



Towards the resolution of long-standing issues regarding the birds collected during the Baudin expedition to Australia and Timor (1800-1804): a review of original documents reveal new details about collectors, donors, numbers and disbursement

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Abstract: The expedition led by Nicolas Baudin (1754-1803) to Australia (1800-1804) was by far the largest of the European expeditions to Australia and Timor undertaken up to that date. Despite the number of bird specimens collected during the expedition, the original records documenting their identity, origin and disbursement have long been neglected. Only a few brief accounts of the birds collected by the Baudin expedition, by Peron (1809) and Bory de Saint-Vincent (1805), all participants in the expedition, were ever published, while the frequently cited publications of Stresemann (1951) and Whittell (1954) only repeat information extracted from these sources. Based on recent and on-going research, a new review of the original documents is presented here, revealing hitherto unpublished details about who collected and donated birds to the expedition, how many specimens were collected, and how the specimens were disbursed after the expedition's return.

Key words: Baudin, Maugé, Péron, Lesueur, Bass, Macé, Australia, Timor

INTRODUCTION

When political order was re-established after the French Revolution, France hastened to organize an expedition (Hughes 1987: 121) to explore the as-yet uncharted coasts of western and southern “Nouvelle Hollande” (= Australia) (though the expedition did not have a stated political goal, rumours suggest Napoleon wanted to see if Tasmania and western Australia could be separated from the British-controlled eastern coast) (Hughes 1987: 121, Bohlander 1998). Captain Nicolas Baudin was chosen to command the expedition and was given two ships to carry out its mission, *Le Géographe* and *Le Naturaliste*. Baudin, who had previously commanded *Le Caroline* (1785) and *Le Josephine* (1786-88), subsequently gained experience leading natural history expeditions as captain of *Le Placères* (1788-1791), *Le Jardinière* (1792-1794) and *Le Belle Angélique* (1796-1798) (Ly-Tio-Fane 1991). The latter expedition brought back bird specimens from Tenerife,

St. Thomas, St. Croix and Puerto Rico, resulting in no less than 296 birds being deposited in the Muséum national d'Histoire naturelle, Paris, France (hereafter MNHN) (Geoffroy Saint-Hilaire 1809: 88)¹.

Baudin's Australian expedition lasted nearly three-and-half years and made collections at over a dozen sites in western and southern Australia, Timor, Mauritius, South Africa, and the Canary Islands. Over 100,000 items were collected, including over 4,000 insect specimens, and 912 birds, 125 mammals and 53 reptile specimens (Jussieu 1804: 10), more than any previous European expedition had ever collected. The expedition's scientific team comprised no less than 24 members, including astronomers, geographers, mineralogists, botanists and zoologists (Brosse 1983: 95-107), only six of whom however returned to France at the expedition's end. René Maugé de Cely (†1802), who was assigned to *Le Géographe* and had previously accompanied Baudin on *Le Belle Angélique*, was responsible for collecting birds and mammals (with no senior zoologist appointed to *Le Naturaliste*, bird collecting was limited on the latter vessel). Table 1 lists all the locations where bird specimens were collected by expedition members when ashore (locations at sea where seabirds were collected are not indicated).

For authors of the bird specimens mentioned see e.g. Dickinson (2003), for the those of mammalian species see Wilson & Reeder (2005).

EXPEDITION ITINERARY

Le Géographe and *Le Naturaliste* departed from Le Havre on 19 October 1800, stopping at Tenerife (Table 1, no. 1) and Port Louis, Mauritius (Table 1, no. 2), before arriving at Géographe Bay (Table 1, no. 3) on 30 May 1801. On 10 June they were separated by a storm after leaving the bay; while *Le Naturaliste* anchored off Rottneest Island and spent two weeks surveying the Swan River and Rottneest and various other offshore islands, *Le Géographe* headed north and anchored off Bernier Island in Shark Bay (Table 1, no. 4), arriving at Timor (Table 1, no. 5) on 22 August. *Le Naturaliste* remained off Dirk Hartog Island, opposite the middle entrance to Shark Bay from 16 July-5 September before joining *Le Géographe* at Timor on 21 September.

On 13 November 1801, both ships set sail together for Bruny Island (Table 1, no. 6), arriving there on 13 January 1802 and at Maria Island (Table 1, no. 7) on 18 February. After being separated again on 8 March, each ship surveyed Bass Strait (Table 1, no. 8) alone, with *Le Géographe* continuing on to Wilson's Promontory (Victoria), Encounter

¹ This expedition is not mentioned in Steinheimer (2005: 52-53). However, 210 specimens were present on 1 January 1809 (Archives du laboratoire de zoologie (Mammifères et Oiseaux) du MNHN: Dufresne Ms list), 129 birds entered the acquisition books starting in 1854 and 96 birds could be found in MNHN in 2013 (including 17 type specimens). A few specimens have been located so far (July 2014) in other collections, e.g. Leiden (Temminck 1807; at present 9 specimens), Edinburgh (Dufresne 1818; 22 specimens arrived), Museo regionale di Scienze Naturali di Torino, Turin, Italy (at least one bird was sent on 12 October 1812 by exchange) and Vienna (Naturhistorische Museum Wien, Vienna, Austria: Acquisition book 1 (1815): 88-97; 9 specimens arrived). Specimens also ended up in various „university“ collections in France (cf. Moulins and Rouen etc.) and in other collections by exchange or personal donations by Maugé (e.g. to Baillon, Christophe Gouraud in litt.; 4 birds remain still today). Brown (2004) mentions that 450 birds arrived at MNHN on 28 July 1798.

Tab. 1. Collecting localities of specimens, as noted in various sources.

Visit No.	Date	Place	Province	Country	Main collector at this location
1	2-14 Nov 1800	Santa Cruz	Tenerife	Canary Islands	Maugé
2	16 Mar - 25 Apr 1801	Port Louis	Port Louis Distr.	Mauritius	Maugé / Levillain
3	30 May – 10 Jun 1801	Géographe Bay	Western Australia	Australia	Maugé
4	26 Jun – 14 Jul 1801	Shark Bay	Western Australia	Australia	Maugé
5	22 Aug – 13 Nov 1801	Kupang Bay	Timor	Indonesia	Maugé
6	13 Jan – 16 Feb 1802	Bruny Island	Tasmania	Australia	Lesueur
7	18-27 Feb 1802	Maria Island	Tasmania	Australia	Lesueur
8	8 Mar – 22 May 1802	Bass Strait	Tasmania	Australia	Lesueur / Milius
9	20 Jun – 18 Nov 1802	Sydney	New South Wales	Australia	Lesueur / purchased
10	8-27 Dec 1802	King Island	Tasmania	Australia	Lesueur / purchased
11	2 Jan – 1 Feb 1803	Kangaroo Island	South Australia	Australia	Lesueur / Baudin
12	6-7 Feb 1803	Eyre Peninsula	South Australia	Australia	Lesueur / Baudin
13	17 Feb – 1 Mar 1803	King George Sound	Western Australia	Australia	Lesueur / Baudin
14	16-23 Mar 1803	Shark Bay	Western Australia	Australia	Lesueur / Baudin
15	6 May – 3 Jun 1803	Kupang Bay	Timor	Indonesia	Lesueur / Baudin / purchased
16	7 Aug – 16 Dec 1803	Port Louis	Port Louis district	Mauritius	Lesueur / purchased
17	3-24 Jan 1804	Cape Town	Western Cape	South-Africa	Lesueur / purchased

Bay, Kangaroo Island, Nuyts Archipelago (South Australia) and Bruny Island, arriving at Port Jackson (= Sydney) (Table 1, no. 9), on 20 June where *Le Naturaliste* had arrived on 25 April after leaving Bass Strait. On 18 May, *Le Naturaliste* left Sydney bound for Mauritius, but driven back by contrary winds, returned on 28 June and remained at Sydney until 18 November, when it departed again with all the collections made up to that date and added only a short stop at King Island (Baudin 1974: 493, Horner 1987: 357). After a stop at Mauritius (\pm 31 January-10 February 1803), *Le Naturaliste* returned to Le Havre on 7 June 1803².

After *Le Naturaliste* had departed, Baudin purchased a ship in Sydney, *Le Casuarina*, to join *Le Géographe*. On 18 November 1802, the two ships headed for King Island (Table 1, no. 10), and then to Kangaroo Island (Table 1, no. 11). After being separated, *Le Casuarina* surveyed St. Vincent and St. Spencer Gulf, while *Le Géographe* made landfall at Eyre Peninsula (Table 1, no. 12) at Streaky Bay (6 February) and Denial Bay (7 February), with the two ships reuniting at King George Sound (Table 1, no. 13), then being separated again until reunited at Rottneest Island. They subsequently anchored off the north-western tip of Péron Peninsula in Shark Bay (Table 1, no. 14) and then, after some surveying of coastal islands and a stop at Timor (Table 1, no. 15), did some brief

² Birds are documented - on labels, pedestal inscriptions, or in acquisition books - with the date “an XI.” This implies the 11th year after the French revolution = 23 September 1802 – 22 September 1803 (Black et al. 2013: 27-28).

exploring up to the east of Melville Island (Northern Territory) before setting sail for Mauritius on 7 July 1803. After getting separated once more on 24 July, *Le Géographe* docked at Port Louis (Table 1, no. 16) on 7 August and *Le Casuarina* on 12 August, with *Le Casuarina* remaining at Mauritius and *Le Géographe* departing on 16 December. After a stop at Cape Town (Table 1, no. 17), *Le Géographe* arrived at Lorient on 24 March 1804 (Pinkerton 1814: 739-952)³.

COLLECTORS

René Maugé de Cely was joined on occasion by Nicolas Baudin (for example at Géographie Bay) when collecting birds (Baudin 1974: 174), until his unfortunate death at Maria Island at 21 February 1802. Baudin had a great interest in birds, as shown in his various letters, for example to Antoine Laurent de Jussieu (1748-1836) on 11 November 1802 (La Bibliothèque centrale du Muséum national d'histoire naturelle: Ms 2082), and in his diary (Baudin 1974) and added to the growing MNHN bird collection (Jussieu 1804: 5, Girard 1856: 125). Maugé was the main bird-collector until his death (Girard 1856: 125). After skinning the specimens, he gave specimens to artist to be drawn, so that the staff in MNHN could mount them in a more natural state (Horner 1987: 31).

In the last stages of Maugé's life (he was already ill when the expedition left Timor), Charles Alexandre Lesueur (1778-1846), helped possibly Maugé, assisting him in Tasmania and collecting many birds for the expedition subsequent to Maugé's death^{4,5}. While residing at Sydney and in between packing the specimens with François Auguste Péron (1775-1810)⁶, Lesueur took the opportunity to make some inland excursions to collect specimens. Lesueur succeeded in securing "no less than 200 birds" (Caley 1966: 52, Finney 1984: 113, Starbuck 2009: 184)^{7,8}. At Cape Town Lesueur secured 16 birds and 30 insects (Muséum d'Histoire naturelle, le Havre, France: 21001).

3 Birds are documented - on labels, pedestal inscriptions, or in acquisition books - with the date "an XII". This implies the 12th year after the French revolution = 23 September 1803 – 22 September 1804 (Black et al. 2013: 27-28).

4 After Maugé became ill, 31 birds were collected during the leg from Bruny Island to Sydney (Muséum d'Histoire naturelle, le Havre, France: 21003). They were collected at Bruny Island (20), Maria Island (2), at sea off the southeast coast of Australia (2), at sea 43° latitude (west-southwest of Tasmania) (1), at sea 44° latitude (southwest of Tasmania) (2), Furneaux Island (Bass Strait) (1), and elsewhere in the Bass Strait (3). The original collector is Lesueur, and only 'new' species (according to Péron) can be found at this list; so more birds were most likely collected (as indicated by some specimens in MNHN and one at La Châtre).

5 On the second leg of the expedition (Muséum d'Histoire naturelle, le Havre, France: 21002) birds were collected at King Island (25 birds), Kangaroo Island (12), King George Sound (10), southwest Australia (1), Shark Bay (2), between Shark Bay and Timor (2), between Timor and Australia (1), the north coast of Australia (20) and between Timor and Mauritius (17). The last section (from Timor to Mauritius) is documented in Péron (Muséum d'Histoire naturelle, le Havre, France: 21033).

6 A large portion of the specimens secured on the Baudin expedition are documented as „Péron et Lesueur“; however this is due to their packing activities in Sydney as well as their unpacking the second load at Lorient/Le Havre in 1804. Their names do not necessarily mean that they were the original collectors; as explained in the "Collectors" section, Péron probably did not collect any birds at all.

7 Lesueur is known to have 'mounted' all these specimens, but it is unknown if he was the original collector (Girard 1856: p. 34 & 45); therefore no collector is included. Specimens were collected in the Sydney area.

8 Lesueur may have been helped by George Caley (1770-1829) or William Paterson (1755-1810): this according to Stresemann (1951: 69); however there are no notes on this in Péron (Muséum d'Histoire naturelle, le

Another notable bird collector was Stanislaus Levillain (1774-1801), the ranking assistant zoologist aboard *Le Géographe* before he transferred to *Le Naturaliste* at Mauritius. Baudin (1974: 33) mentions a bird collection made at Mauritius, which was sold on-board after Levillain passed away. He died when the ship sailed from Timor towards Tasmania on the *Le Naturaliste* (Vuacheux 1905, Maury 1954, Jangoux 2004, Black et al. 2013).

Various crewmembers made notes regarding birds in their journals, e.g. François-Désiré Breton (Archives Nationales de France, série Marine: 5JJ57), Léon Brèvent (Archives Nationales de France, série Marine: 5JJ56) and Jacques Saint-Cricq (Archives Nationales de France, série Marine: 5JJ48) (cf. Baudin 1974: 319). It is unclear however if they ever collected any birds.

François Michel Ronsard (Archives Nationales de France, série Marine: 5JJ29) may have been responsible for various birds collected on the expedition, which he often mentioned in his journal (cf. Baudin 1974: 213).

Pierre Bernard Milius (1773-1829) collected some specimens, including live birds, while aboard *Le Naturaliste* during its sojourn in Bass Strait (Archives Nationales de France, série Marine, 5JJ57).

Birds, in special after Maugé died, were collected by various hunters on-board of the *Le Géographe* (cf. Baudin 1974: 468, 470, 478), one of them was Jean-Louis Barbe (Baudin 1974: 539), and most likely then skinned by Lesueur.

Although François Auguste Péron (1775-1810) is often acknowledged as either expedition's sole collector of bird specimens (Plombley et al. 1990) or one of its three bird collectors (Black et al. 2013), it remains doubtful that he ever collected even a single bird on the expedition. While Péron often made notes in his journal on birds and other fauna at the sites visited by the expedition (Milne-Edwards et al. 1899, Parker 1984, Cheke 2009, Pfennigwerth 2010), he was obviously not the collector of these; indeed, he records that it was Lesueur who collected and 'stuffed' the birds that he mentions (at least in d'Entrecasteaux Strait) (Muséum d'Histoire naturelle, le Havre, France: 20113), while Péron worked hard to build up his collections on other taxa. Moreover, while Péron recorded extensive descriptions of bird taxa in his manuscripts that were subsequently published by himself or others, he never formally described a single new bird species. His unpublished catalogue in Le Havre (Muséum d'Histoire naturelle, le Havre, France: 21002), recording all "his" specimens and the locations where they were collected, doesn't include any descriptions.

DONORS

Part 1 (an XI)

Jean Macé (<1765->1803), who is mentioned by Louis Dufresne in his files ("Rapporté par L'expédition du capitaine Baudin par le Cm Macé du Bengale", Ms, Archives du laboratoire de zoologie (Mammifères et Oiseaux) du MNHN)⁹, lived in Cape Town from

Hâvre, France: 21001). According to Starbuck (2009: 184), birds were purchased in Sydney and H. Weld Noble (from the Brig Fanny) donated two birds to Baudin (Starbuck 2009: 135 & 184-185).
9 Dated 23 September 1801 in Louis Dufresne's notes (Archives du laboratoire de zoologie (Mammifères et

1789-1792 (Anon. 1848: 81-83), and subsequently Mauritius, where he remained until 1798 (Millin et al. 1795: 312-325). In 1798 he was at Tharangambadi (Tamil Nadu, India) and Serampore (West Bengal, India) and at Saharanpur (Uttar Pradesh, India) in January 1800 (Laissus 1981: 284-285). Although 135 bird specimens that arrived at the MNHN are attributed to Macé (Geoffroy Saint-Hilaire 1809: 88), it is uncertain whether these were included in the total number of specimens collected during the Baudin expedition. Most likely these specimens came back via *Le Naturaliste*, as various mammals from India and Madagascar, attributed to Macé were present in the MNHN in 1803 (Geoffroy Saint-Hilaire 1803, Hill 1980) (although Macé is not known to have visited Madagascar, he may have purchased or acquired his Madagascar specimens from friends in Cape Town or Mauritius)¹⁰. He is also likely to visited Reunion.

Some birds were brought back alive aboard *Le Naturaliste*, including two Black Swans *Cygnus atratus* (André Thouin; Archives National, Série Muséum, AJ/15/590 21 June 1803) (including specimen MNHN A.C. 14995), one adult (as three young) Emu *Dromaius novaehollandiae* (Jouanin 1959) and at least two Helmeted Guineafowl *Numida meleagris* (specimens MNHN A.C. 11858 & 11859) (François-Désiré Breton; Archives Nationales de France, série Marine: 5JJ57).

Part 2 (an XII)

In a note in Péron's hand written on 22 March 1804 aboard at *Le Géographe*, he mentioned various purchases (at least five) made for the Baudin expedition (La Bibliothèque centrale du Muséum national d'histoire naturelle, MNHN: Letter 414)¹¹.

Some birds were purchased or donated by George Bass (1771-1803) (Muséum d'Histoire naturelle, le Havre, France: 21001), who sold supplies (including pork and other items) to the Baudin expedition (Estensen 2005: 160-161) as well as donating 160 artefacts (Starbuck 2009: 171). According to Horner (1987: 329) the number of artefacts is 206; however, the total number of bird-specimens donated by Bass is not mentioned (Muséum d'Histoire naturelle, le Havre, France: 21001). On 21 November 1801, Bass left Sydney and travelled around the Pacific, visiting New Zealand, the Austral Islands, the Tuamotu Archipelago, Tahiti, Mo'orea, Hawai'i Island, Oahu, Moloka'i, Tahiti

Oiseaux) du MNHN: Ms). This is either the date the load arrived at MNHN or arrived at Port Louis or was dispatched from India to Port Louis by Macé. The same date is found in Péron (Muséum d'Histoire naturelle, le Havre, France: 21003) from the first leg of the expedition. Dufresne mounted specimens on 18 July 1804 and amongst them was "*I Coucou du Bengal pour le Corvette le Géographe*" clearly indicating Macé's specimens went to France with *Le Géographe*.

10 Not mentioned by Steinheimer (2005: 52-53), but 39 specimens still survived in 2013. Most likely they were collected prior to 1800.

11 Amongst these few are noted (Muséum d'Histoire naturelle, le Havre, France: 21001): Aveline (unknown amount of items from Mauritius), Nils Bergsten (1769-1852; one item from Mauritius), Charles Mathieu Isidore Decaen (1769-1832) (donated some living mammals and a Southern Cassowary *Casuarius casuarius* (caught at the Moluccas, and transported by Simon Nicolaasz Dekker (1757-1824) as other species from Sumatra and New Guinea, van Esland (7 items), Hesse (insects from the Cape), Jérôme-Frédéric Lamarche (Corvette Diligent) (14 items most from the Comores), Lislet (two items), Malavoix (included mammals, reptiles, fish, insects etc. from various countries), Milbert (four items from Mauritius), Pieter Heinrich Polemann (1779-1839; living Secretarybird *Sagittarius serpentarius*, later turned into a skeleton, a turtle and a reptile from the Cape) and Ravelet (Muséum d'Histoire naturelle, le Havre, France: 21035).

(again), the Marquesas, Tonga, and Samoa, returning to Sydney on 14 November 1802 (cf. Estensen 2005: 149-161). During this trip: two Tui *Prosthemadera novaeseelandiae* (specimen MNHN A.C. 10116) were collected at Facile Harbour, Dusky Sound, New Zealand (visited on 7-21 December 1801), an Atoll Fruit-dove *Ptilinopus coralensis* (specimen MNHN A.C. 11194) was collected in the Tuamotus (January 1801) and a Polynesian Triller *Lalage maculosa* (specimen MNHN A.C. 9818) was collected in Tonga (“visited sometime between August and November 1801”). Bass became interested in Natural History by Joseph Banks (he sent two bird skins¹² in May 1799 together with the skin of a Common Wombat *Vombatus ursinus* and a skull to Banks; Estensen 2005: 120, 128) and by William Paterson; the latter introduced him as member of the Linnaean Society in 1799 (Estensen 2005: 70, 72). He collected for example plant and animal specimens with his friend Mathew Flinders in 1798-99 (Estensen 2005: 120). The four specimens mentioned above are all attributed to the Baudin expedition, but how many other birds Bass donated is unknown. The birds did not end up on *Le Naturaliste* as the specimens aboard that vessel were already packed by early November 1802; hence Péron mentions Bass in his journal (Muséum d’Histoire naturelle, le Havre, France: 21001). However, Bass sent some letters back to France with *Le Naturaliste* (Estensen 2005: 162).

Jean-Baptiste-Désiré Dumont (1771-1822), was attached to the first part of the Baudin expedition, and was in charge of its entomological aspect of the expedition at *Le Naturaliste*. He collected together with Jean Baptiste Geneviève Marcellin Bory de Saint-Vincent (1778-1848) at Mauritius in April 1801 (Bory Saint-Vincent 1805: 65-66). He then became sick, and left the Baudin expedition (Bory Saint-Vincent 1805: 75). He remained at Mauritius until 1810, and then moved to Reunion. He married and remained there until his death in 1822 (Vinson 1944: 424). In the inventory of Baudin specimens made by Louis Dufresne (Archives du laboratoire de zoologie (Mammifères et Oiseaux) du MNHN: Ms), 30 specimens¹³ from Dumont are mentioned in the total number of specimens from the expedition. These birds were addressed to Bernard-Germain-Étienne de La Ville-sur-Ilлон de Lacépède (1756-1825). The same lot also included some insects for Jean-Baptiste Pierre Antoine de Monet de Lamarck (1744-1829), and some natural history items for Louis Jean Pierre Vieillot (1748-1831).

Jan Willem Janssens (1762-1838), Governor-General of the Cape Colony, donated 15 live birds and 20 live mammals (from Anjouan, Madagascar and the Cape) (Muséum d’Histoire naturelle, le Havre, France: 21001).

Willem Bartholomé Eduard Paravicini di Capelli (1778-1848), Janssens’s chief of staff, donated 30 birds (Muséum d’Histoire naturelle, le Havre, France: 21001) to the crew of *Le Géographe*. The bird originated from ‘Afrique Meridionale’, skins of a Bontebok *Damaliscus pygargus* and two Springboks *Antidorcas marsupialis* were also donated.

12 Spotted Quail-thrush *Cinlosoma punctatum* and Superb Lyrebird *Menura novaehollandiae* (Bowden 1952: 73, 83).

13 Overall, 15 specimens still survive (2013). Not mentioned separately in Muséum d’Histoire naturelle, le Havre, France: 21036. In the cited manuscript (Dufresne) is mentioned from the 30 birds 20 birds are mounted for the galleries.

Reinier de Klerk Dibbetz (1764–1808) donated 27 birds from “Bengale” when *Le Géographe* visited Cape Town between 3 and 24 January 1804 (Muséum d’Histoire naturelle, le Havre, France: 21001). Dibbetz probably acquired these birds from travellers.

The sealer/fisher Daniel Cooper “sold” some birds to the Baudin expedition when King Island was visited on 24 December 1802 (Jouanin 1959, Baudin 1974: 453, 456).

INVENTORY

According to lists made by Louis Dufresne (Muséum d’Histoire naturelle, le Havre, France: 21036 (26 June 1804), Archives du laboratoire de zoologie (Mammifères et Oiseaux) du MNHN: No 180) and a letter from François Péron (La Bibliothèque centrale du Muséum national d’histoire naturelle, MNHN: Ms 2528), the Baudin expedition brought back a total of 912 birds. This figure agrees with those published by Jussieu (1804: 10) and Geoffroy Saint-Hilaire (1809: 88). A manuscript list by Péron written in March 1804 also lists 912 birds from 289 species, 144 of which, according to him, were new to science (La Bibliothèque centrale du Muséum national d’histoire naturelle, MNHN: Ms 2717 / I & Ms 2528)¹⁴.

Of these 912 specimens, Dufresne lists 90 as having been given away or exchanged and 19 as living in Malmaison and at Jardin du Plantes¹⁵ (the Empress Joséphine’s residence, where she maintained a menagerie (Jangoux et al. 2010)). Dufresne lists the remaining 803 specimens from 297 species according to family names (recorded in a mix of French and Latin). These 803 specimens clearly indicate skins/mounts, and no living birds are included.

According to a list made by Péron (Muséum d’Histoire naturelle, Le Havre, France: 21001), 422 birds (including living, purchased, and donated birds) were collected on the second leg of the Baudin expedition, between 22 November 1802 and 21 January 1804, after the departure of *Le Naturaliste*. This indicates that 490 birds (912 total - 422 from expedition’s second leg) were collected during the first leg of the expedition.

DISBURSEMENT OF THE SPECIMENS

Of the 803 specimens listed by Dufresne, only 403 entered the Paris Museum¹⁶, of which

14 A list – in an unknown hand – present at Le Havre lists 766 specimens from 248 species (Muséum d’Histoire naturelle, le Havre, France: 21005). Another list mentions 895 specimens from 288 species (Muséum d’Histoire naturelle, le Havre, France: 21038), and yet another list mentions 930 birds (Muséum d’Histoire naturelle, le Havre, France: 21018) and a list mentions 803 birds (Archives du laboratoire de zoologie (Mammifères et Oiseaux) du MNHN: Ms). Girard (1856: 134) mentions 803 birds from 279 species being collected on the journey. “Nearly 1000 birds skins” are mentioned by Bartle (1993).

15 According to Jouanin (2002), Baudin mentions that there were 50 living birds present when *Le Géographe* stopped at Timor the second time, but Baudin (Archives Nationales de France, série Marine: 5JJ 35: 569, Pffenigwerth 2013: 202) mentions that 54 birds died between Timor and Paris (all Australian species); however, the discrepancy is explained by the acquisition of more live birds at Mauritius and Cape Town. At *Le Géographe*, 15 living birds arrived in France (Geoffroy Saint-Hilaire 1804): at 7 February 1804 (Muséum d’Histoire naturelle, le Havre, France: 21006), however, only 38 birds (19 species) are listed. The list dated 26 June 1804 (Muséum d’Histoire naturelle, le Havre, France: 21036) mentions ‘only’ 19 living birds.

16 In 1854, the start date of acquisition books in MNHN, there were still 340 specimens present in MNHN; however, ‘only’ 258 specimens remained in 2013 (including over 113 type specimens).

325 were prepared for the galleries (Archives du laboratoire de zoologie (Mammifères et Oiseaux) du MNHN: Dufresne Ms list). The remainder followed different routes.

It is uncertain how many of the 893 bird specimens (deducting the 19 live birds from the total of 912) were in good condition upon the expedition's return, considering that the ships were probably infested with swarms of cockroaches and rats (Laurent 1997), or how many deteriorated soon after their arrival in France. It is therefore impossible to establish how many were turned into useful study skins or mounts. Clearly 20+ mounts/skins were in a bad state already in 1804 (Muséum d'Histoire naturelle, le Havre, France: 11036).

The 325 birds that were mounted for the galleries were restuffed and treated with arsenic soap by Louis Dufresne and lost their original notes (if any existed). This is also indicated in the type descriptions made by Louis Jean Pierre Vieillot and Coenraad Jacob Temminck (Stresemann 1953).

Baudin specimens ended up in the private collections of Louis Antoine François Baillon (1778-1855) (Christophe Gouraud in litt., Gouraud 2014a,b), William Bullock (c. 1773-1849)¹⁷, Pierre Antoine Delalande (1787-1823)¹⁸, Louis Dufresne (Levaillant 1806, Dufresne 1818, Sweet 1970), Naturhistorisches Museum Wien, Vienna, Austria (Bauer & Wagner 2012: in Acquisition Book 1: 91-92)¹⁹, Joséphine vicomtesse de Beauharnais (1763-1814)²⁰ and Coenraad Jacob Temminck (Temminck 1807, Stresemann 1953), as well as in museums, including, Switzerland, Muséum d'histoire naturelle de la Ville de Genève (Jouanin 1959, Hume & Walters 2012), in Italy, the Museo Zoologico de 'La Specola', Sezione del Museo di Storia Naturale, Florence, Italy (Giglioli 1907, Balouet & Jouanin 1990, Barbagli & Violani 2010), the Museo di Zoologia, Università degli Studi di Padova, Pavia, Italy (Rovati et al. 2007, Violani & Rovati 2010: 16)²¹, the Museo dell'Istituto Nazionale per la Fauna Selvatica Bologna²², and in France, in museums in

17 At least 3 specimens were sent to Bullock as part of an exchange on 31 August 1814 (*Psitacus*, *Cacatua* and *Phaethon*).

18 Indicated by a specimen (Cape Petrel *Daption capense* MLC.2010.0.260) from the Baudin expedition in the Baillon collection donated by Pierre Antoine Delalande (1787-1823) (Christophe Gouraud in litt).

19 In 1815 a large shipment of bird specimens arrived at the museum, indicated as "aus dem königl. -Naturhistorischen Museum zu Paris gegen Tausch erhalten" ["received in exchange from the Royal Natural History Museum in Paris"] (Naturhistorischen Museum Wien, Vienna, Austria: Acquisition Book 1: 88-90). A total of 122 specimens from 103 species were sent to Vienna, some originating from the Baudin expedition. Approximate 50 specimens are collected at the Baudin expedition; some arrived directly via MNHN others via Bécœur and Dufresne. In Levaillant (1806: 67) a Pied Currawong *Strepera graculina*, surely originating from Baudin's expedition, is mentioned in Dufresne's private collection.

20 85 specimens received (Muséum d'Histoire naturelle, Le Havre, France: 21036, Archives du laboratoire de zoologie (Mammifères et Oiseaux) du MNHN: No 180), which made up part of the 41 cases of birds (Grandjean 1966: 260 (lot 2662), Jouanin & Benoit 1997). Are they disposed when the inventory was sold in 1829 (Horner 1987: 364) or premature to this date?

21 In 1812 and possibly also in 1814, specimens arrived in bad condition, and it remains unknown what really entered the collection. In 1854, under the leadership of professor Balsamo Crivelli, all the pedestals were changed for the sake of uniformity and the original labels were changed, with resulting in the loss of information. To date only a single bird survives from the Baudin expedition, a white morph of the Grey Goshawk *Accipiter novaehollandiae* (Carlo Violani and Stefano Maretta in lit.).

22 Part of the Italian shipment (now in Bologna) from 12 October 1812 might partly still be present (Journal Commencé le premier Janvier 1759. Archives du laboratoire de zoologie (Mammifères et Oiseaux) du MNHN: 87-96). It was shipped as first to Milan, and then spread to Bologna and Padua.

Rouen (Muséum d'Histoire naturelle, le Havre, France: 21111 and 21114 (dated 23 April 1806))²³ and at Moulins (Girard 1856: 132). Various other collections, as yet unknown, probably also received a share of the expedition's specimens. But also some ended up with the merchants like with Becouér in Paris²⁴, and M. Gigot'orcia in Paris²⁵. And specimens were used for exchange and specimens in a bad condition were destroyed²⁶.

FURTHER RESEARCH

The issues addressed above are only an indication of what remains to be done to give a complete account of the Baudin expedition. There are still many questions to be answered, problems to be solved, and persons to be researched, for example: Jean Macé, Barthélemy Faujas de Saint-Fond (1741-1819) and Alexandre Brongniart (1770-1847) and Pierre-Auguste Brousset (Voisin & Voisin 2008: 16-17). What were their ties with the expedition? What roles did Louis Dufresne and Bécoeur (Stresemann 1951) play? What specimens were donated or given away²⁷? At what locations and by whom were the specimens collected? Identifying all the collections where specimens from the Baudin expedition ended up also provides many interesting avenues to explore.

This article is only the first of several publications on the Baudin expedition I intend to publish.

ACKNOWLEDGMENTS

I would like to thank Anne Préviate and Patrick Boussès, for having me in MNHN, and for replying on numerous requests, without them this article would not be possible. Daniel Philippe helped me enormously with some translation requests. Furthermore, I would not have been able to compile the information that is spread in Europe without the help of the following collections and institutions: Jean-Marc Argentin, Gabrielle Baglione and Cédric Cremière (Collection Lesueur, Muséum d'Histoire naturelle, Le Havre, France), Fausto Barbagli (Museo di Storia Naturale dell'Università di Firenze, Italy), Anne Bouin (Musée National des châteaux de Malmaison et Bois-Préau, France), Giorgio Chiozzi (Museo Civico di Storia Naturale, Milan, Italy), Anita Gamauf (Naturhistorisches Museum Wien, Austria), Christophe Gouraud (Collection Baillon au Musée George Sand et de la Vallée Noire de la Châtre, France), Bob McGowan (Royal Scottish Museum Edinburgh, Scotland), Alison Harding (Natural History Museum, Tring, England), Alice Lemaire and Antoine Monague (Bibliothèque centrale du Muséum national

23 63 and 56 specimens from the Baudin expedition ended up in Moulins and Rouen, respectively (it is unknown to what institute or university they were sent, or if they are still present) (Journal Commencé le premier Janvier 1759". Archives du laboratoire de zoologie (Mammifères et Oiseaux) du MNHN: 80, 86).

24 See Levaillant (1805) male 28 Parrot *Platyercus zonarius semitorquatus* (p. 8) and a male + female Little Lorikeet *Glossopsitta pusilla* (p. 69).

25 Like in Levaillant (1805: 28) the male + female 28' Parrot *Platyercus zonarius semitorquatus*; this bird can only be found in Western Australia, and to that date the Baudin expedition collected there.

26 Between 1856-2013: 15 birds were destroyed and 8 birds were used for exchange (last in 1951).

27 Individual birds like the Blue-throated Roller *Eurystomus gularis* mentioned in Levaillant (1806: 152-153) and Voisin & Voisin (2008: 16-17), this is the single specimen from Senegal, West Africa, at the whole of the expedition, but from what source? Was it in the recovered case from the earlier expedition by Baudin, recollected on 8 November 1800 (Baudin 1974: 27)?

d'Histoire Naturelle, Paris, France), Stefano Maretti (Museo di Storia Naturale Pavia, Italy), Steven van der Mije (Naturalis Biodiversity Center, Leiden, The Netherlands), Marie J. Portas (MNHN), and Carlo Violani (Museo di Storia Naturale, Pavia, Italy). And my thanks are due to the following people: James Jobling, Julian P. Hume, Phil Koken, Olivier Langrand, Murray Lord, Danitsja Stapel (support and patience), Jiří Mlíkovský, Michel Jangoux, Margaret Sankey, Roland van der Vliet, Storrs L. Olson, and Vikash Tatayah. This research received support from the SYNTHESYS Project <http://www.synthesys.info/> that is financed by European Community Research Infrastructure Action under the FP7 “Capacities” Program [FR-TAF-2427]. The visit to Prague was possible due to a grant from the ‘Stichting P. A. Hens Memorial Fund’. I thank Anthony S. Cheke and Richard S. Roe for reviewing early versions of the manuscript and for their many helpful suggestions.

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