsis* is spelled *Hawaiënsis*, a point overlooked by Deignan (1961: 34), although the two spellings were noted by C.W. Richmond on his index card ([www.zoonomen.net/cit/RI/SP/Andt/andt00179a.jpg](http://www.zoonomen.net/cit/RI/SP/Andt/andt00179a.jpg)). As this dual name usage has not been addressed previously (N. David *in litt.* April 2017), we act as First Reviser under Article 24.2.3 (ICZN 1999) and select the spelling *hauaiënsis*, as used by Deignan (as *hauaiensis*). Now *Branta sandvicensis* (HM4, HBW, IOC, CCBW).
- Aptenodytes flavilarvata* [260] / *Eudypetes antipoda* [sic] [351] / *Megadyptes antipodes* [D61.6]  
 On p. 335 of Peale (1849) *Aptenodytes flavilarvata* is spelled *flavilarvatus*, a point overlooked by Deignan (1961: 6), although the two spellings were noted by C.W. Richmond on his index card ([www.zoonomen.net/cit/RI/SP/Anth/anth00549a.jpg](http://www.zoonomen.net/cit/RI/SP/Anth/anth00549a.jpg)). As this dual name usage has not been addressed previously (N. David *in litt.* April 2017), we act as First Reviser under Article 24.2.3 (ICZN 1999) and select the spelling *flavilarvata*, as adopted by Deignan.



*Aptenodytes longicauda* [261] / *Eudyptes Adeliae* [352] / *Pygoscelis adeliae* [D61.5]

On p. 335 of Peale (1849) *Aptenodytes longicauda* is spelled *longicaudatus*, a point overlooked by Deignan (1961: 5), although the two spellings were noted by C.W. Richmond on his index card (www.zoonomen.net/cit/RI/SP/Anth/anth00553.b.JPG). As this dual name usage has not been addressed previously (N. David *in litt.* April 2017), we act as First Reviser under Article 24.2.3 (ICZN 1999) and select the spelling *longicauda*, as adopted by Deignan.

*Aptenodytes magnirostris* [263] / *Spheniscus demersus* [350] / *Spheniscus magellanicus* [HC48.11]

Hellmayr & Conover (1948: 11) indicated there was a type in USNM, but it was not listed by Deignan (1961).

*Aptenodytes taeniata* [264] / *Eudyptes papua* [350] / *Pygoscelis papua taeniata* [M27.10]

Recently, *P. taeniata* has been treated as a separate species by Tyler *et al.* (2020) based on genetics and morphometrics. Previously *P. p. papua* (HM4, HBW, IOC, CCBW). Hellmayr & Conover (1948:5, footnote 1) had retained *taeniata* as a separate subspecies, originally collected on Macquarie Island (Peale 1849: 265). On p. 335 of Peale (1849) *Aptenodytes taeniata* is spelled *taeniatius*, a point overlooked by Deignan (1961: 6), although the two spellings were noted by C.W. Richmond on his index card (www.zoonomen.net/cit/RI/SP/Anth/anth00567a.jpg). As this dual name usage has not been addressed previously (N. David *in litt.* April 2017), we act as First Reviser under Article 24.2.3 (ICZN 1999) and select the spelling *taeniata*, as adopted by Hellmayr & Conover.

*Carbo fucosus* [268] / *Carbo hypoleucus* [372] / *Phalacrocorax v. varius* [D61.22]

*Carbo purpuragula* [269] / *Carbo sulcirostris* [374] / *Phalacrocorax sulcirostris purpuragula* [D61.21]

*Phalacrocorax sulcirostris* now monotypic (HM4, HBW, IOC, CCBW).

*Carbo flavagula* [270] / *Carbo brevirostris* [375] / *Phalacrocorax melanoleucos brevirostris* [D61.23]

Now *Microcarbo m. melanoleucos* (HM4, HBW, IOC, CCBW).

*Sula rubripeda* [274] / *Sula piscator* [365] / *Sula sula rubripes* [D61.19]

*Sterna lunata* [277] / *Sterna lunata* [382] / *Sterna lunata* [D61.96]

Now *Onychoprion lunatus* (HM4, HBW, IOC, CCBW).

*Sterna albifrons* [279] / *Sterna frontalis* [381] / *Sterna s. striatus* [D61.95]

Sometimes treated as monotypic, *S. striatus* (HM4, IOC).

*Sterna antarctica* [280] / *Sterna meridionalis* [385] / *Sterna hirundinacea* [D61.94]

*Sterna meridionalis* was Cassin's only new name, a replacement name, not *S. antarctica* Lesson, 1831, nor Wagler, 1832, nor Forster, 1844; later *S. cassinii* Sclater, 1860, a replacement name for *S. meridionalis*, not Brehm, 1824 (Deignan 1961: 95).

*Sterna rectirostris* [281] / *Sterna poliocerca* [384] / *Thalasseus bergii rectirostris* [D61.97]

Now *Thalasseus b. cristatus* (HM4).

*Megalopterus plumbea* [285] / *Anous parvulus* [393] / *Procelsterna cerulea teretirostris* [D61.98]

*Larus albipennis* [288] / *Larus albipennis* [379] / *Larus maculipennis* [D61.93]

Now *Chroicocephalus maculipennis* (HM4, HBW, IOC, CCBW).

*Thalassidroma lineata* [293] / *Thalassidroma lineata* [403] / *Fregetta* ['Pealea'] *lineata* [D61.14]

Now *Fregetta t. tropica* (HM4, HBW, IOC, CCBW). Deignan (1961:15) listed *Thalassidroma plumbea* Peale MS (Peale 1849: 292), in synonymy of *T. furcata* [= *Hydrobates f. furcatus* (HM4) or *Oceanodroma f. furcata* (HBW, IOC, CCBW)]. A *Thalassidroma Pacifica* mentioned in his text (Peale 1849: 156) is a *nomen nudum*.

*Procellaria brevipes* [294] / *Procellaria cookii* [414] / *Pterodroma leucoptera* ***brevipes*** [D61.13]

Now a separate, monotypic species (HM4, HBW) or *Procellaria b. brevipes* (HBW, IOC, CCBW).

*Procellaria candida* [295] / *Procellaria candida* [451] / *Pagodroma nivea* [D61.13]

Now *Pagodroma n. nivea* (HM4, HBW, IOC, CCBW).

*Procellaria rostrata* [296] / *Procellaria rostrata* [412] / *Pterodroma* ***rostrata*** [D61.12]

Now *Pseudobulweria r. rostrata* (HM4, HBW, IOC, CCBW). On p. 338 of Peale (1849) *Procellaria rostrata* is spelled *rostratus*, a point overlooked by Deignan (1961: 11), although the two spellings were noted by C.W. Richmond on his index card ([www.zoonomen.net/cit/RI/SP/Prio/prio00293a.jpg](http://www.zoonomen.net/cit/RI/SP/Prio/prio00293a.jpg)). As this dual name usage has not been addressed previously (N. David *in litt.* April 2017), we act as First Reviser under Article 24.2.3 (ICZN 1999) and select the spelling *rostrata*, as used by Deignan.

*Procellaria parvirostris* [298] / *Procellaria parvirostris* [411] / *Pterodroma alba* [D61.12]

*Procellaria gularis* [299] / *Procellaria mollis* [410] / *Pterodroma inexpectata* [D61.12]