



# Elephant Birds Under the Sun King? Etienne de Flacourt and the *Vouron patra*

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## Abstract

In the mid-17<sup>th</sup> century, the French colonial administrator Etienne de Flacourt gave a brief description of an ostrich-like bird which, according to him, lived in remote areas of Madagascar. Since then it has generally been assumed that this bird was a representative of the now extinct 'elephant birds' (Aepyornithiformes) and the significance of Flacourt's report for the extinction date of that group has been much discussed, some authors suggesting that Flacourt based his description on folk memories of birds that had already been extinct for a long time. An analysis of Flacourt's report and of later Malagasy traditions about giant birds suggests that elephant birds were still in existence when Flacourt wrote his description of the *Vouron patra*.

*Key word:* Flacourt, Madagascar, Aepyornithiformes, *Vouron patra*, Extinction

## Resumo

Em meados do século XVII, o administrador colonial francês Etienne de Flacourt fez uma breve descrição de uma ave semelhante ao avestruz, que, segundo ele, vivia em áreas remotas de Madagascar. Desde então, foi geralmente assumido que esta ave era um representante da agora extinta "ave elefante" (Aepyornithiformes). No entanto, a importância do relatório de Flacourt para a data da extinção deste grupo tem sido muito discutida, alguns autores sugerem que Flacourt baseou a sua descrição em memórias populares de aves que já tinham sido extintas há muito tempo. A análise do relatório de Flacourt e das posteriores tradições de Madagáscar sobre aves gigantes sugere que as "aves elefantes" existiam ainda quando Flacourt descreveu o *Vouron patra*.

*Palavras-chave:* Flacourt, Madagascar, Aepyornithiformes, *Vouron patra*, extinção

## 1. INTRODUCTION

Various groups of large insular flightless birds became extinct only a few centuries ago, well into the historical period, and there are eyewitness accounts about some of them. Although reports about it often lack precision and may be contradictory, there is a fair amount of them about the dodo of Mauritius, *Raphus cucullatus*, dating from the 17<sup>th</sup> century (Parish, 2012). There are fewer descriptions of the solitaire of Rodrigues, although one of them, by Leguat (Leguat, 1708), provides much information about the appearance and habits of that bird. In other cases, although humans coexisted and interacted with the large birds for some time, no written record is available for the simple reason that the populations in question had no knowledge of writing. The best example of such a case

is that of the moas of New Zealand, which were exterminated by the Maori at a date corresponding to the European Middle Ages, around the 14<sup>th</sup> century (Berentson, 2012). An intermediate situation is that of the Aepyornithiformes, the so-called 'elephant birds' of Madagascar. The various native ethnic groups of Madagascar which may have coexisted with these giant birds had no knowledge of writing, and there is no evidence that the Arab merchants who visited Madagascar and even settled there in the Middle Ages left any record of those birds, unless one accepts that the legend of the rûkh bird is based on them (Buffetaut, 2013). However, there is a brief but well known mention of a large ostrich-like bird in Madagascar in one of the first general books about the island to have appeared in Europe, published in 1658 (second edition in 1661) by the French traveller Etienne de Flacourt (Flacourt,

1658, 1661). Flacourt's short description of the *Vouron patra* has been quoted in many books and articles about the elephant birds and interpreted in various ways. Some authors consider that elephant birds were still in existence when Flacourt visited Madagascar in the mid-17<sup>th</sup> century, at a time when Louis XIV, the 'Sun King', ruled over France, while others think that he may have recorded native folk memories of birds that had already been extinct for a long time. The purpose of the present paper is to re-examine Flacourt's report on the *Vouron patra* within the context of his book and to discuss its significance in the light of native tales about giant birds that were collected much later by European explorers and settlers.

## 2. ETIENNE DE FLACOURT: A BIOGRAPHICAL SKETCH

According to Malotet (Malotet, 1898), Etienne de Flacourt was born in Orléans in 1607 in an old noble family of remote English extraction. He studied at the university of his native town, and as a young man he travelled across Europe, visiting Italy, Germany, Holland and England. Having settled in Paris, he became the director of the *Compagnie de l'Orient*, a commercial and colonial venture that had established a French colony at Fort-Dauphin (today Tôlagnaro) on the south-eastern coast of the island of Madagascar. Flacourt was chosen as governor of this colony, which at the time was experiencing troubled times, because of both unrest among the colonists and a native revolt. Flacourt arrived in Madagascar in December 1648 and stayed there for more than six years, leaving in February 1655. During that time, he tried to restore order - with limited success, although he used rather harsh methods against the natives - and tried to convert the inhabitants to Christianity, also with limited success. During his long stay in Madagascar, he collected all kinds of information on the island and its inhabitants, which was to serve as the basis for the book he published after his return to France in 1655, the *Histoire de la grande isle Madagascar*. The first edition was published in 1658. A second, posthumous, edition came out in 1661. In May 1660, Flacourt set sail from Dieppe to return to Madagascar. On 10 June, at the latitude of Lisbon, his ship was attacked by Muslim pirates from North Africa. During the ensuing fight, the gunpowder magazine caught fire and exploded, killing Flacourt and many others on board.



Fig. 1 - A portrait of Etienne de Flacourt (1607-1660), from Malotet (Malotet, 1898)

## 3. DESCRIPTION OF THE *VOURON PATRA* – AN ELEPHANT BIRD?

Flacourt's *Histoire de la grande isle Madagascar* (Flacourt, 1661) is divided into two « books », the second of which is a relation of the events that took place on the island between 1642 and 1660. The first book, which comprises 47 chapters, is a description of Madagascar, or at least the parts of it Flacourt was acquainted with (mostly in the south of the island). It deals with the habits, customs and language of the natives (and even includes Christian prayers translated into the Malagasy language), as well as with its natural history. There are chapters on plants, metals, minerals and stones, terrestrial animals and insects, freshwater and marine fishes, mineral waters (together with honey, wine and oils!). Chapter XL is devoted to 'terrestrial and aquatic birds' and includes the passage about the *Vouron patra*, in the section about *oyseaux qui hantent les bois*, 'birds that live in the woods'. The short description runs as follows, in the original French and in English translation:

*'Vouron patra, c'est un un grand Oyseau qui hante les Ampatres, & fait des œufs comme l'Autruche, c'est une espèce d'Autruche, ceux desdits lieux ne le peuvent prendre, il cherche les lieux les plus déserts'.*

*'Vouron patra, it is a large bird that lives in the Ampatres, & makes eggs like the Ostrich, it is a kind of Ostrich, the inhabitants of those parts cannot catch it, it seeks the most deserted places'.*

The *Ampatres* where the *Vouron patra* is supposed to live is a region of southern Madagascar described by Flacourt as a very dry territory with no rivers, stretching for twenty leagues along the coast and twelve leagues in width. It is generally admitted that it corresponds to what is today known as the Androy, an arid region mainly covered with spiny bushes, where the Antandroy ethnic group lives.

Flacourt's description of the *Vouron patra* lacks details and focuses on the eggs, which are similar to those of the ostrich. The bird itself is simply described as a kind of ostrich, which implies that it is rather similar to the African *Struthio camelus* (which Flacourt may have observed during his visits to the South African coast). Some commentators consider that Flacourt did not himself see the *Vouron patra*, or even its eggs, but simply reported what he had heard about it from the natives (Lavauden, 1931; Decary, 1950), although Monnier (Monnier, 1913) considered that he had either actually seen it or had heard very accurate descriptions of it. It is in fact difficult to decide, on the basis of his very brief report, whether he actually saw that large bird or its eggs or just heard about them. The fact that he mentions that the *Vouron patra* lives in very remote areas and that the natives cannot capture it does suggest that it is unlikely that he saw the bird, but he may have seen its eggs. In the 19<sup>th</sup> century, it was when European travellers were shown very large eggs by local inhabitants that western scientists first realised that a gigantic bird had once lived in Madagascar, and Flacourt may have seen such eggs (although he just writes that the eggs of the *Vouron patra* are similar to ostrich eggs and does not mention an extraordinarily large size, which should have struck him if he had seen *Aepyornis maximus* eggs – as opposed to eggs of smaller species of elephant birds).

In 1851, Isidore Geoffroy Saint-Hilaire established that giant birds had formerly lived in Madagascar when he described as *Aepyornis maximus* huge eggs and a few fragmentary large

bones that had been sent to Paris by a French traveller (Geoffroy Saint-Hilaire, 1851). He alluded to Flacourt's description of the *Vouron patra*, but was uncertain as to whether it really applied to the huge *Aepyornis* or to a smaller, ostrich-like form. When it became clear that more than one form of giant bird had inhabited Madagascar in the past, especially when the smaller genus *Mullerornis* was described by Milne-Edwards and Grandidier (Milne-Edwards & Grandidier, 1895), it could no longer be certain that Flacourt's *Vouron patra* really was *Aepyornis* (itself represented by several species of various sizes (Monnier, 1913)). Andrews (Andrews, 1895, p. 25) described a relatively small aepyornithid genus as *Flacourtia* (now considered as a junior synonym of *Mullerornis*), noting that the *Vouron patra* 'may have been one of the smaller species of ratite bird, not extinct at that time'. Nevertheless, most discussions about the identity of the *Vouron patra* focus on *Aepyornis* (Lavauden, 1931; Decary, 1950; Heuvelmans, 1955), rather than on *Mullerornis*.

Be that as it may, Flacourt's factual description certainly does not suggest a fabulous or imaginary creature. However, to assess the reliability of his report it is important to consider the general character of his natural history observations.

were in fact zebus with fatty humps on their shoulders, and noted that there were no dangerous terrestrial animals in Madagascar. His botanical descriptions were fairly detailed and a genus of Salicaceae, *Flacourtia*, was named after him. His notes on birds are generally very short but accurate and lack any fabulous features. Unlike his drawings of plants, his illustrations of the local fauna are rather crude but do not show imaginary creatures (it should be noted that the rhinoceros and hippopotamus he figured had been observed in Africa, not in Madagascar, as is made clear in his book). Unfortunately, he did not provide an illustration of the *Vouron patra*.

His chapter on terrestrial animals and insects, however, besides notes on many easily recognisable elements of the Malagasy fauna, including the chameleon, the tenrec, the fossa and various lemurs, contains descriptions of several creatures that have been deemed fabulous, or at least indeterminate, by later authors. They include the *Tretretrete*, or *Tratratratra*, the *Antamba*, the *Mangarsahoc* and the *Breh*.

The *Breh* is described as an animal the size of a large goat, with a single horn on the forehead, and Flacourt notes that 'it must be a unicorn'. It is difficult to imagine to what

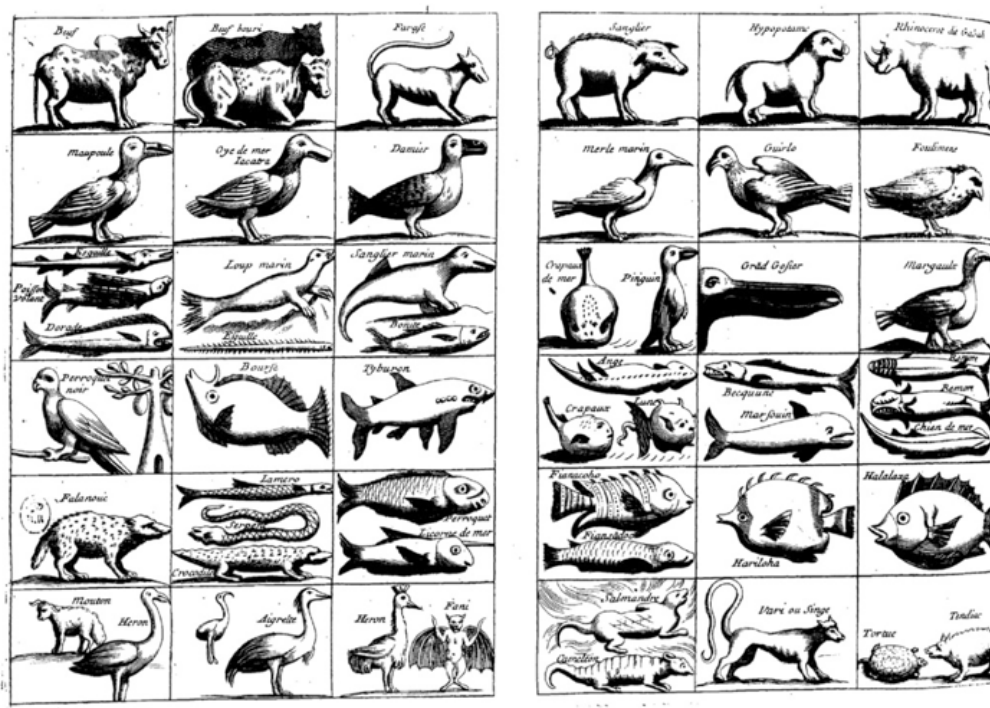


Fig. 2 - The Malagasy fauna, as illustrated by Flacourt (Flacourt, 1661). The drawings are rather crude and the *Vouron patra* is not among them. The hippopotamus and rhinoceros are from Africa, not Madagascar.

#### 4. HOW RELIABLE IS FLACOURT'S NATURAL HISTORY? THE PROBLEM OF 'FABULOUS' ANIMALS

Later authors (Monnier, 1913; Lavauden, 1931; Decary, 1950) have generally praised the precision and clarity of Flacourt's reports and in particular his natural history notes. Lavauden (Lavauden, 1931), after checking his observations on the spot writes of his 'scrupulous exactness and minutious precision'. Flacourt was not credulous and in his book he mocked earlier authors who had written of camels and tigers in Madagascar. He remarked that the so-called camels

kind of real Malagasy animal the *Breh* may correspond. The *Mangarsahoc* is a larger animal with horse-like feet and long ears that cover its eyes when it walks downhill. Flacourt thought that it could be a wild ass. Belief in the *Mangarsahoc*, or *Mangarysaoka*, persisted until the 20<sup>th</sup> century, as noted by Lavauden (Lavauden, 1931) and Decary (Decary, 1950). The *Antamba* is a rare leopard-like man-eating beast. Whether Flacourt really believed in its existence is uncertain, because elsewhere in his book he noted that the only animals dangerous to man in Madagascar were the crocodiles that were found in large numbers in the rivers. What the *Breh*, *Mangarsahoc* and *Antamba* may have been, and whether they were real or mythical animals, remains uncertain.

The *Tretretrete* has attracted more attention than the other

'hypothetical animals' (to use Deacary's term) mentioned by Flacourt, because it has many features reminiscent of some of the large, recently extinct lemurs. Flacourt describes it as an animal the size of a two-year old calf, with a round face, hands and feet like those of a monkey, man-like ears, curly hair and a short tail. Lavauden (Lavauden, 1931) thought that Flacourt's report on the *Tretretrete* showed that the large lemur *Archaeoindris* still existed in the 17<sup>th</sup> century. Similarly, Heuvelmans (Heuvelmans, 1955) believed that Flacourt's *Tretretrete* was a large lemur, possibly *Palaeopropithecus*. According to Kay (Kay, 2004), *Tretretrete* was the Malagasy name for the giant lemur *Megaladapis*, which seems unlikely because that animal had a protruding snout and robust jaws, not a round face; the short-snouted *Hadropithecus*, with its round head and flat face, would seem to be a better candidate. However that may be, the probability that Flacourt's *Tretretrete* corresponds to one of the large extinct lemurs seems high. It therefore seems that some of the 'fabulous' animals described by Flacourt may not have been fabulous after all, and may have been elements of the recently extinct megafauna that were still in existence in the 17<sup>th</sup> century. Interestingly, there were reports of strange animals that may be survivors of the subfossil Malagasy megafauna (dwarf hippopotami, giant lemurs?) in some parts of Madagascar as late as the second half of the 20<sup>th</sup> century (Burney & Ramilisonina, 1998). As to the *Vouron patra*, it lacks fabulous features and there is every reason to believe that Flacourt was referring to a real bird when he described it. Irrespective of whether he actually saw it or just heard about it from native informants, the question is: was it still in existence in the mid-17<sup>th</sup> century? The other option is that Flacourt heard stories about animals, including the *Vouron patra*, that had already been extinct for some time but had left a trace in folk memory.

## 5. THE *VOURON PATRA* IN FOLK MEMORY

To estimate the likelihood of elephant birds having survived until the 17<sup>th</sup> century, it is useful to consider what mentions of giant birds can be found in Malagasy folk tales or even in purported eyewitness accounts, in order to assess what knowledge the native inhabitants of Madagascar may have had of such creatures in the days of Flacourt and later.

It should be remembered that when *Aepyornis* was discovered by western science in the mid-19<sup>th</sup> century, there were hopes that this giant bird might still be in existence in remote parts of Madagascar that had not been visited by European explorers. Despite various rumours, such hopes were soon dashed as the exploration of the island progressed at a fast pace. As early as 1867, Grandidier (Grandidier, 1867) considered that it was no longer possible to entertain the hope of finding living aepyornithids, a conclusion reiterated by Milne-Edwards and Grandidier (Milne-Edwards & Grandidier, 1869). The question remained, however, of when the giant birds had disappeared, and Flacourt's report has always played a part in discussions of that topic. In addition, European explorers repeatedly interrogated local inhabitants about the *Vouron patra* and more generally giant birds, in search of folk memories concerning them, which may have helped to pinpoint the date of extinction of elephant birds. It is difficult to form a coherent picture of native knowledge about recently extinct giant birds

because information gathered from local informants is often contradictory. Oustalet (Oustalet, 1894) reported that in 1869 Alfred Grandidier, while he was exploring the south-western coast of Madagascar, asked a local king whether he had heard of the animal called *Vouron patra*. This man answered that he had not seen it himself, but his ancestors had. As proof of the former existence of that creature, he added that he had found its bones when digging a pond. After some bargaining with the locals, Grandidier was allowed to excavate at the site, which led to the discovery of the major subfossil locality at Ambolisatra. Curiously enough, however, in their description of the first *Aepyornis* remains found at Ambolisatra, Milne-Edwards and Grandidier (Milne-Edwards & Grandidier, 1869) stated that one of them (Grandidier) had ascertained that on the south-western coast, where *Aepyornis* eggshell fragments were abundant, even the oldest inhabitants had never heard of such a bird and had no legends or traditions that could refer to it, thus confirming what Grandidier had already noted in 1867 (Grandidier, 1867).

Monnier (Monnier, 1913) repeated the story about the local king who had heard of the *Vouron patra*, and whose ancestors had seen it, and added his own contribution to the folklore of aepyornithids, noting that in the centre of the island he had heard an 'obscure and invariable' legend about the *Tokandia*, a large animal whose two legs were attached to the middle of its belly, and that left a single track on the ground. Monnier thought that this description could fit a large ratite bird. Lavauden (Lavauden, 1931) repeated the anecdote about Grandidier and the local chief, as well as Monnier's remarks on the legend of the *Tokandia*, which he had also heard. He added a story recorded by missionaries about three brothers who had been attacked by a huge flightless bird, until they finally managed to kill it. Lavauden also recorded a story according to which a huge bird had been killed by native people in a marsh north of the city of Tuléar in 1890, after a violent hurricane. He considered that the story may have had some truth in it but that the date of the event was highly uncertain.

Another story recorded by Lavauden (Lavauden, 1931) may at first sight seem more convincing: when an ostrich farm was established by the French near Tuléar, in the southern part of Madagascar, some old people commented that the *Vazaha* (foreigners) had brought back to the island animals that had lived there in the past. However, Lavauden warned that this comment had probably been influenced by what the French colonists were saying about the similarities between ostriches and *Aepyornis* and did not reflect a real folk memory among the native population.

It should also be noted that the Malagasy people apparently did not know what kinds of animals the subfossil bones belonged to. Last (Last, 1894: p 125), working in south-central Madagascar, noted that 'the natives have no knowledge of the creatures of which these fossils are the remains, and, if asked, generally say they are the bones of the Pang'ani, a mythical creature, in whose existence most of the Malagasy tribes firmly believe'. Similarly, Decary (Decary, 1950), in a review of the mythical animals of Madagascar, discussed the *Tsongomby*, a kind of man-eating ox-like or horse-like animal, and noted that the Mahafaly and Antandroy tribes of southern Madagascar attributed the *Aepyornis* eggs found in that region to that creature. He reported that once, when he was excavating large

*Aepyornis* bones in that area, the local Antandroy told him that they belonged to the *Tsongomby*. Perrier de la Bathie (Perrier de la Bathie, 1934) noted that the natives always described the giant birds in a very confused way.

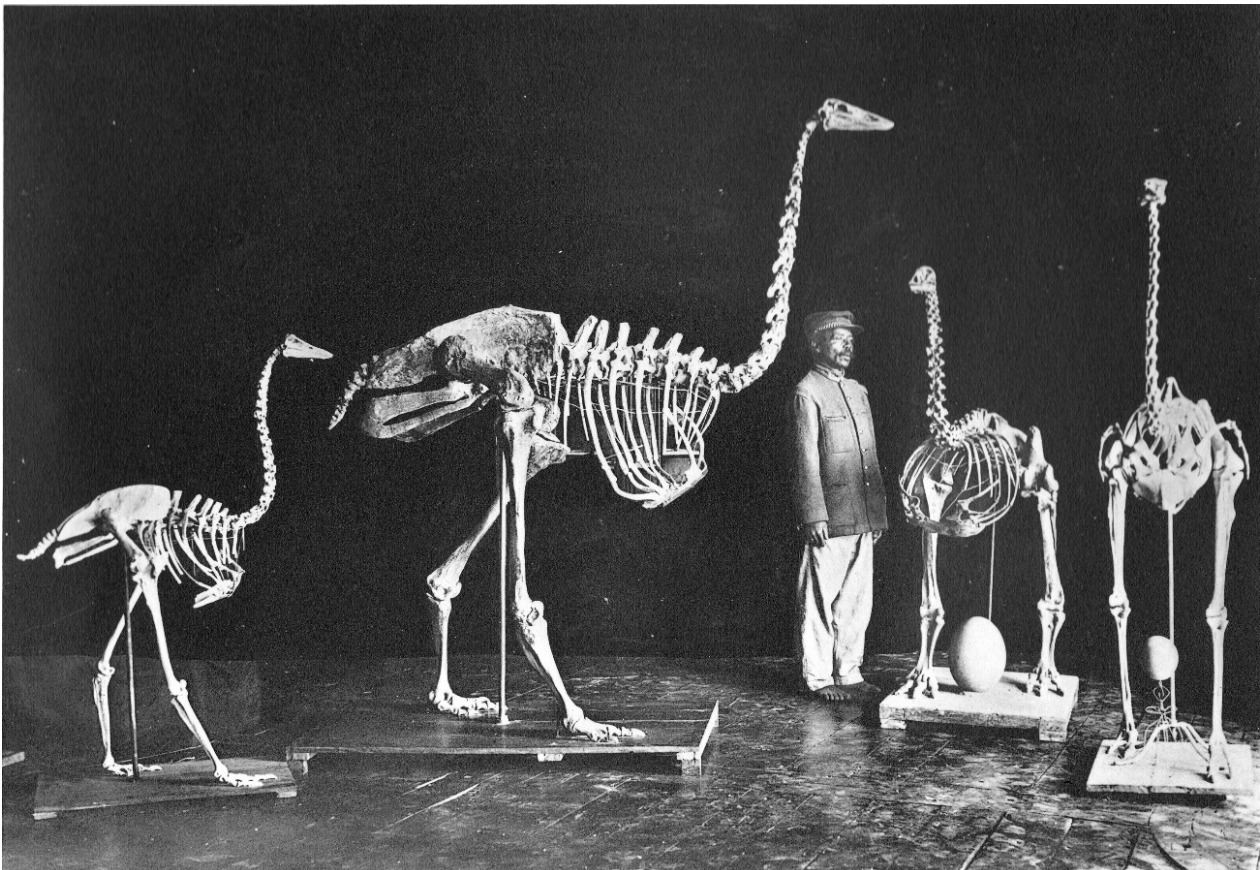
Therefore, despite the story of the local king who had heard of the *Vouron patra*, it would seem that relatively little has survived of the memory of elephant birds in Malagasy traditions. What in them may refer to these birds has a strongly fabulous character. Some authors have concluded that they must have disappeared at a rather remote period: Milne-Edwards and Grandidier (Milne-Edwards & Grandidier, 1869) thought that the travellers of the 16<sup>th</sup> and 17<sup>th</sup> centuries (including therefore Flacourt) only collected ancient memories mixed with fabulous stories that had been handed down for generations among the local tribes, long after the giant birds had become extinct. Perrier de la Bathie (Perrier de la Bathie, 1934) thought that native traditions about giant birds were several centuries old.

However, as noted by Lankford (Lankford, 1980: p. 297), 'today's folklorists [...] tend to be skeptical about 'historical' memories reaching back more than a century', so the fact that folk memories of giant birds in Madagascar recorded in the 19<sup>th</sup> and 20<sup>th</sup> centuries did not give accurate accounts of these creatures and were largely fabulous – or that no folk memories at all survived - does not necessarily imply that the extinction of the last elephant birds took place long before Flacourt heard of the *Vouron patra*. In New Zealand, where the youngest radiocarbon dates for moa remains are around the beginning of the 15<sup>th</sup> century A.D. and where some species of moas may have survived significantly longer (Berentson, 2012), Maori traditions about these birds often contain many fabulous features.

Interestingly, as noted above, Flacourt's account of the *Vouron patra* is terse and extremely matter-of-fact, lacking any fabulous features, unlike the traditional Malagasy tales recorded in the 19<sup>th</sup> and 20<sup>th</sup> centuries. This suggests that, *contra* Milne-Edwards and Grandidier (Milne-Edwards & Grandidier, 1869), his informations were not derived from ancient, more or less garbled folk memories.

More recently, Goodman and Jungers (Goodman & Jungers, 2014: p. 64) concluded that 'when elephant birds went extinct is unclear, but at least in the Androy region, combining accounts by Flacourt and different information from archaeological excavations, they probably disappeared about 750 years BP and hence locally overlapped in time with humans'. This estimate, which implies that elephant birds disappeared some 450 years before Flacourt's stay in Madagascar, seems to be based mainly on a few radiocarbon dates. However, it is unlikely that Flacourt could have obtained the kind of information he got about the *Vouron patra* if the latter had been extinct for more than four centuries when he wrote the *Histoire de la grande isle Madagascar*.

**Fig. 3** - Skeletons of various ratites, after Lambertson (Lamberton, 1934). From left to right : *Mullerornis agilis*, *Aepyornis maximus*, *Aepyornis hildebrandti*, and *Struthio camelus* (ostrich). The *Vouron patra* may have been one of the relatively small aepyornithiformes, roughly the size of an ostrich.



## 6. CONCLUSION

While some authors (e.g. Grandidier, 1867; Perrier de la Bathie, 1934) have argued that aepyornithids had already been extinct for a long time before Flacourt mentioned the *Vouron patra* in 1658-61, others were convinced that these birds were still in existence when he visited Madagascar. As noted above, both Lavauden (Lavauden, 1931) and Decary (Decary, 1950) thought that Flacourt did not himself see this bird (or its eggs), but relied on detailed accounts by native informants. Decary (Decary, 1950) clearly stated that the *Vouron patra* was still alive when Flacourt wrote about it in his *Histoire de la grande isle Madagascar*. Monnier (Monnier, 1913) considered it not impossible that Flacourt had actually seen this bird. Lambrecht (Lambrecht, 1933) believed that the *Vouron patra* must have been very common in the southern part of Madagascar in the mid-17<sup>th</sup> century (which is not quite what Flacourt's report suggests). Like his other notices about elements of the Malagasy fauna, Flacourt's description does not specify whether it is based on personal observation or on information gained from local informants. The fact that he describes the *Vouron patra* as an elusive bird inhabiting remote places where the locals cannot catch it may suggest that he did not personally observe this bird. He may have seen its eggs, although it should be noted that he compared them with ostrich eggs and did not describe them as especially enormous. If he had been shown *Aepyornis maximus* eggs, which are much larger than ostrich eggs (one *Aepyornis maximus* egg having the volume of about six ostrich eggs according to Geoffroy Saint-Hilaire (Geoffroy Saint-Hilaire, 1851), he would certainly have mentioned that point. This brings us to the question of what kind of bird was the *Vouron patra*. Flacourt's comparison with the ostrich clearly shows that it was a ratite, but it did not necessarily belong to the genus *Aepyornis*. It has long been suggested that the *Vouron patra* may have been a relatively small species of elephant bird (Milne-Edwards & Grandidier, 1869). Andrews (Andrews, 1895) concurred with this idea and erected the genus *Flacourtia* for one of these relatively small forms. *Mullerornis* (Lamberton, 1934) is smaller and more slender than *Aepyornis*, being roughly the size of a cassowary. Monnier (Monnier, 1913) was unable to decide whether the *Vouron patra* corresponded to a species of *Aepyornis* or to *Mullerornis*. Although the systematics of aepyornithids is much in need of clarification, it should be noted that some species of *Aepyornis*, such as *A. hildebrandti*, were not larger than ostriches (Lamberton, 1934: plate III). It is therefore difficult to decide whether Flacourt's *Vouron patra* was a 'small' species of *Aepyornis* or a representative of the genus *Mullerornis*. That it was an aepyornithiform bird can hardly be doubted, and there is no convincing reason to suggest that it was already extinct when Flacourt described it. The most parsimonious hypothesis therefore seems to be that elephant birds survived in at least the southern part of Madagascar until the mid-17<sup>th</sup> century. When their final extinction occurred remains uncertain, but Grandidier was probably right when he stated in 1867 (Grandidier, 1867) that there was no longer any hope of finding one of these birds alive. By the second half of the 19<sup>th</sup> century, the native inhabitants of Madagascar no longer had clear memories of the elephant birds. It therefore seems likely that they disappeared not very long after Flacourt described the *Vouron patra*.

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