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An Alca-bibliographical study of *The English pilot*: the history of its account of the great auk (Alcidae: *Pinguinus impennis*)

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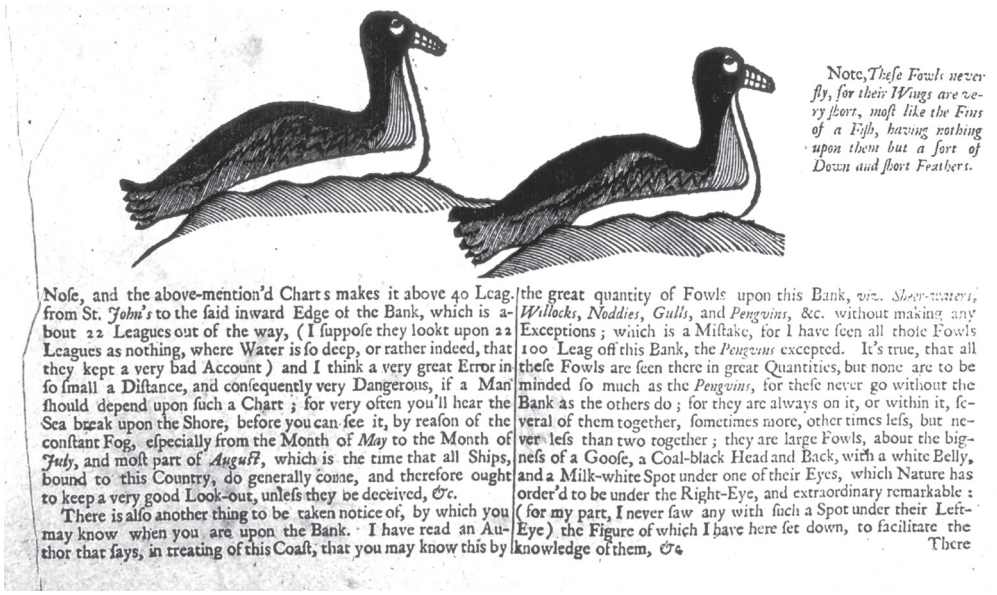
ABSTRACT: Bibliographical details in the biological literature concerning an account and figure of the great auk (*Pinguinus impennis*) that appeared in the navigational guide known as *The English pilot: the fourth book* are largely erroneous. The first edition of this work appeared in 1689, but the great auk account in question did not appear until the edition of 1716 and was carried through all later editions until the final one in 1794. By that time, the information was probably very much out of date due to the rapid overexploitation of the birds.

KEY WORDS: *Alca impennis* – Newfoundland – penguin – pengvin – pengwin.

INTRODUCTION

The English pilot was a series of volumes giving sailing directions that remained in print from the late seventeenth century through most of the eighteenth. The series consisted of ordinally numbered "books" – independent volumes that pertained to different geographic regions. *The fourth book*, the subject of this study, described "The West-India navigation, from Hudson's-Bay to the River Amazones" (the subtitle from 1716 onward). The greatest historical interest in this series lies in its charts, those of Virginia being the subject of particular study by Verner (1960). We have taken the following summary of the various editions from that source (Verner, 1960: 3–25), from the introduction to the facsimile of the 1689 edition (Verner, 1967: v–xviii), from the *National union catalogue: pre-1956 imprints* (1971: 373–375), and from our personal examination of the works.

The chief interest of *The English pilot: the fourth book* to the natural historian resides in a passage and quaint figure (Figures 1 and 2) to advise the sailor that the sighting of "pengwins", the now-extinct great auk (*Pinguinus impennis*), in the western North Atlantic was a sure indication of the shoal waters of the Newfoundland Banks and of the approach of land. This account perhaps deserves more recognition than it has received as one of the few recorded instances of the great auk's utility to humans as a living organism. From our study of many of the editions we have determined that almost all of the bibliographical references concerning *The English pilot*, as well as certain factual details, that have entered the biological literature are erroneous, and we here attempt to clarify and correct the record.



Note, *These Fowls never fly, for their Wings are very ſhort, moſt like the Fins of a Fiſh, having nothing upon them but a ſort of Down and ſhort Feathers.*

Noſe, and the above-mention'd Charts makes it above 40 Leag. from St. *John's* to the ſaid inward Edge of the Bank, which is about 22 Leagues out of the way, (I ſuppoſe they lookt upon 22 Leagues as nothing, where Water is ſo deep, or rather indeed, that they kept a very bad Account) and I think a very great Error in ſo ſmall a Diſtance, and conſequently very Dangerous, if a Man ſhould depend upon ſuch a Chart; for very often you'll hear the Sea break upon the Shore, before you can ſee it, by reaſon of the conſtant Fog, eſpecially from the Month of *May* to the Month of *July*, and moſt part of *Auguſt*, which is the time that all Ships, bound to this Country, do generally come, and therefore ought to keep a very good Look-out, unleſs they be deceived, *&c.*

There is alſo another thing to be taken notice of, by which you may know when you are upon the Bank. I have read an Author that ſays, in treating of this Coaſt, that you may know this by the great quantity of Fowls upon this Bank, *viz. Sheer-waters, Willocks, Noddies, Gulls,* and *Pengvins,* &c. without making any Exceptions; which is a Miſtake, for I have ſeen all thoſe Fowls 100 Leag off this Bank, the *Pengvins* excepted. It's true, that all theſe Fowls are ſeen there in great Quantities, but none are to be minded ſo much as the *Pengvins*, for theſe never go without the Bank as the others do; for they are always on it, or within it, ſeveral of them together, ſometimes more, other times leſs, but never leſs than two together; they are large Fowls, about the bigneſs of a Gooſe, a Coal-black Head and Back, with a white Belly, and a Milk-white Spot under one of their Eyes, which Nature has order'd to be under the Right-Eye, and extraordinary remarkable: (for my part, I never ſaw any with ſuch a Spot under their Left-Eye) the Figure of which I have here ſet down, to facilitate the knowledge of them, *&c.*

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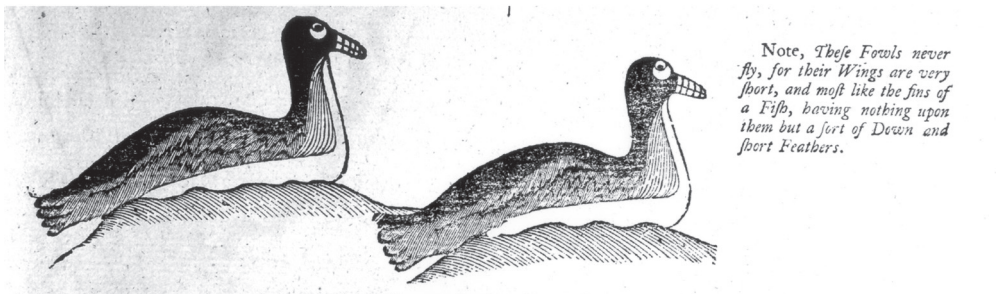
Figure 1. Text and sketch of "Pengvins" (great auk, *Pinguinus impennis*) shown as indicators of shoal water on the Newfoundland Banks from page 17 of the 1716 edition of *The English pilot: the fourth book*. This is the first edition in which this account and figure appeared. The cross-hatching on the bill was probably intended to represent the distinctive ridges on the rhamphotheca of the great auk. Reproduced from a copy in the Boston Public Library.



Note, *Theſe Fowls never fly, for their Wings are very ſhort, and moſt like the fins of a Fiſh, having nothing upon them but a ſort of Down and ſhort Feathers.*

and 50 fathoms to the very rocks noſe, and the abovemention'd charts make it above 40 league from St. *John's* to the inward edge of the bank, which is about 22 leagues out of the way. (I ſuppoſe they looked upon 22 leagues as nothing, where water is ſo deep, or rather indeed that they keep a very bad account) and I think a very great error in ſo ſmall a diſtance, and conſequently very dangerous, if a man ſhould depend upon ſuch a chart; for very often you will hear the ſea break upon the ſhore before you can ſee it, by reaſon of the conſtant fog, eſpecially from the month of *May* to the month of *July*, and moſt part of *Auguſt*, which is the time all ſhips bound to this country generally come, and therefore ought to keep a very good look out, leſt they be deceived, &c.

There is alſo another thing to be taken notice, by which you may know when you are upon the bank. I have read an author who ſays, in treating of this coaſt, that you may know this by the great quantities of fowls upon this bank, viz. Sheerwaters, Willocks, Noddies, Gulls, Pengwins, &c. without making any exceptions; which is a miſtake, for I have ſeen all thoſe fowls 100 leagues off this bank, the Pengwins excepted. It is true that all theſe fowls are ſeen there in great quantities, but none are ſo much to be minded as the Pengwins, for theſe never go without the bank as others do, for they are always on it or within it, ſeveral of them together, ſometimes more, other times leſs, but never leſs than two together; they are large fowls, about the bigneſs of a gooſe, a coal black head and back, with a white belly, and a milk white ſpot under one of their eyes, which nature has ordered to be under the right eye, for extraordinary remarks: For my part I never ſaw any with ſuch a ſpot under their left eye, the figure of which I have here ſet down to facilitate the knowledge of them, &c.

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Figure 2. Text and sketch of "Pengwins" (great auk, *Pinguinus impennis*) shown as indicators of shoal water on the Newfoundland Banks from page 17 of the 1794 edition of *The English pilot: the fourth book*. This was the final edition. Reproduced from a copy in the Boston Public Library.

THE EDITIONS OF *THE ENGLISH PILOT: THE FOURTH BOOK*

The English pilot: the fourth book was first published in London in 1689 (Anonymous, 1689; for facsimile see Anonymous, 1967), conceived as part of John Seller's series of coastal navigation books.[1] It was prepared and issued by William Fisher, a publisher of navigational works, and John Thornton, a cartographer. Thornton went into partnership with Richard Mount to produce subsequent editions in 1698 and 1706; beginning in 1707 Mount carried on with Thomas Page, and they and their descendants, in various combinations as the partnership evolved, continued to publish the work in London until 1794.[2] Verner (1960: 22–23; 1967: ix, xviii; 1978: 133) also mentioned a 1703 edition published by Jeremiah Seller and Charles Price that contained new charts by Price, which Verner considered to be separate from the publication history of the work proper. Excepting that anomaly, there were 37 editions[3] issued from London (Verner, 1960: 14–25; 1967: viii, xv–xviii; 1978: 156; *National union catalogue*, 1971: 373–375).

We have examined or obtained information about 23 (in **bold**) of the 37 London editions[4]: **1689**, 1698, **1706**, 1707, **1713**, **1716**, **1721**, **1725**, 1728, **1729**, 1732, **1737**, 1742, 1743, **1745**, 1748, **1749**, 1751, 1753, **1755**, **1758**, **1759**, **1760**, 1761, **1763**, 1764, 1765, **1767**, 1770, **1773**, 1775, **1778**, **1780**, **1783**, **1784**, **1789**, **1794**. (For all significant editions cited in this article, see References under Anonymous.)

The title, contents, and sometimes-irregular pagination of the early editions (Anonymous, 1689, 1698, 1706, 1707, 1713) varied slightly. In the 1716 edition, the work assumed its final title – *The English pilot. The fourth book. Describing the West-Indies navigation ...* – and settled into its final form of 66 pages and 18 leaves of maps and charts. All subsequent editions seem to contain the same textual material, page for page (Verner, 1967: viii).[5]

In addition to the London editions, there were four editions of *The fourth book* issued in Dublin by George Grierson, and subsequently by his son Boulter, in 1730, 1749, 1767 and 1768. Although the Dublin editions are often considered piracies, Adams (1993: 157–158) suggests that Mount & Page had an arrangement with Grierson to supply their titles to the Irish market. The Dublin editions follow the standard title, form and content of the London editions from 1716 onward, except that their pagination begins with the title-page, pushing all page references up by two and resulting in editions of 68 pages (for example, Anonymous, 1767b).

A section entitled "Some Directions which ought to be taken Notice of when going to New-found-land" contains a mention and illustration of "pengvins"/"pengwins", referring to the great auk; it first appeared in the 1716 edition and was carried in all of the subsequent editions examined or reported (though altered slightly from 1737 onward to "Some Directions which ought to be taken Notice of by those who sail to Newfound-land"). It was not present in earlier editions, including that of 1706. From 1716 on, it appears consistently on page 17, except in those editions (1784 and the four in Dublin) whose pagination begins with the title-page, in which it appears on page 19. We reproduce here the figure and the accompanying text from the first (Anonymous, 1716) and last (Anonymous, 1794) editions in which this information about the great auk appeared (Figures 1 and 2).

The text of the section is identical through all editions examined, except for orthographic variants or typographic errors. For example, the correct spelling of "noddies" was used at least until 1749 but from 1755 onward appeared as "noddles". More relevant to the present study, the spelling of penguins changed from "pengvins"[6] in the editions of 1716, 1721 and 1725, to "pengwins" from 1729 onward.

THE ENGLISH PILOT: THE FOURTH BOOK IN BIOLOGICAL LITERATURE

The account of the great auk in *The English pilot: the fourth book* has been cited on several occasions but usually with uncertain or partially erroneous bibliographical information. Because that account was in print for the better part of a century, information from it may well have been incorporated into some early publications without attribution.

Bonnycastle (1842: 232) reproduced the quote concerning the great auk from the last edition of *The fourth book* (Anonymous, 1794) and noted that in Newfoundland "the large auk or penguin (alca impennis,) which, not fifty years ago, was a sure sea-mark on the edge of and inside the banks, has totally disappeared from the ruthless trade in its eggs and skin."[7] His remark about "not fifty years ago" was based, however, on the last edition of 1794, and he was doubtless unaware that by then the same observation about the great auk had been repeated verbatim for 78 years previously. Thus the information conveyed by the following quote citing Bonnycastle as authority is doubly misleading: "Although Great Auks were probably still relatively abundant in early eighteenth century, by about 1800 they were no longer sufficiently common to use as navigational indicators" (Montevecchi and Kirk, 1996: 11).

Newton (1865), a dedicated scholar of the great auk, was the first ornithologist to mention the account in *The English pilot* but specifically stated that he had not seen a copy and took his information from Bonnycastle (1842). Thus Newton would also have been under the misapprehension that the information from the *Pilot* originated around 1794. Grieve (1885: 65–66, footnote), in his seminal work on the great auk, mentions *The English pilot* in a short quotation, but he also took his information entirely from Bonnycastle (1842) and probably never saw a copy of the *Pilot* himself.[8]

In a cartographical essay, Price (1939: 161), without providing any bibliographical information, refers only to *The English pilot,* but not *The fourth book*, as "the first coast pilot for American waters exclusively", saying that it "first appeared in 1706" and "continued, throughout a number of editions, as the chief guide for the trans-Atlantic seafarer, until shortly before the Colonies declared their independence." As we have seen above, the 1706 edition was not the first, and editions continued to be produced for 18 years after American independence. Price reproduced (1939: 162) the sketch of great auks and its legend from an unspecified edition of *The fourth book* as having been "offered [to] the mariner as a sign to know when he has come onto the Newfoundland Banks ... these particular birds were to be found only on the Banks. What need of a Fathometer?"

Through its appearance in Price, the passage came to the attention of Shaw (1940), who reproduced the figure and parts of the account from the 1742 edition of *The fourth book* at Harvard University and repeated Price's erroneous assertion that the first edition dated to 1706. Greenway (1958: 275) took his information from Shaw, continuing to date the first edition to 1706. Greenway used the spelling "penguins" in the portion he quoted (as did Bonnycastle, 1842), whereas Shaw (1940) used "pengwins" as the word appeared in the 1742 original.

It appears that Lysaght (1971: 168) learned of the auk account in *The fourth book* from Greenway (1958), but she troubled to look up a copy herself and reproduced the figure and text from what she cited as page 19 of the 1767 London edition. The figure and text reproduced by Lysaght agree with that of the 1767 London edition, but there the auk account appears on page 17. It does appear on page 19 of the 1767 Dublin edition, as we have explained, but there it has a very different appearance.

Montevecchi and Tuck (1987: 52–53) reproduced the figure from Shaw (1940), asserting that it is from the 1706 edition of *The fourth book*, but take their information entirely from Shaw (1940), Greenway (1958) and Lysaght (1971). Kirkham and Montevecchi (1982: 114) refer to the 1767 edition, presumably following Lysaght.

Bourne (1993: 728), who otherwise brought a commendably fresh perspective to great auk lore, further compounded the bibliographical errata and confusion regarding the *Pilot*, which he cited as: "Sellar [*sic*], J., 1728 *English Pilot* **4**: 17. (Reproduced by Lysaght, 1971: 168)." As we have noted, John Seller had nothing to do with the final production of *The fourth book* (Verner, 1960: 9; 1967: vi) and his name appears nowhere in any edition thereof. Why Bourne should have cited the 1728 edition is a mystery, as Lysaght reproduced the auk passage from the 1767 edition. There is a 1728 edition of the *Pilot*, but it has no special significance with respect to any of the other 31 editions that contain the same passage.

Fuller (1999: 46) appears to have combined the errors of Shaw (1940) regarding date and Bourne (1993) regarding author with the following misleading commentary:

> J. Sellar [*sic*] in *The English Pilot* (1706) maintained that the presence of Great Auks was a clear sign of shoaling water and that the Newfoundland Banks had been reached. Older shipping records suggest that a vessel needed to be within a hundred leagues of land to encounter them and, later, Pennant (1761–6) confirmed this ... .

The supposedly direct quotation from Pennant that followed is actually an abridgement.

All of the preceding sources that cite the 1706 edition in connection with the figured account of the great auk are in error, as we have shown, because that did not appear until the edition of 1716.

Newton (1865: 483) in emphasizing that eighteenth-century writers "constantly mentioned" the great auk as occurring in the shoal waters of the Newfoundland Bank, cited Edwards, Macaulay and Pennant. Edwards (1750: 147) said only that the specimen in his possession was taken "on the Fishing-banks of Newfoundland, near an hundred Leagues from Shore." Macaulay (1764: 157) in attempting to identify a bird described by residents as an occasional visitor to St Kilda was informed by a "gentleman" that this was most likely the "Penguin" of the western Atlantic, "a fowl that points out the proper soundings to seafaring People."

Pennant (1768: 402) says of the great auk that: "This bird is observed by seamen never to wander beyond *soundings* in the seas it frequents; and according to its appearance they direct their measures, being then assured that land is not very remote." Far from being a confirmation of *The fourth book* account as contended by Fuller (1999), it is more than likely that Pennant took his statement from that very source, which by 1768 had printed the auk instructions 23 times. Macaulay's gentleman-informant may well have relied on the same source, copies of which were probably present in the cabins of most ships that crossed the Atlantic in the eighteenth century.

There are two different passages concerning the great auk in the first edition of *The English pilot: the fourth book*. Concerning Newfoundland it relates (Anonymous, 1689: 11):

> The Land-Fowl are also in great abundance; there are also Birds of Prey, as Ravens, Gripes, Crows: for Water-Fowl, there is certainly as good, and as much variety as in any part of the World, as Geese, of Ducks, Gulls, Penguins, and many other sorts; the Penguins are as big as Geese, and flie not, for they have but little short Wings, and they multiply so infinitly upon a flat Island, that Men drive them from thence upon a Board into the Boat, by hundreds at a time : As if God had made the Innocency of that poor Creature, to become such an admirable Instrument for the sustentation of Man.

This is a more or less verbatim rendition of a well-known quotation from Whitbourne (1620: 9).[9]

The source of the following passage on the next page under "A further Description of New-found Land" (Anonymous, 1689: 12) we have not determined, although it may be of interest in the debate over the supposed Welsh origin of the word "penguin."

> ["A Welch [*sic*] word" in margin] The Island *Penguin* is so called, by reason of the Fowl called *Penguin*, which breedeth there in such abundance, as would be thought Incredible if mentioned; they cannot flie, for their Wings are not able to carry their Body, the Bird being very large, not much less than a Goose, and exceeding fat, which are taken without difficulty upon that Island; and there are those who have salted and barreled them, and have kept very well.

Another objective for scholars of the great auk would be to determine the original source for the figure and passage that first appeared in 1716. It may now be helpful to know that this information apparently became available sometime between 1713, when it was not included, and 1716, when it was. It seems likely that whoever was responsible for the figure and observations cannot have handled a specimen of the great auk, as he makes the nonsensical assertion that the white spot appeared in front of only the right eye of the bird, which provoked Newton (1865: 483) to remark that: "Our readers will, of course, smile at the asserted an-homochroism of the bird's eye-spots."

ACKNOWLEDGEMENTS

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NOTES

[1] Seller announced the plan in 1669 (Verner, 1960: 5–6; Wallis, 1978: 18); by 1671, with *The English pilot: the first book, pt.1* on the "Northern" coasts already out, he was working on all the other books simultaneously and had apparently printed twelve pages of the *English pilot: the fourth book* (Verner, 1967: vi; 1978: 146). In 1677 Seller's stock of, and rights in, the work were turned over to a combine consisting of William Fisher, John Thornton, and two others; when the combine disbanded in 1679 the stock and rights to *The fourth book* passed to Fisher (Wallis, 1978: 19; Verner, 1967: vi; 1978: 149–150.) Using the original sheets, Fisher and Thornton completed the work for publication in 1689 (Verner, 1960: 10–11; 1967: vi, for a detailed discussion of the sheet collation; 1978: 150).

[2] See Adams (1993) for a history of the firm.

[3] The term "edition" is defined as all of the copies produced from a specific setting of type (Gaskell, 1972: 313). Because printers did not leave type standing from one year to the next, each version of *The fourth book* would have been re-set and constituted a true edition, not a reprinting. This is borne out in the 19 editions that we either examined personally or viewed on microfilm, with one exception: the type-setting of the 1760 version seems to be identical to that of the 1759 edition and most probably represents left-over sheets re-issued with a new title-page. The printers could and did re-use the copperplates and the woodblocks to print, respectively, the maps and the smaller text illustrations (Verner, 1967: x). The woodblock of the great auk can be seen to have suffered over time, developing scratches and gouges that are reflected in the ink deposited on the page, but it is identifiably the same block through all of the London editions.

[4] We have seen the original books of 16 London editions, consulted the modern facsimile of one, viewed microfilm of three, and received reports from libraries for five. Some of these duplicated each other, for a total of 23 (plus the 1767 Dublin edition).

[5] It is worth noting, however, that the 1783, 1789 and 1794 editions dropped the use of "*The fourth book*" in the title, and that the 1784 edition began its pagination with the title-page, pushing up all page references by two, resulting in 68 pages.

[6] The letters u and v were considered different forms of the same letter and therefore interchangeable for many purposes from the development of printing around 1450 into the 1700s.

[7] Bonnycastle has been cited as an authority in the perpetuation of the inextinguishable canard that the great auk "disappeared from the ruthless trade in its eggs and skin", which still seems to have currency (for example, Birkhead, 1994). Only about 80 stuffed skins of the great auk exist, along with a similar number of eggs (Fuller, 1999). These were taken over a period of nearly a century from the mid-1700s to 1844. Most originated in Iceland after the species had already disappeared elsewhere from slaughter for oil, bait, feathers, and food, a process that had probably begun in the Neolithic agew. A seabird that once probably numbered in the millions could not be exterminated by taking 80 individuals for museum specimens. Bourne's (1993: 266) more realistic assessment was that "everyone was guilty".

[8] "What came over the bird at other periods of the year is likely to remain a mystery; but though there was a generally accepted idea among the sailors and fishermen of Newfoundland that it did not leave sounding[s], it seems evident that it must have occasionally made long sea journeys." The footnote to this states that "A writer in the 'English Pilot' for 1794 quoted by Sir Richard Bonnycastle ..." (Grieve, 1885: 65–66, and footnote).

[9] "... There are also birds that liue by prey, as Rauens, Gripes, Crowes, &c. For Water-fowle, there is certainly so good, and as much varietie, as in any part of the world; as Geese Ducks, Pigeons, Gulls, Penguins, and many other sorts.

These Penguins are as bigge as Geese, and flye not, for they haue but a little short wings, and they multiply so infinitly, vpon a certaine flat Iland, that men driue them from thence vpon a boord, into their boates by hundreds at a time; as if God had made the innocency of so poore a creature, to become such an admirable instrument for the sustentation of man."

REFERENCES

ADAMS, T. A., 1993 Mount and Page: publishers of eighteenth-century maritime books, pp 145–177 in BARKER, N. (editor), *A potencie of life: books in society*. London: The British Library & Oak Knoll Press. Pp 206.

ANONYMOUS, 1689 *The English pilot. The fourth book.* London: William Fisher & John Thornton. (Facsimile edition 1967. Amsterdam: Theatrum Orbis Terrarum. Pp xviii, 23, 50.)

ANONYMOUS, 1706 *The English pilot. The fourth book*. London: John Thornton & Richard Mount. Pp 69.

ANONYMOUS, 1716 *The English pilot. The fourth book*. London: Richard & William Mount & Thomas Page. Pp 66.

ANONYMOUS, 1721 *The English pilot. The fourth book*. London: Richard & William Mount & Thomas Page. Pp 66.

ANONYMOUS, 1729 *The English pilot. The fourth book*. London: Thomas Page and William Mount. Pp 66.

ANONYMOUS, 1737 *The English pilot. The fourth book*. London: William Mount & Thomas Page. Pp 66.

ANONYMOUS, 1767a *The English pilot. The fourth book*. London: J. Mount & T. Page. Pp 66.

ANONYMOUS, 1767b *The English pilot. The fourth book*. Dublin: B. Grierson. Pp 68.

ANONYMOUS, 1794 *The English pilot. The fourth book*. London: Mount & Davidson. Pp 66.

ANONYMOUS, 1967 *The English pilot. The fourth book. London. 1689.* Facsimile edition (fourth series, volume **1**). Amsterdam: Theatrum Orbis Terrarum. Pp xviii, 23, 50.

BIRKHEAD, T., 1994 How collectors killed the great auk. *New scientist* **142** (1927): 24–27.

BONNYCASTLE, R. H., 1842 *Newfoundland in 1842: a sequel to "The Canadas in 1842"*. Volume **1**. London, Henry Colburn. Pp 367.

BOURNE, W. R. P., 1993 The story of the Great Auk *Pinguinis impennis*. *Archives of natural history* **20**: 257–278.

EDWARDS, G., 1750 *A natural history of birds.* Volume **3**. London: the author. Pp 106–157, CVI–CLVII.

FULLER, E., 1999 *The great auk*. Southborough: the author. Pp 448.

GASKELL, P., 1972 *A new introduction to bibliography.* New York & Oxford: Oxford University Press. Pp 438.

GREENWAY, J., 1958 *Extinct and vanishing birds of the world.* New York, American Committee for International Wild Life Protection (Special publication 13). Pp 518.

GRIEVE, S., 1885 *The great auk or garefowl (*Alca impennis*, Linn.) Its history, archaeology, and remains*. London: Thomas C. Jack. Pp 141, 58.

KIRKHAM, I. R. and MONTEVECCHI, W. A., 1982 The breeding birds of Funk Island, Newfoundland: an historical perspective. *American birds* **36**: 111–118.

LYSAGHT, A. M., 1971 *Joseph Banks in Newfoundland and Labrador, 1766*. Berkeley: University of California Press. Pp 512.

MACAULAY, K., 1764 *A history of St. Kilda*. London: T. Becket & P.A. DeHondt. Pp 278. (Reprinted 1974. Edinburgh: James Thin. Pp 278.)

MONTEVECCHI, W. A. and KIRK, D. A., 1996 Great Auk *Penguinus impennis*. *Birds of North America* **260**: 1–20.

MONTEVECCHI, W. A. and TUCK, L. M., 1987 Newfoundland birds: exploitation, study, and conservation. *Publications of the Nuttall Ornithological Club* **21**. Pp 273.

NATIONAL UNION CATALOGUE: pre-1956 imprints, 1971. Volume **160**. London: Mansell; Chicago: American Library Association. Pp 698.

NEWTON, A., 1865 The gare-fowl and its historians. *Natural history review*, new series, **5**: 467–488.

PENNANT, T., 1768 *British zoology*. Volume **2**. London, Benjamin White. Pp 233–522.

PRICE, T. M. jr., 1939 The first thousand years of finding New York. *U. S. Coast and Geodetic Survey Association of Field Engineers bulletin* **12**: 142–176.

SHAW, H. S., 1940 An early figure of the great auk. *Auk* **87**: 112–113.

VERNER, C., 1960 *A carto-bibliographical study of The English pilot. The fourth book. With special reference to the charts of Virginia*. Charlottesville: University of Virginia Press. Pp 87, [1].

VERNER, C., 1967 Bibliographical note, pp v–xviii in *The English pilot. The fourth book. London. 1689.* Facsimile edition (fourth series, volume **1**). Amsterdam: Theatrum Orbis Terrarum. Pp xviii, 23, 50.

VERNER, C., 1978 John Seller and the chart trade in seventeenth-century England, pp 127–157 in THROWER, N. J. W (editor), *The compleat plattmaker: essays on chart, map, and globe making in England in the seventeenth and eighteenth centuries*. Berkeley, Los Angeles & London: University of California Press. Pp 241.

WALLIS, H. M., 1978 Geographie is better than divinitie: maps, globes, and geography in the days of Samuel Pepys, pp 1–44, in THROWER, N. J. W (editor), *The compleat plattmaker: essays on chart, map, and globe making in England in the seventeenth and eighteenth centuries*. Berkeley, Los Angeles, & London: University of California Press. Pp 241.

WHITBOURNE, R., 1620 *A discovrse and discovery of New-fovnd-land*. London: William Barret. (Facsimile 1971. Amsterdam: Da Capo Press. Pp [24], 69, [4].)

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