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Joaquim José da Silva (c. 1755–1810): his life, natural history collecting activities, and involvement in the so-called first scientific expedition in the interior of Angola

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Abstract

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The Portuguese naturalist Joaquim José da Silva (c. 1755–1810) was sent to Angola in the late 18th century to collect natural history specimens, as part of the “viagens filosóficas”, a series of expeditions funded by the Portuguese state to its overseas territories. Silva arrived in Angola in 1783 and remained in the country until his death 27 years later. An account of Silva’s life and activities is provided. His travel itineraries in Angola are mapped and a list of his collections that could be located is presented. The little-known expedition to the Cunene River in which he participated is discussed. It was the first expedition to the interior of Angola during which plants were collected for deposition in a herbarium. His plant collections are recorded in the literature as numbering over 200 specimens that are held in the Herbarium of the Muséum national d’Histoire naturelle in Paris (P), after they were removed from Lisbon, Portugal, by Étienne Geoffroy St. Hilaire (1772–1844) during the Napoleonic War, in 1808. The Silva collections served as original material for describing at least 24 names. However, the Silva specimens at P lack collector’s name and date and are difficult to trace. Only about 20% of these collections have been located in P.

Keywords

Joaquim José da Silva – Angola – Cunene River – Botanical exploration – Historical collections

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Introduction

Some early plant collections from Angola that are deposited at the Herbarium of the Muséum national d'Histoire naturelle in Paris (P) have been cited in the literature without further information associated. For instance, CANDOLLE (1824: 254) cited the original material of *Maerua angolensis* DC. (*Capparaceae*) as “v.s. h Mus. Par.”. The collector of these Angolan specimens was unknown until EXELL & MENDONÇA (1956) unravelled the origin of the material. They showed that the collector was Joaquim José da Silva (c. 1755–1810), a naturalist who was sent to Angola in 1783 by the Portuguese government, with a mandate to collect natural history material for the Royal Cabinet, i.e., for the Queen's preserved collections held in Lisbon. EXELL & MENDONÇA (1956) recommended that these Angolan specimens without a recorded collector that are held at P should be attributed to Silva and that the material originated from the “Benguela plateau”, a region of Angola that Silva explored for two years.

TEIXEIRA (1962) conducted further investigations into the matter and, based on letters deposited at the Museu de Angola, in Luanda, and documents published in Arquivos de Angola, he attempted a reconstruction of Silva's itineraries and extended the possible collecting localities to other Angolan provinces, beyond the “Benguela plateau” therefore, that Silva visited. These include the present-day provinces of Bengo, Cabinda, Cuanza Norte, Cunene, Huíla, and Namibe. More recently, with a surge in historical research into historic Portuguese expeditions (e.g. SIMON, 1983; SANTOS, 1988; PATACA, 2006; VIEIRA, 2006), further details of Silva's collecting activities came to light. We here provide an updated and expanded account of the activities of Joaquim José da Silva in Angola, his collections and itineraries, and the events surrounding the expedition to the Cunene River in which he participated.

Aspects of the early botanical exploration of southern and south-tropical Africa

By the time that Silva left for Angola in 1783, the Portuguese had been occupying some posts and had established a few settlements in the region since 1575, for 208 years therefore. The Portuguese-mandated natural history exploration of Angola undertaken by Silva was part of a series of official expeditions to Portuguese overseas territories known as “viagens philosophicas”. It was the first official natural history collecting venture to be undertaken in the territory. It came 10 years after such explorations were deliberately initiated at the southern tip of Africa, where the Cape Colony had been under Dutch rule since 1652. Wealthy plant collectors in the Netherlands, some of whom had an interest in the Dutch East India Company, delighted in stocking their greenhouses with, among other plants, South African plants, particularly the succulents (WIJNANDS, 1983; WIJNANDS et al., 1996; WILSON

et al., 2002), and the published works of Hermann, Commelin, Bormann, and Breynius were known to Joseph Banks (1743–1820) in England. However, few plants and preserved specimens from southern Africa had reached British herbaria and greenhouses, which must have irked Banks, the driving force behind having a “King's Botanist” appointed to conduct international plant exploration (LEMMON, 1968: 43; MUSGRAVE et al., 1998; PRIMROSE, 2019: 11).

Francis Masson (1741–1805; resident at the Cape from 1772 to 1775 and again from 1786 to 1795) was the first such dedicated international plant collector of the Royal Botanic Gardens, Kew, United Kingdom, to be dispatched abroad, to the Cape, where he arrived on 31 October 1772, as destination (GUNN & CODD, 1981: 246; DESMOND, 1999: 31; FRASER & FRASER, 2011: 59). Remarkably, Masson was sent to collect for Kew in Portugal, Spain, and North Africa in 1783, the same year that Silva left Portugal for Angola (MUSGRAVE et al., 1998: 48). To some extent, at least initially, major academic interest in southern African botany was through visits of some students of the Swede Carl Linnaeus, especially Carl Pehr (Peter) Thunberg (1743–1828; resident at the Cape from 1772 to 1775), the so-called “Father of Cape (South African) Botany”, and Anders Sparrman (1748–1820; resident at the Cape from 1772 [partly] and from 1775 to 1776). It was, however, to be several decades before the natural history of that part of southern Africa comprehensively attracted the attention of its colonial rulers. Only following the second British Occupation of the Cape in 1806 during the Napoleonic Wars did explorers such as James Bowie (also a “King's Botanist”, until Joseph Banks died in 1820), and William John Burchell (1781–1863; resident at the Cape from 1810 to 1815) (BUCHANAN, 2015) make further significant inroads into the southern African interior.

In a southern African context, by the 1780s Portugal therefore joined the race started by other imperialistic nations with an interest in the subregion of exploring the natural history of Angola, one of the Portugal south-tropical African colonies.

Biographical notes on Joaquim José da Silva

Joaquim José da Silva was born c. 1755 in Rio de Janeiro, Brazil, which, at the time, was a Portuguese territory (SIMON, 1983; VIEIRA, 2006). He studied mathematics and medicine at the University of Coimbra in Portugal, and graduated around 1778, after which he was appointed as a naturalist at the then fledgling Real Jardim Botânico da Ajuda, in Lisbon, which was established in 1764, nine years after the Great Lisbon earthquake (CASTEL-BRANCO, 1999: 33, 40; CASTEL-BRANCO, 2014: 152). Until 1783 Silva assisted Domingos [Domenico] Vandelli (1735–1816), the Italian emigrant-botanist who is widely credited as having created the Ajuda Botanical Garden. The assistantship that Silva served under Vandelli exposed him early in his career to the operations of a professional botanist.

In December 1782 the Portuguese secretary of state for the navy and overseas territories, Martinho de Melo e Castro (1716–1795), appointed Silva as a naturalist to collect natural history specimens in Africa and, simultaneously, as a civil servant with the administrative position of government secretary in Angola (VIEIRA, 2006).

Silva embarked for Angola in 1783 and had under his charge the Italian naturalist and artist Angelo Donati (unknown–1783) and the Portuguese artist José António (unknown–1784). On 8 October 1783 they arrived in Luanda after a journey of 146 days, 19 of which were spent at the Benguela settlement (SILVA, 1983a). However, shortly after their arrival in Luanda, Donati died. While based in Luanda, Silva was sent on a few expeditions that had purposes other than natural history studies. For example, in the same month that Silva arrived in Angola (October 1783), he and António were sent to Cabinda to investigate the iron content of the rocks used to build the fort of Cabinda. On their way to Cabinda the “galera” [galley] stopped at the mouth of the Dande River north of Luanda to load lime, and after disembarking, Silva investigated the petroleum mines (Fig. 1). They eventually resumed the journey to Cabinda and remained there for one month.

In 1784 Silva and António also travelled to Massangano, on the banks of the Cuanza River (Cuanza Norte), to conduct natural history explorations and to search for manatees and hippopotami. António died during their stay at Massangano. On 25 May 1785, Silva sailed from Luanda to Benguela to join a mission of explorations of the Cunene River. He only returned to Luanda two years later, around July 1787 (SILVA, 1983e). He then requested a transfer to Rio de Janeiro in Brazil (SILVA, 1983f) but did not receive a reply to this request. From 1790 to 1798 he had the title of “capitão-mor” [commander] of the “Presídio” [military post] of Massangano but remained in Luanda as government secretary because his replacement appointed to that position lacked experience (SIMON, 1983). In 1794 he was transferred to Ambaca (Cuanza Norte) and in 1796 appointed “capitão-mor” of the “Presídio” of Ambaca (now Camabatela); he simultaneously retained the position of government secretary. He returned to Luanda in February 1799 and was detached for a year as “tesoureiro-geral dos defuntos e ausentes” [general treasurer for the properties of deceased and absent persons], but was reappointed to the position of government secretary in 1801. He remained in this position until his death on 2 April 1810 at the age of 55 (VIEIRA, 2006).

The expeditions to the Cunene River

The expeditions to the Cunene River were ordered by the Baron of Moçâmedes and governor of Angola (1784–1790), José de Almeida e Vasconcelos. The purported aims were: to survey the coast south of Benguela with a view to establishing settlements; to explore the course of the Cunene River; and

to undertake punitive military measures against rebel “sobas” (i.e. native chiefs) (OLIVEIRA, 1887). However, ultimately only the first aim was achieved. Lieutenant-colonel and engineer Luis Candido Cordeiro Pinheiro Furtado (1749–1822) was a member of the organising committee of the expeditions and in charge of the missions, of which two separate ones took place.

On 25 May 1785, with 150 men on board in more than one vessel, at least a “paquete” [a packet boat], the frigate Nossa Senhora do Carmo Loanda, and an “escaler” [a small boat], the expedition sailed from Luanda to Benguela. The sea journey lasted 28 days: it took 13 days from Luanda to Novo Redondo [now Sumbe, Cuanza Sul], where they arrived on 7 June and remained anchored for five days; and a further 10 days to sail to Benguela, where they arrived on 22 June (FURTADO, 1887a; VALENTE, 1887). SILVA (1813a) stated that on 1 June he was at the mouth of the Cuanza River after having sailed for 5 days since leaving Luanda. The comparatively short sea journey from Luanda to Benguela lasted nearly one month, likely due to the slow progress of some of the vessels in the fleet.

Once settled in Benguela, two missions were planned. During the first mission the coast was surveyed both from sea and from land. The maritime expedition was undertaken in boats with oars (referred as “embarcações redondas”) along the coast, with land remaining in sight. Furtado arranged for the local “sertanejo” [i.e. a settler and traveller] and trader Gregório José Mendes to lead the overland expedition. The boats surveyed the coast and arrived at Angra do Negro (the bay where the town of Moçâmedes was later established) to meet a frigate that had left earlier and had arrived there on 3 August 1785 (VALENTE, 1887; FURTADO, 1887a, 1887b). The boats continued to Cabo Negro, the southernmost point of their exploration, before returning to Benguela. Furtado produced a map of the coast (FURTADO, 1887c). On his arrival back at Benguela, in September, Furtado was dismayed when he learned that the overland expedition still had not left (FURTADO, 1887b). At the persistence of Furtado, Mendes finally left on 30 September (MENDES, 1887a) or on 4 October (according to FURTADO, 1887d), with a party of 1050 people, including 20 soldiers. Furtado instructed them to obtain topographical information and latitude readings to add to his initial map (FURTADO, 1887d). This expedition followed a coastal route and took 35 days to journey from Benguela to Angra do Negro (MENDES, 1887a). They reached the bay on 3 November 1785 and returned through an inland route, via Quilengues. They were back in Benguela on 29 December 1785 (MENDES, 1887a).

The second mission was undertaken by the army, under the leadership of Captain António José da Costa, and journeyed to the interior. About 100 soldiers were deployed for this expedition (CASTRO, 1887). Their aim was to discover the course of the Cunene River and to punish the rebel “sobas”. Silva joined this group and stated that they left Benguela in August 1785. However, FURTADO (1887c) seems to indicate that

by 26 September they still had not left, as he wrote on that day that the rest of the cargo and troops had not yet been sent to Quilengues. SILVA (1813a) wrote that after 20 days of travel they reached Quilengues by mid-September 1785. They were based there until November 1785 and only arrived at Cabo Negro nine months later, on 10 August 1786 (SILVA, 1813b). The return journey took about eight months. Silva was in Benguela in May 1787 (SILVA, 1787), and in July 1787 he was back in Luanda (SILVA, 1983e). TEIXEIRA (1962) gave the date of Silva's return to Luanda as December 1787 and commented that Silva apparently remained in Benguela for seven months, but that was not the case.

Silva wrote a report of the expedition of which some excerpts were published posthumously (SILVA, 1813a, 1813b). These excerpts do not provide much detail about the expedition and do not mention its members. It has been suggested in the literature that a diary of the expedition existed but it was not located by any of the people who investigated the subject (e.g. TEIXEIRA, 1962; PATACA, 2006; VIEIRA, 2006). The existence of a diary is seemingly supported by the statement by SILVA (1983d) that by order of the Baron of Moçâmedes he had been in charge of the "direction of the diary of the march and successes" of the army corps. However, an affidavit (CORTESÃO & CAMPO, 1983) that was presented as a supporting document for the attribution of the award of the Order of Christ to Silva phrases it differently, stating that Silva was in charge of the direction of the marches of the army. It is therefore possible that there is in fact no diary, and only a report. Furthermore, the published excerpts are entitled extract of the voyage, and not extracts of a diary.

Behind the scenes of the expedition

Although SILVA (1983d) lamented that during the expedition he had to fight the "gentiles" and suffer hunger and thirst, not much is known of the conditions under which the Cunene expedition took place. The mission was led by Costa and took the extraordinary length of over two years. According to CASTRO (1887), it would have taken even longer if Costa had been allowed to continue. The expedition did not achieve any of its objectives (i.e. to discover the course of the Cunene River and to punish the rebel "sobas"). The reason for this debacle was later exposed by CASTRO (1887) in an official communication to the governor of Angola. CASTRO (1887) stated that instead of searching for the rebel "sobas", Costa looked for the friendly ones, then establishing a base camp and making the local people sustain the troops and his entourage. Additionally, he summoned the friendly "sobas" of surrounding chiefdoms and their people and held them captive until they paid for their release in ivory and slaves before being allowed to return to their settlements. These extorted goods and human cargo were then sent to Benguela to be sold. The "sobas" who

did not obey his summons were attacked by Costa who then invaded their lands, made slaves of their subjects, and confiscated their goods. Once a territory was exhausted Costa would move on to another chiefdom and repeat the cycle. This went on for two years and three months until Costa was finally ordered back to Benguela. Even so, during his return journey he managed to capture 80 more slaves that he sold in Benguela. In spite of all this, and of not having accomplished any of the objectives he had been instructed to achieve, Costa was promoted to "sargento-mor" and given the command of a fort. Castro's communication was published together with a note by OLIVEIRA (1887) who commented that it was not known if these allegations were true. CASTRO (1887: 452) did not reveal his sources but mentioned several letters of complaint, even from Costa's own officials who recorded that their commander (i.e. Costa) only followed his own interests. Reference to Castro's document has been omitted in recent accounts of the expedition (SIMON, 1983; SANTOS, 1988). What is known as a fact is that no letters or reports by Costa have been found, nor did he produce any topographical data. The only information on the expedition is what was included in the posthumously published extracts of a report and an article authored by SILVA (1813a, 1813b). It is also known that 20 days after leaving Benguela they were stationed in Quilengues for about two months (SILVA, 1813a) for unknown reasons.

By joining Costa's expedition to the interior, Silva disobeyed the order he had been given of joining the coastal expedition (SILVA, 1983d). This has been interpreted as a decision based on personal reasons (PATACA, 2006). Silva justified his disobedience by oddly declaring that he had decided to follow the army to the interior because the coast was sterile in all natural history, and it was impossible to undertake collecting activities during rushed landings (SILVA, 1983d). However, Mendes's coastal expedition was undertaken overland, not by boat, and although it left at the same time as Costa's there is no mention of it by Silva.

It must be noted that the outrage expressed by CASTRO (1887) about the behaviour of Costa, the leader of the expedition, referred to the defrauding of the state, to Costa's attacks on friendly chiefdoms, and to the iniquities, extortion, and theft committed (CASTRO, 1887: 452). He did not refer to the taking of slaves; trading in human cargo was then an accepted practice. In fact, Castro commented that considerable "utilities" could be obtained from this expedition (CASTRO, 1887: 451).

The more coastal expedition of Mendes is better documented and some details of this operation are known. Mendes described that two weeks after leaving Benguela they had run out of provisions as the huge party consumed about 10 oxen and 30 lambs per day, so Mendes sent 700 men with 120 guns to capture cattle from the local "savages"; they secured a loot amounting to 500 oxen and 2000 lambs (MENDES, 1887a). At the end of the trip, as a proof of his endeavour, MENDES



Fig. 1. – “Aspecto da embocadura do Rio Dande” [Aspect of the mouth of the River Dande] with Joaquim José da Silva (left) and José António (right). [a. “Forno da cal” [lime oven]; b. “Armazem de a-guardar” [storage]; c. “Sanzallas” [dwellings]; d. “Armazem da madeira” [timber storage]; e. “Igreja que foi dos Jesuitas” [church that was of the Jesuits]; f. “Ponta do Mussule(?)” [Mussule(?) Tip] [SILVA, J.J. (post. 1785: fig. 84); painting executed by José António] [© Arquivo Histórico dos Museus da Universidade de Lisboa]

(1887b) sent to the Baron of Moçâmedes some salt from the salt pans north of Cabo Negro and three black children.

The report by FURTADO (1887b) on the people encountered during the expedition to Cabo Negro is particularly revealing of the underlying drive of many such expeditions. Furtado noted that the people did not show much appetite for brandy but it would not be difficult to make them know and appreciate the amenities of life, making these amenities necessary by trade. He further noted that the local people only had a few slaves since there was an absence of export and sale of human cargo, which drove the slave trade. He concluded that, with time, that would change, which indeed was the case. The often unrecorded, but widely known “conditions”, i.e., the cost to the local populations, and the underlying imperial, expansionist, or financial purposes of expeditions undertaken in the 18th and 19th centuries under the cover of being “scientific” are often omitted in the literature. The expedition to the Cunene has been included, with a whitewashed account, in studies of scientific expeditions in former Portuguese territories (e.g.

SIMON, 1983; SANTOS, 1988) in spite of its non-scientific agenda and the dishonorable undertakings that took place.

The itineraries of Joaquim José da Silva

TEIXEIRA (1962) produced a map with the possible collecting localities and itineraries of Silva in Angola. On this map he showed an overland coastal route north from Luanda to Cabinda for the October 1783 expedition of Silva and António. This is not correct as Silva sailed from Luanda to Dande (SILVA, 1983b) where he landed. CORTESÃO & CAMPO (1983) note that after exploring the mouth of the Dande River, Silva continued to Cabinda and at the mouth of the Congo River the ship stalled at a great distance from land and the entourage had to get into a launch and a boat; they were picked up by a frigate that took them to Cabinda. SIMON (1983) provided a map that shows a route by sea but it shows the stop at Dande on the return to Luanda, while it occurred on the outbound journey to Cabinda. SIMON (1983) also did not show the two

stops at Novo Redondo; Silva landed there on his way to Luanda in 1783, and also on his way to Benguela in 1785, and explored the area (SILVA, 1813a).

The itineraries of the Cunene expeditions are less clear. Whereas there are descriptions of the itineraries of the sea journey by FURTADO (1887b) and of the land (coastal) journey by MENDES (1887a), the only information available on the expedition of Costa to the interior is that found in the excerpts of the report made by SILVA (1813a, 1813b), in letters sent by Silva to Castro, and in maps dated 1809 and 1825 that were produced by Furtado (the dates of these maps are uncertain, see VIEIRA, 2006). Costa, who led the expedition to the interior, did not produce any letters or reports. Without any descriptions of physical land features or otherwise, the itinerary of the inland expedition that Silva participated in is ambiguous; it has been depicted by several authors with discrepancies particularly in the return journey.

The 1809 map produced by FURTADO (1983) depicts an itinerary in the interior. It does not show the coastal itinerary of the expedition led by Mendes. The itinerary shown corresponds to the itinerary of the expedition undertaken by Silva. CORTESÃO & CAMPO (1983) mention a small map made by Silva with information on previously unmapped regions and with many rivers unknown at that time, which was added to the map authored by Furtado and presented to the Ministry. However, Silva's map has not been located (VIEIRA, 2006). Later, FURTADO (1825) published a more elaborate map with information from other travellers (SANTOS, 1988). This map includes itineraries of both the coastal and interior expeditions. SANTOS (1988: 160) published a simplified version of FURTADO (1825).

The itinerary of Silva's expedition shown by TEIXEIRA (1962: fig. 1) and SIMON (1983: fig. 15) differs significantly (Fig. 2). One of the discrepancies is the southernmost limit of the itinerary. Silva did not measure distances and stated that he followed the course of the river that has its mouth at Cabo Negro (Curoca River) and thought he had gone as far south as 19°S (SILVA, 1813a), as depicted by FURTADO (1825). As a consequence, the course of the Curoca River is not correctly mapped by FURTADO (1825); the Curoca only reaches c. 16°30'S, at most. According to the itinerary shown by FURTADO (1983), Silva went further south, beyond the Curoca River, therefore. TEIXEIRA (1962) showed a route from Cabo Negro along the Curoca, and stated that this return journey from Cabo Negro was by the "canal" to Gambos and Caconda and finally to Benguela, venturing that "canal" could refer to either the seasonally dry bed of the Curoca River or the Bruco Pass. This appears to be a misreading by Teixeira of the handwriting in Silva's letter. SILVA (1983d) wrote "pelo Coval e Gambue, athé Caconda" (SIMON, 1983: 162). "By the Coval" (not "canal") means "by the Cubal River". SIMON (1983) showed an itinerary with rather more northerly routes to and from Cabo Negro, neither of which follow the Curoca River.

Both SIMON (1983) and TEIXEIRA (1962) show the return from Cabo Negro as a southerly route leading to Gambos. However, CORTESÃO & CAMPO (1983) state that Silva reached almost 19°S and then continued to Cabo Negro. Therefore, the southern route was on the outbound journey to Cabo Negro, and not on the return journey. The document also states that Silva further went with a small group to the Cubal River (referred as "Rio Coval") and from there to Caconda (then known as "Nova Caconda") where he rested. It appears therefore that the return journey was through a more northerly route, and that route became more easterly than the outbound journey (Fig. 2). Four collections (see Appendix) labelled from Quipungo are dated November, December, and January without a year recorded. As in November 1785 Silva was still in Quilengues, the collecting done at Quipungo must date from the following years, i.e., November and December 1786, and January 1787. There is also a collection from Caconda but it is undated; it must be from January 1787, or a later date.

The plant collections

At the time that Silva made his collections the only specimens from Angola available for study in Europe were those of the four pre-Linnaean collectors, Gladman (fl. 1690), the naval surgeons Mason (fl. 1696; not to be confused with Masson who collected further south at the Cape, see above) and John Kirckwood (fl. 1696), and William Brown[e] (fl. probably 1706–1707). Their collections were initially in the herbarium of James Petiver (1658–1718) that was acquired by Hans Sloane (1660–1753). Sloane's herbarium is in the Herbarium of the Natural History Museum in London (BM). It took over 10 years after Silva's collecting activity before another collector was active in Angola. Christen Smith (1785–1816) made collections along the Congo River in 1816 that are deposited at BM and in the Herbarium of the Royal Botanic Gardens, Kew (K) (EXELL, 1939; DANDY, 1958; EXELL, 1962; FIGUEIREDO & SMITH, 2019).

During the 27 years that he spent in Angola, from 1783 to his death in 1810, Silva collected plants and many other objects, from minerals to animal parts (see CERÍACO, 2014), that he dispatched to Lisbon. During the few trips that Silva undertook in connection with his administrative duties, he also made collections. In October 1783 he mentioned collecting his first plants in Angola, when he landed in Benguela for 19 days while on the sea journey to Luanda; he stated that he would send the collections to Lisbon soon (SILVA, 1983a). He also collected in Cabinda in 1783. These first collections were sent in the first shipment of natural history specimens, the inventory of which, dated 20 March 1784, lists among other objects, a herbarium of 37 plants (SILVA, 1983c). He may also have collected specimens in Ambaca while based there from 1794 to 1798, as in a list of material shipped in 1803 he provided descriptions of some of the plants; he had



Fig. 2. – Itinerary of Joaquim José da Silva in Angola from 1783 to 1810 according to TEIXEIRA (1962) in pink, SIMON (1983) in blue, and this work in red.

made those descriptions in Ambaca in October 1796 (POMBO, 1935). According to SILVA (1983d), his two year expedition in Benguela from 1785 to 1787 resulted in a bulky herbarium enriched with many new plants [likely specimens], of which he had been making a catalogue. The collections from this expedition were sent in two large boxes (SILVA, 1983e). SILVA (1983e) mentioned a list of the collections that accompanied the letter but this document was not transcribed in SIMON (1983). Other shipments were made by Silva on 5 November 1791, 2 January 1792 (SILVA, 1983g), 18 February 1793, and 3 February 1802 (PATACA, 2006). In 1803 a shipment of medicinal plants, roots, and seeds of commercially valuable crops was prepared and the list of material published by POMBO (1935). In letters to Castro, Silva admitted and justified his rather scarce collections (e.g. SILVA, 1983b). Julio Mattiazzi (unknown–1794), gardener at the Ajuda Botanical Garden, Lisbon (PATACA, 2006), in an undated letter to Silva transcribed by PATACA (2006: 387), wrote that Minister Castro was very annoyed because Silva had spent three years in Angola without sending anything to the Cabinet and that, instead of running around the country, Castro wanted him to explore the surrounds of Luanda where he would certainly find products. This displeasure may have been the reason why Castro did not respond to Silva’s request of July 1787 for a transfer to Rio de Janeiro, Brazil.

Collecting localities in Angola

On his way to Luanda, in 1783, Silva landed in Benguela where he collected a few plants (SILVA, 1983a). While based in Luanda, he travelled to Cabinda, with a stop at the mouth of the Dande River, and collected plants during that trip (SILVA, 1983b). A further trip to Massangano to investigate the natural history of the region (MATOSO, 1983) may have resulted in plant collections. During the expedition to the Cunene, he collected at least in Quipungo and Caconda, according to the specimens examined. Silva resided in Ambaca for two years, and he also collected plants there (TEIXEIRA, 1962). All the specimens we examined had originally the information “Angola”. A few specimens had an additional slip with locality and date (month), the localities being Caconda (spelled “Cakonda”) and Quipungo, and the months November to January (see Appendix). We determined the year to be the end of 1786 and beginning of 1787. A further specimen, the holotype of *Commelina crassicaulis* C.B. Clarke [P00241748], had a slip with the name “Guingongue” or “Quingongue” which has been interpreted as a locality, but could refer to a common name. There is (or was) a locality Quingongue near Ambriz. Silva is not known to have been there, but he did receive plants from other travellers.

Confused collectors and localities

A few years after Silva’s last shipment of natural history specimens was sent to the Real Jardim Botânico da Ajuda in Lisbon, the French Invasions began (1807–1811). With Portugal then being an occupied territory, the French naturalist Étienne Geoffroy St. Hilaire (1772–1844) was sent to Lisbon in 1808 to remove natural history collections from Ajuda to be taken to Paris (P). Among the materials taken was Silva’s herbarium of 256 specimens (according to BOCAGE, 1862) or 216 specimens (according to HAMY, 1908).

A total of 2855 collections were taken by Saint-Hilaire, including specimens mostly from Brazil (1380 collections) and Cape Verde (562 collections) (HAMY, 1908). Some mixing or errors in labelling occurred during the process. That would explain some confusion in the literature. For instance, PAIVA (1984) discussed the case of a specimen of *Polygala* L. (*Polygalaceae*) that was labelled as being from the Cape Verde Islands but most likely originates from Brazil.

Cyphia steno Webb (*Campanulaceae*) that was described as a species from Cape Verde based on a specimen at P [P00088662] (Fig. 3), is in fact a species from Angola and it is not known from Cape Verde. The type of *C. steno* was wrongly labelled as from “Cap-vert. Herbar rapporté du Portugal en 1808 par M. Geoffroy St. Hilaire”. This is most certainly a Silva collection.

Rogeria brasiliensis J. Gay ex DC. (= *Pterodiscus brasiliensis* (J. Gay ex DC.) Asch.) was published by CANDOLLE (1845: 257) based on a specimen [P00435303] labelled as from Brazil



Fig. 3. – Holotype of *Cyphia stheno* Webb at P. [Silva s.n., P00088662; © Muséum national d'Histoire naturelle, Paris]

but originating from Angola; it was collected by Silva in Quipungo as the original slip reading “*Martynia longiflora*. Quipungo Novembr.” attests (Fig. 4).

Small slips with locality and date are attached to seven collections (see Appendix). By comparing the handwriting on the slips with Silva’s handwritten letter (SILVA, 1787), we believe that these slips were written by him.

The legacy of Joaquim José da Silva

All the Silva specimens we examined are originally without collector or number and have puzzled researchers for several centuries with one annotating a specimen “*Quis legit?*”.

Some specimens were recently annotated in P by hand on an unknown date with “da Silva Joaquim José (LISC-P) 1804”. A typed label was also recently added to these and a few other specimens reading “Coll. Joaquim José da Silva (1804). Angola: LISC, P” (see Appendix). The reason for the reference “LISC” is unknown. The Herbarium LISC (University of Lisbon, Portugal) was created in 1948 and it has no connection to Silva or to his collections. Even though in databases there is reference to a specimen collected by Silva at LISC, and this is cited in the literature (e.g. FIGUEIREDO et al., 2008), that record refers to a photocopy and not a specimen. The date “1804”, which was captured into the database as having been the collecting date, is also not correct, as Silva’s collections were made between 1783 and 1804. As far as is known, all the specimens collected by Silva are deposited at P and are mostly not assigned to him or incorrectly labelled.

Silva’s specimens were integrated into the main collection at P, which makes it impossible to locate the full set of collections taken from Lisbon. In SONNERAT (2021), the lack of associated metadata for the herbarium scans such as collector, country of origin, and date makes it difficult to trace collections. Under these circumstances it is not possible to do a comprehensive search for Silva’s collections at P. Nevertheless, we could locate c. 50 specimens collected by Silva (c. 20% of the total) through online databases (RECOLNAT, 2021; SONNERAT, 2021; see Appendix). Silva’s collections were studied by several botanists, such as George Bentham (1800–1884), Augustin-Pyramus de Candolle (1778–1841), Joseph Decaisne (1807–1882), René Louiche Desfontaines (1750–1833), and Achille Richard (1794–1852), and served as original material for describing at least 24 names (Fig. 3, 4; see Appendix). As far as is known, Silva is the only early collector in Angola with specimens deposited at P.

Not only did the collections made by Silva suffer the fate of being plundered from their original Herbarium, but they also remained disassociated from his name for centuries. Furthermore, they are shrouded by the reportedly malicious events that took place when they were obtained. Although this may raise some questions about Silva’s participation in

that expedition, it can be conjectured that he acted with the usual oblivious nature of focused plant collectors. Historically, Silva remains as the first botanical collector in the interior of Angola.

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Unpublished sources

SILVA, J.J. (post. 1785). *Riscos De alguns Mammaes, Aves e Vermes do Real Museo de Nossa Senhora d’Ajuda. Ditos De Peixes e Vermes de Angola, com o Prospecto da Embocadura do Rio Dande. Ditos De varios Animaes raros de Moçambique com alguns Prospectos e Retratos*. Arquivo Histórico dos Museus da Universidade de Lisboa.

SILVA, J.J. (1787). *Letter to Julio Mattiazzi*. 24 May 1787. Document CN/S 22. Museu Nacional de História Natural e da Ciência, Lisbon.

References

- BOCAGE, J.V.B. (1862). *Instruções praticas sobre o modo de colligir, preparar e remetter productos zoologicos para o museu de Lisboa*. Imprensa Nacional, Lisboa.
- BUCHANAN, S. (2015). *Burchell’s travels. The life, art and journeys of William John Burchell | 1781–1863*. Penguin Books, Cape Town.
- CANDOLLE, A.-P. DE (1824). *Maerua*. *Prodr.* 1: 254.
- CANDOLLE, A.-P. DE (1845). *Rogeria*. *Prodr.* 9: 256–257.
- CASTEL-BRANCO, C. (1999). The place of Ajuda. In: CASTEL-BRANCO, C. (ed.), *Botanic Gardens of Ajuda*: 15–52. Jardim Botânico da Ajuda, Lisboa.
- CASTEL-BRANCO, C. (2014). *Jardins de Portugal*. CTT Correios de Portugal.



Fig. 4. – Holotype of *Rogeria brasiliensis* J. Gay ex DC. (= *Pterodiscus brasiliensis* (J. Gay ex DC.) Asch.) at P. [Silva s.n., P00435303; © Muséum national d'Histoire naturelle, Paris]

- CASTRO, M.M. (1887). Extracto de um officio de Martinho de Mello e Castro ao capitão general de Angola Manuel de Almeida Vasconcellos, datado de agosto de 1791. *Bol. Soc. Geogr. Lisb.* 7: 451–453.
- CERÍACO, L.M.P. (2014). O “Arquivo histórico Museu Bocage” e a história da história natural em Portugal. In: ALVES, M.J. et al. (ed.), *Professor Carlos Almaça (1934–2010) – Estado da Arte em Áreas Científicas do Seu Interesse*: 329–358. Museu Nacional de História Natural e da Ciência, Lisboa.
- CORTESÃO, A.G. & J.A.C.C. CAMPO (1983). 12. AHU, Angola, cx. 56, pp. 17–18 of the dossier of services for the Order of Christ, notarized in Luanda, 30–VIII–1803. In: SIMON, W.J., *Scientific expeditions in the Portuguese overseas territories (1783–1808)*: 166–167. Instituto de Investigação Científica Tropical, Lisboa.
- DANDY, J.E. (1958). *The Sloane herbarium: an annotated list of the Horti sicci composing it; with biographical details of the principal contributors*. British Museum, London. DOI: <https://doi.org/10.5962/bhl.title.137366>
- DESMOND, R. (1999). *Sir Joseph Dalton Hooker. Traveller and plant collector*. Antique Collectors' Club with the Royal Botanic Gardens Kew, Woodbridge, Suffolk and Richmond, Surrey.
- EXELL, A.W. (1939). Collections from Angola in the Sloane Herbarium. In: Notes on the flora of Angola – IV. *J. Bot.* 77: 146–147.
- EXELL, A.W. (1962). Pre-Linnean collections in the Sloane Herbarium from Africa South of the Sahara. In: FERNANDES, A. (ed.), *Comptes Rendus de la IV^e réunion plénière de l'AETFAT*: 47–49. Junta de Investigações do Ultramar, Lisboa.
- EXELL, A.W. & F.A. MENDONÇA (1956). Supplement to the introduction (1937). In: *Conspectus florum angolensis* 2(2): ix–xi. Junta de Investigações do Ultramar, Lisboa.
- FIGUEIREDO, E. & G.F. SMITH (2020). Andrew Beveridge Curror (1811–1844): collecting natural history specimens while preventing the slave trade along the west coast of Africa. *Phytotaxa* 436: 141–156. DOI: <https://doi.org/10.11646/phytotaxa.436.2.4>
- FIGUEIREDO, E., S. MATOS, J.F. CARDOSO & E.S. MARTINS (2008). List of collectors / Lista de colectores. In: FIGUEIREDO, E. & G.F. SMITH, *Plants of Angola/Plantas de Angola. Strelitzia* 22: 4–11.
- FRASER, M. & L. FRASER (2011). *The smallest Kingdom. Plants and plant collectors at the Cape of Good Hope*. Royal Botanic Gardens, Kew.
- FURTADO, L.C.C.P. (1825). *Carta geographica da costa ocidental da Africa comprehendida entre 5° e 19° de lat. sul, mostrando parte do Congo e os reinos de Angola, Benguella*. Desenhada pelo Ten[ent]e Coronel Eng° L. C. C. Pinheiro Furtado em 1790. Paris.
- FURTADO, L.C.C.P. (1887a). Letter to Baron of Mossamedes. 30 June 1785. *Bol. Soc. Geogr. Lisb.* 7: 423–424.
- FURTADO, L.C.C.P. (1887b). Letter to Baron of Mossamedes. 22 September 1785. *Bol. Soc. Geogr. Lisb.* 7: 428–431.
- FURTADO, L.C.C.P. (1887c). Letter to Baron of Mossamedes. 26 September 1785. *Bol. Soc. Geogr. Lisb.* 7: 435–436.
- FURTADO, L.C.C.P. (1887d). Letter to Baron of Mossamedes. 4 October 1785. *Bol. Soc. Geogr. Lisb.* 7: 431–432.
- FURTADO, L.C.C.P. (1983). Map based on Joaquim José da Silva's diary of 1785–87, made in Lisbon, 1809. In: SIMON, W.J., *Scientific expeditions in the Portuguese overseas territories (1783–1808)*: Fig. 20. Instituto de Investigação Científica Tropical, Lisboa.
- GUNN, M. & L.E. CODD (1981). *Botanical exploration of southern Africa. An illustrated history of early botanical literature on the Cape flora. Biographical accounts of the leading plant collectors and their activities in southern Africa from the days of the East India Company until modern times*. A.A. Balkema, Cape Town.
- HAMY, E.-T. (1908). La Mission de Geoffroy Saint-Hilaire en Espagne et en Portugal (1808) Histoire et documents. *Nouv. Arch. Mus. Hist. Nat., sér. 4*, 10: 1–66.
- KIRKBRIDE, J.H. & J.H. WIERSEMA (1997). Bobgunnia, a new African genus of Tribe Swartzieae (Fabaceae, Faboideae). *Brittonia* 49: 1–23.
- LEMMON, K. (1968). *The golden age of plant hunters*. J.M. Dent & Sons, Ltd, Phoenix House, London.
- MATOSO, A.C. (1983). 5. AHU, Angola, cx. 39, letter of Álvaro de Carvalho e Matoso to Martinho de Melo e Castro, Luanda, 11–IX–1784. In: SIMON, W.J., *Scientific expeditions in the Portuguese overseas territories (1783–1808)*: 160. Instituto de Investigação Científica Tropical, Lisboa.
- MENDES, G.J. (1887a). Descrição itineraria da derrota que por ordem dos srs. da junta de comissão estabelecida na cidade de S. Philippe de Benguella, pelo ill.mo e ex.mo sr. barão de Mossamedes, governador e capitão general do reino de Angola e suas conquistas, fez o sargento mór Gregorio José Mendes, da mesma cidade até ao porto de Mossamedes, na angra do Negro, em 15° de latitude S., com o exame dos sertões compreendidos entre estes pontos, apresentada á mesma junta em 1 de janeiro de 1786. *Bol. Soc. Geogr. Lisb.* 7: 437–449.
- MENDES, G.J. (1887b). Letter to Baron of Mossamedes. 2 January 1786. *Bol. Soc. Geogr. Lisb.* 7: 436–437.
- MUSGRAVE, T., C. GARDNER, & W. MUSGRAVE (1998). *The plant hunters. Two hundred years of adventure and discovery around the world*. Ward Lock, London.
- OLIVEIRA, A.A. (1887). Primeiras explorações no sul de Angola. *Bol. Soc. Geogr. Lisb.* 7: 417–453.
- PAIVA, J.A.R. (1984). The genus *Polygala* (Polygalaceae) in the Cape Verde Islands. *Bol. Soc. Brot., ser. 2*, 57: 357–362.

- PATACA, E.M. (2006). *Terra, água e ar nas viagens científicas Portuguesas (1755–1808)*. PhD thesis. Universidade Estadual de Campinas, Campinas.
- POMBO, R. (1935). Medicina indígena Angolana. *Diogo Cao* 4: 105–112, 5: 149–152.
- PRIMROSE, S. (2019). *Modern plant hunters. Adventures in pursuit of extraordinary plants*. Pimpernel Press Ltd, [London].
- RECOLNAT (2021). Collections naturalistes numérisées Muséum national d'Histoire naturelle, Paris (coord.). [<https://explore.recolnat.org/search/botanique/type=index>]
- SANTOS, M.E.M. (1988). *Viagens de exploração terrestre dos portugueses em África*. Ed. 2. Instituto de Investigação Científica Tropical, Lisboa.
- SILVA, J.J. (1813a). Extracto da viagem, que fez ao sertão da Benguella no anno de 1785 por ordem do Governador e Capitão General do Reino de Angola, o Bacharel Joaquim José da Silva, enviado á aquelle Reino como Naturalista, e depois Secretario do Governo. De Loanda para Benguella. *O Patriota* 1(1): 97–100; 1(2): 86–98; 1(3): 49–60.
- SILVA, J.J. (1813b). Noticias sobre Cabo Negro, extrahidas dos fragmentos da viagem do Doutor Joaquim José da Silva. *O Patriota* 1(6): 71–77.
- SILVA, J.J. (1983a). 2. AHU, Angola, cx. 38, letter from Joaquim José da Silva to Martinho de Melo e Castro, Luanda, 7–X–1783. In: SIMON, W.J., *Scientific expeditions in the Portuguese overseas territories (1783–1808)*: 157–158. Instituto de Investigação Científica Tropical, Lisboa.
- SILVA, J.J. (1983b). 3. AHU, Angola, cx. 39, report from Silva to Martinho de Melo e Castro, Luanda, 17–III–1784. In: SIMON, W.J., *Scientific expeditions in the Portuguese overseas territories (1783–1808)*: 158–159. Instituto de Investigação Científica Tropical, Lisboa.
- SILVA, J.J. (1983c). 4. AHU, Angola, maço 16, inventory of shipment of natural history specimens. Luanda, 20–III–1784. In: SIMON, W.J., *Scientific expeditions in the Portuguese overseas territories (1783–1808)*: 159–160. Instituto de Investigação Científica Tropical, Lisboa.
- SILVA, J.J. (1983d). 8. AHU, Angola, cx. 40, report from Silva to Martinho de Melo e Castro, Benguela, 20–V–1787. In: SIMON, W.J., *Scientific expeditions in the Portuguese overseas territories (1783–1808)*: 162–163. Instituto de Investigação Científica Tropical, Lisboa.
- SILVA, J.J. (1983e). 9. AHU, Angola, maço 4B cont., letter from Silva to Martinho de Melo e Castro, Luanda, 9–VII–1787. In: SIMON, W.J., *Scientific expeditions in the Portuguese overseas territories (1783–1808)*: 163. Instituto de Investigação Científica Tropical, Lisboa.
- SILVA, J.J. (1983f). 10. AHU, Angola, maço 4B cont., letter from Silva to Martinho de Melo e Castro, Luanda, 14–X–1787. In: SIMON, W.J., *Scientific expeditions in the Portuguese overseas territories (1783–1808)*: 164. Instituto de Investigação Científica Tropical, Lisboa.
- SILVA, J.J. (1983g). 11. AHU, Angola, cx. 42, letter of Governor Manoel de Almeida e Vasconcelos to Martinho de Melo e Castro, 2–II–1792 with inventory list of the shipment of natural history specimens signed by Joaquim José da Silva. Luanda, 2–I–1792. In: SIMON, W.J., *Scientific expeditions in the Portuguese overseas territories (1783–1808)*: 165. Instituto de Investigação Científica Tropical, Lisboa.
- SIMON, W.J. (1983). *Scientific expeditions in the Portuguese overseas territories (1783–1808) and the role of Lisbon in the intellectual-scientific community of the late eighteenth century*. Instituto de Investigação Científica Tropical, Lisboa.
- SONNERAT (2021). *Base de données des collections du Muséum national d'Histoire naturelle*. MNHN, Paris. [<http://science.mnhn.fr/institution/mnhn/collection/p/item/search/form>]
- TEIXEIRA, J.B. (1962). Le naturaliste Joaquim José da Silva et les itinéraires des expéditions qu'il a effectuées en Angola, de 1783 à 1804. In: FERNANDES, A. (ed.), *Comptes Rendus de la IV^e réunion plénière de l'AETFAT*: 103–109. Junta de Investigações do Ultramar, Lisboa.
- VALENTE, A.J. (1887). Letter to Baron of Mossamedes. 29 June 1785. *Bol. Soc. Geogr. Lisb.* 7: 424–425.
- VIEIRA, C.C. (2006). *Os Portugueses e a travessia do continente africano: projectos e viagens (1755–1814)*. Master thesis. Universidade de Lisboa, Lisboa.
- WIJNANDS, D.O. (1983). *The botany of the Commelins. A taxonomical, nomenclatural and historical account of the plants depicted in the Moninckx Atlas and in the four books by Jan and Caspar Commelin on the plants in the Hortus Medicus Amstelodamensis 1682–1710*. A.A. Balkema, Rotterdam.
- WIJNANDS, D.O., M.L. WILSON & T. TOUSSAINT VAN HOVE (ed.). (1996). *Jan Commelin's monograph on Cape flora. Drawings and descriptions of the plants that Hon. Simon van der Stel, Governor at the Cape of Good Hope, found on his great journey, 1685*. Cape Town.
- WILSON, M.L., T. TOUSSAINT VAN HOVE-EXALTO & W.J.J. VAN RIJSSEN (ed.) (2002). *Codex witsenii. Annotated watercolours of landscapes, flora and fauna observed on the expedition to the Copper Mountains in the country of the Namaqua undertaken in 1685–6 by Simon van der Stel, Commander at the Cape of Good Hope. Copied at the Cape in 1692 for Nicolaas Witsen, Mayor of Amsterdam, Member of the Amsterdam Chamber of the Dutch East India Company, Ambassador to Great Britain, &c. &c.* Iziko Museums of Cape Town and Davidii Media, Cape Town and Amsterdam.

Appendix – List of specimens collected by José da Silva in Angola retrieved from P database with their current accepted names and nomenclatural status. Abbreviations: HT = holotype; LT = lectotype; ST = syntype; PL = printed label added “Coll. Joaquim José da Silva (1804). Angola: LISC, P”;
RA = recently annotated “da Silva J.J. 1804 LISC-P”.

Family	Taxon	Specimen Barcode	Type	Type of	Remarks
Apocynaceae	<i>Asclepias ameliae</i> S. Moore	P00121507	HT	<i>Gomphocarpus pulchellus</i> Decne.	PL, RA
	<i>Asclepias palustris</i> (K. Schum.) Schltr.	P00121508	HT	<i>Gomphocarpus cristatus</i> Decne.	
	<i>Glossostelma isianthoides</i> (Decne.) Bullock	P00152440	HT	<i>Gomphocarpus isianthoides</i> Decne.	PL
	<i>Pachycarpus lineolatus</i> (Decne.) Bullock	P00150790	HT	<i>Gomphocarpus lineolatus</i> Decne.	PL
	<i>Pergularia daemia</i> (Forssk.) Chiov.	P00152589	HT	<i>Doemia angolensis</i> Decne.	PL
	<i>Tacazzea rosmarinifolia</i> (Decne.) N.E. Br.	P00151977	HT	<i>Aechmolepis rosmarinifolia</i> Decne.	PL
	<i>Xysmalobium sessile</i> (Decne.) Decne.	P00121509	HT	<i>Gomphocarpus sessilis</i> Decne.	RA
Asteraceae	<i>Bidens kilimandscharica</i> (O. Hoffm.) Sherff.	P00086762			PL
	<i>Crassocephalum rubens</i> (Juss. ex Jacq.) S. Moore	P00101655 P00101656 P00101657			
	<i>Emilia coccinea</i> (Sims) G. Don	P00117947			
	Indet.	P00138848			Slip with “ <i>Carduus cyanus</i> . Chicoron, vulg. Quipungo Decembr.”
	Indet.	P018331			PL
	Indet.	P018332			PL
	Indet.	P018337			PL
	Indet.	P018338			PL
Campanulaceae	<i>Cyphia stheno</i> Webb	P00086662	HT	<i>Cyphia stheno</i> Webb	
Capparaceae	<i>Maerua angolensis</i> DC.	P00373961	HT	<i>Maerua angolensis</i> DC.	
Cleomaceae	<i>Cleome gynandra</i> L.	P05389652	HT	<i>Gynandropsis denticulata</i> DC.	Slip with “ <i>Cleome</i> . Mussambe vulgo. <i>Passeribus voratur.</i> ”
Colchicaceae	<i>Gloriosa simplex</i> L.	P00586232			
	<i>Gloriosa superba</i> L.	P00586237			
Commelinaceae	<i>Commelina crassicaulis</i> C.B. Clarke	P00241748	HT	<i>Commelina crassicaulis</i> C.B. Clarke	Slip with “(8) Guingongue species. <i>Foliorum basis cylindrica</i> ”
Convolvulaceae	<i>Distimake tomentosus</i> (Choisy) Petrongari & Sim.-Blanch.	P00622261 P03879269	ST	<i>Ipomoea dendroidea</i> Choisy	
	<i>Ipomoea verbascoidea</i> Choisy	P00150787 P00150788	ST	<i>Ipomoea verbascoidea</i> Choisy	PL

Family	Taxon	Specimen Barcode	Type	Type of	Remarks
Euphorbiaceae	<i>Jacquemontia ovalifolia</i> (Vahl) Hallier f.	P03867965			
	<i>Jatropha curcas</i> L.	P05477275			
Fabaceae		P03480339			
		P03480341			
		P03480342			
		P03480343			
	<i>Bobgunnia madagascariensis</i> (Desv.) J.H. Kirkbr. & Wiersema	P00368127 P00368128	LT ST	Swartzia marginata Benth.	LT designated by KIRKBRIDE & WIERSEMA (1997: 7)
	<i>Indigofera lasiantha</i> Desv.	P03335970			Slip with "Indigofera psoraloides. Quipungo. [illeg]"
	<i>Pterocarpus angolensis</i> DC.	P00374530	HT	<i>Pterocarpus angolensis</i> DC.	Slip with "Pao vermelho No (2) Quipungo, Jannuar. Nguva vulg. vel Uriragonde"
Hypericaceae	<i>Psorospermum febrifugum</i> Spach	P00389018	HT	<i>Psorospermum febrifugum</i> Spach	
Lamiaceae	<i>Endostemon membranaceus</i> (Benth.) Ayob. ex A.J. Paton & Harley	P00150789	HT	<i>Ocimum membranaceum</i> Benth.	PL; Slip with "Ocimum scutellarioides. Quipungo, Decembr."
	<i>Fuerstia rigida</i> (Benth.) A.J. Paton	P00150786	HT	<i>Ocimum rigidum</i> Benth.	PL
Pedaliaceae	<i>Pterodiscus brasiliensis</i> (J. Gay ex DC.) Asch.	P00435303	HT	<i>Rogeria brasiliensis</i> J. Gay ex DC.	Slip with "Martynia longiflora. Quipungo Novembr."; Fig. 4
Proteaceae	<i>Leucospermum</i> sp.	P02447076			
Rubiaceae	<i>Ancylanthus rubiginosus</i> Desf.	P00138559	HT	<i>Ancylanthus rubiginosus</i> Desf.	PL
	<i>Hexasepalum serrulatum</i> (P. Beauv.) J.H. Kirkbr. & Delprete	P04493146			
	<i>Otomeria elatior</i> (A. Rich.) Verdc.	P00539269	HT	<i>Sipanea elatior</i> A. Rich.	
	<i>Pavetta canescens</i> DC.	P00553367	HT	<i>Pavetta tomentosa</i> A. Rich.	Annotated "Angola. Cakonda [Caconda] (de l'herbier de Lisbonne?)"
	<i>Pentas angustifolia</i> (A. Rich.) Verdc.	P03947412	HT	<i>Sipanea angustifolia</i> A. Rich.	
	<i>Tricalysia angolensis</i> A. Rich.	P00072430	HT	<i>Tricalysia angolensis</i> A. Rich.	RA
Solanaceae	<i>Datura metel</i> L.	P00327254			
	<i>Lycopersicon esculentum</i> Mill.	P00343701			
	<i>Nicotiana tabacum</i> L.	P00327128			