

On the Disciples' Edition of Cuvier's *Règne Animal*

By C. F. COWAN

4 Thornfield Terrace
Grange-over-Sands
Cumbria, LA11 7DR.

SYNOPSIS

The method of production of Baron Georges Cuvier's *Règne Animal*, third edition of 1836-1849, is discussed. The 22 volumes, two for *Insectes* and one for each of the other animal classes for the text, and eleven similar ones for the plates, were issued currently in 262 livraisons at unknown dates. Each livraison held text and plates for a class and some of the plates contained new material, so it is important to collate the plates in livraisons. All livraisons are here dated to within a month, and full collation tabulated for the fourteen volumes *Mammifères*, *Oiseaux*, *Poissons*, *Insectes* 1, 2, *Crustacés* and *Annélides*, each with its *Atlas*, as well as for the Prefaces and the Bibliography sections. The authorship of plates and their explanations is discussed, and is determined in detail for *Insectes* and *Annélides*. An appeal is added for information on the other four classes *Reptiles*, *Mollusques*, *Arachnides* and *Zoophytes*.

THE DISCIPLES

The group of pupils, or *réunion d'élèves de Cuvier* as they originally styled themselves, numbered nine when this work was first announced in early 1836. When three reinforcements brought their strength to twelve they became known as disciples, which cognomen they adopted for their eventual title pages. Their names and intended subjects were;

Jean Victor AUDOUIN (1797-1841)	Insectes
Gérard Paul DESHAYES (1795-1875)	Mollusques
Alcide Dessalines D'ORBIGNY (1802-1857)	Oiseaux
Antoine Leon Delzescant DUGÈS (1797-1838)	Arachnides
Georges Louis DUVERNOY (1777-1855)	Reptiles
Charles Léopold LAURILLARD (1783-1853)	Mammifères (part)
Henri MILNE EDWARDS (1800-1885)	Crustacés, Annélides, Zoophytes and Mammifères (part)
Francois Désiré ROULIN (1797-1874)	Mammifères (part)
Achille VALENCIENNES (1794-1865)	Poissons
Co-opted <i>ab initio</i> ;	
Louis DOYÈRE (1811-1863)	Insectes
Recruited about 1840, 1846 respectively;	
Charles Émile BLANCHARD (1819-1900)	Insectes, Zoophytes
Jean Louis Armand de QUATREFAGES de Bréau (1810-1892)	Annélides, Arachnides &c.

Within two years, on the death of Dugès, Milne Edwards took over the *Arachnides*, and was thus nominally in charge of nearly half the work. However he was publishing actively elsewhere, and his actual share was later reduced, although he even contributed one *Insectes* plate. Doyère's share in each of the first ten *Insectes* livraisons was three times that of Audouin, but progress in that class was very slow. A year before Audouin died, his own young protégé Blanchard virtually took over *Insectes* completely and, with Quatrefages, substantially helped to complete the project. Although the name of Laurillard appears on the plates of the second edition (1829–1830) and in the *Mammifères* title of this one, no trace of his work has been found.

The questions of attributable authorship in those classes which were shared are discussed in the appendices relevant to each. The object of the above list is to introduce the team.

PLANNING

Cuvier died in 1832 and Latreille in 1833; both within four years of publishing their five-volume octavo second edition of the *Règne Animal*, like the first so discreet in format but so acclaimed by their contemporaries. The aim of their disciples was a fine quarto edition, with plates illustrating every genus. Reverently they refrained from altering the text, which was reproduced verbatim even to the numbered footnotes, but which they spaced to fill eleven large volumes. The only 'editing' admitted was the insertion, as small subheads and lettered footnotes, of references to their plates. It follows that no new names occur in the text. Classified lists were omitted, but a good index covering text and plates ended each text.

The plates were deliberately planned to illustrate every genus by figuring well known or readily accessible species and key structural details. Again it follows that new names should not occur, but here the disciples proved human and occasionally erred.

A thousand plates were advertised as published. In fact there were 993, plus the special medallion false-titles originally meant to head the *Atlas* volumes. Each plate bore a legend and was issued with a detailed explanatory leaf facing it and an interleaved tissue; the triple sandwich designed to remain an integral unit when bound, and treated as such below under the term 'plate'.

By counting the genera to be illustrated, blocks of plate numbers could be allocated to them in advance and a complete forecast of the plate layouts could be made, for each class. This must have been necessary for the textual references to the plates, as the latter appeared in random numerical sequence. It was natural to include some attractive subjects in early issues, and the first *Mollusques* livraison held plates 5, 8, 19 and 21, with colourful pictures of cuttlefish, nautilus, slugs and a snail, with their anatomies. The first of *Insectes* simply had a block of four plates (78–81) of mantids and stick-insects, destined for the second volume, and among the 40 plates in the first ten *Insectes* livraisons Doyère gave twelve butterfly plates, the text for which did not come out until 1846. Conversely, pages 53–55 in the sixth *Insectes* livraison bore references to plate 11, published nearly seven years later.

Originally each livraison was to comprise "about two sheets (16 pages) of text and four plates". In practice, although the first three (the first each of *Oiseaux*, *Mammifères* and *Mollusques*) did have 16 pages, the general rule was 8 pages (one sheet quarto) and 4

plates to a livraison until a class was half completed, when if necessary the balance was adjusted by issues of 32 or 40 pages and 3 plates.

A livraison held material for one class only, since classes were available separately. The only exception yet found to this was livraison 189 (*Insectes* 24) which in addition to its own material held the reprinted sheet 12 (pp.83–90) of *Oiseaux*, the final livraison of which had been published ten months before.

The general prefatory pages (v–xxxvi) on four quarto sheets, and the 94-page bibliography were withheld until the work was progressing well, and then issued as makeweights in certain *Mollusques* and *Zoophytes* livraisons. These again were verbatim reprints of Cuvier's second edition, and although the bibliography now spells "DUGEZ" correctly, it still shows Guérin-Ménéville at his fifth livraison of his *Iconographie* although by now (1843) all 45 livraisons of his plates had long been published.

The first sheet for each class opened with a half-title, followed by the first six pages (pp.3–8) of text (except in *Oiseaux*, where it followed pp.i–vi on the *Vertébrés ovipares* as the last leaf of sheet 1). Three further kinds of title-pages came in the final livraisons of each class; one large-plate engraved 'medallion' false-title intended for the *Atlas* volume, two main title-pages, one for each volume of *Texte* and *Atlas* and applicable, like the 'medallion', to all classes; and two new half-titles naming the authors of the plates of the particular class. Collation is liable to confusion by the new *Texte* half-title, which was to replace, not to supplement, the one issued in the first livraisons. The latter was often discarded, despite clear instructions that the new one should replace it (as pp.1, 2, even in *Oiseaux*). By the end of 1845 six classes had been completed (*Reptiles*, *Oiseaux*, *Poissons*, *Mollusques*, *Crustacés* and *Insectes* 1) and titles issued, subscribed by the then publishers, Fortin & Masson. A further complication arose as the firm now became Victor Masson's, and while he continued to issue the main titles with the Fortin-Masson imprint, he gave two medallion false-titles instead of one for each class. These were re-subscribed with his own name and evidently plenty were printed, for specimens are often found 'extra' in earlier *Texte* volumes. The final collation given by *Biblioph. Fr.* (1849: 332) allows only one medallion per class, which is only half correct, and Zimmer (1926: 156) cites only the one for *Oiseaux*, but misbound in the *Texte* volume.

The medallion title-leaf, engraved on a large plate to avoid plate-marks, is by Antoine Bovy (1795–1877), a Swiss who studied in Paris and specialised in this type of work. Dated 1834, it may show when the edition was conceived. The subscription Fortin Masson & Cie must have been added after 1839.

THE PRINTERS, PUBLISHERS AND WRAPPERS

The text was printed throughout by Paul Renouard on paper which was thin and white until shortly after Crochard ceased to be publisher, when a distinctly heavier, buff paper was used. All the normal plates, and the medallion, were printed by N. Rémond, while the late run of a few chromo-lithographs was handled by Lemercier.

Crochard & Cie were publishers from 1836 to early 1840, when Fortin, Masson & Cie took over. This firm became Victor Masson's in 1846. The same pale blue-green paper and type-setting were used throughout for the wrappers, minor changes being made to names and wording from time to time.

Crochard dated his wrappers, "1836", then "1837", the latter being belatedly revised after a short run to include Doyère's name. Fortin-Masson started with "1840", then used up old Crochard stock, then dropped the date. Victor Masson's name appeared on livraison 228, but then he used old Fortin-Masson stock. The wrappers were printed in ten runs each time, one for each class, with the class name central on the front. The great value of the wrappers is that they enable one to correlate the livraison numbers by classes.

At the top the word livraison is followed by a space for the manuscript entry of the number (1 to 262). In the centre, after the name of the class, is a space for the manuscript entry of the class serial number. These entries, perforce made at time of issue, are vital evidence for the sequence in which the classes appeared.

The wrapper was printed on one side only. The front, apart from routine changes already noted, needs no further remarks except, perhaps, that minor breaks in the outer frame lines, identical uncoloured flaws showing as specks in the V I E of CUVIER, and the spacing of ORGANISATION, *inter alia*, show up on all copies.

On the back are some extracts from the Prospectus (which I have not seen). They explain the policy (outlined above under Planning) governing the contents of text and plates. The classes and authors are listed, only the nine pupils being named until Doyère was added in late 1837. Near the foot are the prices for the different issues; with plates uncoloured 2-25, on India paper 2-75, and coloured 4-50 francs per livraison.

Dr. Holthuis discovered in his *Crustacés* set that livraisons 107 and 110 (*Crustacés* 13, 14) bear on the front a white stick-on label, and kindly sent me a photocopy. It announces, on the Fortin-Masson "1840" front cover, that the price per coloured livraison would be raised from 4-50 to 5 francs from 1 January 1841 for all new subscribers and those in arrears. Mme. Lacour-Gayet also found this for her livraison 108 (*Poissons* 19). This label was not on livraisons 106 or 112, and although I have no knowledge of 109, or 111, it seems sound to deduce that livraisons up to 110 at least appeared before 31 December 1840.

When Fortin-Masson ceased dating the front leaf they also made two minor changes on the back. One was the new price, and in the next line, by removing the two last letters of the word *paraître*, they corrected the statement that from 25 May 1836 livraisons "will appear" on 10th and 25th monthly to read "is appearing". The resultant vacant two-letter space remained on all subsequent wrappers.

I have only seen one Fortin-Masson "1840" wrapper among the 105 checked, and they must have destroyed the stock when the price was changed at the beginning of 1841, but it was not until 1845 that the livraison contents given in three lines higher up were corrected. Although out of date by livraison 4, they were not altered to read "1 sheet and 4 plates or 5 sheets and 3 plates" until livraison 210.

Wrapper exploration is of academic rather than practical interest except for the one vital use for livraison correlation. Because old stock continually reappeared it is more precise to refer to a wrapper type by its features than by its livraison number. For what it is worth, the types found and their representation in my sets are listed below. Since my sets are of classes completed late, Victor Masson features strongly. He would not appear at all in *Reptiles*, *Oiseaux*, *Poissons* or *Crustacés*, which were completed in 1842-1844.

A	Crochard "1836"	holding;	11	
B	Cr. "1837" (9 pupils)		9	
C	Cr. "1837" (plus Doyère)		11	
D	Fortin-Masson "1840"		1	
E	F-M (5 francs), "parait"		40	
F	F-M (1 sheet . . or 5 sheets)		15	
G	Victor Masson		18	Total 105.

After the addition of Doyère the team remained at ten pupils to the end. Neither the word *disciples* nor the names of Blanchard and Quatrefages were ever introduced. Quatrefages never even reached the main title pages, since he must have joined after Fortin-Masson printed the bulk supply. In the same way Blanchard missed the title pages of the first three completed classes.

SHERBORN'S TABLE

Sherborn (1922: 555), in a remarkably compact table, gave the dates when batches of livraisons reached the British Museum in London, where those dates were meticulously pencilled on the first pages. This set of bound volumes is still in the Palaeontological library in the British Museum (Natural History), and it still lacks the *Crustacés* volumes (although they had been registered with the rest originally). The livraison numbers, of course, are lost, and Sherborn's table lists page numbers against dates, by classes.

It was soon found that, because his table only lists the bulk numbers of pages for each date, it was not possible to convert them to livraisons. Moreover, Sherborn did not know that certain livraisons came without text, so that a few dates are to be found on plates. Furthermore, some livraisons with more than one sheet of text are separated when bound livraison 214 held *Insectes* pages v-xii, and 2: 1-8, so the date written on page v applies also to the first sheet of volume 2, for which Sherborn naturally has "no date". Again, he lists bibliography pages 57-94 (under *Mammifères*) as 17/1/1845 because page 57 is so dated and no subsequent page. Pages 57-64 duly came then in livraison *Zoophytes* 12, but pages 65-94 actually came nearly a year later, with the reprinted pages 9-16 and others in the final *Mollusques* livraison. Then this set is misbound; the *Mammifères* should not open with the 94-page bibliography but with Cuvier's prefaces, pages v-xxxvi. Finally, of course, knowing the date of receipt of text is no help in the essential dating of plates until the full livraison contents are known.

So this set has been re-examined and a note taken of every entry. Normally a livraison would be marked on the first page of the text (on p.3 so as not to spoil the half-title in the case of opening sheets). One new date was found on the blank reverse of a first leaf (p.106 of *Mollusques*) and another on the back of the *Mammifères* main title (thus dating its last livraison). It was noticed that each date also had a reference number below, and they were listed. These numbers proved *seriatim* (from 154-200) for the first large batch of 47 livraisons received on 6/6/1838, and for the second batch (517-526) on 11/10/1838, enabling the class sequence of these first 57 livraisons, including the *Crustacés*, to be worked out. Thereafter the system changed, but the entries continue useful as dating checks. The British Museum *Accessions Register 1837-1848* was checked and all the relevant reference numbers traced, with further confirmation but little fresh. The Paris agent was Baillière.

In using these dates the transit time between publication in Paris and receipt and registry in London has been assumed not to exceed ten days. Thus a registry on or

before 10th January has been accepted as indicating publication by 31st December the previous year.

TABLE 1

Detail adapted from *Bibliographie Fr.* 1849: 321–322

The text in 11 vols., “gr. in-8°, 205¼ sheets” [actual is 4°, total 4117/8 sheets, plus tipped-in titles; physical pagination is given below]. Plus 11 Atlas vols. with 1000 plates [actual is 993 plus the engraved false-titles for the Atlas vols.]. In 262 livraisons.

Class Title	Authors	pp.	pl. + expl.	Price, with pls. col.	pls. plain
Préfaces, Mammifères & Races humaines	Milne Edwards, Laurillard & Roulin	v– xxxvi, 350	121	155 frs.	70 frs.
Oiseaux	d'Orbigny	iii–v, 370	102	135	60
Réptiles	Duvernoy	169	46	66	30
Poissons	Valenciennes	392	122	160	72
Mollusques	Deshayes	266	152	195	88
Insectes 1, 2	Audouin, Doyère, Milne Edwards & Blanchard	v–xii, 557, 443	202	275	124
Arachnides	Dugès, Milne Edwards [& Quatrefages]	106	31	45	20
Crustacés	Milne Edwards	278	87	115	52
Annélides	Milne Edwards [& Quatrefages]	54	30	40	18
Zoophytes, & Bibliographie	Milne Edwards, [Blanchard & Quatrefages]	160+ 94	100	125	56
Price complete;				1310	590
Individual livraisons are still available, at;				5	2.25
Parts available separately are;					
Coleoptera	Blanchard	–	68 pls.	95	40
Hymenoptera	Blanchard	–	25	38	16
Lepidoptera	Blanchard & Doyère	–	31	45	20
Diptera	Blanchard	–	29	44	20
Intestinaux	Blanchard [& Quatrefages]	–	19	30	14
Races humaines	Roulin	–	21	20	12

Note. Authors' names in brackets above are not given on title pages, but are given by *Bibliographie Fr.*, except that Quatrefages has never been cited for *Zoophytes* (nor *Intestinaux*).

OTHER CONTEMPORARY SOURCES

Various contemporary interim reports give the progress of the work, but always combine achieved with projected figures in such a way as to make extraction of the former impossible. One such is Victor Masson's own book list of early 1847, found bound in several copies of *Annls. Sci. nat. (Zool)*. This forecasts completion by May 1847 (!) and gives a long tabulation but no firm data.

The only four useful sources are;

Annls. Sci. nat. (Zool.) (2) 5 (3) "March" [April] 1836, p.191, "Livraison 1 vient de paraître chez Crochard." . . from 25/5/1836 "une livraison paraîtra 10 et 25 chaque mois. That "has just appeared at Crochard's", confusing at first sight, must have referred to a pilot or review copy; the second sentence, taken no doubt from the prospectus, giving the true situation. All back wrappers repeat that livraisons were planned to appear fortnightly on 10th and 25th monthly from 25th May 1836.

The *Bibphie Fr.* surprisingly only gives four reports. The first two confirm the start within a fortnight. The third, 87 months after 25 May 1836, shows that livraison 180 was over 2½ months ahead of schedule, and the last announces completion in such detail that edited extracts are given in Table 1.

For some reason *Bibphie Fr.* always described the work as octavo, and totalled the sheets issued accordingly. In fact the only issues were in quarto, 8 pages to a sheet, and as the *Bibphie Fr.* figures are misleading they are converted here to pages for clarity. The reports were;

1836	(11 Jun.):	284.	Livr.1 (Oiseaux 1)	16 pp., 4 pls.
1836	(9 Jul.):	333.	Livr.3 (Mammifères 1).	16 pp., 4 pls.
1843	(26 Aug.):	434.	Livr.180 (Crustacés 20).	8 pp., 4 pls.
1849	(7 Jul.):	331-2.	Livr.262 (Zoophytes 25).	see Table 1.

TABLE 2

Progress of Issues by Classes

Class	Abbrev.	Livraisons issued by;				Overall dates	Appendix.
		Jan. 1837	May 1838	Jan. 1846	Final		
Mammifères	Mam	3	6	29	31	1836-47	1
Oiseaux	Ois	3	6	27	27	1836-43	2
Reptiles	Rep	—	3	13	13	1837-42	3
Poissons	Poi	1	4	32	32	1836-43	4
Mollusques	Mol	4	9	39	39	1836-45	5
Insectes 1, 2	Ins	2	7	39	55	1836-49	6
Arachnides	Ara	1	4	5	9	1836-49	7
Crustacés	Cru	1	4	23	23	1836-44	8
Annélides	Ann	1	1	4	8	1837-48	9
Zoophytes	Zoo	2	3	15	25	1836-49	10
		18	47	226	262		

The above was the 'official' sequence of the ten classes.

Isis, Jena 30: 260 reviewed anonymously in the April number the first eighteen livraisons, giving the distribution by classes. It is here assumed that this shows the situation in early February 1837, the review having just missed the March number. The figures, like those of Sherborn's first batch of May 1838, form a useful check on early issues, and both sets are shown in Table 2, together with Engelmann's (1846: 321). Engelmann gave details as at [? Feb.] 1846, listing the five classes completed and sufficient to determine the progress of the other five up to livraison 226. Opportunity is taken to include in Table 2 the abbreviations used below for classes, and the year each was completed.

DATING: TABLE 3

The team and the publishers were experienced, competent and influential. They announced two livraisons per month, starting on 25th May 1836. One may expect the schedule to have been met. However the initial *Biblioph. Fr.* reports were both a fortnight late, a lag which is not refuted by the *Isis* review, nor by Sherborn's first dates.

At two livraisons per month, livraison 18 should have been published on 10 February 1837. It was received too late for review in the March number, so it could have been a fortnight late.

Similarly, livraison 47 (Poi 4, which had no text so was dated on plate 4) should have been published on 25th April 1838. It was the last in Sherborn's first batch, registered on 6th June, about a month late.

Livraison 57, due for publication on 25 September, arrived in London and was registered on 11 October 1838, a fortnight late at the most.

Livraison 72, due on 10 May, arrived on 4 June 1839.

Livraison 104, due on 10 September, arrived on 6 October 1840.

Livraison 141, due on 25 March, arrived on 1 April 1842 (!)

Livraison 162, due on 10 February, arrived on 9 February 1843 (!!)

Livraison 171, due on 25 June, arrived on 11 May 1843.

Livraison 180, due on 10 November, was reported on 26 August 1843 in *Biblioph. Fr.*

Livraison 192, due on 10 May, arrived on 7 March 1844.

Livraison 210, due on 10 February, arrived on 17 January 1845.

Livraison 223 came on 11 December 1845; 241 on 2 July 1847, and the final 262 was registered in London on 13 July 1849, six days after it was reported by *Biblioph. Fr.*

These are the most significant correlations from the checks of the thirty-eight dates recorded by Sherborn and a further six since found. If it is accepted, as it must be from the present data for nomenclature purposes, that the start was a fortnight late, these dates show that, with interim fluctuations, the average of two livraisons per month was maintained up to about livraison 137. Then there was a gradual acceleration to livraison 180, after which the tempo remained normal to livraison 198. Then the pace slowed. In the 3 months ending 7 March 1844 seven livraisons reached London; in the following 10 months eighteen arrived; in the next 11 months only thirteen came, then there was an average of one a month for 18 months, and the last 21 took just two years.

Table 3 sets out the deduced livraison dates and shows the class livraison number of each. The data for *Mammifères*, *Oiseaux*, *Poissons*, *Insectes*, *Crustacés*, *Annélides*, and some *Mollusques*, are accurate, as they are based on the original livraisons. The class livraison numbers for *Reptiles*, *Arachnides*, *Zoophytes*, and two thirds of the *Mollusques*,

TABLE 3

LIVRAISONS;

Year/ Month	Livr.	Class	Year/ Month	Livr.	Class	Year/ Month	Livr.	Class
1836			(1838)			(1840)		
Jun.	1	Ois 1	May	46	Ins 7	Mar.	91	Ois 13
	2	Mol 1		47	Poi 4		92	Poi 13
Jul.	3	Mam 1	Jun.	48	Ois 7	Apr.	93	Rep 8
	4	Zoo 1		49	Mol 10		94	Poi 14
Aug.	5	Ins 1	Jul.	50	Poi 5	May	95	Cru 11
	6	Mam 2		51	Cru 5		96	Poi 15
Sep.	7	Mol 2	Aug.	52	Zoo 4	Jun.	97	Mol 21
	8	Cru 1		53	Mol 11		98	Poi 16
Oct.	9	Ois 2	Sep.	54	Ois 8	Jul.	99	Cru 12
	10	Ara 1		55	Zoo 5		100	Rep 9
Nov.	11	Mol 3	Oct.	56	Poi 6	Aug.	101	Ins 10
	12	Poi 1		57	Mol 12		102	Mam 9
Dec.	13	Mam 3	Nov.	58	Mam 7	Sep.	103	Poi 17
	14	Ins 2		59	Ara 4		104	Zoo 7
1837			Dec.	60	Cru 6	Oct.	105	Ois 14
Jan.	15	Ann 1		61	Mol 13	Nov.	106	Poi 18
	16	Ois 3	1839				107	Cru 13
Feb.	17	Mol 4	Jan.	63	Poi 7	Dec.	108	Poi 19
	18	Zoo 2		64	Mol 14		109	Rep 10
Mar.	19	Poi 2	Feb.	65	Ann 2		110	Cru 14
	20	Cru 2		66	Ois 9	1841		
Apr.	21	Mam 4	Mar.	67	Ins 8	Jan.	111	Mol 24
	22	Ara 2		68	Mol 15		112	Ins 11
May	23	Mol 5	Apr.	69	Poi 8	Feb.	113	Zoo 8
	24	Ins 3		70	Cru 7		114	Poi 20
Jun.	25	Rep 1	May	71	Mam 8	Mar.	115	Mam 10
	26	Ois 4		72	Mol 16		116	Ann 3
Jul.	27	Mol 6	Jun.	73	Cru 8	Apr.	117	Poi 21
	28	Mam 5		74	Poi 9		118	Cru 15
Aug.	29	Zoo 3	Jul.	75	Ois 10	May	119	Mol 23
	30	Ins 4		76	Mol 17		120	Cru 16
Sep.	31	Ois 5	Aug.	77	Ins 9	Jun.	121	Ois 15
	32	Ara 3		78	Rep 5		122	Poi 22
Oct.	33	Cru 3	Sep.	79	Poi 10	Jul.	123	Ins 12
	34	Ois 6		80	Mol 18		124	Ois 16
Nov.	35	Rep 2	Oct.	81	Ois 11	Aug.	125	Poi 23
	36	Ins 5		82	Poi 11		126	Ins 13
Dec.	37	Mol 7	Nov.	83	Mol 19	Sep.	127	Mam 11
1838				84	Ois 12		128	Ois 17
Jan.	38	Cru 4	Dec.	85	Rep 6	Oct.	129	Mol 24
	39	Mol 8		86	Poi 12		130	Poi 24
Feb.	40	Rep 3	1840			Nov.	131	Zoo 9
	41	Poi 3	Jan.	87	Cru 9		132	Ins 14
Mar.	42	Mam 6		88	Mol 20	Dec.	133	Poi 25
	43	Ins 6	Feb.	89	Rep 7		134	Ois 18
Apr.	44	Mol 9		90	Cru 10		135	Ara 5
	45	Rep 4						

DATES & CLASSES

Year/ Month	Livr.	Class	Year/ Month	Livr.	Class	Year/ Month	Livr.	Class
1842			(1843)			1846		
Jan.	136	Poi 26	Oct.	183	Ins 22	Jan.	225	Ins 38
	137	Ois 19		184	Cru 21		226	Ins 39
Feb.	138	Ins 15	Nov.	185	Mam 18	Apr.	227	Ara 6
	139	Poi 27		186	Ins 23	May	228	Ins 40
Mar.	140	Ois 20	Dec.	187	Mol 33	Jun.	229	Ins 41
	141	Zoo 10		188	Cru 22	Jul.	230	Ara 7
Apr.	142	Ois 21				Aug.	231	Ins 42
	143	Rep 11				Sep.	232	Ins 43
May	144	Rep 12	1844			Oct.	233	Mam 30
	145	Rep 13	Jan.	189	Ins 24	Nov.	234	Ins 44
Jun.	146	Ois 22		190	Mol 34	Dec.	235	Ins 45
	147	Poi 28	Feb.	191	Mol 35			
Jul.	148	Poi 29		192	Mam 19	1847		
	149	Cru 17	Mar.	193	Ins 25	Jan.	236	Ins 46
Aug.	150	Mam 12		194	Cru 23	Feb.	237	Zoo 16
	151	Mol 25	Apr.	195	Mam 20	Mar.	238	Mam 31
Sep.	152	Poi 30		196	Mam 21	Apr.	239	Ins 47
	153	Ois 23	May	197	Mol 36	May	240	Zoo 17
Oct.	154	Poi 31		198	Ins 26	Jun.	241	Ins 48
	155	Ins 16	Jun.	199	Mol 37	Jul.	242	Zoo 18
Nov.	156	Ois 24	Jul.	200	Mam 22	Aug.	243	Zoo 19
	157	Cru 18		201	Ins 27	Sep.	244	Ins 49
Dec.	158	Mam 13	Aug.	202	Mam 23	Oct.	245	Ann 5
	159	Ins 17		203	Zoo 12		246	Zoo 20
			Sep.	204	Mam 24			
1843				205	Ins 28	1848		
Jan.	160	Ois 25	Oct.	206	Mam 25	Jan.	247	Ins 50
	161	Zoo 11	Nov.	207	Ins 29	Feb.	248	Ins 51
	162	Ins 18		208	Mam 26	Mar.	249	Zoo 21
Feb.	163	Ois 26	Dec.	209	Ins 30	Apr.	250	Ann 6
	164	Ois 27				May	251	Ins 52
Mar.	165	Mam 14				Jun.	252	Ann 7
	166	Ann 4	1845			Jul.	253	Ins 53
	167	Mol 26	Jan.	210	Ins 31	Aug.	254	Ara 8
Apr.	168	Mol 27		211	Zoo 13	Sep.	255	Zoo 22
	169	Poi 32	Feb.	212	Mol 38	Oct.	256	Zoo 23
	170	Mam 15	Mar.	213	Mam 27	Nov.	257	Ins 54
May	171	Ins 19	Apr.	214	Ins 32	Dec.	258	Ann 8
	172	Mol 28	May	215	Ins 33			
Jun.	173	Mam 16	Jun.	216	Ins 34	1849		
	174	Mol 29	Jul.	217	Mam 28	Apr.	259	Ara 9
Jul.	175	Ins 20		218	Ins 35	May	260	Zoo 24
	176	Cru 19	Aug.	219	Zoo 14	Jun.	261	Ins 55
	177	Mam 17	Sep.	220	Ins 36	Jul.	262	Zoo 25
Aug.	178	Mol 30	Oct.	221	Mol 39			
	179	Mol 31		222	Mam 29			
	180	Cru 20	Nov.	223	Ins 37			
Sep.	181	Ins 21	Dec.	224	Zoo 15			
	182	Mol 32						

are interpolated on sound evidence up to livraison 58 but thereafter by inference, and the *Zoophytes* in particular may need adjustment with further knowledge. Fuller details of each class are given in the appendices.

AUTHORS AND ARTISTS

In a symposium lasting thirteen years some modifications in the original plan were inevitable. Eight of the classes were initially allocated one author each, the only exceptions being *Mammifères* with three and *Insectes*, for which Doyère had already joined Audouin. *Oiseaux*, *Reptiles* and *Poissons* were competently dealt with, and *Crustacés* and *Mollusques* followed more slowly but unchecked. However, the death of Dugès when *Arachnides* was only half finished, gave Milne Edwards, already in difficulties with the *Annélides*, too much.

Roulin dealt with the bulk of *Mammifères*, Milne Edwards (and his wife? — see Appendix 1) contributing a few early plates and some late ones. After completing *Crustacés* Milne Edwards even did one *Insectes* plate, but he did little more. When Audouin died, Blanchard replaced both him and Doyère, speeding the tempo and supplying all but 40 of the 202 plates of *Insectes*, and also found time to help in *Zoophytes*. Quatrefages joined the team in mid-1846 and completed the final third of both *Arachnides* and *Annélides*. His part in the latter is confirmed by *Bibliographie Française* 1849, while his role in both is evident from his initials on the plates; “A De Q” or “Ad Q F” according to the idiosyncrasy of the copier.

Only study of the plates in their chronological sequence can disclose the interrelationships of the authors. Lucky possession of the intact *Mammifères*, *Insectes* and *Annélides* livraisons has made this possible for those classes. Reversal of the process has enabled a plausible provisional reconstruction to be risked for the complete *Arachnides* livraisons. The relevant appendices discuss authorship of these classes.

Although several authors drew their own plates, many routine artists were employed and some of their coloured engravings are very fine. In *Mammifères* the 19 plates of portraits in the *Races humaines* series (all numbered 8) are on tinted paper laid down. The final livraison of *Mammifères* has four plates one of which (pl.4) is printed in two colours off one plate (figs.4, 4a being brown except for the black lower left of fig.4), before being finished by hand in water-colours, while another (pl.5) is printed in black and the veining neatly coloured by hand. These contrast with early *Annélides* anatomic prints in up to three colours on separate plates (pl. 1c), often completed by hand (pl.21) and two colour lithographs (pls.21bis, 24) in the final livraison.

Madame Lacour-Gayet has drawn my attention to the exquisite *Poissons* plates by Acarie Baron who, a few years later, was helping P. A. J. Duponchel complete J. B. Godart's *Histoire naturelle des Lépidoptères de France* (1820–1846) when, in the final stages, Duponchel's third artist, Delarue, was ill.

INSTRUCTIONS TO BINDER, 1845

The only copy of this work so far mentioned has been the misbound set examined by Sherborn. There is a second, complete, set in the British Museum (Natural History) Palaeontological Library with the same shelf mark (SB/15 q/C) which is correctly bound

At the end of the *Zoophytes* text of this set two publishers' announcements are bound in, and they combine to show why misbinding occurred.

An undated *Avis au Relieur* issued by Fortin & Masson in livraison 221, the final *Mollusques* part with the last sheets of the bibliography, was no doubt acted on by many subscribers. At this stage only two *Mammifères* livraisons were to come, and then all classes would be complete except *Insectes*, *Arachnides*, *Annélides* and *Zoophytes*, all of which had at least 3 years to run.

This instruction said that the Prefaces section (pp.v–xxxvi) was to be collected from livraisons 24,25,31,33 of *Mollusques* and bound at the head of the *Mammifères* volume, together with the bibliography section (*Table des Auteurs cités*). Not for over three years was this corrected.

This instruction is also of interest as it explains the disposal of the contents of livraison 221 (Mol 39). No plates are mentioned, but there were 6½ sheets of text as follow;

Sheet 2*, to replace pp.9–16, issued in livraison 2 (Mol 1)

Sheet 32*, to replace pp.249–256, issued in livraison 199 (Mol 37)

Sheets 9–12 of Bibliography, to complete this section,

It adds that earlier sheets of bibliography were in livraisons Zoo 7–13 and Mol 34 [and 35!]. At the top is a special note, "This leaf should be detached from sheet 12 to give pp.89/90 a hinge", so it was printed on the last leaf of sheet 12, and its removal accounts for there being no blank leaf [95,96] at the end of the bibliography.

INSTRUCTIONS TO BINDER, 1849

The other announcement is a leaf separately printed (by Remquet & Cie, their only known connection with this work), dated 5 May 1849 and apparently issued with livraison 260, headed *Avertissement de l'Editeur* [= publisher]. It states that the work will finish at livraison 262; that 261 will appear in early June, being Ins 55 with tpp. and pls. 107, 115, 130, 160; and that 262 will appear at the beginning of July, being zoo 25 with the six plates 21, 22, 75–77, 83ter, 89–90, and 95 (the "83ter" altered in ms to read 81). This is the only livraison known to have had more than four plates.

Below this and on the reverse is the *Avis au Relieur* by [Victor Masson], with a footnote "M. Weill, Rue des Canettes 20, is very adept at binding this work". The instructions were;

Texte. Each volume to start with the medallion false-title, the main title-page, then the volume title with the word *Texte* (which names the authors of the plates). The original half-title issued in sheet 1 to be discarded.

In the *Mammifères* volume the main titles to be followed by the *Préfaces* (gathered from livraisons Mol 24, 25, 31, 33), then the *Introduction*, and the *Vertébrés* section ending at page 70. The original half-title, pages [71, 72], to be discarded and replaced by the *Mammifères Texte* title-leaf, before sheet 10 onwards.

The bibliography *Table*, gathered from livraisons Zoo 7–12 and Mol 34, 35, 39, to be bound at the end of the *Zoophytes Texte* [and thus at the end of the whole work].

Atlas volumes. It is essential that each plate with its explanation be mounted on a hinge [*sur un onglet*]. A medallion false-title, a general main title-page, and a specific Atlas subtitle page are issued for each class.

In the *Oiseaux Atlas* the first plates to be *Vertébrés ovipares* 1, 2.

The following plates do not exist; Rep pls. 8, 19; Ann pl. 16; Zoo pl. 19.

In livraison 256, the *Zoophytes* plate 29, which shows the genera *Holostoma* and *Amphistoma* was misnumbered "28".

Finally, the animal classes were tabulated in their designated sequence (as in Table 2).

COLLATION

A full collation for each class is given at the head of the relevant Appendix below. Variations are bound to occur for two reasons. First, medallion false-titles were initial issues for the *Texte* volumes of only *Mammifères*, *Insectes 2*, *Arachnides*, *Annélides* and *Zoophytes*, but they were undoubtedly obtainable later for others. The collations here given account only for the restricted issues. Second, in those classes without the medallion false-title for the *Texte*, the volume has to open with only the main title. This unusual feature would tempt the binder to retain the quite adequate half-title issued in the first livraison, instead of discarding it as instructed.

Three classes began with separately paginated prefatory matter; *Mammifères* (pp.v—xxxvi), *Oiseaux* (i—vi, including a special title, on the *Vertébrés*), and *Insectes 1* (pp.v—xxi). In *Mammifères* this pagination follows naturally after the medallion leaf [ii] and the main title [—iv], as explained in the instructions. But in *Oiseaux* this main title has to be separate, [II], before pages [i—iii], iv, with the *Texte* half-title [2] following page v, [vi]. Then *Insectes 1* has only the main title, so wants one leaf before page [v]. The want could be supplied by retaining the discarded half-title, or alternatively by misemplanting one of the two medallion leaves issued for *Insectes 2*. The latter course has been adopted in Appendix 6. It is a natural solution, since volume 1 was not actually completed until the issue of plate 76 in livraison Ins 53, only shortly before completion of volume 2 with livraison Ins 55.

A MINOR MYSTERY

In the *Mammifères* volume used by Sherborn, in the misbound bibliography section, a small printed *Avis* slip lies loose between pages 42, 43. It reads (in French) "Livraison 94 only has 5 plates; the next will have 7".

This is inexplicable. No livraison around 94 should have had more than four plates. This slip (perhaps an old bookmarker) can only belong to some other work, one which had six plates per normal livraison. It may solve some entirely unrelated problem.

CONCLUSION, AND AN APPEAL

The appendices give details by classes of all the volumes when bound correctly, and tabulate the livraison contents where known. Where more than one 'author' participated the roles of each are discussed. They form two groups;

	Fully known;		Imperfectly known;
1.	Mammifères	3.	Reptiles
2.	Oiseaux	5.	Mollusques
4.	Poissons	7.	Arachnides
6.	Insectes 1,2	10.	Zoophytes
8.	Crustacés		
9.	Annélides		

Anyone with access to any livraisons or wrappers of the four classes not fully known would do a useful service by publishing tabulated details on the lines of the other appendices.

ACKNOWLEDGMENTS

Mr. Howard K. Swann of Messrs Wheldon & Wesley Ltd. found and preserved intact for me the complete *Mammifères*, *Insectes* and *Annélides* livraisons in their wrappers, sufficient to show that the work is bibliographically misunderstood and to show also that elucidation should be possible. Ten of the 39 *Mollusques* livraisons were also found. Madame Lacour-Gayet of Paris has most kindly sent me the full details of livraison contents for the complete *Oiseaux* and *Poissons*, and Dr. L. B. Holthuis has supplied the same for *Crustacés* together with some useful and instructive observations. To each I am very grateful. I would also like to thank Mr. M. J. Rowlands and the library staff of the British Museum (Natural History) for their constant and patient cooperation.

REFERENCES

The standard bibliographies of Engelmann, 1846 and Hagen, 1862-63, and the well-known first and second editions of Cuvier (& Latreille), *Règne Animal*, are omitted for brevity. The main title of the work here discussed, and its general particulars, are listed below; the full names of the authors are given on the opening pages above, and the collations, dates and authors of individual classes are given in the Appendices.

ANON. 1836. Prospectus extracts. *Annl. Sci. nat.* (Zool.) (2) 5 (3): 191.

ANON. see also *Bibliographie Fr.*, and *Isis*.

BIBLIOPHIE FR. All volumes searched from 1836-1849. Reports are at 1836: 284, 333; 1843: 434; 1849: 331-332.

BLANCHARD, [C.] E. 1840. *Histoire naturelle des Insectes* 3 (Orthoptères etc.). [iv], 674 [-673] pp. 72 pls. 8°. Paris. [*Hist. nat. Animaux articulés* vol. 4 (sic), of which vol. 1 was by Lucas (q.v. below). The plates are often listed as 71 due to omission of pl. Diptères 5 in the Table on p. 673].

BLANCHARD, [C.] E. 1845. *Histoire des Insectes, traitant de leurs Mœurs* . . . 2 vols. [iv], V, 398 pp.; [iv], 524 pp., 20 pls. 12°. Paris. [actual sheets in -6°].

CUVIER, G. [L.C.F.D.] 1836-1849. *Le Règne animal distribué d'après son Organisation, pour servir de Base à l'Histoire naturelle des Animaux, et d'Introduction à l'Anatomie comparée.*

Édition [3] accompagnée de Planches gravées . . . par une Réunion de Disciples de Cuvier, MM.

AUDOUIN, BLANCHARD*, DESHAYES, Alcide D'ORBIGNY, DOYERE, DUGES, DUVERNOY,

LAURILLARD, MILNE EDWARDS, ROULIN, et VALENCIENNES [& QUATREFAGES]. Text,

11 vols., Atlas 11 vols. 4°. Paris. *Blanchard's name was added after closure of volumes on

Reptiles, Oiseaux, and Poissons

ISIS, 1837. Review of livraisons 1-18. *Isis, Jena* 30: 260.

- LUCAS, P. H. [& LAPORTE, F. L. L.] 1840. *Histoire naturelle des Animaux articulés 1* (Histoire naturelle des [Annélides, des] Crustacés, des Arachnides et des Myriapodes). [iv], 600 [-601] pp., 46 pls. 8°. Paris (Duménil).
[Commonly mis-catalogued as volume "4", partly through poor titling. The first 46 pp., on Annélides, were by Laporte. A paper is planned in clarification].
- SHERBORN, C. D. 1922. On the dates of Cuvier, *Le Règne Animal* etc., (Disciples Edition). *Ann. Mag. nat. Hist.* (9) 10: 555-556.
- SILBERMANN, G. 1835. *Énumération des Entomologistes vivans, suivie de Notes . . . v*, 116 pp. 8°. Paris & Lunéville.
- ZIMMER, J. T. 1926. Catalogue of the Edward E. Ayer ornithological Library (1), (2). *Field Mus. nat. Hist. Publs* 239, 240. (1) x, 364 pp., 1 pl. col., pls.2-8; (2) pp.365-706, pls. 9-12.

APPENDIX 1 MAMMIFÈRES

COLLATION

Texte. [ii] medallion, [-iv] main t-p., v-xxxvi prefaces; [1-3] -70 Intro., [71, 72] **Texte** t-p., [73] -350. **Atlas.** [vi] tpp.; 121 pls. + expls.

Note; The plates were numbered Intro 1, 1-7, 9-93, 94/95, 96, 97, 98/99, 100, **29bis**, **75bis** [= 100 so far], plus 21 *Races humaines* plates all numbered 8, and sub-headed nos. 1/2, 3-11, 12/13, 14-21, **2bis**, **3bis**. Seven plates were folded double; Intro 1, 6, 7, 8(1/2), 46, 84, 98/99.

LIVRAISONS. The full contents and dates were:

Livr. No.		Pages	Plates	Date
Main	Mam			
3	1	[1]-16	22, 27, 33, 85	1836, Jul.
6	2	17-24	8(19), 13, 14, 34	Aug.
13	3	25-32	8(18), 23, 28, 53	Dec.
21	4	33-40	8(3), 16, 30, 35	1837, Apr.
28	5	41-48	1, 17, 49, 57	Jul.
42	6	49-56	9, 29, 48, 60	1838, Mar.
58	7	57-64	8(16), 37, 40, 74	Oct.
71	8	65-72	8(7), 64, 71, 72	1839, May
102	9	73-80	6, 8(20), 83, 90	1840, Aug.
115	10	---	7, 8(14), 76, 89	1841, Mar.
127	11	81-88	8(15), 15, 51, 55	Sep.
150	12	89-96	38, 50, 54, 91	1842, Aug.
158	13	97-104	31, 32, 67, 75	Dec.
165	14	105-112	59, 61, 79, 80	1843, Mar.
170	15	113-120	56, 58, 63, 65	Apr.
173	16	121-128	20, 36, 73, 96	Jun.
177	17	129-136	11, 19, 86, 87	Jul.
185	18	137-144	12, 18, 26, 69	Nov.
192	19	145-152	10, 21, 39, 66	1844, Feb.
195	20	153-160	24, 44, 45, 51	Apr.
196	21	161-168	62, 70, 77, 88	Apr.
200	22	169-176	8(8), 42, 78, 81	Jul.
202	23	177-184	8(9), 8(10), 41, 97	Aug.
204	24	185-192	3, 29bis , 93, 100	Sep.
206	25	193-200	8(5), 8(6), 25, 92	Oct.
208	26	201-208	8(2bis), 8(3bis), 8(4), 43	Nov.
213	27	209-248	8(11), 8(17), 52	1845, Apr.
217	28	249-288	Intro.1, 8(21), 94/95	Jul.
222	29	289-328	8(12/13), 68, 84	Nov.

233	30	329-336	2, 47, 75bis, 98/99	1846, Oct.
		337-350,		
238	31		8(1/2), 4, 5, 46	1847, May
		all tpp.		

AUTHORSHIP, plates and explanations

Ten plates¹, eight in the first five livraisons and two later, were initialled by "L. E." (? Laura Milne Edwards), and ten more² by Milne Edwards, four in the first seven and six in the last eleven livraisons. Casual artists, including Vaillant and Traviès, signed ten³ and fifteen are unsigned⁴. The remaining 76 are all signed "R" for Roulin. Laurillard's role was presumably advisory.

Four explanatory leaves are signed; 8(6), 8(20) by Milne Edwards and 8(5), 8(14) by Roulin. No new nomenclature has been found.

1. pls. 22, 8(19), 13, 14, 8(18), 23, 16, 17, 15, 20.
2. pls. 1, 9, 60, 74, 24, 3, 8(6), 84, 47, 98/99.
3. pls. 71, 96, 12, 18, 26, 69, 10, 21, Intro.1, 8(1/2).
4. pls. 72, 6, 8(20), 7, 8(14), 91, 11, 19, 29bis, 25, 2, 75bis, 4, 5, 46.

APPENDIX 2 OISEAUX

COLLATION

Texte. [II] main tp., [i]–iv, v, [vi] *Vertébrés ovipares*; [2] Texte tp., [3], 4–370.

Atlas. [vi] medallion, main & Atlas tpp.; 102 pls. and expls. Plate numbering; *Vertébrés ovipares* 1, 2; 1–100. The first two are abbreviated in the Table below to VO/1, VO/2.

LIVRAISONS

Liv. no.

Main	Ois	Pages	Plates	Date
1	1	vi, 1–10	9, 12, 13, 17	1836, Jun.
9	2	11–18	8, 11, 14, 18	Oct.
16	3	19–26	29, 30, 31, 35	1837, Jan.
26	4	27–34	1, 10, 28, 34	Jun.
31	5	35–42	VO/2, 24, 27, 32	Sep.
34	6	43–50	16, 21, 33, 38	Nov.
48	7	51–58	20, 22, 49, 54	1838, Jun.
54	8	59–66	15, 25, 41, 57	Sep.
66	9	67–74	26, 80, 83, 89	1839, Feb.
75	10	75–82	36, 39, 40, 82	Jul.
81	11	* 83–90	19, 23, 56, 90	Oct.
84	12	91–98	45, 46, 47, 48	Nov.
91	13	99–106	37, 52, 55, 70	1840, Mar.
105	14	107–114	2, 44, 58, 84	Oct.
121	15	115–122	43, 64, 97, 98	1841, Jun.
124	16	123–130	74, 79, 81, 93	Jul.
128	17	131–138	62, 63, 76, 78	Sep.
134	18	139–146	7, 61, 94, 96	Dec.
137	19	147–154	60, 75, 77, 95	1842, Jan.
140	20	155–162	71, 86, 87, 92	Mar.
142	21	163–170	50, 72, 73, 88	Apr.
146	22	171–178	51, 67, 99, 100	Jun.
153	23	179–218	53, 59, 85	Sep.
156	24	219–258	3, 4, 66	Nov.
160	25	259–298	VO/1, 68, 69	1843, Jan.
163	26	299–338	6, 42, 65	Feb.
164	27	339–370, tpp. 5, 91		Feb.

* Sheet 12 with pp.83–90 was reprinted and replaced (in livraison Ins 24) in January 1844.

AUTHORSHIP

Alcide D'Orbigny throughout, well organised and no misnumbered plates. Alcide was emphasised on the titles to distinguish him from his younger brother Charles Dessalines D'Orbigny, also writing on zoology at this time.

APPENDIX 3 REPTILES

COLLATION

Texte. [ii] main tp.; [2] Texte tp., [3], 4–169 (omitting 145, 146).

Atlas. [vi] medallion, main & Atlas tpp.; 46 pls. and expls.

Plate numbering; 1–42 (less 8, 19), 10*bis*, 20*bis*, 22*bis*, 32*bis*, 36*bis*, 36*ter*, 41*bis*.

Expl. leaf for pl.9 was misnumbered "5".

LIVRAISONS (13), dates as in Table 3. Contents unknown.

AUTHORSHIP – Duvernoy.

Note. By strange coincidence the page numbers jumped from 144 to 147 both in *Reptiles* and in *Insectes* volume 1.

APPENDIX 4 POISSONS

COLLATION

Texte. [ii] main tp.; [2] Texte tp., [3], 4–392

Atlas. [ii] medallion, [–iv] main tp., [–vi] Atlas tp.; 122 pls. and expls.

Plate numbering; 1–120, 7 a, 9 a.

LIVRAISONS

Livr. no.

Main	Poi	Pages	Plates	Date
12	1	1–8	6, 7, 9, 12	1836, Nov.
19	2	9–16	7a, 8, 10, 11	1837, Mar.
41	3	17–24	13, 14, 46, 47	1838, Feb.
47	4	---	4, 40, 41, 43	May
50	5	25–32	26, 44, 45, 48	Jul.
56	6	33–40	20, 21, 27, 37	Sep.
63	7	---	5, 31, 33, 38	1839, Jan.
69	8	41–48	25, 29, 39, 42	Apr.
74	9	49–56	24, 28, 30, 35	Jun.
79	10	57–64	19, 22, 23, 34	Sep.
82	11	65–72	16, 18, 32, 36	Oct.
86	12	73–80	1, 17, 52, 58	Dec.
92	13	81–88	49, 55, 60, 62	1840, Mar.
94	14	89–96	50, 57, 67, 70	Apr.
96	15	97–104	9a, 54, 68, 75	May.
98	16	105–112	56, 63, 77, 85	Jun.
103	17	113–120	59, 61, 82, 84	Sep.
106	18	121–128	69, 71, 78, 79	Oct.
108	19	129–136	66, 76, 87, 89	Nov.
114	20	137–144	64, 73, 80, 86	1841, Feb.
117	21	145–152	51, 65, 81, 88	Apr.
122	22	153–160	72, 74, 90, 93	Jun.
125	23	161–168	92, 94, 95, 98	Aug.
130	24	169–176	112, 113, 115, 118	Oct.
133	25	177–184	107, 108, 119, 120	Nov.
136	26	185–192	99, 106, 109, 114	1842, Jan.
139	27	193–200	96, 97, 110, 117	Feb.
147	28	201–248	15, 83, 100	Jun.
148	29	249–296	2, 101, 102	Jul.

152	30	297–328	3, 103, 104	Sep.
154	31	329–360	105, 111, 116	Oct.
169	32	361–392, tpp.	53, 91	1843, Apr.

AUTHORSHIP – Valenciennes.

APPENDIX 5 MOLLUSQUES

COLLATION

Texte. [ii] main tp.; [2] Texte tp., [3], 4–266

Atlas. [ii] medallion, [–iv] main tp., [vi] Atlas tp.; 152 pls. and expls.

Plate numbering; 1–139, 1a–1f, 30*bis*, 48*bis*, 61*bis*, 69*bis*, 83*bis*, 90*bis*, 111*bis*

LIVRAISONS

The first 38 livraisons are believed each to have held 8 pages, 4 plates (16 pp. in livr.1). Six of them, and the last, held sheets of the prefatory and bibliography sections. The full contents of ten livraisons are fully known, and tabulated below together with the numbers of those holding non-Mollusc pages.

Livr. no.

Main		Mol	Pages	Plates	Date
2	1		1–16	5, 8, 19, 21	1836, Jun.
7	2		17–24	3, 6, 7, 13	Sep.
–	–		–	–	–
23	5		41–48	22, 25, 32, 36	1837, May
–	–		–	–	–
	24		Pref. v–xii		
	25		Pr. xiii–xx		
–	–		–	–	–
168	27		201–208	71, 103, 122, 127	1843, Apr.
–	–		–	–	–
	31		Pr. xxi–xxviii		
182	32		233–240	90, 90 <i>bis</i> , 100, 115	Sep.
187	33		Pr. xxix–xxxvi	88, 89, 106, 107	Dec.
190	34		Bibl. 41–48	86, 94, 104, 105	1844, Jan.
191	35		Bibl. 49–56	66, 98, 131, 133	Feb.
197	36		241–248	37, 93, 102, 134	May
199	37		249–256	123, 124, 135, 136	Jun.
–	–		–	–	–
221	39		9–16 reprint, 249–256 reprint, Bibl. 65–94.		1845, Oct.

Title pages would have been in 38th. livraison, or perhaps in 39th., or between both.

AUTHORSHIP – Deshayes, who signed several plates himself, e.g. 115, 116, 119; while Milne Edwards apparently helped him with 120, 121, 126.

APPENDIX 6 INSECTES

COLLATION

Texte.1. [ii] medallion, [-iv] main tp., [v]-xii foreword; [2] Texte tp., [3], 4-557 (omitting pp. 145, 146).

Texte 2. [ii] main tp., [-iv] Texte tp.; [1], 2-443.

Atlas 1. [ii] medallion, [-iv] main tp., [-vi] Atlas tp.; 83 pls. and expls.

Atlas 2. [ii] medallion, [-iv] main tp., [-vi] Atlas tp.; 119 pls. and expls.

The plate numbering was 1-182 and 20 'bis' plates, issued in random sequence but for the following volumes;

1. 1-75, 3bis, 22bis, 39bis, 40bis, 45bis, 53bis, 66bis, 74bis.

2. 76-182, 99bis, 106bis, 120bis, 128bis, 139bis, 153bis, 164bis, 172bis, 175bis, 177bis, 178bis, 181bis.

LIVRAISONS

Livr. no.

Main	Ins	Pages	Plates	Date
5	1	1: 1-8	78, 79, 80, 81	1836, Aug.
14	2	9-16	2, 82, 84, 85	Dec.
24	3	17-24	10, 86, 88, 135	1837, May
30	4	25-32	9, 90, 91, 131	Aug.
36	5	33-40	7, 94, 95, 132	Dec.
43	6	41-48	6, 92, 93, 134	1838, Mar.
46	7	49-56	8, 89, 96, 140	May
67	8	57-64	5, 17, 136, 137	1839, Mar.
77	9	65-72	1, 16, 133, 141	Aug.
101	10	73-80	70, 138, 139, 139bis	1840, Aug.
112	11	81-88	55, 67, 68, 69	1841, Jan.
123	12	89-96	40bis, 46, 47, 71	Jul.
126	13	97-104	20, 54, 64, 72	Aug.
132	14	105-112	22bis, 23, 24, 25	Nov.
138	15	113-120	21, 22, 26, 27	1842, Feb.
155	16	121-128	28, 29, 30, 31	Oct.
159	17	129-136	32, 33, 34, 35	Dec.
162	18	137-144	38, 39, 39bis, 40	1843, Jan.
171	19	147-154	13, 36, 37, 41	May
175	20	155-162	12, 42, 43, 45	Jul.
181	21	163-202	44, 44bis, 65	Sep.
183	22	203-242	63, 66, 66bis	Oct.
186	23	243-282	56, 61, 62	Nov.

189	24	{ 283-322, & Ois 83-90 }	48, 49, 73	1844, Jan.
193	25	323-362	50, 51, 74	Mar.
198	26	363-402	52, 74 <i>bis</i> , 75	May
201	27	403-442	108, 150, 154	Jul.
205	28	443-450	53, 53 <i>bis</i> , 58, 109	Sep.
207	29	451-490	57, 101, 102	Nov.
209	30	491-530	59, 60, 105	Dec.
210	31	{ 531-555, & 5 titles }	11, 103, 104	1845, Jan.
214	32	{ v-xii, 2: 1-8 }	18, 19, 142, 153	May.
215	33	9-48	14, 77, 129	Jun.
216	34	49-88	83, 143, 171	Jul.
218	35	89-128	165, 167, 173	Aug.
220	36	129-136	98, 166, 168, 174	Oct.
223	37	137-144	97, 99, 169, 170	Dec.
225	38	145-152	175, 175 <i>bis</i> , 176, 177	1846, Jan.
226	39	153-160	3, 3 <i>bis</i> , 4, 177 <i>bis</i>	Jan.
228	40	{ 1: 9-16, 2: 161-192 }	178, 178 <i>bis</i> , 182	May
229	41	193-232	121, 122, 179	Jun.
231	42	233-272	119, 127, 128 <i>bis</i>	Aug.
232	43	273-312	15, 123, 126	Sep.
234	44	313-320	118, 120, 120 <i>bis</i> , 124	Nov.
235	45	321-328	161, 162, 180, 181	Dec.
236	46	329-336	113, 116, 125, 128	1847, Jan.
239	47	337-344	152, 153 <i>bis</i> , 172, 172 <i>bis</i>	Apr.
241	48	345-352	110, 111, 164, 164 <i>bis</i>	Jun.
244	49	353-360	146, 147, 157, 158	Sep.
247	50	361-368	112, 117, 145, 156	1848, Jan.
248	51	369-376	144, 148, 149, 163	Feb.
251	52	377-384	106, 151, 159, 181 <i>bis</i>	May
253	53	385-392	76, 100, 114, 155	Jul.
257	54	393-443	87, 99 <i>bis</i> , 106 <i>bis</i>	Nov.
261	55	6 titles	107, 115, 130, 160	1849, Jun.

The reprinted *Oiseaux* sheet 12 was issued in Ins 32 because *Oiseaux* livraisons were already completed. The reprinted sheet 2 of volume 1 was identical with the original except for revised references to some plates in the footnotes.

The six titles in the final livraison were 2 medallions, 2 general titles, and one each for volume 2 Texte and Atlas. The five in the 31st. livraison were the same for volume 1 but with only one medallion. In the Collation above, one medallion issued in the final livraison has been used for volume 1.

AUTHORSHIP

AUDOUIN, pls. 1, 2, 5–10

DOYÈRE, { pls. 16, 17, 78–82, 84–86, } i.e. the first ten livraisons less pl. 70.
 { 88–96, 131–141, 139bis. }

MILNE EDWARDS, pl. 143.

BLANCHARD, all other plates (total, 162).

The pattern is clear when the plate sequence by livraisons is known. Thirtynine of the forty plates in the first ten livraisons are signed either by the normal artist Vaillant, or by L. Doyère (one is "F. Doyère"), or by "L. D. & V.", except plates 1, 2, 5–10, all anatomical, with 1, 6 signed "A.", the others unsigned. In addition, sixteen explanatory leaves of plates 78–135 are signed "L. D." (one "D. L.").

Audouin and Doyère were the authors originally designated for *Insectes*. While the former concentrated on his special subject, anatomy, the latter figured Orthoptera (pls. 76–86) and then Hemiptera (87–99), embellishing each livraison with a plate of butterflies (131–141).

Progress was very slow, these ten livraisons taking four years. The fortieth of these plates (pl. 70) was signed "Blanchard" and its explanation "E. B.". Only one livraison appeared in the ensuing year, but then the tempo improved markedly and the last 44 livraisons took 8 years. Blanchard signed all but about five of these remaining plates. Evidently Doyère withdrew after livraison 10, while Audouin died on 9 November 1841. The other plates were anonymous except plate 143, signed "E.", the normal mark in other classes of Milne Edwards.

Charles Émile Blanchard was only seventeen years old when this work started. He had already been two years in the Museum with Audouin (Silbermann, 1835: 92, 95), quickly becoming proficient, and by 1840 he published his first major volume on Insects. In 1845 his second work appeared, reclassifying the Insects, and it may explain why Milne Edwards covered plate 143, issued in that year. The plate classified *Barbicornis* Godart in the classical way, following Latreille's text, whereas Blanchard (1845: 363) placed it, correctly, as a moth, not a butterfly.

Young Blanchard was always known as Émile, as was his father, Émile Théophile Blanchard (1795–c.1867), a painter and later author of a guide to gravure illustration. He was certainly precocious, but Hagen (1862: 55) was wrong in listing his first publication at the age of six. That paper was by one A. Blanchard of Bordeaux, no connection (Silbermann, 1835: 7).

NEW NOMENCLATURE

Doyère introduced about seven new names in his last livraison. All were Lepidoptera label names from Boisduval's celebrated collection, and the latter has since been cited as their author. But Boisduval was never a disciple, and the responsibility for publication

must rest with Doyère. Blanchard, who could not have known Cuvier and Latreille (they died when he was 13, two years before he joined the Museum staff), added further names in some other orders in later livraisons. The new names with references and dates are listed below for record. (Bchd = Blanchard)

Name, author, and date	Loc.	Pl. & fig.		Livraison
MYRIAPODA				
<i>Scolopendra borbonica</i> Bchd, 1843	Reunion	12,	3	175 (Ins 20)
<i>Julus flavozonatus</i> Bchd, 1845	Centr. Amer.	11,	2	210 (Ins 31)
COLEOPTERA				
<i>Galba fasciata</i> Bchd, 1842	—	29,	5	155 (Ins 16)
<i>Campsia cuprea</i> Bchd, 1844	—	51,	3	193 (Ins 25)
<i>Allecula flavopubescens</i> Bchd, 1844	Brazil	52,	6	198 (Ins 26)
<i>Paussus aethiops</i> Bchd, 1843	Nubia	61,	8	186 (Ins 23)
<i>Rhinotragus trigonatus</i> Bchd, 1843	—	66bis,	1	183 (Ins 22)
<i>Distichocera fuliginosa</i> Bchd, 1843	Tasmania	66bis,	2	183 (Ins 22)
HOMOPTERA				
<i>Thrips oenotherae</i> Bchd, 1848	[France ?]	99bis,	4,5	257 (Ins 54)
NEUROPTERA				
<i>Termes sumatrense</i> Bchd, 1848	Sumatra	106,	4	251 (Ins 52)
HYMENOPTERA				
<i>Labidus fulvescens</i> Bchd, 1846	Bahia	118,	2	234 (Ins 44)
<i>Ancyloscelis brasiliensis</i> Bchd, 1847	Brazil	128,	8	236 (Ins 46)
<i>Melissodes leprieuri</i> Bchd, 1846	—	128bis,	4	231 (Ins 42)
LEPIDOPTERA				
<i>Heterochroa hyas</i> Doyère, 1840	—	138,	1	101 (Ins 10)
<i>Catagramma brome</i> Doyère, 1840	—	—	2	101 (Ins 10)
<i>Cybdelis ethusa</i> Doyère, 1840	—	—	3	101 (Ins 10)
<i>Cyrestis thyodamas</i> Doyère, 1840	—	—	4	101 (Ins 10)
<i>Tymetes</i> Doyère, 1840 (n.g., n.sp.)	—	139,	1	101 (Ins 10)
<i>T. merops</i> Doyère, 1840	—	—	1	101 (Ins 10)
<i>Paphia inachus</i> Doyère, 1840	—	—	3	101 (Ins 10)
<i>Adolias nesimachus</i> Doyère, 1840	—	139bis,	1	101 (Ins 10)
<i>Coronis evenus</i> Blanchard, 1848	Colombia	145,	2	247 (Ins 50)
<i>Coronis japet</i> Blanchard, 1848	Brazil	—	3	247 (Ins 50)
<i>Coronis egina</i> Blanchard, 1848	Brazil	—	4	247 (Ins 50)

APPENDIX 7 ARACHNIDES

COLLATION

Texte. [ii] medallion, [-iv] main tp.; [2] Texte tp., [3], 4-106.

Atlas. [ii] medallion, [-iv] main tp., [-vi] Atlas tp.; 31 pls. and expls.

Plate numbering was 1-28, 19A, 19B, 20bis.

DISCUSSION

The first four livraisons appeared regularly in 1836-1838, the fifth at the end of 1841, and the last four in 1846-1849.

Dugès signed plates 1-14, and 15, 16 are unsigned. Lucas (1840: 339-440) cited plates 1, 5-12, 16 and "19" (the last being a misprint for pl.9, fig.4, *Scythodes thoracica*), crediting Dugès, *Atlas*, Cuvier R. A., *Arachn.* Since Dugès died on 1 May 1838, since 16 plates form 4 livraisons, and since the fourth livraison came in November 1838 (? with pp.25-32 of text), we can surmise that Dugès planned his plates roughly *à l'avance*, and that the reason why page 25 bears no pencil entry for the British Museum registration could be that the entry was on a preliminary leaf, since rejected, telling of Dugès's death and saying that the work would continue after a pause.

Milne Edwards signed plates 17-21 less 19A, 19B, 20, 20bis; and Quatrefages signed plate 22, the remainder being unsigned. I suggest that the isolated fifth livraison held plates 17, 18, 19, 21 by Milne Edwards, and that Quatrefages then completed the work starting with plate 22. The different styles of numbering the extra plates 19A, 19B, and 20bis may denote that the two authors shared these three. Until the actual livraison contents are confirmed, the following tabulation is suggested.

LIVRAISONS

livr. no.	pp.	plates	author	date
10	1	1-8	Dugès	1836, Oct.
22	2	9-16	Dugès	1837, Apr.
32	3	17-24	Dugès	Oct.
49	4	25-32	Dugès	1838, Nov.
85	5	33-40	M. E.	1841, Dec.
27	6	41-48	M. E.	1846, Apr.
		{ 20, 20bis 22, 23	Q f.	
40	7	49-56	Q f.	Jul.
61	8	57-88	Q f.	1848, Aug.
89	9	89-106, 6 tpp.	-	1849, Apr.

While much of the above is speculative, it can safely be taken that plates 1-16, by Dugès, appeared by Nov.1838.

No new names have been noted.

APPENDIX 8 CRUSTACÉS

COLLATION

Texte. [ii] main tp.; [2] Texte tp., [3], 4–278.

Atlas. [ii] medallion, [–iv] main tp., [–vi] Atlas tp.; 87 pls. and expls.

Plate numbers were; 1–80, 11*bis*, 34*bis*, 54*bis*, 55*bis*, 62*bis*, 70*bis*, 71*bis*.

LIVRAISONS

Livr. no.		pp.	plates	date
Main	Cru			
8	1	1–8	1, 7, 22, 26	1836, Sep.
20	2	9–16	2, 17, 24, 41	1837, Mar.
33	3	17–24	25, 42, 47, 48	Oct.
38	4	25–32	37, 38, 44, 50	1838, Jan.
51	5	33–40	8, 20, 29, 33	Jul.
60	6	41–48	9, 21, 27, 40	Nov.
70	7	49–56	23, 30, 31, 45	1839, Apr.
73	8	57–64	43, 46, 58, 61	Jun.
87	9	65–72	28, 49, 65, 66	1840, Jan.
90	10	73–80	3, 36, 71, 71 <i>bis</i>	Feb.
95	11	81–88	19, 32, 34 <i>bis</i> , 67	May
99	12	89–96	10, 11 <i>bis</i> , 34, 51	Jul.
107	13	97–104	4, 12, 76	Nov.
110	14	105–112	52, 53, 55, 59	Dec.
118	15	113–120	5, 18, 54, 55 <i>bis</i>	1841, Apr.
120	16	121–128	16, 39, 56, 77	May
149	17	129–136	6, 15, 35, 60	1842, Jul.
157	18	137–144	11, 14, 64, 69	Nov.
176	19	145–176	13, 68, 70	1843, Jul.
180	20	177–184	57, 62, 62 <i>bis</i> , 63	Aug.
184	21	185–216	54 <i>bis</i> , 74, 75	Oct.
188	22	217–248	70 <i>bis</i> , 72, 78	Dec.
194	23	249–278, 5 tpp.	73, 79, 80	1844, Mar.

AUTHORSHIP Milne Edwards. Immediately on completion, as noted in Appendix 10, he led an expedition to Sicily.

APPENDIX 9 ANNÉLIDES

COLLATION

Texte. [ii] medallion, [-iv] main title; [2] Texte tp., [3], 4-54.

Atlas. [ii] medallion, [-iv] main title, [-vi] Atlas tp.; 30 pls. and expls.

Plate numbering; 1a-1e, 1-24 (less 16), 8*bis*, 21*bis*.

LIVRAISONS

Livr. no.		pp.	plates	date
Main	Ann			
15	1	1-8	2, 7, 10, 20	1837, Jan.
65	2	9-16	1, 1a, 1b, 1c	1839, Feb.
116	3	17-24	4, 9, 15, 18	1841, Mar.
166	4	25-32	3, 8, 11, 22	1843, Mar.
245	5	33-40	1d, 5, 6, 13	1847, Oct.
250	6	41-48	1e, 8 <i>bis</i> , 17, 19	1848, Apr.
252	7	tpp.Texte	12, 14, 21, 23	Jun.
258	8	49-54 tpp.Atlas	21 <i>bis</i> , 24	Dec.

AUTHORSHIP

The first sixteen plates issued were initialled "E" by Milne Edwards (two by "E. & V.", with Vaillant?). The third and fourth livraisons each contained new species by him, the descriptions including type localities.

Over four years elapsed before Quatrefages joined. Less experienced, he gave no localities. He initialled "Ad. Q." on plates 1d, 19, 21, 23, and "Ad. Q. F." on the last two litho plates, and plate 1e. The other seven of the last 14 plates are unsigned, but at least one (17) was by Milne Edwards.

The printing technique varied. Most prints were in very dark brown ink and skilfully finished in water colours, but some plates were inked in two colours for one impression (e.g. pls. 3, 15), while two (pls. 21, 23) look to have had three inks (dark brown, dark blue, and light brown or red). The second livraison was distinctive. Each print was off two plates, usually one for black and one for red, but in the fourth (pl. 1c) the veining for the lateral figures was red and that for the central figure was green, inked on the same plate for superimpression on the black.

NEW NOMENCLATURE

The following apparently new names are noted;

Name, author, and date	Locality	Pl. & fig.	Livraison
<i>Serpula armata</i> M. Edw. 1843	Nice	3, 2	166 (Ann 4)
<i>S. sulfurata</i> M. Edw. 1843	Nice	4	166 (Ann 4)
* <i>S. lactea</i> M. Edw. 1843	Nice	5	166 (Ann 4)
<i>Oenone maculata</i> M. Edw. 1843	Toulon	11, 4	166 (Ann 4)
<i>Syllis maculosa</i> M. Edw. 1841	Nice	15, 1	116 (Ann 3)
<i>Ophelia coarctata</i> M. Edw. 1848	Antilles	17, 2	250 (Ann 6)
<i>Hermione hystericella</i> Qfg. 1848	—	19, 1	250 (Ann 6)
<i>Sanguisuga vacca</i> Qfg. 1848	—	21, 3	252 (Ann 7)
<i>Haemocharis agilis</i> Qfg. 1848	—	23, 1	252 (Ann 7)

*praeocc. by Jacob, 1798.

APPENDIX 10 ZOOPHYTES

COLLATION

Texte. [ii] medallion, [-iv] main tp.; [2] Texte tp., [3]. 4-160; 1-94 Bibliophy.

Atlas. [vi] medallion, main & Atlas tpp.; 100 pls. and expls.

Plate numbering; 1-74 (less 19), 75/76/77, 78-88, 89/90, 91-97 (i.e. 93 pls. so far), 101bis, 36bis, 65bis, 83bis, 83ter, 84bis, 84ter.

LIVRAISONS

The only livraison numbers correlated so far are Zoo 1-Zoo 5 (from British Museum Registers), Zoo 25 (final), and Zoo 9, 10; these last having survived through the wrappers being used to gather sheets of the Bibliography text. Wrapper Zoo 9, unattached, is in the Wellcome Institute Library, and that of Zoo 10 is mine. However, there is little scope for variation in the correlations (and dates) deduced, the chief doubt being Zoo 14 which may have to be interchanged with Mol 38 (livraison 212).

There were 25 livraisons, giving 160 pages (20 sheets) of text and 100 plates. In addition six sheets of bibliography came in livraisons 7-12, and we can judge from the very irregular dates of issue (cf. Sherborn's Table, 1922) that at least four sheets of text were probably reprinted and reissued late.

We also know from the Instructions to Binder, 1849 that six plates came in the final livraison. For the total of 100, this means that 22 livraisons held 4 each and 2 held three.

From these data a purely empirical livraison table can be constructed as follows. In the right hand column are shown the dates of registry in London, and the pages on which those dates are pencilled (all agreeing with Sherborn).

Livr. no.		pp.	pls.	Date	Page, dated
Main	Zoo				
	1	1-8	4	1836, Jul.	3, 6/6/38
18	2	9-16	4	1837, Feb.	9, 6/6/38
29	3	17-24	4	Aug.	17, 6/6/38
52	4	25-32	4	1838, Aug.	25, 11/10/38
55	5	33-40	4	Sep.	33, 11/10/38
62	6	41-48	4	Dec.	41, 16/4/39
104	7	B 1-8	4	1840, Sep.	B 1, 6/10/40
13	8	B 9-16	4	1841, Feb.	B 9, 2/7/41
131	9	B 17-24	4	Nov.	B 17, 5/1/42
141	10	B 25-32	4	1842, Mar.	B 25, 1/4/42
161	11	B 33-40	4	1843, Jan.	B 33, 9/2/43
203	12	B 57-64	4	1844, Aug.	B 57, 17/1/45
211	13	49-80	3	1845, Feb.	49, 12/6/45
219	14	81-88	4	Sep.	-(replaced pp.)
224	15	89-120	3	Dec.	89, 14/2/46

237	16	65-72 R	4	1847, Feb.	65, 13/4/47
240	17	73-80 R	4	May	73, 2/7/47
242	18	81-88 R	4	Jul.	81, 8/11/47
243	19	105-112 R	4	Aug.	105, 8/11/47
246	20	113-120 R	4	Oct.	113, 8/11/47
249	21	121-128	4	1848, Mar.	121, 6/7/48
255	22	97-104 R	4	Sep.	97, 14/11/48
256	23	129-136	4 *	Oct.	— (new system)
260	24	137-160	4	1849, May	—
262	25	tpp.	6 *	Jul.	—

B = Bibliography section. R = reprinted sheet.

* Zoo 23 contained pl. 29, plus 3 pls., and Zoo 25 held pls 21, 22, 75/76/77, 83 *ter*, 89/90, and 95.

AUTHORSHIP. Milne Edwards, Blanchard and Quatrefages.

Blanchard signed pls.25-29, 35, 36, 36bis, 39-41 (eleven).

Quatrefages signed pls.23, 34, 37, 38, 96, 97 (six).

Bibliographie Fr. 1849 (see Table 1, penultimate line) states that Blanchard was responsible for the 19 *Intestinaux* plates, i.e. pls.24-41, 36bis. Of these he signed eleven, but Quatrefages was definitely responsible for the four shown above, and Milne Edwards produced at least two others. Apparently new names in plates by Quatrefages are certainly attributable to him, as are those in his two other plates (96, 97).

The table above assumes no less than six sheets reprinted, but this is the only solution which fits all the known facts without invoking livraisons with plates only, or sheets being withheld and issued out of order. If it is correct, or nearly so, it suggests the following course of events.

Milne Edwards produced the first six livraisons rapidly, but then foresaw difficulty with *Intestinaux*. To avoid issuing beyond page 48 of text he issued bibliography sheets in the next five livraisons. In 1844 (having just completed the *Crustacés*) he led a small expedition to Sicily, where Blanchard achieved notoriety by practicing skin-diving — studying the *Intestinaux* of fish? Then livraisons 12-15 quickly followed the two-year pause, more than doubling the text issued. However, as Blanchard worked out his plates it was found that many of these sheets would have, after all, to be reprinted; a process satisfactorily completed after a further year's preparation.

Half of the final fourteen plates are identified. It is almost certain that Blanchard's other ten were issued well after 1845, and the six by Quatrefages in or after 1847. Further cannot be said until the actual livraison contents are found. Their disclosure should be interesting.