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ornithological collection (La Châtre,
France) and their potential connection
with Martinet's *Planches enluminées*

Christophe GOURAUD

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COUVERTURE / *COVER*:

Planche enluminée 745: "Coq-de-roche, du Perou", by Martinet, in Buffon & Guéneau de Montbeillard (1778).

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Buffon's specimens in the Baillon ornithological collection (La Châtre, France) and their potential connection with Martinet's *Planches enluminées*

Christophe GOURAUD

Innsbruck (Austria)
ornithocoll@gmail.com

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ABSTRACT

Although the colossal work consisting of Martinet's *Planches enluminées* (1765-1780) and Buffon & Guéneau de Montbeillard's *Histoire naturelle des Oiseaux* (1771-1783) does not include any scientific names, their importance in avian nomenclature remains paramount. Several authors subsequently introduced the Linnaean binomens to the French names of the *Planches enluminées*, thereby making the specimen that served as the model a type. Specimens from the Buffon era, like all bird specimens from before 1800, are very rare in ornithological collections. Nine 'Buffon' specimens have been identified in the Baillon ornithological collection (La Châtre, France). Their possible status as a model for the *Planches enluminées*, and thus their possible status as type specimens, is examined. Two other specimens, from the Paris museum and possibly from the Buffon era, are also discussed. Three specimens have been identified as possible types of *Pelecanus leucogaster* Boddaert, 1783, *Picus rubricollis* Boddaert, 1783, and *Picus flavigula* Boddaert, 1783.

RÉSUMÉ

Les spécimens 'Buffon' dans la collection ornithologique Baillon (La Châtre, France) et leur potentielle connexion avec les Planches enluminées de Martinet.

Bien que l'ouvrage colossal constitué des *Planches enluminées* de Martinet (1765-1780) et de l'*Histoire naturelle des Oiseaux* de Buffon & Guéneau de Montbeillard (1771-1783) ne comporte aucun nom scientifique, leur importance dans la nomenclature aviaire reste capitale. Plusieurs auteurs ont par la suite introduit les noms binomiaux linnéens aux noms français des *Planches enluminées*, faisant par conséquent du spécimen ayant servi de modèle un type. Les spécimens de l'ère Buffon, tout comme l'ensemble des spécimens d'oiseaux datant d'avant 1800, sont très rares dans les collections ornithologiques. Neuf spécimens 'Buffon' ont été identifiés dans la collection ornithologique Baillon (La Châtre, France). Leur possible statut de modèle pour les *Planches enluminées*, et donc leur possible statut de spécimen type, est examiné. Deux autres spécimens, provenant du Muséum de Paris et possiblement de l'ère Buffon, sont également étudiés. Trois spécimens ont été identifiés comme possibles types de *Pelecanus leucogaster* Boddaert, 1783, *Picus rubricollis* Boddaert, 1783, et *Picus flavigula* Boddaert, 1783.

KEY WORDS

Type specimens,
Buffon,
Histoire naturelle des Oiseaux,
pre-1800 specimens,
Picus rubricollis,
Picus flavigula,
Pelecanus leucogaster,
Boddaert,
birds,
mounted specimens.

MOTS CLÉS

Spécimens types,
Buffon,
Histoire naturelle des Oiseaux,
spécimens pré-1800,
Picus rubricollis,
Picus flavigula,
Pelecanus leucogaster,
Boddaert,
oiseaux,
spécimens montés.

INTRODUCTION

Specimens of birds collected before 1800 and preserved in museums around the world are rare. While the total number of specimens, either mounted or skins, on display or housed in the reserves of major global museums approaches 10 million (Roselaar 2003: 336-337), the number of pre-19th century specimens is estimated to be between 1500 and 3000 (Steinheimer 2005). These specimens possess undeniable cultural and historical value, in addition to their significant scientific value, as many of them are type specimens and, by definition, serve as irreplaceable reference material. In France, unsurprisingly, the Muséum national d'Histoire naturelle in Paris (MNHN) hosts the largest number of pre-19th century individuals – a compilation of the figures provided by Jansen (2015) and Jansen & Fuchs (2019), leads to a conservative number of 300 specimens. In their survey of 120 French institutions housing birds (excluding the MNHN), Besson & Fuchs (2019) report a total of 71 pre-19th century specimens, of which 62 belong to the Baillon Collection in La Châtre (Gouraud 2014a), which comprises 2478 mounted specimens (see also Gouraud 2014b, 2015). Among these 62 pre-19th century specimens, nine were sent to Jean François Emmanuel Baillon (1742-1801) by Georges-Louis Leclerc, Comte de Buffon (1707-1788, hereafter Buffon).

To fully understand the presence of these nine specimens in the Baillon Collection and their potential connection to the famous illuminated plates (hereafter *Planches enluminées*) by François-Nicolas Martinet (1731-c. 1805) and the text of Buffon and Guéneau de Montbeillard's *Histoire naturelle des Oiseaux* (*HNO*), it is essential to detail the relationship between the Baillon family and the Paris institution, which began with the correspondence between Emmanuel Baillon and Buffon and continued until the mid-19th century with the numerous exchanges between Emmanuel's only son, Louis Antoine François Baillon (1778-1855), and the prominent figures of the MNHN at the time. As the starting point for Buffon's work and his description of the King's Cabinet (hereafter *Cabinet du Roi*) in his *Histoire naturelle*, part of which is *HNO*, the history of the natural history collections of the *Cabinet du Roi* will also be reviewed. The rarity of pre-19th century specimens is largely due to bad curation, inadequate storage of collections but also the taxidermy techniques of the time for preserving animals in the long term were not yet fully developed (Steinheimer 2005). A brief overview of the history of taxidermy is therefore necessary. Finally, to establish a potential link between the 'Buffon' specimens in the Baillon Collection and the birds depicted in Martinet's *Planches enluminées*, as well as those described in *HNO*, we will examine the chronology of these two works.

EMMANUEL BAILLON AND HIS CORRESPONDENCE WITH BUFFON

Emmanuel Baillon was originally from Montreuil-sur-Mer, not far from the marshes of the Canche estuary, where he lived until the early years of the French Revolution. Around

1792, he and his family moved to Abbeville, about 40 km south of Montreuil-sur-Mer, at the gates of the Somme estuary, where he remained until his death (Mearns & Mearns 2022: 24). Baillon was thus ideally situated to engage in the study of waders and other aquatic bird species, whether marine or freshwater. In addition to observations made directly in the wild, Emmanuel Baillon was keen to deepen his knowledge by capturing birds to study them in captivity and regularly sent his findings to Buffon, then the superintendent of the *Jardin royal des Plantes*, which became the MNHN in 1793.

As evidenced by two letters dated August 14, 1778, and January 15, 1779, Daubenton was initially the intermediary between Baillon and Buffon; the two corresponded directly starting in early 1781. In publishing these letter excerpts, Prarond (1857: 622, 624, respectively, the correspondence of Baillon with Daubenton and Buffon) does not specify which of the two Daubentons, Louis Jean Marie Daubenton (1716-1800) or his cousin Edme Louis Daubenton (1730-1785), was the correspondent of Emmanuel Baillon. Although the work initially prepared by Louis Jean Marie for the *HNO*, which was to follow the volumes on quadrupeds, was not included by Buffon, the two men appear to have continued communicating, with Buffon remaining Daubenton's superior (Schmitt 2018a: 22; 2021: 35). Furthermore, at this time, Edme Louis supervised the preparation of the *Planches enluminées* for Buffon. It is therefore difficult to specify who authored the two letters sent to Emmanuel Baillon in 1778 and 1779, although it seems more likely that it was Edme Louis (Stéphane Schmitt in litt. December 4, 2022).

The observations sent by Emmanuel Baillon were timely for Buffon, who was in the midst of preparing the final three volumes of his series on birds, begun ten years earlier, which would mostly cover waders and aquatic birds. It is therefore not surprising that Baillon is mentioned only quite late in Buffon & Guéneau de Montbeillard's *HNO*, with a significant number of articles in the last three volumes (i.e. the seventh, eighth, and ninth) incorporating his observations (Aufrère 1936; Schmitt 2018a: 55-56).

Nearly 400 people, whether regular correspondents or occasional informants, exchanged with Buffon at one time or another in the preparation of the various volumes of *HNO* (Schmitt 2018a: 24). There is no doubt about the category to which Emmanuel Baillon belonged. By quoting Cuvier, Aufrère (1936: 176) even suggests that the latter's words amount to saying that 'the best part of Buffon's work is due to Emmanuel Baillon' – a claim that seems somewhat exaggerated. However, it is clear that Buffon greatly valued the quality and rigor of the observations sent by the naturalist from Montreuil (Stresemann 1975: 59), which he readily acknowledged in several articles of his work on birds (e.g., Buffon & Guéneau de Montbeillard 1780: 419; 1781: 55 fn g; 1783a: 123 fn g, 171). He was also appreciative of the many live birds sent to the *Jardin des Plantes*, accompanied by advice on their domestication and maintenance in captivity, as well as the other specimens he received preserved (Prarond 1857). Thus, in the article *Le Labbe ou le Stercoraire*, Buffon & Guéneau de Montbeillard (1781: 445) clearly state that the description they give of this bird is based

on two specimens received from Emmanuel Baillon, who collected them in Picardy in November 1779. To avoid confusion with current geography, it should be noted that at this time, the Province of Picardy (as mentioned by Buffon & Guéneau de Montbeillard) included, among others, the department of Pas-de-Calais, where Montreuil-sur-Mer is located, and the department of Somme, where Abbeville is located and where the Baillon family moved. It was only under the Constituent Assembly in March 1790 that these two departments were created. The modern region of Picardy excludes Pas-de-Calais, where the Baillon family resided at that time. Since the two specimens used by Buffon and Guéneau de Montbeillard were collected in late 1779, it is reasonable to believe that at least one of them was used by Martinet to depict the bird in the *Planche enluminée* 991, which was published in 1780 (date from Schmitt [2022: 218], see below for details on the *Planches enluminées*). The various elements just outlined help explain why and how, through Emmanuel Baillon's recurrent sending of specimens to Buffon, as well as their active correspondence, Buffon also sent several specimens to the naturalist from Montreuil-sur-Mer. As evidenced by the many letter excerpts found by Prarond (1857) in the Baillon family archives, after Buffon's death in 1788, Emmanuel Baillon continued to send specimens and corresponded actively with successive directors of the *Jardin des Plantes*: Bernard Germain Étienne de Laville-sur-Ilon, Comte de Lacépède (1756-1825), Jacques-Henri Bernardin de Saint-Pierre (1737-1814), Georges Léopold Chrétien Frédéric Dagobert Cuvier (1769-1832), and Antoine-François Fourcroy (1755-1809). These important exchanges, initiated with Buffon, earned Emmanuel Baillon the title of First Correspondent of the *Muséum* in 1795 or 1796 (Year IV of the Republican Calendar, see Prarond 1857: 626). Finally, in addition to his correspondence with the scholars of the *Jardin des Plantes* mentioned above, Emmanuel Baillon also communicated with other naturalists, authors of pioneering works at the time and now considered among the finest of their kind. For example, the bird depicted on plate 18 of the second volume of the *Histoire naturelle des oiseaux de paradis et des rolliers, suivie de celle des toucans et des barbous*, representing the *Araçari Baillon* (Levaillant 1806: 44), was provided by Emmanuel Baillon. François Levaillant honored his friend, who had passed away a few years earlier, by naming this new species of toucan after him. Vieillot (1819: 283), based on Levaillant's plate, first latinized the species name (*Ramphastos Bailloni*), making the specimen Baillon sent to Levaillant the holotype of this taxon (specimen likely lost).

Emmanuel Baillon had so thoroughly educated his son François in natural history and bird taxidermy that, at only 22 years old, François became an assistant naturalist at the MNHN under the direction of Louis Dufresne (1752-1832). François's ambition to secure a permanent position at the MNHN was dashed when, after his father's death on October 24, 1801, he had to return to Abbeville to manage family affairs (Prarond 1857: 640). However, he retained the title of Correspondent of the *Jardin des Plantes* until his death (Prarond 1857: 641). François Baillon's passion for natural history, his motivation to enrich the collection of mounted

birds started by his father, and his active correspondence with various staff of the *Jardin des Plantes*, especially with Louis Dufresne, Jean-Claude-Michel Mordant de Launay (1750-1816), Etienne Geoffroy Saint-Hilaire (1772-1844), Achille Valenciennes (1794-1865), as well as Georges Cuvier and his younger brother Frédéric (1773-1838), enabled him to acquire numerous specimens from the MNHN. As we shall see, some of these specimens may have been from the former *Cabinet du Roi* and therefore (most likely) studied by Buffon.

THE *CABINET DU ROI* IN THE 18TH CENTURY AND WHAT REMAINS TODAY

Information on the evolution of the bird collection of the *Cabinet du Roi*, from its inception to the French Revolution, one year after Buffon's death, is sparse (Berlioz 1938: 239). It was only at the beginning of the 19th century, particularly with the voyage of Baudin, Lesueur, and Péron around the world (1800-1804), the first of many expeditions during which significant scientific collections were brought back, that proper records were kept (Geoffroy Saint-Hilaire et al. 1851: III; Berlioz 1938: 239) and the methods of collecting became more rigorous.

Farber (1997: 17), referring to a letter from René-Antoine Ferchault de Réaumur (1683-1757), mentions between 60 and 80 birds in 1749, many of which were already suffering from the damage caused by insects. Réaumur's bird collection, rich in 669 specimens, was considered one of the largest in Europe at the time and was extensively used by Mathurin Jacques Brisson (1723-1806) in the preparation of the six volumes that constitute his *Ornithologie* (1759-1762, for dates, see Mlíkovský [2023: 2112-2113]). This significant collection was integrated into the *Cabinet du Roi* in 1758, shortly after Réaumur's death. Twelve years later, Buffon & Guéneau de Montbeillard (1771: ii) estimated that it housed between 700 and 800 species, most represented by a single specimen (Stresemann 1975: 58), to which were added the approximately 160 species brought back by Charles-Nicolas-Sigisbert Sonnini de Manoncourt (1751-1812) upon his return from French Guiana, where he stayed from 1772 to 1775 (Stresemann 1975: 59). Ultimately, the 973 *Planches enluminées* featuring no fewer than 1239 birds (Ronsil 1957: 26) perhaps provide the best insight into the content of the royal collection just a few years before Buffon's death. However, this must be taken with caution because: 1) the *Planches enluminées* were not intended to illustrate all the bird species in the *Cabinet du Roi*, and 2) several plates feature species that were not part of the collection.

Today, it is difficult to quantify what remains of the *Cabinet du Roi* and was available to Buffon. The MNHN staff unfortunately has no precise figures (Patrick Boussès in litt. April 8, 2020). An indication that it is likely impossible to determine how many Buffon's specimens the MNHN still holds, is a manuscript by Dufresne, mentioned by Jouanin (1962: 274 fn 1), which lists 1034 specimens in 1792/93, only 88 of which, dating from the pre-Revolutionary period, remained in the early 19th century. Also dating from 1793,

a summary by Geoffroy Saint-Hilaire (1809) lists 463 birds, of which 361 were replaced before January 12, 1809, leaving only 102 birds from the former *Cabinet du Roi* in the Paris collections, a figure cited by his son forty years later (Geoffroy Saint-Hilaire et al. 1851: 92). Due to imperfect taxidermy techniques (see below), curation care, conservation methods that, over time, sometimes proved more destructive than preservative (e.g., fumigation), it is reasonable to believe that the vast majority of the specimens from the Buffon era did not survive, and they are likely extremely rare today. At this time, and even in the early decades of the 19th century, curators paid little attention to specimens that had served as references for identifying new species or for preparing a plate. The very concept of a ‘type,’ as we understand it today, was not introduced until the late 1830s by Westwood (1837), whose notion was integrated few years later into the ‘Strickland’s Code,’ which ultimately led to the subsequent nomenclatural codes (Strickland *et al.* 1843; Farber 1976: 95 fn 5 & 6; Dayrat 2010; Witteveen 2016). Preferring more aesthetically pleasing specimens, and facing space shortages, the staff at the MNHN had no hesitation to renew the collection with more recent specimens. Geoffroy Saint-Hilaire (1809) mentions 1733 specimens sent to many public institutions across France, and it cannot be ruled out that some of these came from the *Cabinet du Roi*. If these specimens still exist today, for example in regional museums, unless they have retained their (hypothetical) original labels, it is almost certain that they cannot be identified – this is well illustrated by the survey of Besson & Fuchs (2019), which reports only a handful of pre-1800 specimens in provincial museums (with the exception of the Baillon Collection).

The Baillon Collection holds more than forty specimens given by MNHN staff (Dufresne, Cuvier, Prévost, and Valenciennes). These naturalists often had their own private collections of natural history objects, and it is sometimes difficult to know whether a specimen sent to Baillon came from the MNHN or their personal collection (many of which had objects from the MNHN). However, 18 specimens in the Baillon Collection are clearly identified as coming from the ‘Muséum,’ and two of them closely resemble the *Planches enluminées* (see below). The nine Buffon’s specimens in La Châtre all bear one of the following mentions: ‘*donné à mon père par M. de Buffon*’ [given to my father par Mr. Buffon], ‘*M. de Buffon*’ [Mr. Buffon], ou ‘*donné à M. Baillon par M. de Buffon*’ [given to Mr. Baillon by Mr. Buffon].

THE EVOLUTION OF TAXIDERMY

The history of animal preparation and preservation techniques (taxidermy) has been covered by several authors (Farber 1977; Schulze-Hagen *et al.* 2003; Péquignot 2006; Rookmaaker et al. 2006; Morris 2012; Strekopytov 2017, 2021). As early as the 18th century, some scholars disseminated methods for preserving animals to naturalists (de Réaumur 1748; Mauduyt 1783). However, it wasn’t until the publication of the arsenical soap recipe by Daudin (1800) and then Dufresne (1803) – a

recipe that Jean-Baptiste Bécœur (1718-1777) had developed half a century earlier to combat the insects damaging natural history collections (Bécœur 1774: 138; Rookmaaker et al. 2006) – that real progress was made in preserving specimens over time. This explains why pre-19th century specimens are so rare and valuable. The 1500 to 3000 specimens mentioned by Steinheimer (2005) are the evidence that, long before arsenical soap became known to private collectors and major institutions, some collectors and natural history dealers were already applying chemical substances to specimens to optimize their preservation over time. Corrosive sublimate (mercuric chloride) and arsenic (Strekopytov 2017, 2021), as well as transport in barrels of alcohol (Sechrist 2023), were used as early as the late 17th century, but only a handful of these specimens have survived to the present day. Objects from the early 18th century are obviously much rarer than those from the end of the same century. Emmanuel Baillon himself used a solution of lye water (*eau de soude*) and sulfur fumigations (the latter process irreparably damaging the plumage of specimens) to prepare his birds (Buffon & Guéneau de Montbeillard 1781: 378, fn *u*). Among the pre-1780 specimens that still exist today, some of which are even in a very acceptable state of preservation for birds that were collected more than 250 years ago, there are a few rare ‘Linnaean’ specimens at the Swedish Museum of Natural History in Stockholm and the University of Uppsala (Wallin 2001; Steinheimer 2005: 54-55), as well as a few specimens from the voyages of James Cook (1728-1779) between 1768 and 1779 (Steinheimer 2005), including a beautiful Red Iiwi specimen collected in Hawaii during the third voyage, now housed in the collections of the University of Göttingen (Jansen & Steinheimer 2017). To this list are also some of the ‘Buffon’ specimens at the MNHN (Jansen 2015) as well as one of the Buffon’ specimens in the Baillon Collection which is dated 1778.

HISTOIRE NATURELLE DES OISEAUX (BUFFON & GUÉNEAU DE MONTBEILLARD 1771-1783) AND THE *PLANCHES ENLUMINÉES* BY MARTINET (1765-1780)

To follow up on the first series of his *Histoire naturelle, générale et particulière, avec la Description du Cabinet du Roi* (published between 1749 and 1769, which dealt with the natural history of humans and quadrupeds), Buffon, in line with his logic of classifying the living world, embarked on starting a second series dedicated to birds, titled *Histoire naturelle des Oiseaux* (HNO). This work was printed in three different editions, almost simultaneously, and its content and chronology have been the subject of several detailed studies (Zimmer 1926: 104; Mayaud 1939; Ronsil 1949: 76-77, 1957: 23; Schmitt 2021). Schmitt (2021: 26) addresses and explains Buffon’s surprising editorial decision. These different editions are summarized as follows:

– BUFFON, Georges-Louis Leclerc and GUÉNEAU DE MONTBEILLARD, Philippe – *Histoire naturelle des Oiseaux*. Paris, Imprimerie Royale, 1771-1783. Nine volumes

in quarto (volumes 16 to 24 of *Histoire naturelle, générale et particulière, avec la Description du Cabinet du Roi*). The text of this edition is accompanied by 262 black-and-white plates (by the illustrator Jacques de Sève), while also referencing the *Planches enluminées*. Schmitt (2021: 38) showed that although the first volume was probably printed in 1770 (as mentioned on the title page), it was not made available to the public until February or March 1771. Since this edition precedes the folio edition (see below) and because it is traditionally considered the authoritative edition, this is the one I refer to in the present study.

– BUFFON, Georges-Louis Leclerc and GUÉNEAU DE MONTBEILLARD, Philippe – *Histoire naturelle des Oiseaux*. Paris, Imprimerie Royale, 1771-1786. Ten volumes printed in two formats: small folio and large folio. While the large folio is clearly dated 1771, the small folio is dated 1770. However, as with the quarto edition, it would not have been available to the public until late winter 1771 (Schmitt 2021: 38). This edition was the one in which the *Planches enluminées*, published earlier, were to be incorporated (see below). The division of the quarto edition, which differs from the folio edition, explains why the latter contains one additional volume. However, with a few rare exceptions, the text in both editions is identical.

– BUFFON, Georges-Louis Leclerc and GUÉNEAU DE MONTBEILLARD, Philippe – *Histoire naturelle des Oiseaux*. Paris, Imprimerie Royale, 1771-1785. 18 volumes in duodecimo. This edition, corresponding to our current pocket-sized format, is accompanied by a reduced version of the black-and-white plates from the quarto edition.

The *HNO* is a significant and, at the time, probably unique work, aiming to create the most comprehensive inventory of bird species of its era, addressing their morphology, behavior, and distribution. Each volume details one or more large groups (e.g., raptors, parrots, woodpeckers, etc.), listing and describing the species; a classification that has since evolved considerably and is often quite distant from those generally accepted today (see the introduction in Schmitt & Gouraud 2024).

As for the *Planches enluminées*, the preparatory drawings were all made by Martinet, who, with a few exceptions, was also the engraver. Unlike Brisson, who provided details on the origin of the specimens used for the 261 plates accompanying his *Ornithologie* (1759-1762), Buffon and Guéneau de Montbeillard gave very few specifics about their sources. The origin of the birds that served as models for the *Planches enluminées* is therefore most of the time unknown. The geographic provenance of the specimens is also simply absent, very broad, or incorrect. Martinet may have based his work either on live or dead (preserved) birds or on other drawings obtained or published earlier, including those prepared for Brisson's *Ornithologie*. Although this may be underappreciated, it can still be expected that the use of older plates as sources for the *Planches enluminées* was relatively “episodic” compared to the use of live or dead birds. Indeed, the originality of the *Planches enluminées* was crucial to Buffon, and he sought to limit reproducing drawings from earlier works. As

for the preserved birds, not all of them necessarily came from the *Cabinet du Roi*, and Buffon often relied on other Parisian collectors such as Mauduyt de la Varenne (1733-1792), Abbé Jean-Thomas Aubry (1714-1785), or Madame de Bandeville (Marie-Anne Catherine Bigot de Graveron, 1709-1787) (Schmitt 2022: 104). Mounted specimens likely served as the basis for the majority of Martinet's drawings (Schmitt 2022: 104). This hypothesis can be justified for two reasons. First, a few years before the start of the elaboration of the *Planches enluminées*, the royal collection was enriched by the significant collection of Réaumur, and there is no reason to believe that Martinet would have overlooked these specimens, the vast majority of which were unique at the time and had already been used to elaborate the 261 plates accompanying Brisson's *Ornithologie*. Second, at the time, few bird species could survive captivity, especially exotic or non-European species that rarely survived the long journeys from Asia, Africa, or the Americas. It also seems that some of the specimens used by Buffon and Martinet merely passed through their hands before returning to their owner. For instance, Mauduyt de la Varenne (1783: 622) mentions that some specimens sent to him by Pedro Franco Dávila (1711-1786) were used by Buffon and Martinet. Mauduyt was known for his taxidermy work, and Dávila, who spent many years in Paris before becoming director of the *Cabinet d'Histoire naturelle* in Madrid in 1771, had enlisted his services to prepare specimens for integration into the Madrid collections.

While Martinet is unquestionably the artist behind the 1008 original drawings that, after engraving and printing, would be used to illuminate the 450 copies of each plate (Schmitt 2022: 85), the actual illumination work was carried out by several artists with varying skill levels, and the exact number remains unknown. One rare piece of information about this comes from Buffon & Guéneau de Montbeillard (1771: viii), who notes that “more than 80 artists and workers were employed continuously for five years on this work.” It is clear that coloring the 453 600 plates could not have been the work of a single person. However, the precise division of labor remains poorly documented, and it is assumed that while the number of colorists remained stable over the 16 years it took to produce the 450 copies of each plate, there was likely some turnover (Schmitt 2022: 87). This inevitably led to color variations within the 450 copies of a single plate (see Jansen & Cheke 2020 for the example of plate 215), but also between the colors of a plate and those of the specimen that served as its model.

Marinet worked under the direction of Edme Louis Daubenton (also known as *Daubenton le jeune* [i.e. the Younger]), which explains why in the literature, the *Planches enluminées* are sometimes attributed to Martinet and sometimes to Daubenton. Intended to accompany the large and small folio editions, these plates, however, were not meant to illustrate all the bird species in the *Cabinet du Roi*; as a result, not all the species described in *HNO* are represented by a plate. Conversely, some plates depict specimens absent from the *Cabinet du Roi*. The *Planches enluminées* number 1008, of which 973 illustrate 1239 birds (the remaining 35 plates

depict other animals, mainly insects). Published in 42 *cahiers* (i.e. issues), each containing 24 plates, the *Planches enluminées* are simply numbered, which allows an easy connection to their respective text in *HNO*, and include the French vernacular name that Buffon and Guéneau de Montbeillard attributed to the species. This name sometimes differs significantly from the one used in the text of *HNO*, which can be explained by the fact that the plates were numbered in the order of their publication and not according to a classification scheme. Some plates were ready several years before their corresponding texts were, revealing Buffon's evolving views on the names he wanted to assign to certain species (Schmitt 2022: 66-67).

The *Planches enluminées* are very rarely dated, and a date mentioned on the plate does not necessarily indicate a publication in the same year (Schmitt 2022: 98). However, it is now known that the *Planches enluminées* were all published before the texts describing the species they depict in *HNO* (Schmitt 2022: 107). Also, in the introduction to volumes 1 and 7, Buffon provides a timeline for the publication of the 1008 plates. In volume 1, Buffon & Guéneau de Montbeillard (1771: vii) state, "And although those I have had published for the past five years, which number nearly five hundred plates..." and in volume 7 Buffon & Guéneau de Montbeillard (1780: iii) mention, "...the forty-second and last issue of this collection, consisting of a thousand and eight *Planches enluminées*, has just been published...". These two statements indicate that the publication of the *Planches enluminées* began in 1765 and was completed in 1780. Schmitt's (2022: 132-219) in-depth research provides details, sometimes down to the month, on the publication of each of the 42 issues: the first *cahier* was probably released in April 1765 and the last one in October 1780 (but see Schmitt's fn 1 p. 132).

Buffon did not adopt the binomial nomenclature established a few years earlier by the Swedish scholar Carl von Linné (1707-1778) and did not associate any scientific names with his descriptions, only providing French vernacular names. Therefore, the publication date of the plates is not crucial for nomenclature, as no bird species described in *HNO* or illustrated in the *Planches enluminées* adheres to the nomenclatural rules in place nowadays (ICZN 1999: Art. 11.2). Only the later Latinization of some of Buffon's French names by several naturalists, particularly Philipp Ludwig Statius Müller (1725-1776), Pieter Boddaert (1730-1795), and Johann Friedrich Gmelin (1748-1804), has a nomenclatural significance. However, dating the plates remains important for documenting potential specimens that may still exist today and could have served as models for the *Planches enluminées*.

Because the *Planches enluminées* have been revisited by several authors who proposed Linnaean names for the French vernacular names provided by Buffon, these prints remain an unquestionable primary source for understanding ornithological nomenclature, which at times has led to debates (e.g., Hume 2007; Cheke & Jansen 2016; Jansen & Cheke 2020 for *Psittacula equeus*; and Elliott *et al.* 2020; Schodde *et al.* 2021; Elliott *et al.* 2022 for *Lophorina superba*). Hume (2007), and more recently Kirwan *et al.* (2022), highlighted the challenges that could arise when identifying species on the

base of illustrations alone, given the potential artistic liberty of their authors. The risks are all the more detrimental when avian nomenclature is directly impacted, which is why it is important, when possible, to be able to identify the models (i.e., the specimens) of these illustrations.

Through the *Planches enluminées*, Buffon genuinely aimed to achieve the highest possible rigor, considering the resources of his time, in his understanding of the concept of *species* and its boundaries (Schmitt 2022: 68-69; Schmitt & Gouraud 2024: 369-374). Thus, the *Planches enluminées* should, for the most part, be faithful to the specimens that served as their models, leaving little room for artistic liberty from their author, Martinet. As we shall see, identifying these models remains a difficult task, however.

250 YEARS LATER:

CAN THE MODELS OF THE PLANCHES ENLUMINÉES STILL BE IDENTIFIED?

There are several examples in the literature where specimens depicted (not only the *Planches enluminées*) have been identified through comparisons of their posture or colours with those of the animal on the plate (Tassy 2002; Callou *et al.* 2010; Aimassi 2015; Tabuce & Schmitt 2017; Dickinson *et al.* 2019). However, the identification of specimens from Buffon's era, used by Martinet for the preparation of the *Planches enluminées*, is not straightforward, and this for several reasons.

First, no catalog was kept at that time and the specimens were not systematically labelled. As seen previously, the first attempts at cataloging followed the reorganization of the *Cabinet du Roi* into the *Muséum* in 1793, but these early documents are very incomplete. Thus, the surviving Buffon's specimens are difficult to tell apart, unless they bear original or first-hand inscriptions (like in the Baillon Collection). Some old specimens in the Parisian collections bear the mention "*Type de Buffon* [= Buffon's type]" or "*Type de la planche* [= Type of the plate]" but the authenticity of these inscriptions should be treated with caution (Berlioz 1938: 238). Indeed, these inscriptions are not necessarily contemporaneous with Buffon and Martinet, and may have been added decades later, maybe by people who may not have even known Buffon and Martinet, for the simple reason that *this* specimen was the only one available in the collections and *must have been* the bird seen by Buffon and Martinet. These same people also overlooked the fact that many specimens from the former *Cabinet du Roi* were exchanged, donated or destroyed as early as the late 19th century. Furthermore, the collections have undergone numerous reorganizations throughout the history of the MNHN, making the identification of specimens from the *Cabinet du Roi* increasingly difficult (Berlioz 1938: 238).

Second, if the majority of the birds depicted in the *Planches enluminées* have a neutral posture, i.e., they are shown in profile, looking straight ahead, it cannot be ruled out that some birds were represented in a posture different from that of their model (see e.g. Jansen *et al.* 2021, though their study does not concern a *Planche enluminée*). This may have been because

the subject was alive, or to better fill the space on the plate. However, we cannot exclude that, here and there, Martinet may have sought to make the bird depicted on a plate more lifelike, while maintaining the authenticity so dear to Buffon. Some birds are depicted with wings spread or partially spread, while some are with an open bill, and others, particularly large birds such as raptors, have their heads turned. That said, a particular posture of the bird on the plate may also correspond to the actual posture of the model. Studying the position of the legs, tail, and wings in relation to the body can be a good clue (but not a guarantee!). Moreover, the sex and age of the bird depicted should correspond to the specimen used as the model. We should also keep in mind that over time, the specimens may have dried out and shrunk (to a certain degree), and that some parts of their bodies, or even the entire specimen, appear smaller than they do in the illustration. Finally, if the species represented by a *Planche enluminée* is also depicted in Brisson's *Ornithologie* (which, unlike Buffon and Guéneau de Montbeillard, usually specifies the origin of the specimen), and the birds shown on both plates are very similar, there is a strong likelihood that the specimen on the *Planche enluminée* is the same as the one used by Martinet to illustrate Brisson's work. As an example, the bird depicted in the *Planche enluminée* 416 (which model is the holotype of *Falco indus* Boddaert, 1783, see Schmitt & Gouraud 2024: 396) shows a very similar posture to that of the bird figured in the plate XXXV in Brisson (1759a), i.e., wings slightly lifted from the body, bird looking upward, beak slightly open, and which comes from the Abbé Aubry Collection. In other words, a specimen undoubtedly from the former *Cabinet du Roi* (i.e., from the Buffon era), which respects the sex, age, and plumage of the bird depicted on a *Planche enluminée*, and which shares characteristics of posture with the bird shown, especially if this posture reveals something distinctive, is a good candidate as the model for the plate, particularly if the species is also depicted in Brisson with a similar posture.

Third, in order to identify specimens that served as models for the *Planches enluminées* and still exist today, it must be kept in mind that such specimens, necessarily over 245 years old, may have been exposed to sunlight for many years and undergone changes due to shifts in temperature and humidity. Likewise, the pigments used for the plates were all derived from natural sources and were therefore not always very stable. Some *Planches enluminées*, particularly those exposed to light, may have been altered by sunlight. Consequently, the conservation conditions of the *Planches enluminées* themselves have been uneven. Some colours, such as the metallic sheen of certain feathers due to iridescence, could not have been accurately rendered in the illumination before 1780. It was not until the 1790s that the technique improved with the addition of gold leaf to the pigments (Schmitt 2022: 61). Additionally, old specimens were often subjected to fumigation, a preservation method that could permanently alter a bird's plumage (see Bécœur 1774: 145; Voisin *et al.* 2004). The specimens listed below do not appear to have undergone fumigation, and their posture shows no signs of alteration.

MATERIAL AND METHODS

The information on the pedestals of the nine 'Buffon' specimens in the Baillon Collection explicitly states that they were donated by Buffon. Among the 18 specimens in the collection that were sent directly by the MNHN (without mentioning Buffon), a *Sula leucogaster* (Boddaert, 1783) specimen and a *Picus flavigula* (Boddaert, 1783) specimen show similarities with the birds of their respective species depicted in the *Planches enluminées*. They have therefore been added to the list of specimens studied here.

Since French Guiana was an important French colony at the time, there was a significant amount of trade with metropolitan France, and the potential collectors of birds from this region are too numerous (see Laissus 1981) to form any hypothesis regarding the eight Baillon specimens from 'Cayenne'. One specimen, the *Brotogeris chrysoptera* (Linnaeus, 1766), bears no locality; it is a neotropical species and, as for the specimens from Cayenne, could have been collected by multiple travelers. As for the Peruvian specimen, a male *Rupicola peruvianus* (Latham, 1790), the possibilities are more limited and are detailed below in the section concerning this specimen.

In the following list, the specimen inventory number is followed by the scientific name of the species according to the classification proposed by del Hoyo & Collar (2014, 2016). The inscriptions under the pedestal are transcribed exactly as they appear. A '/' indicates a line break, and abbreviated words are completed in brackets to aid in understanding the inscriptions. The notation '[X]' indicates one or more illegible words. When available, the matches with the *Planches enluminées*, HNO, and Brisson's *Ornithologie* are provided. A name between two '?' indicates uncertainty about the match with Buffon and Guéneau de Montbeillard's or Brisson's works. Finally, the origin of the specimen and its resemblance to the *Planche enluminée* are discussed. A copy of the *Planche enluminée* is provided, when relevant, to facilitate the comparison with the Baillon specimen.

ABBREVIATIONS

HNO	<i>Histoire naturelle des Oiseaux</i> ;
MLC	Musée George Sand et de la Vallée noire, La Châtre;
MNHN	Muséum national d'Histoire naturelle.

'BUFFON' SPECIMENS IN THE BAILLON COLLECTION

Piaya cayana cayana (Linnaeus, 1766) (Figs 1; 2)

SPECIMENS. — MLC.2011.0.1433 (Fig. 1A) and MLC.2011.0.1434 (Fig. 2A).

INSCRIPTIONS UNDER THE PEDESTAL OF MLC.2011.0.1433 (Fig. 1B). — "*Cuculus* / *Cayanus*, Lin[naeus]. Lath[am]. / *Coccyzus macrourus* / Vieillot / Coucou piaye Buff[on]. pl[anche]. enl[uminée]. 211 / *Cuculus cayanensis*. Briss[on] / Cayenne, donné à mon / père par m. de / Buffon".



Fig. 1. — Squirrel Cuckoo *Piya cayana cayana* (Linnaeus, 1766): **A**, specimen; **B**, original pedestal inscriptions; sent by Buffon to Emmanuel Baillon, registration number MLC.2011.0.1433 (Photos credits: Christophe Gouraud / Musée George Sand et de la Vallée noire, La Châtre, France).

INSCRIPTIONS UNDER THE PEDESTAL OF MLC.2011.0.1434
(Fig. 2B). — “*Coccyzus / macrourus, Vieill[ot]. / Coulicou piaye, Vieill[ot]. / Coucou piaye, pl[anche]. en[luminée]. 211. / Cuculus cayanus Lath[am]. / Coua ... Tem[minck]. / de Cayenne / donné à mon père / par m. de / Buffon*”.

PLANCHE ENLUMINÉE. — No. 211 (Cahier No. 9, 1767) "Coucou, de Cayenne".

HNO (BUFFON & GUÉNEAU DE MONTBEILLARD 1779: 414). —
“Le Coucou piaye”.

ORNITHOLOGIE (BRISSON 1760: 122, PLATE VIII, FIG. 2). — “Le Coucou de Cayenne”.

COMMENTS. — These specimens do not match the bird depicted in plate 211 and were likely collected in the late 1770s or 1780s.



FIG. 2. — Squirrel Cuckoo *Piaya cayana cayana* (Linnaeus, 1766): **A**, specimen; **B**, original pedestal inscriptions; sent by Buffon to Emmanuel Baillon, registration number MLC.2011.0.1434 (Photos credits: Christophe Gouraud / Musée George Sand et de la Vallée noire, La Châtre, France).

Mauduyt (1783: 637) mentions a variety of the *Coucou de Cayenne*, which Brisson called the 'Petit Coucou de Cayenne', now *Piaya melanogaster* (Vieillot, 1817), noting that this variety is much rarer, given the few specimens brought back to France compared to those

of the *Coucou de Cayenne*. This suggests that by 1783, *Piaya cayana* was a common species imported into France, which may explain why there are two 'Buffon' specimens of this species in the Baillon Collection.



FIG. 3. — Brown Booby *Sula leucogaster leucogaster* (Boddaert, 1783): **A**, specimen; **B**, original pedestal inscriptions; sent by the MNHN to François Baillon, registration number MLC.2010.0.60. This specimen could be the one used to depict the Planche enluminée 973 and is therefore the possible holotype of *Pelecanus leucogaster* Boddaert, 1783 (Photos credits: Christophe Gouraud / Musée George Sand et de la Vallée noire, La Châtre, France).

Sula leucogaster leucogaster (Boddaert, 1783)
(Fig. 3)

SPECIMEN. — MLC.2010.0.60.

INSCRIPTIONS UNDER THE PEDESTAL (Fig. 3B). — “*Sula communis* / *fou commun*, Buff[on]. / *fou proprement dit*, *Morus sula*, Vieill[ot]. / *Pelecanus sula* Lath[am]. & Gme[lin]; / *de Cayenne*, donné par le Muséum”.

PLANCHE ENLUMINÉE (Fig. 4). — No. 973 (Cahier No. 41, October 1779) “Le Fou, de Cayenne”.

HNO (BUFFON & GUÉNEAU DE MONTBEILLARD 1781: 374). — “Le Petit Fou”.

ORNITHOLOGIE (BRISSEAU 1759-1762). — Not mentioned.



FIG. 4. — Planche enluminée 973: “Le Fou, de Cayenne”, by Martinet, in Buffon & Guéneau de Montbeillard (1784). The represented specimen is the holotype of *Pelecanus leucogaster* Boddaert, 1783 (Photo credit: Smithsonian Libraries and Archives / BHL).

COMMENTS. — The inscriptions under the pedestal of this specimen do not indicate a direct link between Buffon and Baillon but simply state that the bird was donated by the MNHN. The specimen has its plumage identical to that of the bird depicted in plate 973 (i.e., adult), and the provenance (Cayenne) matches with both *HNO* and the plate. As we have seen, by the late 18th

century and into at least the first decade of the following century, the MNHN had parted with a large number of old specimens. Therefore, it is entirely possible that this specimen dates from the Buffon era. It could have been the bird used by Martinet and, consequently, may be the holotype of *Pelecanus leucogaster* Boddaert, 1783.



FIG. 5. — Least Bittern *Ixobrychus exilis erythromelas* (Vieillot, 1817): **A**, specimen; **B**, original pedestal inscriptions; sent by Buffon to Emmanuel Baillon in 1778, registration number MLC.2010.0.124 (Photos credits: Christophe Gouraud / Musée George Sand et de la Vallée noire, La Châtre, France).

Ixobrychus exilis erythromelas (Vieillot, 1817)
(Fig. 5)

SPECIMEN. — MLC.2010.0.124.

INSCRIPTIONS UNDER THE PEDESTAL (Fig. 5B). — “*Ardea exilis*, Wils[on] = Wagler. / *Ardea erythromelas*, Vieill[ot]. / heron Rouge et noir, azara / Cayenne / donné à mon père par m. de Buffon / En 1778.”

PLANCHE ENLUMINÉE. — No plate.

HNO (BUFFON & GUÉNEAU DE MONTBEILLARD 1780: 402). — “Le Crabier Pourpré”?

ORNITHOLOGIE (Brisson 1762a: 418). — “Le Héron Pourpré du Mexique”?

COMMENTS. — This specimen is the only one among the ‘Buffon’ specimens for which a date is mentioned (i.e., 1778). The bird was therefore collected before December 31, 1778. Buffon and Guéneau de Montbeillard only treat herons in volume VII, published in 1780,



FIG. 6. — Black-spotted Barbet *Capito niger niger* (Statius Müller, 1776): **A**, specimen; **B**, original pedestal inscriptions; sent by Buffon to Emmanuel Baillon, registration number MLC.2011.0.1257 (Photos credits: Christophe Gouraud / Musée George Sand et de la Vallée noire, La Châtre, France).

two years after this specimen was sent to Emmanuel Baillon. None of the Ardeidae Leach, 1820 depicted in the *Planches enluminées* correspond to this specimen. The closest description found in *HNO* is that of the *Crabier Pourpré* and that of the *Héron Pourpré du Mexique* in Brisson's *Ornithologie*, although the provenance does not match the Baillon specimen. Sharpe & Ogilvie-Grant (1898: 231) also question the correspondence of the birds described by Buffon and Guéneau de Montbeillard, as well as Brisson, with *Ixobrychus exilis* (Gmelin, 1789).

Capito niger (Statius Müller, 1776)
(Fig. 6)

SPECIMEN. — MLC.2011.0.1257.

INSCRIPTIONS UNDER THE PEDESTAL (Fig. 6B). — “*Barbion / gorge Rouge / Micropogon / cayanensis, Tem[minck] / Bucco cayanensis Lath[am] / Cayenne / m. de Buffon*”.

PLANCHE ENLUMINÉE. — No. 206 fig. 1 (Cahier No. 9, 1767) “Barbu, de Cayenne”.

HNO (BUFFON & GUÉNEAU DE MONTBEILLARD 1780: 96). — “Le Tamatia à tête & gorge rouges”.

ORNITHOLOGIE (Brisson 1760: 95, PLATE VII, FIG. 1). — “Le Barbu de Cayenne”.

COMMENTS. — The resemblance of this specimen (male) with plate 206, fig. 1 (male) is not striking (with differences such as the beak shape, among others). This specimen was most likely collected after 1770.



FIG. 7. — Red-necked Woodpecker *Campephilus rubricollis rubricollis* (Boddaert, 1783): **A**, specimen; **B**, original pedestal inscriptions, sent by Buffon to Emmanuel Baillon, registration number MLC.2011.0.1323. This specimen could be the one used to depict the Planche enluminée 612 and is therefore a possible syntype of *Picus rubricollis* Boddaert, 1783 (Photos credits: Christophe Gouraud / Musée George Sand et de la Vallée noire, La Châtre, France).

Campephilus rubricollis rubricollis (Boddaert, 1783)
(Fig. 7)

SPECIMEN. — MLC.2011.0.1323.

INSCRIPTIONS UNDER THE PEDESTAL (Fig. 7B). — “*Pic à cou roug[e] / Buffon]. Vieill[ot]. / picus Rubricollis, Lath[am] / Wagler. / femelle / de Cayenne, donnée à mon / père m. de / Buffon*”.



FIG. 8. — Planche enluminée 612: “Grand Pic hupé à tête rouge, de Cayenne”, by Martinet, in Buffon & Guéneau de Montbeillard (1783b). The represented specimen is a syntype of *Picus rubricollis* Boddaert, 1783 (Photo credit: Smithsonian Libraries and Archives / BHL).

PLANCHE ENLUMINÉE (Fig. 8). — No. 612 (Cahier No. 26, 1773-1774) “Grand Pic hupé à tête rouge, de Cayenne”.

HNO (BUFFON & GUÉNEAU DE MONTBEILLARD 1780: 53). — “Le Pic à cou rouge”.

ORNITHOLOGIE (BRISSON 1759-1762). — Not mentioned.

COMMENTS. — By its posture, the crested appearance of the crown, the position of the wings and tail, the colours, and the

sex, this specimen (female) is very close to the bird depicted on plate 612 (female). It could therefore have been the bird used by Martinet and, consequently, be a syntype of *Picus rubricollis* Boddaert, 1783. A type series is here justified because Boddaert also refers to the Red-necked Woodpecker of Latham (1782: 558), who himself not only refers to Buffon and Guéneau de Montbeillard’s text and plate 612, but also to a specimen from the Leverian Museum (said to also come from Cayenne).



FIG. 9. — Yellow-throated Woodpecker *Piculus flavigula flavigula* (Boddaert, 1783): **A**, specimen; **B**, original pedestal inscriptions; sent by the MNHN to François Baillon, registration number MLC.2011.0.1301. This specimen could be the one used to depict the Planche enluminée 784 and is therefore the possible holotype of *Picus flavigula* Boddaert, 1783 (Photos credits: Christophe Gouraud / Musée George Sand et de la Vallée noire, La Châtre, France).

Piculus flavigula flavigula (Boddaert, 1783)
(Fig. 9)

SPECIMEN. — MLC.2011.0.1301.

INSCRIPTIONS UNDER THE PEDESTAL (Fig. 9B). — “*Picus / icterocephalus. / Wagler. / Male / de Cayenne, donné / par le Museum*”.

PLANCHE ENLUMINÉE (Fig. 10). — No. 784 (Cahier No. 33, 1777)
“Pic à gorge jaune, de Cayenne”.

HNO (BUFFON & GUÉNEAU DE MONTBEILLARD 1780: 37). — “Le
Petit Pic à gorge jaune”.

ORNITHOLOGIE (Brisson 1759-1762). — Not mentioned.



FIG. 10. — Planche enluminée 784: "Pic à gorge jaune, de Cayenne", by Martinet, in Buffon & Guéneau de Montbeillard (1783b). The represented specimen is the holotype of *Picus flavigula* Boddaert, 1783 (Photo credits: Smithsonian Libraries and Archives / BHL).

COMMENTS. — The inscriptions under the pedestal of this specimen do not mention a direct link between Buffon and Baillon but simply state that the bird was donated by the MNHN. However, the sex (male) and the provenance (Cayenne) align with the plate, and the posture of the specimen is very similar to that of the bird depicted on plate 784: both are looking up and to the right. As we have seen, by the end of the 18th century and at least into the first decade of the following century,

the MNHN had parted with a large number of old specimens. Therefore, it is entirely possible that this specimen dates from the Buffon era and that it was used by Martinet. As a result, it could well be the holotype of *Picus flavigula* Boddaert, 1783. Boddaert also refers to the yellow-headed Woodpecker of Latham (1782: 595), but Latham refers to Buffon and Guéneau de Montbeillard's text and plate 784, hence no type series involved here, but a single specimen.



FIG. 11. — Aplomado Falcon *Falco femoralis femoralis* Temminck, 1822: **A**, specimen; **B**, original pedestal inscriptions; sent by Buffon to Emmanuel Baillon, registration number MLC.2011.0.749 (Photos credits: Christophe Gouraud / Musée George Sand et de la Vallée noire, La Châtre, France).

Falco femoralis femoralis Temminck, 1822
(Fig. 11)

SPECIMEN. — MLC.2011.0.749.

INSCRIPTIONS UNDER THE PEDESTAL (Fig. 11B). — “falcon orange. / [falcon]. a poitrine orangée, Vieill[ot] / hobreau orange, Sonnini / *Falco aurantius*, Lath[am]. / falcon à culotte orange / Rousse. *Falco* / *femoralis*, Temm[inck]. pl[anche]. 343 / de Cayenne / donné à mon père / par m. de Buffon”.

PLANCHE ENLUMINÉE. — No plate.

HNO (BUFFON & GUÉNEAU DE MONTEILLARD 1771-1783). — Not mentioned.

ORNITHOLOGIE (BRISSEAU 1759-1762). — Not mentioned.

COMMENTS. — This species was only described in 1822, which supports the idea that neither Brisson nor Buffon and Guéneau de Montbeillard had any specimens at their disposal. In Buffon’s case, diurnal birds of prey are treated as early as the first volume,



FIG. 12. — Golden-winged Parakeet *Brotogetis chrysoptera chrysoptera* (Linnaeus, 1766): **A**, specimen; **B**, original pedestal inscriptions; sent by Buffon to Emmanuel Baillon, registration number MLC.2011.0.1197 (Photos credits: Christophe Gouraud / Musée George Sand et de la Vallée noire, La Châtre, France).

published in 1771. It is highly likely that the first specimen of this species did not reach Buffon's hands until after the publication of the *HNO* volume dealing with diurnal raptors, i.e., the very first volume, which was published in 1771 (though, as we have seen, the text was ready in 1770).

Brotogetis chrysoptera chrysoptera (Linnaeus, 1766)
(Fig. 12)

SPECIMEN. — MLC.2011.0.1197.

INSCRIPTIONS UNDER THE PEDESTAL (Fig. 12B). — “Perruche / aux ailes d'or / Buffon]. / *Psittacus chrysop-* / *-terus*, Lath[am]. / donné à mon père / par m. de / Buffon”.

PLANCHE ENLUMINÉE. — No plate.

HNO (BUFFON & GUÉNEAU DE MONTBEILLARD 1779: 170). — “La Perruche aux ailes d'or”.

ORNITHOLOGIE (Brisson 1762b: 130). — “La Petite Perruche aux ailes d'or”.

COMMENTS. — Both Brisson and Buffon & Guéneau de Montbeillard based their descriptions on *La Perruche aux Ailes d'Or* (Golden-winged Parakeet) of Edwards (1760: 177), which suggests that neither of them had a specimen available when preparing their respective works. The Baillon specimen was most likely collected after 1779.



FIG. 13. — Andean Cock-of-the-rock *Rupicola peruvianus* (Latham, 1790): **A**, specimen; **B**, original pedestal inscriptions; sent by Buffon to Emmanuel Baillon, registration number MLC.2011.0.170 (Photos credits: Christophe Gouraud / Musée George Sand et de la Vallée noire, La Châtre, France).

Rupicola peruvianus (Latham, 1790)
(Fig. 13)

SPECIMEN. — MLC.2011.0.170.

INSCRIPTIONS UNDER THE BASE (Fig. 13B) [written in a handwriting different from that of Baillon son]. — “*Gallus ferus* / *Upupa americana* / *pipra Péruviana*. (Linné) / *Coq de Roche du Pérou*. / mâle / donné à M. Baillon / par Mr. de Buffon”.

PLANCHE ENLUMINÉE (Fig. 14). — No. 745 (Cahier No. 32, 1776-1777) “Coq-de-roche, du Pérou”.

HNO (BUFFON & GUÉNEAU DE MONTBEILLARD 1778: 437). — “Le Coq de Roche du Pérou”.

ORNITHOLOGIE (BRISSE 1759-1762). — Not mentioned.

COMMENTS. — This specimen (male) and the bird depicted on plate 745 (male) – holotype of *Pipra peruviana* Latham, 1790 – are quite similar. However, according to Mauduyt de la Varenne (1783: 622), the bird used by Martinet for the drawing of plate 745 was



FIG. 14. — Planche enluminée 745: "Coq-de-roche, du Perou", by Martinet, in Buffon & Guéneau de Montbeillard (1778). The represented specimen is the holotype of *Pipra peruviana* Latham, 1790 (Photo credit: Smithsonian Libraries and Archives / BHL).

sent to him by Pedro Franco Dávila, then director of the Natural History Museum of Madrid, to be prepared with the intention of being exhibited in the galleries of the Madrid museum. After being mounted by Mauduyt de la Varenne, the bird would have been studied by Martinet before being sent back to Madrid. If this is the case, the Baillon specimen cannot be the bird depicted on plate 745. The Madrid collections do not currently have any pre-1800 specimens (Steinheimer 2005), with the possible exception of *Struthio camelus* eggs (Josephina Barreiro Rodríguez in litt. November 17, 2022), and no bird from the Dávila collection seems to have sur-

vived (Roselaar 2003). In 1767, Dávila's ornithological collection was poor (only a few specimens) and did not include any *Rupicola* (Dávila 1767: 490-491). Since plate 745 was only published ten years later, it can be assumed that Dávila acquired this species between 1767 and 1776. Unverifiable but not excluded, Dávila could have sent several specimens to Mauduyt de la Varenne, so that he could keep one or two as a token of appreciation and send the rest, mounted, back to Spain. Assuming that the Baillon specimen is not the bird depicted by Martinet, which indeed seems to be the case, it is reasonable to think that it was collected after the publi-



FIG. 15. — Epaulet Oriole *Icterus cayanensis cayanensis* (Linnaeus, 1766): **A**, specimen; **B**, original pedestal inscriptions; sent by Buffon to Emmanuel Baillon, registration number MLC.2011.0.2111 (Photos credits: Christophe Gouraud / Musée George Sand et de la Vallée noire, La Châtre, France).

cation of the *Planche enluminée* and the accompanying text, i.e., after 1778. A collect during Charles-Nicolas-Sigisbert Sonnini de Manoncourt's (1751-1812) expedition to western French Guiana, up to the Rio Negro, in 1773-1774 seems unlikely, especially since this exploration does not appear to have gone far enough west to encounter this species. Likewise, a collection by Joseph de Jussieu (1704-1779) during his long stay in Peru and Ecuador is excluded, as he left this country in October 1770, having lost his collections (Judde 2005: 74). Among the possible origins of the Baillon specimen is the trip to Peru by French naturalist Joseph Dombey (1742-1794), along with Spanish Hipólito Ruiz López (1754-1816) and José Antonio Pavón (1754-1840), between 1777 and 1785. These travelers explored regions to the east of Lima where this cotinga could have been collected or purchased at a local market, either in Tarma between May 1779 and January 1780, or in Huánuco between April 1780 and March 1781 (Lang 1985). Although this expedition was primarily focused on botany (Pinault Sørensen 2005: 51), it cannot be excluded that some animals, including brightly colored birds such as a male *Rupicola peruvianus*, were acquired to be brought back to France. Finally, since Dávila held his position as director of the Madrid Natural History Museum until his death in 1786, it cannot be ruled out that he received specimens from Peru between 1778 and 1786 and sent a few examples to his former colleagues in Paris.

Icterus cayanensis cayanensis (Linnaeus, 1766)
(Fig. 15)

SPECIMEN. — MLC.2011.0.2111.

INSCRIPTIONS UNDER THE BASE (Fig. 15B) (torn label). — “[*Psarocolius*] / [*Chrysopterus*, Wagler / [*X*] *cayennensis* Lath[am] / Cayenne, donné / à mon père par / M. de Buffon”.

PLANCHE ENLUMINÉE. — No. 535 fig. 2 (Cahier No. 23, July 1772) “Carouge de l’Isle St. Thomas”.

HNO (BUFFON & GUÉNEAU DE MONTBEILLARD 1775: 248 in the text). — “Le carouge de l’isle St. Thomas”.

ORNITHOLOGIE (BRISSON 1759B: 123, PLATE IX FIG. 2). — “Le Carouge de Cayenne”.

COMMENTS. — This specimen and the one depicted by Martinet do not resemble each other, and their provenances are different (Cayenne for the Baillon specimen vs Saint Thomas for the bird on plate 535 fig. 2). Its posture is quite similar to the figure in Brisson, but a pre-1760 collection is, here, quite unlikely.

REMARK

As we have seen, certain factors can make it difficult (if not impossible) to link for certainty a specimen as a model for a *Planche enluminée*. Therefore, the conclusions drawn from comparing a *Planche enluminée* with a 'Buffon' specimen – hence a potential type (ICZN 1999: Art. 12.2.7) – must be made with caution. In reality, only a handwritten note from Buffon or from his contemporaries, accompanying a specimen and stating that it is *the* bird used for the depiction on *the* plate, would allow us to assert with (almost) certainty that this specimen is indeed the one used as the model for the *Planche enluminée*.

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REFERENCES

- AIMASSI G. 2015. — The original description of Bonelli's Eagle *Aquila fasciata* Vieillot (Aves: Accipitridae). *Zoological Bibliography* 4 (1): 1-14. https://www.avespress.com/uploads/texteditor/zoological_bibliography_4_1.pdf
- AUFÈRE L. 1936. — Le mouvement scientifique à Abbeville dans la première moitié du XIXe siècle et les origines de la préhistoire (1795-1840). *Sciences* 4: 175-195.
- BÉCOEUR J. -B. 1774. — Lettre à M. Rousseau, auteur de ce Journal, sur un article du Journal de physique. *Journal Encyclopédique* Année 1774 (Tome 3, partie 1): 135-151. <https://gallica.bnf.fr/ark:/12148/bpt6k15237468/f141.item>
- BERLIOZ J. 1938. — Les collections ornithologiques du musée de Paris. *L'Oiseau et la Revue Française d'Ornithologie* 8: 237-260. <https://www.biodiversitylibrary.org/page/62050287>
- BESSON L. & FUCHS J. 2019. — Les collections ornithologiques conservées en France : Bilan de l'enquête nationale 2017. *Alauda* 87 (HS) (3): 3-32.
- BRISSON M. J. 1759-1762. — *Ornithologie ou Méthode contenant la division des Oiseaux en Ordre, Sections, Genres, Espèces et leurs Variétés à laquelle on a joint une description exacte de chaque espèce*. 6 volumes. Cl. Jean-Baptiste Bauche, Paris. <https://www.biodiversitylibrary.org/page/36010374>
- BRISSON M. J. 1759a. — *Ornithologie ou Méthode contenant la division des Oiseaux en Ordre, Sections, Genres, Espèces et leurs Variétés à laquelle on a joint une description exacte de chaque espèce*. Vol. 1. Cl. Jean-Baptiste Bauche, Paris, xxiv-526-lxxiii p. <https://www.biodiversitylibrary.org/page/36010374>
- BRISSON M. J. 1759b. — *Ornithologie ou Méthode contenant la division des Oiseaux en Ordre, Sections, Genres, Espèces et leurs Variétés à laquelle on a joint une description exacte de chaque espèce*. Vol. 2. Cl. Jean-Baptiste Bauche, Paris, 516-lxxviii p. <https://www.biodiversitylibrary.org/page/36011170>
- BRISSON M. J. 1760. — *Ornithologie ou Méthode contenant la division des Oiseaux en Ordre, Sections, Genres, Espèces et leurs Variétés à laquelle on a joint une description exacte de chaque espèce*. Vol. 4. Cl. Jean-Baptiste Bauche, Paris, 576-lv p. <https://www.biodiversitylibrary.org/page/36195093>
- BRISSON M. J. 1762a. — *Ornithologie ou Méthode contenant la division des Oiseaux en Ordre, Sections, Genres, Espèces et leurs Variétés à laquelle on a joint une description exacte de chaque espèce*. Vol. 5. Cl. Jean-Baptiste Bauche, Paris, 544-lvi p. <https://www.biodiversitylibrary.org/page/36294288>
- BRISSON M. J. 1762b. — Supplément d'ornithologie ou citations et descriptions précédemment omises, auxquelles on a joint les espèces nouvellement découvertes, rapportées chacune à leur genre, in BRISSON M. J. *Ornithologie ou Méthode contenant la division des oiseaux en ordres, sections, genres, espèces & leurs variétés*. Vol. 6. Cl. Jean-Baptiste Bauche, Paris: 1-146. <https://www.biodiversitylibrary.org/page/36211601>
- BUFFON (COMTE DE) G. L. L. & GUÉNEAU DE MONTBEILLARD P. 1771-1783. — *Histoire naturelle des Oiseaux*. 9 volumes. Imprimerie Royale, Paris. <https://gallica.bnf.fr/services/engine/search/sru?operation=searchRetrieve&version=1.2&collapsing=disabled&rk=42918;4&query=dc.relation%20all%20%22cb37266969t%22> [quarto edition]
- BUFFON (COMTE DE) G. L. L. & GUÉNEAU DE MONTBEILLARD P. 1771-1786. — *Histoire naturelle des Oiseaux*. 10 volumes. Imprimerie Royale, Paris. <https://doi.org/10.3931/e-rara-7522> [folio edition]
- BUFFON (COMTE DE) G. L. L. & GUÉNEAU DE MONTBEILLARD P. 1771-1785. — *Histoire naturelle des Oiseaux*. 18 volumes. Imprimerie Royale, Paris. <https://doi.org/10.5962/bhl.title.66490> [duodecimo edition]
- BUFFON (COMTE DE) G. L. L. & GUÉNEAU DE MONTBEILLARD P. 1771 [«1770»]. — *Histoire naturelle des Oiseaux. Tome premier*. Imprimerie Royale, Paris, xxiv-496 p. <https://gallica.bnf.fr/ark:/12148/bpt6k97505m?rk=107296;4> [quarto edition]
- BUFFON (COMTE DE) G. L. L. & GUÉNEAU DE MONTBEILLARD P. 1775. — *Histoire naturelle des Oiseaux. Tome troisième*. Imprimerie Royale, Paris, iv-502-xcvi p. <https://gallica.bnf.fr/ark:/12148/bpt6k975079?rk=150215;2> [quarto edition]
- BUFFON (COMTE DE) G. L. L. & GUÉNEAU DE MONTBEILLARD P. 1778. — *Histoire naturelle des Oiseaux. Tome quatrième*. Imprimerie Royale, Paris, 590-xxviii p. <https://gallica.bnf.fr/ark:/12148/bpt6k97508n?rk=64378;0> [quarto edition]
- BUFFON (COMTE DE) G. L. L. & GUÉNEAU DE MONTBEILLARD P. 1779. — *Histoire naturelle des Oiseaux. Tome sixième*. Imprimerie Royale, Paris, 702 p. <https://gallica.bnf.fr/ark:/12148/bpt6k975106/f2.item> [quarto edition]
- BUFFON (COMTE DE) G. L. L. & GUÉNEAU DE MONTBEILLARD P. 1780. — *Histoire naturelle des Oiseaux. Tome septième*. Imprimerie Royale, Paris, xvi-554-xcvi p. <https://gallica.bnf.fr/ark:/12148/bpt6k97511j?rk=42918;4#> [quarto edition]
- BUFFON (COMTE DE) G. L. L. & GUÉNEAU DE MONTBEILLARD P. 1781. — *Histoire naturelle des Oiseaux. Tome huitième*. Imprimerie Royale, Paris, viii-498-xlii p. <https://gallica.bnf.fr/ark:/12148/bpt6k97512w?rk=193134;0> [quarto edition]

- BUFFON (COMTE DE) G. L. L. & GUÉNEAU DE MONTBEILLARD P. 1783a. — *Histoire naturelle des Oiseaux. Tome neuvième*. Imprimerie Royale, Paris, 438-xxx-284 p. <https://gallica.bnf.fr/ark:/12148/bpt6k975137/f3.item> [quarto edition]
- BUFFON (COMTE DE) G. L. L. & GUÉNEAU DE MONTBEILLARD P. 1783b. — *Histoire naturelle des oiseaux. Tome septième*. Imprimerie Royale, Paris, xii-435 p. <https://doi.org/10.3931/e-rara-7522> [folio edition]
- BUFFON (COMTE DE) G. L. L. & GUÉNEAU DE MONTBEILLARD P. 1784. — *Histoire naturelle des oiseaux. Tome neuvième*. Imprimerie Royale, Paris, viii-423 p. <https://doi.org/10.3931/e-rara-7522> [folio edition]
- CALLOU C., CUISIN J. & GROVES C. 2010. — The Rediscovery of Buffon's Tarsier. *International Journal of Primatology* 31: 1055-1070. <https://doi.org/10.1007/s10764-010-9455-x>
- CHEKE A. S. & JANSEN J. J. F. 2016. — An enigmatic parakeet - the disputed provenance of an Indian Ocean *Psittacula*. *Ibis* 158 (2): 439-443. <https://doi.org/10.1111/ibi.12347>
- DAUDIN F. -M. 1800. — *Traité élémentaire et complet d'ornithologie, ou histoire naturelle des oiseaux. Tome 1*. Bertrandet, Paris, 474 p. <https://www.biodiversitylibrary.org/page/36295649>
- DÁVILA [P. F.] 1767. — Huitième partie. Oiseaux, in Dávila [P. F.], *Catalogue systématique et raisonné des curiosités de la nature et de l'art qui composent le Cabinet de M. Dávila. Tome 1*. Chez Briasson, Paris: 490-491. <https://www.biodiversitylibrary.org/page/62621468>
- DAYRAT B. 2010. — Celebrating 250 dynamic years of nomenclatural debates, in POLASZEK A. (ed.), *Systema Naturae 250 - The Linnaean Ark*. CRC Press, Boca Raton, Florida: 185-240. <https://doi.org/10.1201/EBK1420095012-c17>
- DE RÉAUMUR [FERCHAULT] R.-A. 1748. — Divers means for preserving from corruption dead birds, intended to be sent to remote countries, so that they may arrive there in a good condition. *Philosophical transactions of the Royal Society of London* 45: 304-320. <https://www.biodiversitylibrary.org/page/50833453>
- DEL HOYO J. & COLLAR N. J. 2014. — *HBW and BirdLife International illustrated checklist of the birds of the world, volume 1: non-passerines*. Lynx Edicions, Barcelona, 903 p.
- DEL HOYO J. & COLLAR N. J. 2016. — *HBW and BirdLife International illustrated checklist of the birds of the world, volume 2: passerines*. Lynx Edicions, Barcelona, 1013 p.
- DICKINSON E., LEE M., CIBOIS A., BOUSSÈS P. & FUCHS J. 2019. — Clarifying the nomenclature of Pomarea species (Monarchidae) from the Society Islands. *Bulletin of the British Ornithologists' Club* 139 (1): 65-74. <https://doi.org/10.25226/bboc.v139i1.2019.a5>
- DUFRESNE L. 1803. — Taxidermie, in ANONYMOUS (des), *Nouveau dictionnaire d'histoire naturelle, appliquée aux arts, principalement à l'agriculture, et à l'économie rurale et domestique, par une société de naturalistes et d'agriculteurs*. Volume 21. Déterville, Paris: 507-565. <https://gallica.bnf.fr/ark:/12148/bpt6k97367597/f537.item>
- EDWARDS G. 1760. — *Gleanings of Natural History, exhibiting figures of Quadrupeds, Birds, Insects, Plants, &c. Most of which have not, till now, been either Figured or Described*. Volume 2. The author, London, i-xxxv: 109-220. <https://www.biodiversitylibrary.org/page/57914814>
- ELLIOTT A., COLLAR N. J., BRUCE M. & KIRWAN G. 2020. — The nomenclature of *Lophorina* (Aves: Paradisaeidae), with remarks on the type and type locality of *L. superba*. *Zootaxa* 4732 (1): 57-78. <https://doi.org/10.11646/zootaxa.4732.1.2>
- ELLIOTT A., COLLAR N. J., MURRAY D. B. & KIRWAN G. M. 2022. — Why the long-held identity of *Paradisaea* [= *Lophorina*] *superba* J. R. Forster, 1781 is correct and should be retained, with designation of a valid neotype. *Avian Systematics* 1 (1): 1-26. https://www.aviansystematics.org/uploads/texteditor/AS_1_1_PDFa.pdf
- FARBER P. L. 1976. — The type-concept in zoology during the first half of the nineteenth century. *Journal of the History of Biology* 9 (1): 93-119. <https://doi.org/10.1007/bf00129174>
- FARBER P. L. 1977. — The development of taxidermy and the history of ornithology. *Isis* 68: 550-566. <https://doi.org/10.1086/351874>
- FARBER P. L. 1997. — *Discovering Birds. The Emergence of Ornithology as a Scientific Discipline, 1760-1850*. The Johns Hopkins University Press, Baltimore & London, xxiii-191 p.
- GEOFFROY SAINT-HILAIRE E. 1809. — Sur l'accroissement des collections des mammifères et des oiseaux du Muséum d'Histoire naturelle. *Annales du Muséum d'Histoire naturelle* 13: 87-88. <https://www.biodiversitylibrary.org/page/29091985>
- GEOFFROY SAINT-HILAIRE L., PRÉVOST F. & PUCHERAN [J.] 1851. — *Catalogue méthodique de la collection des mammifères, de la collection des oiseaux et des collections annexes*. Gide et J. Baudry, Libraires-Éditeurs, Paris, I-XV; i-vii; 1-96. <https://www.biodiversitylibrary.org/page/54184732>
- GOURAUD C. 2014a. — Eighteenth century bird specimens in the Baillon Collection, La Châtre, France, in MLÍKOVSKÝ J. (ed.), *Proceedings of the 8th Meeting of European Bird Curators*. Journal of the National Museum (Prague), Natural History Series 183: 19-28. <https://publikace.nm.cz/en/file/608d6ffc33e143ef16583932eaba2a8a/18465/183-2014-19-Gouraud-Baillon-Collection-Early.pdf>
- GOURAUD C. 2014b. — Extinct and endangered species and subspecies of birds in the Baillon Collection, La Châtre, France, in MLÍKOVSKÝ J. (ed.), *Proceedings of the 8th Meeting of European Bird Curators*. Journal of the National Museum (Prague), Natural History Series 183: 29-38. <https://publikace.nm.cz/en/file/c3a20d3632474c9af9c3b87f88dff01e/18467/183-2014-29-Gouraud-EE.pdf>
- GOURAUD C. 2015. — List of type specimens of birds in the Baillon Collection (La Châtre, France). Part 1. Non-Passerines. *Bulletin of the British Ornithologists' Club* 135 (2): 131-153. <https://www.biodiversitylibrary.org/page/56213904>
- HUME J. P. 2007. — Reappraisal of the parrots (Aves: Psittacidae) from the Mascarene Islands, with comments on their ecology, morphology, and affinities. *Zootaxa* 1513: 1-76. <https://doi.org/10.11646/zootaxa.1513.1.1>
- ICZN 1999. — *International Code of Zoological Nomenclature, 4th Edition*. The International Trust for Zoological Nomenclature, London, xxix-306 p.
- JANSEN J. J. F. 2015. — The bird collection of the Muséum national d'Histoire naturelle, Paris, France: the first years (1793-1825). *Journal of the National Museum (Prague), Natural History Series* 184 (5): 81-111. <https://publikace.nm.cz/en/file/3d94936deac27345ce311f81c41b704a/18897/184-05-2015-Jansen-MNHN.pdf>
- JANSEN J. J. F. & CHEKE A. S. 2020. — Martinet's engravings in Buffon (1770-83): variation in their hand-colouring and its implications for defining Echo Parakeet *Psittacula eques* (Boddaert, 1783). *Bulletin of the British Ornithologists' Club* 140 (3): 299-308. <https://doi.org/10.25226/bboc.v140i3.2020.a3>
- JANSEN J. J. F. & FUCHS J. 2019. — The Baudin Expedition to Tenerife, St. Thomas, St. Croix, and Puerto Rico in 1796-1798. *The Journal of Caribbean Ornithology* 32: 39-48. <https://doi.org/10.55431/jco.2019.32.39-48>
- JANSEN J. J. F. & STEINHEIMER F. D. 2017. — The authenticity of *Tiwi Drepanis coccinea* (G. Forster, 1781) skins from Cook's third voyage: what taxidermy can add to the discussion. *Bulletin of the British Ornithologists' Club* 137 (4): 246-260. <https://doi.org/10.25226/bboc.v137i4.2017.a2>
- JANSEN J. J. F., KAMMINGA P. & ARGELOO M. 2021. — The history of the sole surviving mount of Tahiti Sandpiper *Prosobonia leucoptera*. *Bulletin of the British Ornithologists' Club* 141 (2): 127-132. <https://doi.org/10.25226/bboc.v141i2.2021.a3>
- JOUANIN C. 1962. — Inventaire des oiseaux éteints ou en voie d'extinction conservés au Muséum de Paris. *La Terre et la Vie* 3: 257-301. https://www.persee.fr/doc/revoc_0040-3865_1962_num_16_3_4298
- JUDE G. 2005. — Le "Pérou" (République de l'Équateur) vu par Joseph de Jussieu et Pierre Bouguer, 1736-1748, in LAISSUS Y.

- (ed.), *Les naturalistes français en Amérique du Sud. XVIe-XIXe siècles*. Editions du CTHS, Paris: 69-85.
- KIRWAN G. M., BROUGHTON R. K., LEES A. C., OTTENBURGH J. & TOBIAS J. A. 2022. — The 'Meidum geese' revisited: Early historical art is not a suitable basis for taxonomic speculation. *Journal of Archaeological Science: Reports* 41: 103322. <https://doi.org/10.1016/j.jasrep.2021.103322>
- LAISSUS Y. 1981. — Les voyageurs naturalistes du Jardin du roi et du Muséum d'histoire naturelle : essai de portrait-robot. *Revue d'histoire des sciences* 3-4: 259-317. <https://doi.org/10.3406/rhs.1981.1768>
- LANG C. 1985. — Joseph Dombey et l'expédition de Ruiz et Pavon: étude des itinéraires (1778-1784). *Bulletin de la Société Botanique de France. Lettres Botaniques* 132 (3): 259-274. <https://doi.org/10.1080/01811797.1985.10824672>
- LATHAM J. 1782. — *A general synopsis of birds*. Vol. 1 (Part 2). Benj. White, London: 417-788 + [32 pages of index]. <https://www.biodiversitylibrary.org/page/33727091>
- LEVAILLANT F. 1806. — *Histoire naturelle des oiseaux de paradis et des rolliers: suivie de celle des toucans et des barbus*. Volume 2. Chez Denné le jeune et chez Perlet, Paris: ii-133. <https://www.biodiversitylibrary.org/page/40478047>
- [MARTINET F. -N. & DAUBENTON E. L. (COORD.)] 1765-1780. — [Collection de planches d'histoire naturelle enluminées]. [Panckoucke, Paris]. <https://www.biodiversitylibrary.org/bibliography/51460#/summary>
- MAUDUYT [DE LA VARENNE] P. J. C. [1783]. — Ornithologie, in DAUBENTON L. J. M. & MAUDUYT [DE LA VARENNE] P. J. C. (eds), *Encyclopédie méthodique. Histoire naturelle des animaux. Tome premier*. Panckoucke, Paris: 321-691. [Publishing date given by Schmitt 2018b]. <https://gallica.bnf.fr/ark:/12148/bpt6k3041509f/f428.item>
- MAYAUD N. 1939. — Les éditions originales de l'Histoire naturelle des Oiseaux de Buffon. *Alauda* 11 (1): 18-32.
- MEARNS B. & MEARNS R. 2022. — *Biographies for Birdwatchers. The Lives of Those Commemorated in Western Palearctic Bird Names. Revised and expanded edition*. Volume 1. The authors, Dumfries, 396 p.
- MLÍKOVSKÝ J. 2023. — *Systematic catalogue of the birds of Siberia. Historical Ornithology*. Volume 1. Center for Historical Ornithology, Praha, 3167 p. <https://doi.org/10.5281/ZENODO.7831727>
- MORRIS P. A. 2012. — *A History of Taxidermy: art, science and bad taste*. The Lavenham Press Ltd., Lavenham, 396 p.
- PÉQUIGNOT A. 2006. — The History of Taxidermy: Clues for Preservation. *Collections: A Journal for Museum and Archives Professionals* 2 (3): 245-255. <https://doi.org/10.1177/155019060600200306>
- PINAULT SØRENSEN M. 2005. — Les voyageurs artistes en Amérique du Sud au XVIIIe siècle, in LAISSUS Y. (ed.), *Les naturalistes français en Amérique du Sud. XVIe-XIXe siècles*. Editions du CTHS, Paris: 43-55.
- PRAROND E. 1857. — Baillon (Louis-Antoine-François). *Mémoires de la Société Impériale d'Emulation d'Abbeville* [8]: 620-651. <https://www.biodiversitylibrary.org/page/3473622>
- RONCIL R. 1948 [= 1949]. — *Bibliographie Ornithologique Française. Tome 1. Bibliographie*. Paul Lechevalier, Paris, 534 p.
- RONCIL R. 1957. — L'art français dans le livre d'oiseaux. *Mémoires du Muséum national d'Histoire naturelle Nouvelle Série, Série A. Zoologie, Tome XV, Fascicule 1*: 1-134. <https://www.biodiversitylibrary.org/page/57357020>
- ROOKMAKER L. C., MORRIS P. A., GLENN I. E. & MUNDY P. J. 2006. — The ornithological cabinet of Jean-Baptiste Becoeur and the secret of the arsenical soap. *Archives of natural history* 33 (1): 146-158. <https://doi.org/10.3366/anh.2006.33.1.146>
- ROSELAAR C. S. 2003. — An inventory of major European bird collections, in COLLAR N., FISHER C. & FEARE C. (eds), *Why Museums Matter: Avian Archives in an Age of Extinction*. Bulletin of the British Ornithologists' Club. Volume 123A-Supplement: 253-337. <https://www.biodiversitylibrary.org/page/41894843>
- SCHMITT S. 2018a. — Les sources non imprimées de l'Histoire naturelle : l'apport des correspondants et des informateurs, in SCHMITT S. & CRÉMIÈRE C. (eds), *Georges-Louis Leclerc de Buffon, Œuvres complètes. Volume 11, Histoire naturelle, générale et particulière, avec la description du Cabinet du Roi, Tome onzième (1764)*. Honoré Champion, Paris, p. 15-158.
- SCHMITT S. 2018b. — Inventaire des livraisons, des auteurs et du contenu de l'Encyclopédie méthodique (1782-1832). *Recherches sur Diderot et sur l'Encyclopédie* 53: 207-270. <https://doi.org/10.4000/rde.5712>
- SCHMITT S. 2021. — Introduction à l'Histoire naturelle des oiseaux de Buffon et de ses collaborateurs., in SCHMITT S. & CRÉMIÈRE C. (eds), *Georges-Louis Leclerc de Buffon, Œuvres complètes. Volume 16, Histoire naturelle des oiseaux, Tome premier (1770)*. Honoré Champion, Paris: 15-75.
- SCHMITT S. 2022. — Les Planches Enluminées de l'Histoire naturelle des Oiseaux., in SCHMITT S. & CRÉMIÈRE C. (eds), *Georges-Louis Leclerc de Buffon, Œuvres complètes. Volume 17, Histoire naturelle des oiseaux, Tome second (1771)*. Honoré Champion, Paris: 25-256.
- SCHMITT S. & GOURAUD C. 2024. — The significance of Buffon and Guéneau de Montbeillard's Histoire naturelle des oiseaux ([1765]-1783) in the taxonomy of birds: General presentation and correspondence between Buffon's 'eagles' and the species acknowledged by Linnaeus (1758, 1766), Brisson (1759-1762), and Gmelin (1788-1789). *Zoosystema* 46 (16): 361-409. <https://doi.org/10.5252/zoosystema2024v46a16>. <http://zoosystema.com/46/16>
- SCHODDE R., CHRISTIDIS L., BATALHA-FILHO H., ERICSON P. G. P. & IRESTEDT M. 2021. — Why neotypification of *Lophorina superba* (Pennant, 1781) (Aves: Paradisaeidae) is justified—and necessary. *Zootaxa* 4951 (2): 304-320. <https://doi.org/10.11646/zootaxa.4951.2.5>
- SCHULZE-HAGEN K., STEINHEIMER F. D., KINZELBACH R. & GAS-SER C. 2003. — Avian taxidermy in Europe from the Middle Ages to the Renaissance. *Journal of Ornithology* 144 (4): 459-478. <https://doi.org/10.1007/bf02465509>
- SECHRIST G.M. 2023. — Wooden barrels for transporting and preserving natural history specimens in the eighteenth century. *Archives of Natural History* 50 (2): 325-336. <https://doi.org/10.3366/anh.2023.0864>
- SHARPE R. B. & OGILVIE-GRANT W. R. 1898. — *Catalogue of the Birds in the British Museum. Volume XXVI*. Trustees of The British Museum, London, xvii-687-20, 14 pl. <https://www.biodiversitylibrary.org/page/8380792>
- STEINHEIMER F. D. 2005. — The whereabouts of pre-nineteenth century bird specimens. *Zoologische Mededelingen Leiden* 79: 45-67. https://repository.naturalis.nl/pub/210795/ZM79-03_045-068.pdf
- STREKOPYTOV S. 2017. — Wolfgang Helmgard von Hohberg (1612-1688) and John Woodward (1665-1728): first records of using arsenic and mercury for the preservation of natural history collections. *Archives of natural history* 44 (1): 173-176. <https://doi.org/10.3366/anh.2017.0426>
- STREKOPYTOV S. 2021. — Corrosive sublimate and its introduction as an insecticide for preserving natural history specimens in the eighteenth century. *Archives of Natural History* 48 (1): 22-41. <https://doi.org/10.3366/anh.2021.0686>
- STRESEMANN E. 1975. — *Ornithologie from Aristotle to the Present*. Harvard University Press, Cambridge, xii-432 p.
- STRICKLAND H. E., PHILLIPS W. J., RICHARDSON J., OWEN R., JENYNS L., BRODERIP W. J., HENSLOW J. S., SHUCKARS W. E., WATERHOUSE G. R., YARRELL W., DARWIN C. & WESTWOOD J. O. 1843. — Series of propositions for rendering the nomenclature of zoology uniform and permanent, being the report of a Committee for the consideration of the subject appointed by the British Association for the Advancement of Science. *The Annals and Magazine of Natural History* 11: 259-275. <https://www.biodiversitylibrary.org/page/2326425>

- TABUCE R. & SCHMITT S. 2017. — De l'ombre aux Lumières et réciproquement : redécouverte du crâne de *Procavia capensis* (Pallas, 1766) (Hyracoidea, Mammalia) décrit en 1767 par Daubenton dans l'*Histoire naturelle*. *Zoosystema* 39 (4): 487-499. <https://doi.org/10.5252/z2017n4a4>
- TASSY P. 2002. — L'émergence du concept d'espèce fossile : le mastodonte américain (Proboscidea, Mammalia) entre clarté et confusion. *Geodiversitas* 24 (2): 263-294.
- VIEILLOT L. J. P. 1819. — L'Aracari Baillon, *Ramphastos Bailloni* Vieill. *Nouveau Dictionnaire d'Histoire naturelle* 34: 283. <https://www.biodiversitylibrary.org/page/19478674>
- VOISIN C., VOISIN J.-F. & BOUR R. 2004. — Liste des types d'oiseaux des collections du Muséum national d'Histoire naturelle de Paris. 13: Gangas et Pigeons (Pteroclididae et Columbidae), première partie. *Zoosystema* 26 (1): 107-128. <https://sciencepress.mnhn.fr/sites/default/files/articles/pdf/z2004n1a8.pdf>
- WALLIN L. 2001. — *Catalogue of type specimens. 4. Linnaean specimens*. Uppsala University, Museum of Evolution, Zoology Section (UUZM), Uppsala, 128 p.
- WESTWOOD J. O. 1837. — On generic nomenclature. *The Magazine of Natural History, and Journal of Zoology, Botany, Mineralogy, Geology, and Meteorology, New Series* 1: 169-173. <https://www.biodiversitylibrary.org/page/2334681>
- WITTEVEEN J. 2016. — Suppressing synonymy with a homonym: the emergence of the nomenclatural type concept in nineteenth century natural history. *Journal of the History of Biology* 49 (1): 135-189. <https://doi.org/10.1007/s10739-015-9410-y>
- ZIMMER J. T. 1926. — Catalogue of the Edward E. Ayer Ornithological Library. *Field Museum of Natural History. Zoology Series* 16 (1): i-x, 1-364. <https://www.biodiversitylibrary.org/page/36194692>

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