

Georgius Everhardus Rumphius (1627–1702), the blind seer of Ambon

J.F. Veldkamp

Netherlands Centre for Biodiversity – Naturalis,
Section National Herbarium of The Netherlands, Leiden University,
P.O. Box 9514, 2300 RA Leiden, The Netherlands
veldkamp@nhn.leidenuniv.nl

ABSTRACT. Georg Eberhard Rumpf, better known as Rumphius (1627–1702) was a *Homo universalis* and is the undisputed patriarch of Malesian botany, zoology, geology (including fossils!), colonial history; pharmaceutical, architectural, juridical (local and Western), ethnological, linguistic, historical, and religious matters, including astrology and magic. To botanists he is best known for his *Herbarium amboinense* (1741–1750), the first account and sometimes the only one of Malesian plants. This is a 7-volume folio work with extensive descriptions and discussions in Latin and Dutch of about 1200 species with 811 full-page illustrations. A brief account of his life and works is given.

Keywords. Ambon, Dutch United East Indian Company, Herbarium amboinense, Malesia, natural science, Rumpf, Rumphius, VOC

Introduction

Many articles and books have been written about Georg Eberhard Rumpf (Georgius Everhardus Rumphius in Latin), better known as Rumphius (1627–1702) and his observations in the Moluccas (Fig. 1, 2), which have given him an everlasting place of honour in the history of natural science (see Appendix A for a selection). Only a few of these publications were in English, the last one by Beekman (1999), who translated *d'Amboinschen Rariteitkamer* (1705), the Amboinese Curiosity Cabinet. This deals mainly with animals, mineralogy, and geology, explicitly recognising zoological fossils. European scientists regarded these as remnants from before the Deluge, or were created by the Devil to confuse good Christians. Some modern Creationists still think so. Every taxonomist in Malesia has encountered species named after him: “*rumphii*”, “*rumphianus*”, or based on taxa first described in his works.

Rumphius and Ambon

Ambon island (Pulau Ambon) in the 17th century (Fig. 3) was the centre of the spice trade: cloves, nutmeg, mace, and pepper. These commodities were very much in demand in Europe and worth a fortune once there. At one time for a bag of pepper one could buy an imposing house in a major town in The Netherlands! The organisation

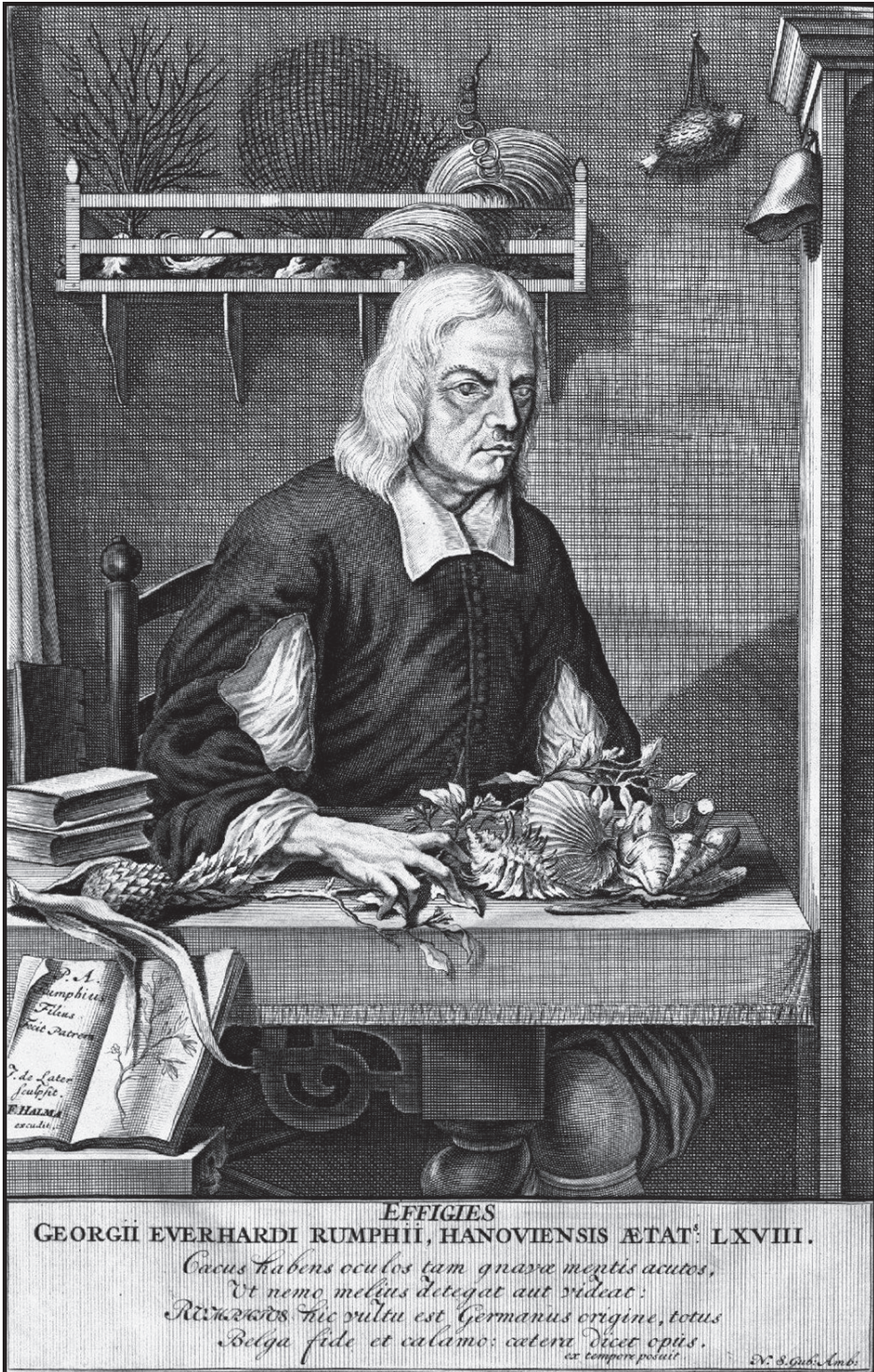


Fig. 1. Portrait of Rumphius at age 68 by his son Paulus.



Fig. 2. The title page of the Auctuarium manuscript in the University Library of Leiden depicts a man, who might well be Rumphius, making notes under a remarkable fig. Below: roads of Ambon in 1690.

that ran the business was the Dutch *Vereenigde Oost Indische Compagnie* (VOC) (the United East Indian Company), a state within a state with its own navy, army, fortresses, trading posts, and diplomatic treaties with local leaders and political fractions. Its settlements were the predecessors of the Dutch East Indies, but also of the Republic of Ghana, and of South Africa, with settlements in many places, of note in the Arabian coast, S India, Sri Lanka (think of cinnamon!), Malaysia, Japan, and through Taiwan with China (think of the introduction of China ware, silk and tea in Europe!).

It is a sad thing that the identity of *Rumphia amboinensis* L. is unknown. Linnaeus based this on a plate in Rheede's *Hortus malabaricus* for a species from South India, a place where Rumphius had never been and whatever the identity of the species, it surely is not Amboinese. It just shows how little Linnaeus knew about geography, sometimes his provenance "India" even refers to the West Indies...

Other generic eponyms in zoology are the gorgonian *Rumphella* Bayer (1955), called "sea tree" by Rumphius, because at that time everything that moved was an animal, and what didn't was a plant. Linnaeus, also, regarded sponges (*Spongia* L.) as algae... There are also the sea urchins *Rumphia* Desor (1846; Miocene to Recent of the Indo-Pacific), *Neorumphia* Durham (1954), and *Rumphiocrinus* Wanner (1924). However, the butterfly *Rumphia* Pagenstecher (1909) is a typographical error for

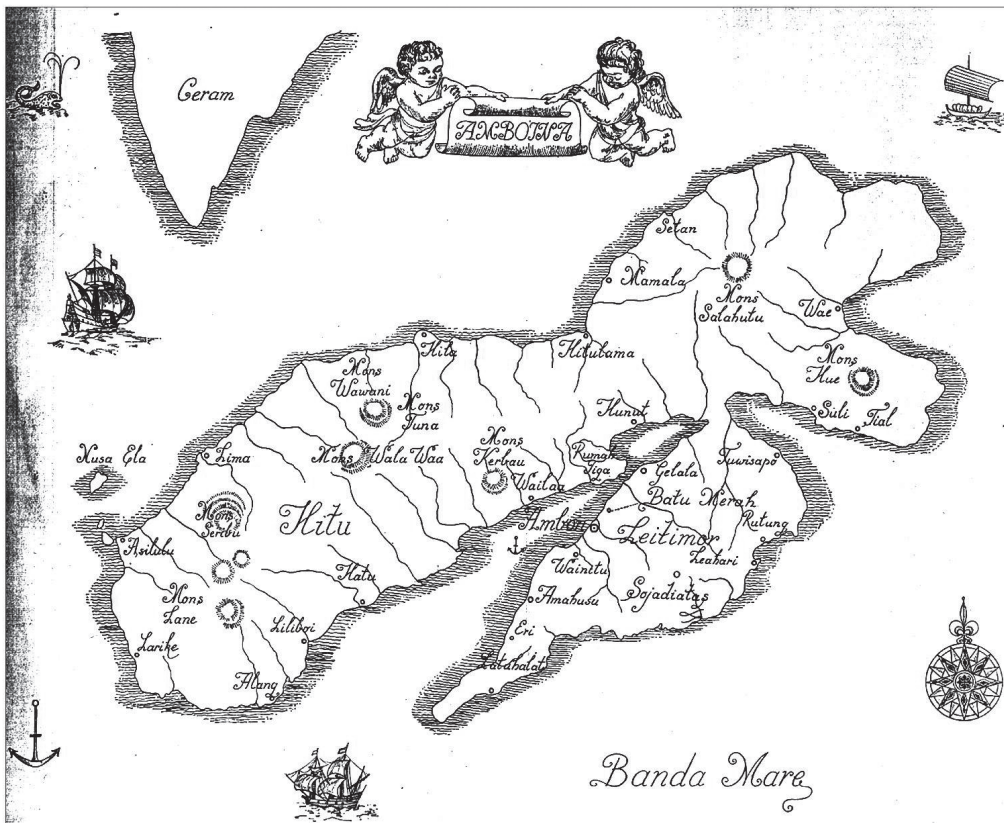


Fig. 3. Ambon.

Ramphia Guinée (1852). The botanical journal *Rumphia* appeared between 1836 and 1849. There is even a Rumphius Range in the Lorentz Park in Indonesian New Guinea.

Rumphius was born in at the end of 1627 in Wolfersheim, Hessen, Germany. His mother came from Cleve (Kleef) near the Dutch border, where at the time Dutch was spoken, which would explain his impeccable and even innovative command of that language. His father was an engineer, a builder of fortresses, and passed on this knowledge to his son. Georg had a good education and finished the Gymnasium, but did not go the University and did not get a degree in Medicine in nearby Hanau as was later suggested.

As he said later he wanted to see something of the world and in 1646 enrolled as a soldier, thinking that he would go the East Mediterranean, but instead he headed for Barbice in the Guyanas where the West Indian Company (WIC) was involved in wars with the Portuguese and Indians. There is still a saying in The Netherlands: “going to the barbiesjes”, that is, to meet certain death. Fortunately for him (and us) he somehow landed up in Portugal, where he served as a mercenary soldier for three years after which he was dismissed, possibly because the Catholics there didn’t trust Protestants like him. He returned to Germany for two years.

He may well have heard about the riches of the East Indies from his Dutch relatives and wished to see them for himself. And thus at Christmas 1652 he left from The Netherlands as an *adelborst* (midshipman) with the VOC. Note that he would have had a much higher rank if he had had an academic education and, especially, when he had been a physician. These were very much sought after by the VOC in view of the high rate of injuries, diseases and deaths that plagued the fleets and garrisons. Later authors thought he was a medical doctor, but he denied this and in fact he was an amateur naturalist and a self-made man in the best sense of the word.

By the end of 1653 he arrived in Pulau Ambon, never to leave the Moluccas again. His father’s education now proved fruitful in the planning and construction of fortifications. However, soon after 1657, he switched from the military to the civilian and was appointed as Junior Merchant (*onderkoopman*) at Larike, on the West coast of Hitu. There he married Susanna, a local woman, possibly Chinese, according to European marriage records. He named the orchid *Flos susannae* after her, now *Pecteilis susannae* (L.) Raf. “in memory of her who during her life was my first companion and assistant in the finding of herbs and plants, she was the first to show me this flower” (Fig. 4).

Larike was a back-water dump and because he had so little to do he could devote a great deal of his time in the studies of the Treasuries of Nature. Rumphius sent specimens to Europe which are not recorded in the VOC archives. This is not so strange, as the VOC did its utmost to prevent exports and forbid private mailings. Of course, everybody circumvented these rules. Rumphius is commended by all for his honesty, but apparently he had his channels. You might say that he was less corrupt than the others...

In 1701 he also smuggled out the manuscript of *d’Amboinsche Rariteitkamer* (Fig. 5) to the mayor of Delft, Hendrik d’Acquet. It is interesting to note that some drawings of shells were made by Maria Sybille Merian (1647–1717), who also hand



Fig. 4. Flos susannae, *Pecteilis susannae* (L.) Raf. (Orchidaceae).

coloured a few now priceless copies (Fig. 6). Where Rumphius was the founder of zoology and botany in the Moluccas, she was that for Surinam.

He was elected as a member of what is now the oldest science society in the world, the *Academia naturae curiosorum* of the German Roman Empire (founded in 1657, today still in existence as the Leopoldina). Members were given nicknames, his was “Plinius”, a most honorific title as it was after the Roman procurator (‘administrator’) Gaius Plinius Secundus (23–79 A.D.), killed in the eruption of the Vesuvius which buried Pompeii and Herculaneum, and who was one of the founders of European natural sciences. His influence lasted for 1500 years until the end of the Middle Ages. Actually, Rumphius was more than Plinius, as the latter compiled existing knowledge, while Rumphius did mention his sources, but added personal experience. Blume, the second Director of the Kebun Raya Bogor, and then the first Director of the Rijksherbarium, in his turn as a member, was called “Rumphius”, but although a Medical Doctor from the Leiden University, he was a scientist of an entirely different kind.

Thirteen of Rumphius’s letters were published in the Society’s journal *Miscellanea Curiosa*. In 1682 he sent shells, sea animals, minerals, resins, fossils, and some parts of plants in a cabinet made from 56 different kinds of wood to the Grand-duke of Toscane, Cosimo III de’Medici (1639–1723). Unfortunately, the chest and its contents have been lost, as the original labels have probably been replaced. Some shells may be present in the State Museum in Vienna, and perhaps some fragments of palms in Florence.

In 1660 he was promoted to Merchant (*koopman*) and moved to Hila, a much more civilised place, where he lived like a prince: daily fresh venison, plenty of fish, and sheep, geese, ducks, and chickens, horses with superb bridles, some of pure silver. He had a one-gun vessel with 40 rowers. His gardens yielded cabbages, endives, lettuce, parsley, Chinese radishes, etc. He even had a small zoo. Life was pretty good!

In 1662 he became Senior Merchant (*opperkoopman*). He then earned the extra-ordinary salary of 24 rixdollars (60 guilders, or 1200 Dutch shillings) a month. In comparison, Jan van Riebeeck, the famous Governor of the Cape, got “only” 21. He stayed there for 10 years, rather exceptional, as VOC employees usually were translocated after about 5 years to prevent too good connections for graft and smuggling. This may well be due to the good opinion his superiors had of his honesty.

In August 1663, he wrote a letter to the Board of the VOC in which he asked for permission to have books sent for his work on the plants and animals of the East Indies. This was granted, but only in 1666 did he receive them. One of his arguments was, that God in His wisdom had provided local herbs to cure local diseases, so a better knowledge of what was available would be beneficial to all. The medicines shipped from The Netherlands were ineffective and often spoiled. He noted that although many local recipes might be fables, superstitions, or old wives’ tales, they should be included as there might be some truth in them. Of course he lacked the occasion and time to try all medicines, but some he had “tested in mine own house, and with other families”.

His accounts are not bone dry enumerations as was usual for herbals at the time, but every species got an extensive description, where it occurred, what it was

used for, a recipe, anecdotes, and sometimes a joke. For instance, that newcomers (*orang baru*) were fooled with the resin of the pine *Agathis*, which they were told were lumps of sugar, with which they then went into hiding to quietly and privately enjoy the supposed delicacy. Of course he speaks much of diseases, health, birth, death, and

D'AMBOINSCH RARITEITKAMER,

Behelzende eene BESCHRYVINGE van allerhande
zoo weke als harde

SCHAALVISSCHEN,

te weeten raare

KRABBen, KREEFTEN,

en diergelyke Zeedieren,

als mede allerhande

HOORNTJES en SCHULPEN,

die men in d'Amboinsche Zee vindt:

Daar beneeven zommige

MINERAALen, GESTEENTEN,

en foorten van AARDE, die in d'Amboinsche, en zom-
mige omleggende Eilanden gevonden worden.

Verdeelt in drie Boeken,

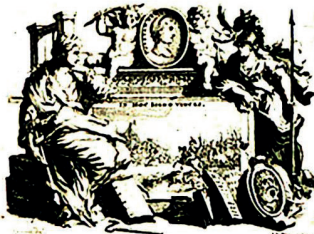
En met nodige PRINTVERBEELDINGEN, alle naar 't leven getekent, voorzien.

Beschreven door

GEORGIUS EVERHARDUS RUMPHIUS,

van Hanauw, Koopman en Raad in Amboina, mitsgaders Lid in d' *Academie Curioforum Naturæ*,
in 't Duitfche Roomfche Ryk opgerecht, onder den naam van

PLINIUS INDICUS.



T A M S T E R D A M,

Gedrukt by FRANÇOIS HALMA, Boekverkoper
in Konstantijn den Groeten.

1705.

Fig. 5. Title page of the Rariteitkamer.

all rituals concerned with these. A lot about sex, for that is part of life, but in a quiet, unsensational way, sometimes with a chuckle on human foolishness.

In 1666, he was temporarily appointed as *Secunde* (“second man”), a rank immediately under that of Governor, but was not confirmed in it. In compensation he was allowed to buy a piece of land. Here he created a Physic Garden, the first western type of botanical garden in Asia. He also had a forest garden long known as *Dusun Rumphius*. His contract with the VOC after having served 16 years, expired in 1668 and he was supposed to retire (at 41!) and go back to Europe. He was quite happy where he was and with what he was doing, so somehow he managed to extend his stay with retention of his salary forever. Life was good!



Fig. 6. A rare coloured plate of the Rariteitskabinet by Maria Sybille Merian.

Blindness and personal tragedy

Things changed considerably when in April 1670, at 42, he turned incurably blind (*glaucoma simplex*), about the worst thing that can happen to a dedicated naturalist. With the aid of his son and some assistants provided by the VOC, he continued with his work. The original manuscripts were in Latin, but because his assistants didn't know that language, he had to dictate them in Dutch. Here he showed his linguistic proficiency. Descriptive botany is a language by itself and in his time it had hardly

evolved, certainly not in Dutch. Consulting literature will have been a problem, as these were of course in Latin and mainly dealt with the European flora. Works on Asian plants were by the Portuguese Garcia de Orta (1501–1568) published by Carolus Clusius (1567, 1582, 1593, 1605) from Goa in India, Hendrik Adriaan Rheedee van Drakenstein's (1633–1691) 12-volume *Hortus malabaricus* (1678–1692) on South Indian ones, and a medical textbook by Jacob Bontius (1592–1631) for plants in Batavia. Later, Burman very carefully translated it all back again into Latin.

On Saturday, 17 February 1674, it was near the end of the Chinese New Year celebrations. Rumphius didn't attend, because, as he said, he couldn't see anything. Suddenly, there was a huge earthquake followed by tsunamis, killing 2322 people. A falling wall killed Susanna, two of their daughters, and a maid.

On Saturday, 11 January 1687, in Kota Ambon, where he now lived, he had another disaster. The town was razed by fire which destroyed his precious library, collections, and most of his manuscripts. Only parts of the *Herbarium amboinense* and about half of its plates were saved. Yet, undaunted by blindness and his awful losses, Rumphius dictated the lost chapters to his assistants again from memory and they managed to redraw the lost plates, probably under the supervision of his son Paulus.

By the end of 1690 the first part of his *magnum opus*, six books of the *Herbarium amboinense* were sent to Batavia, where they were copied for safe keeping. Not without reason, for it was a long and hazardous journey back to Europe. Indeed, the *Waterman* that carried them in 1692 was sunk by the French. A second copy was made including three additional books that had arrived in the meantime, and by August 1697 everything was safely in the Netherlands. A year later, the final three books were received. Two additional appendices were shipped by 1704.

On May 19, 1702, the Governor of Ambon wrote to the High Government at Batavia about Rumphius "nothing more was to be expected of that old gentleman, having lived his years", and on June 15 he died, 75 years old, very old for a European in the tropics. No special mention is made in the missives from Ambon, but casually, under another heading it is noted that he left 4000 rixdollars (10,000 guilders, or 200,000 Dutch shillings), quite a fortune, about two million Euro at present rates, and various pieces of estate (land, houses), the savings of about 50 years of duty.

Subsequent events

If you think the VOC would have been quick to publish this *magnum opus*, you are very much mistaken. Such a publication would be very expensive and would not provide any profits, so the Board would allow it as long as it would not cost the Company a penny. But there were no takers. Thus the manuscripts were locked up in their vaults.

Johannes Burman (1707–1779) was allowed by the VOC to prepare the manuscripts for publication in 1735. He meticulously translated Rumphius's poetic and flowery Dutch back into Latin and had etchings made of the drawings and colour plates. Take, for instance, the comparison Rumphius made of the wine-producing palm *Arenga pinnata* Merr.: "and thus it resembles in its ugly and uncouth habit a drunken



Fig. 7. *Arenga pinnata* Merr. as in the Herbarium amboinense (left) and in the manuscript of the Leiden University (right).

farmer as he jumps up from his sleep with mended rags and tussled hair. Indeed, this is the most ugly of all trees” (Fig. 7).

It was a very expensive publication, only 500 copies were printed, the set costing about 100 guilders (2000 Dutch shillings, now Euro 20,000), about a third of the income of a physician in Amsterdam. The original drawings often are in colour, but the books were already so expensive, that printing with coloured plates would make them completely out of reach. Thus it may happen that when Rumphius speaks of several species it is not quite clear which one has been depicted. An example is *Corona ariadnes punicea* with red flowers and *Corona ariadnes lutea* with yellow ones, but the legend does not state with one is represented. The coloured plate in the Leiden University Library shows the flowers to be red, so after more than 260 years we now know that the plate represents the *punicea* form, a synonym of *Hoya coronaria* Blume (Fig. 8). Similar problems may well be solved so easily.

Also, there have been only few attempts to recollect representative material. Most were only half-heartedly done, or the scientists died before arriving at the island. The most serious attempt was by Charles Budd Robinson (1871–1913), an American botanist sent there by Merrill, who made a large collection of Rumphian and non-

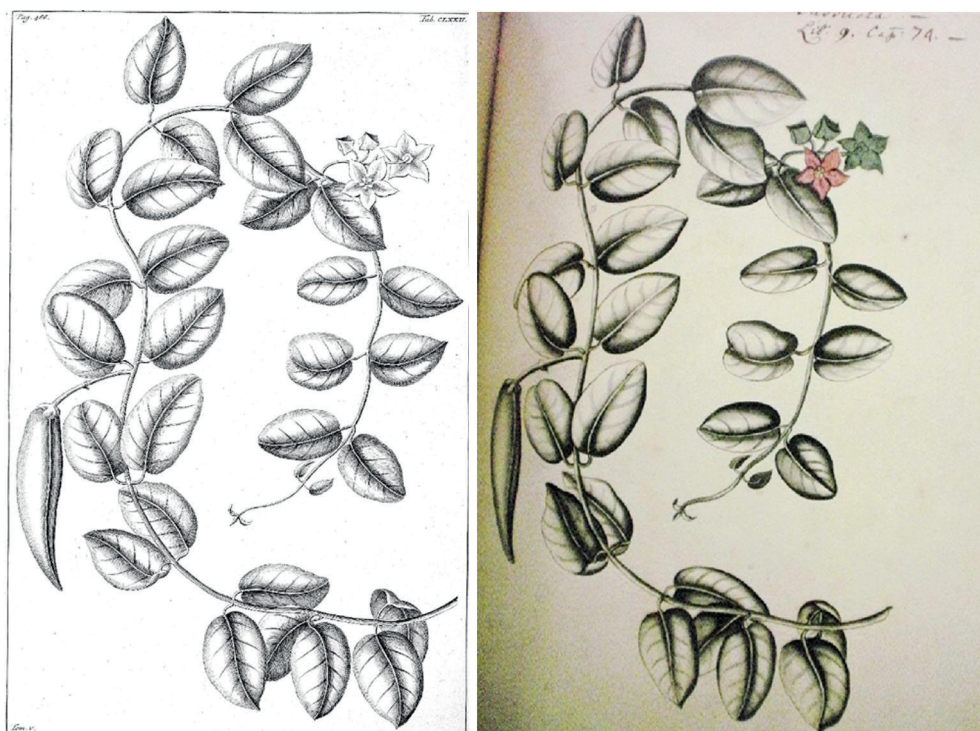


Fig. 8. *Hoya coronaria* Blume (Asclepiadaceae) as in the Herbarium amboinense (left) and in the manuscript of the Leiden University (right).

Rumphian species, but was prematurely murdered. Merrill distributed 18 duplicate series and by these many Rumphian taxa can be identified and the names exclusively based on them, neo- or epitypified (when the type is the illustration). The series have been deposited in A, BM, BO, F, K, L MO, NSW, NY, US. The top set with the original labels are in US, so in typifications these should be designated as the holotypes.

Anyway, these texts after so many years are still the only extensive source on the flora of Ambon. It is therefore remarkable that although there are various concordances, there has never been a reprint. Fortunately, the original texts can now be found on the internet, but unfortunately, very few have sufficient knowledge of Dutch and Latin to be able to read them. The good news now is that Monty Beekman (1939–2008) just before his death was able to finalise a translation into English which was released to the public on 20 June 2011, but was on 4 and 5 February 2011 officially presented to his widow, Faith Foss, by the Yale University Press at the Fairchild Botanic Gardens in Florida. This will make this seminal publication available to the Anglophone public and thus it will be a very valuable addition to the knowledge of the past, present, and future events of the Flora Malesiana. Of course the work has been extensively data mined. You will find references in Heyne's *Useful Plants of the Dutch East Indies*, sometimes as the only reference. From there they found their way to Burkill's *Dictionary of the Economic Products of the Malay Peninsula* and, more recently, into the publications of PROSEA.

Epitaph

Monuments have been raised for Rumphius, the first destroyed by tomb-robbers, the second (erected in 1824) hit by an Allied bomb in 1944, and a third was built in a slightly different place (yard of the Xaverius Junior High School, Jl. Pattimura) in 1996 (Buijze 2001: 282, fig.). I was in Ambon in April 2011 and visited this monument (Fig. 9). His house, however, was burned early 20th century. But no human activity can destroy the true monuments reminding us of this remarkable man: the works on plants, animals, and stones that he has left us.



Fig. 9. The Rumphius monument in the yard of the Xaverius Junior High School, Kota Ambon.

A *Homo universalis*: modest, unprepossessing, lenient to other people's views, an unbelievable resilience to disasters (blindness, loss of family, life work), perseverance under stress, yet with a persistent sense of humour—where this might easily and understandably have led to bitterness—with a continuous perspective curiosity, a perpetual surprise. We would do well to make him our example.

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References

- Beekman, E.M. (1999) *The Amboinese Curiosity Cabinet*, pp. xxxv–cxii. New Haven.
 Buijze, W. (2001) *De Generale Lant-Beschrijvinge van het Ambonse Gouvernement ofwel de Ambonsche Lant-Beschrijvinge door G.E. Rumphius, Transcriptie, Noten, Woordenlijst en een Nieuwe Biografie*. Amsterdam.
 Rheede tot Drakenstein, H.A. van (1678–1703) *Hortus Indicus Malabaricus*. 12 vols. Amsterdam.

Appendix A. Other works recommended for further reading.

- Baas, P. & Veldkamp, J.F. (2011) *Dutch pre-colonial botany and Rumphius's Amboinese Herbal*. Allertonia (in press).
 Backer, C.A. (1936) *Verklarend Woordenboek*, p. 568. Batavia: Groningen (reprinted in 2000, Amsterdam).
 Ballintijn, G. (1944) *De Blinde ziener van Ambon*. Utrecht.
 Beekman, E.M. (1981) *The Poison Tree. Selected Writings of Rumphius on the Natural History of the Indies*, pp. 1–40. Amherst.
 Bontius, J. (1642) *De Medicina Indorum*. 4 vols. Leiden.
 Buijze, W. (1998a) *The True History of the Terrible Earthquake of ... 1674 ... in and around the islands of Amboina*. The Hague.
 Buijze, W. (1998b) *Antwoord en rapport op enige punten uijt name van seker Heer in 't Vaderlant voorgesteld door d'Edele heer Anthonij Hurt, directeur generaal over Nederlands' Indien*. The Hague.
 Burman, J. (1736) ('1737'). *Thesaurus Zeylanicus*. Amsterdam.
 Burman, J. (1755) *Het Auctuarium*. Index (unpaged). Amsterdam.
 Cribb, P.J. (1999) *Orchis Susannae* L. In: Cafferty, S. & Jarvis, C.E. (eds) Typification of Linnaean specific and varietal names in the Orchidaceae. *Taxon* 48: 49.
 Greshoff, M. (ed) (1902) *Rumphius Gedenkboek 1702–1902*, pp. 57–58. Haarlem.
 Hamilton, F. (1824) Commentary on the Herbarium Amboinese. *Mem. Wern. Nat. Hist. Soc.* 5(2): 307–383.
 Hamilton, F. (1832) Commentary on the second book of the Herbarium Amboinese. *Mem. Wern. Nat. Hist. Soc.* 6: 286–333.
 Hasskarl, J. (1866) Neuer Schlüssel zu Rumph's Herbarium Amboinese. *Abh. Naturf. Ges. Halle* 9: 145–389.
 Henschel, A.W.E.T. (1833) *Clavis Rumphiana Botanica et Zoologica*. Breslau.
 Hermann, P. (1689) *Paradisi Batavi Prodromus*. In: Sherard, W. (ed) *Schola Botanica Sive Catalogus Plantarum*, p. 358. Amsterdam.
 Hermann, P. (1698) *Paradisus Batavus*, p. 209, t. 209. Leiden.
 Hickson, S.J. (1926) The life and work of Georg Everard Rumphius. *Manchester Mem.* 70(2): 17–28.

- Kellogg, E.A. (1996) In: Kuijt, J. & Kellogg, E.A., Miscellaneous mistletoe notes, 20–36. *Novon* 6: 35.
- Leupe, P.A. (1871) Georgius Everardus Rumphius, Ambonsch natuurkundige der 17e eeuw. *Verh. Kon. Akad. Wetensch.* 12(3): 1–63.
- Linnaeus, C. (1736a) *Fundamenta Botanica*. Amsterdam.
- Linnaeus, C. (1736b) *Bibliotheca Botanica*. Amsterdam.
- Linnaeus, C. (1753) *Species Plantarum*. Stockholm.
- Lotsy, J.P. (1902) Over de in Nederland aanwezige botanische handschriften van Rumphius. In: Greshoff, M. (ed) *Rumphius Gedenkboek 1702–1902*, pp. 57–58. Haarlem.
- Martelli, U. (1902) Notizie sopra l'Erbario Rumphio. *Boll. Soc. Bot. Ital.*: 90.
- Martelli, U. (1903) *Le collezioni di Georgio Everardo Rumpf acquistate dal Granduca Cosimo III de' Medici*. Florence.
- Meeuse, B.J.D. (1965) Straddling two worlds: a biographical sketch of Georg Everhard Rumphius, Plinius indicus. *Biologist* 47(3&4): 42–54.
- Merrill, E.D. (1914) Charles Budd Robinson, Jr. *Philipp. J. Sci., Bot.* 9: 194–195.
- Merrill, E.D. (1916) Reliquiae robinsoniae. *Philipp. J. Sci., Bot.* 11: 243–249.
- Merrill, E.D. (1917) An interpretation of Rumphius' Herbarium Amboinense. *Bur. Sci. Publ.* 9: 1–595.
- Nicolson, D.H. & Arculus, D. (2001) Candidates for neotypification of Blanco's names of Philippine plants: specimens in the U.S. National Herbarium. *Taxon* 50: 947–954.
- Nicolson, D.H., Suresh, C.R. & Manilal, K.S. (1988) An interpretation of Van Rheede's Hortus Malabaricus. *Regn. Veg.* 119: 319.
- Radermacher, J.C.M. (1780–1782) *Naamlijst der planten die gevonden worden op het eiland Java*. 3 vols. Batavia.
- Royen, A. van (1740) *Florae Leydensis Prodrum*. Leiden.
- Rumphius, C.E. (Burman, J. (ed.)) (1741–1755) *Herbarium Amboinense*. 7 vols. Amsterdam, 's Gravenhage, Utrecht.
- Rumphius, C.E. (1686) De ligno Lacca dicto, Funibus sylvaticis, resina Dammar Selan, & Dammar Batu. *Misc. Cur. Ephem. Med.-Phys. German. Acad. Nat. Cur.* 2: 76–77.
- Rumphius, G.E. (1675) *Waerachtigh Verhael van de Schrickelijke Aerdbeyginge*. Batavia.
- Stearn, W.T. (1959) Introduction. In: Linnaeus, C., *Species Plantarum*, ed. 1, facsimile edition. Ray Soc. 142: 106. London.
- Steenis-Kruseman, M.J. van (1950) Rumphius. *Flora Malesiana* I, 1. Jakarta.
- Stickman, O. (1754) *Herbarium Amboinense*. Uppsala.
- Uggla, A.H. (1937) Linne och Burmannerna. *Sv. Linne-Sällsk. Arsskr.* 2: 131, 134.
- Valentijn, F. (1724–1726) *Oud en Nieuw Oost-Indien*. 8 vols. Dordrecht, Amsterdam.
- Veldkamp, J.F. & Laubenfels, D.J. de (1984) Proposal to reject *Pinus dammara* (Araucariaceae). *Taxon* 33: 337–347.
- Vogel, E. de, Schuiteman, A., Feleus, N. & Vogel, A. (1999) *Catalogue, part 1. 1998: Orchidaceae*, p. 10. Leiden.
- Warburg, O. (1902) Die botanische Erforschung der Molukken seit Rumpf's Zeiten. In: Greshoff, M. (ed) *Rumphius Gedenkboek 1702–1902*, pp. 63–78. Haarlem.
- Wit, H.C.D. de (1952a) In memory of G.E. Rumphius (1702–1952). *Taxon* 1: 101–110.
- Wit, H.C.D. de (1952b) 'Rumphius herdacht (1702–1952)'. *Madj. Ilmu Alam untuk Indonesia* 108: 161–172. (Emended translation of the preceding.)
- Wit, H.C.D. de (ed) (1959a). *Rumphius Memorial Volume*. Baarn.
- Wit, H.C.D. de (1959b) Georgius Everhardus Rumphius. In: Wit, H.C.D. de (1959a): 1–26. Baarn.

