# The *Proceedings of the Zoological Society of London*, 1859–1900: an exploration of breaks between calendar years of publication

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#### Abstract

Duncan (1937) provided detailed information that has been widely used to date names of new taxa described in early volumes of the *Proceedings*. The examinations reported here suggest that at least at the point where the year of publication is important Duncan was usually correct, and although exceptions are reported they are not of great consequence (although 14 of 42 volumes are anomalous). These exceptions relate to cases where the published pages differed from a multiple of the signature size by a couple of pages or so. Over the 41 volumes examined, two or more techniques were used to provide, economically, text needed to complete an article that would have over-run the number of signatures planned for the issue. The importance of retaining wrappers and binding them in is demonstrated by what can be learned from them.

## INTRODUCTION

Nomenclature is a cornerstone of communication in zoology. Today, the way in which names are used is governed by the *International Code of Zoological Nomenclature* (ICZN, 1999). In essence the Code governing binomial nomenclature requires that the names we attach to taxa must have four elements (a generic name, a name in the 'species-group', one or more authors – or describers – and the date of description). Special importance is attached to the date due to the Principle of Priority (Art. 23, ICZN, 1999). Only by using the Article applicable to dating (Art. 21, ICZN, 1999) do we determine between two names separately bestowed upon the same taxon.

The Proceedings of the Zoological Society of London was, for much of the 19th century, the English language journal of choice for the description of new animals. Dating the name then given is not quite as simple as we might like it to be. Researchers are well aware that the volume year of the Proceedings of the Zoological Society of London should not be cited lightly as the date of publication. For years it was routine practice for the papers read at meetings late one year to be published next spring within the volume year based for the period when the paper was read. There were also years when publication fell behind schedule. From the calendar years 1831 to 1858 we do not know the dates of publication; the records show when the printers delivered printed parts to the Society but not when these were published (Duncan, 1937). From 1859 to 1900, and on through to 1926, the dates of publication of the parts were brought together and explained by Duncan (1937) and his dates are now generally relied upon. Only the parts for 1859 and 1860 suffer from dating to a period of several months, rather to a precise month. Duncan also set out the page limits to the published parts, with some gaps for the 1872 and 1874 volumes, and these we also rely upon. Since then, Cowan (1973) was able to provide some missing pagination data for the 1872 and 1874 volumes. The work reported here shows that Duncan's information on the pagination of parts is extremely accurate, but not faultless.

Recently details were set out (Dickinson, 2004) that confirmed from the 1887 volume that the *Proceedings*, at times at least, appeared in two states. One as printed when concluding an issue, and the second as reprinted as part of the complete signature with which a new issue was commenced.

It has now been possible to examine the volumes and wrappers for each year from 1859 to 1900 and further information is here provided that should satisfy future needs for precision in cases where two states of publication seemed likely to have occurred at the end of the last issue within a calendar year and the beginning of the final issue in the same volume. Happily such cases are rare.

No attempt has been made to deal with the monthcritical cases where it may be necessary to decide on a similar matter in the context of prior issues in a volume as these are not date critical to the year. However, the cases explained below, and the table naming a library where wrappers will be found for that volume, will familiarize readers with what to look for if they need to date monthcritical cases more definitely and thus have to examine earlier numbers in the volumes.

The reader may assume that a volume between 1859 and 1900 that is not discussed below has a clean and obvious break between the two issues that concern us and that is wholly unambiguous and consistent with Duncan (1937).

It will be recalled that there were three issues a year from 1859 to 1873 and four issues a year from 1874 to 1900.

### SIGNATURE NUMBERS

It was suggested that in the course of this work that understanding the signature numbering system might be helpful. At this period the pages of the *Proceedings* were octavo, and the standard signature was therefore 16 pages. In several cases explored below the signature numbers that were apparent did not tally with what would be expected by dividing by 16; this anomaly has not been explored further.

The signature numbers were originally in Roman numerals, but were changed to Arabic numerals following a period when they appeared in both Roman and Arabic numerals; here, to simplify, only Arabic numerals are mentioned.

The *Proceedings* is one of several journals of the period in which one finds a repetition of the signature number two pages later with an asterisk added; this is due to printers wishing to be sure that the correct eight pages have been printed on the reverse side of the sheet.

#### **FINDINGS**

In Table 1 the years examined are listed with a simple two-column guide to the page split between years as given by Duncan. The location is given of a volume with wrappers.

In the early 1860s it was apparently the practice to print extra pages to complete a paper, probably inserting just a page or two, and to accept that these pages would be reprinted so that each issue began with a complete signature, but from 1865 to 1881 problems of this type did not occur, or at least did not occur at the break between the calendar years. From 1882 space was made available on wrappers to absorb text overflow and it was not necessary to use part of an extra signature.

# 1860

Duncan (1937) reported that the page break should be between pages 336 and 337 and this is the first page of signature 438 (this volume begins with signature number 417). The wrapper for issues 1 and 2 lists the closing article as 'On some hybrid ducks' (p. 336). This article indeed began on that page, but it runs to p. 338. It would seem that pp. 337 and 338 were printed twice; in this instance the two states may only be distinguished in cases where the parts have been bound without excising the duplicate page.

## 1862

Duncan (1937) reported that the page break should be between pages 208 and 209. The table of contents for issue

**Table 1.** Breaks between years in *Proceedings of the Zoological Society* volumes, details mainly according to Duncan (1937). For years before 1859, Duncan gave information based on the supply of printed pages from the printer to the *PZS*; dates are 'not before dates'; exactly how and when these pages were issued to members is not clear. SK, Natural History Museum, South Kensington; ZS, Zoology Serials; Camb. CSL, University of Cambridge, Central Science Library

Volume	Year	Pages that year	Pages next year	Wrapper located
Three par		1 252	252 521	CIZ. M1-
27	1859	1–352	353–521	SK: Mammals
28	1860	1–336	337–492	SK: Mammals
29	1861	1–272	273–458	SK: Mammals
30	1862	1–208	209–394	Camb.: CSL
31	1863	1–336	337–580	SK: Mammals
32	1864	1–336	337–761	SK: Mammals
33	1865	1–592	593–906	SK: Mammals
34	1866	1–376	377–645	SK: Mammals
35	1867	1–600	601–1097	SK: Mammals
36	1868	1–404	405–677	SK: Mammals
37	1869	1–466	467–698	SK: Mammals
38	1870	1–614	615–938	SK: Mammals
39	1871	1–622	623–823	SK: Mammals
40	1872	1–736	737–927	SK: Mammals
41	1873	1–624	625–842	SK: Mammals
Four parts				
42	1874	1–488	489–728	SK: Mammals
43	1875	1–526	527–726	SK: Mammals
44	1876	1–692	693-864	SK: Mammals
45	1877	1–652	653–893	SK: Mammals
46	1878	1-740	741–1056	SK: Mammals
47	1879	1-662	663-868	SK: Mammals
48	1880	1-536	537-743	SK: Mammals
49	1881	1-800	801-1056	Linnean Society
				London
50	1882	1-590	591-927	SK: ZS1A
51	1883	1-460	461-704	SK: ZS1A
52	1884	1-474	475-645	SK: ZS1A
53	1885	1-716	717–991	SK: Mammals
54	1886	1-416	417-716	SK: Mammals
55	1887	1-558	559-730	SK: Mammals
56	1888	1-412	413-717	SK: Mammals
57	1889	1-392	393-668	SK: Mammals
58	1890	1-588	589-730	SK: Mammals
59	1891	1-464	465-703	SK: Mammals
60	1892	1-540	541-756	SK: Mammals
61	1893	1–598	599–812	SK: Mammals
62	1894	$1-593^{b}$	<sup>b</sup> 594–780	SK: Mammals
63	1895	$1-687^b$	<sup>b</sup> 686–1059	SK: Mammals
64	1896	1–766	767–1110	SK: Mammals
65	1897	$1-809^b$	<sup>b</sup> 810–1013	SK: Mammals
66	1898	1–509	585–1091	SK: Mammals
67	1899	1-364	813–1108	SK: Mammals
68	1900	1-812	771–1063	SK: ZS1A
UO	1900	1-770	//1-1003	SK. LSIA

<sup>&</sup>lt;sup>a</sup> Volumes comprised four parts (three intended within the calendar year and one later).

3 lists the first article as beginning on page 210. Pages 208 and 209 contain a short article that should therefore have been in issue 2. Page 209 is the first page of signature 14 (from this volume, or perhaps from 1861, signature

<sup>&</sup>lt;sup>b</sup> Duncan erred in citing a left-hand page as beginning the part; see text for detailed corrections.

numbers started each time from 1) and therefore this is the second state of this page; this text was not found on the wrapper and it is unclear how this page was provided in its first state; it seems that a short signature must have been used with all pages except for page 209 blank.

## 1863

Duncan (1937) suggested that the page break should be between pages 336 and page 337; this is the first page of signature 22. The article that fills page 336 continues through to the top of page 339. It is apparent that page 339, and very probably 337 and 338, were printed twice. The content of the final part will have begun part way through page 339.

#### 1864

Duncan (1937) again suggested that the page break should be between pages 336 and page 337, and page 337 is the first page of signature 22, but the last article in the previous issue finishes at the foot of page 338. Pages 337 and 338 again appear to have been printed twice; the wrappers do not include text from these pages.

# 1882

Duncan (1937) reported that the page break should be between pages 590 and 591. It seems, oddly, that page 591 is the first page of signature 40; on it however one finds the description by Sharpe of a new flycatcher *Muscicapa ussheri* that was introduced on page 590. The wrappers show that the use of extra paper stock for reprinting the minimum amount of extra print on page 591 was avoided by the expedient of completing this text on the inside back of the wrapper itself, using 3/4 of the page. When printing the fourth issue page 591 thus contains 3/4 of a page of reprinted text and 1/4 of a page starts paper 12 from the June meeting.

# 1883

Duncan (1937) reported that the page break should be between pages 460 and 461, which purports to be the first page of signature 31. The third issue of the year concludes with a long article on the birds of Yucatan and this will be seen to end on page 462. It seems clear that the content of the final issue began on page 463 (which is the Secretary's Report on Additions to the Menagerie), as supported by the wrapper for the final part. Pages 461 and 462 will thus have been reprinted.

#### 1887

Dickinson (2004) explained that pages 557 and 558 had been printed twice, the second of them being completed with the opening text of the final issue. Furthermore, the problem was compounded because the article with the description of the broadbill *Calyptomena whiteheadi* appeared not just on the wrapper for Part III as stated, but also on the wrapper for Part IV.

# 1889

Duncan (1937) reported that the page break should be between pages 392 and 393; this is the first page of signature 27. Part III, however, ends with an article by Bates on the Coleoptera of Mount Kinabalu and this article only finishes on page 393. In this instance the small amount of extra text was first printed on the inside back of the wrapper for Part III and then reprinted on good paper when Part IV appeared. The description of the genus *Eusynthela* might, to one not seeing the wrapper, seem to have been half printed in 1889 and half in 1890.

#### 1891

Duncan (1937) reported that the page break should be between pages 464 and 465, but page 463 appears to be the first page of signature 32. The evidence in this case shows that page 463 and the first seven lines on page 464 were reprinted and issued with Part IV.

## 1893

Duncan (1937) reported that the page break should be between pages 598 and 599, which appears to be the first page of signature 41 (although in its original state no number appears on that page). In fact the text of Part III ran on to page 599. The bound copy in the Mammal Department at The Natural History Museum, South Kensington has these two parts bound in, as does one of two copies at The Natural History Museum, Tring.

# 1894

This is the first of three cases where Duncan suggested that a new part began with an even numbered page (594). Inside the back of the wrapper for Part III the bulk (7/8ths) of page 593 is printed with the last eighth of the page blank. In its final state, at the start of the fourth issue, page 593 appears as the first page of signature 40, and a short horizontal line splits, or 'uses', the last eighth of the page.

#### 1895

Here Duncan suggested Part IV began with page 686. The wrapper for Part III has no text printed inside the back. It is apparent that pages 685 and 686 were reprinted and that page 686 must have existed in two states, being only two-thirds filled in its first state. A set at The Natural History Museum, Tring shows both states. The header in state one dates the page June 18, and in state two it is dated November 19.

## 1897

This is the third instance where Duncan reported the final Part beginning with an even page number (810). In this case all page 809, the first page of signature 54, was first printed inside the back cover of Part III.

## 1898

Duncan (1937) reported that the page break should be between pages 584 and 585 (the first page of signature 40). The wrapper of Part III reveals that the top two-thirds of page 585 was first printed inside its back.

# Acknowledgements

The information appended in Table 1 has been made possible mainly through the help of the authorities at The Natural History Museum (NHM), South Kensington

and Tring. Paula Jenkins was extremely helpful in providing access to the Mammal Department set which is particularly rich in bound-in wrappers. Gina Douglas at the Linnean Society of London kindly made the 1881 volume available for inspection. Several earlier attempts were made to locate this and the last remaining volume and Linda Birch (Oxford) kindly made enquiries of the Hope Librarian in the Entomology Department of Oxford University but found wrappers to be lacking in these two volumes as did Clair Castle at the Balfour and Newton Library (Cambridge), June Harvey in the Entomology Library at the NHM (South Kensington), Ronald de Ruiter (Naturalis, Leiden) and Ante Strand (Stockholm). The final and most elusive of the volumes to be traced was found at the Central Science Library, Cambridge thanks to Kees Rookmaaker; the library staff kindly made this available. Finally special thanks are owed to Nigel Roche at the Printing Library, St Brides, London, for guidance regarding signatures, an understanding of which helped in making sense of the evidence.

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